

Aëtiana v

Part 1

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Aëtiana V

*An Edition of the Reconstructed Text of the Placita with
a Commentary and a Collection of Related Texts*

PART 1

General Introduction
Book 1 Text and Commentary

Edited by

Jaap Mansfeld
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Contents

PART 1

Preface IX

Sigla and Abbreviations XII

General Introduction 1

- 1 Aim and Scope of the Edition 1
- 2 The Compendium and Its Transmission 2
 - 2.1 *The No Longer Extant Original Work* 2
 - 2.2 *The Three Chief Witnesses* 3
 - 2.3 *Ps.Plutarch and His Tradition* 3
 - 2.4 *The Contribution of Stobaeus* 6
 - 2.5 *The Crucial Role of Theodoret* 9
 - 2.6 *The Name and Sitz im Leben of the Author/Compiler* 15
 - 2.7 *The Extent of the Original Work* 18
 - 2.8 *A Retrospective Glance at Aëtiana Volumes 1–2* 21
- 3 Reconstructing the Text 28
 - 3.1 *The Doxographi Graeci of Hermann Diels* 28
 - 3.2 *A New Edition without Columns and with Commentary* 35
 - 3.3 *Apologia for Our Method of Reconstruction* 37
- 4 Introducing the Witnesses to the Text 42
 - 4.1 *A Taxonomy of Authors and Texts* 42
 - 4.2 *The Primary Witnesses: The Epitome of Ps.Plutarch* 45
 - 4.2.1 The Papyrus and the Manuscripts 45
 - 4.2.2 Eusebius 46
 - 4.2.3 Ps.Justin 48
 - 4.2.4 Ps.Galen 49
 - 4.2.5 Julian the Arian 51
 - 4.2.6 Cyril of Alexandria 51
 - 4.2.7 Theodoret 52
 - 4.2.8 Interpolations in Philo of Alexandria 52
 - 4.2.9 Ioannes Lydus 53
 - 4.2.10 Scholia 53
 - 4.2.11 Qusṭā ibn Lūqā 54
 - 4.2.12 Psellus 55
 - 4.2.13 Symeon Seth 56
 - 4.2.14 Ioannes Tzetzes 57
 - 4.2.15 Modern Editions and Translations of the *Epitome* 57

4.3	<i>The Primary Witnesses: Stobaeus</i>	59
4.3.1	The Direct Transmission	59
4.3.2	The Laurentianus Manuscript	60
4.3.3	The Evidence of Photius	61
4.3.4	The Edition of Wachsmuth	61
4.4	<i>The Primary Witnesses: Theodoret</i>	62
4.5	<i>The Secondary Witnesses</i>	64
4.5.1	Athenagoras	64
4.5.2	Achilles and the <i>Aratea</i>	65
4.5.3	Hermias	67
4.5.4	Nemesius	67
4.5.5	Isidore of Pelusium	68
4.5.6	Scholia on the <i>Hexaemeron</i> of Basil	69
5	The Proximate Tradition, Further Parallels, and Sources	69
5.1	<i>The Dialectical-Doxographical Tradition</i>	69
5.2	<i>Aristotle and Theophrastus</i>	78
5.2.1	Aristotle	78
5.2.2	Theophrastus	82
6	The Edition's Contents, Method and Layout	85
6.1	<i>The Division into Four Parts</i>	85
6.2	<i>The Edition</i>	87
6.3	<i>The Commentary</i>	89
6.4	<i>Further Related Texts</i>	92
6.5	<i>Rationale for the Collection of Further Related Texts</i>	94
6.6	<i>English Translation</i>	95
6.7	<i>Editio minor</i>	96
7	Appendices to the General Introduction	97
7.1	<i>Appendix 1: Diels' Theory of the Placita</i>	97
7.2	<i>Appendix 2: Mansfeld and Runia, The Tradition of the Aëtian Placita</i>	98
7.3	<i>Appendix 3: Statistical Overview</i>	99
7.4	<i>Appendix 4: Introductory Discussions on General Topics</i>	100
BOOK 1 The Principles of Nature: Text and Commentary		101
Introduction to Book 1		103
Title and Index		112
Prooemium		131
1	What 'Nature' Is	181
2	In What Way a Principle and Elements Differ	191
3	On Principles, What They Are	200

4	How the Cosmos Was Constituted	313
5	Whether the All Is Unique	324
6	From Where Human Beings Obtained a Conception of Gods	337
7	Who the Deity Is	370
8	On Demons and Heroes	433
9	On Matter	441
10	On the Idea	469
11	On Causes	483
12	On Bodies	496
13	On Minimal Bodies	515
14	On Shapes	525
15	On Colours	533
16	On Cutting of Bodies	554
17	On Mixing and Blending	563
18	On Void	571
19	On Place	591
20	On Space	599
21	On Time	605
22	On the Substance of Time	624
23	On Movement	635
24	On Coming to Be and Passing Away	645
25	On Necessity	655
26	On the Substance of Necessity	667
27	On Fate	672
28	On the Substance of Fate	689
29	On Chance	701
30	On Nature	712

PART 2

Sigla and Abbreviations IX

User's Guide to the Edition and Commentary 719

BOOK 2 Cosmology: Text and Commentary 727

BOOK 3 Meteorology and the Earth: Text and Commentary 1129

PART 3**Sigla and Abbreviations** IX**User's Guide to the Edition and Commentary** 1347**BOOK 4 Psychology: Text and Commentary** 1355**BOOK 5 Physiology: Text and Commentary** 1739**PART 4****English Translation of the *Placita*** 2059**User's Guide to the English Translation** 2061**BOOK 1 The Principles of Nature** 2063**BOOK 2 Cosmology** 2089**BOOK 3 Meteorology and the Earth** 2108**BOOK 4 Psychology** 2120**BOOK 5 Physiology** 2137**Appendix: List of Chapter Headings in the Translation of Qusṭā ibn Lūqā** 2153**Bibliography** 2158**Index of Primary and Secondary Witnesses** 2283**Index of Name-Labels and Other Names** 2291**Index of Fragment Collections and Extant Sources** 2296**Index of Ancient and Modern Names** 2309

Preface

The present edition and commentary on the *Placita* has been a very long time in the making. In the case of Jaap Mansfeld, its origins go as far back as the research he did on ps.Hippocrates *De hebdomadibus* in the late 1960's.¹ David Runia first came into contact with doxographical texts when analysing Philo of Alexandria's puzzling work *De aeternitate mundi* in the late 1970's.² We made the decision to work together on the Aëtian *Placita* in 1989 and the project entitled 'Aëtiana: the Method and Intellectual Context of a Doxographer' was born. The present volume consisting of four parts is the project's culmination. Four preparatory volumes (in five parts) have preceded it.³ We will not again describe the project's origins and development. The interested reader is referred to the Introduction to Volume 4, where a full account is given.⁴

The authors firstly wish to thank the scholars who have been associated with the project in various ways throughout the years: Mareike Jas (Munich); Edward Jeremiah (Melbourne); Oliver Primavesi (Munich); James Royse (Claremont); Teun Tieleman (Utrecht). Other scholars to whom they are indebted for assistance of all kinds are Keimpe Algra (Utrecht); Han Baltussen (Adelaide); Dirk Couprie (Amsterdam); Hans Daiber (Frankfurt); Michael Champion (Melbourne); Tiziano Dorandi (Paris); Pieter van der Horst (Zeist); Katerina Ierodiakonou (Genève); Gérard Journée (Paris); André Laks (Mexico City); the late Jørgen Mejer; Constantin Macris (Paris); Glenn Most (Pisa); Lorenzo Perilli (Rome); Christian Vassallo (Cosenza); Theo Verbeek (Utrecht); Georg Wöhrle (Trier), as well as numerous scholars mentioned in the Prefaces to previous volumes. They also wish to acknowledge the contributions of their critics: the late Michael Frede; Heike Bottler; Jean-Baptiste Gourinat; Andrei Lebedev;

1 Mansfeld (1971).

2 Runia (1981).

3 J. Mansfeld and D.T. Runia (1997), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 1: *The Sources*, Philosophia Antiqua 73, Leiden: Brill; (2009), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 2: *The Compendium*, Part I: *Macrostructure and Microcontext*, Part II, *Aëtius Book II: Specimen Reconstructionis*, Philosophia Antiqua 114, Leiden: Brill; (2010), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 3: *Studies in the Doxographical Traditions of Greek Philosophy*, Philosophia Antiqua 118, Leiden: Brill; (2018), *Aëtiana*, Vol. 4: *Towards an Edition of the Aëtian Placita: Papers of the Melbourne Conference 1–3 December 2015*, Philosophia Antiqua 148, Leiden: Brill. For reviews of these volumes see Mansfeld–Runia (2018) 1 n. 1; 2 nn. 2–3, to which can now be added for vol. 4 J. Warren, *Phronesis* 64 (2019) 524.

4 Mansfeld–Runia (2018) 1–3. For further reflections on the contents of these volumes see below the General Introduction, section 2.8.

Walter Leszl; and Leonid Zhmud. To these scholars they owe a debt for valuable analyses that have sharpened their thinking on many subjects. The authors remain very conscious that, despite all the assistance they have received, the resultant work will not be free of omissions, errors and defects, for which they accept full responsibility. For the division of labour between the two authors in the present work, the reader is referred to the General Introduction, section 6.1 and n. 345.

Over the course of the years, the authors were also fortunate to receive substantial institutional support, without which this long-term project could not have been undertaken. Jaap Mansfeld wishes to thank the Department of Philosophy and Religious Studies and the Library of Utrecht University for logistic and other support. The Fondation Hardt in Vandœuvres has year after year been a second home. Working at the Fondation has meant working in ideal circumstances. Drafts of quite a few chapters were written in Vandœuvres, and the wonderful library, helped out in rare emergencies by that of the University of Geneva, was never consulted in vain. Warm thanks for hospitality and friendship are due to Mme Heidi del Lago, Mme Monica Brunner, Mme Burdet, Mme Derron, M. Gary Vachicouras and M. Ducrey. When in 2020 the libraries of the universities were closed to the public, Mme Sabrina Ciardo helped with much-needed bibliographical information.

For institutional support during the course of the project David Runia wishes to thank the Free University, Amsterdam; the Universities of Utrecht, Leiden, and Melbourne; and the Australian Catholic University. In 1985–1990 The Netherlands Organisation of Pure Research (Z.W.O.) most generously funded the C & C Huygens post-doctoral research position which enabled a start to be made on the project. The Alexander von Humboldt Foundation supported a further year's research at the University of Münster in 1990. A crucial support was provided in the years 2005 to 2016 by the Australian Research Council through two Discovery Project grants, DP0557196 *Aëtiana: laying foundations for the study of the history of ancient philosophy*; and DP0985167 *Aëtiana: laying foundations for the study of the history of ancient philosophy Part 2*. This support enabled him to travel regularly to the Netherlands for consultation and also largely financed the Melbourne Colloquium on doxography held in December 2015. During this period he was able, as a Scaliger fellow, to make use of the excellent resources of the Leiden University library, for which he especially thanks Drs Kasper Ommen for his assistance throughout the years. He also wishes to thank the Council of Queen's College and its two Presidents, Mr John Castles AM and Prof. Ross Williams AM, for supporting his research so generously during his Mastership of the College in the years 2002 to 2016.

The authors express their appreciation to the publishing house of Brill Leiden and its staff for undertaking to publish the present work, and also for having previously published the four preparatory volumes. A special thanks goes to the firm TAT (Typographica Academica Traiectina) Zetwerk and its Directors, our former students Ivo Geradts and Johannes Rustenburg, for all their help, and to Cas Van den Hof and his colleagues for typesetting the intricate and complex manuscript of the present work. Both Brill and TAT continued working at full speed when circumstances changed dramatically during the corona crisis, for which a special vote of thanks is due. We are also greatly indebted to two younger scholars, the aforementioned Edward Jeremiah (Melbourne) and Stephen van Beek (Leiden), who gave us most capable assistance in the arduous task of correcting the proofs of the entire work. We also wish to thank Mrs Gonni Runia-Deenick for giving us the benefit of her typesetting skills at an earlier stage during the preparation of the final manuscript.

As authors we are quite well aware that we have differing styles of writing and that there are also some differences in the way that we have organized the findings of our research. Lovers of *Quellenforschung* may perhaps enjoy trying to determine the provenance of the differing parts of the book. For the division of labour in the present work, we refer the reader to the General Introduction, section 6.1. Above all we wish to express our satisfaction and indeed our joy that we have been able to complete this project together. When it started we lived within cycling distance of each other. During the last eighteen years we have lived at opposite ends of the globe. The remarkable advance of modern communications has allowed our collaboration not only to continue, but also to flourish in a spirit of harmony and friendship.

Bilthoven and Melbourne
April 2020

Sigla and Abbreviations

1 Abbreviations Relating to Aëtius and His Tradition

A	Aëtius
Ach	Achilles
AD	Arius Didymus
Ath	Athenagoras
C	Cyril of Alexandria
E	Eusebius
G	ps.Galen
J	ps.Justin
L	Ioannes Lydus
Nem	Nemesius
Nic	Nicolaus, translator of ps.Galen
P	ps.Plutarch, <i>Placita philosophorum</i> and his tradition (EGQ etc.)
Ps	Psellus
Q (or Qustā)	Qustā ibn Lūqā
S	Ioannes Stobaeus
T	Theodoret of Cyrrhus

2 Sigla Relating to the Apparatus Criticus of the Edition

a *Primary Witnesses*

P	tradition of ps.Plutarch		
P ^P	papyrus, edited by J.W. Barns and H. Zilliacus (1960–1967), <i>The Antinoopolis Papyri Parts II & III</i> , London		
P ^B	Byzantine manuscripts		
	Family	Manuscript	Date
	I	Mosquensis 339	12th century
	II	Marcianus 521	13th/14th century
	III	(Planudean family)	
	α	Ambrosianus 859	shortly before 1296
	A	Parisinus 1671	1296
	γ	Vaticanus 139	shortly after 1296
	E	Parisinus 1672	shortly after 1302
	Laur.	Laurentianus 31,37	14th century

- P^B** *Plutarchi Epitome*, edited by H. Diels (1879 and unaltered reprints), *Doxographi Graeci*, Berlin, 273–444; also edited by J. Mau (1971), *Plutarchus Placita Philosophorum*, *Plutarchi Moralia* Vol. 5.2.1, X oratorum vitae; Placita philosophorum, Leipzig (Bibliotheca Teubneriana); edited by G. Lachenaud (1993), *Plutarque Œuvres morales* T. 12.2, *Opinions des Philosophes*, Paris (Collection Budé); (for earlier editions see below §4 Works frequently cited)
- P^{Ph}** *Philo of Alexandria*, edited by J.-B. Aucher (1822), *Philonis Judaei sermones tres hactenus inediti, I et II. De Providentia et III. De animalibus, ex Armena versione antiquissima ab ipso originali textu Graeco ad verbum stricte excerpta, nunc in Latium (sic!) fideliter translati*, Venice; see also M. Hadas-Lebel (1973), *De Providentia I et II*, *Les œuvres de Philon d'Alexandrie* 35, Paris
- P^{Ath}** *Athenagoras*, edited by M. Marcovich (1990), *Athenagoras Legatio pro Christianis*, Berlin (abbr. *Leg.*)
- P^E** *Eusebius Praeparatio Evangelica*, edited by K. Mras (1956), *Eusebius Werke, Bd. VIII, Die Praeparatio Evangelica*, 1982–1983², Vol. 2, Berlin (abbr. *PE*)
- P^G** *Ps. Galen Historia philosopha*, edited by H. Diels (1879 and later unaltered reprints), *Doxographi Graeci*, Berlin, 595–648 (abbr. *HPh*); partially edited by M. Jas (2018a), *Nicolaus Rheginus als Übersetzer der pseudo-Galenischen Schrift De historia philosopha: ein Beitrag zur lateinischen Überlieferung des Corpus Galenicum*, Wiesbaden
- P^{G(Nic)}** text of P^G based on 1341 Latin translation of Nicolaus of Rhegium
- P^J** *Ps. Justinus Cohortatio ad Graecos*, edited by M. Marcovich (1990), *Pseudo-Justinus, Cohortatio ad Graecos, De monarchia, Oratio ad Graecos*, Berlin; edited by C. Riedweg (1994), *Ps.-Justin (Markell von Ankyra?) Ad Graecos de vera religione (bisher "Cohortatio ad Graecos")*, 2 Vols., Basel
- P^{Jln}** *Julianus Arianista*, edited by D. Hagedorn (1973), *Der Hiobkommentar des Arianers Julian*, Berlin
- P^C** *Cyrillus Contra Julianum*, edited by C. Riedweg (2015), *Kyrrill von Alexandrien I Gegen Julian*, Berlin (abbr. *Juln.*)
- P^L** *Ioannes Lydus De mensibus*, edited by R. Wuensch (1898), *Ioannis Laurentii Lydi Liber de mensibus*, Leipzig (abbr. *Mens.*)
- P^Q** *Qusṭā ibn Lūqā Arabic translation of ps. Plutarch Placita philosophorum*, edited by H. Daiber (1980), *Aetius Arabus. Die Vorsokratiker in arabischer Überlieferung*, Wiesbaden
- P^{Sch}** *Scholia Platonica*, edited by G.C. Greene (1938), Haverford PA
- P^{Ps}** *Michael Psellus De omnifaria doctrina*, edited by L.G. Westerink (1948), Utrecht (abbr. *Omn.Doctr.*); other works: *Michaelis Pselli Oratoria minora* (abbr. *Or.Min.*), edited by A.R. Littlewood (1985), Leipzig; *Michaelis Pselli Theologica*, Vol. 1 (abbr. *Op.Theol.* 1), edited by P. Gautier (1989), Leipzig;

- Michaelis Pselli* Philosophica minora, Vol. 1: Opuscula logica, physica, allegorica, alia, Leipzig (abbr. *Phil.Min.* 1), edited by J.M. Duffy (1992), Leipzig; *Michaelis Pselli* Philosophica minora, Vol. 2 Opuscula psychologica, theologica, daemonologica (abbr. *Phil.Min.* 2), edited by D.J. O'Meara (1989), Leipzig; *Michaelis Pselli* Theologica, Vol. 2 (abbr. *Op.Theol.* 2), edited by Westerink, L.G.–Duffy, J.M. (2002), Leipzig; 'Επιλύσεις ποικίλων ἐρωτημάτων, *Michael Psellus* De operatione daemonum cum notis Gaulmini: accedunt inedita opuscula Pselli (abbr. *Epi.*), edited by J.F. Boissonade (1838), Nuremberg (repr. Amsterdam 1964)
- P^{Sy} *Symeon Seth* Conspectus rerum naturalium, edited by A. Delatte (1939), *Anecdota Atheniensia et alia*, T. 2: *Textes relatifs à l'histoire des sciences*, Liège (abbr. *CRN*)
- P^{Tz} *Ioannes Tzetzes* Exegesis in Homeri Iliadem, edited by G. Hermann (1812) in *Draconis Stratonicensis Liber de metris poeticis*; *Ioannis Tzetzes Exegesis in Homeri Iliadem*, Leipzig; 'Εξήγησις 'Ιωάννου Γραμματικοῦ τοῦ Τζέτζου εἰς τὴν 'Ομήρου Ἰλιάδα, edited by M. Papat homopoulos (2007), Athens
- P^{Ars} *Arsenius Paroemiographus* Apothegmata, edited by E.L. von Leutsch (1851), *Corpus Paroemiographorum Graecorum*, Vol. 2, Göttingen (repr. Hildesheim 1958), 240–744
- S *Ioannes Stobaeus* Eclogae, edited by C. Wachsmuth (1884 and unaltered reprints), *Ioannis Stobaei Anthologii libri duo priores qui inscribi solent* Eclogae physicae et ethicae, 2 Vols., Berlin (abbr. *Ecl.*), with the following sigla:
- | Manuscripts | Date |
|-----------------------|--------------|
| F Farnesinus III D 15 | 14th century |
| P Parisinus 2129 | 15th century |
| L Laurentianus 8.22 | 14th century |
- Ioannes Stobaeus* Florilegium, edited by O. Hense (1894–1916 and unaltered reprints), *Ioannis Stobaei Anthologii libri duo posteriores*, 3 Vols., Berlin (abbr. *Flor.*) (for ch. 5.30)
- S^{L-ind} index in ms. Laurentianus (where deviates from title in text), edited by C. Wachsmuth (1882), *Studien zu den griechischen Florilegien*, Berlin, pp. 5–37
- S^{P(m.s.)} manus secunda, where Wachsmuth has P², e.g. at *Ecl.* 1.24.2d
- S^{Phot} index of Photius, edited by R. Henry (1960 and unaltered reprints), *Photius* Bibliothèque, Vol. 2, Paris
- S^{Cod.Vat.} codex Vaticanus gr. 201 (according to Wachsmuth 1882, 71 derived from F)
- S^{Cod.Mon.} codex Monacensis gr. 396 (also named codex Augustinus, according to Wachsmuth 1882, 71 derived from F)
- T Theodoretus, edited by J. Raeder (1904), *Theodoreti Graecarum Affectionum Curatio*, Leipzig (abbr. *CAG*)

In principle the manuscripts of all witnesses except P^B and S are not cited; significant variation between manuscript readings is expressed through numbers, e.g. P^{G1}, P^{G2} etc.

b *Secondary Witnesses*

- Ach *Achilles*, edited by G. Di Maria (1996), *Achillis quae feruntur astronomica et in Aratum opuscula: De universo, De Arati vita, De Phaenomenorum interpretatione*, Palermo
- Aratus/Aratea *Commentaria in Aratum*, edited by E. Maass (1898), *Commentariorum in Aratum reliquiae*, Berlin. Anonymus I, pp. 87–98 (abbr. Anon. I); Anonymus II 1, pp. 102–133 (abbr. Anon. II);
- Ath *Athenagoras Legatio*, edited by M. Marcovich (1990), *Athenagoras Legatio pro Christianis*, Berlin (abbr. *Leg.*); (2000) *Athenagorae qui fertur De resurrectione mortuorum*, Leiden (abbr. *de Res.*)
- Epiphanius *Epiphanius Ancoratus und Panarion*, edited by K. Holl–H. Lietzmann (1915–1933), 3 Vols., Leipzig (citing 3rd ed. 1985–2013)
- Hermias *Hermias Satire des philosophes païens*, edited by R.P.C. Hanson (1993), SC 388, Paris
- Isidore of Pelusium *Isidore de Péluse Lettres* (nos. 1214–1700), edited by P. Éviéux (1997–2000), SC 422, 454, Paris; MPG Vol. 78, edited by F. Morel (1638)
- Nem *Nemesius*, edited by M. Morani (1987), *Nemesii Emeseni De natura hominis*, Leipzig (abbr. *NH*)
- Ps. Justinus see above (a) Primary witnesses
- Scholia in Aratum* *Scholia in Aratum vetera*, edited by J. Martin, Stuttgart 1974; *Prolegomena* (in Parisino Suppl.Gr. 607A servata), pp. 23–31 (abbr. *Proleg.*); *Scholia in Aratum*, pp. 37–527
- Scholia in Basilium* *Scholia in Basilii Hexaameron I*, edited by G. Pasquali (1910) ‘Doxographica aus Basilioscholien’, *Nachrichten der Akademie der Wissenschaften in Göttingen, phil.-hist.Kl.* (1910) 194–228 (reprinted in *Scritti Filologici*, Vol. 1 (Florence 1986) 539–574); *Scholia in Basilii Hexaameron II*, edited by Th. Poljakov (1982–1983), ‘The unpublished doxographical scholia on St. Basil’s *Hexaameron*’, *Revue d’Histoire des Textes* 12–13: 1982–1983, pp. 367–369

3 Latin Abbreviations in the Apparatus Criticus (and Elsewhere)

< >	litterae additae
{ }	litterae deletae
x] y	x lectio omnium testium sola y excepta (app. crit.)
] [	litterae qui non extant (papyri)
. (sub lineam)	litterae dubiae (papyri)
***	lacuna
~	approximat, aequivalet
♦	lemma per hypothesin
abiud.	abiudicavit
add.	addidit
ad fin.	ad finem
adn.	adnotatio
al.	aliter
ap.	apud
app.	apparatus
append.	appendix
Byz.	Byzantinum
c., cc.	caput, capita
cf.	confer
confirm.	confirmat
coni.	coniecit
conl.	conlato
contam.	contaminatus
corr.	correx[it]/corrector
c.q.	casu quo
crit.	criticus
crucif.	crucifixit
dub.	dubitanter, dubitat
duce	primus
ed.	editor, editio
edd.	editores
emend.	emendavit
exh.	exhibet, exhibuit
fort.	fortasse
fr.	fragmentum, fragmenta
gloss.	glossa, glossema
hab.	habet, habent
i.q.	idem quod

ind.	indicavit
init.	initium
inv.	invertit
l., ll.	linea, lineae
lac.	lacuna
leg.	legit, legunt
mal.	maluit
marg.	margo, in margine
ms., mss.	manuscriptum, manuscripta
n., nn.	nota, notae
om.	omittit, omisit
p., pp.	pagina, paginae
pap.	papyrus
paraphr.	paraphrasit
per litt.	per litteras
prob.	probat, probavit
procem.	proœmium
prop.	proposuit
put.	putat, putavit
recc.	recentiores
reiec.	reiecit
rest.	restituit
ret.	retinuit
schol.	scholion
sc.	scilicet
scr.	scripsit
sec.	secundum
secl.	seclusit
seqq.	et sequentia
sim.	simile, similia
s.l.	supra lineam
subst.	substituit
suppl.	supplevit
susp.	suspicit
s.v.	sub voce
t.	tomus
t.a.q.	terminus ante quem
tit.	titulus
t.p.q.	terminus post quem
transcr.	transcribit

transp.	transposuit
verb.	verbum, verba
verisim.	verisimiliter
vert.	vertit
ut vid.	ut videtur
vid.	vide
v.l.	varia lectio
Voss.	mss. Vossii in bibliotheca Lugd.Bat.

4 Works Frequently Cited

This section lists authors and works that are cited by name of the author in the apparatus criticus. (Full details on editions and collections of fragments cited in the first apparatus below the Greek text are to be found in the Bibliography in Part four.)

Beck	C.D. Beck (1787), <i>Plutarchi De Physicis philosophorum decretis libri quinque</i> , Leipzig
Bollack	J. Bollack (1969), <i>Empédocle</i> . Vol. II: <i>Les Origines. Édition et traduction des fragments et des témoignages</i> , Paris
Canter	W. Canter (1575), <i>Ioannis Stobaei Eclogarum libri duo</i> , Antwerp
Corsinus	E. Corsinus (1750), <i>Plutarchi De placitis philosophorum libri V</i> , Florence
Coxon	A.H. Coxon, (1986), <i>The Fragments of Parmenides. A Critical Text with Introduction and Translation, the Ancient Testimonia and a Commentary</i> , Assen (revised and expanded edition with new translation by R. McKirahan, and new preface by M. Schofield, Las Vegas, 2009)
Daiber	H. Daiber (1980), <i>Aetius Arabus. Die Vorsokratiker in arabischer Überlieferung</i> , Wiesbaden
Diels DG	H. Diels (1879 and unaltered reprints), <i>Doxographi Graeci</i> , Berlin
Diels PPF	H. Diels (1901a), <i>Poetarum Philosophorum Fragmenta</i> , Berlin
Diels VS	H. Diels (1903), <i>Die Fragmente der Vorsokratiker</i> , 1st edition, Berlin
DK, Vors.	H. Diels and W. Kranz (1951–1952 and unaltered reprints), <i>Die Fragmente der Vorsokratiker</i> , 6th edition, Berlin
Gemelli Marciano	M.L. Gemelli Marciano (2007–2010), <i>Die Vorsokratiker</i> Bd. 1, <i>Thales Anaximander Anaximenes Pythagoras und die Pythagoreer Xenophanes Heraklit</i> ; Bd. 2, <i>Parmenides Zenon Empedokles</i> ; Bd.

- 3, *Anaxagoras Melissos Diogenes von Apollonia Die antiken Atomisten: Leukipp und Demokrit. Griechisch-lateinisch-deutsch*, Düsseldorf
- Graham D.W. Graham (2010), *The Texts of Early Greek Philosophy. The Complete Fragments and Selected Testimonies of the Major Presocratics*, 2 Vols., Cambridge
- Heeren A.H.L. Heeren (1792–1801), *Ioannis Stobaei Eclogarum Physicarum et Ethicarum libri duo*, 2 Vols., Göttingen
- Jas M. Jas (2018a), *Nicolaus Rheginus als Übersetzer der pseudo-Galenischen Schrift De historia philosopha: ein Beitrag zur lateinischen Überlieferung des Corpus Galenicum*, Wiesbaden
- Lachenaud G. Lachenaud (1993), *Plutarque Œuvres morales T. 12.2, Opinions des Philosophes*, Paris
- Laks–Most A. Laks–G.W. Most (2016), *Early Greek Philosophy*, 9 Vols., Loeb Classical Library, Cambridge, MA; *Les débuts de la philosophie*, Paris
- Mansfeld R¹ J. Mansfeld (1983–1986), *Die Vorsokratiker Griechisch / Deutsch*, 2 Vols., Stuttgart
- Mansfeld R², Primavesi R² J. Mansfeld and O. Primavesi (2011), *Die Vorsokratiker Griechisch / Deutsch*, Stuttgart
- Mau J. Mau (1971), *Plutarchus Placita Philosophorum*, Leipzig
- M–R J. Mansfeld–D.T. Runia (1997–2018), *Aëtiana*, 4 Vols.
- M–R 1 J. Mansfeld–D.T. Runia (1997), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 1: *The Sources*, Leiden
- M–R 2 J. Mansfeld–D.T. Runia (2009), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 2: *The Compendium, Part I: Macrostructure and Microcontext, Part II: Aëtius Book II: Specimen Reconstructionis*, Leiden
- M–R 3 J. Mansfeld–D.T. Runia (2010), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 3, *Studies in the Doxographical Traditions of Greek Philosophy*, Leiden
- M–R 4 J. Mansfeld–D.T. Runia eds. (2018), *Aëtiana IV: Papers of the Melbourne Colloquium on Ancient Doxography*, Leiden
- Mras K. Mras (1982–1983), *Eusebius Die Praeparatio Evangelica*, 2nd ed., 2 Vols., Berlin
- Meineke A. Meineke (1855–1857), *Ioannis Stobaei Florilegium*, 4 Vols., Leipzig
- Primavesi see above under Mansfeld R²
- Raeder J. Raeder (1904), *Theodoreti Graecarum Affectionum Curatio*, Leipzig

Reiske	J. Reiske (1778), <i>Plutarchi Quae supersunt omnia, Graece et Latine; principibus ex editionibus castigavit, virorumque doctorum suisque annotationibus</i> , Vol. 9, Leipzig
Vítek	T. Vítek (2006), <i>Empedoklés. II Zlomky</i> , Prague
Vors.	see above DK
Wachsmuth	C. Wachsmuth (1884), <i>Ioannis Stobaei Anthologii libri duo priores qui inscribi solent Eclogae physicae et ethicae</i> , 2 Vols., Berlin
Westerink	L.G. Westerink (1948), <i>Michael Psellus De omnifaria doctrina</i> , Utrecht
Wytttenbach	D. Wytttenbach (1797), <i>Plutarchi Chaeronensis Scripta Moralia</i> , Vol. 4, Oxford
Xylander	G. Xylander (Holzmann) (1574), <i>Plutarchi Chaeronensis Moralia</i> , Vol. 2, Basel

5 Further Abbreviations

Names of authors and their works are generally abbreviated in accordance with LSJ, *OLD* and *PGL* (see below).

The works of Galen are abbreviated in accordance with the list of R.J. Hankinson ed. (2008), *The Cambridge Companion to Galen*, Cambridge, pp. 391–397.

The works of Plutarch are abbreviated in accordance with the listing in F. Montanari ed. (2015), *The Brill Dictionary of Ancient Greek*, Leiden, pp. xlvi–xlvii.

BAGD	W. Bauer, W.F. Arndt, F.W. Gingrich, and F.W. Danker (1979), <i>A Greek-English Lexicon of the New Testament and Other Early Christian Literature</i> , 2nd ed., Chicago
CErc	<i>Cronache Ercolanesi</i>
CMG	Corpus Medicorum Graecorum
CPF	Corpus dei Papiri Filosofici Greci e Latini
CPG	M. Geerard (1974–1987), <i>Clavis Patrum Graecarum</i> , Turnhout
DPhA	R. Goulet (1989–2018), <i>Dictionnaire des philosophes antiques</i> , 7 Vols. and Suppl. Vol., Paris
FDS	K.-H. Hülser ed. (1987–1988), <i>Die Fragmente zur Dialektik der Stoiker</i> , 4 Vols., Stuttgart-Bad Cannstatt
FGrH	F. Jacoby & alii (1923–), <i>Die Fragmente der griechischen Historiker</i> , Berlin & Leiden (later repr. Leiden; also Brill online)
GCS	Die griechischen christlichen Schriftsteller
LCL	Loeb Classical Library, ed. by J. Henderson
LLT	Latin Library of Texts (Brepols)

- LSJ H.G. Liddell, R. Scott and H.S. Jones eds. (1996), *A Greek-English Lexicon with a Revised Supplement*, 9th edition, Oxford
- MPG Migne Patrologia Graeca
- MPL Migne Patrologia Latina
- OLD P.G.W. Glare ed. (1982), *Oxford Latin Dictionary*, Oxford
- PGL G.W.H. Lampe ed. (1961), *A Patristic Greek Lexicon*, Oxford
- RE Pauly-Wissowa *Realencyclopädie der classischen Altertumswissenschaft*, ed. G. Wissowa and K. Ziegler (1894–1980)
- SC Sources Chrétiennes
- SVF J. ab Arnim (1903–1924), *Stoicorum Veterum Fragmenta*, 4 Vols., Leipzig (repr. Stuttgart 1964)
- TLG Thesaurus Linguae Graecae: A Digital Library of Greek Literature, University of California at Irvine

General Introduction

1 Aim and Scope of the Edition

Ever since the German scholar Hermann Diels published his landmark text edition entitled *Doxographi Graeci* in 1879, the compendium of the *Placita* and its author Aëtius have been a familiar presence in the study of ancient philosophy. If the truth be told, however, the majority of scholars when using or referring to the *Placita* will have little idea about the nature of the work or the identity of its author. The main purpose of Diels' edition was to provide a foundation for the study of early Greek philosophy and he made copious use of its results for another great work of scholarship, *Die Fragmente der Vorsokratiker*, first published in 1903. It is no exaggeration to say that for many years afterwards, there was little progress in the understanding of the tradition to which the work belongs. During the past three decades or so, this situation has altered markedly. There have undeniably been considerable advances in the field of doxographical studies. But Diels' great works themselves have remained largely unchallenged.

The present study takes as its starting-point Diels' reconstruction and edition of the *Placita*. It undertakes to investigate that text anew and to replace the edition that he made of it. In so doing, it has two chief aims.

Firstly, it adopts a revised methodology, and on that basis aims to present a more accurate and serviceable version of the *Placita*. Its main innovation is that it reconstructs the no longer extant original of the work in a single column. It also includes the complete evidence available for that reconstruction, including important material not accessible to Diels, together with an English translation of the finalised text.

Secondly, it aims to place the contents of the compendium in the broader perspective of the long history of ancient philosophy. This includes the early period of Greek philosophy from Thales onwards, for which it is such an important source. It also includes the period from the Peripatos in the fourth century to the first century of the Common Era when the method of doxography on which the compendium relies was developed and the work itself received its final form. It then ends with the period stretching to the end of antiquity (and beyond), when the work in its various and often derivative forms was extensively utilised and thereby transmitted, albeit imperfectly, to us in the present. In order to achieve this second purpose, we furnish the text with a detailed commentary. Its aim is not only to elucidate the basis and method of our reconstruction, but also to cast a flood of light on its sources, witnesses and general

content. And in order to broaden the context even further, we also add a collection of additional texts which illustrate parallel traditions and demonstrate the place of the work even more fully within the development of ancient philosophy as a whole.

Through the totality of our scholarly labours, we wish to show that the *Placita*, often patronizingly regarded as a jejune introductory handbook, is in fact a seminal work for the study of ancient philosophy. It is the only reasonably complete extant example of a highly significant strand of doxographical literature. Its predominantly dialectical method goes back to Aristotle and his school and enables the incorporation of important material from the Hellenistic period and the beginnings of Imperial philosophy. It provides a comprehensive and remarkably compact presentation of the key questions and topics of natural philosophy, from its first principles to the physiology of the human body. With the aid of a recently developed detailed statistical analysis we can be confident that we possess about six-sevenths of the original work. It will now be possible to read and study it by means of a text and translation that is the closest approximation to the work when it was still available in its complete and original form.

The present *General Introduction* to our edition will proceed in five steps. In section 2 we introduce the compendium and its author, starting with an outline of the main features of its transmission and its contents. We also locate the present work in the context of earlier volumes that we have published in the course of our research. Next in section 3, we discuss the question of how the work should be reconstructed, first reviewing the method used by Diels, then explaining and justifying the method that we ourselves have chosen to adopt. In section 4 the witnesses to the text of the compendium, both primary and secondary, are more fully introduced, including information about the editions of their works that we have used. Section 5 analyses the doxographical context of the *Placita*, both the proximate tradition in which it stands and the earlier tradition initiated by Aristotle and his collaborator Theophrastus. Finally in section 6 we give a detailed explanation of the edition's contents, method and layout. It serves as a user's guide for all those who wish to make full use of the scholarly resource that we are offering.

2 The Compendium and Its Transmission

2.1 *The No Longer Extant Original Work*

It is deeply to be regretted that the compendium is no longer extant in its original form. We know that it was available to three writers in later antiquity: the author of the *Epitome* attributed to Plutarch, the anthologist Ioannes Sto-

baeus (John of Stobi, in today's North Macedonia), and the Church Father Theodoret, bishop of Cyrrhus (in Northern Syria). The most likely date for the production of the abridged version is in the second half of the second century. Stobaeus and Theodoret composed their works much later in the first half of the fifth. Due to the popularity of the abridged version, the original work disappeared from view. Based on the information that we now have, Theodoret—who informs us about the author's name and the title of his work—may have been the last known author to have had the compendium in his possession.

2.2 *The Three Chief Witnesses*

In our edition and commentary we make the crucial distinction between *sources* and *witnesses*. *Sources* are the authors and works that Aëtius used to compile his compendium, whether at first or, as will more often have been the case, at second or third hand. *Witnesses* are the ancient authors who through their extant texts inform us about the contents of the compendium.¹ The witnesses, which for every chapter are listed before the Greek text, differ in their proximity to the original. The three primary witnesses are, as mentioned above, ps.Plutarch, Stobaeus and Theodoret. Each of these three differs in turn in how they themselves have been preserved and in the scope of what they preserve.²

2.3 *Ps.Plutarch and His Tradition*

The practically complete Greek text of ps.Plutarch's Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν δογμάτων ἐπιτομή, 'On the Physical Doctrines Accepted by the Philosophers, Abridged Version',³ is extant in several Byzantine manu-

1 In M–R 1 we distinguished between 'sources of' (now just called 'sources') and 'sources for' (now called 'witnesses'). See further the more detailed taxonomy below section 4.1.

2 Here we only provide a brief overview. For the three witnesses see Diels' pioneering observations at *DG* 45–69; for our detailed discussion of ps.Plutarch and his tradition see M–R 1.121–195, for Stobaeus M–R 1.196–271, for Theodoret M–R 1.272–318, the latter now to be supplemented by Mansfeld (2018a) at M–R 4.174–195. On the earlier volumes of the *Aëtiana* see below section 2.8 In section A of the Commentary of each individual chapter the contribution of each witness is analysed in detail.

3 The fullest title in the mss. of ps.Plutarch is cited at Books 2, 3 and 5 in the Mosquensis (M), the oldest ms. It is Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν δογμάτων ἐπιτομῆς (τὸ Α' etc.) c.q. ἐν ἐπιτομῇ. Other titles are shorter: see the app. crit. in the chapter titulus et index for each book. Eusebius, who excerpted the book at *PE* 14.13.9, omits ἐπιτομή. Cyril's very brief title Φυσικῶν δογμάτων συναγωγῆς at *Jul.* 2.14 and 2.22 adroitly replaces Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις plus ἐπιτομή with the single word συναγωγῆς. Theodoret's shortened title Περὶ τῶν

scripts dating to the twelfth century and a little later, and also in a complete ninth century translation into Arabic. The final pages of the Greek archetype were damaged. Fortunately the translation has preserved lemmata that were later lost. In accordance with the law of the least effort, the abridged edition preserves the compendium's original structure in books and chapters with little change.⁴

On the basis of our reconstructed edition we are in a position to say that ps.Plutarch's 133 chapters and 563 lemmata preserve about 75 % of the extant remains and about 63 % of the estimated total contents of the work.⁵ Therefore, though it seems that a little under 40 % of the text was edited out, the macro-sequence of the chapters must have remained the same with only minor variations.

The crucial fact that the *Epitome* preserves the basic structure of the original work is proved by the corroborative evidence of Stobaeus. As we will note below in section 2.4, the order of themes from Aëtius in Stobaeus is basically the same as the chapter order of ps.Plutarch, although there are a few noteworthy differences.⁶ Even more remarkably, the order of the lemmata in the individual chapters he copied out in various ways, that is, either without interpolating other material, or with such material interspersed among the Aëtian lemmata, or again by coalescing these lemmata with selected lemmata from other chapters (which means disturbing the lemma order of these other chapters), is quite often the same as the order of the lemmata in ps.Plutarch. This also holds for the interior order of clusters of chapters that have been located elsewhere, as for example chs. 1.25–29 from the end of *Placita* Book 1 to the beginning of *Eclogae* Book 1. This shows that the chapter order as well as the lemma order of ps.Plutarch are a calque of those of in Aëtius. On statistical grounds it is

τοῖς φιλοσόφοις δοξάντων ἐπιτομή at CAG 4.3 replaces ἀρεσκόντων with δοξάντων and omits the words ψυχικῶν δογμάτων. The title of Aëtius quoted at Theod. CAG 4.31 is Περί ἀρεσκόντων ξυν-αγωγή, which confirms the word ἀρεσκόντων in most versions of title in ps.Plutarch's abridged edition. In references ancient titles are paraphrased and shortened for the sake of convenience, and key words are the rule, just as they are today. Shakespeare's *The Most Excellent and Lamentable Tragedy of Romeo and Juliet* is generally referred to as *Romeo and Juliet*, Goethe's *Die Leiden des jungen Werthers* as *Werther*, and Zeller's *Die Philosophie der Griechen in ihrer geschichtlichen Entwicklung* as *Geschichte der griechischen Philosophie*. On this 'erosion of the title' see Genette (1987) 74–76, Engl. trans. (1988) 703–706; cf. further below, text at n. 37, and 1.titulus et index, Commentary C.

4 Cf. M–R 1.184–187.

5 Based on Edward Jeremiah's statistical analysis, on which see below section 2.7. Note that ps.Plutarch certainly omitted at least two chapters (2.5a and 4.7a in our reconstruction), and perhaps more (see the Appendix to ch. 2.2). For the figures see below section 7.3, Appendix 3.

6 See below, n. 14 and text thereto.

vanishingly improbable that, independently from each other, ps.Plutarch and Stobaeus would by chance have introduced the same sequences for more than 50 chapters out of total of about 135.

This is further confirmed by the evidence of Theodoret. As we shall see in section 2.5, Theodoret too excerpted Aëtius and not ps.Plutarch's abridged version. Moreover, he presents his aggregates of selected abstracts from Aëtius in thematic sequences that correspond exactly to different groups of chapter sequences in Books 1, 2 and 4 of ps.Plutarch. On statistical grounds it is no less improbable that, independently from each other, ps.Plutarch and Theodoret would by chance have introduced the same sequences for 25 chapters out of about 135. This confirms that the order of the ps.Plutarchean chapters which corresponds to that of these aggregates of Theodoret's abstracts derives from Aëtius as well, a most welcome result that—just as the corollary derived from comparing the sequences in Stobaeus with those of ps.Plutarch—may be safely extended to the *Placita* as a whole. Of course we have to bear in mind that individual chapters may have been misplaced by ps.Plutarch, or combined to form a new one, while others may have been edited out entirely. But the general rule is clear.

The introductory section of the *Placita* (procœmium plus chs. 1–8) is rather well preserved in the *Epitome*. The subject to be treated is announced and illustrated in the standard manner of a technical or didactic treatise. The procœmium and ch. 1.1, which define the subject of the treatise, naturally are not paralleled in Stobaeus and Theodoret, because these authors had their own agenda and wrote their own procœmia.⁷ Aëtian origins for other chapters or large parts of chapters of this section which are irreducible in the sense that they are not paralleled in either Stobaeus or Theodoret⁸ (namely chs. 1.4, 1.6, 1.7.1 and 1.8), can be made plausible because of strong connections with other chapters which *are* in fact paralleled in Stobaeus (the latter holds for ch. 1.4 in relation to chs. 1.3 and 1.5 and for ch. 1.8 in relation to ch. 1.7.2–25), or because the anterior and subsequent doxographical traditions do include them (this holds for ch. 1.4 in the similar position in Achilles and for chs. 1.6–1.7.1 together earlier in Cicero, then in Philo, and later in Sextus Empiricus). See further the Introduction to Book 1. Other chapters which appear to diverge from the usual method of the *Placita* are the purely Stoic chs. 4.11–12 dealing with cognition, but for these, too, cogent arguments can be brought forward in favour of the derivation from Aëtius; see the Introduction to Book 4. In these cases and oth-

7 This also applies to procœmial matter in Books 2–4. An exception is found at ch. 3.5.1, where Stobaeus (*Ecl.* 1.30.1, pp. 238.22–239.3 Wachsmuth) for once does write it out.

8 On irreducible texts see below section 3.3 and Runia (2020).

ers that are similar our commentary on the individual chapters and lemmata involved treats this question in full detail. We may therefore have every confidence that the *Epitome* reflects what the original compendium looked like and what purpose it was meant to serve. Because of the method the epitomator used, the abridged edition gives the most all-round picture of the original treatise. For some parts, as we shall see, Stobaeus is fuller, but unfortunately large swathes of his original anthology are lost,⁹ while Theodoret only provides a limited supply of parallels in his clusters of doxai drawn from successive chapters. As we shall see below, his importance lies in a different area of comparison.¹⁰

Abridgement was primarily carried out on the micro-level of the chapter.¹¹ The epitomator strongly reduced the number of the lemmata and often shortened their contents, but in general did so without changing the original order of the lemmata that remained. To further the process of slimming down, individual lemmata were occasionally (though not always successfully) combined. On the other hand, when selecting the lemmata to be preserved, care was usually taken to preserve the dialectical chapter structure.

Eusebius, Theodoret and the unanimous manuscript tradition ascribe the work to 'Plutarch'. For all we know the epitomator may have actually been called Plutarch, for the name occurs more often, but it is more likely that someone borrowed the prestigious name to enhance his product's cachet. That it was attributed to the famous Plutarch of Chaeronea certainly furthered its utilization,¹² and in the long run must have ensured its survival in the corpus of writings ascribed to the Chaeronean. It was still used by Byzantine scholars such as Psellus, Symeon Seth, and Tzetzes, and doubtless by numerous others (e.g. a scholion to Ptolemy's *Almagest* writes out all three doxai of ch. 2.31). Due to its concise and practical format, it became very popular and was a much used and abstracted or cited popular handbook. The resultant *traditio ps.Plutarchi* is quite complicated, as will be explained in some detail in section 4.2 below.

2.4 *The Contribution of Stobaeus*

The huge work entitled the ἐκλογῶν, ἀποφθεγμάτων, ὑποθηκῶν, βιβλία τέσσαρα,¹³ 'Selected Passages, Sayings, Precepts, Four Books', also known as *Anthologium*, the title found in the *Suda* lexicon, is usually divided into two parts. Books

9 See the following section 2.4.

10 Below section 2.5.

11 M–R 1.187–192.

12 Just as ascription to Galen ensured wide use and survival as member of the Galenic corpus in the case of ps.Galen's *Philosophos historia*.

13 Phot. *Bibl.* cod. 167, p. 112a.

3–4, devoted to ethics and political thought, are called the *Florilegium*. Books 1 and 2 are usually cited as the *Eclogae physicae et ethicae*, ‘Physical and Ethical Selections’. Of these the second begins with logic but is almost entirely devoted to ethics. The former, of which the beginning together with the prooemium and table of contents of the whole work are lost in the manuscripts, is almost entirely devoted to physics. In its present state it commences with the remains of a chapter on arithmetic.

Grosso modo the order of subjects and chapters, from macrocosm to microcosm, is the same as that of ps.Plutarch, and so of Aëtius. But this is not entirely the case throughout, since Stobaeus transferred the treatment of the divinity to a chapter before the chapter on the principles. The material from the chapters on necessity and fate was also reallocated to an earlier position. And the chapters on soul and cognition, which form the concluding section of the *Eclogae physicae*, follow on *after* those on physiology, whereas in the original treatise he excerpted this happens the other way round. But within these re-allocated groups of passages the original chapter order has for the most part been preserved.¹⁴

A section of an alphabetically ordered pinax of the entire anthology has been preserved in a Florentine codex and a reworked table of contents of the whole work, invaluable because it provides information on what has been edited out and lost in the course of transmission, is extant as cod. 167 of the *Bibliotheca* of Photius (ninth century).¹⁵ The sixty Stobaeian chapters are less in number, but they are substantially larger than Aëtian ones. They begin with a collection of poetical quotes (mainly in the earlier chapters), and proceed with a medley of prose passages from a multiplicity of named authors¹⁶ and also from secondary sources dealing with physics. Among these secondary sources are very substantial excerpts from Aëtius, but, just as is the case with other secondary material on physics that is often combined with the Aëtian excerpts, the author’s name and the title of his treatise are *never* mentioned. As a rule the original authors of the doxai included in these excerpts are identified by means of name-labels, though some of these have sometimes been lost in the course of transmission.

A major, though far from flawless result of Diels’ source analysis, useful for teasing out the Aëtian ingredients, is his division of the anonymous secondary material on physics into three different traditions: (1) the doxographical tra-

14 See M–R 1.213–217, with table juxtaposing the Stobaeian and ps.Plutarchean chapter numbers and themes, and 1.218–231 for what happens inside individual chapters.

15 M–R 1.195–202 and see further below sub-sections 4.3.2–3.

16 M–R 1.209.

dition proper represented by Aëtius, as evidenced through comparison with ps.Plutarch and Theodoret; (2) the literature on schools (*Peri Haireseon*) represented by Arius Didymus, who is identified through comparison with named fragments extant in Eusebius; and (3) the commentary literature dealing with Homer and Vergil, as appears through comparison with another ps.Plutarch's *De Homero*.¹⁷

The contents of approximately 115 of the 135 chapters of Aëtius had to be accommodated into 52 of the 60 chapters of the *Eclogae physicae*.¹⁸ Thus, each time, Stobaeus had to make room for on average two or three related Aëtian chapters in one of his own, often transcribing them in their entirety (or almost). In these transcribed chapters he sometimes interpolates other material, though at other times he does not. Thus for instance he sometimes coalesced his Aëtian abstracts with other anthologized passages, e.g. from Arius Didymus cited without identification, or with verbatim Plato quotations, which are labeled. Often these are found at the end of an Aëtian cluster. Sometimes he spreads out the content of a single chapter over more than one of his own. He also may avoid monotony and achieve the variety which is one of the objectives of an anthologist by coalescing doxai deriving from several original Aëtian chapters in newly arranged clusters sharing the same name-labels.¹⁹ In such cases the focus is less on doxai than on persons. Accordingly the order of the lemmata inside these chapters may have been considerably modified. Because of the difference in number between his own chapters and those of Aëtius he also could not avoid combining various Aëtian chapter headings as components of his own headings, often needing to abridge them. It is only through comparison with ps.Plutarch that we are able to identify these lemmata and headings, which we may need to de-coalesce or, as to the latter, de-abbreviate.

It is important to realize that such a Stobaeian cluster of coalesced Aëtian abstracts from several chapters constitutes an *enclave*, a micro-environment that is Aëtian. Typically terse doxographical lemmata concerned with the topic(s) at issue which are located in this environment can be safely attributed to Aëtius, even when they are irreducible in the sense that they lack parallels in ps.Plutarch and/or Theodoret. The case for a different origin has to be proved for every separate instance, which can happen for instance for passages that

17 M–R 1.210–213, and in detail on Arius Didymus 238–265; see also Algra (2018) and below at n. 48.

18 For these numbers, based on what is extant in the revised text of Stobaeus and not on what may have been present in the complete version, see M–R 1.217.

19 On coalescence see M–R 1.218–224.

are attributable to Arius Didymus. This *onus probandi* also holds for when Stobaeus transcribes an entire chapter, such as occurs at ch. 4.7a.

In contrast to ps.Plutarch who produced an abridged edition, Stobaeus, in spite of the rearrangements and combinations he had to introduce, in principle faithfully copies out his source in full. Though he often adds brief phrases to increase understanding, he only rarely resorts to abridgement. This is particularly evident in the case of Book 2, in which he retains 199 out of a total of 217 preserved lemmata, amounting to nearly 92 % of the whole.²⁰ The *Eclogae physicae* has, however, suffered from savage abridgement at other hands, when the Byzantine editors of this huge corpus cut out entire chapters, or edited away large chunks of the contents of individual chapters, especially in the second half of the *Eclogae physicae*. As a consequence, a substantial amount of his evidence for Aëtius has been lost entirely or for the most part, the latter in those cases where his Byzantine editors edited out all Aëtian lemmata apart from those with the name-label Plato or Aristotle (or occasionally also a single other one). These losses make themselves felt especially for chs. 6–16 of Aëtius Book 3, the second part of Book 4, and the whole of Book 5. There is compensation for some of these losses through the earlier borrowing of Stobaeian material from a complete copy in another anthology, the so-called Florentine sacro-profane florilegium (L). All in all, Stobaeus preserves 521 lemmata in our reconstruction, which is 68 % of the extant remains and 58 % of the estimated original text.²¹ Where available Stobaeus' evidence is of primary importance; where lost it is sorely missed.

2.5 The Crucial Role of Theodoret

The 'Ελληνικῶν ἰατρικῇ παθημάτων, *Graecarum affectionum curatio*, 'Cure of Greek Maladies', of the prolific Theodoret is a systematic apologetic treatise in twelve books, explaining Christian doctrine and holding forth against its pagan rivals. The 'Greek maladies' are the stories told in myth and the doctrines of the majority of the philosophers (Plato can be turned into an ally). It is mostly a crypto-anthology, deriving the bulk of its material from Eusebius' *Praeparatio evangelica* (only mentioned once) and Clement's *Stromata* and, possibly, *Protrepticus* (both never mentioned), and from a number of other sources. He is fond of name-dropping, taking over the titles of posh sounding early sources which his main informants provide, and also citing numerous other prestigious

20 This was an important reason that Book 2 was chosen as our *specimen reconstructionis* in M–R 2.2.

21 For these figures see below section 7.3, Appendix 3. The estimation is based on Jeremiah's statistical analysis, on which see below section 2.7.

names. His method is to collect the evidence he needed in a systematic way, abstracting information from various places in one and the same author which could be combined with abstracts from other authors into a small or a more extended cento, all centering on the same topic.²² We find both numerous verbatim quotations and passages as well as centos that are not cited verbatim, for Theodoret's method often differs from that of Clement or Eusebius or Stobaeus. He avails himself of the rules of the ancient techniques of paraphrase (παράφρασις, μετάφρασις)²³ and elaboration (ἐξεργασία),²⁴ the former being, as it would appear, often used, the latter only when it was needed.²⁵ Parts of the original wording or word-order are abandoned in order to present the contents in a clearer form. As long as the thought is preserved the paraphrase may even be much shorter. Paraphrase may be obtained by the addition or removal or substitution of words, or by a change of word order, or by some or all of these moves in combination. Elaboration, in the definition of the rhetorician Aelius Theon,²⁶ consists among other things in the supplementation of what is lacking by making clear what is (believed to be) incomplete or obscure, which is in fact a widespread ancient technique of creative interpretation already practised for instance by Protagoras in Plato's dialogue bearing his name.²⁷ The purpose of such instances or groups of reformulated abstracts, often described

22 For an example see below at ch. 1.7, Commentary A(3).

23 Aelius Theon *Prog.* c. 15, only preserved in Armenian; see French trans. Patillon–Bolognesi (1997) 117–110, English trans. Kennedy (2003) 70–71. Further discussion at Patillon–Bolognesi (1997) civ–cvii and 169 n. 553, and in general on ancient paraphrase Zucker (2011). It should be noted that μετάφρασις is also used for what we call 'translation'.

24 Aelius Theon *Prog.* c. 16, preserved only in Armenian, French trans. Patillon–Bolognesi (1997) 110–111, English trans. Kennedy (2003) 70–71; see Patillon–Bolognesi (1997) cvii–cxi.

25 See M–R 1.278–284. For this and other aspects of this practice see Whittaker (1989) 69–71, who aptly quotes from the preface of Porphyry's *Philosophy from Oracles* (fr. 303F.17–25 Smith at Eus. *PE* 4.7.1). Porphyry swears that he has preserved the 'meaning' (νοῦν), although he has occasionally corrected or clarified or abridged 'the text' (τὴν λέξιν). As Whittaker aptly points out, Theod. *CAG* 10.17–18 cites this passage (without doubt, we may add, from Eusebius) 'without a word of criticism ... for Porphyry's editorial procedure, which by his own standards he presumably found unexceptionable'.

26 Patillon–Bolognesi (1997) 110.

27 *Prot.* 316d–e; cf. *Phdr.* 270c σκόπει τί ποτε λέγει Ἰπποκράτης τε καὶ ὁ ἀληθὴς λόγος; Arist. *Met.* A.4 985a4–5 εἰ γὰρ τις ἀκολουθοίη καὶ λαμβάνοι πρὸς τὴν διάνοιαν καὶ μὴ πρὸς ἃ ψελλίζεται λέγων Ἐμπεδοκλῆς. And the happy formula of Syrianus in *Met.* 11.11–13: 'it will be our job to say what he [sc. Aristotle] does not say of his own accord but is necessarily entailed by what he posits' (ἃ δὲ μὴ λέγει μὲν αὐτόθεν, ἐπόμενα δὲ ἔστιν ἀναγκαίως οἷς τίθησι, ταῦτ' ἂν εἴη λέγειν ἡμέτερον). For creative interpretation or exegesis see Hadot (1957) and Mansfeld (1994a) 152, 155–161. Note however that 'explanation of what is obscure' is not the only meaning of ἐξεργασία, for it can also mean 'careful explanation', 'detailed exposition'.

as μαρτύρια, 'proofs', in the overall argumentation of each of the twelve Books is made clear by freshly written introductory and transitional passages. In many cases these 'proofs' occupy the first half of a Book, whereas its second half is devoted almost entirely to an exposition of the better Christian doctrine.

It is interesting to note that the two techniques of excerpting and paraphrasing are combined in a practice that is particularly prominent at the outset of the work. Theodoret uses compact paraphrases of lists of doxai in anticipation of later passages when he cites those lists, based on chapters in Aëtius, in a much fuller version.²⁸ This practice is especially relevant for the analysis of two lists of first principles, the former a more compact version at 2.9–11, the latter a more extended passage at 4.5–12. These texts are discussed in our analysis of ch. 1.3, the single most complex chapter in the entire compendium.²⁹

Theodoret, as was first seen by Diels,³⁰ is the third chief witness for Aëtius, whose name he mentions three times, in tandem with two other sources for the history of philosophical views, namely 'Plutarch' (i.e. the ps.Plutarch discussed above) and Porphyry.³¹ At CAG 4.31 he adds the titles of their treatises, and at 2.95 he puts 'Plutarch and Aëtius' on the same level qua 'teachers of the doxai of the philosophers', explicitly distinguishing their works from that of Porphyry, 'who added the biography of each philosopher to his doxai'. This shows that according to Theodoret the works of 'Plutarch' and Aëtius were similar in their structure, and differed from that of Porphyry. Ps.Plutarch is still in our possession, and we know that Porphyry did not go beyond Plato, whereas the phrase 'the philosophers' cited above does not impose this chronological limit. Aëtius dealt with doxai just like ps.Plutarch did.³²

But there is a complication. Eusebius, who as we have seen is one of Theodoret's chief sources, included substantial groups of passages from ps.Plutarch in his *Praeparatio*. In Book 14 he inserted selected abstracts from chs. 1.3 (though only 6 out of 14 lemmata) and 1.7 (written out almost in full, with significant changes in §§1, 2 and 7). In Book 15 he included virtually unchanged clusters of chapters and a few individual chapters in a somewhat erratic order.³³ These texts are explicitly attributed by him to 'Plutarch'.³⁴ There has been much discussion about Diels' argument that for his little abstracts from the beginning

28 For such anticipatory paraphrases see chs. 1.63, 1.96, 1.97–98, and 6.3. See further the discussion at ch. 1.3, Commentary A(5).

29 See the discussion at ch. 1.3, Commentary A(5).

30 DG 45–49; cf. M–R 1.77–84.

31 Quoted below at ch. 1.titulus et index, *Testes primi*.

32 See M–R 4.187–188. For Porphyry's lower limit see fr. 198T Smith.

33 For the details see M–R 1.132–134; see also further below, section 4.2.2.

34 PE 14.15.11 (on gods) is of particular importance in our context.

of ch. 1.7.1 at CAG 2.112 and 3.4, where he cites 'Plutarch', Theodoret used the text of ps.Plutarch as he found it in Eusebius, whereas for the other doxographical doxai he excerpted Aëtius.³⁵ Diels based his argument on the mistaken ethnicon of Diagoras in Eusebius and Theodoret, believing that ps.Plutarch had the correct version. But in actual fact it is impossible to be certain where he drew his epithet from, since we cannot tell when the mistake entered the tradition.³⁶ A better argument is furnished by the observation that Theodoret's version of the title of the work of 'Plutarch' at CAG 4.31 ends with the word ἐπιτομή. As we have seen, this crucial term is not found in Eusebius,³⁷ so it must have been based on autopsy. Accordingly, at CAG 2.112 ps.Plutarch himself may well be meant and not the incomplete version written out in Eusebius. In favour of the assumption that he abstracted the snippet from the beginning of ch. 1.7.1 from Eusebius' Plutarch is the fact that, as we saw, he is wont to cite the sources quoted by his informants, not these informants themselves. It is also true that material following after this first item of the cento comes from various places in the *Praeparatio*. We simply cannot be sure either way.

Where Theodoret includes abstracts taken directly from Aëtius he consistently fails to mention his name. Their identification, as Diels saw, is possible only through comparison with the other two chief witnesses, ps.Plutarch and Stobaeus. The Books of the CAG in which he includes this material are Book 2 'On the *archê*', Book 4 'On matter and the cosmos', Book 5 'On human nature', and Book 6 'On divine providence'.³⁸ All in all he makes use of doxai from 25 chapters, totalling 109 in all, which amounts to 14.2 % of the extant remains of the compendium and 12.2 % of the complete work as estimated by Edward Jeremiah.³⁹

Several scholars, who criticize Diels but then take his argument much further, have argued recently that Theodoret may have borrowed all or most of his purported Aëtian abstracts from Eusebius' ps.Plutarch, which would largely

35 Diels *DG* 45–49. We followed him at M–R 1.168, 178. For the discussion see Mansfeld (2016e) 153–154, (2018a) 176–177.

36 For the textual details see texts and apparatus below, ch. 1.7 *Testes primi, traditio ps.Plutarchi*. For Diels' argument see *DG* 14, 297 app. testim. ad [1.]7.1 T 2.112: 'ex Eusebio' (cf. app. crit. ad 297a14). The mss. of ps.Plutarch, Eusebius, Theodoret and Qusṭā all have the erroneous Μιλήσιος, but ps.Galen preserves the correct Μήλιος, which Diels and all later editors have restored in the text. Clearly Theodoret could have found his incorrect reading either in Eusebius or in his own copy of the *Epitome*.

37 Cf. M–R 1.122, 1.168, 2.1.18, and see above n. 3.

38 Overview at M–R 1.274–275.

39 The distribution is: Book 1, 27 lemmata from 7 chapters; Book 2, 46 from 12; Book 3, 36 from 6. The estimation is based on Jeremiah's statistical analysis, on which see below section 2.7.

exclude or entirely remove him as a direct witness for Aëtius.⁴⁰ But it is certain that this cannot be true, for there is no one-to-one overlap between the chapters copied out by Eusebius and the abstracts in Theodoret. Not only does he preserve material that is not found in Eusebius' ps.Plutarch, but there is also an interesting amount of material that is not in the original ps.Plutarch but only paralleled in Stobaeus, and occasionally not even there.

Because of the importance of this matter for the correct evaluation of Theodoret's evidence, it will be worthwhile to go into a little more detail. The sequences of anonymous abstracts in Theodoret which correspond qua order and contents to sequences of twenty-five chapters in ps.Plutarch, while also containing extra material compared with ps.Plutarch's contents, are the following:⁴¹ CAG 4.11–24 ~ Plac. 1.3, 1.9, 1.18, 2.1–4, 2.13–14, 2.22–21, 2.25, 2.27, and 2.29–31; CAG 5.17–24 ~ Plac. 4.2–5, 4.2.7; and CAG 6.13–15 ~ Plac. 1.25, 1.27–29. Theodoret here reports (unidentified) information corresponding both in sequence and contents with lemmata in ps.Plutarch which Eusebius did not include. For it is a fact that seven of these chapters are not present in Eusebius, namely chs. 1.18, 1.25, 2.1–2, 4.2–3 and 4.7. Remarkably, of the six lemmata of ch. 1.3 written out by Eusebius not a single one is found in Theodoret, while on the contrary material that Eusebius omitted, namely ch. 1.3.20 (Socrates Plato) and 1.3.21 (Aristotle), is paralleled at CAG 4.11 together with their highly significant name-labels. Accordingly, Theodoret cannot have found the matter for these excerpts in the *Praeparatio*.

A further consideration is the correspondence that exists between Theodoret and Stobaeus. For example, in the case of ch. 1.18.4 in our edition he includes a terse analogue not paralleled in ps.Plutarch but only in Stobaeus, for ch. 4.2.2 and 4.2.4 there are two more of such analogues, and for ch. 4.3.4 and 4.3.6 another two again,⁴² so he really *cannot* have used the original text of ps.Plutarch here. Quite a few more analogues are found which correspond qua sequence and contents to sequences of chapters in ps.Plutarch, but verbatim parallels for them are found not in ps.Plutarch but only among Stobaeus' generous abstracts. There are no less than 28 such parallels, including those just mentioned.⁴³

Of course no one (not even Dr Bottler) doubts that wherever ps.Plutarch and Stobaeus are in agreement a shared ps.Plutarchean/Stobaeian source has

40 Frede (1999b), Gourinat (2011), most emphatically Bottler (2014).

41 Cf. M–R 4.187–189. The Theodoretan abstracts from ch. 1.3 have been combined with other material; see below n. 46 and text thereto.

42 For these examples see M–R 4.183.

43 For detailed references to these passages see M–R 4.262 and 4.181–184.

to be assumed. Consequently a shared Theodoretean/Stobaeian source has to be posited too, namely wherever Theodoret and Stobaeus are in agreement. Moreover, it can be further proved that the ps.Plutarchean/Stobaeian source and the Theodoretean/Stobaeian source cannot be distinguished from each other, so are identical. Theodoret indeed proves to be a crucial witness.⁴⁴

What remains to be said, perhaps unnecessarily (but the relative chronology is uncertain), is that Theodoret did not abstract from the *Eclogae* the information shared with Stobaeus that is not matched in ps.Plutarch. We have seen above that he did not abstract his Aëtian material from ps.Plutarch himself but from a shared source. Such a shared source has also to be postulated for the Aëtian material shared with ps.Plutarch that is not matched in Stobaeus. There are five lemmata in Theodoret that are matched in the ps.Plutarch he did not use for which there are no matches in Stobaeus, although other clusters of lemmata from the four chapters that are involved (two in Book 1, two in Book 2, and one in Book 4) have been preserved in our Stobaeian manuscripts.⁴⁵ These must have been drawn from the earlier source shared by ps.Plutarch and Theodoret. A further reason why we can be sure that Stobaeus cannot have been Theodoret's source is the difference in order due to Stobaeus' coalescences of lemmata with the same name-label from various chapters, thus as we have seen modifying the chapter-and-lemma order of his source, or the changes that occur in those Aëtian chapters where he interpolated further material among his abstracts. It is not credible that Theodoret would have been able to intuitively perceive the ps.Plutarchean chapter-and-lemma order matching that of ps.Plutarch, and to abstract this from Stobaeus' coalesced clusters of lemmata. To give a single example (see further the chapters involved, each time at Commentary A): at *Eclogae* 1.25 Stobaeus coalesces lemmata from ch. 1.20 with lemmata having the same name-label from chs. 1.24, 1.21, 1.22, and 1.23, even modifying the chapter order (note that T does not abstract chs. 1.23–24). But at *CAG* 4.21–24 T cites the matching themes and lemmata in the regular order corresponding with that of ps.Plutarch's order for chs. 1.21–23, and here and there even with his sequence of lemmata.

44 For a full discussion see M–R 4.174–196, where we distinguish between P/S, P/T, and S/T parallels. For the statistics on these see section 7.3, Appendix 3.

45 Namely two for Book 1: chs. 1.9.5 and 1.28.4; two for Book 2: chs. 2.20.7 and 2.20.11; and one for Book 4: ch. 4.2.5. The sixteen further cases for Book 4, namely those in chs. 4.4, 4.5, and 4.7 cannot be checked because of the Byzantine abridgement. Ch. 4.5 is entirely absent. The headings of chs. 4.4 and 4.7 are extant, so the chapters once were there, but very few lemmata remain.

Like their counterparts in Stobaeus, clusters of chapter-wise abstracted lemmata in Theodoret constitute enclaves, or micro-environments, which are Aëtian. Typically terse doxographical lemmata concerned with the topic(s) at issue located in this environment, and even some extra name-labels, can safely be attributed to Aëtius, even when they are irreducible in the sense that they have no match in ps.Plutarch and/or Stobaeus. The case for a different origin has to be proved for every separate instance. Actually this can be done for a handful of lemmata pertaining to the principles that were abstracted not from ch. 1.3 in Aëtius but derived from a source Theodoret shared with another ps.Plutarch, namely the author of the *Stromateis* extant in Eusebius, who belongs with the proximate tradition. He can hardly have used only these Eusebian *Stromateis*, because apart from all differences as to details he at CAG 2.10 and 4.12 cites and includes Hippasus and Heraclitus (in an order that is the reverse of §9), and at 4.8 cites and includes Melissus, all of whom are absent in this other ps.Plutarch. Theodoret may well have wanted to include this information on the Eleatic Succession not found in Aëtius, because in the source which he used Xenophanes and Parmenides and Melissus so usefully contradict themselves. This was grist to his apologetic mill.⁴⁶

2.6 *The Name and Sitz im Leben of the Author/Compiler*

The existence of a source shared by the three main witnesses ps.Plutarch, Stobaeus and Theodoret can thus be proved beyond reasonable doubt. Taking Theodoret's distinction between 'Plutarch' and Aëtius into account, we attribute this work to an otherwise unknown author, or redactor, and we call him Aëtius, just like Theodoret and Diels did.

Though the name, as we have seen in the previous section, is cited no less than three times in the same context by Theodoret, the correctness of this quotation has been contested. The Russian scholar Andrei Lebedev has long argued that Ἀέτιος is a *lapsus calami* for Ἀρειος (sc. Ἀρειος Δίδυμος), another personage hardly better known than Aëtius.⁴⁷ This is no more than a bold guess, impossible to confirm and not difficult to disprove. For Arius Didymus, whose probable date would more or less fit, does not deal with pluralities of individuals of varying allegiance and their conflicting views on issues in physics, but

46 See further below at ch. 1.3 Commentary A and D(b)((3)(5). He does not say this explicitly here, but at CAG 5.16, introducing his Aëtian abstracts dealing with the contrasting views on the soul, which apparently he finds even more shocking than those on the principles, he argues that the philosophers are not only opposed to each other, but also contradict themselves (οὐ μόνον ἀλλήλοις, ἀλλὰ καὶ σφίσιν αὐτοῖς περὶ τῶν αὐτῶν ἐναντία γεγραφήκασιν).

47 Lebedev (1984), (1988), see M–R 1.333–338; most recently Lebedev (2016).

concentrates on Stoics and Peripatetics and provides detailed systematic overviews of their physical and especially ethical doctrines.⁴⁸ Continuing Lebedev's argument, the Dutch scholar Jan Bremmer, in a very learned paper, insisted that the personal name Ἀέτιος is unattested for a person living in the first century CE, and only occurs more often later.⁴⁹ But a list of proper names in the second century CE grammarian Aelius Herodian discussed by Bremmer contains, apart from Ἀέτιος, also the names Ὑπάτιος, Εὐστράτιος, and Ἀθανάσιος.⁵⁰ These names too appear here for the first time in the literary record, and like Ἀέτιος are only paralleled rather much later,⁵¹ though not very often as well. Accordingly, the arguments of Lebedev, Bremmer and others against the plausibility of the personal name Ἀέτιος in the first century CE context are not conclusive.

These arguments are also beside the point, for the existence of the source shared by ps.Plutarch, Stobaeus and Theodoret does not depend on the name of its author. It really does not matter by what name we call him.⁵² The best and simplest option, therefore, is to follow the tradition and to go on calling him Aëtius. This is also the most sensible, for this is the name under which the important evidence preserved by the treatise has been invariably and widely cited in the literature, especially since the appearance of the first edition of the *Fragmente der Vorsokratiker* in 1903.⁵³

The compiler's diaeretic and diaphonic mode of presentation of the doxai, and its background—especially in Aristotle's methodology, as also utilised by other philosophers—will be discussed in sections 2.8 and 5.1 below. In the *Placita* the material is so to speak presented in a neutral (which does not always mean an uncritical) way, without argument in favour of or explicit preference for the views of a particular philosopher or school. Apart from being a trea-

48 See now Algra (2018). There is some evidence for his interest in Platonism and logic.

49 Bremmer (1998), who emphasizes that the name belongs to a minor Troizenian hero. Another possibility is that it was a *nom de plume*, like Achilles for the author of the *De universo*, Alcinous for the author of the *Didascalicus*, or Diogenes Laertius for the author of the *Vitae philosophorum*.

50 Aelius Herodian *Pros.Cath.* p. 1.119.35–120.6 Lentz.

51 The first Athanasius listed in the TLG is Athanasius of Alexandria, the famous Church Father, b. 298 CE. The first Eustratius listed there is Eustratius Presbyter, sixth century, and the first Hypatius is Hypatius of Ephesus, also sixth century. The first Aëtius in the TLG (apart from our doxographer) is Aëtius of Amida, sixth century again.

52 As already argued at M–R 1.86, 3.177–178.

53 See further M–R 4.187–191. The ingenious last-ditch suggestion of Gourinat (2018) at M–R 4.17–52 that the original source was a larger work by Plutarch is not supported by Lebedev's purported *lapsus calami*. It is hard to explain why Theodoret called this other Plutarch by the name Aëtius and distinguished this Aëtius/Plutarch from the 'Plutarch' he cites.

sure trove and useful vademecum for professionals and semi-professionals, the treatise should also be seen as a significant cultural artefact. In Hellenistic and Early Roman times it was expected of an educated person not only to be versed to an acceptable extent in literature and rhetoric, but also to be in possession of information regarding the main currents and views of philosophy and philosophers. This is attested by Cicero, who saw it as his mission to inform and civilize his fellow-Romans in also this respect. And he explicitly tells us, *Tusculans* 2.4, that ‘in Greece philosophy would not have been held in such high honour, if it had not derived its vitality from the disputes and disagreements among its greatest practitioners’ (*in ipsa enim Graecia philosophia tanto in honore numquam fuisset, nisi doctissimorum contentionibus dissensionibusque viguisset*). Instruction in the various philosophical doctrines was also part of the curriculum of the ephebes at Athens, a city which by opening up the courses also to non-Athenians proudly demonstrated its awareness of its cultural reputation. Several ephebic inscriptions to be dated between 122/1 and 38/7 BCE are explicit on this part of their training, especially the first, *IG II² 1096.19–20*:

(the ephebes) also continuously followed the lectures of Zenodotus [a Stoic] in the Ptolemaeum and the Lyceum, as also of all the other philosophers in the Lyceum and the Academy, during the whole year.

προσεκαρτ[έ]ρησαν δὲ καὶ Ζηνοδότῳ σχολ[άζ]οντε[ς ἐν τε] τῷ Πτολεμαίῳ καὶ ἐν Λυκείῳ, ὁμοίως δὲ καὶ τοῖς ἄλλοις [φιλο]σόφοις ἅπασι[ν] τοῖς τε ἐν Λυκείῳ καὶ ἐν Ἀκαδημ[αίᾳ δι’ ὅλου τοῦ ἐνιαυτοῦ.

The references to the Lyceum and the Academy clearly presume the lectures of a Peripatetic and a Platonist. The Garden is not mentioned, but this does not mean that the Epicureans were excluded, since the inscription speaks of ‘*all the philosophers*’.⁵⁴

However, the compendium itself gives no indication whatsoever of the exact location where it was written. In Vol. 1 of our *Aëtiana* we noted that there might be some hints pointing to tenuous links with Alexandria, and an attempt was made by Jan Bremmer in the aforementioned article to strengthen them.⁵⁵ But we now think that such attempts must be regarded as no more than educated guesswork. As for the approximate date of the work, we retain the view that it was written in about 50 CE.⁵⁶

54 On these inscriptions and their implications see Haake (2007) 44–55. On this Zenodotus see also Goulet at *DPhA* 7.342–343.

55 Bremmer (1998) 157–160.

56 See the arguments at M–R 1.320–323, to which we have nothing more to add.

2.7 *The Extent of the Original Work*

We have seen above that Aëtius' original compendium has survived in an incomplete condition, since its main witnesses have sustained losses, either deliberately through epitomization, as in ps.Plutarch, or through small-scale abstraction, as in Theodoret, or by unfortunate subsequent redaction, as in Stobaeus. Using advanced statistical techniques Edward Jeremiah has demonstrated that nevertheless we still possess approximately 86% of the original work.⁵⁷ Most of the missing lemmata derive from chapters where ps.Plutarch is our only witness. For chapters where apart from ps.Plutarch the complete testimony of Stobaeus is still extant, we can be reasonably certain that very few if any lemmata are missing. Almost every ps.Plutarchean lemma has a match in Stobaeus. When Stobaeus copied out an Aëtian chapter he took over almost all there was. If it occurred often that he copied out less than the entire chapter, there would be many more ps.Plutarchean lemmata without a match in Stobaeus. This argument can also be extrapolated to the chapters for which Stobaeus is lost, for it is wholly unlikely that the relation would suddenly be different and that for the chapters thrown out by the Byzantine editors considerably more ps.Plutarchean lemmata would have lacked a match in Stobaeus than for those we still have. Consequently, for those 87 chapters for which we have multiple witnesses there probably are only about 42 lemmata missing.⁵⁸ For the remaining chapters, for which we have only the evidence of ps.Plutarch, the missing number is expected to be around a further 81.⁵⁹ Thus the grand total amounts to 123 missing lemmata yielding a total of 892 lemmata for the complete original work.⁶⁰ Furthermore, taken individually, all the chapters for

57 Jeremiah (2018) at M–R 4.284–295, paraphrased from 295.

58 Jeremiah emphasises that this result should not be taken to be more exact than it is. He also gives 68% and 95% confidence intervals for this estimate, these being 31 and 52 for the former, 23 and 62 for the latter. See table 9.4 on p. 292. (For the contents of this and the following two footnotes we are indebted to Edward Jeremiah.)

59 The confidence intervals for this estimate are 78 and 85 for the former and 75 and 89 for the latter. These bounds can be derived from the confidence intervals for the selective probability of ps.Plutarch in table 9.4 p. 292 and the number of lemmata for the chapters where we only have the evidence of ps.Plutarch (143, for which see pp. 293–294 and cf. the table in Appendix 1 p. 348).

60 The confidence levels for this estimate are 109 and 138 for the former, 98 and 151 for the latter. These bounds can be derived from the confidence intervals for the selective probability of ps.Plutarch in table 9.4 p. 292; the number of lemmata in ps.Plutarch for the entire work (566, for which see the table in Appendix 1 p. 348); and the number of lemmata in the new edition for the entire work (765, for which see the table in Appendix 1 p. 348). It is worth stressing that these are very conservative figures and likely *overestimate* the number of missing lemmata since they have been computed with a very conservative uniform prior. Cf. pp. 290–291 for less conservative alternatives. (The figures for the total number

which we have the testimony of S in addition to P (apart from those in which the transmission of S has been affected) are most likely complete.⁶¹ These are a remarkable and highly important results.

In its 135 chapters in five Books the *Placita* extend over the history of physical philosophy from the early sixth century BCE, beginning with Thales (named fifteen times) and Pythagoras (named twenty-six times), and ending with the Peripatetic Xenarchus of Seleucia in the second half of the first century BCE (named once at ch. 4.3.10). There are no chapters specifically devoted to individuals, or to schools, or to Successions. The focus is wholly on topics presented in a systematic order and on points of view in physical philosophy, not on persons. In the majority of chapters the topic is presented as an issue to be discussed, by means of a listing of more or less different or conflicting views of different persons or (sometimes) schools. The method is thus basically dialectical, not historical or purely descriptive.

The opening words of the prooemium of Book 1 define the purpose, later commonly called σκοπός, of the work: μέλλοντες τὸν φυσικὸν παραδῶσιν λόγον, ‘our objective is to teach the physical theory’, or alternatively ‘to hand down the account of nature’. The Latin translation of the substantive παράδοσις that belongs with the verb παραδῶσιν is *traditio*. The purpose of the treatise is to contribute to the continuation of the tradition of the study of nature by keeping this tradition alive.

As part of the *Introduction* to the treatise Book 1 continues with a discussion of the parts of philosophy and the nature of physics. It presents a selection of experts from Thales to Strato with their dissimilar views on the principles of physics, provides a brief account of the genesis of the single cosmos to be discussed in detail in Books 2 and 3, and in a slight detour touches on various views concerning the number of kosmoi that can be assumed. The remainder of Book 1 is a detailed presentation of foundational concepts of theoretical physics such as matter, body, motion, time, and necessity, all considered dialectically. Book 2 deals with cosmology, from the cosmos in general to the duration of the year via the heaven, the stars, the sun, and the moon, according to their nature and quantitative, qualitative and other categorical properties. Book 3 treats meteorology in the ancient sense of the word, i.e. the phenomena in the atmosphere above the earth, and then the earth itself and the sea. Book 4 begins with a chapter on the summer flooding of the Nile, but for the rest deals with

of lemmata in P and A have now been revised to 563 and 769 respectively; see the statistics in section 7.3, Appendix 3.)

61 See the P[C] column in the table on p. 348 (this column giving the probability that a chapter in the reconstruction is complete).

psychology, that is the soul and the senses, including sensation and cognition insofar as appropriate in the context of physics, and ends with a chapter on psychosomatic issues. Book 5 first contains a couple of chapters on divination and dreams, and then continues with a detailed presentation of spermatology and problems of heredity and embryology. It also presents a number of particular and more general issues concerned with living beings, concluding with some medical topics: fever, health, disease and—rather appropriately—old age.

By and large the movement from Books 1 to 5 is from periphery to centre and from macrocosm to microcosm, and there is a clear division between Books 1–3, dealing with the macrocosm, and 4–5, dealing with the microcosm. The pivotal prooemium of Book 4, which states, ‘The parts of the cosmos having now been treated systematically, I shall continue in the direction of the particular phenomena’, explicitly both separates and unites the two main parts.

Looking in somewhat more detail at the relations between these Books and between the sub-disciplines of physics displayed in them, we note that the brief final chapter of Book 1, 1.30 ‘On nature’, is an appendix (‘mantissa’, Diels *DG* 57) to ch. 1.1 ‘What is nature’. It has the same function for the Book as a whole, for as we leave the last of the theoretical chapters and return, at least formally, to nature qua process, this chapter forms a transition to the next Book on cosmology. This structural feature thus aims to demonstrate the unity of the Book, but also of the compendium as a whole. A similar transitional purpose may be attributed to the first chapter, ‘On the Milky Way’, of the meteorological Book 3 in relation to the cosmological Book 2, while the misplaced final chapter at ps.Plutarch ch. 3.18 may be seen as an attempt, however unfortunate, to emphasize the unity of the Book. The first chapter of Book 4, ‘On the flooding of the Nile’, links up with the penultimate chapter of Book 3 ‘On the tides’, which shows that the final position of ps.Plutarch ch. 3.18, however well intended, indeed creates a problem. (In fact we have moved ch. 3.18 in Diels to its rightful place earlier in the Book and renumbered it as ch. 3.5a.) That the first chapters of Book 5 could also have been the last of Book 4 (see the Introductions to Books 4 and 5) demonstrates that these Books, dealing not with nature in general like the first three but with (mostly) human nature, in a certain sense belong together.⁶²

To be sure, all five Books appear to be rigorously separated from each other by chapter numbers and Book numbers. But their contents are in fact more

62 Diels noticed some of these connections, but provided a different explanation: at *DG* 181–183, setting out the structure i.e. table of contents of a hypothetical *Vetusta placita* in six Books (*inter alia* removing the prooemia of ps.Plutarch) he adds ch. 4.1 to *VP* Book 4 *de terrestribus* and chs. 5.1–2 to Book 5 *de anima*. Cf. below, n. 95 and text thereto.

fluid and to some extent tend to mesh with each other. The cumulative effect of these janus-faced endings and beginnings is to underline the unity of the treatise, and correspondingly of our world. For a comparison we may for instance recall that the precise point where one book of an epic ends and another begins can be problematical—the tale goes on, as ancient commentaries attest.⁶³ Divisions between Books and allocation of contents will also have been imposed by the length of the papyrus scrolls on which they were written.

2.8 *A Retrospective Glance at Aëtiana Volumes 1–2*

In *Aëtiana* vol. 1 our first purpose was the critical evaluation of Diels' famous Aëtius hypothesis against the backdrop of nineteenth-century classical scholarship, exemplified in the stemmatology, or cladistic analysis of manuscripts, linked with the name of Karl Lachmann, and the source criticism linked with that of Diels' *Doktorvater* Hermann Usener. This helped to situate and even to improve upon Diels' overview of the doxographical traditions, as pictured by means of a chronological and genealogical stemma, or tree diagram, with several paths and lateral branches, illustrating the relations at successive stages between the most important manuscripts and/or sources or witnesses involved.⁶⁴ We have reproduced these two diagrams, one representing the Dielsian schema, the other our own, as appendices to this Introduction, in the latter case making one or two small improvements.⁶⁵

In order to provide the necessary background, we also looked at forgotten earlier scholarship from the Renaissance onwards concerned with the relations between ps.Plutarch and ps.Galen and Stobaeus, for it had long been noted that these witnesses present similar or even largely identical material.⁶⁶ Another philological method, very popular in the nineteenth century and beyond, but with a venerable history going back as far as antiquity, is the presentation of parallel texts side by side in two or more columns for comparative purposes. This comparison may lead to the conclusion that a common source has to be posited, and thus to the construction of a genealogical stemma. For these techniques, classical scholarship proved to be indebted to the philological study of the Gospels inaugurated by the eighteenth-century German theolo-

63 See Higbie (2010).

64 For Diels' diagram of the tradition of ps.Plutarch see *DG* 40; for a reconstructed diagram of Diels' view of the tradition from Theophrastus see M–R 1.81; and for our diagram of the tradition of the Aëtian *Placita* M–R 1.328.

65 See section 7.1–2, Appendices 1 & 2 below.

66 This section of Vol. 1 benefitted greatly from the research assistance of Dr (now Prof.) Teun Tieleman (Utrecht), and was further developed in Mansfeld (1998), reprinted M–R 3.3–31.

gian Johann Jacob Griesbach. Their combined and successful application to what till then had looked like a rough and unordered mass of data gave Diels' hypothesis its aura of quasi-mathematical and unassailable certainty.⁶⁷

However, Diels' approach to the sources for his tabular reconstruction of Aëtius in two columns, with some extra evidence in an apparatus parallelorum, was oddly prejudiced. He saw the development, from his postulated pure and unsullied *Urquell* Theophrastus—on whom see below, section 5.2.2—in the fourth/third century BCE, to Aëtius in the first century CE and the even later ps.Plutarch and his tradition, as one of progressive deterioration, increasing corruption and continuous decline. In his view later in time was equivalent to worse in quality. The Ciceronian motto that he placed at the very beginning of his *Doxographi Graeci* was telling: *tardi ingenii est rivulos consecrari, fontes rerum non videre*, which we might render 'it is the hallmark of a dull disposition to pursue the little streams and not to see the sources of things', the former by implication being muddled and of minor importance, the latter limpid and pure.⁶⁸ The focus of his interest was on the thought of the largely lost early Greek philosophers. So in Aëtius he looked in the first place for reliable evidence on the Presocratics, and he found what he sought. He was convinced of its reliability because he believed that, ultimately, it derived more or less unscathed from Theophrastus.⁶⁹

We disagreed with this evaluation then, and we still do. We chose to differ from Diels because we had a different understanding of the tradition. In our view it was a tradition that was essentially open, responding to changing times and circumstances, receiving the necessary updates from time to time, subject to rearrangement, catering to a variety of publics, and therefore losing material as well as regularly acquiring new content. The *Placita* belongs to the genre of functional literature (if genre is what it may be called), comparable to lexica and compendia of all kinds. In fact, as pointed out at section 2.6 above, a sort of vademecum or handbook is what it really is. Accordingly we presented an unprejudiced and full analysis of the three main witnesses (including, in the case of ps.Plutarch, his complicated tradition), and tried to understand their respective aims and to work out their methodologies before gauging their worth and setting out their respective contributions to the reconstruction of their common source. In the course of this analysis we came to the conclusion

67 See e.g. Regenbogen (1961) 545: 'Es braucht jetzt kaum mehr gesagt zu werden, daß eigentlich eine neue Wissenschaft, mit einem neuen Stoffgebiet und einer so noch nie gehandhabten Methode damit begründet war'.

68 *De orat.* 2.117; see the discussions at M–R 1.66, 97–101.

69 See further below at section 5.2.

that Diels' brilliant hypothesis regarding the role of the three chief witness and a few others was in general correct, but had to be revised in several important respects. In his critical review of *Aëtiana* vol. 1 Michael Frede showed that Diels' (and our) analysis of Theodoret's contribution had its vulnerable side. This lacuna in our analysis has since been closed.⁷⁰

The purpose of *Aëtiana* vol. 2 was to prepare the ground for the present edition of the Greek text of the *Placita* accompanied by a translation, commentary and apparatus of parallel passages. In vol. 2.1 we provided a full analysis of the treatise's macrostructure and the dialectical microstructure of its chapters,⁷¹ the results of which, occasionally updated, constitute the main rationale of today's edition and commentary. It also emerged that this macrostructure to a significant extent reflects the order of the principal themes and sub-themes in Aristotle's physics (including psychology) on the one hand, and on the sequence of topics according to the Stoic division of the *physikos logos* ('physical theory', 'account of physics', the term prominent as we saw in the opening line of the *Placita*), beginning with theoretical physics and ending with psychology and spermatology, on the other. The fused reverberations of these Aristotelian and Stoic examples comprise practically the entire extent of the *Placita*, from Book 1 to Book 5.⁷² Let us look at this feature in some more detail.

The descending order of subjects of the five Books of the *Placita* corresponds *grosso modo* to that of Aristotle as set out in passages which outline a programme of research and writing that turned out to be (and perhaps was meant to be) a collective undertaking, namely in the prooemium of the *Meteorology*, the prooemium of the *On Sensation*, and two passages of the *On the Generation of Animals*. At *Meteorology* 1.1, looking back, Aristotle states that the *Physics*, *On the Heavens* and *On Generation and Corruption* have been completed; the *Meteorology* is to follow now, and in its turn is to be followed by works dealing with animals (of course in the first place the human being) and botanical treatises (these works on plants, as we know, were written by Theophrastus). This order up to the *Meteorology* is that of the *Placita* Books 1 to 3. At *On Sensation* ch. 1, looking back, he states that the *On the Soul* has been completed; the present tract will be the first of what we have come to call the *Parva naturalia*, which are to be followed by a study of the principles of health and disease. This agrees

70 Frede (1999b); see section 2.5 text to and after n. 40.

71 Also using results reached in our earlier publications, many of which were collected in M-R vol. 3.

72 M-R 2.1.97–109, 135–138, 139–153, 158–172 on Stoic and Aristotelian precedents.

with the position of Books 4–5 and their order of subjects. At the beginning and the end of the *Parva naturalia*, namely at *On Sensation* 1 and *On Respiration* 21, he further points out that the more accomplished natural philosophers conclude their work with the principles of health and disease. The *Placita* follows suit, and so, in his grand style, does Lucretius with his description of the plague at Athens. At *Generation of Animals* 1.1 Aristotle looks back at the *On the Parts of Animals* as already complete, and in 5.1, discussing the eye, he says that certain matters ‘have earlier been spoken of in the *On Sensation*, and even earlier in the *On the Soul*’. Most of Book 5, the last of the *Placita* and coming after the treatment of the soul and its functions in Book 4, is devoted to themes treated in the *On the Generation of Animals*.

According to the hypothesis of Hecquet-Devienne the (incomplete) parallels for this order found in the two oldest manuscripts of Aristotle may go back as far as the library of the Lyceum.⁷³ But the detailed codicological analysis of ms. Parisinus gr. 1853 carried out by Ronconi proves that it is a *codex compositus*, comprising material of various provenance.⁷⁴ Comparing the contents of its oldest section with the relevant parts of the ancient catalogues of Aristotle’s works, as well as with the educational practices of the commentators, he dates such an ancient predecessor codex to the second century CE at the earliest, and limits its contents to the standard group of the five physical treatises, the *Physics*, *On the Heavens*, *On Generation and Corruption*, *Meteorology*, and *On the Soul*. What is significant in our present context is the fact that this agrees *grosso modo* with the contents of Book 1 to most of Book 4. These presentations of the research programme, mirrored in the ordering of the results of the research, have an underlying basis that is didactic in intent.

The layout of the *Placita* is also decisively influenced by the programme of physical research of the Stoics, which was itself to a degree a continuation of the Peripatetic programme. At Diogenes Laertius *V.P.* 7.132–133 this *physikos logos* is first divided according to species into the investigation of corporeals such as elements, principles, and gods, and incorporeals such as place and void. Such a double progeny compares well with the foundations of physics in Book 1. The two most important parts of the Stoic generic division deal with the cosmos, like Book 2, and with causal explanation. The aetiological investigations that are mentioned bring to mind themes in Books 4 and 5 of the *Placita*: the *hegemonikon*, what happens in the soul (including cognition), spermatology, vision, but also subjects in Book 3 such as explaining clouds, thunder, rain-

73 Hecquet-Devienne (2004), endorsed by Gutas (2012a) 12–14.

74 Ronconi (2012a).

bows and the like.⁷⁵ The chapters on the soul and the senses in Book 4 in the main follow the order of treatment of these topics in Aristotle's *On the Soul* and Chrysippus' *On the Soul*.

Here we must leave vol. 2.1 for a moment to consider an interesting side issue. Eight chapters begin with a nominal or conceptual definition, the same in both chief witnesses,⁷⁶ which illustrates the specific technical meaning of an everyday word: for instance ὕλη, 'wood' meaning 'matter' (ch. 1.9.1: 'matter is the substrate for all generation and destruction and the other (kinds of) changes'). Such a nominal definition is assumed to be generally acceptable. Differences begin with the attempts to formulate an essential (today we say 'real') definition, for this is what the experts disagree about—for instance about what matter 'really is', corpuscular or continuous (in ch. 1.9). But most of the time such an introductory definition is not needed, for there is no specific technical meaning of for instance the word 'moon' which would be different from everyday usage, even though the experts will still disagree about the nature of the substance of the moon (ch. 2.25), or about the question whether it shines by its own light or derives its light from the sun (ch. 2.28). At the time of publication of our vol. 2.1 a little more than a decade ago we were still insufficiently aware of the functional roles of these types of definition. In this respect we have indeed made progress.

The microstructure of the majority of chapters consists in a dialectical arrangement of doxai in such a way as to implicitly bring out their differences or even irreconcilabilities. The techniques involved here are the diaeresis and the diaphonia, with compromise views and maverick opinions thrown in as well.⁷⁷ This dialectical methodology, also practised in different ways and for their own ends by Epicureans and Stoics, and used somewhat differently again by the Pyrrhonists and Skeptical Academics, essentially derives from Aristotle's dialectical presentation of multiplicities of views in preparation of the inquiry into a problem in physics (or ethics), as we shall see in section 5.2 below. For the Pyrrhonists we may cite the tenth mode of Aenesidemus in Sextus Empiricus, *Outlines of Pyrrhonism* 1.151: 'We oppose dogmatic presuppositions to one another when we say that some people assert that there is one element, others infinitely many (cf. ch. 1.3); some that the soul is mortal, others immortal (cf. ch. 1.7)'. This is paralleled and expanded in Philo's unattributed version at

75 For the divisions of the Stoic *physikos logos*, its Aristotelian precedents, and the reverberations thereof in the sequential arrangement of (clusters of) chapters in the *Placita* see further M–R 2.1.97–109.

76 Chs. 1.9–12, 1.14–15, 2.32, and 3.1. See further at ch. 1.9 Commentary D(c)(1).

77 M–R 2.1.3–16, 173–195.

Ebr. 198–199 on the ‘so-called philosophers’, ‘some’ of whom ‘declare that the universe is infinite, others finite (cf. chs. 1.5 and 2.1), and some that it is created, others uncreated (cf. ch. 2.4)’, and some speak of providence, while others deny it (cf. ch. 2.3).

The fact should never be lost from view that the *Placita* merely provides material for instruction, discussion and reflection, possibly also for making one’s choice if that is what one wants to do (cf. section 2.6 above). Neither a suspension of judgement, *more sceptico*, nor a positive outcome, *more aristotelico* or *stoico*, is ever formulated, no explicit advice ever given either way. Only very rarely is there a critical note.⁷⁸

As a systematic overview of the methodology of the *Placita* this volume of *Aëtiana* is still recommended. Further issues that are discussed are the authenticity and role of chapter headings and their numbering, and the use and function of verbatim quotations.⁷⁹ In addition, a substantial section was devoted to ch. 1.3 in the context of the role of Successions and Sects and the absolute and relative chronology of name-labels.⁸⁰ Note however that the structural analysis now proposed at ch. 1.3 as a blend of arrangement according to number of principles and an ordering according to Successions (*Diadochai*) represents a noteworthy advance compared with that of eleven years ago. What is more, our understanding of the role of relative and absolute chronological ordering in relation to arrangement via diaeresis and diaphonia has now profited from the detailed inquiries of Edward Jeremiah.⁸¹ On the basis of a statistical analysis of the differences in this respect between the individual books he has argued that ‘the balance tipped towards dialectic as time went on, likely indicating the systematic importance of dialectical practice in the Hellenistic era’.⁸² We return to the subject of dialectic in Aristotle and Theophrastus below at section 5.2.

Aëtiana vol. 2.2 offered a detailed *specimen reconstructionis* of Book 2 of the treatise. Book 2 lends itself better to this exercise than the other Books, because our witnesses have preserved its chapters in an almost complete state. For each of its 32 numbered chapters and the three we saw fit to add (numbering them as 2a, 5a and 17a)⁸³ we printed and patiently analyzed the evidence of the individual witnesses in sequence.⁸⁴ First the doxai of the Greek text of ps.Plutarch

⁷⁸ At chs. 1.2.2, 1.3.1–3, 1.7.7, each time using the verb ἀμαρτάνειν; see further M–R 2.1.69–72.

⁷⁹ M–R 2.1.195–224.

⁸⁰ M–R 2.1.97–109.

⁸¹ Jeremiah (2018) at M–R 4.310–319.

⁸² Jeremiah (2018) at M–R 4.345.

⁸³ Of these postulated additional chapters only one, ch. 2.5a, is retained in the final edition. We have decided that the other two are too speculative to merit inclusion.

⁸⁴ For ch. 2.3, for instance, this consisted of the *Testes primi*, i.e. ps.Plutarch and his tradition

were numbered and printed, followed by an account of its structure and the differences of completeness and *variae lectiones* present in members of the *traditio ps.Plutarchi*. The text of Stobaeus came next. Its doxai, as a rule more numerous, were also numbered, and compared in respect of structure, completeness and *variae lectiones* with those of ps.Plutarch. The text of Theodoret, as a rule much shorter, came third and was scrutinized in the same way. The results were analysed in relation to evidence elsewhere in Aëtius. We also took care to compare parallels from the wider dialectical-doxographical tradition, both earlier and later, a selection from which was printed at the end of each chapter. These parallels did not as a rule pertain to the individual doxai but rather to the topic of the chapter as a whole and the interrelations of its lemmata. They often yielded important supportive evidence on the diaeretic and diaphonic structures of the Aëtian chapters as determined in our analysis and illustrated by a variety of diagrams.

Each chapter of our *specimen reconstructionis* ended with a preliminary reconstructed text, accompanied by a negative critical apparatus and English translation.⁸⁵ The entire procedure demonstrated, to our conviction, that our chosen method of reducing the two columns (and further material in the apparatus) of Diels' edition to a single text was viable and superior. It should be emphasized that the edited text was provisional and is now superseded by a text which is far superior again. Not only is it based on *all* the available evidence, fully accounted for in the list of witnesses and in a positive critical apparatus. It also benefits from increased insight, developed as our research progressed, into the respective value of the direct and indirect tradition of our main witnesses.⁸⁶

The analysis of the structure of each chapter, carried out by means of a step-by-step approach which is repeated in detail for each *Placita* chapter, required considerable time and space. Its study is still recommended because of its meticulous and detailed analysis. It has meant that we are in a much better position to present the cumulative evidence for the entire compendium, but now in a manner that is both more compact and more complete. The general analysis of *Aëtiana* vol. 2.1 has therefore been fully integrated into the present

(here Eusebius, ps.Galen, Cyril, and Qusṭā ibn Lūqā), Stobaeus and Theodoret, together with Achilles as *testis secundus*.

85 This text and translation was reprinted on facing pages for the sake of convenience at the end of the volume, M–R 2.2.664–715.

86 Particularly in the case of ps.Galen and Qusṭā for the tradition of ps.Plutarch, and to a lesser extent with regard to the information of the Laurentianus ms. for Stobaeus.

edition and commentary, and the same can be said, *mutatis mutandis*, for the results of the partial and preliminary analysis, text and translation published in *Aëtiana* vol. 2.2. It goes without saying that in the intervening eleven years that have been spent preparing the present edition, our understanding and insights have developed and progressed, aided by contributions and critiques of other scholars. Accordingly it not seldom occurs that on (mostly minor) points we have revised our views. Such changes and developments are noted wherever relevant.

3 Reconstructing the Text

3.1 *The Doxographi Graeci of Hermann Diels*

The extraordinarily impressive tome of the *Doxographi Graeci* is primarily devoted to two tasks: (1) reconstructing the text of the Aëtius resuscitated by its author; and (2) determining the position of this Aëtius in the context of the doxographical tradition which his *Doktorvater* Usener had postulated as deriving from Theophrastus.⁸⁷

As can be seen in the schema taken up as Appendix 1 to this Introduction, Diels' stemma or tree diagram of the tradition consists of a cascade of single principal sources with side branches. It begins with the lost doxographical treatise of Theophrastus,⁸⁸ written at the turn of the third century BCE, which Usener and he (followed by numerous other scholars) called Φυσικῶν δόξαι but we call Φυσικαὶ δόξαι. The next stage is the hypothetical treatise he called *Vetusta placita*, which is to be dated to the beginning of the first century BCE. The third stage is the *Placita* of Aëtius, an updated epitome of the *Vetusta placita*. This is also lost, but unlike its predecessors is capable of being reconstructed from its three main witnesses and incidentally from a few others, with some additional help from later authors who epitomized, cited or in one case translated the earliest of these witnesses, namely ps.Plutarch.

Diels postulated the *Vetusta placita* as an intermediary stage in this process. It enabled him to account for parallels between Aëtius on the one hand and

87 Usener in his 1858 dissertation on the fragments of Theophrastus cites parallels in various authors, many of whom are witnesses to Aëtius in Diels.

88 This was Usener's view already, but the detailed reconstruction and identification of what was supposed to come after Theophrastus was the work of Diels. For the title of the treatise see below, n. 330.

Philodemus, Cicero, and Soranus in Tertullian for the psychology of Book 4 on the other, and between Aëtius and Varro in Censorinus for the physiology of Book 5, to cite the most important evidence. The parallels are of course clearly present, and one is grateful for Diels' admirable exposition and comparison of the details. Before he set to work a shared source had been assumed for ps.Plutarch and these other authors. The *Vetusta placita* hypothesis is what remains of this earlier view once Aëtius, the new player who Diels introduced, is subtracted.⁸⁹ Diels later identified this intermediary work, 'more precisely', as he stated, as 'Poseidianische Ἀρέσκοντα'.⁹⁰ But this is pseudo-precision, and it had escaped his notice that Chrysippus had already used a version of ch. 4.5 on the regent part of the soul.⁹¹

Diels also set out to construct additional proof for the Theophrastean antecedents of Aëtius by isolating the postulated parallel Theophrastean evidence in other sources. For this purpose he adroitly exploited the fashionable technique of tabulation.⁹² In his rather overwhelming *Theophrasteorum apud excerptores conspectus* in five parallel columns, he placed side-by-side fragments of Hippolytus' *Refutatio omnium haeresium*, the *Stromateis* of the other ps.Plutarch whom we cited above in section 2.5, Diogenes Laertius, Aëtius, and finally Theophrastus.⁹³ He moreover believed that the disposition of Theophrastus' foundational treatise was mirrored in the compendia of ps.Plutarch and Aëtius and the *Vetusta placita*:⁹⁴ 'principles, God, cosmos, *meteora*, psychology, physiology'.⁹⁵ This seems to be, and in a way really is, spot on. But in fact the Theophrastean evidence that he had for this was quite limited. It is confined to the *De sensibus* on the one hand ('psychology'), and the fragments on the 'principles' from Thales to Plato in Simplicius' Commentary on the *Physics* on the other. Moreover, it is by no means certain that these texts belong with the so-called Φυσικῶν δόξαι. Nevertheless, he was right in positing a connection between the *De sensibus* and Aëtius Book 4, though it is rather more limited than he suggested, and there are also a few traces of Theophrastus on prin-

89 See our account of this earlier stage in M–R 1.49–63.

90 Diels (1893b) 101–102.

91 See M–R 3.125–157, a paper first published in 1989.

92 As noted above, text to n. 67.

93 *DG* 133–144.

94 *DG* 183.

95 Also see the summing up of the results of the *DG* in the preface to the first edition of *VS*, partly reprinted in all subsequent editions. But note the difference with the *Vetusta placita* in six Books at *DG* 181–183: he has dropped the fourth Book *De terrestribus* (cf. above, n. 62).

ciples in Aëtius Book 1. But there is no comparable Theophrastean evidence for ‘cosmology’ and ‘physiology’, unless one includes two references to him in the Aëtian doxai on the moon in Book 2.⁹⁶

Parallel evidence for a few medical lemmata included in the ‘physiology’ turned up later, when the newly found Anonymus Londiniensis was published by Diels in 1893, but the relevant section of this work could not be ascribed to Theophrastus.⁹⁷ In 1918 an Arabic translation of a *Metarsia*, attributed to Theophrastus in the manuscripts, was published and made accessible by Bergsträsser. This treatise contains parallels to several (but not all!) chapters of the *meteora* in Book 3, so it attests to Theophrastus’ limited influence also for this part of the *Placita*,⁹⁸ and there is also a small amount of evidence from Theophrastus’ *On Waters*. The relevance of the *Metarsia* is diminished by a conspicuous lack of name-labels, explained by the first scholars who studied the *opusculum* as due to abridgement by the translator, but this looks like an argument *pour le besoin de la cause*. Diels rather surprisingly appears to have paid no attention to this new evidence. There is at any rate not a single reference to it in his *Handexemplar* of the *Doxographi Graeci*.⁹⁹

A further consideration is that, as we saw in section 2.8 above,¹⁰⁰ the sequence of themes in the five Books of Aëtius derives from Aristotle and the Stoics, where in fact we do have evidence. ‘Principles’ and ‘God’ are treated in Aëtius Book 1. Such separate and prominent treatment of the divinity conforms to Stoic and not to Peripatetic doctrine.

Turning now to the actual reconstruction of Aëtius’ treatise, we should first note that at one time Diels toyed with the idea of providing a unified text.¹⁰¹ This was to be printed on the left page, with testimonia and an overview of differences between ps.Plutarch and Stobaeus underneath. Alongside this Aëtian text he thought of placing the source texts on the right page in parallel columns: to the left ps.Plutarch, with apparatus criticus and with the text of ps.Galen underneath (earlier in his dissertation of 1870 he had proved the *Philosophos historia* to be an epitome of ps.Plutarch). To the right there would be the text of Stobaeus, also with apparatus criticus. As we already noted above in section 2.8,

96 In chs. 2.25 and 2.29; see the use of the horizontal brace across ‘Aetii’ and ‘Theophrasti fragm.’ at DG 138 and 140.

97 See Diels (1893a) and (1893b); Manetti (1999) and (2011).

98 See Daiber (1992); also Bakker (2016), who however doubts the attribution to Theophrastus (we do not). See further below, Introduction to Book 3, section 6.

99 We have checked the publication of Diels’ *marginalia* by Oniga Farra (1985).

100 Cf. above, n. 72 and text thereto.

101 See M–R 1.19 for his letter to Usener of July 10 1872.

utilizing such immediately effective synoptic presentations for source-critical purposes was a current technique in those days.¹⁰²

In the end Diels dropped the left page with its unified text and devised a modified version of the right one. In the *Doxographi Graeci* of 1879 he printed on both the left and the right pages a synoptic text in two columns, with on each page the numbered chapters and lemmata of ps.Plutarch to the left and the lemmata of Stobaeus, also numbered, to the right, each with its own apparatus criticus.¹⁰³ On each page too, underneath the column on the left he placed 'testimonia' for ps.Plutarch's text,¹⁰⁴ and on the column on the right 'excerpts from Aëtius made by others', esp. Theodoret. The texts that could not be fitted in, that is, the complete texts of ps.Galen and of the other related doxographical authors: Arius Didymus, the purported *Urquell* Theophrastus for principles and senses, abstracts from Philodemus and Cicero in twin columns, Hippolytus *Refutatio omnium haeresium* Book 1, ps.Plutarch *Stromateis*, and abstracts from Epiphanius and Hermias, were printed separately further down.

It should also be noted that this text of Stobaeus in the right column is not always uncontaminated. Because Diels contended, correctly as one must admit, that ps.Plutarch had preserved the chapter-and-lemma order of Aëtius, he sometimes modified the order of the lemmata excerpted from Stobaeus to the right so that it conformed to the order of ps.Plutarch's chapter on the left, (re)numbering them in the process, for instance in ch. 1.3. He also found room in between or elsewhere in a chapter for lemmata not paralleled in ps.Plutarch. Again this was in general correct, as one must admit. Most of the time Stobaeus writes out the lemmata in their original order, even when he intersperses them with non-Aëtian material, or coalesces a chapter used as matrix (as for instance ch. 2.13) with material from other Aëtian chapters. It is the lemma order of these other chapters that is disturbed, and has to be reconstructed. The snag is that the impression can hardly be avoided that this reconstructed order actually is the original Stobaeian order, which of course it is not. In this shared sequence as reconstructed Diels also inserted the newly numbered excerpts from Theodoret, though without adding the text, for which the reader had to consult the apparatus in the right column below. So he achieved a complete numbers system for Aëtius, the numbers of the lemmata interlocking like the teeth of a zipper. The effect of this (re)arrangement is that the relationship in terms of microstructure between the chief witnesses is made to appear closer than it actually is. This, then, is the *Aëtius redivivus*, but there

102 See above text at nn. 67 & 92.

103 *DG* 273–444.

104 We have called this *traditio ps.Plutarchi*. Note that his collection differs in part from ours.

again it is not, for although the witnesses have been Aëtianized in the way we described, they still remain separate. Simply put, it is a brilliant but ultimately unsatisfactory compromise.

The first subsequent use that Diels made of his text collection in the *Doxographi Graeci* occurred in 1901. Among the testimonia or A-fragments in the *Poetarum Philosophorum Fragmenta* he included selected Aëtian lemmata (and fragments of Hippolytus and Diogenes Laertius etc.) in their purported Theophrastean order of topics. The next move was to reprint these and add others in the corresponding chapters of the single volume *Fragmente der Vorsokratiker* published in 1903 with of course entirely new selections included in the numerous chapters dealing with prose authors. These were then augmented here and there in the subsequent editions of the text in two volumes.¹⁰⁵ The crucial role played by the Aëtian evidence is unmistakable. In the *Index locorum* in two columns by Diels, with additions by Kranz, first found in the third volume of fourth edition of 1922 of the great work, the references stretch over no less than four-and-a-half pages.¹⁰⁶ From their basis in the *Poetarum Philosophorum Fragmenta* of 1901 and the *Fragmente der Vorsokratiker* of 1903 and later editions, the Aëtian fragments began to colonize other fragment collections and the ever-increasing secondary literature.

In Diels' two fragment collections the lemmata abstracted from either ps.Plutarch or Stobaeus, depending on who has more on offer, are invariably cited with the abridged author name 'Aët.', plus reference to the Aëtian numbers system conveniently followed by the page number of the *Doxographi Graeci*.¹⁰⁷ Occasionally lemmata from two witnesses are coalesced and the result then also cited as 'Aët'.¹⁰⁸ But it should be further noted that several lemmata abstracted from Theodoret are not cited as straightforward Aëtian texts but announced as 'Theodoret. aus Aëtios' (with reference to *DG* added).¹⁰⁹ There is no need to assemble full lists of these types of reference. It should be noted that printing the abstracts from Theodoret in the *Doxographi Graeci*

105 We generally limit our references to this work to the first 1903 edition and the final edition revised by W. Kranz (1951–1952).

106 There is no *index locorum* in Diels (1901a) and (1903).

107 E.g. for Thales 1A23 *PPF* = 1A23 *VS* and 11A23 *DK*, the reference is Aët. I 7, 11 (D. 301); cf. in our edition ch. 1.7.2 with the reference to *DK* given in the first apparatus under the text.

108 E.g. Heraclitus 12A15 fourth text *VS* = 22A17 *DK*, where a Theodorean and ps.Plutarchean lemma have been coalesced, not correctly in our view; cf. in our edition ch. 4.7.2 and app. crit.

109 E.g. at Xenophanes 11A36 *PPF* = 21A36 *VS* and 31A36 *DK* 'Theodoret. IV 5 aus Aëtios (D. 284 not.);' cf. in our edition ch. 1.3 *Testes primi* = Theodor. *CAG* 4.5 (i). The *Index locorum* of *Vors.* lists six separate references to Theodoret, five of which are to 'Aëtian' passages.

underneath the twin columns of ps.Plutarch and Stobaeus instead of placing them alongside in a third column could not have only been due to the fact that such a column would have been for the most part empty. It would surely have been possible to add narrower columns alongside the other two for those chapters where parallel texts were available.

The present-day digital resource, the *Thesaurus Linguae Graecae*, aware of the problem of multiple witnesses, presents ps.Plutarch as ps.Plutarch, and Stobaeus and Theodoret not only for themselves but also together as Aëtius, a not very satisfactory but not incomprehensible decision. Editors of texts and fragment editions have tried out various other solutions. Mansfeld in the Reclam *Vorsokratiker* of 1983–1986 added references to the witness(es) of selected Aëtian text fragments. Gemelli Marciano in the Tusculum *Vorsokratiker* of 2006–2010 added references to the witness(es), but not consistently. Graham in his *Texts of Early Greek Philosophy* of 2010 added abridged references to the witness(es) for the texts he printed.

Others have opted for printing the texts of the individual witnesses in full. Van der Eijk in his renowned edition of the fragments of Diocles of 2000 distinguishes between a, b and c fragments: e.g. under fr. 24a we find a reference to Aëtius 5.14 with the relevant page of the *Doxographi Graeci* but no text, under b the text of ps.Plutarch 5.14 with reference to Lachenaud and oddly not to the *Doxographi Graeci*, under c that of ps.Galen c. 118 with reference to the relevant page of the *Doxographi Graeci*.¹¹⁰ Note that there are no Stobaeian parallels for Diocles, since Stobaeus is almost entirely lost for Book 5.

The solution of Wöhrle in his very useful edition of the remains of Thales of 2009 as pilot volume of the *Traditio Praesocratica* series is to gather all the texts of ps.Plutarch together as frs. 146–165, those of Stobaeus as frs. 339–371, those of ps. Galen as frs. 391–405, and even four from Qusṭā ibn Lūqā (because of ‘relevant differences’ from the original) as frs. 488–491, thus separating them as far from each other in the edition as their source authors are chronologically.¹¹¹ The laudable motive behind this breakup is to reveal the

110 The same division is applied in Diocles frs. 42, 48, 51 and 51. Unfortunately Van der Eijk’s view of ps.Galen is a little inaccurate. He writes (2000–2001, 43): ‘Pseudo-Galen is believed to be derived from Pseudo-Plutarch and to have no independent value; he sometimes abbreviates the report (as here) and sometimes creates considerable confusion’. Then why include him?

111 Same procedure in Wöhrle (2012) for Anaximander and Anaximenes, and Strobel–Wöhrle (2018) for Xenophanes. On the methodology of this series see McKirahan (2018) at M–R 4.480–490. The elaborate cross-references at the end of many doxai are no more than a stop-gap measure.

particular nature of each of these contributors,¹¹² but this can better be realized by other means. To the uninitiated reader the dispersal will suggest that these texts are unrelated. The separation by almost 250 pages of the Arabic translation from its Greek original cruelly reveals the drawbacks of the system.

The cautious Sharples in the introduction to his useful collection of translated texts of the Peripatos (2010) writes as follows: 'I have ... given reference to 'Aëtius' only in cases where a passage occurs in both witnesses [i.e. ps.Plutarch and Stobaeus]; where it is found only in one I have given the reference to that witness first and then added the reference to 'Aëtius'.'¹¹³ Isnardi Parente in her edition of Xenocrates (second ed. by Dorandi 2012) prints both sources for ch. 1.3.22, Stobaeus by the name of 'Aetius' as her fr. 21, Theodoret by the name of 'Teodoretus' (sic) as her fr. 22, calling the latter a 'dull repetition' by 'probably the same doxographer Aëtius'.¹¹⁴ It is clear that such diagnostic solutions can only be provisional. They are not really helpful, both with respect to the traditions involved and to the relative value of these testimonia for the reconstruction of the project of a doctor or a philosopher.

Mansfeld–Primavesi in the revised Reclam *Vorsokratiker* of 2011 replaced the selected Aëtian lemmata deriving from Book 2 of the earlier edition with the reconstructed texts in a single column of *Aëtiana* vol. 2.2 of 2009, against the background of the analysis offered in that study. This was a limited first, since the evidence of the other Books was not yet available.

Returning to Diels, we should note in conclusion that in the *Doxographi Graeci* he also printed a few chunks of text in the Stobaeian column that should be ascribed to Arius Didymus, in spite of hesitations that he himself expressed in the *Prolegomena* and the apparatus criticus. These texts should have been incorporated in his pioneering collection of fragments of Arius Didymus further down.¹¹⁵ We note that his decision to put the Peripatetics before the Stoics¹¹⁶ obscures the fact that in one and the same Stobaeian chapter both schools are quite often cited, which for us may be a factor in assigning an anonymous passage to Arius Didymus rather than Aëtius.

¹¹² Wöhrle (2009) 5–6.

¹¹³ Sharples (2010) xvi.

¹¹⁴ Isnardi Parente (2012) 262.

¹¹⁵ See the analysis of Runia (1996b), reprinted in M–R 3.313–332, aspects of which are further advanced in the present edition.

¹¹⁶ He may have thought of the large fragments on ethics in the *Eclogae ethicae*, but there the order is not chronological, as the Stoics come first.

3.2 *A New Edition without Columns and with Commentary*

Diels' edition of Aëtius in the *Doxographi Graeci* is a magnificent and virtually exhaustive collection of the ingredients (in as far as they were available to him) which one needs to form a picture of the compendium and its text. In the end, however, his design does not work well, as one realizes when looking at the way he uses this documentation in both of his subsequent fragment editions. Where only a single witness is extant he had of course no choice, but where two or more witnesses are to be had, he as a rule chose the most complete version without revealing the existence of a parallel transmission. Occasionally he coalesced two witnesses. But as we have seen in the previous section, in all those cases apart from a few exceptions regarding Theodoret, he simply attributed these texts to Aëtius. The various contributions of the witnesses, including the representatives of the *traditio ps.Plutarchi*, remained invisible. To be sure, he always referred back to a page in the *Doxographi Graeci*, but looking this up would not help the average reader, who normally is blissfully unaware of the complicated tradition and of the hardly less complicated hypothesis behind the reconstruction.

Because we felt uncomfortable with this situation, we decided in the early nineties of the last century to try and see if a reconstruction in a single column, i.e. one without parallel columns, would be a possible and practicable undertaking. The result was vol. 2.2 of *Aëtiana*, the *specimen reconstructionis* of Book 2 in a single column, already discussed above in section 2.8. This *Lesetext* seems to have been little used.¹¹⁷ It has never been critiqued, apart from the misguided attempt of Bottler, who for her edition of Books 1 and 2 excludes all irreducible chapters and lemmata, and throughout refuses to accept Theodoret as the crucial third witness.¹¹⁸

In the present edition we now offer a unified text of the whole treatise, with a substantial commentary on the constitution of the text of each chapter, on its structure and contents and its relation to the various traditions, accompanied by generous selections of related doxographical and other evidence. We print the full evidence for the Aëtian text of Theodoret and the *traditio ps.Plutarchi*, but have decided not to include the far more voluminous texts of ps.Plutarch and Stobaeus.¹¹⁹ Actually the texts of these two primary witnesses are for the most part present in the single column of the Aëtian text as reconstructed in the present edition, and their readings are fully reported in our positive appar-

117 An exception should be made for the research on Presocratic cosmology by the Dutch scholar Dirk Couprie.

118 Bottler (2014).

119 On this decision see further below sections 4.2.15 and 4.3.4.

atus criticus. Whoever wishes to look at them separately as well as together *uno obtutu* will find them conveniently accessible in the parallel columns of the *Doxographi Graeci*, which it would be otiose to reproduce. The contribution of Theodoret to the reconstructed text is far less important. As we have seen in section 2.5 above, his worth is in his role as third witness for the original treatise. His less voluminous excerpts are always printed as the first of the *testes primi*.

Reference to the presence and location of lemmata in one or two or all of the three primary witnesses is also supplied by the presence of the numbered sigla P, S and T at the end of the Greek text and English translation of each individual lemma in all chapters.

We also print the textual evidence of the representatives of the proximate tradition in full, and in the final part of each chapter give generous selections from a wide array of source and other parallel material.

The positive apparatus criticus naturally signalizes all the relevant contributions of the main witnesses including the *traditio ps.Plutarchi*, and reports all *variae lectiones* that are significant. But it also records omissions, minor or not so minor *lapsus calami*, paraphrases that are elaborate but misleading or wrong, and downright mistakes. This evidence is essential for understanding the relations between the representatives of the unusually complex tradition. The extensive positive apparatus is a necessity, for there is a considerable difference between editing a single text from a multiplicity of manuscripts together with a few quotations, where a negative apparatus normally is all that is needed, and reconstructing a single text from a multiplicity of individual sources, each of which has its own manuscript tradition or tradition of indirect transmission.

Two further important differences between the Dielsian and our edition require further explanation. Whereas the two columns and apparatus of Diels' text, supplemented by his remarkably thorough and full *Indices nominum et verborum*, made the text itself very accessible (if not necessarily well understood), this cannot be said for the process of determining that text and placing it in its context both in the work itself and in the wider tradition of ancient philosophy. To achieve this understanding, the user was asked to delve into the complexities of the 263 page 'Prolegomena', to which Diels repeatedly refers in the apparatus to the text. But this was to ask for the well-nigh impossible. From the very outset it was recognized that this introduction, written in a rather pretentious scholarly Latin, is almost impenetrable for all but the most determined and knowledgeable reader. Susemihl's remark that it needs a Delian diver, echoing Socrates' comment on Heraclitus, is often quoted.¹²⁰

120 Based on Diogenes Laertius *V.P.* 2.22; see M–R 1.66 and on the 'Prolegomena' 1.73; as noted

It needs to be recognized that much in the *Placita* that requires explanation relates to the particular context of the doxa or chapter. Lacking a commentary, there was much that Diels was unable to explain. By attaching a commentary to each chapter, we are able to remedy this deficiency. To the extent practicable, we not only place each segment of the text in its context, both in the work itself and in the wider tradition, but we also explain every move that we make in our reconstruction. In addition, we analyse each chapter in relation to its structure and macro-content. As for the content of each doxa, we explain the more important features, but it is clear that at this point there are limits. The process of commentary is in principle endless and one has to draw the line somewhere. It cannot be our aim to give a comprehensive commentary on what amounts to a summary of the entirety of pre-Imperial natural philosophy.

A further feature of our edition is the placement of a collection of Further Related Texts at the end of each chapter. As already noted, the extent to which Diels was able to locate the contents of Aëtius' compendium in the tradition, not only of what he dubbed 'doxography' but also in the wider tradition of Greek philosophy as it developed up to the first century CE, was quite remarkable. But here too, as we touch on in more detail below in section 5.1, the evidence is both scattered in the rest of the *Doxographi Graeci* and hidden away in its 'Prolegomena'. In our edition we have linked this contextual material to each chapter where it is most relevant, usually citing the texts in full. This method also gives us the opportunity to give a much fuller picture of the sources that the doxographical tradition was based on, in Hellenistic philosophy, Aristotle and Theophrastus, as well as Plato and the philosophers before him. In so doing we always link this material to the concrete texts in the relevant chapters and their contents.

3.3 *Apologia for Our Method of Reconstruction*¹²¹

It seems that the *Placita* attributed to Aëtius occupies a unique place among the literary writings known to us from antiquity. There is no comparable work which has failed to survive in its original form but can be so fully reconstructed from ancient evidence.¹²² As was stated above in section 2.8, by using advanced statistical techniques it can be demonstrated that about 86 % of the original work is extant, distributed among the three witnesses. More precisely,

on p. 105, later in life Diels himself admitted that it needed to be 'übersichtlicher', but he never presented a more accessible version.

121 For the argument of this section in more detail see Runia (2020).

122 See the comparison with reference to six different kinds of incompletely extant texts in Runia (2020) §5.

the extant remains in our reconstruction amount to 769 lemmata distributed in 135 chapters. But the evidence for these lemmata is unequal. Only 7% are witnessed by all three witnesses; 41% by two of the three; and 52% by just a single witness. This statistic does not include the chapter headings of the work. Of the 133 headings in the *Epitome*, only 100 are witnessed by Stobaeus, who in turn provides evidence for two more which ps.Plutarch did not retain. This means that 35 headings are not attested by more than one witness.¹²³ Moreover, there are 18 cases where the entire chapter is witnessed only by ps.Plutarch. These include lengthy monolemmatic chapters such as 1.4 on how the cosmos was constituted and 1.6 on how human beings gain knowledge of the deity, and also 4.11 and 4.12 on Stoic epistemology, all of which deviate from the usual method of the *Placita*.¹²⁴

The state of affairs conveyed by these observations might give rise for concern. More than half the lemmata of our reconstruction, a quarter of the chapter headings and more than a seventh of all its chapters can be described as ‘irreducible’ texts. By ‘irreducible’ we mean, as the etymology of the term indicates, ‘what cannot be led back to’, i.e. back to a secure multi-witnessed text. The crucial innovation of our edition is that its text is presented in a single column. As noted above in section 2.8, the *specimen reconstructionis* that we made of Book 2 demonstrated that this was possible. What does the prevalence of such ‘irreducible texts’ mean for the status of the text that we have produced.

Much depends here, as we have already seen, on the decision made by Diels to base his reconstruction on the macro-structural framework supplied by the *Epitome*. To our knowledge this has never been questioned. Much of that framework is reinforced by the evidence of Stobaeus, who used it for the basic structure of his own Book 1 of the *Eclogae*. Importantly, it is also confirmed by Theodoret, not by his actual borrowings which are quite limited, but by the fact that when he does paraphrase, he always follows the sequence that we know from the *Epitome*.¹²⁵ It is theoretically possible that the Epitomator may have added material of his own, but not at all likely. His task was to convey the essen-

123 On some occasions Theodoret alludes to chapter headings, e.g. at CAG 4.22 to A 2.21–22 and CAG 5.22 to A 4.5. The latter text is the only place where he confirms a heading in P not attested by S.

124 The complete list of such chapters is 1.1, 1.4, 1.6, 1.8, 3.6, 3.12, 3.14, 4.1, 4.11, 4.12, 5.1–5, 5.22, 5.23, 5.29 (not including the four proemia which are only found in P). In the case of 4.12 the heading *Περὶ φαντασίας καὶ χρηρῆς* in Photius is probably an indication that S took up material from this chapter.

125 See above sections 2.3–5.

tials of the original work, not to create a new work (unlike ps.Galen).¹²⁶ It is easy to show that the ps.Plutarchean material not paralleled in Stobaeus has a legitimate place in the kind of compendium that Aëtius was putting together, including the important introductory passages.¹²⁷

It is also important to examine this question of irreducibility at the level of the individual lemmata, of which there are 769 in our reconstruction. From Diels onwards attention has been directed almost exclusively to the lemmata evidenced by both ps.Plutarch and Stobaeus (the P/S lemmata).¹²⁸ This has no doubt been inspired by his choice to present the reconstruction in two columns. But for the full legitimization of the Dielsian hypothesis and our development of it, it is no less important to look at the lemmata evidence furnished by Stobaeus and Theodoret together, that is, the S/T lemmata, which exclude any ideas that the bishop might have only excerpted the *Placita* via Eusebius or some other version of ps.Plutarch's *Epitome*.

In fact, as the table in Appendix 3 shows, there are no less than seven categories of lemmata. In addition to the P/S and S/T lemmata, there are also doxai recorded by all three witnesses (P/S/T). Then there are also a number of P/T texts, preserved by ps.Plutarch and also attested by Theodoret. Finally there are the doxai to which we have access through the testimony of a single witness only, of which of course there are three. The table confirms, as already noted, that only about 7 % of all lemmata are preserved (however fully) by all three witnesses (55 in total), 41 % by two (314), and the largest group of 52 % by one only (400).

The third (and largest) group are all, in terms of our definition above, 'irreducible' texts. But this is by no means as problematic as might appear at first sight. What must be done is evaluate the nature of the evidence that we have for each witness in the light of what we have come to know about the different methods that they used (and as we have summarised in section 2 above). It is apparent that by far the majority of lemmata stand in micro-environments (or Aëtian enclaves, as we have called them in sections 2.4 and 2.5 above) where there can hardly be any doubt that they go back to the original work. As argued above, ps.Plutarch will have, in all likelihood, not added lemmata of

126 It should be noted that ps.Galen does not call his work an *Epitome*, but introduces the new title Φιλόσοφος ἱστορία.

127 See discussions at M–R 2.22–26, 147–148 (where it is suggested that chs. 4.11–12 may be a conscious effort to update earlier Peripatetic discussions with Stoic material), and below at these chapters.

128 Notably by Lebedev (1988), (2016), and by Bottler (2014), who makes these the entire basis of her research.

his own. If the other two witnesses import foreign material within sections of text recording the *Placita*, as Stobaeus does with extracts from Arius Didymus and Theodoret on one occasion with an extract from Clement and on another one with an account of the Eleatic Succession, this is generally obvious to the careful reader.¹²⁹ Just because a text is only known to us through a single witness only, this does not mean that its Aëtian status cannot be considered quite certain (although there will always be some dubious cases).

An additional element of uncertainty is introduced when we order the lemmata within a single chapter. The two main witnesses, because of the methods that they use, quite often display variation. In most cases analysis shows that ps.Plutarch retains the original order in his abridgement. Moreover, this order is very often confirmed by Stobaeus who, as we have already seen,¹³⁰ generally retains it as the default option unless his anthological techniques determine otherwise. Ps.Plutarch's practice conforms of course to what we have above called the law of least effort.¹³¹ But this assumption should not always be made blindly, as Diels tended to do. There are cases where it makes sense to prioritise Stobaeian practice above what is found in the *Epitome*.

Importantly, however, there is another kind of textual material which differs from those just discussed, but is none the less irreducible to a single multi-witnessed text. These are texts for which there is more than one witness, but which contain textual variants that cannot be reduced to each other. A clear example of such texts is found in the chapter headings of the compendium.¹³² As can be readily seen in the apparatus criticus to each chapter, these contain a remarkable amount of variation in their formulation. In many cases there are shorter and longer variants, less often there are quite different alternative versions. For example, for ch. 2.20 on the nature or substance of the sun there are four different formulations spread out over nine witnesses (including manuscripts and a secondary witness).¹³³ Such variation illustrates the intrinsic fluidity of the doxographical tradition, in which no particular formulation has a unique authority and compilers, users and scribes have the freedom to alter

129 On passages of Arius Didymus in Stobaeus see M–R 1.238–265; Algra (2018) 62–64, who states that ‘the careful approach taken by Mansfeld and Runia has led to conclusions that are, in my view, on the whole persuasive’ (p. 64). On the text at Theodoret *CAG* 5.24–25 taken from Clement *Strom.* 8.10.3–4, see Mansfeld (1990a) 3188 and also above section 2.5.

130 See above section 2.3 text to n. 6 and section 2.4 text to n. 14.

131 See above section 2.3 text to n. 4.

132 On these headings see our preliminary treatment at M–R 2.196–204.

133 These are: short, Περὶ ἡλίου; fuller, Περὶ οὐσίας ἡλίου; and two extended variants (Περὶ οὐσίας ἡλίου καὶ ὅτι δύο καὶ τρεῖς εἰσὶν, Περὶ ἡλίου καὶ ὅτι καὶ δύο καὶ τρεῖς εἰσὶν); for more details see Runia (2020) section 4.

as they wish. In this situation the editors can do no more than select the variant that is best attested and/or makes the best sense, particularly in relation to the contents of the chapter. This is an entirely reasonable procedure in light of the considerable variation that book titles and chapter headings always displayed in ancient writings, particularly those in the non-literary and technical sphere.

Name-labels, which play a key role in the method of the *Placita*, can also display irreducibility, though this in most cases does not give rise to great difficulties. Ps.Plutarch often reduces the number of names in the original work, as can be seen when compared to Stobaeus' fuller version. A striking case is found in the chapter on the cosmos where extended lists of eleven and nine names are reduced to a single formula and three names respectively.¹³⁴ Of course, if there is only a single witness for a chapter, then any such reduction remains undetectable.

But it also occurs quite often that there is variation in the body of the doxa itself. Those cases where a witness expands an elliptic formula, as Stobaeus sometimes does on account of his practice of coalescing doxai from different chapters, are usually easily spotted.¹³⁵ Much more difficult is when the witnesses furnish texts of the same doxa which differ on essential points.¹³⁶ Theodoret's paraphrases can usually be discounted. But ps.Plutarch and Stobaeus are purportedly excerpting the same text. Here careful textual analysis, assisted by knowledge of the methods of each witness, has to point the way. As editors of a reconstruction of a single text, we cannot avoid making choices. But the necessity to make such choices is compensated by the fact that they are fully documented. All the textual variants are available for scrutiny in the apparatus criticus. Moreover, in our Commentary we often explain the reasoning behind our choices.

What status, then, do we claim for our edition? It cannot have the same status as a fully critical edition of the transmitted text of an ancient work. Because of its incompleteness and because of the irreducible texts that it contains, it necessarily exhibits a greater degree of uncertainty. We—and those who consult our edition—will have to be content if the text it offers bears a well-reasoned resemblance to the lost original. Our edition is intended above all to provide a text for practical use. It presents all the evidence available for the understanding of the extant remains of the *Placita*. The greatest benefit that it brings is that it will open up to scrutiny all the features of the doxographical

¹³⁴ See ch. 2.1.3–4. A more difficult example in ch. 2.3 is discussed in Runia (2020) section 4.

¹³⁵ On this practice see above sections 2.4 and 2.5 final paragraph.

¹³⁶ For some salient examples see Runia (2020) section 4.

work of Aëtius, together with the tradition that he drew on and that drew on him, doing this to a much greater degree than has ever been done before.

4 Introducing the Witnesses to the Text

In this section we now proceed to give an overview of the authors and texts that we have used in producing our reconstruction and edition of the *Placita* attributed to Aëtius. Our focus is now on the origin, characteristics and present state of the texts that are available for use. It is also important to indicate the textual editions that we use for our reconstructed text and commentary. But first it will be worthwhile to define more exactly the various kinds of texts that are available to us.

4.1 *A Taxonomy of Authors and Texts*

In our edition we distinguish between four different kinds of authors and texts. Of these only the first two are regarded as witnesses to the lost original text of Aëtius. The taxonomy that we shall now set out refines the earlier distinction that we made between witnesses and sources.¹³⁷

- (1) *Primary witnesses (testes primi)* are those authors and texts which in one way or another have a primary relation to the original text. Their texts *go back in a linear fashion* to the original version of the *Placita*, although not necessarily directly. As we described in some detail in section 2 above, there are only three authors of which we can be certain that they actually used that text at first hand, i.e. had a copy of the *Placita* on their desk as it were. These were ps.Plutarch, Stobaeus and Theodoret. They are the key witnesses to the work. Of these ps.Plutarch stands out, not only because he—writing in the second century—is by far the earliest of these witnesses, but especially because his *Epitome* of the original work enjoyed considerable success and gave rise to a copious secondary tradition of usage. Authors such as Eusebius, ps.Galen, Cyril, and Quṣṭā thus are primary witnesses, but their knowledge of Aëtius' compendium is at second hand via ps.Plutarch. There is even usage at third hand. Two examples are Nicolaus of Rhegium, who in 1341 made a Latin translation of the epitome of ps.Galen, and the late 15th cent. paroemiographer Arsenius, who cites a section from ps.Plutarch which he actually copies out from his text of Eusebius.¹³⁸ But he nevertheless qualifies in our sys-

¹³⁷ See above n. 1.

¹³⁸ On Nicolaus see further below section 4.2.4. For Arsenius see *Apophthegmata*, Cent. 8 100c

tem as a primary witness because his text ultimately goes back in a linear relation to the original text. Stobaeus also has a secondary tradition but it is much more limited, consisting only of the report of his work's contents by the Patriarch Photius, unless one wishes to regard as such the incomplete index of chapters in the Laurentianus ms. Theodoret does not have a secondary tradition that we have to take into account.

- (2) *Secondary witnesses* (*testes secundi*) are those authors and texts which contain material which is very similar, often also in its wording, to that of the primary witnesses, but is *not* derived in a linear fashion from the original compendium. These texts are clearly drawn from doxographical traditions which were very close to those on which Aëtius' work was based. In an earlier volume we described these works as 'cousin writings'.¹³⁹ The most important of them are Achilles and Nemesius. The number of such authors and texts is quite restricted and it is of the nature of their evidence that they make only a very limited contribution to the constitution of the text. They are, however, of value for the task of understanding the more general tradition of the *Placita* texts, of which Aëtius' work is by far the best surviving example. In certain cases, such as Athenagoras and ps. Justin, because of the way that they paraphrase their sources, it is very difficult to determine whether they may have used either Aëtius himself or his epitomator directly or not, i.e. whether they are primary or secondary witnesses. When such uncertainty exists, we place them in the second category.
- (3) The *Proximate tradition* is a step further removed from the original work. It contains all those authors and texts which record material derived from the broader dialectical-doxographical tradition, which includes not only the witnesses mentioned so far but also texts which present the doctrines of ancient philosophers, but do not necessarily use the particular method of recording doxai of the *Placita* type. For example authors using the Περὶ αἰρέσεων method, such as Arius Didymus, fall under this category. It has to be said that the difference between Secondary witnesses and the Proximate tradition is one of gradation. An interesting example is found in the evidence supplied by Philo of Alexandria, very likely an older contemporary of Aëtius. The summaries that he gives of key questions and doxai on the heavens and the soul clearly go back to material very similar

Von Leutsch, the text of 1.10 Περὶ ἰδέας which he copies out from Eusebius *PE* 15.45, cited among the witnesses of ch. 1.10.

139 See M–R 1.305, where we introduced the term, and also 331.

to that from which Aëtius drew his stock.¹⁴⁰ Similarly Cicero's account of theological doxai in *De natura deorum* Book 1 and the parallel text in Philodemus' *De pietate* reveal close parallels to the chapter on theology in Aëtius 1.7, and for this reason Diels included them in parallel columns in the *Doxographi Graeci*.¹⁴¹ These texts could have been placed among the secondary witnesses, but the fact that they are dependent on texts that clearly antedate Aëtius' compendium have led us to place them in the proximate tradition. This tradition will be further examined in section 5.1 below.

- (4) There remain *Sources and other related texts*. This category contains all the remaining authors and texts which can shed light on the contents of Aëtius' compendium, but have a more distant relation to it because they do not belong to the doxographical tradition narrowly defined.¹⁴² They include texts which provide the source-material for the doxai which the compendium records: very little from early Greek philosophy, more in Plato, and copious amounts in Aristotle. They also include many texts in the post-Aristotelian period up to the end of antiquity and beyond. We discuss aspects of this category of texts in sections 5.1–2 below.

It should be noted that in our edition we treat the first two and last two of these categories quite differently. The first two are listed together at the beginning of each chapter and to a considerable extent (but not completely, as will be explained below) they are printed in full. The last two are presented as Further Related Texts at the end of each chapter.

Finally, we point out that there is a very important distinction that must be understood in relation to these four categories of texts. The criterion for inclusion as a primary witness is *absolute*: a text either belongs to this category or it does not, depending on whether it has a linear relation to Aëtius' original text (though this can be at first or second hand, or even further removed). In the case of the other three categories inclusion is *relative*, depending on what kind of relation exists to the doxographical tradition, whether narrow or more broadly conceived. As already noted, however, for some texts it is not possible to determine with exactitude whether there is a linear relation to Aëtius, or more commonly, to ps.Plutarch. In these cases they can be regarded as either primary or secondary witnesses and their precise status in our scheme remains uncertain.

140 See our text and commentary on chs. 2.11, 2.13, 2.25, 4.2, 4.5.

141 See ch. 1.7 and Diels *DG* 529–550. His text of Philodemus is now obsolete.

142 For a current understanding of this tradition see Mansfeld (2016d).

4.2 *The Primary Witnesses: The Epitome of Ps.Plutarch*

The epitomator ps.Plutarch, as just noted above, occupies a special place because he is the earliest and because he bears witness to the most copious amount of the original text.¹⁴³ Moreover, there is an extensive tradition that depends on him, which probably led to the original work becoming a rarity. We thus commence with his work and its tradition.

4.2.1 The Papyrus and the Manuscripts

As noted above in section 2.3, an unknown author produced an epitome of the *Placita* at an unknown location probably in the second half of the second century CE.¹⁴⁴ He is certainly not to be identified with the famous Plutarch of Chaeronea, whose name was appropriated for the pseudonymous work. The earliest directly transmitted text of the work is the papyrus P.Ant. 85 & 213, found in Antinoopolis in Upper Egypt and dated to the third century CE by its editor J. Barns.¹⁴⁵ It consists of twelve small fragments from what clearly was a complete codex of the work. In all they contain about 800 letters of text from 20 chapters, spread out throughout the work with the exception of the first book.¹⁴⁶ They give fascinating information about the early state of the work, including a possible different book division,¹⁴⁷ and also interesting insight into often rather careless scribal practices, e.g. omissions and haplography.¹⁴⁸ In one case at ch. 5.1.1 the papyrus offers a fuller and superior text. It is also interesting that it appears to furnish a short chapter heading for ch. 3.16 in contrast to the remainder of the P tradition. For the most part, however, the textual material offered is too scanty to be of much assistance for the constitution of the text. The text of the papyrus as edited by Barns is presented for the relevant chapters under *Testes primi* and all variant readings of the papyrus are recorded in the apparatus criticus to the text.¹⁴⁹

143 For the exact statistics see above at n. 5 and text thereto.

144 See the fuller account at M–R 1.126–130.

145 Barns–Zilliaccus (1960), (1967).

146 Distribution per book is: chs. 2.23, 2.25 (2); 3.7, 3.11, 3.15, 3.16 (4); 4.8, 4.11, 4.22, 4.23 (4); 5.1, 5.3, 5.4, 5.7, 5.13, 5.15, 5.20, 5.21, 5.23, 5.24 (10).

147 The number 42 at ch. 5.4, on which see M–R 1.127 and ch. 5.4 Commentary C.

148 Omitted lemma A 5.1.2; name 2.25.10; and words at A 3.15.6, 5.10.1 etc. Haplography at A 3.16.5, 4.23.2–3, 5.7.2.

149 It should be noted that Barns very understandably takes Diels as his starting-point for filling in the missing gaps and often finds that the Dielsian text does not fit well. This suggests that the codex may have had many readings that differ from the manuscript tradition. But the editor could not work with an adequate text of the entire tradition. In one case we have been able to make use of a further reconstruction by O. Primavesi; see ch. 5.1 Commentary D(b).

The full Greek text of ps.Plutarch's *Epitome* is transmitted in almost complete form in about 20 Byzantine manuscripts, of which only five are of independent value.¹⁵⁰ The oldest and best is the Mosquensis 339 (12th cent.), complemented by the Marcianus 521 (13th/14th cent.). A slightly different interlinked tradition is the Planudean family, consisting of the Ambrosianus 859 (shortly before 1296), the Parisinus 1671 (dated 1296), and 1672 (dated shortly after 1302). Other mss. derived from these five are of almost no value. All these manuscripts have been shown to derive from a single archetype to be dated to about 1000.¹⁵¹ It cannot be said that the quality of the text preserved in this archetype was high. The text of the Byzantine mss. is riddled with errors and lacunae. In the edition of Mau—to be further discussed below¹⁵²—*obeli* proliferate with alarming frequency.¹⁵³ An egregious example is found in ch. 2.11 on the substance of the stars: the final three lemmata are fused into a single sentence which attributes a doxa to Aristotle that is a strange mixture of the familiar and the incomprehensible. Another example involving Aristotle is found at ch. 5.23, where the defective name-label becomes the adjective τέλειος, which forces the copyist to improvise, so that the succession of the first two doxai becomes obscured and a third disappears completely. But the text of the direct tradition at least has the virtue of being nearly complete. Through the indirect tradition of ps.Galen and Qusṭā we know of only six lemmata wholly missing, all but two of which occur towards the end of the work (5.19–29).¹⁵⁴ Evidently the archetype was damaged at the end, as often occurs. We return to the Byzantine text of ps.Plutarch below (section 4.2.15) after first surveying the extensive indirect tradition of the work.

4.2.2 Eusebius

The first writer to utilize ps.Plutarch's *Epitome* whom we can date with accuracy is Eusebius of Caesarea (c. 263–339).¹⁵⁵ In his *Praeparatio Evangelica*, writ-

150 For a brief discussion of the Byzantine manuscripts see M–R 1.171–173, with further references. A complete list of the mss. is given by Lachenaud (1993) 64–65.

151 As postulated by Diels in his stemma at *DG* 40; cf. also M–R 1.172.

152 Section 4.2.15.

153 There are 64 in total in a text of 104 pages.

154 Extra lemmata in ps.Galen are A 2.20.15; 3.1.10; 5.19.5; 5.23.3. One of these is also in Qusṭā: 5.19.5. But he alone also records 1.21.2a and 5.29.3, as well as fuller versions of 5.27.2 and 5.29.2 (and the name-label in 5.30.2). So six doxai in total are to be added to the 557 preserved in the direct tradition.

155 A lengthier account of Eusebius as witness for the *Placita* is given in M–R 1.130–141. On the Patristic authors Athenagoras and ps.Justin, who may have utilised the *Epitome*, see below 4.5.1 and 4.2.3.

ten in the early years of his episcopate which commenced in 313,¹⁵⁶ Eusebius includes copious extracts from the work. No doubt he will have found a copy in the famed Episcopal Library of the city, the contents of which he used prolifically in his extensive *œuvre*.¹⁵⁷ The compact volume of the *Placita* was an ideal resource for Eusebius when he wished to incorporate and exploit the doctrines of the Greek philosophy in his defence of Christianity. What better way to demonstrate the nefarious dissension (διαφωνία) and strife (λογομαχία) of the philosophers, as opposed to the unified truth of the Gospel.¹⁵⁸ The method for doing this is to use as evidence the testimony (μαρτυρία) of their own words.

Scholars are in general agreement that Eusebius' methodology involving the extensive use of *verbatim* citations as an integral part of his apologetic argument was highly innovative, even when the background of using excerpt collections in the Imperial period is taken into account.¹⁵⁹ By citing the very words of the author themselves, he could claim them as authentic witnesses, whether in a negative (Hellenic) or a positive (Jewish and Christian) perspective. But of course it was the organiser of the entire work who was pulling the strings.¹⁶⁰ In all Eusebius cites 187 lemmata from 41 chapters of the *Epitome*, amounting to a third of the doxai of the entire work. In Book 14 he uses limited extracts from Book 1 to illustrate first principles and theology.¹⁶¹ In Book 15 the citations are much more extensive, covering large sections of cosmology and meteorology, with just two chapters cited on psychology.¹⁶² He emphasizes in his connecting passages that he cites the very words of his source.¹⁶³ This *verbatim* method is of course most valuable for textual purposes. But we should not be deceived. Because the work is extant in other forms of transmission it is possible to keep a check on his citation practice. It is generally accurate, but there are cases of 'tampering' with the text, sometimes deliberately, at other

156 Barnes (1981) 278.

157 On Eusebius' library see Carriker (2003); on ps.Plutarch p. 114.

158 On Eusebius' articulately presented programme in *PE*, see M–R 1.130–132.

159 See discussion and references to scholarship in Inowlocki (2006) 33–73.

160 As Inowlocki, citing J.-P. Schreiber, states (2006, 58): '... it is precisely when the speaker (in this case Eusebius) withdraws in order to let another speaker express himself or herself, that his presence is most intensely felt, and that at that very moment, the power he exerts on the author cited is at its utmost'.

161 Excerpts from ch. 1.3 in *PE* 14.14, from 1.7 in *PE* 14.16.

162 Excerpts in a long section *PE* 15.23–61: 5 chapters from Book 1, 27 from Book 2 (out of 32!), 5 from Book 3 and 2 from Book 4. Most chapters are written out in full, though there are some lemmata missing. On the different methods used in the two books 14 and 15 see M–R 1.132–137. As noted above at n. 33 and text thereto, the order of the chapters cited is sometimes somewhat erratic, the result of the exigencies of his argument.

163 E.g. *PE* 15.31.2: ἐκ τῆς αὐτῆς μάθανε τοῦ Πλουτάρχου φωνῆς.

times perhaps accidentally.¹⁶⁴ He tends on occasion to reduce, particularly in the chapter headings. Apart from one or two brief phrases, there is no additional material to be gleaned from his excerpts. His references to the work in his connecting passages are also valuable, particularly for his references to chapter headings.¹⁶⁵

For our text we have used the excellent edition of Karl Mras, who faithfully records all the differences from the direct tradition of ps.Plutarch's text in his apparatus.¹⁶⁶ In our own apparatus we record all the variant readings in Mras' edition, but as a rule we do not record variants in the mss. tradition of the *Praeparatio* itself. Because the excerpts do not greatly differ from the text in modern editions, we have not taken them up separately among the texts of the *Testes primi*. They can be consulted in Mras' edition or on the TLG (Canon 2018.001).

4.2.3 Ps. Justin

Traditionally this pseudonymous work has been dated to the third century and regarded as an exhortation to the Greeks to embrace the true religion of Christianity. But research of Chr. Riedweg, based on TLG data, has shown that linguistic stylistic features support its attribution to Marcellus, bishop of Ancyra, a younger contemporary of Eusebius.¹⁶⁷ He also argues that its title was not the traditional Λόγος παραινετικός πρὸς Ἕλληνας, but rather Πρὸς Ἕλληνας περὶ τῆς ἀληθοῦς θεοσεβείας λόγος as indicated in its exordium (§1.2). Since the philosophers are the teachers of piety (θεοσέβεια), it is their views that need to be examined. For this purpose he will expound the δόξα of each of them on the subject, thereby showing their disagreement with each other. This is probably a covert reference to the *Placita*.¹⁶⁸ In ch. 1.3 he cites an extensive list of ten ἀρχαί. Since these are all in ps.Plutarch, who cites only 13 of the 24 in the reconstructed text of A, it is almost certain that he used the *Epitome* for this purpose. Similarly in ch. 1.7 his extracts contain nothing that could not come from ps.Plutarch. He

164 See Inowlocki (2006) 291–293, but only in relation to Jewish authors. She concludes that he resorts to textual changes only rarely and rather discreetly.

165 See esp. the long passage at *PE* 15.32.8–10. Worthy of note is also an earlier passage at 7.11.13–12.1 where in the context of Hebrew theology he suddenly interposes material on Greek theology, with reference to ch. 1.3 and to some chapters in Book 2. This passage was not noted in the discussion on Eusebius in M–R 1.

166 Mras 1982–1983, revised edition; first edition 1956.

167 Riedweg (1994) 167–184. He is not confident enough to attribute the work definitively to Marcellus (hence the question mark in the title of his book), but the evidence is strong.

168 See also below section 4.5.1 where a similar reference is made by Athenagoras, but in the plural. Other references to 'the doxai' at *Coh.* 3.1.8 (poets), 5.1.10 (Plato and Aristotle), 5.4.44 (Aristotle), 7.1.2 (Plato), 35.2.29 (philosophers in conflict).

then moves on to the subject of the soul and the disagreements on that topic. Here the situation is more complex. A number of his statements resemble doxai in chs. 4.2–7a of the compendium, but the verbal parallels are not close. The exception is in ch. 4.6 where the parallels are exact. It would appear that for this part of his work he mainly used material similar but not identical to the *Placita*, but also had his copy of ps.Plutarch at hand. It emerges, therefore, that ps.Justin is both a primary and a secondary witness.¹⁶⁹ For the text of this work we use the edition of Marcovich.¹⁷⁰

4.2.4 Ps.Galen

Like ps.Plutarch's work, the Φιλόσοφος ἱστορία attributed to Galen is an epitome that has found its way into the corpus of a major writer, in this case the largest literary corpus of pre-Christian antiquity. Nothing is known about the author, his date or his location. Diels argued on rather flimsy grounds for a rather late fifth century date,¹⁷¹ but it could just as easily be dated to an earlier date in the third or fourth century.¹⁷² We simply do not know.

The work divides into two parts. In the first part, §§1–24, which is a general introduction to philosophy, the author makes hardly any use of ps.Plutarch's *Epitome*, with just some limited material from chs 1.1, 1.2 and 1.30. The rest of this part, including chapters on motion, body and soul, is taken from a different proximate source. Then at ch. 25, without any formal introduction and not using the term ἐπιτομή, he proceeds to present an abridged version of ps.Plutarch's manual (which in contrast did include the term in its title). Together with the three chapters in the first part, the work includes 110 chapters (out of 133), of which 62 are cited with all their doxai intact. It is thus a very full epitome, with 65% of the doxai in the larger work taken over. Books 1 and 4 are used least; the other books are very fully abridged.¹⁷³

Ps.Galen's method of abridgement, however, is very different from that of his predecessor. He does not aim to preserve the words of his original, but in a man-

169 The same might be said of Theodoret who is nearly always a primary witness, but at 2.9–11 and 4.5–10 uses material that is similar to that in ch. 1.3 but not derived from it. We note too that ps.Galen (next sub-section) uses two kinds of material in his compendium.

170 Marcovich (1990b). See also the *Lesetext* of Riedweg (1994) 530–582, which deviates in a few details.

171 *DG* 16–17; cf. M–R 1.151–152. For a more detailed treatment of ps.Galen's evidence see M–R 1.141–152.

172 The material that he shares with Sextus Empiricus *P.* book 2 may point in this direction.

173 Book 1, 50 lemmata out of 123 = 41%; Book 2, 108 out of 148 = 73%; Book 3, 68 out of 91 = 75%; Book 4, 46 out of 89 = 52%; Book 5, 78 out of 109 = 72%.

ner not dissimilar to Theodoret¹⁷⁴ undertakes to rewrite or paraphrase them, using all manner of techniques, including substitution of synonyms, removal or addition of prefixes to verbs and nouns, and so on. His attempts to match or even improve on the original are far from always successful. Indeed we have called him the master of the *Verschlimmbesserung*.¹⁷⁵ This trait is of course not helpful when his text is being used as a witness to the original text of ps.Plutarch (and anterior to him Aëtius). These problems are compounded by the fact that the manuscript tradition of the work is restricted and transmits a text that is even poorer than of ps.Plutarch.

Nevertheless, for all its shortcomings, we should be grateful that we have this work. It goes back to an early version of ps.Plutarch and there can be no doubt that it contains many genuine readings, though it costs effort to identify them among the dross of the author's own interventions. A striking example is found at A 5.20.1, where the Byzantine mss. begin the lemma with the words ἔστι πραγματεία Ἀριστοτέλους ἐν ᾗ, a idiosyncratic reference which Diels rightly saw was foreign to the method of the *Placita*.¹⁷⁶ Ps.Galen reads simply Πλάτων καὶ Ἀριστοτέλης, and in this reading is supported not only by Qusṭā's translation, but also by Stobaeus. So ps.Galen's reading must be right, and goes back both to ps.Plutarch's original text and, preceding him, to Aëtius.

There is a difficulty, however, in that the most recent complete edition of ps.Galen's work is that of Diels in the *DG*, building on his earlier dissertation.¹⁷⁷ This edition, though better than its predecessors, is deficient on at least two counts. It is based on only two of the four independent mss.¹⁷⁸ and it also neglects to take into full account the evidence of the 1341 Latin translation of Nicolaus of Rhegium. Very recently a full investigation has been made of the stemma of the manuscript tradition by Mareike Jas.¹⁷⁹ She determines the relations of the four manuscripts and also demonstrates that a manuscript used by Nicolaus belonged to a transmission independent of the other four.¹⁸⁰ The

174 See above section 2.5 at n. 25.

175 M–R 1.148.

176 *DG* 14–15. He observes that the final part of the archetype was probably damaged, as noted in the text above, text after n. 154.

177 Diels *DG* 595–648; Diels (1870).

178 Diels used A and B (both in Florence), but neglected O (Oxford) and was unaware of C (Cheltenham, now in Provo Utah).

179 Jas (2018a), a Munich dissertation prepared under the guidance of O. Primavesi. She also attended a number of workshops organised by the Aëtius project.

180 See the stemma at (2018a) 70.

focus of Jas' study is on what we can learn from Nicolaus' translation, so she presents a very thorough edition of, accompanied by full philological commentary on, the 50 of the 94 translated chapters which can be shown to go back to a separate hyparchetype.¹⁸¹ The remaining chapters of ps.Galen that are based on ps.Plutarch have been collated, but not yet published in a new edition.¹⁸² In our presentation of the text of ps.Galen as a *testis primus*, therefore, we have included the text of the 50 chapters edited by Jas, but for the remaining chapters we had to fall back on the Dielsian edition. On some occasions we were able to benefit from work done on them by Jas and her *Doktorvater* Oliver Primavesi.¹⁸³

In the apparatus criticus, depending on the above-mentioned editions, we have included all the textual variants in the ps.Galenic epitome. Because he so often makes use of paraphrase, we have on numerous occasions had to resort to the tag *aliter*,¹⁸⁴ in order to indicate that he has rewritten the original text before him.

4.2.5 Julian the Arian

Brief excerpts from four chapters of ps.Plutarch are found in the *Commentary on Job* by an unknown Christian author, Julian, called the Arian because of subordinationist features of his theology and probably to be dated to the fourth century. They mainly derive from Book 3 and concern cosmological and meteorological subjects used to illustrate the text of Job 38:37–38 in the *Septuagint*.¹⁸⁵ They were unknown to Diels, but were identified by the treatise's editor Dieter Hagedorn.¹⁸⁶ The text is of little independent value, but we include the excerpts among the *testes primi* and any variants that they contain are included in the apparatus criticus of those chapters.

4.2.6 Cyril of Alexandria

In his polemical treatise against the Emperor Julian, the early fifth century (c. 380–444) bishop of Alexandria makes use of material from ps.Plutarch's

181 For the identification of these chapters see Jas (2018a) 14, 41–44.

182 I.e. the 44 remaining chapters of Nicolaus' translation and the remaining 15 which he did not translate.

183 Indicated in the app. crit. with the tag *per litteram*, or based on the edition of Empedocles' fragments in the Reclam² volume.

184 Usually abbreviated al.

185 Chs. 2.12; 3.2–5; 3.7; also possible references to chs. 2.2 and 2.11.

186 Hagedorn (1973); see the listing on p. 324. The text is also available in the TLG, Canon 4105.001. These texts were also overlooked in M–R vol. 1.

compendium. In Book 1 he paraphrases various doxai on theology from ch. 1.7; in Book 2 he cites chs. 2.1–4 verbatim and also later includes brief excerpts from ch. 1.6.¹⁸⁷ His method of citation resembles that of Eusebius, including twice indicating the title and location of the cited text.¹⁸⁸ Cyril is greatly indebted to his apologetic predecessors, including Eusebius. But since the latter does not cite chs. 1.6 and 2.1–2, it is certain that he had independent access to a copy of the work.

For Cyril's text we have been able to use the very recent edition of Riedweg, who makes all the necessary identifications.¹⁸⁹ The texts are cited among the *testes primi* and all variants are listed in the apparatus criticus. A few of these are not without interest, e.g. in chs. 1.6 and 2.1.

4.2.7 Theodoret

The bishop of Cyrrhus cites the title of the *Epitome* at CAG 4.31 and on two other occasions refers to Plutarch as its author (2.95, 5.16). In three other texts he cites information on Greek atheists that ultimately goes back to A 1.7.1.¹⁹⁰ Importantly he explicitly states in two of these texts that the information is drawn from 'Plutarch'. As already noted above in section 2.5,¹⁹¹ the *Praeparatio evangelica* of Eusebius is one of Theodoret's most important sources, so it might be possible that his knowledge of the *Epitome* is at second hand. But there are in fact good arguments to show that he did have direct access to it. Fortunately, however, he decided that all his other excerpts would be from the original work, the author of which, as can reasonably be deduced from the descriptions he gives of it, was named Aëtius.

4.2.8 Interpolations in Philo of Alexandria

Two passages from chs. 1.3 and 1.5 are cited in the Armenian translation of Philo's *De providentia* Book 1, the Greek text of which is almost wholly lost. Diels commenced the 'Prolegomena' of his *Doxographi Graeci* with these texts, because if authentic, they would have had severe implications for the dating of ps.Plutarch (and also Aëtius). He was able to demonstrate, however, that they were interpolated at a later date.¹⁹² This date cannot be determined, though it

187 For a more detailed discussion of Cyril's usage see M–R 1.166–168.

188 On the title see above n. 3.

189 Riedweg (2016); very brief comment on usage of ps.Plutarch on p. clxix (by W. Kinzig).

190 CAG 2.112–113; 3.4, 6.6.

191 And see also section 4.4 below.

192 Diels *DG* 1–4; on this text see further M–R 3.447, 461. His theory, however, that *Prov.* 1 as we

will almost certainly have been before the translation was made in the sixth century. We cite Aucher's Latin translation, which though nearly 200 years old is the only one available.¹⁹³

4.2.9 Ioannes Lydus

The learned early Byzantine civil servant Ioannes Lydus (490–c. 565) cites doxai from about ten chapters of the *Epitome* in his work *De mensibus*.¹⁹⁴ The extracts from chs. 2.25, 2.28 and 2.31 are virtually verbatim, the others are more in the manner of a loose paraphrase. Nevertheless they yield some interesting readings, notably πεπυρωμένον at ch. 2.25.3, θεοπνεύστους at ch. 5.2.3 and the words missing through haplography in the Byzantine mss. at ch. 2.31.3. Lydus uses these texts for antiquarian purposes and never discloses the name of his source.¹⁹⁵ We have cited the text of Wuensch and recorded all textual variants in the apparatus criticus.¹⁹⁶

4.2.10 Scholia

Direct utilisation of ps.Plutarch's *Epitome* by Byzantine scholiasts, writing in the margins of manuscripts, occurs to our knowledge relatively seldom. Ch. 2.31 on the distances of the moon is written out in full in a scholion to Ptolemy's *Almagest*.¹⁹⁷ Two of the mss. that contain it are older than those of the *Epitome* and the text is better, lacking the lacuna mentioned above on Lydus. Two further texts from Book 2, chs. 2.22 and 2.24, are used in a scholion on Plato *Rep.* 498a, which gives a brief doxography of views of Heraclitus on the sun, to which a further doxa of Xenophanes is added. The scholion is derived from the 9th cent. ms. Parisinus Graecus 1807 (A) and belongs to the group known

have it now is a reduced version of an original dialogue remains controversial; see Runia (2017) 172.

193 Aucher (1822); also available in Hadas-Lebel (1973). The work has not yet been translated directly from the Armenian into a modern language. Hadas-Lebel's French translation is based on the Latin. On this passage see further M–R 1.161–163.

194 Listed at M–R 1.169, to which can be added a brief excerpt from ch. 1.3 in *Mens.* 2.9 and some references to chapter headings in Book 3 in another work *De ostentis* (3.2, 3.3).

195 In contrast to his citation of doxographical material on the Nile from Seneca's *Naturales quaestiones* at *Mens.* 4.107. Seneca of course is a more famous name. On this material see ch. 4.1 Commentary B.

196 Wuensch (1898); the recent text and translation of Bandy (2013) do not represent an advance. For *De ostentis* we cite Wachsmuth (1897).

197 See Mansfeld (2000b) 177 (= M–R 3.448) and ch. 2.31 Commentary A. It was not known to Diels or discussed in M–R vol. 1. It is cited in the edition of Heiberg et al. (1898–1952), where it is noted in the apparatus at 1.350.

as the *Scholia vetera*.¹⁹⁸ We cite it in the collection of Greene.¹⁹⁹ For the scholia to Aratus and Basil of Caesarea see below under 4.5 Secondary witnesses.

4.2.11 Qusṭā ibn Lūqā

The Arabic translation of ps.Plutarch's *Epitome* by the Syrian Christian of Greek origin, Qusṭā ibn Lūqā (in Latin Constans Lucae filius, c. 840–912),²⁰⁰ is an important witness to its text. The existence of the translation was known to Diels, but he had no access to it.²⁰¹ The landmark edition of Daiber has made this work fully accessible, though unfortunately its title is in two respects misleading.²⁰² It contains an apparatus which constantly compares the Arabic translation with the original Greek as transmitted in the mss. and so allows its use for textual purposes.

As already noted above, Qusṭā's translation is more complete than that of the Greek mss., with four additional lemmata, mainly at the end.²⁰³ It is also basically a faithful translation of the Greek.²⁰⁴ There are, needless to say, numerous instances of paraphrase, explanations, simplifications, omissions, small additions and outright mistakes. For example, on four occasions Qusṭā explains an etymological derivation by adding an explanation 'in the language of the Greeks' for the benefit of his reader, who in ignorance of the Greek language, will not understand the connection between the terms.²⁰⁵ All of these variations can be readily identified, as Daiber has often done, through comparison with the Greek mss. Lesser-known name-labels are quite often garbled or mis-identified, but sometimes valuable evidence is supplied, notably the

198 See Boter (1989) 45–46, who argues against Diller's hypothesis that they may have been the work of Photius. On the *Scholia vetera* see Dickey (2007) 46, but she does not give a date. The Scholia on the *Republic* have not been edited in Cufalo (2007).

199 Greene (1938) 240–241. His note that it is probably derived from a commentator such as Proclus is beside the mark.

200 For biographical details on Qusṭā see Daiber (1980) 4.

201 It is mentioned at *DG* 27–28, but he thinks it is no longer extant.

202 Daiber (1980). The full title is *Aetius Arabus: die Vorsokratiker in arabischer Überlieferung*. It is of course not a translation of Aëtius, but of ps.Plutarch, and its contents extend far beyond the Presocratic tradition.

203 See above n. 154. The additional Aristotelian doxa at 1.21.2a is surprising but we have now, *pace* M–R 1.157, given it the benefit of the doubt. The doxai of ch. 2.27 (but not the title) are missing through a *saut du même au même*.

204 For a full discussion of the nature and value of Qusṭā's evidence see M–R 1.152–161. For more detail on the translation techniques used see Daiber (1980) 16–74. For the question whether the translation included the chapter heading lists at the beginning of each book see the discussion in ch. 1.titulus et index Commentary A and the Appendix in Part 4.

205 See comment at ch. 2.1 Commentary D(d)§1.

attribution of the doxa A 5.30.2 to Herophilus rather than as a continuation of the doxa of Alcmaeon, which is not found in any other witness and should be accepted.²⁰⁶ On many occasions Qusṭā's translation gives insight into alternative readings of the text which must be taken into account, whether supporting readings in other witnesses or (rarely) supplanting them. A striking example is the reference to Olympus in the Empedocles doxa at A 2.20.13[35], only found in Qusṭā, which is now finding acceptance by scholars.²⁰⁷

The copy of the *Epitome* used by Qusṭā for his translation must have been earlier than the archetype of the Byzantine mss. which, as we saw, is to be dated to about 1000 CE.²⁰⁸ It cannot be identified with any other ms. used by the witnesses to the tradition, but examination of the variants shows that is closest to the copy used by ps.Galen. Its evidence is thus most valuable. Using Daiber's German translation together with the apparatus which he includes in his Commentary, we have given a full report of Qusṭā's variants in our own apparatus, referring to his text as P^Q when we can be certain of its reading, but mostly citing his German translation in italics as indicated by the abbreviation Q.

4.2.12 Psellus

We now turn to later authors who made use of ps.Plutarch's *Epitome*. The work was readily available in the capital Constantinople, it would seem, where it was utilised by a number of authors, though in particular ways and not very extensively. Prime among these was Michael Psellus, the great 11th century scholar and publicist (1018–c. 1090). Evidence of the use of the *Epitome* is found in various writings, of which the *De omnifaria doctrina* is the best known.²⁰⁹ In this work he uses it primarily as a list of topics to be treated. 68 of its 201 chapters have a heading derived from ps.Plutarch, amounting to almost exactly half of all the chapters in the *Epitome*.²¹⁰ It is not used for the macro-structure of the work, since the order of the titles used overall bears little resemblance to the order in the earlier work.²¹¹ In the case of 39 chapters the title only is used, for the remaining 29 chapters Psellus also takes over some material from the

206 See discussion at ch. 5.30 Commentary D(b).

207 First by Mansfeld R¹, M–R 2.530; now by Primavesi R², and Laks–Most LCL 5.476.

208 See above, text to n. 151.

209 See also the brief account at M–R 1.170–171. We ignore here the two separate redactions.

210 There are 133 chapters in the *Epitome*, excluding the prooemia and two of Aëtius' chapter that are not included. Psellus takes over the headings of 25 chapters in Book 1, 21 in Book 2, 10 in Book 3, 2 in Book 4 and 10 in Book 5.

211 At M–R 1.170 we give the example of the first seven chapters of the *Epitome*, of which Psellus uses the headings at §§57, 82, 83, 151, 152, 19 & 15. He does tend to use the headings in clusters.

contents of the doxai, but almost never the name-labels.²¹² For this work we use the excellent edition of Westerink, who has made all the necessary identifications.²¹³ The chapter headings provide some interesting variants, which we record, but in the remaining passages only the occasional term or phrase is of interest for determining the text. Other references to ps.Plutarch's work are of little weight,²¹⁴ with the exception of an extended excerpt from ch. 5.30 fortuitously preserved in the Ἐπιλύσεις ποικίλων ἐρωτημάτων, which is particularly interesting because of the poor state of transmission of the final part of the treatise.²¹⁵

4.2.13 Symeon Seth

The use that the doctor, scholar and high-ranking Byzantine court official Symeon Seth makes of ps.Plutarch's *Epitome* resembles that of his younger-contemporary Psellus, but differs at essential points. Unlike Psellus, he refers to Plutarch explicitly at the beginning of his work and states that he disagrees with his method, which sowed doubt in the reader's mind through the outlining of various opinions.²¹⁶ What is needed is demonstrated science (γνώσις μετ' ἀποδείξεως), beginning *modo Aristotelico* with what is visible and advancing to the very ἀρχή of the universe. Like Psellus he makes extensive use of the *Epitome's* chapter headings. Unlike him he does make use of the structure of the work. His work too consists of five λόγοι, but in order to follow the outlined method he has to rearrange the contents.²¹⁷ All in all he retains or alludes to 49 of the chapter headings, which in 15 cases are accompanied by extracts (mostly very short) from their contents, almost never citing any of his name-labels or differing opinions.²¹⁸ We list these appropriations under the *testes primi*, using the

212 Only in the case of one chapter, 5.5, does he take over material without reference to the heading, adding it under the title of ch. 5.6.

213 Westerink (1948), his Nijmegen dissertation.

214 Chapter headings from Book 3 are used in treatises published in the *Opera logica* 20, 22–24 and 26 edited by Duffy (1992).

215 The text is close to the Byzantine mss. of ps.Plutarch and does not support the extra name-labels in §§2 and 6 supplied by Qustā and ps.Galen.

216 Cited in translation at part of our brief account of Symeon Seth at M–R 1.171–173. Symeon's use of the work was not known to Diels.

217 Logos 1 on the earth covers P 3.9–15; Logos 2 on what is between the earth and the heaven covers P 3.1–8; Logos 3 on the heavens covers P Book 2; Logos 4 on matter, form, nature, soul and mind covers themes from Books 1 and 4; Logos 5 treats theology, as in P 1.7.

218 6 chapter headings from Book 1; 23 from Book 2; 13 from Book 3; 7 from Book 4; Book 5 is ignored. In §30 the views of Aristotle and Plato on the cosmos, whether it is created or everlasting (cf. P 2.4), are briefly cited and confronted with his own Christian view.

edition of Delatte.²¹⁹ Some variants, mainly in the chapter headings, are listed in the apparatus criticus. But if the truth be told, Symeon's usage, though very interesting as part of the history of the reception of the *Placita*, offers very little of value for the establishment of the text.

4.2.14 Ioannes Tzetzes

The final witness to the Byzantine tradition of ps.Plutarch's *Epitome* is the prolific 12th century scholar and antiquarian Ioannes Tzetzes (c. 1110–c. 1180).²²⁰ In his exegetical works on the ancient Greek poets Homer and Hesiod he occasionally uses the work for information on the early philosophers. Three passages are of some interest.²²¹ We cite them in the most recent edition.²²²

4.2.15 Modern Editions and Translations of the *Epitome*

Having surveyed the direct and the extensive indirect transmission of ps.Plutarch's work, we are now in a position to evaluate modern editions. These are two in number, the edition of J. Mau in the Teubner edition of the *Moralia* of Plutarch (1971) and of G. Lachenaud in the Budé edition of the same large corpus (1993).²²³ Mau's edition suffers from two major defects. Firstly, it is essentially an edition of the Byzantine mss., scarcely taking the indirect tradition into account. The papyrus and Qusṭā are not utilised.²²⁴ Reference is made to the texts in Eusebius and ps.Galen in the apparatus testimoniorum and some of their readings are mentioned, but these are not adequately taken into account in the constitution of the text. The negative apparatus criticus is very compactly presented and by no means complete. Secondly, Mau's text is conservative in the extreme, on numerous occasions preferring to retain defective passages rather than print plausible or even very likely emendations.²²⁵

The more recent edition of Lachenaud follows its predecessor rather closely, but does improve on it to a limited extent. It offers a fuller apparatus criticus based on fresh collations of the mss. It is more aware of the indirect tradition. It mentions the papyrus in the introductory 'Notice', but does not record its read-

219 Delatte (1939) 1–125, who does not identify the correspondences with the *Epitome*.

220 On Tzetzes see Wendel (1948).

221 See chs. 1.3 (on §4[47–48]); 1.8; 5.26. They were included by Diels in his app.test., but not discussed in M–R vol. 1.

222 Papathomopoulos (2007); this edition supersedes Hermann (1812) cited by Diels.

223 The edition of G. Bernadakis (1893) in vol. 5 of the earlier Teubner edition of the *Moralia* (1888–1906) can safely be set aside.

224 He mentions Daiber's 1968 Saarbrücken dissertation, on which the edition of Qusṭā is based, but does not use it for his text. He may have been unaware of the papyrus codex.

225 For a more detailed analysis of Mau's edition see M–R 1.177–179.

ings.²²⁶ Lachenaud analyses the Arabic translation in some detail and notes that 80 of its readings according to Daiber furnish readings that differ from the mss. or support emendations made by earlier scholars.²²⁷ But these observations have little impact on the text. Admittedly Lachenaud is less conservative than Mau. He removes a number of obeli, introducing some emendations or regarding the transmitted text as satisfactory. Despite these improvements, however, it is hardly an independent work and remains in essence an edition of the Byzantine mss.²²⁸

How, then, do these modern editions relate to the text as edited by Diels in the *Doxographi Graeci*? Its manuscript basis is inferior, not taking all the relevant Greek mss. into account and not being able to benefit from the papyrus and the Arabic translation. But despite these limitations, in some regards it may be considered to be superior. It takes the indirect tradition seriously and uses it to improve the text on many occasions. Diels was not afraid to introduce conjectures and emendations into his text, and as a child of his time he goes further in altering the text than would be done today. The main difficulty, however, is that Diels produced his edition for a special purpose, namely to furnish a text of ps.Plutarch as part of the lost compendium of Aëtius. It is thus not a pure text of the *Epitome* on its own and for its own sake. The effect of this objective can be seen in Diels' inclination to take Stobaeus, together with the indirect witnesses, into account when determining the ps.Plutarchean text. There are grounds for doing this, since the correspondence could go back to the anterior common source, but it remains not without risk.²²⁹ A cautious hand is what is required.

The conclusion must be that there is no adequate edition of the *Epitome* available at present. In our apparatus criticus we give as complete an account of all the readings of the direct and indirect tradition as we can, not including trivial variants that have no effect on the meaning. All these readings must be taken into account when trying to determine what might have been Aëtius' text. It is perhaps fortunate that we have decided not to print the text of ps.Plutarch itself among our *testes primi*.²³⁰ Given the considerations above, it would

226 There is no siglum for it in the list on p. 65. The mention on p. 10 (where 'deux fragments' is a misprint for 'douze') appears to have been added at a late stage.

227 Lachenaud (1993) 12–14, also including some comments on the papyrus.

228 On this edition see further the comments at M–R 1.179–180.

229 See our analysis with examples at M–R 1.175–177.

230 See our comments above in section 3.2 at n. 119. In taking this decision we differ from the *specimen reconstructionis* of Book 2 in M–R vol. 2.2, where we printed the text based on Mau and Lachenaud at the beginning of the analysis of each chapter.

have also been very difficult to determine which text of the *Epitome* to print. The user of our edition is advised to have one of the above-mentioned editions within reach.²³¹

Apart from Lachenaud's French translation, the only translation into a modern language that we have consulted is the Italian version of Torraca.²³² This is part of a translation of all the texts in Diels' *Doxographi Graeci* and so translates the two columns of ps.Plutarch and Stobaeus side by side, presenting them together as the work of Aëtius just as Diels did. Its value lies above all in its rendering of difficult passages and its instructive notes, which often discuss textual issues. Other English and French translations available online are based on outdated editions and scarcely repay consultation.²³³

4.3 *The Primary Witnesses: Stobaeus*

The significance of John of Stobi as a *testis primus* to the text of Aëtius has been set out in some detail above in section 2.4. The task is now to examine the *Anthology* and discuss those aspects of its transmission that are relevant to our reconstruction and edition.

4.3.1 The Direct Transmission

Stobaeus made use of Aëtius' compendium almost exclusively for Book 1 of the *Eclogae* devoted to physics. Only in the case of the very last chapter of work, ch. 5.30 on health and disease and old age, are five lemmata used in Book 4 of the *Florilegium*. As was already noted, not all of Book 1 has been fully preserved. If it had been, we would have been in a much stronger position to reconstruct the whole of the compendium, since Stobaeus tends to cite the original work in full and not abridge it in the matter of ps.Plutarch. He in fact records 521 lemmata from 81 of Aëtius' 135 chapters, which amounts to 67.6% of the total extant remains and 58.3% of the original work as estimated by E. Jeremiah.²³⁴ These statistics give us some idea of the damage wreaked by the Byzantine abridgers.

²³¹ Mau's edition is also available as Canon no. 0094.003 in the TLG.

²³² Torraca (1961) 17–223, notes at 443–461.

²³³ French by J. Amyot (1574) 207–257; D. Ricard (1844) 261–362; English J. Dowel (1909) 104–193 (first published in 1694). All these versions can easily be located on the internet.

²³⁴ The distribution is: Book 1, 158 lemmata from 26 chapters; Book 2, 199 from all 33; Book 3, 60 from 7; Book 4, 94 from 10; and Book 5, 10 from 5 chapters, amounting to a total of 521 lemmata from 81 chapters (out of a total of 135). On Jeremiah's estimation see above section 2.7.

The direct transmission of the *Eclogae* is far from strong, represented by two manuscripts only, both of which are quite late: the Neopolitanus III D 15 (Farnesinus, 14th cent., abbr. F) and the Parisinus gr. 2129 (15th. cent., abbr. P). All other manuscripts are derived from these two, of which the former provides a much better text than the latter. Their common archetype was already much reduced compared to the full original text still available to Photius. Of the sixty chapters the first half, chs. 1–31, appear to be virtually complete (except the prooemium); of the second half six chapters are missing entirely and the rest survive only partially, having been severely reduced by Byzantine copyists.²³⁵ This has meant that Stobaeus' evidence for Books 3.9–16, 4 and 5 has largely disappeared, except for some sections which were preserved in the manuscript now to be discussed.²³⁶

4.3.2 The Laurentianus Manuscript

The third relevant manuscript, the Laurentianus Pluteus 8.22, is strictly speaking not a manuscript of Stobaeus' work, but contains substantial material from it, including material which is not preserved by the two mss. just described.²³⁷ It thus represents, together with the index of Photius to be discussed in the following sub-section, the restricted indirect tradition of Stobaeus' *Anthology*.

The Laurentianus is a highly complex document containing the remnants of three separate florilegia, of which the third contained extracts from Stobaeus. These remnants consist of two different kinds of material. (1) The full text of 44 chapters for the headings A α' to A μδ' and of 31 chapters for the headings N α' to Π ε'. These include nine chapters of the *Eclogae*, mostly with their headings. Of these, six contain text not preserved in the two mss. of Stobaeus.²³⁸ (2) The headings of the chapters of the *Eclogae* taken (a) from the incomplete alphabetically ordered pinax of the work covering the letters A to M, i.e. the first half;²³⁹ and (b) from the incompletely preserved headings of the chapters for the headings N α' to Π ε' mentioned above.²⁴⁰ A complicating factor is that in the case of the headings of *Ecl.* 1.42–43 there has been some contamination of headings from ps.Plutarch 5.11–19 and 5.20–23 respectively.²⁴¹

²³⁵ On the two manuscripts see further M–R 1.198–200.

²³⁶ On the Byzantine abridgement see M–R 1.202–203.

²³⁷ For this description we are indebted to Royse (2018) = M–R 4.158–167, which gives much more detail than the brief section in M–R Vol. 1 cited in the previous note.

²³⁸ Surviving are: *Ecl.* 1.38 (= A 3.17); 1.50 (= A 4.8–10); 1.51 (A 4.10); 1.52 (A 4.13–15); 1.53 (A 4.16); 1.54 (A 4.17). For further details see Royse at M–R 4.162–163.

²³⁹ The full pinax is printed and analysed at Wachsmuth (1882) 5–41.

²⁴⁰ The pinax of headings for these extracts is reconstructed by Wachsmuth (1882) 41–44 (many are missing since not filled in by the rubricator).

²⁴¹ As convincingly postulated by Elter (1880) 73–74. Taking his lead from Elter, Diels (1881)

4.3.3 The Evidence of Photius

The complete *Anthology* was still available to the learned 9th cent. Patriarch of Constantinople, Photius. In his celebrated *Bibliotheca* he devoted an extensive chapter (*Bibl.* 167) to it.²⁴² Of the two components of this presentation the first, a complete list of contents, is by far the most useful, since it enables the reconstruction of the basic structure of the work. Photius probably derived this list from a pinax which Stobaeus affixed to the beginning of the work when completed. We give references to these chapter headings in our list of witnesses at the beginning of each chapter and include readings of interest in the apparatus criticus. For this purpose we use the edition of R. Henry.²⁴³ The second component, the alphabetically ordered list of names divided into five groups of philosophers, poets, rhetors, statesmen and doctors, is much less useful. A multitude of name-labels from the Aëtian doxai find their way into these lists, most of course in the first group, with a few in the last.²⁴⁴ But in only a very limited number of cases are there names that are missing in the text as transmitted in the manuscripts.²⁴⁵

4.3.4 The Edition of Wachsmuth

The most recent edition of the *Eclogae* was published by Curt Wachsmuth in 1884.²⁴⁶ It is this edition that we use for the Stobaeian excerpts from Aëtius, though—as in the case of ps.Plutarch—we do not print the entire text.²⁴⁷ Wachsmuth was a very experienced and competent editor. He personally collated the relevant mss. and his text is generally reliable.²⁴⁸ All variants of any

349 argued that three doxai in S^L were also interpolated from P; see chs. 4.8, 4.13 and 4.15. As indicated at M–R 1.267–269, we disagree with the last two of these exclusions, but not the first.

242 On Photius' evidence see the discussion at M–R 1.200–202.

243 Henry (1959–1977), text in 2.149–159.

244 Its rationale was brilliantly elucidated by Elter (1880), but not all its conundra have been resolved.

245 For example Apollophanes on the parts of the soul in at A 4.4.5; Leophanes at A 5.7.5. The latter name-label was preserved by P, but not the former. We do not accept the proposed inclusion of the doctor Euryphon in A 5.18 as proposed by Diels *DG* 195, 429 but rejected by Wachsmuth.

246 This edition is in fact the oldest that we have to use, except for that part of ps.Galen not yet published by Jas, for which we resort to the edition of Diels in *DG* (1879). T. Dorandi, whose landmark edition of Diogenes Laertius we use extensively, is in the early stages of preparing a new edition of the *Eclogae*.

247 On this decision see above section 3.2 at n. 119. The text is available on the TLG (Canon 2037.001). Wachsmuth's edition is in the public domain and readily available on the internet.

248 We can cite the judgment of J.R. Royse who reached the following conclusion after

significance that emerge when compared to other witnesses have been recorded, including on some occasions different readings in the three Stobaeus mss. among themselves. Because of the rearrangements that Stobaeus habitually makes of the lemmata of the original source, he often introduces additional elements such as verbs of saying and phrases indicating the subjects of the relevant doxai. These can be readily identified when other witnesses are adduced (esp. ps.Plutarch's *Epitome*). In the absence of such evidence, there are still quite often strong grounds for suspecting such interventions and so they can be legitimately removed from the reconstructed texts.²⁴⁹

It is vitally important to note that Wachsmuth's edition is strongly influenced by the work of Diels, which had appeared five years before its publication. This influence is mainly felt in the organisation and presentation of the text, the chapters of which are subdivided in accordance with the Dielsian analysis (the influence of Diels' edited text is much less). Only rarely does he disagree with his younger colleague.²⁵⁰ We follow Wachsmuth's subdivisions when citing his text in the list of witnesses, but it must always be borne in mind that they are not independent of Diels' analysis. They are no more than a starting-point for our own analysis as set out in the Commentary, especially in sections A, C and D(a).

There are no translations of the *Eclogae* into modern languages. The Italian scholar L. Torraca has usefully translated the right-hand column of Diels' reconstruction, making valuable comments on the text and how it should be understood.²⁵¹

4.4 *The Primary Witnesses: Theodoret*

The amount of text from the Aëtian compendium that the third main witness Theodoret records is much less extensive in scope compared to the other two witnesses, and the method of utilisation preserves much less of the original wording. His contribution to our knowledge of the actual text is quite modest.²⁵² Nevertheless, as we have seen in section 2.5, his evidence is crucial in proving once and for all that a single document used independently lurks

sampling sections of the text relevant to our edition (2018 = M–R 4.172): ‘... on the one hand Wachsmuth's work is very accurate, and at times shows a remarkable attention to the fine details of the manuscripts, but ... on the other hand it does contain some errors in readings that are cited and failures to record readings that are (or at least seem to be) significant.’

249 On such phraseology see M–R 1.231–233.

250 Some examples are given at M–R 1.204 n. 31; see also above n. 245.

251 Torraca (1961) 20–223, notes at 443–461; see above n. 232 and text thereto.

252 See the statistics cited above in section 2.5 text to n. 39.

behind the convergence of the other two much more copious witnesses, a document to which it is also possible to give a title and a name for its author.²⁵³

For the passages from Aëtius we cite the edition of Raeder, dividing the text according to the lemmata of the original compendium and indicating the numbering of our edition in parentheses.²⁵⁴ Raeder's edition is dated and could be improved, but is certainly adequate for our purposes.²⁵⁵ He refers to the source material in Diels' *DG* rather summarily in his apparatus fontium under the name Aëtius Doxogr(aphus) plus page number of *DG*, not citing book and chapter numbers of Aëtius. The debt to Diels is acknowledged in the *Praefatio*, where he also refers to his own analysis in his dissertation, which contains a number of improvements on Diels.²⁵⁶ The analysis of Canivet in his monograph on Theodoret as a Christian apologist made no progress.²⁵⁷ In the Introduction to his very recent text and translation Scholten was able to take into account our analysis in *Aëtiana* vol. 1 and the critique of M. Frede,²⁵⁸ concluding that the question of the value of Theodoret's reception of Aëtius' text 'has not yet been definitively clarified'.²⁵⁹ This comment is unduly pessimistic.²⁶⁰

Finally it should be recalled that Theodoret also mentions ps.Plutarch's *Epitome* on six occasions, as noted above when discussing its indirect tradition.²⁶¹ One might suspect that he bases these references on knowledge derived from Eusebius' *Praeparatio*, which is one of the most important sources for his work. It is noteworthy, however, that, as we saw earlier, Eusebius never refers to that work as an *Epitome*, whereas Theodoret does so at *CAG* 4.31, so he most likely will have had access to a copy of that work and did not depend on Eusebius.²⁶²

253 For an analysis of Theodoret's evidence see M–R 1.273–275, 284–288, supplemented by Mansfeld (2016a) = M–R 4.175–193.

254 Raeder (1904). For the more recent edition of Canivet (1958b), see the following note.

255 See the extensive critique by Scholten (2015) 122–129, which also discusses the edition of Canivet (1958b) and the criticism of Morani (1979). Canivet's edition scarcely differs from that of Raeder, but his apparatus criticus does include many more variants in relation to the authors whose words Theodoret cites. Both Raeder and Canivet make no effort to compare the original of Theodoret's Aëtian extracts with his text. Scholten (2015) uses Raeder's edition as the basis for his text and German translation.

256 Raeder (1904) vii, referring to Raeder (1900) 78–90.

257 Canivet (1958a) 268–270.

258 Scholten (2015) 114–120; on Frede (1999b) see above section 2.5 at n. 40, and 2.8 at n. 70.

259 Scholten (2015) 118: 'ist ... noch nicht endgültig geklärt'.

260 But he reached his conclusion before the publication of Mansfeld (2016a) = M–R 4.175–193.

261 See above section 4.2.7.

262 The three doxai on the status of plants parallel to ch. 5.26 are drawn not from Aëtius but the *Stromateis* of Clement of Alexandria; see the Commentary ad loc., section D(e).

This independence is also apparent from the doxai that he shares with Stobaeus and not ps.Plutarch, and therefore must have transcribed from Aëtius.²⁶³

4.5 *The Secondary Witnesses*

Secondary witnesses (*testes secundi*) are those authors and texts which contain material which is very similar, also in its wording, to that of the primary witnesses, but is not derived in a linear fashion from the original work or the primary witnesses.²⁶⁴ They are limited in number and scope, but need to be taken into account as furnishing evidence, albeit indirectly, on the compendium.

4.5.1 Athenagoras

The speech addressed to the emperor Marcus Aurelius of the early Christian apologist Athenagoras can be dated to 176–178 CE.²⁶⁵ It is thus the earliest of all our secondary witnesses. Diels thought its author made use of the *Epitome* and thus regarded its date as the *t.a.q.* for that work.²⁶⁶ Athenagoras himself appears to tell us that he uses the *Placita*, for when introducing the theology of Plato and Aristotle he says that he has turned ἐπὶ τὰς δόξας, which may be taken to be reference to the doxographical tradition, but could also refer more specifically to the work itself, whether in its original version or its abridged form.²⁶⁷ The doxai that he records are confined to Book 1 and almost exclusively relate to theological subjects: chs. 1.3, 6–8. The only other references are to the subjects treated in 1.9–10 and 2.1, which could have been taken over from their headings.²⁶⁸ For the most part Athenagoras cites this material in the form of a loose paraphrase, so the question of his source, whether A or P, cannot *pace* Diels be definitively resolved. An exception might be made for the text on God, demons and heroes in *Leg.* 23.1, where he appears to cite P, but in the absence of S, this cannot be considered certain. There is no ‘smoking gun’.²⁶⁹ Strictly speaking, since Athenagoras’ evidence points to a use of either A or P,

263 See above section 2.5.

264 See above section 4.1.

265 For the dating of the work see Schoedel (1972) xi–xii, M–R 1.125 n. 21 (with further references).

266 *DG* 4–5; see the discussion at M–R 1.75, 125.

267 We may also, when he says at *Leg.* 13.1.2 that many of his opponents are ignorant of the φυσικός καὶ θεολογικός λόγος, see an allusion to the opening words of the compendium’s prooemium.

268 See the detailed analyses at M–R 1.312–314, with reference to earlier scholarly discussions.

269 At A 1.7.24 on Stoic theology there are three variants between S and P, with Athenagoras supporting P twice and S once; see M–R 1.313.

he should be regarded as a primary witness. Because, however, his evidence differs so markedly from what we find in the other *testes primi*, we have placed him among the secondary witnesses. For these passages we use the edition of Marcovich.²⁷⁰

4.5.2 Achilles and the *Aratea*

The most important of the secondary witnesses is Achilles, an Alexandrian writer who is probably to be dated to the early third century. The full title of his treatise is *Τῶν Ἀράτου Φαινομένων πρὸς εἰσαγωγὴν ἐκ τῶν Ἀχίλλεως Περὶ τοῦ παντός*, but is usually referred to as the *Isagoge* or the *De universo*. It has not survived complete. What we have are extensive excerpts from a lost original which appears to have been an introductory manual assisting the reader of Aratus' famous poem.²⁷¹ As befits such a purpose, its main contents treat the nature and structure of the heavens (chs. 5–31). It also includes a preliminary section (chs. 1–4), which bears a remarkable similarity to Aëtius' compendium,²⁷² a few chapters on meteorological phenomena (chs. 32–34), and finally some sections on the teaching of astronomy including the use of a model sphere (chs. 35–40). The work is a bit of a jumble, consisting of didactic material introducing the main features of astronomy, but it is interlaced with a significant body of doxographical material. This latter component is of great value for the understanding of the tradition of the *Placita*. The resemblance of some of this material to Aëtius' compendium is quite striking, so close in fact that Diels when composing his *DG* tried to demonstrate that it was dependent on ps.Plutarch's *Epitome* and even included some passages in the 'testimonia Plutarchi' under the left column of his reconstruction (he later realised his mistake²⁷³). In fact a detailed analysis of Achilles' doxographical material shows that his *Placita* material reveals strong parallels to Aëtius' compendium, but cannot be reduced to it. The two works are best seen as 'cousin writings, sharing the same ancestry, but not having the same parentage'.²⁷⁴ This description is suitable for a number of the secondary witnesses.

270 Marcovich (1990a). The edition has an unusually rich apparatus of sources and parallels.

271 On the little that we know about Achilles' life and writings see M–R 1.299–301.

272 Note ch. 2 *Τίτι διαφέρει μαθηματικὴ φυσιολογίας* (cf. ch. 1.1–2), *Περὶ τῆς τῶν ὅλων ἀρχῆς* (cf. ch. 1.3), and *Περὶ τῆς συστάσεως τῶν ὅλων* (cf. ch. 1.4). On these similarities see further the analysis at M–R 2.1.126–134.

273 As we learn from Pasquali (1910) 221; cf. M–R 1.303.

274 We cite here the terminology that we set out at M–R 1.305 and have used frequently in publications since then. On this terminology see above text at n. 139.

The parallelism between Achilles and Aëtius is confined to the first three books.²⁷⁵ In Book 1 we cite texts from Achilles for eight chapters, but in only one case, 1.3 on the principles, are the correspondences substantial (seven doxai) though quite oddly ordered.²⁷⁶ In the cosmological Book 2 Achilles is cited for 22 of the 33 chapters,²⁷⁷ in many cases showing at least some of the same name-labels and doctrines. Notable examples with both similar doxai and diaeretic structure are found in chs. 2.13 on the substance of the stars, 2.14 on their shape, and 2.20 on the sun. On rare occasions these texts even contain terms and name-labels that can help us decide between variants in our primary witnesses.²⁷⁸ In Book 3 we cite texts for 12 chapters, but most of these are again fairly insubstantial, which is not surprising given the limited amount of meteorological discussion in the work.²⁷⁹

For the citation of texts we have used the edition of Di Maria. It supersedes the earlier edition of Maass, which suffered from an excessive dependence on the researches of Diels in the *DG*.²⁸⁰

There are further doxographical snippets in four other texts which are related to the Aratean commentary tradition.

- (1) *Commentaria in Aratum* Anon. I, edited by Maass.²⁸¹ It is a very brief introductory treatise, similar to Achilles but much shorter. It yields some interesting parallel material for Book 2 on cosmology (chs. 2.1; 2.9; 2.12; 2.16).
- (2) *Commentaria in Aratum* Anon. II, edited by Maass. A similar work containing a text on meteorological phenomena cited in relation to the prooemium of Book 3.
- (3) *Scholia in Aratum, Prolegomena*, edited by Martin. This is another set of introductory notes consisting of 25 very brief chapters. The chapters on the sun and the moon, though just a few lines each, contain fascinating doxographical material clearly belonging to the tradition of the *Placita*.

275 See the list at M–R 1.303–304, but the claim that he offers parallel material for 22 chapters in A is a serious underestimation. In the present edition we draw the net wider, with material cited for 42 chapters.

276 Chs. 1.3; 1.5; 1.10–12; 1.14; 1.18; 1.23.

277 Chs. 2.1–3; 2.5–11 (excluding 5a); 2.13–15; 2.20–22; 2.24–25; 2.27–29; 2.32.

278 For example the name-label Stoics in A 2.6.1 shared between S and Ach, and the term $\psi\omicron\epsilon\iota\delta\acute{\eta}\varsigma$ at A 2.2.4.

279 Chs. 3.prooem.; 3.1–5; 3.7; 3.9; 3.11–12; 3.14–15.

280 Di Maria (1996); Maass (1898). On the former, which we were unable yet to use in M–R vol. 1 see the comment at M–R 2.1.126 and n. 269; on the latter M–R 1.303 and n. 29.

281 For the editions cited in what follows see the Sigla at the beginning of the volume and M–R 1.306.

An anonymous doxa on the moon as a kind of mirror supports a reading of S for the doxa of Pythagoras.²⁸²

- (4) *Scholia in Aratum*, edited by Martin. Among the scholia to the poem are quite a number of texts containing information on meteorological phenomena parallel to Book 3, proœm. and chs. 1–7 but lacking name-labels.

4.5.3 Hermias

The attractive little treatise Διασυρμός τῶν ἔξω φιλοσόφων was included by Diels in his *Doxographi Graeci* as the last of the doxographical texts.²⁸³ It certainly contains snippets of material from the same tradition as the *Placita*. Of particular interest are two extended series of anonymous doxai on the nature and the immortality of the soul (cf. chs. 4.2–3 and 4.7) which illustrate the *dis-sensio philosophorum* which the author wishes to ridicule. Later on he attaches name-labels to views on the cosmos (cf. ch. 1.5, 2.1) and some of the *principia* (chs. 1.3, 1.7 and 1.24). Its most recent editors, whose text we utilise, have made a detailed examination of these doxai and shown that they cannot be reduced to either Aëtius or ps.Plutarch, or for that matter Nemesius, but are best explained through a shared tradition.²⁸⁴ The work itself gives no clues about its author's location or time of writing. A date in third or fourth century may be surmised. The theme of διαφωνία and στάσις is shared with Eusebius, ps.Justin and Nemesius.

4.5.4 Nemesius

The treatise Περί φύσεως ἀνθρώπου, written in the manner of a philosophical handbook, is a virtually unique work among Patristic writings. We know nothing about the author except that he was bishop of Emesa (Homs) in Syria. Various indications point to a date in the last two decades of the fourth century.²⁸⁵ The work has a clear structure based on the nature of the human being which it describes. After the exordium (§1), there is a long chapter on the soul (§2), followed by chapters on the union of soul and body (§3), the body and its elements (§§4–5), the various psychical faculties ending with respiration (§§6–

282 See A 2.25.15, against the readings of the Byzantine mss. of ps.Plutarch, Qusṭā, Lydus, Eusebius and Theodoret.

283 DG 651–656. The Latin title is *Irrisio gentilium philosophorum*.

284 Hanson et al. (1993) 25–37. They make an exception for the relation between Hermias and ps.Justin: the fact that both authors list the same doxai on the nature of the soul in the same order (*Irr.* 2 and *Coh.* 7) suggests dependence, most likely of the latter on the former. See further the discussion at M–R 1.315–317.

285 On Nemesius' background and context see the introduction to the English translation of Sharples–Van der Eijk (2008).

28) and then a selection of topics on volition, fate and providence (§§29–43). Although the book is primarily descriptive and analytical, the author because of his Christian background does want to point out the dissension of the philosophers (after the exordium, διαφωνεῖται is the very first word in §2), so he is keen to include a considerable amount of doxographical material including numerous name-labels.

The relationship between Nemesisius' work and A's compendium shows some similarity to what we saw in the case of Achilles. The majority of the parallels relate to a single book only, Book 4 on psychology, which is the main subject of Nemesisius' treatise.²⁸⁶ For this book there are parallels in most chapters,²⁸⁷ but they vary in degrees of proximity. In the case of six chapters, 4.2–4, 4.6 and 12–13, the correspondences are so close that a shared origin must be postulated. It is unlikely, however, that Nemesisius made direct use of Aëtius (or the *Epitome*, as Diels thought²⁸⁸), even when for one lemma the verbal parallelism is almost exact.²⁸⁹ The differences are such that it is more probable that they both drew on a wider but narrowly related tradition. But for the above-mentioned chapters the parallels are close enough that in some cases Nemesisius can be used to support readings of some of the direct witnesses. The remainder of the passages in Nemesisius that are relevant to our edition are cited in relation to Book 1. These concern matters pertaining to the principles of nature and are concentrated in *De natura hominis* chs. 2, 3, 5, 39 and 41.²⁹⁰ They are not particularly close and only rarely include name-labels.

For citations we use the Teubner edition of Morani. His apparatus fontium is very useful, but does not pick up all the relevant parallels.²⁹¹

4.5.5 Isidore of Pelusium

The letter collection of the Egyptian desert father Isidore of Pelusium (c. 365–435) is perhaps an unusual place to find traces of the *Placita*. There are, however, two passages, both arguing that cosmological subjects do not contribute to the best way of life, which clearly summarise questions and doxai (but no

286 Bodily organs are closely linked to psychic powers or functions (cf. ch. 15, p. 72.4–7), so there are a few parallels for the physiological chapters in A Book 5; cf. Commentary section E in chs. 5.1, 5.5, 5.20, 5.25–26.

287 For all chapters except 4.1 (not on psychology), 4.5, 4.9, 4.11, 4.14–15 and 4.20, so 17 out of 24.

288 *DG* 49–50.

289 We revise our view in M–R 1.291–299. On A 4.3.14 see the Commentary ad loc., section A.

290 See chs. 1.proœm., 1.1; 1.3; 1.7; 1.9; 1.12; 1.16–17; 1.19; 1.25–29.

291 Morani (1987); see our comment at M–R 1.292. In his apparatus and index locorum he does not use Diels *DG*, but lists the witnesses ps.Plutarch, Stobaeus and Theodoret separately.

name-labels) from the *Placita* tradition.²⁹² The term λικνοειδής (like a winnowing fan) used of the earth is not found in Aëtius, but its formulation with the second part –ειδής is clearly analogous with shapes used in chs. 2.2, 2.14, 2.22, 2.27 and 3.10. No doubt Isidore came across this material during his education in Alexandria, where he was a fellow-student of Synesius and may have even sat at the feet of Hypatia.²⁹³

4.5.6 Scholia on the *Hexaemeron* of Basil

Basil's *Homilies on the Hexaemeron* was a very popular work in late antiquity and the Byzantine period. It contains many references to the cosmological doctrines of ancient philosophers, but these are all couched in anonymous terms. Scholiasts with knowledge of doxographical material explained these references in marginal notes on the mss. These were collected and analysed by Pasquali in 1910 and supplemented with a few more by Poljakov in 1982–1983. The scholia relevant to the *Placita* are limited in number and relate to first principles (chs. 1.3, 1.24), cosmology (chs. 2.2, 2.11) and the earth (chs. 3.11, 3.13, 3.15). They in fact show features closer to Achilles than to Aëtius.²⁹⁴ We cite the texts as edited by the two above-mentioned scholars.²⁹⁵

5 The Proximate Tradition, Further Parallels, and Sources

5.1 *The Dialectical-Doxographical Tradition*

Following in the footsteps of Hermann Diels, a major objective of our edition and commentary is to place its contents in the context of the ancient philosophical tradition, and particularly of the dialectical-doxographical handbook tradition of which it is the best-preserved witness. So far in the *Introduction* we have focused on the primary and secondary witnesses to the lost original text of Aëtius. But, as already adumbrated in our taxonomy of authors and texts in section 4.1, these witnesses by no means exhaust the relevant textual material that can shed light on the contents of the work. In the present section we

292 See ch. 2.11; 2.13; 2.15; 2.27; 2.31; 3.10; 3.11. For the text at *Ep.* 1435 we can use the text of Éviéux (1997–2000), but for the text at *Ep.* 2.273 we have to resort to Morel's 1638 text in MPG vol. 78. See further our earlier discussion at M–R 1.309–312 (with references to older literature). These passages were not noted by Diels.

293 Dzielska (1995) 42–44.

294 See the parallel columns at M–R 1.308–309.

295 Pasquali (1910); Polyakov (1982–1983). Remarkably, scholia nos. I 1–3 are also found in the ps.Clementine *Recognitiones*, translated into Latin by Rufinus, for which we use the edition of Rehm–Paschke (1965).

set out in general terms the contribution to our knowledge that is made by the remaining two categories, (3) the *traditio proxima* or proximate tradition (also *testes proximi*), and (4) *further parallels* and *sources*. These texts are listed fairly exhaustively at the end of the relevant chapters throughout our Commentary, divided into two sub-groups corresponding to the distinction between the two categories outlined above. It should be noted that, just as the demarcation between secondary witnesses and proximate tradition cannot always be precisely determined (already noted in section 4.1 above), likewise the distinction between categories (3) and (4) is by no means always clear-cut. Sometimes a report could with equal justification be classified as belonging to both of them. To avoid having to place it in both we have decided to limit inclusion in category (3) by means of the notion of proximity, i.e. a degree of closeness to what we call the broad dialectical-doxographical tradition. As for category (4), it goes without saying that writings later than the probable date of Aëtius can never be sources. But quite often there are texts of later authors which offer relevant and interesting material on the subject of the chapter and its doxai which cannot be situated within the *traditio proxima*. Good examples of authors in this category are the later Platonist and Aristotelian commentators, who almost never make direct use of the doxographical material, but do frequently cast light on material of Platonic and Aristotelian origin and/or inspiration which has found its way into Aëtius and other doxographical works.²⁹⁶

The polymorphous tradition comprising all the categories (including witnesses to the *Placita*) as outlined above, extends in time from its modest beginnings in the days of the Sophists Hippias and Gorgias all the way through to late antiquity, and also continues in Syriac and Arabic literature.²⁹⁷ A prime example of the length and breadth of this entire tradition is found in chapter 1.3 on the ἀρχαί ('first principles'). In our Commentary sections B and D(e), together with the further related texts in sections E(a)&(b), we assemble collections of evidence from Cicero in the first century BCE to Augustine in the fifth cent CE, and from the Hippocratic treatise *De natura hominis* around 400 BCE to the polymath Barhebraeus writing in Syriac in the 13th century CE. In terms

²⁹⁶ An exception must be made for Simplicius, though he too usually takes his diaereses and further information direct from Aristotle or from Alexander, rather than from the doxographical tradition. Porphyry and Iamblichus also update their psychological overviews with information drawn from the *Placita* or similar works. But it is surprising how relatively few parallels on cosmology are found in Proclus' *Commentary on the Timaeus*.

²⁹⁷ Our late friend Jørgen Mejer's concise study *Überlieferung der Philosophie im Altertum: Eine Einführung* of 2000 contains a wealth of information and deserves to be translated into English. For the next paragraphs see also the overview for online readers of the *Stanford Encyclopedia of Philosophy* in Mansfeld (2016d).

of methodology and contents, the proximate tradition as we understand it comprises not only dialectic deployed for a scientific purpose in a *status quaestionis* (as e.g. in Aristotle, an important source of Aëtius), or other doxographical works or texts per se (such as the *Epitome* of Arius Didymus, the *Stromateis* of ps.Plutarch, or the doxographies included in Diogenes Laertius), but more generally also literature using and quoting doxographical material for purposes of instruction and/or delectation (as in Plutarch, Lucian and Censorinus), or for showing off one's learning (as with the further parallels adorning Latin poetry). Christian authors (not just the *testes primi* Eusebius and Theodoret) used doxographical material on an abundant scale to show that the pagans contradict each other and sometimes even themselves and so are wrong, thus becoming *testes proximi* and unintentionally preserving for us a rich dossier of important and varied information.

Catalogues and lists are a popular feature of Greek literature right from the beginning. One may think for instance of the catalogue of ships in the *Iliad* or the *Catalogue of Women* attributed to Hesiod. A list of principles is a sort of catalogue. To mention only a few conspicuous early examples, we are aware that a useful collection of various views concerned with the summer flooding of the Nile was known to Herodotus, and that lists and overviews of alternative principles were familiar to Plato and Isocrates and Xenophon (name-labels were not always included).²⁹⁸ It was Aristotle who enlarged and transformed these narrowly circumscribed efforts into a comprehensive methodology, and who applied this novel technique over the entire spectrum of physics (and also ethics) in accordance with the rules of his dialectic and analytics. Subsequently it was practised for ends of their own by Epicureans and Stoics, and used somewhat differently by Pyrrhonists and Skeptical Academics, for whom the outcome had to be a stalemate, a *non liquet*.

Aristotle prescribed and practised this technique of assembling and testing the contrasting doxai of important poets (like Hesiod), of *sophoi* (experts like Empedocles), and even the reputable views of people in general (which cannot be entirely beside the point), with a positive outcome in mind. The *Metaphysics* and physical treatises, to limit ourselves to this part of his vast output, as a rule begin with dialectical overviews, but these also occur throughout on a smaller scale on the occasion of the treatment of particular topics.²⁹⁹ Problems posed and individual doxai mentioned find their way into the *Placita*. Aristotle's assessments of different theories were meant to (and did) prepare the

298 M–R 2.1.154–157.

299 See e.g. M–R 2.1.158–172.

path towards finding a solution. This positive purpose is not part of the method of the *Placita*. Dialectical argumentation was also practised by Theophrastus in several treatises, for some of which only fragments are extant. We continue our discussion of the contribution of Aristotle and Theophrastus below in section 5.2.

Epicurus' *Letter to Pythocles*, which can be placed alongside the *Metarsiology* ascribed to Theophrastus, also belongs to this tradition, though his purpose of furthering peace of mind differs from the scientific motivation of the great Peripatetics. He utilised the early dialectical-doxographical literature that was available, presumably also adding further data that he collected himself. In accordance with his well-known methodology, he offered pluralities of equally defensible alternative solutions of question in cosmology and meteorology. This approach was also adopted by Lucretius, who moreover profited from more recent doxographical literature in order to bring these overviews up to date.

The presence of Epicurus in the *Placita* has been exhaustively analysed in a study by Runia.³⁰⁰ Interestingly, his methodology is hinted at for those in the know in the final lemma of the chapter on the substance of the heavenly bodies, in which no less than fifteen doxai are listed: 'Epicurus does not reject any of these (views), holding fast to what is possible' (ch. 2.13.16). It is remarkable that this is the only remark pertaining to methodology to be found in the entire *Placita*. For further details on Epicurus and Lucretius see the Introductions to Books 2, 3 and 4.³⁰¹

There is less information available on how the Stoics stood in relation to this developing tradition. It has been shown that Chrysippus in his *On the Soul* assessed various topics, treated in an order like that of Aristotle and the *Placita* in a dialectical manner. He adduced and creatively interpreted the poets and also used other evidence.³⁰² He also unmistakably utilized a predecessor of ch. 4.5 on the *hegemonikon* ('regent part of the soul') and its location in the body.³⁰³ This is a unique and precious proof of the existence of at least one earlier version of the *Placita*, or of a very similar treatise, in the long period extending from Epicurus to Philodemus.

Between the late third and the mid-first century the dialectical-doxographical literature must have been gradually updated in order to include informa-

300 Runia (2018) = M-R 4.377–432.

301 Also cf. Mansfeld (1994b) at M-R 3.237–254; Runia (1997) at M-R 3.255–270; and Bakker (2016).

302 Tieleman (1996).

303 Mansfeld (1989a) at M-R 3.125–157 on Chrysippus *On the Soul* at Gal. *PHP* 3.1.12–15 (*SVF* 2.885).

tion on Hellenistic philosophy and medicine, and on developments in Platonism in the direction of Neopythagoreanism. How, where, when, and in what stages this process occurred we do not know. We also have to reckon with the possibility, or rather probability, that individual writers and users of dialectical-doxographical literature added to the contents they reproduced from their own fund of knowledge, which might have even included going back to the original sources—a process we might regard as retrograde contamination.

Other developments can be better followed, even if the remains we have to be satisfied with are fragmentary. Plato, Aristotle and Theophrastus already gave some attention to master-pupil relations. The recording and description of unbroken chains of master-pupil(s) bonds became the chief objective of literature dealing with the *Diadochai* or *Successions of Philosophers*, of which the first known representative is the work of Sotion in the early second century BCE.³⁰⁴ Naturally this genre is person-oriented and not topic-oriented, although sometimes paying attention to doctrine could not be avoided. This other orientation also exerted influence on the *Placita*, most clearly in ch. 1.3 on the principles, which was restructured according to the Ionic Succession from Thales and the Italic Succession from Pythagoras. The date of Sotion gives us a t.p.q. for this reshuffling. The *Peri Haireseon* literature, another Hellenistic genre, dealt with the history of the parts of philosophy according to the different schools,³⁰⁵ and is of restricted relevance in our context. And so is the flourishing genre of biography,³⁰⁶ apart from the indispensable work of Diogenes Laertius,³⁰⁷ who in the third century CE added the doxai to the lives and thus, together with Porphyry, represents the genre of bio-doxography.

Setting aside the primary and secondary witnesses to the text of Aëtius, who contribute many parallels of undoubted significance to particular chapters or lemmata but have been sufficiently discussed in sections 2 and 4 above, we focus now on the proximate tradition as we have defined it. The first important representatives of this tradition are found in the first century BCE and a little later.³⁰⁸ The scene has moved to Italy, and the focus is on the expatriate Epicurean Philodemus in Naples, and to three others in Rome, namely the polymath Varro, another Epicurean, i.e. Lucretius, and Cicero, who claimed to

304 Wehrli (1978), Giannattasio Andria (1989), Mejer (2000) 45–47.

305 Mejer (2000) 31, 50, Algra (2018) at M–R 4.53–102 with references.

306 Mejer (2000) 39–41, Schorn (2004), Erler–Schorn (2007), Hägg (2012).

307 Mejer (1992), (2000) 48–54, (2007).

308 The *Doxographi Graeci* contains outstanding *Indices nominum* and *verborum*, but lacks an *Index locorum*, which is a handicap, though names of authors are found in the *Index nominum*. Perhaps someone should compose one, esp. to the *Prolegomena*.

be an Academic, and finally to an Alexandrian, Philo Judaeus, who flourished in the early decades of the first century CE (and also spent time in Rome). As we have already seen,³⁰⁹ Philodemus' *De pietate* and Cicero's *De natura deorum* Book 1 offer rich documentation parallel to chs. 1.6–7.2–25, on the origin of the concept of the gods and on views on their nature. Cicero, apart from offering a succinct overview of the principles of physics at *Lucullus* 118, also preserves precious documentation on views on the soul's substance (cf. chs. 4.2–3), its mortality vs. its immortality (cf. ch. 4.7), and the location of its regent part (cf. ch. 4.5) in the first Book of the *Tusculanae Disputationes*. Whether or not in the *De natura deorum* he is dependent on Philodemus or shares an earlier source, *mutatis mutandis* he is as invaluable qua source for the tradition leading up to the *Placita* as he has proved to be for Hellenistic philosophy. Varro as preserved in Censorinus *De die natali* is a *fons uberrimus* for the information in Book 5 (chs. 5.1, 5.3, 5.5, 5.10–11, 5.16–19) on spermatology and heredity that was previously drawn up in the Greek source(s) he must have used.³¹⁰ Lucretius certainly followed Epicurus, but understandably also updated his account of meteorology in *De natura rerum* Books 5–6 and those of psychology and physiology in Books 3–4, which prelude upon parallel sequences of chapters in *Placita* Books 3–5.³¹¹ In several treatises Philo of Alexandria importantly lists questions and doxai on the nature of the heavenly bodies and the soul/mind (without giving any names), which form a remarkable parallel to various chapters in Books 2 and 4, and he also elsewhere gives general lists of questions with a doxographical flavour.³¹²

The large assortment of texts constituting the *traditio proxima* comprises more than fifty authors or anonymous writings or collections of scholia or definitions. These report, process and utilize dialectical-doxographical material which differs from the *Placita* and its immediate tradition in a variety of ways, but is still recognizably related. The doxai can for instance be more or less copious in content and/or number, and can be arranged in accordance with a different pattern.

It will not of course be practicable to account for the character or contribution of each of these numerous *testes proximi*. Instead we have drawn up a selective list, in alphabetical order, of mostly familiar names and titles. It

309 See above text to n. 141.

310 Documented by Diels *DG* 186–198.

311 Not mentioned by Diels in the *DG*. See further Mansfeld (1990a) 3143–3154; Runia (1997) = M–R 3.255–270.

312 Not cited on such issues by Diels in the *DG*, but first noted in Wendland (1897). See further Mansfeld (1990a) 3117–3122; Runia (2008) = M–R 3.271–312.

excludes the names that have just been mentioned and the peculiar proximate tradition for ch. 4.1 on the Nile. This list contains both philosophers and medical writers, and also both pagans and Christian writers. In recognition of the pioneering research of Diels, we refer to his discussion in brackets after the names:

Alexander of Aphrodisias
 Ambrose of Milan
 Anonymus Londiniensis
 Arius Didymus (*DG* 69–88, text 445–472)
 Arnobius of Sicca (brief quotation at *DG* 172)
 Augustine (*DG* 173–174)
 Basil of Caesarea
 Calcidius (brief mention at *DG* 170)
 Clement of Alexandria (*DG* 129–132, 244–246)
 Diogenes Laertius (*DG* 133–134, 168)
 Diogenes of Oenoanda
 Epiphanius (*DG* 179–180, text 585–593)
 Eusebius (*DG* 5–10)
 Galen
 Heraclitus the Allegorist (*DG* 88–99)
 Hippolytus *Refutatio* Book 1 (*DG* 133–134, text 551–576)
 Iamblichus *De anima*
 Irenaeus (brief mention at *DG* 171)
 Isidore of Seville (brief mention at *DG* 199–200)
 Lactantius (*DG* 193–194)
 Lucian of Samosata
 Macrobius (brief quotation at *DG* 213)
 Olympiodorus the Alchemist
 Origen
 Pollux (brief quotation at *DG* 207–208)
 Porphyry *De anima*
 ps.Galen *Definitiones medicae*
 ps.Plutarch *De Homero* (*DG* 88–99)
 ps.Plutarch *Stromateis* (text *DG* 577–583)
 ps.Valerius Probus (*DG* 91–93)
 Seneca (brief mention at *DG* 19)
 Servius plus Servius auctus
 Sextus Empiricus (*DG* 91–93)
 Soranus of Ephesus (*DG* 193, 205–208)

Tertullian (important on the *De anima* at *DG* 203–207³¹³)

Themistius

Theophilus of Antioch (brief mention at *DG* 59)

Vitruvius (brief mention *DG* 94–95).

It will be agreed that Diels collected and discussed an astonishing amount of relevant parallels (we have omitted those he referred to only in passing), for which we can only be most grateful. But, true to his adoption of the methods of Lachmann and Usener,³¹⁴ the main purpose of his observations and comparisons was to ferret out the sources and the relationships between them. His argument was thus focused on the three stages of (1) the reconstruction of Aëtius, (2) support for the hypothesis of the *Vetusta placita*, and (3) validation of the decisive role (as he argued and believed) of Theophrastus. What he saw as subsequent corruptions and deformations and confusions had to be ruthlessly eliminated. As a consequence he failed to properly evaluate the sources he was able to cite. Though this is only a side issue, we further note that, in comparing Heraclitus *De Homero*, Servius, and Sextus Empiricus on the principles etc. with each other (and with *capita selecta* of the *Placita*), he placed this triad of quite important sources in a separate class of commentators on poetry that in his view deviated from the practice of doxography in the proper sense.³¹⁵ As we saw in section 2.4 above, this proved to be a useful ploy for fishing out non-Aëtian lemmata in Stobaeus. But when seen in a wider context, it is no more than an example of pseudo-precision which is of little value in accounting for the peculiarities and complications and affinities in the proximate tradition.

We too have to keep the discussion within bounds, so cite only a couple of noteworthy examples, even fewer than Diels in the ‘Prolegomena’. It should be noted, however, that the role of the *traditio proxima* (on which see also below section 6.3) is always discussed at the requisite length in the B section of the commentary of the chapters for which it is available.

The pseudo-Galenic *Definitiones medicae* are important for psychological and physiological matters.³¹⁶ Passages in Sextus Empiricus on the principles, as we saw, are quoted in the *Doxographi Graeci*, but the rich parallels for chs. 1.21–22 on time at *Adversus mathematicos* 10.170–181, 10.215–219, 10.227–229, and *Pyrrhoniae hypotyposes* 3.136–138, and at *Adversus mathematicos* 7.161–163, 7.244–245, 8.56–57 and 8.63–64 for ch. 4.12 on impressions and figments, are

313 But no mention of works such as for instance the *Ad nationes*.

314 See our discussion above in section 2.8.

315 *DG* 88–99.

316 Most regrettably the long-awaited edition by Prof. Jutta Kollesch is still not available.

not.³¹⁷ Diogenes Laertius provides a rich harvest of parallel topical material appended to his biographies, which often includes extra information. An even richer harvest is provided by Book 1 of Hippolytus' *Refutatio omnium haeresium*, which is for the most part devoted to the Presocratics. As is well known, Diels claimed the passages on the Presocratics in Diogenes Laertius and Hippolytus for his Theophrastean excerpts, but it has been less often observed that he omitted to include the later Books of the *Refutatio* in his inquiries. Contributions of two important philosophers, Porphyry's *De anima* and Iamblichus' *De anima* (fragments are preserved by Stobaeus) not only contain strictly parallel material, but also include selected views of later philosophers with a preference for Platonists, thus attesting the usefulness of the genre and the vitality of the tradition. The parallel material in Calcidius' *In Timaeum* is abundant, yielding parallels for the proemium to the *Placita* and (limiting ourselves to Book 1), for ch. 1.3 on the principles, chs. 1.6 on the origin of the concept and 1.7 on the nature of the divinity, chs. 1.9 on matter and 1.10 on form, ch. 1.16 on the cutting of bodies, and ch. 1.28 on fate. The same author, just like Porphyry and Iamblichus, is cited for parallels beyond the proximate tradition, as is only natural for a fourth century CE writer.

The last category to be briefly described here is that of the further parallels and sources, the textual material for which has been collected in commentary section E(b) at the end of each individual chapter. 'Sources' (a term that should not be confused with 'witnesses') refers here to the ultimate origin of the issues and opinions recorded in the compendium's chapters and doxai. Sometimes, when the original writings are available, these can be pinpointed with precision, as in the case of Plato, Aristotle and Epicurus, though this does not happen as often as might be expected. Many of the texts cited as sources are actually of later authors referring to similar source material which they use in their own way. Galen is a prime example of such usage in his citation of Presocratic authors.³¹⁸ The further parallels that we adduce are not only additional, but also further in the sense that though parallel, they stand at a greater distance from the *Placita* than those found in the *testes proximi*. They extend right to the end of the ancient philosophical tradition and indeed occasionally beyond it. In this section the two kinds of further texts are combined. Their placement in chronological order usually allows them to be distinguished from each other.

317 For a recent attempt to deal with Sextus as a provider of parallels for chs. 1.21–22 see ch. 1.21 Commentary A (5).

318 See for example his citation of Empedocles and Parmenides in relation to ch. 5.7 on the determination of the male and female sex.

A special role in the above described distillation of persons and doctrines that took place in the *longue durée* of the ancient philosophical tradition must be ascribed to the ground-breaking partnership of Aristotle and (to a lesser extent) Theophrastus. This has already been touched upon in our description of Diels' theory on the origin of the *Placita* in section 3.1. We now embark on a fuller analysis of their contribution, to the extent that it can be reconstructed on the basis of the limited evidence that is available to us.

5.2 *Aristotle and Theophrastus*

5.2.1 Aristotle

Usener and Diels, concentrating on Theophrastus, regrettably missed or perhaps preferred to overlook the incomparably more important Aristotelian heritage, this notwithstanding the fact that Ideler, in his wonderful commentary on Aristotle's *Meteorology*, had cited the echoes of Aristotle in authors for whom Usener and Diels claimed dependence on Theophrastus.³¹⁹ And Ideler was not the only one to point to Aristotle, for the great Zeller had illustrated the influence of Aristotle on Theophrastus' fragments on the principles.³²⁰

Aristotle is present in *three* different ways.³²¹ In the *first* place his name is cited no less than 59 times in the *Placita*, appearing in all five Books and not infrequently sharing a doxa with others.³²² Diels drew attention to a couple of accurate formulations of Aristotelian doctrine taken from the *Physics*, the *On Generation and Corruption*, the *On the Soul*, the *On the Generation of Animals*, and of a Pythagorean view from the *On Sensation*.³²³ He argued that these were added by Aëtius, for he believed—not unreasonably—that such precise information had only become accessible in the first century CE. The remainder, reformulated to a greater or lesser extent or even doubtful, could be attributed to the compiler of the hypothetical *Vetusta placita*, who in his view relied on the information of later Peripatetics, just as for instance Arius Didymus had done.

In the case of the Presocratics, who are so prominently present in the *Placita*, Diels emphatically insisted that their doxai were transmitted indirectly via the hypothetical *Vetusta placita*, which in turn had extracted them from Theophrastus, although the actual evidence for their presence in the latter is

319 Ideler (1834–1836) 1.409, quoted at ch. 3.1 Commentary B.

320 Zeller (1877). For Diels' expedient see immediately below.

321 For Aristotle in the *Placita* see Diels *DG* 215–216 and now Mansfeld (2016a).

322 Conveniently listed in Jeremiah (2018) at M–R 4.355.

323 Among other passages we may point to chs. 1.9.1, 1.15.2, 1.23.2, 1.29.2, 4.8.6, 4.9.3, and 5.3.1.

simply not available. What remains quite mind-boggling is that he was not prepared to make allowance for the transmission, via an anterior tradition descending from Aristotle, of many other topics and doxai which we can often still compare with what Aristotle himself wrote. One example out of many is the Pythagorean view on colour in ch. 1.15, which is taken from *On Sensation* and not from Theophrastus' *De sensibus*, the only source which Diels himself cited in this context.³²⁴

These doxai, quite numerous, which represent the *second* form of Aristotle's presence in the *Placita*, were in fact ignored by Diels, apart from a few references to parallels in the *pragmateiai* in the critical apparatus to the ps.Plutarchean–Aëtian columns of text.

Our commentary not only always discusses the contents of individual doxai of other people that were passed on in this way, but is also concerned with the contents of topics and issues descending from Aristotle, which are the theme of a particular chapter.

Here we only give a few telling examples, beginning with the theoretical chapters of Book 1. The theme and structure of ch. 1.19 on place (τόπος) derives from *Physics* 4.4, and three doxai are already present in 4.4 211b6–9. This is also the case for *Phys.* 4.10 218a31–b10 in connection with chs. 1.21–22 on time: the focus of 1.21.2–3 and 1.22.1–5 on the relation between time and motion is anticipated at *Phys.* 4.10 218b9–10. In ch. 1.21 the doxographer adds name-labels to two doxai left anonymous by Aristotle, and the final diaphonia at ch. 1.22.8–9 is already found at *Phys.* 8.1 251b10–19.

For details regarding individual doxai Aristotle is perhaps a bit less distinctly present in the cosmological Book 2, but the topics that correspond are convincing enough. The systematic connections between the questions treated ch. 2.1 were already clearly set out in *On the Heavens* 1.8–9. The famous theme of ch. 2.4 on the destruction of the cosmos is cited twice as a key dialectical πρόβλημα, namely at *Topics* 1.11 104b8 and 1.14 105a24, and also several times discussed elsewhere. And the subjects of chs. 2.13–16 on the heavenly bodies are very clearly marked out at *Cael.* 2.7–12.

The meteorological Book 3 is quite rich in problems and doxai deriving straight from Aristotle. The matrix of ch. 3.1 on the Milky Way comes from *Meteorology* 1.8, while lemmata 1.8.2–4 and 1.8.7–8 are cited virtually verbatim from this chapter. Chs. 3.2.1–3 derive from Aristotle's dialectical overview at *Mete.* 1.6, while ch. 3.2.4 summarizes Aristotle's own view at *Mete.* 1.7. For chs. 3.9–11 plus 3.13 on the earth the main source of the questions dealt with is *Cael.* 2.13 (also

324 See our discussion in the Commentary on ch. 1.15, section B.

for some name-labels and doxai). The issue and three lemmata of ch. 3.16 on the saltiness of the sea are found at *Mete.* 2.1–2 (so we do not have to link these doxai with Theophrastus).

The Aristotelian inheritance in the psychological Book 4 is for the most part present in chs. 4.2–4 on the incorporeal vs. corporeal substance and the parts of the soul. Ch. 1.2 of the *On the Soul* lists the chief questions that need to be answered, and provides a substantial dialectical overview of views concerned with the soul as principle of motion and of cognition, including treatment of the question of incorporeal vs. corporeal substance. In ch. 4.3 on the corporeal soul there is an abundance of material taken from this key Aristotelian chapter.³²⁵ In the physiological Book 5 the various questions there reveal numerous links to the biological treatises *On the Generation of Animals* and *On the Parts of Animals*. Questions relating to the semen of females of ch. 5.5 are discussed at *GA* 1.17 721a35 and 1.19 726a31–b1. For chs. 5.7–8 and 5.11 the general inspiration is the treatment of these questions at *GA* 4.1–4. The specific subject of sex differentiation of ch. 5.7 is discussed in *GA* 4.1, and four out of seven name-labels are already found there. Quite interesting is ch. 5.7.1–2, where first Empedocles and then, *more doxographically*, in second place the opposite doxai of Parmenides are cited. This association and the two doxai have been abstracted from *PA* 2.2 648a25–31, where the chronological order was preserved and it was Empedocles who represented the opposition.

The *third* form of Aristotelian presence in the *Placita* remains to be discussed. We refer to the dominant presence of the Aristotelian methodology in the work.³²⁶ The discussion of themes in an order determined by the categories of substance, quality, quantity, place etc., which is an important feature of the Aristotelian school treatises, is also a feature of large sections and numerous individual chapters of the *Placita*. The methodology of scientific enquiry formulated in the first chapter of Book 2 of *Posterior Analytics*, that is, the four types of questions τὸ ὅτι ‘how is it?’ (quality or attribute), τὸ διότι ‘why is it?’ (cause or explanation, also διὰ τί), εἰ ἔστι ‘does it exist?’ (existence), and τί ἐστὶν ‘what is it?’ (definition),³²⁷ the first and fourth of which coincide with the Aristotelian categories of quality and substance, is another determining factor.

325 The lemmata of ch. 4.3.1–2 derive from *de An.* 1.2 405a19–21 plus 1.2 405a29–b1; those of ch. 4.3–4 from *de An.* 1.2 404b16–30; those of 4.3–5 from *de An.* 1.2 403b31–404a5; 4.3.8 from 405a21–22; 4.3.13 from 405b5–6; and 4.3.14 from 405a25–27.

326 For dialectic as well categories and question types in this context see M–R 2.1.158–166, 168–172, and passim, and for this aspect of Aristotle’s presence in the *Placita* now also Mansfeld (2016a) 311–316.

327 *An.Po.* 2.1 89b24–35.

We list some of the more important examples, derived from all five books. Ch. 1.7.1 describes the views of those who deny that God exists, while 1.7.2–25 is a list of views concerned with definitions of the substance of the divinity on a gliding scale attributed to a sequence of individual philosophers. These approaches correspond to the types of question dealing with the issues ‘is it?’ and ‘what is it?’, sc. what is its substance (*ousia*). Chs. 2.11–12 on the heaven and 2.13–17 on the stars follow each other according to substance, shape (quality), arrangement (place), motion (action), illumination (being-affected); similarly also chs. 2.20–24 on the sun, 2.25–30 on the moon, 4.8–21 on sensation and the senses, and 5.3–14 on semen and insemination, all beginning with a chapter dealing with the category of substance. The heading of ch. 3.9 is ‘On the earth, and what is its substance and how many there are’, that of ch. 3.10 ‘On the shape of the earth’, that of ch. 3.11 ‘On the location of the earth’, that of ch. 3.12 ‘On the inclination of the earth’, and that of ch. 3.10 ‘On the movement of the earth’. Without difficulty we may distinguish, in succession, the categories of substance, quantity, quality, place, being-in-a-position, doing, and being-affected. In ch. 3.9 (extant in ps.Plutarch only) substance is not included, perhaps because the substance of earth is, well, earth.

Chapters 4.2–7 form a series dealing with the soul *per se* in a close-knit and ordered sequence according to question-types and categories. Chs. 4.2–3, ‘On the Soul’ and ‘Whether the soul is a body and what is its substance’, are concerned with the question-type of definition and the category of substance, but also with that of quantity because of the distinction between monists and pluralists, an ingredient already of *de An.* 1.2. Ch. 4.4, ‘On the parts of soul’, is about the category of quantity, and *ad finem* includes that of place. Ch. 4.5, ‘What is the regent part of the soul and in what place is it’, is about the categories of substance and, above all, place. Ch. 4.6, ‘On the motion of soul’, is about the categories of action and being-affected, and ch. 4.7, ‘On the indestructibility of soul’, about the category of time. The question of the regent part or its place in the body, an important question on the Hellenistic agenda, was of no interest to Aristotle. This did not prevent ch. 4.5 from being incorporated in the framework of the categories, and the same holds for other chapters dealing with subjects beyond Aristotle’s horizon. Ch. 3.17 on the tides, for example, falls under the question type of cause (διὰ τῆς).

The *Placita* does not define its methodology, though the prominent presence of Aristotle (and Theophrastus) in its prooemium and the definition and exemplification of problems in physics (and ethics) given there might be taken as a hint. That this methodology is in fact present and not just imposed on it by the interpreters (i.e. no *Hineininterpretation*) is clearly attested by Galen in his *Introduction to Logic*. He distinguishes between problems in physics accord-

ing to the category under which they occur and refers to question types. His examples correspond to chapter headings in the *Placita*:

- *Inst.Log.* c. 12.3 the size (cf. ch. 2.21) and distances (cf. ch. 2.31) of the sun: the categories of quantity and place;
- *Inst.Log.* c. 13.7–8 the position (cf. ch. 3.11) and shape (cf. ch. 3.10) of the earth: categories of place and quality;
- *Inst.Log.* c. 13.9 causes of voice (cf. ch. 4.19), respiration (cf. ch. 4.22), earthquakes (cf. ch. 3.15), and various kinds of thunderstorms (cf. ch. 3.3): question type of cause.
- *Inst.Log.* c. 14 reference to the question type of existence and that of substance as the ‘first and most important’ type of ‘problem’, illustrated by the examples: ‘does fate exist’ (cf. ch. 1.27–28), ‘does providence exist’ (cf. ch. 2.3), ‘do the gods exist’ (cf. ch. 1.7), and ‘does the void exist’ (cf. ch. 1.18).

This text demonstrates that our continual detection of the reverberations of Aristotle’s methodology in our Commentary is anything but fanciful. But we should again emphasize an important difference between two kinds of dialectical practice in the texts under discussion. As was already observed in the previous section, Aristotle’s purpose is to find a solution to a problem by collecting and testing other views, perhaps eventually revising one of them, or (more often) coming up with an acceptable alternative. In contrast, a typical chapter in the *Placita* offers an overview of contrasting doxai which is usually structured along dialectical lines, but crucially it refrains from criticism, even when the opinions it records are blatantly outdated or absurd. No choices are made and no solutions are put forward.

5.2.2 Theophrastus

Theophrastus’ name is cited on only three occasions in the *Placita*, so vastly less often than that of Aristotle.³²⁸ The first time is in the proœmium of the treatise, where he is cited not for a view that is specifically his own but together with Aristotle and ‘almost all the Peripatetics’ for a division of philosophy into two parts. The other two, both only witnessed in Stobaeus, also do not relate to doxai of his own, but are references to his recording of Presocratic views. One of them just tells us that Theophrastus is a source for a view of Anaxagoras on the cause of the lunar eclipse. The other at ch. 2.20.5 is more interesting, because here his *Physics* is cited for the doxa of Xenophanes on the substance of the sun (Θεόφραστος ἐν τοῖς Φυσικοῖς γέγραπεν). Now it is possible that we might be mistaken in attributing this information to the *Placita*, since the attribution

³²⁸ We attribute ch. 1.29.4 Diels to Arius Didymus.

is lacking in ps.Plutarch.³²⁹ At the very least, however, this is evidence that in the *Physics* Theophrastus quoted cosmological doxai—it will hardly have been the only case. This would mean that the doxographer simply had go to Theophrastus, because both these issues were not dealt with by Aristotle. Usener and Diels claimed that *Physics* here stands for Φυσικῶν δόξαι, ‘*Tenets of the Physicists*’ (as they called the work), but this is special pleading.

The principal extant examples of dialectical discussions by Theophrastus are the treatise *De sensibus*, the remains of the first Book of his *Physics* extant in Simplicius, together with the fragment from this work at ch. 2.20.5 extant in Stobaeus, the fragment plus book title of the Φυσικαὶ δόξαι cited by the Middle Platonist philosopher Taurus,³³⁰ and the *Metarsiology* (if correctly ascribed) preserved in Syriac and Arabic translations. The Taurus fragment is important because it also informs us *disertis verbis* that Theophrastus added ‘objections’ to the tenets he dealt with.³³¹ The *Metarsiology* attests that Theophrastus collected alternative explanations for meteorological phenomena, which he must have taken from the primary and secondary literature. Quite a few of these anonymous tenets are paralleled in chapters of Book 3 of the *Placita*, although some topics are lacking. In the *De sensibus*, doxai are sorted in accordance with the technique of diaeresis, dialectically opposed to each other and criticized. This bipartite opposition of doxai ends with a compromise position, the same as happens in quite a few *Placita* chapters. This feature is lacking in Aristotle’s overviews. But we do not know if there was a constructive sequel.³³² And though we are rather better informed about the *Physics*, here too we do not know how his constructive positions were linked with the dialectical introduction.

Both the discussion of the senses and sensation and that of the principles have left their traces in the *Placita*, but as far as we can tell given the state

329 In our commentary on ch. 2.20 we argue that the reference was most likely present in the *Placita*.

330 Taurus Test. 22B Lakmann ~ 23 F Gioè ~ 24 Lakmann = Theophr. *Phys.Op.* fr. 11(a) Diels ~ fr. 241A FHS&G at Philop. *Aet.* 6.8, p. 145.20–21 (repeated p. 223.14–15), Θεόφραστος μέντοι ἐν τῷ Περὶ τῶν φυσικῶν δόξων, which can only mean ‘in the *On the physical tenets*’, *pace* the translations of FHS&G (1993), Gioè (2002), and Lakmann (2017). Diels argued that this treatise was topic-oriented not person-oriented, for which Φυσικαὶ δόξαι as title would a better fit. Cf. below 1.titulus et index Commentary D(e)(3) for references to earlier discussions, and the evidence there at E(b) *Physical doxai/dogmata*. See also J.-P. Schneider at *DPhA* 6.1069.

331 καὶ οὕτω ποιεῖται τὰς ἐνστάσεις (*enstasis* is a technical term in Aristotle’s *Topics* and *Analytics*, also used by him elsewhere).

332 See Baltussen (2000a) and (2000b), and on diaeresis and the crucial difference compared with Aristotle, Mansfeld (1996), repr. at M–R 3.203–236.

of preservation of Theophrastus' writings, the impact and inheritance of the successor are far less important than of the master.³³³ But this does not really surprise, for Theophrastus is revising and filling the gaps in Aristotle's disquisitions, like he does on other occasions. The *De sensibus* provides more, and more detailed, information on specific theories than Aristotle's systematic and more general *On Sensation*, while his point that some early thinkers did distinguish between sensation and thought is an implicit criticism of Aristotle's view that none of them did.³³⁴ His account of the principles is a revised version of the foundational but largely name-label-less division in ch. 1.2 of the *Physics* and an enlarged version of Aristotle's famous account of progress in the first Book of *Metaphysics*. Theophrastus adds further details and includes Anaximander and Archelaus, the former not mentioned by Aristotle in *Met.* Book A, the latter never. So their presence in ch. 1.3 derives, ultimately, from Theophrastus' intervention.

The situation for ch. 1.15 on colours and chs. 4.13–19 on the senses is more promising.³³⁵ Individual antecedents are indeed present in the *De sensibus*, but these are not all equally complete or convincing, and their impact again is not as decisive as Diels made out, as we know thanks also to the pioneering contributions of Ax and Baltussen.³³⁶ For details see the Commentary on these chapters below.³³⁷ Our conclusion therefore is that, indeed, the *De sensibus* is an ultimate source of information on Presocratics and Plato for Aëtius, but nevertheless it constitutes not more than one important ingredient of the tradition(s), including Aristotle's influence, which ended up in the *Placita*.

This result amounts to a much tuned-down version of the original Usener–Diels hypothesis of a unique source that had been sadly corrupted in the later tradition. Diels, as is of course (or should be) common knowledge, claimed that doxography began with the Φυσικῶν [sic] δόξαι, in which he included the *De sensibus* and the fragments from the beginning of the *Physics* and a lot more, but the evidence does not bear him out. The available evidence suggests rather that, just is the case for Aristotle, so also for Theophrastus we must assume that several individual treatises actually bequeathed problems and doxai to the *Placita*, and not just one: apart from the *Physics* and the *De sensibus* and

333 Cf. Jeremiah (2018) at M–R 4.325–326, who, however, does not take into consideration the references in Book 2, no doubt because they are not name-labels attached to doxai.

334 See Mansfeld (1996) at M–R 3.203–236.

335 See on the senses more specifically chs. 4.13.1, 4.13.7–8, 4.13.12, 4.14.1, 4.16.1–4, 4.17.1–2, 4.18.1–2, 4.19.1a–b, and 4.19.5.

336 Ax (1986); Baltussen (1993).

337 The evidence is summarized and assessed in Mansfeld (2019d).

the name-label-less *Metarsiology* already mentioned above,³³⁸ one can give the example of the *On Waters* which is relevant to ch. 3.16 on the sea and its bitterness. In Alexander's Commentary on the *On Sensation* the title of this work is cited and we encounter explanations without name-labels of brackishness because of water having been filtered through a certain type of earth, or bitterness because of it having been filtered through ashes.³³⁹ Such views are also cited by Aristotle at *Mete.* 2.1–2, with name-labels and doxai that resulted in three paragraphs of ch. 3.16. Theophrastus also follows and improves on Aristotle's explanations of the saltiness of the sea in a passage quoted in Alexander's Commentary on the *Meteorology*, adding a couple of name-labels and doxai and as it seems omitting others.³⁴⁰ Diels attributed the latter quotation as fr. 23 to the *Physical Tenets*, but Alexander fails to cite a title. This does not imply that the Φυσικαὶ δόξαι provided nothing at all, but we really need more solid evidence and it is difficult to see where it is going to come from.³⁴¹ All in all, to sum up the results of our research on the origins of the dialectical-doxographical tradition, we will be pleased if it leads to an increased appreciation of the role of Aristotle and a diminution of scholarly fixation on the role of Theophrastus.³⁴²

6 The Edition's Contents, Method and Layout

6.1 *The Division into Four Parts*

A key result of our investigations into the transmission of the *Placita* is that ps.Plutarch's *Epitome* by and large preserves the structure of Aëtius' compendium.³⁴³ The sequence of our edition and commentary is based on this insight.

338 See above at n. 98.

339 Included in the fragments of Theophrastus as fr. 212 FHS&G.

340 The fact that Theophrastus revised and supplemented these overviews of his master robs the long forgotten hypothesis of Gigon (1969) that Aristotle used the (so-called) *Physikon Doxai* as a data-base for his dialectical exercises of all plausibility.

341 We may perhaps refer to the fragment cited by Taurus, quoted above at n. 330. It seems that, echoing Aristotle at *Cael.* 1.10 297b32–298a2, Theophrastus criticized the allegorical explanation of the generation of the cosmos provided by Plato's pupils. A possible trace in the *Placita* is at ch. 2.4.1, where this view is ascribed to Pythagoras (representing Plato's pupils) and, a bit surprisingly, Heraclitus. But how are we to distinguish here between a reception of Theophrastus and one of Aristotle? There is moreover no trace in ch. 2.4 of the arguments against the eternity of the cosmos criticized by Theophrastus according to Philo *Aet.* 117–150.

342 The promised volume on the doxographical fragments of Theophrastus by Han Baltussen is eagerly awaited.

343 See above sections 2.3 and 2.8.

Part One of the present work in four parts³⁴⁴ first includes the necessary preliminaries, including a detailed list of sigla and abbreviations, and also the present General Introduction.³⁴⁵ The remainder comprises Book 1 on the principles of nature, the lengthiest of the Books and also the one including the most complex chapters 1.3 on the ἀρχαί and 1.7 on theology. The edition of this Book and the concomitant commentary is primarily the work of Jaap Mansfeld. Part Two comprises Book 2 on cosmology and the heavens and Book 3 on meteorology and the earth. The former has been prepared primarily by David Runia and is a thoroughly revised version of the *specimen reconstructionis* produced in *Aëtiana* volume 2.2.³⁴⁶ The latter has been prepared by Jaap Mansfeld. Part Three focuses on the psychology and physiology of (mainly) the human being. Book 4 on psychology has been the work of Jaap Mansfeld and Book 5 on physiology has been prepared by David Runia. In the case of each of the five Books, the edition of its chapters is preceded by a compact Introduction which gives an overview of its witnesses, transmission, subject-matter, name-labels of philosophers and schools, method and sources (both anterior and proximate). The collaboration of the two authors is the same as in all previous volumes, as first outlined at M–R 1.xxi. Although the labour of producing the edition and commentary has been divided up between them, they have constantly read each other's texts and reached agreement on all the more important issues.

The parts of the work containing the reconstruction and edition do not have an accompanying translation. The usual method of text and facing translation was not practicable because of the copious amount of material that needed to be included in the apparatus of the edition. The remedy has been to gather the translation together in Part Four. It will be useful to have this volume at hand when using the other three. It also contains the bibliography and the indices.

For all 135 chapters of the entire work, the edition and commentary use an identical method and layout. Only the chapters on the pinakes at the beginning of each Book and the four proœmia to Books 1–4 differ in a few respects. This method and layout will now be explained in detail, commencing with the edition.

344 As in the case of *Aëtiana* Vol.2, we label the separate bound books of the entire work as 'Parts'. English lacks the useful German term 'Teilband'.

345 The General Introduction is a collaborative effort: sections 2.2–2.8, 3.1–3.2, 5, and 6.5 are mainly the work of Jaap Mansfeld, while David Runia wrote the remaining sections.

346 On this earlier volume of the *Aëtiana* see above section 2.8.

6.2 The Edition

Following the conventions of classical scholarship the edition of the Greek text and all its accompanying apparatus are in Latin. The many abbreviations and sigla that we use are set out at the beginning of Parts One to Three.

For each chapter we begin with a list of the relevant *testes* (witnesses). First in this list are the passages from the *testes primi* (primary witnesses) and the name of the editor of the text edition used. These witnesses are: ps.Plutarch (abbreviated P) and his tradition, Stobaeus (S) and Theodoret (T). Below them on the next line passages from the *testes secundi* (secondary witnesses) are listed when available, again including their abbreviation and the name of the editor used. They are always introduced with the capitalised Latin abbreviation Cf. (abbreviation of *confer*, i.e. 'compare' or 'see also').

The text of the chapter then follows. It begins with the titulus (chapter heading), followed by the numbered lemmata, each consisting of one or more name-labels (sometimes unspecified) plus a doxa. The lines of the text are continuously numbered, as indicated in the margin, beginning with the chapter heading. After the heading and each lemma of the chapter the primary sources for its text are indicated by the sigla (P,S,T) when all of them are present, or (P,S) when Theodoret is lacking, or (S,T) when ps.Plutarch is lacking, or (P,T) when Stobaeus is lacking, or only one of these when only one primary source is available. The numbers after the siglum in each case indicate the number of the doxa in the sequence of the text of the primary witness as indicated in the text used.³⁴⁷ This system gives the crucial information on the attestation of the lemmata at a single glance. The same information is carried over to the translation in Part 4.

Beneath the text we first cite the references to the collections of fragments of Presocratics, Academics, Peripatetics, Stoics and others where individual lemmata can be located. In the case of the Presocratics we refer only to the sixth edition of Diels–Kranz (abbreviated DK), not to collections of individual authors. Similarly for the Stoics we use where possible Von Arnim's collection (*SVF*). For other authors we use the most recent collections.³⁴⁸ In the case of authors whose original writings survive, we refer to passages from which the doxa is derived, whether directly or indirectly (as indicated with the abbreviation cf.).

347 These numbers are not found in the texts of Mau, Wachsmuth and Raeder. They have been supplied by us.

348 On rare occasions we list two collections when they are both current or complementary, e.g. for Strato (Wehrli, Sharples) and Posidonius (Edelstein-Kidd, Theiler).

Next we present the apparatus criticus to the text. Its aim is to give full and detailed insight to all the relevant variants of the primary and secondary witnesses. It is therefore not a *negative* but a *positive* apparatus.³⁴⁹ We do this because we are not editing a single text from manuscripts and indirect quotations, but rather are *reconstructing* our text from a multiplicity of witnesses both direct (*primi*) and indirect (*secundi*), each of which has its own relation to the lost original *Placita* as collected by Aëtius.³⁵⁰ Some of these, such as the fragments of ps.Plutarch in the Antinoopolis papyrus, the Arabic version of ps.Plutarch by Qusṭā ibn Lūqā translated into German by Hans Daiber, and the new critical edition of a large part of ps.Galen by Mareike Jas, have become available only quite recently. In addition we pay due attention to a variety of earlier editions and also note significant readings, conjectures and emendations when the texts of individual doxai are included in collections of fragments.³⁵¹ In general it is only in the case of the primary witnesses ps.Plutarch and Stobaeus (but not Theodoret) that we give the variants of the main manuscripts. For other texts we give the preferred reading of the relevant critical edition, only mentioning manuscript variants on rare occasions. The Arabic translation of Qusṭā is cited in Daiber's German translation. Based on these principles, the apparatus criticus not only strives to shed light on our choices, but also to inform about the peculiarities of the widespread tradition. Because this apparatus is necessarily often rather extensive, it proved impossible—as already noted above—to allocate room for the translation next to the Greek in a synoptic format without chopping up text, translation, and apparatus and creating a succession of blank spaces. For this reason the translations of the Greek text of all 135 chapters, forming a continuous English version of the treatise as a whole, have been printed in the final Part, *Aëtiana* 5.4.

Three more sections of the edition remain. First we print the texts of the *testes primi* (primary witnesses) for the reconstruction. In first place is always Theodoret when he has cited this text, followed—with its own sub-heading—by the *traditio ps.Plutarchi*, i.e. the bevy of representatives of the tradition of the *Epitome* available for the relevant chapter. First of these when available is the Antinoopolis papyrus. This is followed by the text of ps.Galen, the most important of the witnesses to this tradition. We also include texts from ps.Justin, Cyril,

349 Contrary to our previous practice in the *specimen reconstructionis* of Book 2 in M–R vol. 2.2; see above section 2.8.

350 For detailed accounts of these witnesses and the editions used see above section 4.2–5.

351 In particular the collections of Presocratic philosophers in Mansfeld-Primavesi's Reclam edition and the Loeb volumes of Laks-Most, but also editions of particular philosophers, such as Empedocles (Bollack, Viték), Diogenes of Apollonia (Laks) etc.

Ioannes Lydus, Psellus, Symeon Seth and others, all of whom excerpted ps.Plutarch. The texts of ps.Plutarch and Stobaeus themselves (and also Eusebius' verbatim excerpts) are not quoted separately. As already noted,³⁵² they can be readily found elsewhere. But it is important to remember that our debts to and differences from Diels' *DG* edition of Aëtius and to other editions of the primary witnesses are fully accounted for in the apparatus criticus to the Greek text, and often also further discussed in the Commentary.

Next is a section devoted to the *testes secundi* (secondary witnesses) who can also offer some assistance for the reconstruction and analysis of the text.³⁵³ They represent the doxographical traditions closest to Aëtius. Some of these, namely Athenagoras, Achilles, and Nemesius, were included by Diels in his apparatus among the *aliorum ex Aetio excerpta*. Because, unlike in the case of Theodoret, it is not certain that these authors actually did excerpt Aëtius, we have preferred to group them together with other passages in the *Aratea*, Hermias, and Scholia to various authors, regarding them as a collection of writings that are closest to the Aëtian tradition without being part of it. They are closer than the texts that we have placed in the proximate tradition, as we have explained above in sections 4.1 and 5.1. As already noted there, however, the distinction is somewhat fuzzy. Texts very close to Aëtius such as found in Varro, Philodemus, Cicero and Philo of Alexandria could be included. The difference is that these texts antedate Aëtius, whereas the *testes secundi* are all later than he is and so could have used his work, whereas this was of course impossible for the writers just mentioned.

The final subsection of the edition is a collection of parallel passages quoted from the reconstructed text for other chapters of Aëtius, which we have given the title *Loci Aetiani*. These passages contain various kinds of similarities: to name-label(s) plus doxa, or to parts of doxai, or to particular formulations of doxai or name-labels. They thus provide detailed information about such uniformities as are present in the *Placita* as a whole. Parallels in chapter headings or in the quaestiones (questions or topics) being treated, are generally placed first, followed by those relating to particular lemmata.

6.3 *The Commentary*

The second main section of each chapter contains the Commentary. It too follows a fixed and identical schema of treatment, as indicated by alphabetically numbered sections, some of which are further divided into sub-sections

352 See above section 3.2 at n. 119, and also sections 4.2.15 and 4.3.4.

353 For detailed accounts of these witnesses and the editions used see above section 4.5.

and sometimes even further subdivided. By consistently using this system of divisions,³⁵⁴ we aim to organise the mass of material involved with a maximum of clarity. Each of these sections and sub-sections will now be explained in turn.

A: Witnesses. In this section we present the evidence as preserved in the primary and secondary witnesses and discuss issues that it might raise. We generally commence with (1) ps.Plutarch and his tradition, since the *Epitome* mostly preserves the general structure of the work and its lemmata best. Sad to say, in the case of Book 5 this tradition is virtually all that we still have. Thereafter follows an analysis of the evidence as presented in (2) Stobaeus and (3) Theodoret. On rare occasions, however, we start with Stobaeus, notably at chs. 2.28–32 where he appears to write out an entire stretch of the compendium without change. In this section we often engage in a first sifting of the evidence for the reconstruction of the chapter, followed by further details in section D(b) below.

B: Proximate tradition and sources. This section gives an overview of the texts that can shed light on the subject and contents of the chapter. The first sub-section (1) discusses the proximate texts as defined above in section 5, i.e. the doxographical tradition which resembles the *Placita* in its focus on questions of the φυσικὸς λόγος, on philosophers and the answers they gave to those questions. These texts can be earlier than Aëtius and represent the anterior tradition from which he drew his material (though the evidence for the early period is rather thin). They can be contemporaneous with him or much later, even as late as Isidore of Seville and (rarely) authors writing in Arabic and Syriac. The passages discussed may relate to the chapter as a whole or to individual lemmata within it.

The second sub-section (2) turns the attention to the ultimate sources of the subject-matter of the chapter. For the doxai of some philosophers it is sometimes possible to pin down the exact texts on which the doxai are based, e.g. in the extant works of Plato, Aristotle and Epicurus. More often other comparative material will need to be brought to bear, again from Plato and Aristotle, but also from the Hellenistic, early Imperial and Late Ancient periods. Here too, passages discussed may relate to the chapter as a whole or to individual lemmata within it.

354 Occasionally not all the fixed elements will be represented in a particular chapter. Section D(e) Other Evidence is quite often passed over. Some early chapters in each book, e.g. titulus et index and prooemium, will not have some of the usual elements, e.g. B Proximate Tradition and Sources.

For both sub-sections it is the case that many or even most of the texts discussed will be printed in the third main section Further Related Texts below, to which we frequently cross-refer. Given the large quantity of texts involved, it is not possible to discuss all this material in great detail, but rather we will draw attention to the salient points to which it gives rise.

C: Chapter heading. In this section we give detailed discussions on the type and significance of the chapter heading, including how it relates to the standard question-types that were developed on the basis of the Aristotelian examples and used throughout antiquity. We note, where applicable, the variant readings for the heading in the witnesses and motivate our choice for the chosen formulation. We also give an overview of parallel headings that are embedded in texts or book titles elsewhere. These too are cited below in the section Further Related Texts.

D: Analysis. This section, which contains our interpretation of the contents of the chapter, consists of five sub-sections.

D(a): Context. Here we briefly discuss the place of the particular chapter within the group of chapters of which it is a member and the position of this group in the context of the Book as a whole. We also note possible analogies with the way other books of the *Placita* are structured and point out particular links that a chapter might have with chapters elsewhere and sometimes also with ancient traditions such as the Peripatos and the Stoa.

D(b): Number-order of lemmata. In this sub-section we return to the witnesses for the contents of the chapter and determine where possible the number of doxai and the order in which they were listed. For this we depend largely on the evidence of the witnesses themselves, as informed by the understanding that we have gained of their methods. But we are sometimes assisted by the secondary witnesses and indeed by texts in the proximate tradition and beyond. For determining the sequence of the doxai it is also important to understand the argumentative structure of the chapter, often revealed in its diaereses or diaphoniae (see also the following sub-section D(c)). Here we also note how our sequence compares with that established by Diels. Often the result is the same, but there are also many cases where we reach a substantially different result, which of course is fully explained and justified.

D(c): Rationale-structure of chapter. This sub-section contains the nucleus of our interpretation of a chapter. It is a distinctive feature of the *Placita* that its chapters have an argumentative structure which is determined by the contents and position of the individual lemmata but at the same time (at least to some extent) determines their selection. The task of this sub-section is to elucidate that structure. It may involve a listing of doxai in order of decreasing or increasing similarity according to the method of diaeresis, or it may

involve a contrasting of doxai or groups of doxai in order to emphasize the conflict between them. There is much variety among the 135 chapters and it will be clear that the examples used above will not apply at all to monolemmatic chapters and not necessarily to other chapters with a plurality of doxai.

D(d): *Further comments*. This sub-section is divided into General points, pertaining to the chapter as a whole (if pertinent), and Individual points pertaining to individual lemmata. These latter, presented in order of the place of the doxa/doxai in the chapter, may relate to the constitution of the text, and/or may enter into a detailed discussion of the interpretation of the philosophical or scientific view portrayed by the contents of the lemma concerned. It will be understood that, in the light of the astonishing breadth of topics and thinkers broached in the *Placita*, we have had to be necessarily selective in making such comments. References are frequently made to the secondary literature, but here too we have needed to be selective.

D(e): *Other evidence*. This final sub-section of the Commentary follows on from section B above. It embarks on more substantial discussions of evidence in the wider doxographical or anterior philosophical and scientific traditions, including some of the secondary witnesses (especially Achilles). These can be either of a textual or of a content-related nature, depending on what is relevant for the interpretation of the chapter and/or some of its individual lemmata.

In the early part of our Commentary, when treating chapters 1–9 of Book 1, we have included a number of introductory discussions of general topics relating to the method and organisation of the *Placita*. These are frequently referred to in subsequent sections of the Commentary. For the convenience of the reader we have drawn up a list of these introductory discussions in Appendix 4 to this Introduction.

6.4 *Further Related Texts*

Our presentation of each chapter ends with a third and final section entitled E: *Further Related Texts*. It too is further sub-divided into two parts.

E(a) *Proximate tradition*. Here, as the name indicates, we present an extensive collection of texts drawn from the proximate doxographical tradition, as outlined above in section 5.1. We print the texts in the original Greek and Latin (with occasionally some texts translated into German or English, for we have no Arabic or Syriac). These texts link up with the discussion in the earlier section B(1) of the Commentary. The selection begins with General texts dealing with the subject in question and/or covering the views of a plurality of thinkers. The next paragraph lists, where available, the texts that contain or illustrate the

chapter headings or sometimes the quaestio posed by that heading. Thereafter, texts are listed under the individual lemmata of the chapter. In order to facilitate the reader's orientation, the name-labels of the relevant lemma are printed in bold italics. For all three listings the texts are most often printed in full and are presented in approximate chronological order.

E(b) *Sources and other parallel texts*. In this sub-section we link up with the discussion in the earlier section B(2) of the Commentary and print a collection of texts relating to the wider tradition of ancient philosophical and scientific literature, including those texts that shed light on the sources that the doxographers may have used to formulate the doxai collected in the *Placita*. These follow the same basic method as in the previous sub-section. They are usually printed in full in the original Latin and Greek, are divided into same three groups in an approximately chronological sequence, and are highlighted in the same way. In the case of some texts, either very well known or somewhat tangential to the matter at hand, we give references only.

Users of our edition will observe that the selection of texts in this final section is *very* extensive and that these texts in the original languages are not accompanied by a translation into a modern language. In both cases we should explain why we adopted this course of action.

In citing the texts in full we have followed the example of outstanding works of scholarship, such as the multi-volume *Der Platonismus in der Antike* of Heinrich Dörrie and Matthias Baltes, the three volumes of his *Zenobii Athoi Proverbia vulgari ceteraque memoria aucta* by Winfried Bühler and the two volumes of the *Orphicorum et Orphicis similium testimonia et fragmenta* by Alberto Bernabé.³⁵⁵ In these works the practice of citing texts in full is preferred to the inclusion of bare lists of references to other ancient authors. The vast number of passages involved in our edition, from Homer to the late Byzantines and beyond, would make the task of looking them up and consulting them (even where they are accessible in electronic format) quite daunting. The electronic texts moreover are not always those of the best, or at least most recent, critical editions that we use, even if we have not always followed these *ad litteram*. Moreover, in the passages we print we have included full references to standard fragment and other editions as a supplementary resource. Such references are rarely available in the electronic or even printed editions, and may be obsolete or incomplete when found in early editions. It should be recognised too, that some authors or fragment collections, especially where only early editions exist, are not easily available.

355 Dörrie–Baltes et al. (1987–2006); Bühler (1982–1999); Bernabé (2004–2005).

6.5 *Rationale for the Collection of Further Related Texts*

It is our conviction that the full significance of the *Placita* tradition can only be appreciated when it is seen in the broad tradition of ancient philosophy and, to a lesser extent, science. The extent of the collection of texts in our edition demonstrates how seminal the formulation, study and utilisation of opinions was in antiquity. Not only do they distil the doctrines of more than five centuries of philosophy and close to ninety philosophers going back to the sixth century, but their influence and appropriation also extend far past the end of antiquity to the Byzantine period and beyond.³⁵⁶ For this reason we apologise neither for the extent of our collection of texts nor for the length of individual passages cited.

It should be added that in collecting these texts we are following the example of Diels, but doing it more effectively.³⁵⁷ As already noted earlier,³⁵⁸ Diels divided up the relevant parallels for the Aëtian text, placing them in three different locations: in the labyrinthine 'Prolegomena', under the twin columns of his text, and as separate documents in the rest of the volume (Arius Didymus etc.). We have collected together the same material, considerably augmenting it when possible. But we have attached it to the relevant chapters and lemmata of the work itself, whether as witnesses at the beginning of each chapter or as further related texts at its end. The end result sometimes resembles the A-sections of Diels' *Fragmente der Vorsokratiker*, though of course ordered on very different principles.

We are confident, therefore, that our edition will be able to serve as a useful tool of reference. When one is interested in a philosophical or scientific theme that is discussed in a *Placita* chapter, or in a lemma in such a chapter that is included in a collection of fragments or referred to elsewhere, our edition will be able to provide a treatment in some depth of the theme in the wider context of the history of Greek philosophy and/or science, and of the function of a fragment in its original dialectical environment. Wherever feasible our edition includes a discussion of the provenance and prehistory of these themes and tenets, as well as of their subsequent reception and afterlife. In this respect our presentation may serve a similar function as that of Arthur Stanley Pease's

356 Jeremiah (2018) 302 gives the total number of individual names as 86, with a further 32 labels of schools and anonyms.

357 This is a good place to acknowledge the indispensable assistance that we have received from the two magnificent databases of ancient texts, the Thesaurus Linguae Graecae (TLG) and the Brepols Library of Latin Texts (LLT). Diels' achievement is all the greater for not having had these modern digital instruments at his disposal

358 See above section 3.2 ad fin.

incomparable edition of Cicero's *De natura deorum*, with its extensive comments at the foot of the page containing copious references and quotations.³⁵⁹ When one knows where exactly in this treatise a theme or issue is dealt with or merely mentioned, one immediately has access to a fund of useful contextual information on that topic, in contrast to what obtains when one constantly has to look up texts for which only bare references are given. Regrettably it has not proved practicable to prepare an index of the totality of these passages. However, the reader with access to the digital version of the work will have no difficulty in locating any desired passage by means of electronic searches.

With regard to the absence of translations, our reasoning was of a different kind. Given the extent and the extreme diversity of the collection of texts, it was never going to be practicable to include both the original and a translation. Users of our edition will not find it difficult to locate good translations of the vast majority of texts, for example the Loeb Classical Library (now available online), the Budé and Sources Chrétiennes collections for readers of French, the series Ancient Commentators on Aristotle and so on. Here too we make no apologies for the choice that we had to make.

6.6 *English Translation*

As we outlined above in section 6.1, we have made an English translation of the reconstructed text, but it was not possible to place it beside the Greek text. It has therefore been placed in Part 4, where it can be consulted while the text is being studied in the other Parts.

The translation aims to give an accurate picture of the original Greek. It thus tends towards the literal side, while trying to avoid veering towards language that is artificial or unidiomatic. Users of the translation should note the following conventions and practices:

- (1) Words and phrases that have to be supplied in the Greek, when translated, are placed in parentheses.
- (2) Name-labels are rendered in the usual Latinate forms of the names. For collective names, e.g. schools and groups, we aim at a uniform translation. A note will be added when this is not possible. Note the following translations of standard Greek phrases:

οἱ ἀπὸ τινος	the successors of X
τις καὶ οἱ ἀπ' αὐτοῦ	X and his successors
οἱ περὶ τινά	X and his followers

359 Pease (1955–1958).

For multiple name-labels we follow the Greek and preserve all cases of *asundeta*, i.e. not using commas and only translating conjunctions when present in the original. This of course is quite unnatural in English, but helpfully conveys the telegram style of the *Placita*.

- (3) Conjectural additions to the transmitted text, when translated, are placed in angle brackets (just like in the text itself). Braces are also taken over from the text, indicating that we suspect that the text is not authentic. An obelus (†) indicates a crux in the text. Three asterisks indicate a lacuna.
- (4) Although we aim as far as possible to achieve consistent one for one renderings of Greek terms in English, this is not always possible because of the polyvalent meanings of certain words in both languages. Occasionally we add an asterisked note to explain a particular case.
- (5) On some occasions it is best to use a transliterated equivalent of the Greek term. In such cases an English rendering of the term is added in parentheses, unless this is not needed, as for example in the case of the term *pneuma*.
- (6) Only on rare occasions are alternative renderings are supplied. These are placed in square brackets.
- (7) Similarly, transliterated equivalents of Greek terms, indicated in parentheses, are usually only given for etymologies or plays on words.
- (8) Greek adjectives with the suffix *-ειδής* are usually translated by the phrase 'like a', e.g. *σφαίροειδής* is rendered 'like a ball'.
- (9) Passages which are only preserved in the Arabic translation of Qusṭā ibn Lūqā are printed in italics. These are confined to chs. 1.21.2α and 5.27 & 29.

6.7 *Editio minor*

The authors are committed to producing an *editio minor* of the new Aëtian text as soon as will be practically possible. Its main feature will be the reconstructed Greek text and English translation on facing pages, allowing quick and convenient consultation.

7 Appendices to the General Introduction

7.1 Appendix 1: Diels' Theory of the Placita

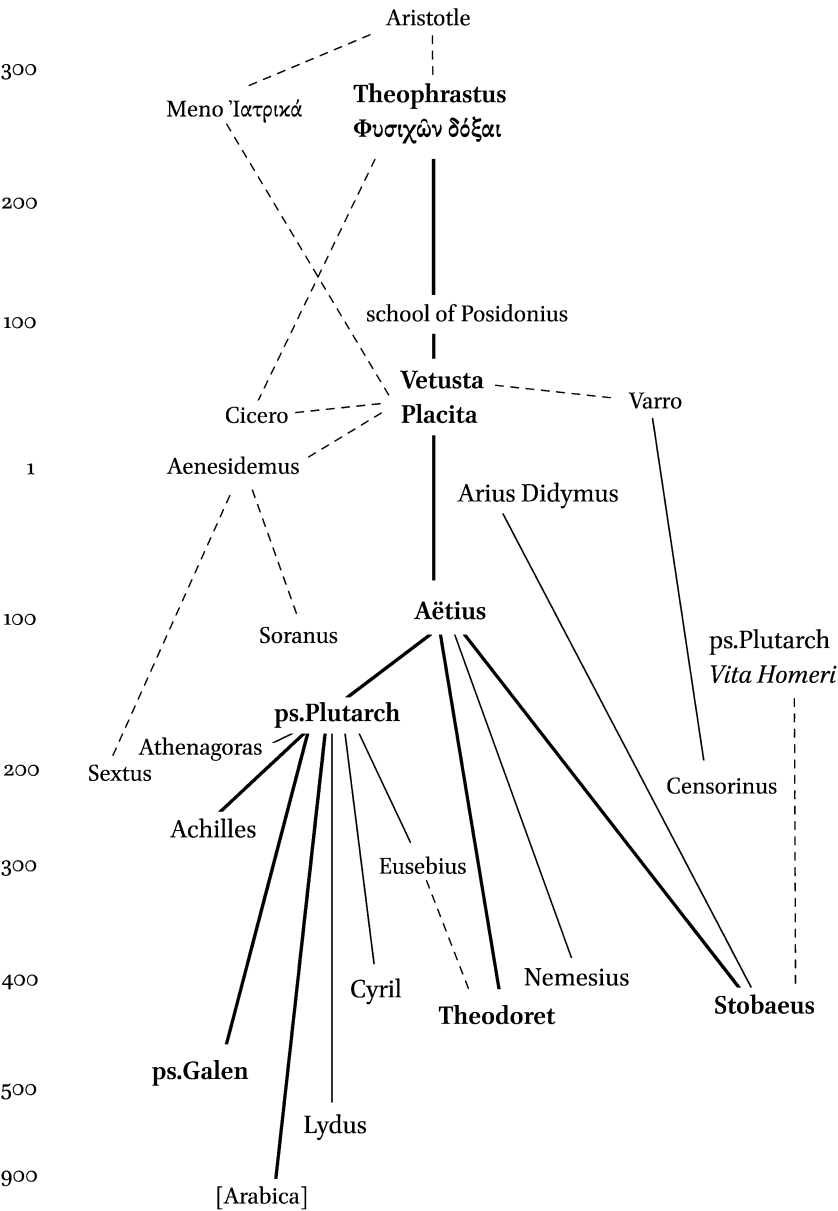


FIGURE 1 Diels' theory of the *Placita*
BASED ON MANSFELD AND RUNIA, *AËTIANA* VOL. 1 P. 81

7.2 *Appendix 2: Mansfeld and Runia, the Tradition of the Aëtian Placita*

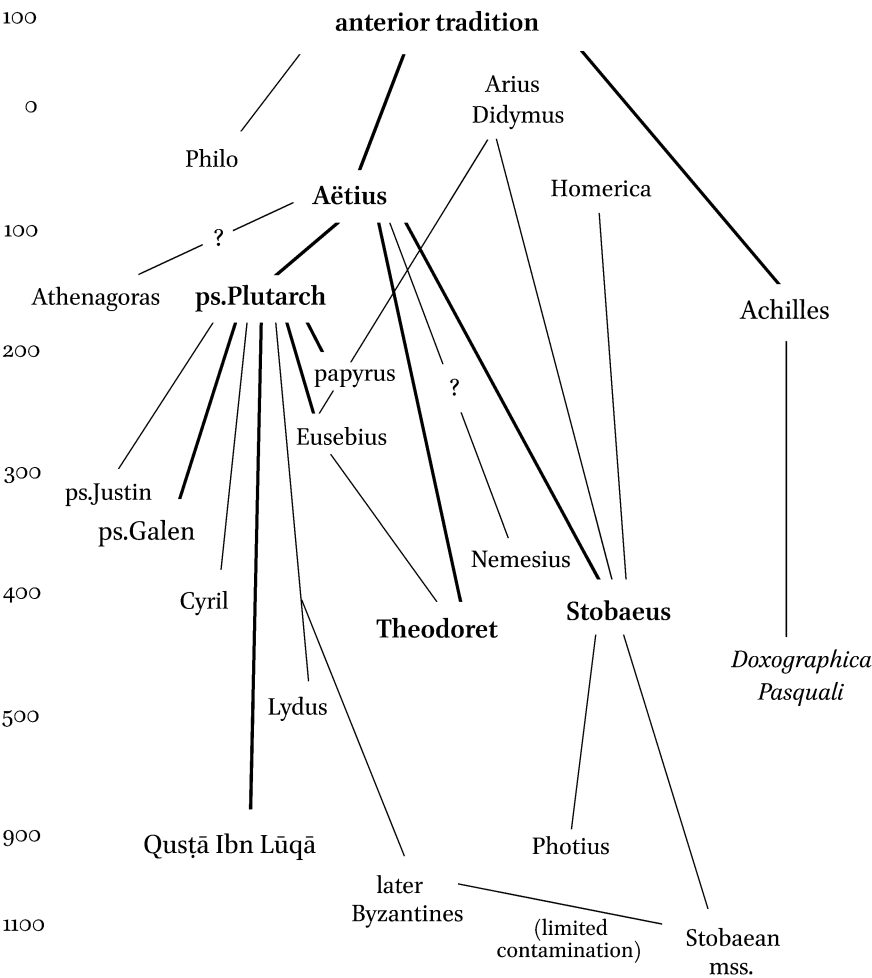


FIGURE 2 The tradition of the Aëtian *Placita*
BASED ON MANSFELD AND RUNIA, *AËTIANA* VOL. 1 P. 328 (MODIFIED)

7.3 *Appendix 3: Statistical Overview*
1 Contents of Books and Chapters

	Chapters*	Lemmata*	Words#
Book 1	30	183	6558
Book 2	33	217	4038
Book 3	18	109	2811
Book 4	24	146	4246
Book 5	30	114	3707
Totals	135	769	21360

* excluding proœmia
including pinakes and chapter headings

2 Distribution of Lemmata per Witness to Aëtius' Compendium
a *Lemmata per Witness per Book*

	PST	PS	ST	PT	P only	S only	T only	Total
Book 1	16	81	9	2	23	52	0	183
Book 2	31	100	12	2	15	56	1	217
Book 3	0	42	0	0	49	18	0	109
Book 4	8	34	7	17	31	45	4	146
Book 5	0	8	0	0	104	2	0	114
Total	55	265	28	21	222	173	5	769

b *Lemmata per Witness Totals*

	PST	PS	ST	PT	P	S	T	Totals	% of A
P	55	265		21	222			563	73%
S	55	265	28			173		521	68%
T	55		28	21			5	109	14%

c *Total Lemmata per Number of Witnesses*

Witnesses	PST	PS	ST	PT	P	S	T	Total	Percentage
three	55							55	7 %
two		265	28	21				314	41 %
one					222	173	5	400	52 %

d *Total Lemmata in Jeremiah's Statistical Analysis (M–R 4.283–295)*
total extant lemmata = 769
estimated missing doxai from chapters with multiple witnesses = 42
estimated missing doxai from chapters with single witness = 81
estimated total lemmata of original work = 769 + 123 = 892
extant work as percentage of original work = 86 %
lemmata per witness percentage of estimated original work: P 63 %, S 58 %, T 12 %

7.4 *Appendix 4: Introductory Discussions on General Topics*

Several topics of general importance are also discussed in one or more sections of the Commentary of the first chapter in which they appear on the agenda. They are the following:

Categories/Question Types	ch. 1.1 Commentary C(2)
Chapter Headings <i>per se</i>	ch. 1.1 Commentary C, ch. 1.6 Commentary D(a)
Categories/Question Types	ch. 1.1 C(1), ch. 1.6 Commentary D(a)
Dialectical Scrutiny	ch. 1.3 Commentary D(c)(8)
Division of Philosophy	ch. 1.titulus et index, Commentary D(d)(1,3) & (e)(1)
Interpretative Techniques	ch. 1.3 Commentary D(c)(9)
Problems in Physics (and some examples in Ethics)	ch. 1.proœm. Commentary D(c)(4), D(e)(3)
Successions/Number of Principles	ch. 1.7 Commentary D(c)(6–7)
Tables of Content/Chapter headings	ch. 1.proœm. Commentary D(1,3)&(6)(e)
Types/Species of Definitions	ch. 1.9 Commentary D(c)(1)&(e)(2)
‘Umbrella’ Headings	ch. 1.3 Commentary C

Aetius Placita
Book 1 The Principles of Nature:
Text and Commentary



Introduction to Book 1

1 Transmission¹

Book 1 is by far the longest in absolute terms (6558 extant words). The next is Book 4 (4246 words), the others in order of length are Book 2 (4038 words), Book 3 (2811 words), and Book 5 (3707 words). It has 30 chapters, each on a well-defined question in philosophy, i.e. slightly less than Book 2 (33), the same as Book 5 (30), and more than Book 3 (18) and Book 4 (24). In terms of doxai it has less (183) than Book 2, which has the greatest number of doxai of all the five Books (217). S preserves a higher number of doxai compared with P. The witnesses are PST = 16, PS = 82, ST = 9, PT = 2, S only = 51, P only = 23, T only none. G retains only 19 of the 30 chapters with 64 doxai, or 35 % of the whole.

As we have just seen, the number of doxai is 183, which is less than Book 2 (217), but in fact the number of words is much larger. This is a consequence of the presence in Book 1 of a relative high number of chapters and lemmata of considerable length. It is apparent that the prooemium plus chapters 1.1–7.1 differ stylistically from the majority of *Placita* chapters—though only to a certain degree. The latter as a rule comprise a number of terse lemmata consisting of a name-label (or -labels) plus doxa plus verb (often elliptical) of saying, often even omitting the theme stated in the chapter heading (another ellipsis). They are compact formulas which are quite different from the leisurely exposition found in the former, esp. in the prooemium (223 words over 3 lemmata) and chs. 1.1–2 (155 words over 3 lemmata and 111 words over 2 lemmata respectively), in quite a few lemmata of 1.3 (see below), and in 1.4 (251 words in the second lemma), 1.6 (595 words, monolemmatic) and 1.7.1 (521 words). This has led in the past to the drastic assumption that the excerptor tired of his job after ch. 7.1 (see M–R 1.44–46). Diels *DG* 59 too speaks of a caesura between 1.7.1 and the rest of the chapter. That only chapters 1.3, 1.5, and 1.7.2–25 are found in both primary sources (with considerable abridgement in S) and that the prooemium and chs. 1.1–2, 1.4, 1.6 and 1.7.1 are not paralleled there, certainly played a part in formulating this hypothesis as well.

There is, however, no need to deny these chapters to A, as Diels *DG* 57–60 also recognized, though he argued that what he saw as Aëtian addenda deviate

1 In this Introduction and also in those to the other four Books we make extensive use of the statistical analysis of Aëtius' compendium by Edward Jeremiah published in M–R 4.279–373. See also General Introduction, section 2.7–8, and Appendix 3.

from the genuine method of the (*Vetusta*) *Placita*. Our more charitable conclusion from this disparity is that, right from the beginning, we are faced with the kind of updating that is characteristic of the treatise *as a whole*. The proœmium, focusing on the views of the Stoics and the Peripatetics, suggests that what follows will be ‘of ongoing relevance’ (Edward Jeremiah, M–R 4.325), and caps this suggestion by insisting on the indispensability of physics for philosophy understood as a way of life.

The differences have in fact been exaggerated. Ch. 1.3 is a mixed bag of 24 lemmata, consisting both of lengthy expository and of quite short to telegraphically terse standard lemmata, while ch. 1.5 begins with 3 brief doxai.

The single lemma 1.3.7, the longest of the chapter and third longest of the treatise, perhaps even incomplete, counts 379 words. It describes a Neopythagorean system and constitutes solid evidence of updating. (So, of course, does the earlier restructuring of ch. 1.3 according to the system of Successions.)

Several other lemmata of ch. 1.3, on the other hand, belong with what may be believed to be early *Placita* material. There are 6 terse ones with early name-labels plus doxa (§§1.3.10, 3.12–15, 3.24), ellipsis of a *verbum dicendi* (cf. Jeremiah M–R 4.319–323), and of the theme stated in the chapter heading (cf. M–R 2.1.173–174). So these tenets are formulated as briefly as possible while still enabling differentiation. Of these additional pieces of information the first two are only mentioned the first time of a name-label’s occurrence in the treatise, so for these four they are found only in this chapter (thus incidentally being responsible for extra length). In the case of the other two they may have been lost in transmission. Yet together these six lemmata amount to no more than 42 words.

Long to very long expository lemmata are also found elsewhere in the *Placita*, so are not as exceptional as we are sometimes made to believe. We may think, for example, of chs. 2.20.13 (Empedocles, 69 words), 3.3.11 (Democritus, 80 words), 4.11–12 and 4.21 (not in S: Stoics, i.e. further evidence of updating; respectively 195, 220, and 173 words), or the chapter on respiration (4.22, where S is lost), with lengthy descriptive doxai not only of the Hellenistic physicians Herophilus (223 words) and Asclepiades (94 words), but also of Empedocles (112 words). Some of the lemmata in Book 5 are often quite lengthy as well, even though most of the time we there only have P’s *Epitome* too.

2 Subject Matter and Macro-structure

Book 1 has two different parts, namely the introduction to the physical treatise consisting of chapters 1.1–8, and the series of chapters 1.9–29 (plus 1.30). The

latter group, without exception introduced by headings of the umbrella type 'about χ ', $\pi\epsilon\rho\iota\ \tau\omicron\upsilon\ \delta\epsilon\iota\nu\alpha$, is concerned with the foundational concepts of theoretical physics. But note that the first part interlocks with the second. Since they are strongly connected with the theological chs. 1.6–8, the next chapters, 1.9–10, belong with both parts, so conclude the introduction and at the same time commence the series of foundational concepts. The brief final chapter 1.30, 'On nature', is an appendix ('mantissa', Diels *DG* 57) to ch. 1.1 'What is nature', as it raises a point absent in the earlier chapter. And it has the same function for the Book as a whole, for as we leave the chapters on necessity and fate, the last of the foundational theoretical chapters, we return, at least formally, to nature qua process. This structural feature thus aims to demonstrate the unity of the Book, comparable to the bridge function of chs. 1.9–10. It also aims at providing a transition to the next Book on cosmology. For parallel such demarcating and connective features in Books 2, 3 and 4 see the Introductions to these Books, and the General Introduction section 2.7.

The introductory part consisting of chs 1.1–8 forms a unity which is not immediately obvious, because, as has been argued at M–R 2.1.60–72, in the standard manner of the *Placita* the exposition after the proœmium has been divided up into separate numbered chapters provided with headings (though not yet into what Diels 1897, 112 aptly called 'kleine und kleinste Kapitelchen'). We also noted there that a definition of the subject at issue plus an analysis of the constituent parts of the discipline concerned is virtually *de rigueur* in scientific, technical and didactical treatises like the present one. Hence the definition of the *physikos logos*, 'physical doctrine', 'account of physics', in the proœmium, and of *physis*, 'nature', in ch. 1.1. Equally essential in this type of literature is an historical and systematic overview of its chief practitioners inclusive of their specific contributions, in the present case pertaining to the *archai*, i.e. the principles of physics from Thales to Strato of Lampsacus in ch. 1.3.

This overview of the principles and their proponents in ch. 1.3 has been expanded by three subsidiary chapters, namely the preliminary ch. 1.2 and the two exegetical chs. 1.4–5, so ch. 1.3 is the primary component of a *first cluster* of the four chs. 1.2–5. Ch. 1.2 defines and so distinguishes from each other principles and elements, quite useful for ch. 1.3. Ch. 1.4 describes in atomist terms the genesis of a *single* cosmos very much resembling ours (and rather like the potted cosmogony attributed to Heraclitus and Hippasus at ch. 1.3.9), thus taking up references to cosmogony in the previous chapter (1.3.2, 1.3.4, 1.3.9). Ch. 1.5 catches up by appending an ingredient missing in ch. 1.4, namely the standard divergence of views concerned with the uniqueness of the cosmos vs. a plurality or even infinity of kosmoi according to the Atomists (selectively anticipating treatment in ch. 2.1 in the cosmological Book).

A *second cluster* consists of five chapters, 1.6–10. We first have three chapters dealing with philosophical views concerned with the origin of the concept of the gods (1.6), their existence, or not, and nature or substance (1.7), and with daemons (1.8). The arrangement is comparable with that of the first cluster, for again we have a primary chapter surrounded by satellites. Ch. 1.6 is preliminary to ch. 1.7 just as happens in other literature discussing the origin of the concept and the existence and nature of the gods (see below section 5). The brief ch. 1.8 is, as it explicitly states, an addendum to ch. 1.7. That the gods are to be discussed together with but after the principles is stipulated in the Stoic definition of the *physikos logos* (Diogenes Laertius *V.P.* 7.132, see also below). That one needs such a discussion in physics, and precisely here, is moreover easily explained by the fact that physical principles may function as divinities, and divinities as principles of a physical sort.

The two chapters, 1.9–10, that come next in the second cluster are about the foundational concepts of ‘matter’ and ‘idea’ respectively, and as has been seen (cf. M–R 2.1.51–52 for references), together with God as represented by chs. 1.6–8, they constitute the familiar triad of principles according to Middle Platonist doctrine, conspicuously attributed to an updated Plato in precisely this order at ch. 1.3.20. The names of the two Stoic first principles, God and matter, coincide with those of the first two of the Middle Platonist triad (M–R 1.2.69). Accordingly, the introduction to the *Placita* and what immediately follows on has not only been upgraded according to Stoic precept, but also caters to a Platonist public. It is not an accident that the series of specific foundational concepts begins with ‘matter’ and ‘idea’. The redactor is a child of his time. The unobtrusive, but very intelligent and persuasive way, in which these clusters have been meshed with each other and strive at presenting an up-to-date introduction and access to the discipline, is an argument in favour of authenticity, that is, of attributing the whole of the prooemium plus chs. 1.1–8 plus 1.9–10 to A. And though chs. 1.4–5, as has been pointed out by Diels and others, would not be out of place in Book 2 (scholars even argued that they are misplaced in Book 1), their inclusion in Book 1 is in our view certainly defensible from a didactic point of view, since the reader’s attention is directed towards cosmology at this early stage, and the clues provided in the prooemium and ch. 1.1 are iterated. For the difference in style between esp. the lengthy and descriptive chs. 1.6 and 1.7.1 with the majority of *Placita* chapters consisting of an assemblage of staccato lemmata see also our comments above in section 1.

The second main part, chs. 1.9–29 (including the bridge chs. 1.9–10), presents the foundational concepts of theoretical physics in a plausible order. As argued at M–R 1.2.97–109 and in detail in the commentary to the individual chapters of Book 1, Peripatetic divisions and orders of presentation have been overlaid

and fused with divisions and orders of Stoic descent. After the concepts of matter and idea we first have causes (ch. 1.11) of both an abstract and a concrete nature, and then a group of six chapters (1.12–17) dealing with *bodies* and various kinds and properties and ways of behaviour of bodies. Chs. 1.9–15 all (with the exception of 1.13) begin with a nominal definition, because the technical meaning of certain terms is different from their everyday meaning. For instance ὕλη, ‘matter’, the subject of ch. 1.9, in normal parlance means ‘wood’ (see further at ch. 1.9 Commentary (D(c)1 & (e)(2))).

The group of chapters concerned with bodies is followed by one of six chapters (1.18–22) concerned with what the Stoics called *incorporeals*, namely the void, place, space and time. This order, incorporeals after bodies, is in agreement with the main division of physical doctrine according to the Stoics (again Diogenes Laertius *VP.* 7.132), though views of others are of course also listed. A cluster of two chapters (1.23–24) follows next, concerned respectively with motion in general and one of its subspecies, coming-to-be and passing away. The rear is brought up by a cluster of five chapters (1.25–29) dealing with themes important in Hellenistic philosophy, namely necessity, fate and chance. Necessity and chance are also important theoretical concepts in Aristotle, but fate in the context of physics only becomes really prominent in the Hellenistic period. For ch. 1.30 see above.

3 Name Labels

Most name-labels in Book 1 are of philosophers, with just two of scientists (Eratosthenes and Aristarchus) and one of a doctor (Asclepiades). We find very few collective name-labels: Peripatetics twice, only Stoics more often. Of the 183 name-labels twelve are anonymous, of which five are general and the others more specific, for three involve philosophers and the remaining four generic groups.

For the 171 non-anonymous doxai there are 64 distinct name-labels, the largest number in A, but relative to size this comes second to Book 4 (61 from 143 doxai). 30 doxai out of 171 have multiple name-labels, but there are no examples of the really long lists we find in Books 2 and 4. It is the only Book where Plato is the top figure, followed by Thales (and ‘his successors’), and Epicurus. Xenocrates and Strato are important as well. The richness of Book 1 is in fact as it ought to be, since it deals with indispensable introductory topics and with the foundational theoretical concepts which no account of physics can do without. See further Jeremiah at M–R 4.307–309, 327, and 329.

4 Successions and Historical Presentation

The Successions are prominent in ch. 1.3 on the principles, which because of its indispensable contribution to the subject of physics sets the tone for the treatise as a whole in an important way. This bias towards Hellenistic priorities, however, does not overrule the primary importance of the dialectical ordering of doxai according to diaeresis and diaphonia. Book 1 has the second highest level of chronological ordering according to name-labels, behind only Book 3. See further Jeremiah at M–R 4.310 ff., 323–325, 327 and 345.

5 Sources: Proximate Tradition

In analysing the Book's sources, its division into parts and clusters of chapters as described in section 2 above must be taken into account, since for each of these parts and subparts the situation is to some extent different.

Parallels in the proximate tradition for the part comprising the introductory chapters 1.1–8 are quite adequate for the prooemium and chs. 1.3 and 1.7, with their definition and demarcation of the subject matter and account of the principles of the discipline. Thus we cite Philo of Alexandria (various works), Pliny the Elder, Arius Didymus, Seneca *Naturales quaestiones*, ps.Galen *Definitiones medicae*, Athenagoras *Legatio*, Tertullian *De anima*, Diogenes Laertius, ps.Plutarch *Stromateis*, Hippolytus *Refutatio omnium haeresium*, Achilles *De universo*, Hermias *Irrisio gentilium philosophorum*, another ps.Galen's *Historia philosopha* (esp. the chapters not abstracted from ps.Plutarch), *Capitula Lucretiana*, *Scholia in Basilium*, and other authors and texts.

For chs. 1.6–7 together (on the origin of the concept, the existence, and the nature of the gods) we may adduce Cicero *De natura deorum* Books 1 and 2.44–71, Philo *De specialibus legibus* 1.32–44, and Sextus Empiricus *Pyrrhoniae hypotyposes* 3.2–12 and *Adversus mathematicos* 9.13–194. Cf. M–R 2.1.100.

For the part comprising the foundational theoretical chapters 1.9–30 the proximate material (including the wider doxographical tradition) is uneven. It is virtually or even wholly non-existent for chapters 1.13–15, 1.17, 1.18–20, 1.24, and 1.30.

For the specific Middle Platonist background of the cluster chs. 1.7–10 we cite Cicero *Lucullus* and Varro, Seneca *Epistulae ad Lucilium* 58 and 65, Athenagoras *Legatio*, ps.Justin *Cohortatio*, ps.Galen *Historia philosopha*, and Arius Didymus,

For the cluster of chs. 1.11–24 plus 1.30 we cite Achilles *De universo*, ps.Galen *Historia philosopha*, Hermias *Irrisio*, and Nemesius *De natura hominis*.

For the cluster of chs. 1.25–29 with their specific Hellenistic focus we cite sizeable portions of Nemesisius *De natura hominis*.

6 Other Source Material

Here too, in locating other source material, the division of the Book into parts and clusters of chapters, as described in section 2 above, must be taken into account, since for each of these parts and subparts the situation is to some extent different.

For the wider doxographical tradition, or use of this tradition, pertaining to the introductory chapters 1.1–8 we generously cite quite a few sources, namely Philodemus *De pietate*, Lucretius, Cicero *De inventione*, Lucullus, *Tusculanae disputationes* and *De natura deorum*, Varro *Antiquitates rerum divinarum*, Quintilian, Galen *Institutio logica*, *De placitis Hippocratis et Platonis*, *De locis affectis* and *De propriis placitis*, Diogenes of Oenoanda, Clement of Alexandria *Stromateis* and *Protrepticus*, Sextus Empiricus, Irenaeus of Lyon, Arnobius of Sicca *Adversus nationes*, Lactantius *Institutiones*, ps.Galen *Historia philosopha* (esp. the chapters not abstracted from ps.Plutarch), Basil of Caesarea in *Hexameron*, Epiphanius, Ambrose of Milan *Hexameron*, Augustine (various works), Calcidius in *Timaeum*, and other texts and authors.

For the second part of the Book the wider doxographical tradition is even less relevant than the proximate tradition. For the specific Middle Platonist background of the cluster chs. 1.7–10 we cite brief passages from Alcinous, Athenagoras *Legatio*, Achilles *De universo*, and Tzetzes in *Iliadem*. For the foundational chs. 1.1–30 it is almost wholly inexistent.

7 Other Parallels and Sources

(1) The division of the Book into parts and clusters of chapters, described in section 2 above, must be taken into account, since for each of these parts and subparts the situation is different.

A rich crop of parallels for aspects of the introductory chapters 1.1–8 (esp. the prooemium and ch. 1.3) can be harvested in scientific and didactic literature, which is chiefly—though not exclusively—of a philosophical, medical or historical nature. Here definitions of the subject matter and its divisions, and historical overviews of (Successions of) the main representatives and their contributions and discoveries are *de rigueur*. To cite only a few examples, Diogenes Laertius' prooemium, the introductory chapters of ps.Galen's *Introductio sive*

medicus and those of another ps. Galen's *Historia philosopha* can be rewardingly placed next to each other and to the introduction to Celsus' *De medicina* as well as to that of the *Placita*. The discussion of issues of a preliminary nature in the Commentaries of Late Antiquity on Aristotle (long continued in the Islamic world) provides impressive parallels, and attests the tenacity of the tradition. But Cicero's *Varro* and *De finibus*, hardly ever evaluated in this context, also provide very interesting material already, while that of Sextus Empiricus, quite influential in antiquity and better known in the secondary literature, is quite abundant.

For the cluster consisting of chs. 1.7–10 dealing with the god(s), matter, and idea specific parallels are found in (echoes of) Middle Platonist literature and the late Hellenistic and early Roman philosophical *koine*. Thus we cite Alcinous, Aspasius in *Ethica Nicomachea*, Alexander of Aphrodisias *De fato* and in *Topica*, Galen (various works), Clement of Alexandria (various works), and quite a few other authors, among which several late commentators.

For the foundational chs. 11–30 we cite Lucretius, Philo of Alexandria (various works), Alcinous, Atticus, Galen (various works), Sextus Empiricus, Dionysius of Alexandria, Diogenes of Oenoanda, Alexander of Aphrodisias *De mixtione*, Calcidius in *Timaeum*, Caelius Aurelianus, Simplicius in *Physica*, and other authors, among which several late commentators.

(2) For the ultimate sources of much of the material contained in the Book we must go back to the Peripatos, and think of the otherwise lost sources used by Aristotle, Theophrastus and their predecessors. The tradition goes back a long way. As Solmsen (1960) 51 points out, already before Plato 'a set of physical questions had become detached from the body of cosmological subjects. ... Aristotle has a goodly number of subjects that find a more suitable place in physics than in cosmology (some of them, to be sure, had only originated with Plato)'. Ibid. 7–9 Solmsen cites examples of such conceptual, or theoretical, subjects: *genesis* (cf. ch. 1.24), motion (cf. ch. 1.23), infinite divisibility (cf. ch. 1.16), void (cf. ch. 1.18), and mixture (cf. ch. 1.17).

These and other such themes, such as time and fate, appropriately find their place between the introductory chs. 1.1–8 of Book 1 and the cosmological chapters of Book 2. As we have argued in apposite detail in one of the earlier volumes (M–R 2.1.97–109) and do not need to repeat in the same form here, the macrostructure of the *Placita* and of its individual books conforms *grosso modo* to the diaeresis into primary and secondary parts and subparts of the Stoic *physikos logos*, known to us from Diogenes Laertius' account at *V.P.* 7.132, which seems to have been abridged by him or his source. In their turn, both this Stoic diaeresis and the sequential arrangement of (clusters of) chapters and of main topics treated in the *Placita* are much indebted to the choice of

subjects and their order of treatment in Aristotle's physical treatises, which to some extent differs from that on the Stoic list.

The first main division of the Stoic *logos* in the above-mentioned text as applied to Book 1 in particular, is one into seven subparts, namely (1) the part (τόπος) about bodies cf. chs. 1.12–17, (2) the part about principles cf. ch. 1.3, (3) the part about elements cf. ch. 1.2, (4) the part about gods cf. chs. 1.6–8, (5) the part about bounding entities cf. ch. 1.14.1, (6) the part about place cf. chs. 1.19–20, and (7) the part about void cf. ch. 1.18. Parts (1) to (4) pertain to Stoic corporeals, parts (5) to (7) to incorporeals. It is to be noted that the concept of nature (φύσις) does not figure in the diaeresis. Perhaps of more crucial significance to Aristotle than to the Stoics, it is discussed at *Physics* 2.2 and echoed at ch. 1.1. The account of the elements and protagonists in ch. 1.3 is ultimately dependent on similar accounts in the first books of Aristotle's *Physics* and *Metaphysics*, which are amplifications of Preplatonic lists in their turn. The prominent position of the theological chapters 1.6–8 is ultimately due to the Stoic agenda, while as we noticed above the link of these chapters with ch. 1.9 on 'matter' plus 1.10 on 'idea' reflects a Middle Platonist position. 'Causes', the subject of ch. 1.11, are treated in *Physics* 1.7, and in general terms are the theme of the αἰτιολογικόν, the third subpart of the second main division of the Stoic diaeresis. Ch. 1.19 on 'void' and 1.19 on 'place' recall the treatment of this subject in *Physics* 3.1–4 plus 6–9. 'Time', the theme of chs. 1.21–22, also not found in the extant version of the Stoic diaeresis, is treated in *Physics* 4.10–14. 'Necessity', the theme of chs. 1.25–26, and 'luck', that of ch. 1.19, are treated at *Physics* 2.8–9 and 2.4–6 respectively. Though important in Stoic philosophy they are not included in the extant version of the diaeresis either. And so is the to the Stoics even more important notion of 'fate', the theme of chs. 1.27–28, which is irrelevant for Aristotle. Thus, the Peripatetic treatment of physics has been adapted to fit the requirements of a Hellenistic *koine*, which goes back to the Stoa, but may no longer have been felt to be particularly Stoic.

Liber 1 Titulus et index

T: Theodoretus *CAG* 4.31 Raeder, cf. 2.95, 5.16 (titulus)—^{P^B}: ps. Plutarchus *Plac.* 874D, p. 268 Diels—^{P^Q}: Quṣṭā ibn Lūqā p. 92 Daiber (titulus), pinax in ms. Damascenus fol. 7^v (ineditus)—^{P^E}: Eusebius *PE* 14.13.9, p. 293.11–17 + 14.15.11, p. 299.16–17 + 15.22.69, p. 400.6–8 + 15.32.8–10, pp. 406.8–407.8 Mras—^{P^C}: Cyrillus *Juln.* 2.14.10–12, p. 105 + 2.22.7–8, pp. 116 Riedweg—^{P^{Sy}}: Symeon Seth *CRN* 1 (praef.), pp. 17.4–18.14 Delatte
Cf. Aelius Herodianus *Pros. Cath.* p. 1.119.35–120.6, *de Orth.* P. 2.443.10–11 Lenz (nomen)

Titulus ΑΕΤΙΟΥ ΠΕΡΙ ΤΩΝ ΑΡΕΣΚΟΝΤΩΝ ΤΟ Α', ἐν ᾧ κεφάλαια τάδε·

Index

α'.	Τί ἐστὶν ἡ φύσις	
β'.	Τίτι διαφέρει ἀρχὴ καὶ στοιχεῖα	
γ'.	Περὶ τῶν ἀρχῶν, τί εἰσιν	5
δ'.	Πῶς συνέστηκεν ὁ κόσμος	
ε'.	Εἰ ἐν τὸ πᾶν	
ς'.	Πόθεν ἔννοιαν ἔσχον θεῶν ἀνθρώποι	
ζ'.	Τίς ὁ θεός	
η'.	Περὶ δαιμόνων καὶ ἡρώων	10
θ'.	Περὶ ὕλης	
ι'.	Περὶ ιδέας	
ια'.	Περὶ αἰτίων	
ιβ'.	Περὶ σωματῶν	
ιγ'.	Περὶ ἐλαχίστων	15
ιδ'.	Περὶ σχημάτων	
ιε'.	Περὶ χρωμάτων	
ισ'.	Περὶ τομῆς σωματῶν	

titulus [1] scripsimus, cf. T 4.31 et M–R 1.326 : Πλουτάρχου φιλοσόφου Περὶ τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν δογμάτων βιβλία ε' : τὸ α', ἐν ᾧ κεφάλαια τάδε ^{P^{B(1)}} : mutila in ^{P^{B(11)}} : Πλουτάρχου Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις βιβλίον α' ^{P^{B(111E)}} : om. ^{P^{B(111A)}} : *Dies ist das Buch des Plutarchos über die naturwissenschaftlichen Ansichten, welche die Philosophen vertraten. Es sind fünf Abhandlungen. Die erste Abhandlung über die naturwissenschaftlichen Ansichten, welche die Philosophen vertraten* Q

index : totum indicem om. ^{P^{B(111A)}} : exstat in ^{P^Q}, sed hactenus ineditus (habemus huius reconstructionis versionem Daiberi; vid. append. infra t. 4) || [3] ἡ om. ^{P^{B(111A)}}, cf. tit. c. 1.1 || [4] στοιχεῖα ^{P^{B(1-11)}}, cf. tit. c. 1.2 : στοιχεῖον ^{P^{B(111)Q}} || [5] τῶν ἀρχῶν ^{P^{B(111)Q(ut vid.)}}, cf. tit. c. 1.3 : ἀρχῶν ^{P^{B(1)}} || τί εἰσιν] καὶ τί εἰσιν ^{P^{Q(ut vid.)}} || [8] Πόθεν ... ἀνθρώποι tit. c. 1.6 : θεοῦ ^{P^{(1-111)Q}} : θεοῦ ἔσχον ^{P^{B(1-11)}}, inv. ^{P^{B(111)}} : οἱ ^{P^{B(1-11)}}, om. ^{P^{B(111)}} || [13] Περὶ αἰτίων : ^{P^{B(111)}} cf. tit. c. 1.11 : Περὶ αἰτίων ^{P^{B(1,11)}}

ιζ'.	Περὶ μίξεως καὶ κράσεως	
ιη'.	Περὶ κενοῦ	20
ιθ'.	Περὶ τόπου	
κ'.	Περὶ χώρας	
κα'.	Περὶ χρόνου	
κβ'.	Περὶ οὐσίας χρόνου	
κγ'.	Περὶ κινήσεως	25
κδ'.	Περὶ γενέσεως καὶ φθοράς	
κε'.	Περὶ ἀνάγκης	
κς'.	Περὶ οὐσίας ἀνάγκης	
κζ'.	Περὶ εἰμαρμένης	
κη'.	Περὶ οὐσίας εἰμαρμένης	30
κθ'.	Περὶ τύχης	
λ'.	Περὶ φύσεως	

Testes primi:

Theodoretus CAG 4.31 εἰ δέ τις οἴεται καὶ μετὰ συκοφαντήσai τοὺς ἀνδρας, τὴν παμπόλλην αὐτῶν διαφωνίαν ἐλέγξαντα, ἀναγνώτω μὲν Ἀετίου τὴν Περὶ ἀρεσκόντων ξυναγωγὴν, ἀναγνώτω δὲ Πλουτάρχου τὴν Περὶ τῶν τοῖς φιλοσόφοις δοξάντων ἐπιτομήν· καὶ Πορφυρίου δὲ ἡ Φιλόσοφος ἱστορία πολλὰ τοιαῦτα διδάσκει. cf. CAG 2.95 Πλούταρχος δὲ καὶ Ἀέτιος τὰς τῶν φιλοσόφων ἐκπαιδεύουσι δόξας. CAG 5.16 ἃ δὲ γε ἐν θεῷ λέξω, ἐκ τῶν Πλουτάρχῳ καὶ Πορφυρίῳ καὶ μέντοι καὶ Ἀετίῳ συγγεγραμμένων ἐρῶ.

Traditio ps.Plutarchi:

Eusebius PE 14.13.9 σκεψόμεθα δὴ τα λοιπὸν ἤδη ἄνωθεν ἀρξάμενοι τὰς τῶν εἰρημένων φυσικῶν φιλοσόφων δογματικὰς πρὸς ἀλλήλους ἀντιδοξίας. γράφει δὴ ἀθρόως ἀπάντων τῶν Πλατωνικῶν ὁμοῦ καὶ Πυθαγορείων τῶν τε ἔτι πρεσβυτέρων φυσικῶν φιλοσόφων ἐπικεκλημένων καὶ αὐτὸς πάλιν τῶν νεωτέρων Περιπατητικῶν τε καὶ Στωϊκῶν καὶ Ἐπικουρείων τὰς δόξας συναγαγὼν ὁ Πλούταρχος ἐν οἷς ἐπέγραψε Ἐπὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν δογμάτων, ἐξ ὧν παραθήσομαι ταῦτα· (14) δόξαι φιλοσόφων περὶ ἀρχῶν (cf. c. 1.3). PE 14.15.11 πάλιν δ' οὖν ὁ Πλούταρχος τὰς περὶ θεῶν ὑπολήψεις τῶν αὐτῶν τοῦτον γράφει τὸν τρόπον· (16) δόξαι φιλοσόφων περὶ θεῶν (cf. c. 1.7). PE 15.22.69 θήσω δὲ καὶ ταῦτα ἀπὸ τῆς Πλουτάρχου γραφῆς, ἐν ᾗ τὰς περὶ τούτων ἀπάντων ὁμοῦ τῶν τε πρεσβυτέρων καὶ νέων δόξας συναγαγὼν τοῦτον γράφει τὸν τρόπον (seqq. capita selecta de libr. 2). PE 15.31.2 οἷα δὲ καὶ περὶ τοῦ παντὸς διειλήφασιν, ἐκ τῆς αὐτῆς μάνθανε τοῦ Πλουτάρχου φωνῇ (seq. c. 1.4). PE 15.32.8–10 τοιαύτη καὶ ἡ θαυμάσιος αὐτῶν κοσμογονία. συνήπται ταῦτοις ἄλλη τις πλείστη λογομαχία, παντοίων πέρι προτάσεων ἀπορησάντων· εἰ χρὴ τὸ πᾶν ἐν ᾗ πολλὰ ἡγεῖσθαι καὶ εἰ ἕνα τὸν κόσμον ἢ πλείους (cf. c. 1.5)· καὶ εἴτε ἔμψυχος οὗτος καὶ προνοῖα τυγχάνει θεοῦ διοικούμενος εἴτε καὶ τάναντία (cf. c. 2.3)· καὶ εἰ ἄφθαρτος ἢ φθαρτός (cf. c. 2.3)· καὶ πόθεν τρέφεται (cf. c. 3.10)· καὶ ἀπὸ ποίου ἤρξατο

ὁ θεὸς κοσμοποιεῖν (cf. c. 2.6)· περί τε τῆς τάξεως τοῦ κόσμου (cf. c. 2.7)· καὶ τίς ἡ αἰτία τοῦ αὐτὸν ἐγκλιθῆναι (cf. c. 2.8)· περί τε τοῦ ἐκτὸς τῆς τοῦ κόσμου περιφερείας (cf. c. 2.9)· καὶ τίνα τὰ δεξιὰ καὶ τὰ ἀριστερὰ τοῦ κόσμου (cf. c. 2.10)· περί τε οὐρανοῦ (cf. c. 2.11)· καὶ πρὸς ἅπασιν τοῦτοις περί δαιμόνων καὶ ἡρώων (cf. c. 1.8)· περί τε ὕλης (cf. c. 1.9) καὶ περί ἰδεῶν (cf. c. 1.10)· καὶ περί τῆς τοῦ παντὸς τάξεως (—)· ἔτι μὴν περί τῆς τῶν ἄστρων φορᾶς τε καὶ κινήσεως (cf. c. 2.16)· καὶ πρὸς τοῦτοις ὁπόθεν φωτίζονται οἱ ἀστέρες (cf. c. 2.17)· καὶ περί τῶν καλουμένων Διοσκούρων (cf. c. 2.18)· περί τε ἐκλείψεως ἡλίου (cf. c. 2.24) καὶ σελήνης (cf. c. 2.29)· καὶ περί ἐμφάσεως αὐτῆς καὶ διὰ τί γεώδης φαίνεται (cf. c. 2.30)· καὶ περί τῶν ἀποστημάτων αὐτῆς (cf. c. 2.31)· καὶ ἔτι περί ἐνιαυτῶν (cf. c. 2.32). (9) ταῦτα δὲ πάντα διὰ μυρίων τοῖς περί ὧν ὁ λόγος κατεσκευασμένα ἐπειδὴ τεμὼν ὁ Πλούταρχος ἐν ὀλίγοις συνεῖλεν, ἐπὶ ταῦτόν ὁμοῦ συναγαγὼν τὰς ἀπάντων ἀποφάσεις καὶ τὰς διαφωνίας αὐτῶν, ἡγοῦμαι καὶ ἡμῖν οὐκ ἄχρηστα γενήσεσθαι παρατεθέντα εἰς τὴν εὐλογον αὐτῶν παραίτησιν. ὅτε γὰρ αὐτοὶ πρὸς σφᾶς αὐτοὺς ἐναντίοι κατὰ διάμετρον ἔστησαν μάχας τε καὶ πολέμους, πλέον δὲ οὐδὲν καθ' ἑαυτῶν ἐξήψαν, τὰ τοῦ πέλας ἕκαστοι φιλοτιμίᾳ λόγων ἀπελέγξαντες, πῶς οὐκ ἂν εἰκότως ἡμῖν ἀσφαλῆ τὴν περί τούτων ἐποχὴν γεγονέναι πᾶς ὅστις οὖν ὁμολογήσει; (10) θήσω δὲ ἐξῆς τοῖς εἰρημένοις ὅσα καὶ περί τῶν προσγειοτέρων ἐπηπόρησαν, περί γῆς σχήματος (cf. c. 3.10) καὶ περί θέσεως (cf. c. 3.11) καὶ ἐγκλίσεως αὐτῆς (cf. c. 3.12) καὶ ἔτι περί θαλάσσης (cf. c. 3.16), ὡς ἂν εἰδείης ὅτι μὴ (περί) μόνων τῶν μετεώρων καὶ μεταρσίων οἱ γενναῖοι διέστησαν, ἀλλ' ὅτι καὶ ἐν τοῖς περιγείοις διαπεφωνήκασιν. ἵνα δὲ τῶν σοφῶν ἔτι τὴν σοφίαν ἀποθαυμάσῃς, προσθήσω καὶ ὅσα περί ψυχῆς (cf. c. 4.4–5) καὶ τοῦ ἐν αὐτοῖς ἡγεμονικοῦ (cf. c. 4.5) διεμαχέσαντο, οὐδὲ σφᾶς αὐτοὺς ἐπιγινῶναι οἷας εἶεν φύσεως δεδυνήμενοι. ἀλλὰ γὰρ ἀνίωμεν ἐπὶ τὰ πρῶτα τῶν εἰρημένων (seqq. capita selecta de libr. 1–4)

Cyrillus Juln. 2.14 Πλούταρχος τοῖνον, ἀνὴρ τῶν παρ' αὐτοῖς οὐκ ἄσημος γεγονώς, ἐν τῷ δευτέρῳ βιβλίῳ τῆς τῶν Φυσικῶν δογμάτων συναγωγῆς, οὕτω φησί (cit. c. 2.1) *Juln.* 2.22 ἔφη γὰρ που ... ὁ Πλούταρχος ἐν τῷ πρώτῳ βιβλίῳ Φυσικῶν δογμάτων συναγωγῆς· (cit. c. 1.6).

Symeon Seth CRN 1 (Praef.) ὁ μὲν Πλούταρχος ... διαφόρους δόξας ἀπαριθμούμενος καὶ τὴν ἀληθὴ μὴ ἀποδεικνύων καὶ πιστούμενος συγχέει μάλλον τὸν λογισμὸν καὶ ἀπορεῖν παρασκευάζει ἢ εἰς ἐπίστασιν ἄγει. ... καὶ πρότερον μὲν ἐκ τῶν ἐσχάτων ἀρχόμενος ἀποδείξω περί τῆς γῆς (cf. c. 3.9) ἐν τῷ πρώτῳ λόγῳ ὅτι τυγχάνει σφαιροειδῆς (cf. c. 3.10) καὶ ὅτι ἐν μέσῳ κείται τοῦ παντός (cf. c. 3.11)· καὶ ὅσων σταδίῳ ἐστὶν ἡ περίμετρος αὐτῆς καὶ ὅσον καὶ οἶον μέρος αὐτῆς οἰκοῦμεν οἱ ἄνθρωποι καὶ πῶς τὰ ἐπτά κλίματα διαμεμερίσται καὶ μέχρι τίνος ἐν τῇ ἀνατολῇ οἰκοῦσιν οἱ ἄνθρωποι καὶ τί μὲν τὸ πέρας τῆς ἐν τῇ δύσει οἰκίσεως, τί δὲ τὸ ἐν τῷ βορρᾷ καὶ τί τὸ ἐν τῷ νότῳ (cf. c. 3.14). ἐν δὲ τῷ δευτέρῳ περί τε ὕδατος καὶ θαλάσσης (cf. c. 3.16) καὶ ἀέρος καὶ πυρὸς καὶ ἀστραπῶν καὶ κεραυνῶν καὶ βροντῶν (cf. c. 3.3) καὶ κομητῶν (cf. c. 3.2) καὶ ὑετῶν καὶ χιόνος καὶ χαλάζης καὶ τῶν ὁμοίων (cf. c. 3.4). ἐν δὲ τῷ τρίτῳ περί τῶν οὐρανίων σωμάτων καὶ τῆς φύσεως

αὐτῶν (cf. lib. 2) καὶ μεγέθους ἡλίου (cf. c. 2.21) καὶ σελήνης (cf. c. 2.26) καὶ κινήσεως ἀστέρων (cf. c. 2.16). ἐν δὲ τῷ τετάρτῳ περὶ ὕλης (cf. c. 1.9) καὶ εἴδους (cf. c. 1.10) καὶ φύσεως (cf. cc. 1.1, 1.30) καὶ ψυχῆς (cf. cc. 4.2–7) καὶ νοῦ (cf. c. 4.5). ἐν δὲ τῷ πέμπτῳ περὶ τῆς πρώτης τῶν ὄντων αἰτίας (cf. c. 1.3, c. 1.7). *CRN* 4 tit. + 4.56, p. 59.9–12 Delatte Λόγος τέταρτος· περὶ ὕλης (cf. c. 1.9), περὶ εἴδους (cf. c. 1.10), περὶ φύσεως (cf. cc. 1.1, 1.30), ἐν ᾧ περὶ τόπου (cf. c. 1.19) καὶ χρόνου (cf. cc. 1.21–22), περὶ ψυχῆς (cf. cc. 4.2–7) ἐν ᾧ καὶ περὶ αἰσθήσεων (cf. c. 4.9), περὶ νοῦ (cf. c. 4.5a).

Testes secundi:

Aelius Herodianus *Pros.Cath.* p. 1.119.32–120.6 Lenz τὰ διὰ τοῦ τιος προπαροξύνονται ἀσπᾶσις, ... θαλάττιος, διπλάσιος, Ταράσιος, ἀμβρόσιος, Ἰκέσιος, ἀνάρσιος, Ἐφέσιος, ... δημόσιος, διαπρύσιος, διακόσιοι, τριακόσιοι, πεντακόσιοι, Ὑπάτιος, Εὐστράτιος, Ἀέτιος, Φιλοίτιος, Μενότιος, ὕστάτιος, ὄσσάτιος, Μελέτιος, Ἀχερόντιος, Ἀθανάσιος, Θριάσιος, Τιθράσιος, Ἀναγυράσιος ... *de Orth.* p. 2.443.10–11 Lenz τὰ διὰ τοῦ τιος διὰ τοῦ ἰ γράφεται ὡς Ὑπάτιος, Εὐστράτιος, Ἀέτιος, Φιλοίτιος, Μενότιος, ὕστάτιος, ὄσσάτιος.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) For all five Books a full title at the head of the Book is preserved in P^B. In the case of the first book the full title for the five Books is given, followed by the heading for Book 1. This general heading for all five Books and the additional heading for Book 1 are confirmed by Q. However, it must be borne in mind that the author of P, in making an epitome of the original compendium, will have adapted the title for his own purpose. In his most detailed reference to the titles of the works he uses at *CAG* 5.31 (text above), T makes quite clear that these two works had different titles. Given that our aim is to reconstruct A's original compendium, it follows that we must take over the title as formulated in T. At M–R 1.323–327 we present a detailed discussion of this title and parallels elsewhere in Greek philosophical texts. We conclude that T's words ἀναγνώτω μὲν Ἀετίου τὴν Περὶ ἀρεσκόντων ξυναγωγὴν are best interpreted as 'let him read the collection *'On Placita'*', i.e. the title of the work was simply Περὶ ἀρεσκόντων in five books. This is the title we use in our text.

(2) The *capitulationes*, or indices of chapter headings for each of the five Books, are also found in most mss. of P^B. Fortunately the oldest of the three mss. of Q used by Daiber in his edition, Zāhirīya (Damascus) 4871, contains a

translation of these indices, and thus provides valuable additional evidence on the manuscript tradition. Also see below, section D(3). Differently from what we find in the Greek mss. where the indices are found at the beginning of the individual books, this manuscript collects all the chapter headings together in a single list (just like Diels did at on *DG* 268–269, but of course quite independently of the Arabic transmission). Daiber (1980) 75–76, followed by Bottler (2016) 26 n. 59, argued that this list was compiled later on the basis of the Arabic translation and was not present in the Greek exemplar used by Q. This would be demonstrated by common mistakes in the list and in the translation itself. But it is no less possible that the translator used the same formulations when drawing up his list on the basis of the indices in his Greek exemplar and when he translated the chapter headings in the course of translating the main text. In any case, this evidence in Q is certainly not an argument for denying that the indices were not original to P's *Epitome*. Daiber did not include them in his edition and translation of Q, but he has kindly provided the editors with a translation (see Appendix Part 4, pp. 2155–2158). We have recorded the variants in this list in the apparatus of the indices at the relevant place in the five books. Not much value should be attributed to them, but they are part of the evidence of the transmission of the text.

(3) The indices are not paralleled in S (both the pinax in the Laurentianus ms. and Photius' index pertain to the whole *Anthology*) and T (who does not have indexes and chapter headings). Parallels for intratextual headings are found in both S and T. In S these are included, often in abridged form, in his coalesced chapter headings, while T cites the main concept at issue at the beginning of his abstracts from A. These parallels will be cited at the relevant chapters below. On tables of content in professional and didactic literature see below, section D(e)(1).

C *Treatise Title and Name of Author*

As noted above, the title of A's compendium must be based on the evidence of T, who is also the only witness for the name of its author. Depending on how one reads T's sentence at *CAG* 5.16, it can be taken to be either *Περὶ ἀρεσκόντων* or *Περὶ ἀρεσκόντων συναγωγῇ* (from an orthographical viewpoint *συναγωγῇ* is far more common than *ξυναγωγῇ* as in Raeder's text). Both titles are possible. The term *ἀρέσκον/ἀρέσκοντα* is of course extremely common as a *terminus technicus* for the view or doctrine of a philosopher or scientist (e.g. doctors) in ancient literature. It is found for example in the title of Diogenes Laertius' work as determined in Dorandi's edition: *βίοι καὶ γνῶμαι τῶν ἐν φιλοσοφίᾳ εὐδοκίμασάντων καὶ τῶν ἐκάστη ἀρεσκόντων*. Remarkably, however, there are no exact parallels for the phrase *Περὶ ἀρεσκόντων* on its own. According to the evidence

of the TLG, T's text is the only extant instance in Greek literature. The closest parallels to either of the alternatives derived from T's text are as follows (for fuller lists see M–R 1.323–325).

(1) *Περὶ ἀρεσκόντων συναγωγῆς*: cf. various titles in the catalogue of Theophrastus' writings in Diogenes Laertius: *V.P.* 5.43 *Τῶν Διογένους συναγωγῆς α'*; *V.P.* 5.44 *Περὶ τῶν Μητροδώρου συναγωγῆς α'*; *V.P.* 5.45 *Προβλημάτων συναγωγῆς α' β' γ' δ' ε'*; *V.P.* 5.47 *Λόγων συναγωγῆς α'*; *V.P.* 5.47 *Τῶν Ξενοκράτους συναγωγῆς α'*. The only extant combination of *συναγωγή* with *ἀρέσκοντα* is found in the reference to a work of Aristotle by Simplicius in *Cael.* 386.25, *ἐν τῇ τῶν Πυθαγορείοις ἀρεσκόντων συναγωγῇ*, but we cannot be sure that he refers to an actual title (at 392.23 the reference is *ἐν τῷ δευτέρῳ τῶν Πυθαγορικῶν*).

(2) *Περὶ ἀρεσκόντων* (not including the title of P): cf. Arius Didymus at Eus. *PE* 11.23.2 *Περὶ τῶν ἀρεσκόντων Πλάτωνι συντεταγμένων* (but probably part of his *Περὶ αἱρέσεων*, so probably not a separate title at all, cf. Algra 2018, 68); Albinus *Περὶ τῶν Πλάτωνι ἀρεσκόντων* cited in the colophon of Parisinus graecus 962, on which see Whittaker at *DPhA* 1.96; and (without *περὶ*) Alexander Philaethes at Galen *Puls.* 8.726.10 K. *ἐν τῷ ε' τῶν ἀρεσκόντων* (i.e. medical subjects).

None of these parallels allow a definite choice between the two alternative readings of T's text. The two best are D.L. 5.44 *Περὶ τῶν Μητροδώρου συναγωγῆς α'* and Albinus *Περὶ τῶν Πλάτωνι ἀρεσκόντων*. We have opted for *Περὶ ἀρεσκόντων* above *Περὶ ἀρεσκόντων συναγωγή* (or *συναγωγῆς* with book number) on stylistic grounds (cf. M–R 1.326). For the former the words *τοῖς φιλοσόφοις* must be understood, as can be seen from the Albinus title and from the adaptation in the titles of P.

The more copious evidence on the author (pseudonymous) and title of the reduced version of the work is thus of secondary value, but nevertheless deserves further scrutiny. The most complete titles, as found in the oldest ms. Mosquensis 521 (M), are:

Book 1: *Πλουτάρχου φιλοσόφου Περὶ τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν δογμάτων βιβλία ε' : τὸ α'* (the colon : is present in the text as recorded in the manuscript)

Book 2: *Πλουτάρχου φιλοσόφου Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν ἐπιτομῆς τὸ β'*

Book 3: *Πλουτάρχου φιλοσόφου Περὶ τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν ἐν ἐπιτομῇ τὸ γ'*

Book 4: *Πλουτάρχου Τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν τὸ δ'*

Book 5: *Πλουτάρχου φιλοσόφου Τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν ἐν ἐπιτομῇ τὸ ε'*

There is, as can be seen, quite a bit of variation between the various books. The most noteworthy is the naming of the work as an *ἐπιτομή* in Book 2 and the reference to its *epitome* character in Books 3 and 5 (ἐν ἐπιτομῇ). Such reference is absent in Books 1 and 4. Parisinus 1672 (III:E) also has a full title but without reference to the *epitome* character. Marcianus 521 (m) only gives βιβλίον plus the cardinal number. Q vacillates between longer (Books 1, 3, 4) and shorter versions (Books 2, 5). The references to P's title in the witnesses also show much variation (full texts above):

E: PE 14.3.9 Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν δογμάτων

C: *Juhn.* 2.14 τῆς τῶν Φυσικῶν δογμάτων συναγωγῆς

T: CAG 5.31 τὴν Περὶ τῶν τοῖς φιλοσόφοις δοξάντων ἐπιτομήν.

We note that C describes the work as a συναγωγή (cf. the description of A in T), and this character is also emphasized by E in his description (συναγαγών), whereas T points out its *epitome* character. It is apparent that (1) there was much variation in the titles of ancient works as transmitted in manuscripts; (2) that this variation also occurred when these titles were cited in other texts; and (3) that in such citations descriptive terms were added which were not present in the titles themselves (as we think T likely did in his reference to A's work).

Let us now examine more closely how P formulated the title of his work, comparing it with the title and contents of the original. We can discern the following steps that he took:

- (1) He commenced with the words of A's title Περὶ ἀρεσκόντων, though they are now not nominal but adjectival, describing the subsequent φυσικῶν δογμάτων. Because of this change, they attract the article τῶν.
- (2) The words τοῖς φιλοσόφοις are now included. As we noted earlier, in A's title they were understood. A actually only refers to φιλόσοφοι twice in the work as we have it, at A 1.6.1[36] διδάσκεται δὲ τὸ μὲν φυσικὸν ὑπὸ τῶν φιλοσόφων, and 1.7.1[2] ἔνιοι τῶν φιλοσόφων. But it is clear that almost all name-labels refer to philosophers. We note too that A speaks of τῆς φιλοσοφίας πραγματεία in the opening lines of the work.
- (3) The words φυσικῶν δογμάτων are in tune with the description τὸν φυσικὸν λόγον in the first words of the compendium. δόγμα here is regarded as a synonym of δόξα. In the work it occurs only at A 2.13.15 in relation to the Orphics. But δόξα too scarcely occurs in it. In the meaning of a view or tenet it is only found at A 1.3.20 stating that the views of Socrates and Plato are the same on every subject. Interestingly T in his reference to the title replaces ἀρεσκόντων with δοξάντων. It is to be noted that the phrase

φυσικών δογμάτων goes back not coincidentally to the origin of the tradition in Theophrastus' Φυσικαὶ δόξαι.

- (4) As we noted already, three of P's titles (though not the first) in the Mosquensis refer to the *epitome* character of the work. Of course P's treatise is an ἐπιτομή, i.e. abridged version, of A. But we should note that in the prooemium to Book 3, A himself states that he has 'gone through the account of the things in the heavens by way of an *epitome* (ἐν ἐπιτομῇ).' Here the method of doxography itself is regarded as a form of abridgement, i.e. reducing the views of the philosophers to a compact format.

P's much longer titles are thus clearly based on the title and contents of the earlier work, A's compendium. But we can go a step further. P has expanded and explicated what is implicit in A's title. As Bottler (2014) 493 rightly points out, in the titles that T gives for both A and P, the description that they deal with physical subjects (i.e. τὰ φυσικά or the φυσικός λόγος) is missing. It must be assumed that A wished the title to be read in conjunction with the work's opening lines, where its subject is made pellucidly clear. P modifies this approach and includes it in the information in his titles. But there is absolutely no need to conclude, as Bottler does, 'dass die von Theodoret erwähnten Kompendien [note the plural] noch um nichtphysikalische Inhalte, also ethische Inhalte erweitert waren.' After all, we have both compendia, and in the body of the *Placita* ethics plays a part only incidentally, see below ch. 1.0d Commentary D(c)3 and D(d)2. It is quite out of the question that T would be referring to other works, certainly with regard to P. This is a most curious use of an *argumentum ex silentio*, leaving aside her depiction of T as a problematic witness elsewhere, e.g. *ibid.* 511–512. We might also compare G's compendium, which is entitled Περὶ φιλοσόφου ἱστορίας or simply Φιλόσοφος ἱστορία. It too does not treat the ethical part of philosophy, although its importance is emphasised in the opening discussion on the nature and parts of philosophy §§1–8 (esp. §§1–2) and it does contain chapters on the logical or dialectical part of philosophy (§§9–15).

It must be emphasised that absolute certainty regarding the title of A's work cannot be attained. Book titles in antiquity were notoriously variable. This is apparent in T's text on which we depend. Just as he gave a paraphrase of P's title, similarly he may have done so for A's work. But it is the only mention of the title that is extant and must, as argued above, be our starting-point in reconstructing it.

In relation to the author's name there has been some discussion in recent years. After we accepted Diels' use of the name in M–R Vol. 1 and devoted a brief discussion to it at M–R 1.322–323, Bremmer (1998) responded with the argument that the name does not occur as a personal name in any documentary material. In Runia (2009) 465 and Mansfeld at M–R 4.187–191 we have respond-

ed to this view, arguing that there is no reason to reject the literary evidence in which the name occurs quite commonly as early as the first cent. CE (and the related name Ἀετίων much earlier still in the fourth cent. BCE). As a witness to the name we cite the Alexandrian grammarian Aelius Herodianus (second cent. CE), who twice includes Ἀέτιος in lists of words (including quite a few personal names) illustrating aspects of accentuation.

Just as in the case of the work's title, so we can also not be absolutely certain about the name of its author. Alternative theories that the name was Areius, i.e. Arius Didymus (Lebedev 1988), or that there were two works under the name of Plutarch, a fuller and a reduced version (Gourinat 2018), are not as plausible as the Dielsian hypothesis. The key given is that there was an original compendium on which P, S and T depend, and which had a named author. What the name of that author, and what its exact title was, are secondary. See further Mansfeld (2018a) at M–R 4.174–195.

D *Analysis of the Index*

(1) The indices in the *Placita* are lists of subjects, or themes of investigation and discussion to be treated, which function as chapter headings. Discussion of the indices therefore should not occur without reference to the intratextual headings. Headings *per se* are further discussed below at ch. 1.1, Commentary C.

(2) The snippets of the Antinoopolis papyrus of the third cent. containing the text of P not only contain fragments of lemmata but also of headings and heading numbers (but no fragments of tables of contents), see M–R 1.126–130. They will be quoted below among the *fontes* at the top and the *testes primi* placed directly under the apparatus criticus of the (regrettably few) chapters concerned.

(3) The presence of an index of chapter headings, which as we argue, goes back to the original text of the compendium, gives rise to an important methodological consideration. It may be considered virtually certain that in the case of the original compendium the author will have based his index on the chapter headings that he employed. As argued below at section (6), the intratextual headings are indispensable, which the pinakes are not, or not to the same extent. This will mean that there should be no discrepancy between the two headings for each chapter, the one in the index, the other in the text of the work. In the course of transmission, such discrepancies could easily arise. Since the task we have set ourselves is to reconstruct the original text of the compendium, there should thus also be no such discrepancies in our text. Accordingly, we have set out the contents of the index on the basis of the headings that we have determined for the individual chapters. Discrepancies between these headings and the readings of the index in the manuscripts are recorded in the

apparatus criticus. References to the intra-textual headings, e.g. 'tit. c. 1.6', mean that the reading has been taken over from those headings. References to mss. of P^B refer to readings of the pinax in those mss.

(4) In Book 1 there is only one case, ch. 1.6, in which there is an element of the chapter headings in the main body of the text which does not correspond to any readings for the index of headings, namely the plural θεῶν as opposed to the singular θεοῦ. In three other cases, chs. 1.2, 1.3, and 1.11, there are manuscript readings for the index of headings which correspond to the intra-textual headings, but also readings that differ from them. These latter are recorded in the apparatus criticus above. The reader is advised also to compare these readings with those for the intra-textual chapter headings set out in the corresponding chapter. For the other books see the appropriate chapters below.

(5) The readings in Q, based on the translation of the index in ms. Zāhirīya (Damascus) 4871 (see above section A(2)), are also recorded in the apparatus criticus. These readings never diverge from those of the index in the Greek mss. (or at least some of them). But given the methodology outlined above in (3), this will not affect the text of the Index printed above.

(6) Bottler (2014) 24–27 argues that the tables of contents are a later addition. She has failed to take the arguments in favour of the authenticity of chapter headings (inclusive of their numbering) and tables of contents at M–R 2.1.196–204 into account. Without headings chapters would often be hard to distinguish from each other, and often it would not be immediately clear what the (grammatical) subject of at least the first lemma(ta) is without the assistance of the heading, see e.g. ch. 1.20, 'On time' (Περὶ χρόνου). Also it would be hard to find one's way in this highly technical treatise. Ellipsis of the chapter theme is as typical a feature of doxographical language as the ellipsis of words of saying and thinking so rewardingly studied by Jeremiah at M–R 4.319–323. Scribonius Largus, the author of another professional treatise more or less contemporary with A, namely a collection of medical prescriptions, writes that he has added tables of contents and numbered chapter headings 'so that it will be easy to find what is being sought' (*Comp. ep. ded.* 15.6–9). So do quite a few other authors of professional and didactic treatises, see below, section D(e)1.

Bottler's further argument that a table of contents would be superfluous at the beginning of Book 1 because, as she claims, chapter headings are mentioned at 1.proœm. 3, is mistaken. This paragraph lists a couple of *problems* (ζητήματα, θέσεις, *quaestiones infinitae*) in physics as well as in ethics; note the terms ζητῶμεν, ζητεῖται and ζητῶν at Book 1.proœm. 2–3 (see further ch. §1.proœm., Commentary D(c)(4)). Ethical problems are only mentioned *exempli gratia* to illustrate the preliminary but also basic division of philosophy into a theoretical (i.e. physical) and a practical (i.e. ethical) part described in the proem. For

the merely incidental presence of ethical matters in A see below, ch. 1.proœm., Commentary D(d)(2). For *quaestiones* (ζητήματα) and *capitula* etc. see ch. 1. proœm., Commentary D(e)(3a–b) and (e)(4); *exempla physica* and *ethica* are cited and listed ch. 1.proœm. at *Testes secundi, Loci aëtiani*, section E(a) & (b).

Bottler also disregards the functional distinction between formulations of such *problems* on the one hand, and chapter headings ('Überschriften') on the other, both often, but far from generally, formulated as questions; see below, ch. 1.1 Commentary C. A formula or phrase formulating a problem can also be used as a chapter heading (cf. M–R 2.1.197–198, 203–204, with references to earlier discussions). But such a phrase is not a chapter heading when it is not identified explicitly as such, or found above a chapter or in a table of contents. 'The perfect man' (τέλειος ἀνὴρ) of the proem (ch. 1.proœm. 3[3]), who 'should both theorise about the things that are and perform the acts that must be done' and devote himself to the research that is involved, is not concerned with chapter headings but with problems. Bottler's suggestion amounts to a fatal misunderstanding of the nature of the *Placita* qua treatise containing systematic information about *contrasting* views on *problems* in physics. Only five examples of physical problems are provided in the proem, hardly sufficient as an announcement of the thirty chapters that are to follow in Book 1, even on Bottler's hypothesis. And what about the other four Books, which lack such proems listing examples of problems, but are preceded by tables of contents? The discrepancy between the small number of problems (for Bottler: headings) in the proem and the large number of chapter headings in the body of the treatise is wilfully interpreted by her as showing that its various remains cannot be used for a convincing reconstruction. We may further observe that there are of course no chapter headings or chapters at all in the body of the treatise corresponding to the examples of *ethical* problems provided in ch. 1.proœm. 3 *ad finem*. Bottler, to be sure, interprets this as a contradiction between the proem and the body of the work, which in her view again shows that the treatise is in poor shape. In fact the current state of the treatise can be estimated using statistical methods; see Jeremiah (2018), esp. 293–295, who estimates that we have 86 % of the original; see further General Introduction, section 2.7.

e Other Evidence

(1) *Tables of content and chapter headings.* It has been argued that a lack of assistance to the reader in the form of tables of contents and chapter headings made it much more difficult to find one's way in an ancient book than in a modern one; see Small (1997) 16–19: 'rare event', and Dickey (2017) 13–14: 'there (was) very little in the way of tables of contents, chapter headings ...'. This is true to some degree, but not in general, because professional and didactic treatises

and historical works are often provided with these appurtenances, and there are even several important cases which have, or had, tables of contents but no intratextual chapter headings. We include a brief overview; more is to be found in Mansfeld (2020a).

In his introduction to Eusebius' *Ecclesiastical History* Schwartz (1909) clii–cliii pointed out that '[i]n der Gattung Ἱστορίαι, in denen nicht fortlaufend erzählt, sondern Material zusammengetragen wird, ist die Sitte Inhaltsverzeichnisse vorzuschicken, hergebracht: eben weil der Stoff disparat ist, soll der Leser orientiert werden.' Mutschmann (1911) 95 speaks of a 'Litteratur, die weniger gelesen als eingesehen und nachgeschlagen wird.' Useful brief overview with references in Regenbogen (1950) 1472–1475: '10. Inhaltsangaben, Kephalaioseis, capitulationes'. Speaking of the Elder Pliny's tables in Book I of the *Naturalis historia* (see below), he says that such overviews were apparently 'bei großen Sammelwerken üblich'.

Scribonius Largus, Pliny, and Columella (all first century CE), and Aelianus Tacticus and Aulus Gellius (both second century CE) speak of their tables of contents *expressis verbis*. Schwartz also mentions Gellius and Diodorus Siculus (first cent. BCE). Mutschmann (1911) mentions Diodorus, Quintilian, and Arrian's Epictetus, and studies Sextus Empiricus and ps.Galen's *Historia philosopha*. Schröder (1999) discusses Varro, Scribonius Largus, Pliny, Columella, and other earlier and later authors, esp. those writing in Latin. The lists of themes for the entire *Naturalis historia*, supplemented with the names of source authors that have been used, constitute the main text of *Nat.* Book 1. As Pliny tells his dedicatee, and so us, these lists are indispensable for a rapid orientation, and this reason is also put forward by Columella introducing his lost table at the end of his Book 11, and by Aelianus Tacticus. And according to Jutta Kollesch (1966) 205 = (2019) 42, the mss. of the pre-Galenic ps.Galen *Definitiones medicae* contain 'Reste' of the 'Kapitelüberschriften' which provided the necessary 'Gliederung' of this systematic collection of *horoi* (the critical edition of the work has unfortunately not yet been published).

Pliny mentions a predecessor writing in Latin who is lost to us (Valerius Soranus, †82 BCE), but fails to mention Scribonius Largus. This contemporary of the emperor Claudius provided his book of prescriptions with what in fact is a table of contents (extant), and also tells us that he *numbered* them (*numeris notavimus*), all to help the reader find his way. These numbers correspond with those of the main chapters and their subdivisions in the body of the work (this double numbering system parallels that of Aëtius). It is far from certain that Pliny numbered the items on his lists himself, though Schröder (1999) 116 argues in favour. Columella, an important writer on agriculture and a near contemporary of Pliny, likewise advises us that his *argumenta*, i.e. tables of contents, are

indispensable for finding our way, because we cannot be expected to remember everything that is in the treatise (see section E(b)). The six-page index of headings of the medical author Soranus' *Gynaikeia* in Cod. Parisinus 2153 as well as the chapter headings in the body of the treatise are accepted and printed as genuine in the editions of Ilberg (1927) and Burguière & *alii* (1988–2000, cf. T. 4, pp. xii and 49 ff.). Soranus is to be dated to ca. 100 CE, so is somewhat later than Scribonius and a near contemporary of Pliny and Aëtius. In fact Ilberg (1910) and his Dutch predecessor Ermerins (1869) and (1872) used the index to weed out unauthentic material. For the texts of Gellius, Pliny, Aelianus Tacticus, Scribonius Largus and Columella, and interesting parallels in Cicero (at *Leg.* 2.18 and *Brut.* 164 he speaks of *summae rerum* or *capita rerum*, both translating κεφάλαια, which later are called *tituli* by the Younger Pliny *Ep.* 1.20.7, see Dyck 2010); see again section E(b) *ad finem*. For the *argumenta* and *capitula* (chapter headings) of Irenaeus of Lyon (translated from the Greek), writing in the second cent. CE, see e.g. Rousseau–Doutreleau (1982) 1.51–58.

The summaries, or inventories of contents, at the end of the introductory epistles of Apollonius of Perga (third cent. BCE) and Dionysius of Halicarnassus (first cent. CE) do not have the form of a table. They are discussed by Friderici (1911) 44–46, and cited below section E(b). One may compare them to the 'preambles' or 'summaries' (προεκθέσεις) described by Polybius Book 11 fr. 1a (see again section E(b)) safely incorporated in the main text, which, as he says, are to be distinguished qua position from the traditional but insecure preliminary προγραφαί, i.e. from the tables of contents, but are equivalent as to contents and function; see further Laqueur (1911) 177–183. For such προγραφαί cf. Aelianus Tacticus *Tact.* pr. 6 προέγραψα τὰ κεφάλαια (see section E(b) *ad finem*). In the Budé edition (Poznanski 1992) of Asclepiodotus (1st–2nd cent.) the numbered τακτικὰ κεφάλαια are printed before the text and the corresponding intertextual headings above their respective chapters. The Leiden Arabic translation of the *Physiognomy* of Polemon of Laodicea (a contemporary of the emperor Hadrian), which is argued to be a quite faithful translation of the lost Greek original (Hoyland 2007, 331), begins with a table of contents consisting of seventy numbered chapters and has no intratextual chapter headings. Parallel, and less good, versions of this work have no table of contents.

Note that Dionysius, whose προέκθεσις comes very close stylistically to a pinax, uses the word κεφάλαια, defines these as expressing in outline (ὡς τύπω περιλαβεῖν) what he is going to say, and that these short phrases begin with question words like τίς, τίνα, τίνων, τί, and πῶς. (On this terminology cf. below, ch. 1.1 Commentary C). Aelianus Tacticus uses the word κεφάλαια to refer to his (extant) pinax of no less than 113 items. Eusebius *PE* 15.32.8–10 (cited above, *Testes primi*) comes close to a table of contents of part of the *Placita*.

There are no intratextual chapter headings in Polybius, Pliny the Elder, Diodorus Siculus, Aelianus Tacticus, Polemon, or, for that matter, Dionysius of Halicarnassus (see below, section D(e)), but only a record of (to us lost) tables of contents plus some extant preliminary summaries in Polybius, an enormous table of contents of the entire encyclopedia comprising the whole of the first Book in Pliny, indices extant and indices lost in Diodorus, a substantial table of contents in Aelian, possibly a substantial table of contents in Polemon, and a quite full preliminary summary in Dionysius. It appears that tables of contents were current long before intratextual headings became fashionable. If these parallels mean anything, the tables of contents of Aëtius can quite safely be retained.

On the organization of esp. technical and professional literature by means of tables of contents, numbering and chapter headings see further Schröder (1999) 93–159, and the evidence collected by Zuntz (1945) 80–81. The Elder Pliny, Scribonius Largus, Columella, and Aulus Gellius are discussed by Riggsby (2007). There are useful overviews in Scherbenske (2009) 123–128, and Scholten (1996a) 28–35. On chapter divisions and headings—*kephalaia* (i.e. chapters) and *titloi* (i.e. chapter headings, from Latin *tituli*)—in mss. of the New Testament see e.g. Metzger–Ehrman (2005) 34–37, and Goswell (2009), (2010). On the injudicious neglect of this sort of evidence by earlier editors of classical texts see already Mutschmann (1911) and Birt (1913) 11.

(2) The large table of contents for *Nat.* Book 2 contains quite a few headings that are identical with or similar to headings in the *Placita*; we have cited these at the appropriate chapters below.

(3) *Physikai dogmata/ doxai*. The formula φυσικῶν δογμάτων of the ps.Plutarchean title is equivalent to the formula (Περὶ τῶν) Φυσικῶν δοξῶν, which has been transmitted as (part of) a title of a work by Theophrastus. This title should be translated (*On the*) *Physical Tenets* (*De physicis opinionibus*, *Physikai Doxai*) and not, as Usener and Diels believed and their followers still believe, as *On the Tenets of the Physicists* (*De physicorum opinionibus*), for this is precluded by the presence of Περὶ τῶν. The version in Theophrastus' bibliography at Diogenes Laertius V.P. 5.48, Φυσικῶν δοξῶν α' β' γ' δ' ε' ζ' η' θ' ι' ια' ιβ' ιγ' ιδ' ιε', does not allow the translation *Tenets of the Physicists* either. There is only one other indubitable reference to these *Physikai Doxai*, namely *Phys.Op.* 11a Diels = 241A FHSG (Θεόφραστος μέντοι ἐν τῷ Περὶ τῶν φυσικῶν δοξῶν). Some other fragments, too, may be attributed to this work. But the fragments in Simplicius' *Commentary on Aristotle's Physics* as well as several others Usener, Diels and their followers attributed to the purported *De physicorum opinionibus* most probably derive from Theophrastus' *Physics*; see Mansfeld (1989b) 148–150 = (1990) 253–255, with references. Fortenbaugh & alii (1992) collect these texts

under the cautious heading ‘Doxography on Nature’. For δόξαι and δόγματα as equivalent see also Theodoret CAG 1.62, quoted below at section E(b) *Doxography*.

The *Placita* not only contains doxai of physical philosophers, but also (physical!) doxai of doctors, of astronomers, of other scientists, and even of historians. The material in support, including parallels for the phrases φυσικὴ δόξα and φυσικὸν δόγμα, has been collected below section E(b). See further Mansfeld (1992a) 64–67 = M–R 3.34–37, (2002c) 278–283 = M–R. 3.163–169, Leszl (2002) 156–158, who also cites the Theophrastean book titles Περὶ φυσικῶν ἐπιτομῆς α’ β’ and Φυσικῶν ἐπιτομῆς α’ at Diogenes Laertius *VP*. 5.46 and 5.48 (which do not mean ‘Shortlist of Physicists!’), and points towards Galen’s reference ἐπιτομὴν ἐποιήσατο τῶν φυσικῶν δοξῶν (Thphr. *Phys.Op.* fr. 5a Diels, 231 FHS&G at Gal. *HNH* 15.25.13 K). The title of Book 10 of the ps.Aristotelian *Problemata*, the longest in the collection, is ‘Ἐπιτομὴ φυσικῶν. Galen clearly uses φυσικῶν δοξῶν in the sense of ‘physical tenets’ at *HNH* 15.25.10–26.6 K. ‘this has been shown in the work *On the elements according to Hippocrates*, where we have referred to virtually all the physical tenets which pertain to the first principles or elements (πασῶν σχεδὸν τῶν φυσικῶν δοξῶν ..., ὅσαι περὶ τῶν πρώτων ἀρχῶν ἢ στοιχείων γεγόνασιν)’.

E Further Related Texts

b Sources and Other Parallel Texts

Doxography: Athenagoras *Leg.* 6.2.11–15 Marcovich Πλάτων δὲ καὶ Ἀριστοτέλης (καὶ οὐχ ὥς ἐπιδεικνύων τὰ δόγματα τῶν φιλοσόφων ἐπ’ ἀκριβέως, οὕτως ἃ εἰρήκασαι περὶ θεοῦ διέξειμι: ... ἀλλ’ ἐπειδὴ ἀδύνατον δεικνύειν ἄνευ παραθέσεως ὀνομάτων ὅτι μὴ μόνοι εἰς μονάδα τὸν θεὸν κατακλείομεν, ἐπὶ τὰς δόξας ἐτραπόμην), φησὶν οὖν ὁ Πλάτων κτλ. Theodoretus CAG 1.62 ὅτι δὲ καὶ οἱ ταῖς δόξαις τῶν φιλοσόφων ἀκολουθήσαντες, πίστει χρώμενοι ποδηγῶ, οἱ μὲν τὰ τούτων, οἱ δὲ τὰ ἐκείνων ἡσπάζοντο, μάλα ἂν τις μάθοι ῥαδίως, τὰς τῶν δογμάτων διαφορὰς ἐξετάσας (abstracts of doxai of chs. 4.7, 2.4, 1.9 and 2.3 follow).

capitulationes, προεκθέσεις, praefatiunculae, capita rerum, tituli, summae rerum, indices capitulorum, προγραφαί, κεφάλαια: Apollonius of Perga *Conica* 1.1.21–47 ἀπὸ δὲ τῶν ὀκτῶ βιβλίων τὰ πρῶτα τέσσαρα πέπτωκεν εἰς ἀγωγὴν στοιχειώδη, περιέχει δὲ τὸ μὲν πρῶτον τὰς γενέσεις τῶν τριῶν τομῶν καὶ τῶν ἀντικειμένων καὶ τὰ ἐν αὐταῖς ἀρχικὰ συμπτώματα ἐπὶ πλεόν καὶ καθόλου μάλλον ἐξεργασμένα παρὰ τὰ ὑπὸ τῶν ἄλλων γεγραμμένα, τὸ δὲ δευτέρον τὰ περὶ τὰς διαμέτρους καὶ τοὺς ἄξονας τῶν τομῶν συμβαίνοντα καὶ τὰς ἀσυμπτώτους καὶ ἄλλα γενικὴν καὶ ἀναγκαίαν χρεῖαν παρεχόμενα πρὸς τοὺς διορισμούς· τίνας δὲ διαμέτρους καὶ τίνας ἄξονας καλῶ, εἰδήσεις ἐκ τούτου τοῦ βιβλίου. τὸ δὲ τρίτον ... τὸ δὲ τέταρτον ... τὰ δὲ λοιπὰ ἐστὶ περιουσιαστικώτερα· ἔστι γὰρ τὸ μὲν περὶ ἐλαχίστων καὶ μεγίστων ἐπὶ πλεόν, τὸ δὲ περὶ ἴσων καὶ ὁμοίων κώνου τομῶν, τὸ δὲ περὶ διοριστικῶν θεωρημάτων, τὸ δὲ προβλημάτων κωνικῶν διωρισμένων. Polybius 11 fr. 1a.1.1–3 ἴσως δέ

τινες ἐπιζητοῦσι πῶς ἡμεῖς οὐ προγραφάς ἐν ταύτῃ τῇ βίβλῳ, καθάπερ οἱ πρὸ ἡμῶν, ἀλλὰ καὶ προεκθέσεις καθ' ἐκάστην ὀλυμπιάδα πεποιήκαμεν τῶν πράξεων. ἐγὼ δὲ κρίνω χρήσιμον μὲν εἶναι καὶ τὸ τῶν προγραφῶν γένος· καὶ γὰρ εἰς ἐπίστασιν ἄγει τοὺς ἀναγινώσκειν θέλοντας καὶ συνεκκαλεῖται καὶ παρορμᾷ πρὸς τὴν ἀνάγνωσιν τοὺς ἐντυγχάνοντας, πρὸς δὲ τούτοις πᾶν τὸ ζητούμενον ἐτοίμως ἔνεστιν εὐρεῖν διὰ τούτου· θεωρῶν δὲ διὰ πολλὰς αἰτίας καὶ τὰς τυχοῦσας ὀλιγωρούμενον καὶ φθειρόμενον τὸ τῶν προγραφῶν γένος, οὕτως καὶ διὰ ταῦτα πρὸς τοῦτο τὸ μέρος κατηνέχθη· τῆς γὰρ προεκθέσεως οὐ μόνον ἰσοδυναμούσης (πρὸς) τὴν προγραφὴν, ἀλλὰ καὶ πλείον τι δυναμένης, ἅμα δὲ καὶ χώραν ἐχούσης ἀσφαλεστέραν διὰ τὸ συμπεπλέχθαι τῇ πραγματείᾳ, τοῦτ' ἄλλοι ἐδοκιμάσαμεν χρῆσθαι τῷ μέρει παρ' ὅλην τὴν σύνταξιν πλὴν ἕξ τῶν πρώτων βυβλίων· ἐν ἐκείνοις (δὲ) προγραφάς ἐποίησάμεθα διὰ τὸ μὴ λίαν ἐναρμόζειν ἐν αὐτοῖς τὸ τῶν προεκθέσεων γένος. **Dionysius of Halicarnassus** *Comp.* 1.55–68 κεφάλαια δ' αὐτῆς ἐστὶν ἃ πρόκειται μοι δεῖξαι ταῦτα, τίς τε ἐστὶν ἡ τῆς συνθέσεως φύσις καὶ τίνα ἰσχὺν ἔχει, καὶ τίνων στοχάζεται καὶ πῶς αὐτῶν τυγχάνει, καὶ τίνες αἱ γενικώταται αὐτῆς εἰσι διαφοραὶ καὶ τίς ἐκάστης χαρακτήρ καὶ ποῖαν κρατίστην αὐτῶν εἶναι πείθομαι, καὶ ἔτι πρὸς τούτοις, τί ποτ' ἐστὶ τὸ ποιητικὸν ἐκεῖνο καὶ εὐγλωσσον καὶ μέλιχρον ἐν ταῖς ἀκοαῖς, ὃ πέφυκε τῇ συνθέσει τῆς πεζῆς λέξεως παρακολουθεῖν, ποιητικῆς τε κατασκευῆς τὸν ἀποίητον ἐκμιμουμένης λόγον καὶ σφόδρα ἐν τῇ μιμῇσι κατορθούσης εὖ τί τὸ κράτος καὶ διὰ ποίας ἂν ἐπιτηδεύσεως ἐγγένοιτο ἐκάτερον αὐτῶν. τοιαυτὴ μὲν δὴ τινὰ ἐστὶν ὡς τύπῳ περιλαβεῖν ὑπὲρ ὧν μέλλω λέγειν. ἄρχεται δὲ ἐνθένδ' ἡ πραγματεία. **Cicero** *Leg.* 2.18 *leges autem a me edentur non perfectae (nam esset infinitum), sed ipsae summae rerum atque sententiae.* *Brut.* 164 *multa in illa oratione graviter, multa leniter, multa aspere, multa facete dicta sunt; plura etiam dicta quam scripta, quod ex quibusdam capitibus expositis nec explicatis intellegi potest. ipsa illa censoria contra Cn. Domitium conlegam non est oratio, sed quasi capita rerum et orationis commentarium paulo plenius.* cf. **Pliny** (the Younger) *Ep.* 1.20.7 *testes sunt multae multorum orationes et Ciceronis Pro Murena, Pro Vareno [lost], in quibus brevis et nuda quasi subscriptio quorundam criminum solis titulis [sc. Mur. 57 de Postumi criminibus, de Servi adulescentis] indicatur.* **Scribonius Largus** *Comp. Ep. Dedic.* 5.25–27 *primum ergo ad quae vitia compositiones exquisitae et aptae sint, subiecimus et numeris notavimus, quo facilius quod quaeretur inveniatur; deinde medicamentorum, quibus compositiones constant, nomina et pondera vitiis subiunximus.* **Columella** *R.R.* 11.3.65 *hactenus praecipendum existimaui de cultu hortorum et officiis vilici, quem quamvis instructum atque eruditum omni opere rustico esse oportere prima parte huius exordii censuerim, quoniam tamen plerumque evenit, ut eorum, quae didicerimus, memoria nos deficiat eaque saepius ex commentariis renovanda sint, omnium librorum meorum argumenta subieci, ut cum res exegisset, facile reperiri possit; quid in quoque quaerendum et qualiter quidque faciendum sit.* **Pliny** *Nat.* 1 pr. 33 *quia occupationibus tuis publico bono parcendum erat, quid singulis contineretur libris, huic epistulae subiunxi summae cura, ne legendos eos haberes, operam dedi. tu per hoc et alii praestabis ne perlegant, sed, ut quisque desiderabit aliquid, id tantum quaerat et sciat quo loco inveniatur. hoc ante me fecit in litteris nostris*

Valerius Soranus in libris, quos Ἐποπτίδων inscripsit. Martialis Epigr. 13.3.7–8 addita per titulos sua nomina rebus habebis: / praetereas, si quid non facit ad stomachum. 14.2.3–4 lemmata si quaeris cur sint ascripta, docebo: / ut, si malueris, lemmata sola legas. Fronto ad Marc. 3.8.2.41 τὴν δὲ ὅλην τῶν εἰκόνων τέχνην alias diligentius et subtilius persequemur; nunc capita rerum attigi. Ep. 3.8.4 τὴν δὲ ὅλην τῶν εἰκόνων τέχνην alias diligentius et subtilius persequemur; nunc capita rerum attigi. ps.Hermogenes Meth. §12.1–6 Patillon τὸ ἐν ἀρχῇ τι λέγειν ἐπὶ κεφαλαίων περὶ ὧν τις μέλλει κατασκευάζειν ἢ διδάσκειν οἱ τεχνικοὶ καλοῦσι προέκθεσιν, τὸ δ' ἐπὶ τέλους ἀναμνησκείν τὰ ἀποδεδειγμένα ἢ λελεγμένα οἱ τεχνικοὶ καλοῦσιν ἀνακεφαλαίωσιν. οἱ δὲ παλαιοὶ τὴν μὲν προέκθεσιν καλοῦσιν ὑπόσχεσιν, τὴν δὲ ἀνακεφαλαίωσιν ἐπάνοδον. Aelianus Tacticus Tact. pr. 6 διὰ μέντοι τὰς ἀσχολίας προέγραψα τὰ κεφάλαια τῶν ἀποδεικνυμένων, ἵνα πρὸ τῆς ἀναγνώσεως τοῦ βιβλίου τὸ ἐπάγγελμα τοῦ συγγράμματος δι' ὀλίγων κατανοήσης καὶ οὕς ἂν ἐπιζητήσης ἀναγνωσθῆναι τόπους ῥαδίως εὕρισκων τοὺς χρόνους μὴ τρίβης. Aulus Gellius NA 1 praef. 25 capita rerum, quae cuique commentario insunt, exposuimus hic universa, ut iam statim declaretur, quid quo in libro quaeri inveniri que possit. Porphyry Plot. 26.28–37 τὰ μὲν οὖν βιβλία εἰς ἑξ ἑνεδας τοῦτον τὸν τρόπον κατετάξαμεν τέσσαρα καὶ πεντήκοντα ὄντα· καταβεβλήμεθα δὲ καὶ εἰς τινὰ αὐτῶν ὑπομνήματα ἀτάκτως διὰ τοὺς ἐπείξαντας ἡμᾶς ἐταίρους γράφειν εἰς ἅπερ αὐτοὶ τὴν σαφήνειαν αὐτοῖς γενέσθαι ἠξίουσαν. ἀλλὰ μὴν καὶ τὰ κεφάλαια τῶν πάντων (πλὴν τοῦ Ἑπεὶ τοῦ καλοῦ διὰ τὸ λείπειν ἡμῖν) πεποιήμεθα κατὰ τὴν χρονικὴν ἔκδοσιν τῶν βιβλίων· ἀλλ' ἐν τούτῳ οὐ τὰ κεφάλαια μόνον καθ' ἕκαστον ἔκκεται τῶν βιβλίων, ἀλλὰ καὶ ἐπιχειρήματα, ἃ ὡς κεφάλαια συναριθμεῖται. Gregory of Nyssa Opif.Hom. MPG 44.128B σαφηνείας δὲ χάριν καλῶς ἔχειν ὤθησιν, ἐπὶ κεφαλαίων σοι προθεῖναι τὸν λόγον, ὥς ἂν ἔχοις πάσης τῆς πραγματείας ἐν ὀλίγῳ τῶν καθέκαστον ἐπιχειρημάτων εἰδέναι τὴν ὑπόθεσιν. Sulpicius Victor(?) Inst.Or. 23 renovatio, quam Graeci ἀνακεφαλαίωσιν vocant, cum breviter capita rerum atque argumentorum percurramus ad renovandam memoriam iudicium. Jerome in Hiezech. 5 praef. 1–4, p. 185.1–5 Glorie ne librorum numerus confundatur, et per longa temporum spatia divisorum inter se voluminum ordo vitietur, praefatiunculas singulis libris praeposui, ut ex fronte tituli statim lector agnoscat quotus sibi liber legendus et quae nobis prophetia explananda sit. Jerome in Is. MPL 73 prol. 96–98 Apollinaris autem more suo sic exponit omnia, ut universa transcurrat et punctis quibusdam atque intervalis, immo compendiis grandis viae spatia praetervolet; ut non tam commentarios quam indices capitulorum nos legere credamus. Augustine Qu.Ev. prol. 10–14 Mutzenbecher quod posteaquam conperi, ne quis forte quaerens aliquid legere in hoc opere, quod eum in Evangelio movisset et ad quaerendum excitasset, tadio perturbati ordinis offenderetur—quando quidem ea quae carptim ut poterant dictabantur in unum conlecta et contexta cognovi—, feci ut ad ordinem numerorum praescriptis titulis, quod cuique opus esset facile investigaret.

Physical doxai/dogmata: Philo of Alexandria Virt. 8 τοῦτον τὸν πλοῦτον σοφία χορηγεῖ διὰ λογικῶν καὶ ἡθικῶν καὶ φυσικῶν δογμάτων καὶ θεωρημάτων. Leg. 1.59 ἀλλ' οὗτοι μὲν ἱατρικὴν δόξαν ἐκτιθέμενοι μάλλον ἢ φυσικὴν. Albinus

Prol. c. 6, p. 151.1 H. ἐστὶ μὲν τὰ φυσικὰ δόγματα. **ps.Galen** *Def.Med.* 19.352.16–353.3 K. ιγ'. δόγμα ἐστὶ τὸ μὲν ἰδίως, τὸ δὲ κοινῶς λεγόμενον. κοινῶς μὲν ἡ ἐνεργεία (ἐνεργεία *secl.* Barnes 1990, 2633–2644, n. 104) πράγματος συγκατάθεσις, ἰδίως δὲ πράγματος (ἀδήλου *add.* Barnes) συγκατάθεσις, διὸ δὴ μᾶλλον ἡ λογικὴ αἴρεσις δογματικὴ κέκληται. δόγμα ἐκατέρως καλεῖται, τὸ τε δοξαζόμενον καὶ ἡ δόξα αὐτή. τὸ μὲν πρότασις ἐστὶ, τὸ δὲ ὑπόληψις. (cf. **ps.Galen** *HPh* c. 7, *DG* pp. 603.22–604.2 τὴν αἴρεσιν ὑπολαμβάνουσί τινες εἰρῆσθαι τριχῶς, κοινῶς καὶ ἰδίως καὶ ἰδιαίτατα. κοινῶς μὲν τὴν τινὶ πράγματι τῶν κατὰ τὸν βίον συγκατάθεσιν, ἰδίως δὲ τὴν ἐν τέχνῃ, ἰδιαίτατα δὲ τὴν ἐν τῇ φιλοσοφίᾳ.) **Heraclitus** *All.Hom.* 22.2–3 καὶ τῶν φυσικῶν κατὰ τὰ στοιχεῖα δογμάτων εἰς ἀρχηγὸς Ὀμηρος, ἐκάστω τινὶ τῶν μετ' αὐτὸν ἥς ἔδοξεν εὐρεῖν ἐπινοίας γεγωνῶς διδάσκαλος. **Galen** *HNH* 15.25.10–26.6 K. = 15.23–16.3 Mewaldt Θεόφραστος (*Phys.Op.* fr. 5a Diels, 231 FHS&G) δ' ἂν ἐν ταῖς τῶν Φυσικῶν δοξῶν ἐπιτομαῖς τὴν Ξενοφάνους δόξαν, εἴπερ οὕτως εἶχεν, ἐγγράφει. καὶ σοι πάρεστιν εἰ χαίροις τῇ περὶ τούτων ἱστορίᾳ τὰς τοῦ Θεοφράστου βίβλους ἀναγνῶναι, καθ' ἃς τὴν ἐπιτομὴν ἐποίησατο τῶν φυσικῶν δοξῶν, ὥσπερ γε πάλιν, εἰ τὰς τῶν παλαιῶν ἱατρῶν δόξας ἐθέλοις ἱστορῆσαι, πάρεστί σοι τὰς τῆς Ἱατρικῆς συναγωγῆς ἀναγνῶναι βίβλους ἐπιγεγραμμένας μὲν Ἀριστοτέλους, ὁμολογούμενας δὲ ὑπὸ Μένωνος, ὃς ἦν μαθητὴς αὐτοῦ, γεγράφθαι, διὸ καὶ Μενώνεια προσαγορεύουσιν ἔνιοι ταυτὶ τὰ βιβλία. δῆλον δὲ ὅτι καὶ ὁ Μένων ἐκεῖνος, ἀναζητήσας ἐπιμελῶς τὰ διασφζόμενα κατ' αὐτὸν ἔτι τῶν παλαιῶν ἱατρῶν βιβλία, τὰς δόξας αὐτῶν ἐκεῖθεν ἀνελέξατο· τῶν δ' ἡδὴ διεφθαρμένων παντάπασιν ἢ σφζομένων μὲν, οὐ θεωρηθέντων δ' αὐτῷ τὰς γνώμας οὐκ ἡδύνατο γράψαι. *HNH* 15.50.3–8 K. = 27.27–28.2 Mewaldt ὅτι δὲ καὶ ἡδε ἡ δόξα τοὺς αὐτοὺς ἐλέγχους ἔχει ταῖς ἐξ ἀναισθήτων καὶ ἀπαθῶν τῶν πρώτων σωμάτων τὸ αἰσθητικὸν σῶμα γεννώσας δόξαις, ἐπιδέδεικται διὰ τοῦ Περί τῶν καθ' Ἱπποκράτην στοιχείων ὑπομνήματος, ἔνθα καὶ πασῶν σχεδὸν τῶν φυσικῶν δοξῶν ἐμνημονεύσαμεν, ὅσαι περὶ τῶν πρώτων ἀρχῶν ἢ στοιχείων γεγόνασιν. **Nicomachus** *Exc.* 5.3–4 Jan ἀκολουθῶς τῇ φυσικῇ τοῦ Πυθαγόρου καὶ Πλάτωνος δόξῃ. **Alexander of Aphrodisias** *in Met.* 28.1–2 Ἀναξαγόραν Ἐμπεδοκλέους πρότερον γενόμενον τοῖς ἔργοις φησὶ καὶ τῇ περὶ τῶν φυσικῶν δόξῃ ὕστερον εἶναι. **Diogenes Laertius** *V.P.* 9.22 Θεόφραστος (*Phys.Op.* fr. 6a Diels, 227 FHS&G) ἐν τοῖς Φυσικοῖς πάντων σχεδὸν ἐκτιθέμενος τὰ δόγματα. **Hippolytus** *Ref.* 7 pinax 12 ὅτι καὶ Ἀπελ(λ)ῆς, (καὶ αὐτὸς Μαρκίωνος) γενόμενος μαθητὴς, οὐ τὰ αὐτὰ τῷ διδασκάλῳ ἐδογματίσειεν, ἀλλὰ ἐκ φυσικῶν δογμάτων κινήθεις τὴν οὐσίαν τοῦ παντὸς ὑπέθετο. **Eusebius** *PE* 2.6.16 τοιαῦτα ἦν τὰ τῆς παλαιᾶς θεολογίας, ἣν μεταβαλόντες νέοι τινές, ἐχθές καὶ πρῶν ἐπιφυέντες λογικώτερον τε φιλοσοφεῖν αὐχοῦντες, τὴν δὴ φυσικωτέραν τῆς περὶ θεῶν ἱστορίας δόξαν εἰσηγήσαντο κτλ. **Basil of Caesarea** *Spir.Sanct.* 18.46.20–21 Pruche ἔστιν οὖν δόξα ἡ μὲν τις φυσικὴ· ὡς δόξα ἡλίου τὸ φῶς. **Gregory of Nyssa** *Apol.Hexaem.* MPG 44.72.40–43 ἀλλ' ὡς ἡ ἀναγκαία τῆς φύσεως τάξις ἐπιζητεῖ τὸ ἐν τοῖς γινομένοις ἀκόλουθον, οὕτως ἕκαστα γεγενῆσθαι φησιν ἐν διηγήσεως εἶδει περὶ τῶν φυσικῶν δογμάτων φιλοσοφίας. **Olympiodorus** *in Mete.* 118.28–30 ἐάσας τέως τὰ λοιπὰ δύο ἐπιχειρήματα κατασκευάζοντα ὁλότητα εἶναι τὴν θάλασσαν ἴσταται πρὸς τὴν φυσικὴν δόξαν τὴν λέγουσαν ἐκ τῆς ἀτμίδος τρέφεσθαι τὸν ἥλιον (cf. ch. 2.20.6). **Proclus** *in Tim.* 2.41.14–15 συνάδει ἄρα τοῖς μαθηματικοῖς τὰ φυσικὰ περὶ τῶν στοι-

χείων τοῦ παντὸς δόγματα τοῦ Πλάτωνος. **Nilus of Ancyra** in *Cant.Cant.* 41.19–21 Guérard τοῖς ἀπόνως τὴν ἐνδοτέραν τῆς τοῦ Σαλομώντος ἀλουργίδος φυσικὴν ἀμφιεννυμένοις δόξαν. **Philoponus** *Aet.* p. 145.20–21 Θεόφραστος ... κτλ. *Aet.* 314.19–20 ὅτι ἐν πολλοῖς (τῶν) φυσικῶν δογμάτων ὁ Πλάτων τῆς ἀληθείας διήμαρτεν. *Adv.Procl.* 6.8.27 Θεόφραστος (*Phys.Op.* fr. 11 Diels, 241A FHS&G; Taurus 22B Lakmann) μέντοι ἐν τῷ Περὶ τῶν φυσικῶν δοξῶν κατὰ Πλάτωνά φησι κτλ. cf. **Sopater** *Schol. ad Hermogenis Status* p. 5.3.4–8 Walz εἰσὶ γὰρ καὶ ἱατρικὰ καὶ φιλόσοφα ζητήματα· καὶ ἱατρικοῦ μὲν ζητήματος παράδειγμα, ὃ καὶ μεμέληται τῷ Λυσίᾳ (fr. 20c Carey)· εἰ ὁ ποιήσας ἐξαμβλώσαι γυναῖκα φόνον ἐποίησεν· δεῖ γὰρ γινῶναι πρῶτον, εἰ ἔζη, πρὶν ἐτέχθῃ. ὅπερ φυσικῶν καὶ ἱατρικῶν ἐστὶ· φιλοσόφου δὲ ζητήματος παράδειγμα τόδε κτλ. **Doxapater** in *Aphthonii Progym.* p. 125.13–18 Rabe ἔργα μὲν οὖν ἐστὶ τὸ ζητεῖν πρῶτον, εἰ ῥητορικόν ἐστὶ τὸ πρόβλημα ἢ οὐ· ἔστι γάρ τινα καὶ ἱατρικὰ ζητήματα, ὥς ὅτε ζητεῖται, διὰ τί τὰ μὲν ἐπτάμηνα βρέφη ζῶσι, τὰ δὲ ὀκτάμηνα οὐ (cf. ch. 5.18), καὶ φιλόσοφα πάλιν, ὥς ὅτε ζητεῖται, εἰ ὁ οὐρανὸς σφαιροειδῶς κινεῖται.

Liber 1 <Prooemium>

P^B : ps.Plutarchus *Plac.* 874D–875A; pp. 273^a6–274^a17 Diels—P^Q : Qustā ibn Lūqā pp. 92–95 Daiber

Cf. Nem: Nemesisus *NH* c. 41, p. 117.17–20 Morani

- §1 Μέλλοντες τὸν φυσικὸν παραδῶσιν λόγον ἀναγκαῖον ἡγούμεθα εὐθὺς ἐν ἀρχαῖς διελέσθαι τὴν τῆς φιλοσοφίας πραγματείαν, ἵν' εἰδῶμεν τί ἐστὶ καὶ πόστον μέρος αὐτῆς ἡ φυσικὴ διέξοδος. (P1)
- §2 οἱ μὲν οὖν Στωικοὶ ἔφασαν τὴν μὲν σοφίαν εἶναι θείων τε καὶ ἀνθρωπίνων ἐπιστήμην, τὴν δὲ φιλοσοφίαν ἄσκησιν ἐπιτηδείου τέχνης, ἐπιτηδείου δ' εἶναι μίαν καὶ ἀνωτάτω τὴν ἀρετὴν, ἀρετὰς δὲ τὰς γενικωτάτας τρεῖς, φυσικὴν ἠθικὴν λογικὴν· δι' ἣν αἰτίαν καὶ τριμερὴς ἐστὶν ἡ φιλοσοφία, ἥς τὸ μὲν φυσικὸν τὸ δ' ἠθικὸν τὸ δὲ λογικόν· καὶ φυσικὸν μὲν ὅταν περὶ κόσμου ζητῶμεν καὶ τῶν ἐν κόσμῳ, ἠθικὸν δὲ τὸ κατησχολημένον περὶ τὸν ἀνθρώπινον βίον, λογικὸν δὲ τὸ περὶ τὸν λόγον, ὃ καὶ διαλεκτικὸν καλοῦσιν. (P2)
- §3 Ἀριστοτέλης δὲ καὶ Θεόφραστος καὶ σχεδὸν πάντες οἱ Περιπατητικοὶ διείλοντο τὴν φιλοσοφίαν οὕτως· ἀναγκαῖον τὸν τέλειον ἄνδρα καὶ θεωρητικὸν εἶναι τῶν ὄντων καὶ πρακτικὸν τῶν δεόντων· τοῦτο δ' ἔξεστι καὶ ἐκ τούτων συνιδεῖν, οἷον· ζητεῖται εἰ ζῶν ἢ μὴ ζῶν ὁ ἥλιος, εἴ πε(ϛ)ρ, <εἴ τηλικούτος ἡλικός> ὁράται· ὁ τοῦτο δὲ ζητῶν θεωρητικός ἐστὶν· οὐδὲ γάρ τι πλέον θεωρεῖται ἢ τὸ ὄν. ζητεῖται ὁμοίως εἰ ἄπειρος ὁ κόσμος ἐστὶ καὶ εἰ ἔξω τι τοῦ κόσμου ἔστι· ταῦτα γὰρ πάντα θεω-

§1—; §2 Stoici *SVF* 2.35; §3 Aristoteles cf. *EE* 2.1 1220a5, *EN* 2.1 1103a14–15, *Met.* α.1 993b19–23; Theophrastus fr. 479 FHS&G

prooemium non hab. S et T §1 [3] πόστον P^{B(I,II)} : πόσον P^{B(II)Q} §2 [4] σοφίαν P^B : φιλοσοφίαν P^Q || [5] φιλοσοφίαν P^B : al. Wissen P^Q || [9] ὅταν ... ζητῶμεν P^B : *ist derjenige, welcher die Welt erforscht* Q §3 [13] διείλοντο P^{B(I,II)} : διείλον P^{B(II)} || [15–16] ζητεῖται εἰ ζῶν ἢ μὴ ζῶν ὁ ἥλιος εἴπερ ὁράται P^B prob. Lachenaud: *Wenn jemand danach forschen würde, zu erfahren, ob die Sonne größer* [legens μὴ ζῶν ut μείζων!] *ist als das Ausmaß, in dem er sie sieht* Q : ... εἰ μείζων ὁ ἥλιος (ἦ) ἥπερ ὁράται Browne (1990) 333 conl. Q, εἴπερ <μείζων ἦ> ὁράται Runia M–R 1.258 conl. Q || [15] ζητεῖται [ζητεῖ τις conl. Mau, cf. *jemand* Q || εἰ πε(ϛ)ρ, <εἴ τηλικούτος ἡλικός> ὁράται scripsimus cf. c. 2.21.5, ps.Hermogenes *Prog.* §11.4.6 Patillon εἰ ὁ ἥλιος πύρ, Damascius in *Phd.* §522.20–24 : †εἴπερ P†, {εἴπερ ὁράται} secl. ut interpol. Mau, ὁράται crucif. Diels, εἴπερ πορεύεται conl. Usener prob. Gigon, εἴπερ φέρεται conl. Diels, εἰ πεπύρωται dubitanter conl. Bernadakis : εἰ[περ] <τηλικούτος ἡλικός> ὁράται Mansfeld (1992a) 85 n. 89 : εἰ πε(ϛ)ρ {ὁράται} Mansfeld ap. M–R 3.61 n. 90 || [16] ὁ τοῦτο P^{B(III)} Diels : ὁ om. P^{B(II)} Mau Lachenaud || οὐδὲ P^{B(III)} : οὐδὲν P^{B(I,II)} || [19] πάλιν πῶς inv. Budé edd. : πῶς πάλιν P^B

ρητικά. ζητείται πάλιν πῶς βιοτεύειν καὶ πῶς προΐστασθαι τέκνων
προσῆκει καὶ πῶς ἄρχειν καὶ πῶς νομοθετεῖν· ταῦτα γὰρ πάντα ἔνεκα 20
τοῦ πράξαι ζητείται· καὶ ἔστιν ὁ τοιοῦτος πρακτικὸς ἀνὴρ. (P3)

[20] πῶς²] om. PB(I)

Testes secundi:

Nemesius *NH* c. 41, p. 117.17–20 τοῦ λογικοῦ τὸ μὲν ἐστὶ θεωρητικόν, τὸ δὲ πρακτικόν· θεωρητικὸν μὲν τὸ κατανοοῦν ὡς ἔχει τὰ ὄντα, πρακτικὸν δὲ τὸ βουλευτικὸν τὸ ὀρίζον τοῖς πρακτοῖς τὸν ὁρθὸν λόγον· καὶ καλοῦσι τὸ μὲν θεωρητικὸν νοῦν, τὸ δὲ πρακτικὸν λόγον, καὶ τὸν μὲν σοφίαν, τὸν δὲ φρόνησιν (~ §3).

Loci Aetiani:

§§2–3 *exempla physica* A 1.3.1 τρίτον, ὅτι καὶ αὐτὸ τὸ πῦρ τὸ τοῦ ἡλίου καὶ τῶν ἄστρον ταῖς τῶν ὑδάτων ἀναθυμιάσεσι τρέφεται. A 1.7.32 Ἀριστοτέλης ... ἐκάστην οἶται τῶν σφαιρῶν ζῶον εἶναι σύνθετον ἐκ σώματος καὶ ψυχῆς A 2.20 tit. Περὶ οὐσίας ἡλίου *ubi seqq. opinioniones variae*. A 2.20.3 Ἀναξιμένης Παρμενίδης πύρινον ὑπάρχειν τὸν ἥλιον. A 2.20.5 Ξενοφάνης, (ὡς) Θεόφραστος ἐν τοῖς Φυσικοῖς γέγραφε, ἐκ πυριδίων τῶν συναθροιζομένων μὲν ἐκ τῆς ὑγρᾶς ἀναθυμιάσεως συναθροιζόντων δὲ τὸν ἥλιον. A 2.20.13 Ἐμπεδοκλῆς δύο ἡλίου· τὸν μὲν ἀρχέτυπον, πῦρ ὃν ἐν τῷ ἐτέρῳ ἡμισφαίριῳ τοῦ κόσμου. A 2.21 tit. Περὶ μεγέθους ἡλίου *ubi seqq. opinioniones variae*. A 2.21.5 Ἐπίκουρος τηλικούτον ἡλικὸς φαίνεται, ἢ μικρῷ τινι μείζω ἢ ἐλάττω. A 2.1.7 Σέλευκος ὁ Ἐρυθραῖος καὶ Ἡρακλείδης ὁ Ποντικὸς ἄπειρον τὸν κόσμον. A 1.2.8 Διογένης καὶ Μέλισσος ... τὸν δὲ κόσμον πεπεράνθαι. A 1.18.4 Ζήνων καὶ οἱ ἄπ' αὐτοῦ ἐντὸς μὲν τοῦ κόσμου μηδὲν εἶναι κενόν, ἔξω δ' αὐτοῦ ἄπειρον. A 1.18.5 Ἀριστοτέλης [*sic*] τοσοῦτον εἶναι τὸ κενὸν ἐκτὸς τοῦ κόσμου, ὥστ' ἀναπνεῖν εἰς αὐτὸ τὸν οὐρανόν. A 2.9 tit. Περὶ τοῦ ἐκτὸς τοῦ κόσμου, εἰ ἔστι κενόν.

§3 A 1.7.22 (de Platone) τοῦτου (sc. τοῦ θεοῦ) δὲ πατὴρ καὶ ποιητὴς τὰ ἄλλα θεῖα ἔκγονα νοητὰ μὲν ..., αἰσθητὰ δὲ τοῦ πρώτου θεοῦ ἔκγονα ἥλιος, σελήνη, ἀστέρες, γῆ καὶ ὁ περιέχων πάντα κόσμος. A 5.20.1 Πλάτων καὶ Ἀριστοτέλης χερσαῖα ἔνυδρα πτηνὰ οὐράνια· καὶ γὰρ τὰ ἄστρα ζῶα λέγεσθαι κτλ. A 5.23 Πότε ἀρχεται ὁ ἄνθρωπος τῆς τελειότητος. A 5.23.1 ἀρχεσθαι τοὺς ἀνθρώπους τῆς τελειότητος. A 5.23.3 τελειοῦσθαι ἡμᾶς *sed sensu corporeo*.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The only witnesses for the entire chapter are PB and PQ, so we have to follow the text as transmitted there. It is of course clear that this proem was of no use to S or T, who wrote their own proems.

(2) The Stoic definition of philosophy is paralleled verbatim as part of a somewhat confused phrase in G c. 5 (who also adds other material), but is most likely derived from a shared source rather than from P, so G is not a *testis primus* here. There are no other *testes primi* either.

(3) It is possible that we have lost a chapter dealing with the issue of whether or not the sun is alive (§3[15]) and/or the heavenly bodies in general are alive, for the view of Plato that they are is cited at ch. 1.7.22, and that of Plato plus Aristotle at ch. 5.20.1, where see Commentary D(c)2. Ach c. 13 moreover deals with this issue in appropriate diaphonic detail. We have cited the latter at section E(a) *exempla physica*, though perhaps it could be included among the *Testes secundi*. But it is also possible that A did not pick up this aspect of the earlier tradition.

B Proximate Tradition and Sources

(1) *Proximate and similar traditions*. The traditions are of a twofold nature and rather widely spread (see section E(a)). It is moreover not always easy to distinguish the traditions in the narrow sense of 'proximate' from the rich array of parallel presentations. There are numerous presentations of the nature of philosophy and its divisions up to Late Antiquity, often defined in relation to wisdom. We also have a great many presentations of sets of particular problems in physics and/or ethics (and sometimes in logic) in a multiplicity of authors both philosophical and (sometimes) rhetorical, many of which are quite late, though some authors of lost handbooks must have been earlier than A. We may include the parallel passages in the wider doxographical and commentary literature used, among others, by Cicero and Quintilian (*traditio proxima*). There are even parallels in Latin poets. We also have several examples of the relation between or combination of the *vita activa* and the *vita contemplativa* in the later Peripatos. See further below, sections D(e)(1) and (e)(2).

(2) *Sources*. For the definitions of philosophy and its parts and uses found in our chapter we have to think of the original works of the Stoics, no longer extant but generously quoted by Diogenes Laertius and others, and of the *pragmateiai* of Aristotle and the largely lost works of Theophrastus and other Peripatetics.

The aporetic and dialectical technique for the most part derives from Aristotle, who influentially distinguished between dialectical problems contributing to (a) choice and avoidance or (b) to truth and knowledge, i.e. between ethical problems on the one hand and theoretical/physical problems on the other, even giving concrete examples (*Top.* 1.11). He further provided a division of propositions concerned with physical, ethical, and (in its specific Aristotelian sense) logical problems, again with examples (*Top.* 1.14). Later the technique

was also practised by others, among whom some Stoics. For further details see below, sections D(a) and (c), and D(e)3.

C Chapter Heading

Not needed for a proem. We have added the word {*Proæmium*} to the text and translation for the sake of convenience.

D Analysis

a Context

The proem, describing and defining philosophy and exemplifying research in physics and ethics, aptly forms the first part of the introduction of the treatise together with chapter 1, 'What is nature', which defines the physical philosophy that is the subject of the treatise. The proem of Book 2 refers to what came before as 'the account of the principles and elements and what is closely associated with them', so alludes to the headings of chs. 1.2–3, 'In what way do principle and elements differ' and 'On principles, what they are'. Ch. 1.3 provides a potted overview of the main players in the fields of physical philosophy according to a somewhat disorderly arrangement of the main Successions, providing patronymic and/or ethnicon for the majority, and listing the doxai concerned with the principles for everyone concerned. For parallels of such a combination of introductory features in works by Cicero, in Diogenes Laertius, and elsewhere see below, section D(e)(1).

b Number–Order of Lemmata

P's three lemmata follow upon each other in a perfectly acceptable order, with §1 announcing theme and purpose (later called *skopos*) of the treatise. §2 and §3 would have changed places if the two schools had been presented in chronological order, and not in a descending but in the ascending numerical order of the parts of philosophy. From a systematic point of view this would have been equally acceptable. But from §2 to §3 a development takes place in that the general definitions of the three parts of philosophy in §2 are followed in §3 by concrete examples of particular issues (ζητήματα) in the two parts we end up with, viz. physics, relevant for the treatise, and ethics, cited traditionally, and here *exempli gratia*. Aristotle already did so by exemplifying two kinds of problems at *Top.* 1.11 and three kinds of propositions and problems at *Top.* 1.14, see section B above, and below section E(b) General texts. For the *specific* physical parallels see at chs. 1.18, 2.9, 2.20, and 2.21 (also cited at *Loci Aetiani* §3 above). Citing the Peripatetics last is rhetorically rather effective in leaving the impression that their approach is preferred.

c Rationale, Structure and Implications of the Proem

(1) *physikos logos*. The proem announces the subject of the treatise, the *physikos logos* or theory of physics, which the redactor wants to throw into relief. It cites a Stoic definition of philosophy linked to that of *sophia* ('wisdom'), which involves the category of substance or question type of 'what it is'. It describes and illustrates the two main ways of dividing philosophy into parts, viz. the Stoic division into the *three* parts of physics, ethics, and logic (or dialectic), and that attributed to the Peripatetics in general, a division into *two* parts dealing respectively with theoretical and practical issues, examples of which are given. This distinction according to the category of quantity amounts to an average diaeresis rather than a strong diaphonia. For doxographies beginning with a division of philosophy see e.g. the *Aristotelian* doxography at Diogenes Laertius *V.P.* 5.28 and the *Stoic* doxography *ibid.* 7.39–40. Examples of other types of division, in more parts (as in other sources on and for Aristotle), or in different parts, or by other Schools, e.g. those of Plato and the Platonists, are not provided. There is no reference to the views of the Stoic Ariston or the Cynics, who rejected logic as well as physics as 'useless' (Sextus Empiricus *M.* 7.12 ἀνωφελές) or even 'contrary' (Seneca *Ep.* 89.13 *contrarias*). As to other Stoics Diogenes Laertius *V.P.* 7.92 tells us that Cleanthes said there are more than four virtues, i.e. presumably six, corresponding to the number of parts in which he divided philosophy according to Diogenes *V.P.* 7.41 = *SVF* 1.482, while Apollonphanes said there is only a single virtue, 'prudence' (φρόνησις). Examples of problems in physics (and ethics) are only given in §3 on the Peripatetics, as in §2 no mention is made of the parallel procedure of the Stoics regarding problems in physics attested at Diogenes Laertius *V.P.* 7.132.

The redactor of the chapter appears to sympathize with the Peripatos, cf. above section D(b), but the Stoics are included as well. The second lemma (Stoics) may have been added to what is now the third (Peripatetics). Chapter 1.1, too, suggests that a Peripatetic approach to physics was favoured. As a matter of fact, evidence of the connection of the *Placita* with the Peripatetic school is to be found throughout the treatise, though the Stoics are also very much present. By focusing on the definitions and divisions of these two schools the redactor attempts to show that his work is 'of ongoing relevance' (Jeremiah, M–R 4.325).

(2) *Position of logic*. Perhaps surprisingly we are not told explicitly that unlike the Stoics the Peripatetics considered logic to be not a part of philosophy but its *organon*, or technical instrument, used by each of its two parts. Presumably this explains why it is not mentioned in §3, though a reference would have provided grounds for stipulating a diaphonia. The omission could of course also be a result of epitomizing. The issue is acknowledged in Diogenes Laertius' account

(*V.P.* 5.28) of the division of philosophy according to Aristotle. Moraux (1986) 268–269 points out that, surprisingly and oddly, logic together with physics in this passage belongs with theoretical philosophy, yet is said to be not a part but an instrument. For the discussion about logic as part or instrument see the texts quoted at section E(b) §3 *ad finem*, and e.g. Hein (1985) 153–162 and Hadot (1990).

(3) *Way of life*. What is quite interesting is the emphasis on philosophy here as also a way of life, of the good life, that is, and on the positive role of physics in this context, which lends an optimistic tone to the proem and advertises the usefulness of the treatise. For the Stoics practising the art of philosophy entails practising its three parts together, not the theoretical part, or physics, alone. For the Peripatetics as cited here living the life of the complete philosopher entails practising both theoretical and practical philosophy. The study of *placita* is not the first thing one thinks of in connection with the spiritual exercises made reputable by Pierre Hadot (e.g. Hadot 1993). One should not exaggerate. Some sort of affinity, however, is hard to deny.

(3a) *Stoics*. This emphasis on the way of life is to the point in the case of the Stoics, where each part of philosophy (when internalized in the soul) is said to be a most general, or comprehensive, *virtue* (or ‘excellence’: *arete*). Ethics in particular devotes itself to man’s way of life. We are not told in §2 what other virtues are comprised by the three main ones, but may conclude from a passage in Diogenes Laertius on dialectic (*V.P.* 7.46–47 = *SVF* 2.130) that these are connected with the subparts of the three main parts of philosophy. In §2 this triad of principal virtues is subsumed under the highest virtue, namely the actual practising and exercising (*askesis*) of the technical discipline (*techne*) of philosophy qua striving for wisdom. Cf. the glossema ‘the best life’ (ἀρίστης ζωῆς) explaining ‘philosophy qua pursuit of the appropriate art’ in G c. 5, *DG* p. 602.19.

According to the information provided by Diogenes Laertius *V.P.* 7.92 Panætius agreed with what, as we have seen, is (also) a Peripatetic point of view in stating that ‘there are two virtues, theoretical and practical’ (T 67 Alesse). This seems to exclude dialectic as third virtue and suggest that he divided philosophy into two parts (Alesse’s collection does not contain material on logic). Though Seneca as a rule speaks of three parts of philosophy, he sometimes comes down in favour of a distinction between theory and practice: *Ep.* 95.10 ‘philosophy is theoretical as well as practical: it contemplates and acts at the same time’, and *De otio, Dial.* 8.5.1 ‘nature has created us for both: for contemplation as well as action’. On the parts of philosophy as virtues see further Habets (1983) 72–78.

(3b) *Peripatetics*. This emphasis on philosophy as (also) a way of life characterizes the account according to the Peripatetics as well. The division that is

formulated does not constitute a theoretical distinction between formal parts of philosophy, but one between representative individuals, namely between the theoretical person (and philosopher) on the one hand and the practical person (and philosopher) on the other. The ‘perfect (or: complete) life’ of the ‘good person’ of *EN* 1.7 1098a12–20, who lives according to several virtues (including those of the active life) but in the first place according to the highest, or contemplative, virtue, has been simplified and reduced to the ‘perfect (or: complete) person’. The perfect human being must be both; he must be able to theorize about the things that are as well as capable of performing the acts that should be done. The way of life of the ‘perfect person’, or the best way of life, is the life that combines *vita contemplativa* and *vita activa*. In this way the familiar difficulty of the relation between the active and the contemplative life according to Aristotle is neutralized. On these issues in more detail see Mansfeld (2020a).

(4) *Theoretical inquiries and problems*. According to both Stoics and Peripatetics philosophy is essentially ‘zetetic’: it is concerned with the investigation of *problems*. For the Stoics in §2 this explicitly holds for physics: §2[8–9] *περὶ κόσμου ζητῶμεν καὶ τῶν ἐν κόσμῳ*, ‘we do research on the cosmos and the things within the cosmos’. For the Peripatetics in §3 this holds explicitly for both physics and ethics. For physics see §3[15–16] *ζητεῖται εἰ ... ἢ μή ... ὁ ἥλιος ...*, ‘research takes place on whether the sun is *x* or is not’, §3[16] *ζητῶν*, §3[17] *ζητεῖται ... εἰ*, ‘research takes place on whether ...’. For ethics see §3[18–20] *ζητεῖται ... πῶς ... καὶ πῶς ... καὶ πῶς*, ‘research is done on how ... and how ... and how ...’, §3[20] *ταῦτα γὰρ πάντα ... ζητεῖται*, ‘all these matters are the subject of research’. Accordingly the study of and approach to physics should and will be aporetic. Possibly this approach is furthered to some degree by the reputation of Aristotelian dialectic as the art of listing all possible arguments on either side of a given subject (e.g. Cicero *Fin.* 5.10), and by the influence of the dialectical exercises practised in the Skeptical Academy. In our *Placita physica* we are only concerned with ‘theoretical’ inquiries, or issues in physics (though a few of these comprise an ethical and even a logical aspect, see below, sections D(d)(2) and (d)(3)). Yet this ‘theoretical’ study will be a formative experience, or so, presumably, we should believe because of the abundant parallels in related literature, for which see below, section D(e)(3) and (e)(4). According to many, physics, or the study of reality, is indispensable for ethics.

That as to name-labels the company is limited to ‘the’ Stoics (no names of individuals, a purported majority view only) on the one side and Aristotle, Theophrastus, and ‘almost all the other’ Peripatetics on the other accords well with the preponderance of originally Stoic and Peripatetic concepts, approaches, and techniques in the body of the *Placita*.

d Further Comments

General Points

(1) *Division of ethics.* The examples of ethical issues in §3 pertain on the one hand to the private individual and on the other to the politician. For the distinction see the Aristotelian diaeresis of ethics at Diogenes Laertius *V.P.* 5.28, according to which the political part of ethics includes ‘not only the doctrine of the state but also that of the household’. It often occurs elsewhere, and is virtually *de rigueur* in the accounts of the division of philosophy in late Antiquity.

(2) *Role of ethics.* Ethics plays a part in the body of the *Placita* only incidentally. In ch. 1.27, ‘On fate’, the *liberum arbitrium* is acknowledged in §§2–3 on Plato and Stoics. In fact, the Stoic theory of fate is where physics and ethics meet, since you must know how the world is organized and directed to be able to take morally responsible decisions. In ch. 1.29.1–2 human affairs and conduct are given their due in the account of the Platonic and esp. Aristotelian tenets concerned with chance. Ch. 5.22.2 mentions the origin of the conception(s) of good and evil. To some extent, therefore, our φυσικὸς λόγος comprises some ethics, and does so even a little more (though by implication) if we include the sparse references to πρόνοια at chs. 1.25.3, 1.25.5 and 1.27.5, and to the divine origin of soul at chs. 4.3.14 and 4.7.2

(3) *Logic, too, is incidentally present.* In ch. 1.3.7[76–87] below, where see Commentary D(d)§7[76–87], a theory of definition *per genus et differentiam* plus a version of the Aristotelian definition of the syllogism are, most remarkably, attributed to ‘Pythagoras’ the archegete. In other chapters the distinction between conceptual and essential definition is acknowledged and applied, see at ch. 1.9, Commentary D(d), General points. In the present chapter we have scholastic definitions of ‘wisdom’ and ‘philosophy’ according to the Stoics, and ostensive definitions of ‘physics’ and ‘ethics’ according to the Peripatetics by means of descriptions of their perfect practitioner.

Individual Points

§1 (1) The meaning of φυσικὸς λόγος evolved from ‘physical argument’ (Aristotle *GC* 1.2 316a13 = Democritus 68A48b DK) or ‘argument of a physical philosopher’ (Aristotle *EN* 7.15 1154b7 = Anaxagoras 59A94 DK) to ‘account of physics’, or ‘physical part of philosophy’, as here. παραδῶσειν (λόγον) literally means ‘to hand over ... to someone else’.

(2) πόστον μέρος: namely, as appears from what follows, the *first* part of tripartite philosophy according to the Stoics, and (part of) the *first* part of bipartite philosophy according to the Peripatetics. The issue of what is the correct or preferred order, on which views were divided among the Stoics (see below, §2), is not mentioned. The order of the parts according to the history of their

invention, namely first physics, then ethics, and finally logic (see e.g. Diogenes Laertius *V.P.* 1.18, Sextus Empiricus *M.* 7.20) is not mentioned either.

(3) The final part of the sentence can be translated in two ways, depending on what one takes the subject of τί ἐστὶ to be, either the πραγματεία of philosophy from the previous clause or the φυσικὴ διέξοδος in the next clause. We opt for the former as already at M–R 2.1.62. For the latter option see Lachenaud (1993) 69.

§2 The order of the parts of philosophy according to the Stoics in §2 with physics in emphatic first position is noteworthy: physics, ethics, logic, different from the more usual orders logic, physics, ethics, or logic, ethics, physics (Diogenes Laertius *V.P.* 7.40–41, see Habets 1983, 64–71). According to Diogenes Laertius *V.P.* 7.41 Panaetius (fr. 129 Alesse) and Posidonius (T 43 E–K, 22 Theiler), too, began with physics. A obviously prefers this order because according to §1 his ‘objective is to teach the physical theory’.

§3 It appears that Q, reading *ob die Sonne größer ist als das Ausmaß, in dem er sie sieht*, emended μὴ ζῶν to μείζων (a brilliant *Verschlimmbesserung*), as he was aware of the debate about the size of the sun, needed a term referring to relative size, and anticipated μείζω at ch. 2.21.5, which he translated as *größer*. We interpret the corruption at §3[15–16] as †εἴπερ† *** ὁράται, obelizing εἴπερ and postulating a lacuna before ὁράται. To emend the text we have combined several earlier efforts, and now written (ζητεῖται εἰ ζῶν ἢ μὴ ζῶν ὁ ἥλιος,) εἴ π(ὐ)ρ, (εἴ τηλικούτος ἡλικός) ὁράται. In the parallel passages cited section E(a)§3 and section E(b)§3 the questions (a) whether or not the sun is a living being, (b) whether it is fiery, and (c) whether it is as large as it appears to be, not only occur separately but also in various combinations: a + b, a + c, b + c, a + b + c (or the other way round). The issue of the sun’s real vs. its phenomenal size was rather widely cited, and is the theme of ch. 2.21 below, see Commentary B. For Aristotle’s references in epistemic contexts to Heraclitus’ view (cited ch. 2.21.4) that the sun is as big as a human foot see at ch. 2.21 section E(b)§4.

e Other Evidence

(1) *Context: division and potted history of philosophy as introduction to a philosophical discipline* (cf. section D(a) above). A valuable earlier parallel is provided by the extant introductory section of Cicero’s *Varro*: hurried overview of *parts* of philosophy and views of various schools *Varr.* 5–8, *Successions* of schools from Socrates *Varr.* 15–18, then parts of philosophy again: 19–23 ethics, 20–29 physics, 30–32 logic, and finally further historical developments 33 ff. The account breaks off at the end of §46. A similar account is found in the introduction to the systematic presentation of ethics *qua philosophical subdiscipline*

according to Antiochus in Book 5 of Cicero's *De finibus*, §§9–14. Cicero's spokesperson Piso begins with the *division* of philosophy according to the Peripatetics, which he says is into physics, logic, and ethics (*triplex: una pars est naturae, disserendi altera, vivendi tertia*, cf. below section E(a)§2 *ad finem*), like in most other systems. A potted history of the discipline of (Peripatetic) philosophy in its three branches follows. The *way of life* these men preferred is that of study and contemplation (the *bios theoretikos*). The parallels with the Aëtian proem on the division of philosophy and the best way of life as followed by ch. 1.3 on Successions and doctrines in physics are striking. Some passages are quoted below at section E(a)&(b).

As a matter of fact an opening section such as constituted by A's proem plus chs. 1.1–3 is quite usual in technical, professional, or didactic treatises, e.g. in the works of Vitruvius and the Elder Pliny; see Fuhrmann (1960). The second part of the proem of Diogenes Laertius *V.P.* 1.13–21 is a substantial parallel from the field of philosophy: a definition of the subject and its parts, a short history of the discipline, accounts of differences between individuals and Schools and Successions, and various views concerned with its name and importance. Also compare the lengthy introduction of ps.Galen's *Historia Philosophica* cc. 1–7: c. 1 utility of the parts of philosophy, c. 2 ethical aims of treatise, c. 3 Successions, c. 4 'How they defined philosophy', c. 5 further definitions, c. 6 'How many parts of philosophy are there' and c. 7 'On sects'. A parallel from a related field is provided by the introduction of Celsus *De medicina* 1.1–74 (see M–R 2.1.61–62): a descriptive definition of the subject followed by a potted history of medicine, which lists its division (but in fact that of therapeutics) into three parts, mentions the archegete and other important names, gives relative dates, uses the concept of Succession, and at some length describes and compares the main medical Schools; text cited below, Ch. 1.3, section E(b)§2. For the background to Celsus in related Greek literature see Deuse (1993). We may also cite the introduction of ps.Galen *Introductio sive medicus*, a much more scholastic treatise than the genuine *De sectis ad ingredientibus*. Of this work chs. 1–2 deal with the origins of medicine, ch. 3 with the three medical *haireseis* (Schools), ch. 4 with Successions of doctors in the various *haireseis*, ch. 6 with the definition of medicine, and ch. 7 with its parts.

Impressive parallels are found at the far end of antiquity in the introductory passages of the Neoplatonist commentaries by Ammonius Hermeiou, Simplicius, Philoponus, Olympiodorus, and David (Elias) on Aristotle's *Categories*. The second isagogical question to be found there deals with the division of Aristotle's writings, in the course of which physics, ethics, and logic/dialectic are discussed in a systematic way. See I. Hadot (1990) 1.48–93. Further parallels are found in Ammonius' *In Porphyrii Isagogen* and the *Prolegomena philosophiae*

of Olympiodorus, David and Elias, namely detailed accounts of the various definitions and divisions of philosophy as well as statements concerning the connection between theory and action (see below). The title of the Armenian version of David's *Prolegomena*, viz. *'Definitions and Divisions of Philosophy'*, is a clear description of its chief contents. A generous selection of texts of these late authors from Ammonius to Elias (but for David only a reference) is printed by Gigon (1987) 60–90 as his Aristotle fr. 16. See further the overviews in Westerink (1990) 344–347 (French transl. xxxi–xxxviii), Wildberg (1990), and Mansfeld (2020a).

For the Greek tradition and its continuation in Syriac and Arabic literature see the pioneering pages of Baumstark (1900) 156–171, 179–180, and 186–192, the latter on Stephanus of Alexandria as intermediary; further Altmann–Stern (1958) 23–31 on al-Kindī and Isaac Israeli, and Daiber (1980) 326–330, Daiber (1985), Hein (1985), Daiber (1990b) on aspects of the Arabic tradition. On Stephanus see also Roueché (1990), (2011) and (2016).

(2) *The complete person* (cf. section D(c)(3a) and (3b) above). A good parallel is found in David *Proleg.* 71.3–4: 'the perfect (or: complete) philosopher [cf. A's τέλειον ἄνδρα] shall not only adorn himself with theory, but also take pride in action'. Similar statements are found in introductory writings and passages of other late Platonists, see details in Mansfeld (2020a). For this reconciliation of the *vita activa* with the *vita contemplativa* the reportage in the *Placita* belongs with the earliest evidence. In David, A's 'perfect (or: complete) person' (literally: 'perfect (or: complete) man') has been replaced by and restricted to the 'perfect (or: complete) philosopher' (but a late Neoplatonist would presumably believe that the philosopher is the best or most fully realized sort of human, thus capable of representing man in general). The phrase τέλειος ἄνθρωπος is not restricted to a philosophical context (though occurring in one at Anon. Diodori p. 234.12 Thesleff and *Ethical Doxography B* at Stob. *Ecl.* 2.7.11M, p. 112.7 = *SVF* 3.548; cf. Seneca *Dial.* 2.6.8 'this perfect man, full of divine and human virtues', Apuleius *D.Socr.* 17 'Socrates, a man perfect in the highest degree, and wise even according to the witness of Apollo'). But it may denote perfection, or completion, in a multiplicity of contexts, see e.g. Plato(?) *Hp.Ma.* 281b, Polybius *Hist.* 4.8.1 on Aratus, Galen *Pecc.Dig.* 5.14.9–10 K. on what each of us should strive to attain: 'each of us needs exertion during practically our whole life in order to become a complete man' (δεῖται γὰρ ἀσκήσεως ἕκαστος ἡμῶν σχεδὸν <δι>) ὅλου τοῦ βίου πρὸς τὸ γενέσθαι τέλειος ἄνθρωπος). The formula 'perfect (or: complete) philosopher' is mentioned as a current expression next to 'perfect (or: complete) doctor' by Clement of Alexandria *Strom.* 7.88.5.

(3) *Quaestiones*. (i) Several examples of ethical as well as physical *zetemata* are cited in rhetorical literature, see Von Arnim (1898) 94–96, Mansfeld

(1992a) 76–82 = M–R 3.49–56, Viano (1995b), and Woerther (2012) 81–91. Hermagoras, Cicero, and Quintilian, as well as Aelius Theon and ps.Hermogenes moreover divide the *theseis* or *quaestiones infinitae* into theoretical and practical questions *disertis verbis*, see below section E(a) *exempla physica*. The rhetoricians acknowledge the existence of these theoretical questions, adding the proviso that they are in the first place the province of the philosophers.

(ii) Galen was the author of a lost Commentary in four books on the first part of Aristotle's *Categories*. Here and there in his vast oeuvre one may find remarks such as 'that in inquiring into questions such as these one has to be trained in distinguishing the categories is in my view evident' (*Diff.Puls.* 8.622.3–5 K. ὅτι δ' ἐν τῷ περὶ τῶν τοιούτων σκοπεῖσθαι γεγυμνάσθαι χρή διαγινώσκειν τὰς κατηγορίας, ἡγοῦμαι πρόδηλον ὑπάρχειν). This is illustrated *inter alia* in his *Institutio logica*, see Kieffer (1964) *passim*. In ch. 2 of this work (cited below, section E(b) *exempla physica*) we have a list of propositions pertaining to questions of yes or no in all the categories; some of these questions coincide with issues treated in the *Placita*. Galen here follows Aristotle *APo.* 1.22, where (to paraphrase Mau 1960, 33) the terms of categorical statements are arranged according to categories, as the subject is said according to the first category, and the differentiae to one of the others.

(iii) In Galen's *Institutio Logica* chs. 12, 13, and 14 categories are linked with particular questions according to the various types of question (as first formulated by Aristotle *APo.* 2.1 89b24–25), most of which coincide with issues in various *Placita* chapters. We may mention, in *Inst.Log.* 12.3, the size (cf. A 2.21) and distances of the sun (cf. A 2.31)—categories of quantity and place—, in 13.7–8 the position (cf. A 3.11) and shape (cf. A 3.10) of the earth—categories of place and quality—, in 13.9 causes (question type of cause, categories of action and passion) of voice (cf. A 4.19), respiration (cf. A 4.22), earthquakes (cf. A 3.15), and various kinds of thunderstorms (cf. A 3.3)—all in the categories of action and passivity—, and in ch. 14 again the question type of existence, or category of substance. This 'first and most important' type of 'problem' (μέγιστόν τε καὶ πρῶτον ... ζήτημα(α)), namely 'that in relation to existence or substance' (τὸ κατὰ τὴν ὑπαρξιν ᾗτοι οὐσίαν), is illustrated by the questions 'does fate exist' (cf. A 1.27–28), 'does providence' (cf. A 2.3), 'do the gods exist' (cf. A 1.7, also dealing with their nature), and 'does the void exist' (cf. A 1.18). This distinction between 'existence' *simpliciter* (ὑπαρξις ἀπλῇ) and 'substance' (οὐσία) in the sense of material substance (cf. ch. 1.6 Commentary D(a)) is quite relevant in the *Placita*. On οὐσία (essence) in this particularly Stoic and but also widely accepted sense see Lachenaud (1998) 43: 'va de pair avec matière'. Most of these Galenic examples are quoted below at the relevant chapters. On the

order of inquiry (first the $\delta\tau\iota$, then, ‘as Aristotle said’, the $\delta\iota\acute{o}\tau\iota$) see Galen *UP* 6.17, 3.495.18–496.4 K.

For theoretical problems and question types ‘from Aristotle to Cicero and Aëtius’ see Mansfeld (1990a) 3193–3208. For the use of the Aristotelian question types and categories to structure series of chapters and even individual chapters see e.g. Mansfeld (1992a), repr. in M–R 3.33–97; M–R 2.1 passim, see Index nominum et rerum at p. 250 s.v. problem(s), Mansfeld (2016a), and cf. below, ch. 1.6 Commentary D(e)(1). For the use of the categories according to *Ethical Doxography A* at S 2.7.2, p. 42.1–6, and a list in Philoponus in *APo* 238.21–239.6, see M–R 2.1.12–13. Interesting is also ps.Plut. *Fat.* 586E–F. Also see the passages cited below, section E(b) *ad finem*.

(iiib) *Motion*. The concept of motion presents a difficulty, because according to our authorities its relation to the categories is disputed. Simplicius in *Cat.* 139.34–140.6 says that (1) some associate it with the relative, (2) others with four categories (quantity, quality, place, and substance), (3) again others qua ‘entelechy of the moveable qua moveable’ with all ten categories, whereas (4) others again associate it with action and passion. Theophrastus belongs with the third party, for in Book 3 of his *On Motion* (fr. 153B FHS&G) he wrote: ‘In our definition of motion we say that there are as many species as there are categories; for it is the actualization of that which is potentially, as such, (that we call) motion’. For these views see Simp. in *Cat.* 139.34–140.6 quoted below, ch. 1.23 section E(b) General texts *ad finem*. In the chapters that follow we have as a rule associated motion with action and passion.

(iv) *Further parallels*.

Alexander of Aphrodisias in *Top.* 218.13–219.1 deals with ‘inquiries concerned with comparison (or: confrontation, τὰ κατὰ σύγκρισιν ζητούμενα)’ in the nine categories other than substance, because, he says, comparison is ‘about attributes’ (κατὰ συμβεβηκός). Comparison as to the category of quality pertains to ‘whiter or hotter or heavier (cf. ch. 1.12) or more musical’. That of quantity pertains to questions such as ‘whether the earth or the moon is bigger’ (cf. A 2.21 and 1.26), that of the relative to ‘whether geometry or music is a better science’, ‘which is a better sense, touch or hearing’. The inquiry is according to the category of place (τὸ ποῦ) ‘when the question is whether the regent part is in the brain or in the heart’ (cf. A 4.5), and according to position (τὸ κείσθαι) when the question is ‘whether the sun or Venus is closer to the earth’ (cf. A 2.31). Comparison in the category of substance (he continues, in *Top.* 219.1–3) pertains to the distinction between primary and secondary οὐσία. We note in passing that Alexander’s exemplification of κείσθαι is not the same as Aristotle’s, for his example pertains to what is the Aristotelian category of the ποῦ. κείσθαι originally pertains to sitting or standing (Aristotle’s examples at *Cat.* 4 2a2–3, and Galen’s at

Inst. Log. 1.5, see below section E(a) *exempla physica*), i.e. to the posture of individuals. For Philoponus' list in *APo.* 238.21–239.6 (also cited below section E(a) *exempla physica*) see M–R 2.12–13.

Some further examples: In a helpful note on Propertius 3.5.25 ff. and *Aetna* 218 ff. Shackleton Bailey (1952) 309–310 points out: '[C]atalogues of "naturales quaestiones" are a stock motif in Latin poetry from Vergil (*G.* 2.475 ff.) and Horace (*Epist.* 1.12.16 ff.) onwards: cf. Man. 1.99 ff. [sc. 1.99–110], Sil. 14.344 ff., Stat. *Theb.* 6.360 ff., Claud. *Pan. Mani.* 95 ff., id. *Carm. Min.* 29.1 ff., also Sen. *Dial.* 10.19.1, 12.20.2 [see below at *exempla physica*], *De ben.* 7.1.5.' He does not mention the long excursus (lines 218–251) extolling the study of nature and its rewards in the *Aetna* poem, written by an unidentified contemporary of Seneca. Kiessling–Heinze (1957) 109 on Hor. *Ep.* 1.12.16 point out: 'Die naturwissenschaftlichen Fragen fesselten gerade damals die Geister sehr und waren Mode', and cite examples. A similar rather substantial list of physical issues is at Cicero *Tusc.* 5.69, followed *ibid.* 5.71 by a shorter list of ethical questions. Arnobius *Adv. Nat.* 2.56–58 lists a large number of themes, not all of which can be paralleled in A Books 1–5, and Lactantius *Inst.* 3.3.4 more selectively themes that do have analogues in A books 1–3. We may also cite a substantial list of physical questions in the fields of astronomy and meteorology, similar to subjects dealt with in A Books 2 and 3 and mostly in the same order, found at Themistius *Or.* 26, 394c–328a Harduin (p. 2.145.4–21 Schenkl & *alii*). They begin with 'why do not all the heavenly bodies move in the same direction as the heaven' (διὰ τί οὐχ ἅπαντες οἱ ἀστέρες συμφέρονται ἅμα τῷ οὐρανῷ, cf. A 2.16) and end with 'nor about the earth itself, how comes that its weight pulls it down and it remains stable on high' (μηδὲ ὑπὲρ τῆς γῆς αὐτῆς, ὅπως βρίθκει τε εἰς τὸ κάτω καὶ ἴδρυται ἐν μετεώρῳ, cf. chs. 3.11 and 3.13). Many of these examples will again be cited in the body of the present work.

(v) *Importance of theoretical/physical inquiry.* According to Aristotle, *Protr.* frs. 46–47 Düring at Iambl. *Protr.* 10, pp. 54.10–55.3, theoretical thought is important for human life, as is shown by the disciplines practised by doctors, trainers and lawmakers. For 'the statesman too must have certain landmarks taken from nature and truth itself by reference to which he will judge what is just, what is good, and what is expedient' (fr. 47, trans. Düring). This may well echo Pl. *Phdr.* 269e–270a, where the 'major disciplines' (*technai*), sc. Pericles' political rhetoric and Hippocrates' scientific medicine, are said to need 'meteorology on nature' (μετεωρολογίας φύσεως περί), i.e. physics. The Stoic *telos* formula in its first version attributed to Zeno defines this 'ideal' as 'living in agreement with nature, that is in accordance with virtue; for nature leads us to virtue' (Diogenes Laertius *V.P.* 7.87 = *SVF* 1.179). Chrysippus' definitions (Diogenes Laertius *V.P.* 7.87–88 = *SVF* 3.4) of the ideal are explicit, for 'to live

according to what happens in nature' (κατ' ἐμπειρίαν τῶν φύσει συμβαινόντων ζῆν) should involve the *study* of nature. And see *Tusc.* 5.68–72 (cited section E(a) General texts and *exempla physica*), where Cicero, starting from an in every respect accomplished person who is to study philosophy, and then switching from physics to ethics, argues from the tripartition of philosophy and the detailed study of nature and the gods to ethics and the virtues and then (briefly) returns to logic, and includes examples of problems in the fields concerned. Cf. *Luc.* 127 cited *ibid.*, and *Fin.* 3.73 (*SVF* 3.282), cited section E(b)§2, where Cicero argues that without physics one cannot pronounce judgement on good and evil, or understand the ancient maxims of the Wise Men (on Cicero's critical attitude towards physics in *De oratore* 3.56–57 and *De officiis* 1.18–19, where he condemns the study of matters that are difficult and not needed, and his appreciation in *Fin.* 3.73, see Reydam-Schils 2016). We may also think of the educational goal of Seneca's *Naturales quaestiones*, for which see, for instance, *Nat.* 6.32.1 'strength comes to the mind only from the liberal arts and the contemplation of nature' (*non enim aliunde animo venit robur quam a bonis artibus, quam a contemplatione naturae*), and Williams (2012). Also cf. Sen. *Ep.* 65.17, 92.6. In his *De otio*, *Or.* 8.4–5 (excerpts below at *exempla physica* and *exempla ethica*) Seneca eulogizes the study of (especially) nature, in the course of which he lists a large number of *quaestiones*, most of which can be paralleled in the *Placita*. Cicero *Fin.* 3.72–73 (quoted section E(b)§2) is explicit too. The hymnic conclusion of Sen. *Dial.* 12.20.1–2 is perhaps even more telling: '... my mind, free from all other engrossments, has leisure for its own tasks, and now finds joy in lighter studies, now, being eager for the truth, mounts to the consideration of its own nature and the nature of the universe. It seeks knowledge, first, of the lands and where they lie, then of the laws that govern the encompassing sea with its alternations of ebb and flow. Then it takes ken of all the expanse, charged with terrors, that lies between heaven and earth—this nearer space, disturbed by thunder, lightning, blasts of winds, and the downfall of rain and snow and hail. Finally, having traversed the lower spaces, it bursts through to the heights above, and there enjoys the noblest spectacle of things divine, and, mindful of its own immortality, it proceeds to all that has been and will ever be throughout the ages of all time' (tr. Basore LCL). These earlier writings, so to speak, announce the project of the *Naturales quaestiones*, and just as in the later work Seneca's mind voyages from the centre to the periphery, the opposite of the trajectory followed by the *Placita*.

For eloquent expressions of Epicurus' view on the uses of 'meteorology' (in the Epicurean sense of the word, so including astronomy and the unmasking of false ideas about the gods as responsible for these phenomena) as producing *ataraxia* and felicity, so serving his ethical purpose, see below, section E(b) Definition of philosophy.

We also recall the anecdote about Anaxagoras reported by Aristotle *EE* 1.5 1216a10–14 (59A30 DK), who claimed one is born ‘for the sake of contemplating the heavens and the whole order of the universe’ (tr. Rackham LCL), and its reverberation at Eur. fr. 910 Nauck / Kannicht (ap. Clem. *Strom.* 4.155.1, also 59A30 DK), ‘blessed is whoever has learned from research, ... who does not proceed to unjust acts, but seeks out the ageless order of immortal nature, where it came together, from what and how’, anticipating the Aristotelian question types of cause and origin. Also *Dialexeis* (*Dissoi Logoi*) 90.8.2 DK ‘and first, how would the man who knows about the nature of all things not be able also to act correctly about all things?’ (trans. Most LCL), also Philo *Aet.* 3–4 (quoted *infra*, ch. 1.6 at section E(a) §1[7–9]). Also generalized in as late a text as ps.Archyt. *de Sapient.* fr. 3 at Iambl. *Protr.* 4, p. 20.16–18 ~ 44.18–19 Thesleff ‘man is born to study ... the reason of the whole’ (γέγονε ... ὁ ἄνθρωπος ποττὸ θεωρῆσαι τὸν λόγον τᾶς τῷ ὅλῳ φύσιος, elsewhere attributed to Perictione). Euripides’ formula is anticipated by Empedocles 31B132: ‘blessed’ is, according to Empedocles, ‘who possesses the richness of divine wisdom; wretched, who prefers a dim view of the gods’. See also Cicero’s note on the *bios theoretikos*, *ND* 2.37 ‘man himself is born to contemplate and imitate the cosmos’ (*SVF* 2.1153—numerous parallels in Pease’s commentary ad loc.), as well as Vergil’s famous line *Georg.* 2.490 ‘blessed he who has been able go understand the causes of things’ (*felix qui potuit rerum cognoscere causas*; echoing Euripides and Lucretius and perhaps also Empedocles), on which see Norden (1974) 100–101 with n. 1. Quintilian *Inst.* 12.2.20 goes so far as to argue that ‘the physical part of philosophy comprises the whole of ethics’: *pars vero naturalis ... illam etiam moralem ... totam complectitur*. See further Gladigow (1967) on the macarism (i.e. beatification) of the *sophos*, esp. 419–421, and Betegh (2003). On the epistemic as well as ethical benefits of the study of nature see also Simp. *in Phys.* 4.17–5.26, partly quoted section E(b)§3.

Galen’s monograph ‘Whether the study of nature is useful for ethical philosophy’ (Εἰ ἡ φυσιολογία χρήσιμος εἰς τὴν ἡθικὴν φιλοσοφίαν, cf. below, section E(b) General texts) belongs with the group of writings concerned with the philosophy of Epicurus. It is unfortunately lost, but in view of his well-known attitude elsewhere one may hypothesize that (not unlike Cicero in some of his treatises) he scorned the study of questions that cannot be resolved, but accepted the existence and providence of the gods and argued against Epicurus’ rejection of providence. See also above, section D(d)(2), and Tieleman (2018) 459–462.

We note, finally, Diodotus’ assertion (at Diogenes Laertius *V.P.* 9.15) that Heraclitus’ book is not about nature but about the state, and that what is said about nature merely serves as illustration.

E Further Related Texts

a Proximate Tradition

General texts: Philo of Alexandria *Ebr.* 91 (*SVF* 3.301) ταὐτὸν οὖν καὶ ἡ ἐν τῷ σοφῷ (cf. §3) δύναμις ἐπιδείξεται· πραγματευομένη γὰρ τὰ περὶ τοῦ ὄντος εὐσέβεια καὶ ὁσιότης ὀνομάζεται, τὰ δὲ περὶ οὐρανοῦ καὶ τῶν κατ' αὐτὸν φυσιολογία, μετεωρολογικὴ δὲ τὰ περὶ τὸν ἀέρα καὶ ὅσα κατὰ τὰς τροπὰς αὐτοῦ καὶ μεταβολὰς ἐν τε ταῖς ὁλοσχερέσιν ἐτησίοις ὥραις καὶ ταῖς ἐν μέρει κατὰ τε μηνῶν καὶ ἡμερῶν περιόδους πέφυκε συνίστασθαι, ἡθικὴ δὲ τὰ πρὸς ἀνθρωπίνων ἐπανόρθωσιν ἡθῶν, ἥς ἰδέαι πολιτικῇ τε ἡ περὶ πόλιν καὶ ἡ περὶ οἰκίας ἐπιμέλειαν οἰκονομικὴ κτλ. **Diogenes Laertius** *V.P.* 7.132 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. Stoici; Posidonius fr. 254 Theiler, not in *SVF* or E.-K.). εἷς τε τὸν περὶ σωμάτων (cf. ch. 1.12) τόπον καὶ περὶ ἀρχῶν (cf. ch. 1.3) καὶ στοιχείων (cf. ch. 1.2) καὶ θεῶν (cf. ch. 1.7) καὶ περάτων καὶ τόπου (cf. ch. 1.19) καὶ κενοῦ (cf. ch. 1.20). καὶ οὕτω μὲν εἰδικῶς, γενικῶς δ' εἰς τρεῖς τόπους, τὸν τε περὶ κόσμου (cf. ch. 2.1) καὶ τὸν περὶ τῶν στοιχείων (cf. chs. 1.2–3) καὶ τρίτον τὸν αἰτιολογικόν (cf. ch. 1.11). *V.P.* 7.134, 7.140, 7.143, 7.144, 7.145, 7.149, 7.153. *V.P.* 7.154 Ποσειδώνιος (frs. 4–12 E.-K., 256, 256–264 Theiler) ἐν α' (τῷ β', τῷ ε', τῷ ζ', τῷ η') τοῦ Φυσικοῦ λόγου. **Seneca** *Ep.* 89.16 *naturalis pars philosophiae in duo scinditur, corporalia et incorporalia; utraque dividuntur in suos, ut ita dicam, gradus. corporum locus in hos primum, in ea quae faciunt et quae ex his gignuntur—gignuntur autem elementa. ipse (de) elementis locus, ut quidam putant, simplex est, ut quidam, in materiam et causam omnia moventem et elementa dividitur.*

§1 Definition: ps.Galen *HPh* c. 2 *DG* p. 598.4–5 ταῦτα μὲν οὖν ἐχρῆν προεῖπεῖν, ἵνα ἐκ τίνος ἀρχῆς ποιησώμεθα τὸν περὶ φιλοσοφίας λόγον.

§2 Stoics (and parallels in other schools): **Philodemus** *Piet.* col. 9.29–10.3 Henrichs (on Stoics, *SVF* 3 Diog. 33) Τ[ριτω]νίδα δὲ καὶ | Τριτ[ογέ]νειαν (sc. εἰρήσθαι) διὰ | τὸ τὴν φρόνησιν | ἐκ τριῶν συνεσ[τη]κέναι λόγων, | τῶν φυσικῶν καὶ | τῶν [ἡ]θικῶ[ν] καὶ τῶν | λογικῶν. **Hippolytus** *Ref.* 1 pinax 3.3–5 φυσικοὶ μὲν οὖν Θαλῆς ... (4) ἡθικοὶ Σωκράτης ... Πλάτων Σωκράτους μαθητῆς· οὗτος τὰς τρεῖς φιλοσοφίας ἔμιξεν. (5) διαλεκτικοὶ Ἀριστοτέλης Πλάτωνος μαθητῆς· οὗτος τὴν διαλεκτικὴν συνεστήσατο. *Ref.* 1.19.23 ὁ μὲν οὖν Πλάτων, καθὼς προείπομεν, συναγαγὼν τὰ τρία μέρη τῆς κατὰ πάντα φιλοσοφίας οὕτως ἐφιλοσόφησεν. **Sextus Empiricus** *M.* 7.16–17 ... οἱ εἰπόντες τῆς φιλοσοφίας τὸ μὲν τι εἶναι φυσικὸν τὸ δὲ ἡθικὸν τὸ δὲ λογικόν· ὧν δυνάμει μὲν Πλάτων ἐστὶν ἀρχηγός, περὶ πολλῶν μὲν φυσικῶν, {περὶ} πολλῶν δὲ ἡθικῶν, οὐκ ὀλίγων δὲ λογικῶν διαλεχθεῖς· (17) ῥητότατα δὲ οἱ περὶ τὸν Ξενοκράτη (fr. 1 Heinze, F 1 Isnardi Parente²) καὶ οἱ ἀπὸ τοῦ Περιπάτου, ἔτι δὲ οἱ ἀπὸ τῆς Στοᾶς (*SVF* 2.38) ἔχονται τῇσδε τῆς διαιρέσεως. *M.* 7.20 ἀλλὰ γὰρ τριμεροῦς οὔσης τῆς φιλοσοφίας οἱ μὲν πρῶτον μέρος τάττουσι τὸ φυσικόν, ἐπεὶ καὶ χρόνῳ μὲν πρεσβυτάτη ἐστὶν ἡ περὶ τὴν φυσικὴν πραγματεία ὥς καὶ μέχρι νῦν τοὺς πρῶτους φιλοσοφῆσαντας φυσικοὺς καλεῖσθαι, τάξει δέ, ὅτι πρῶτον ἀρμόττει περὶ τῶν ὅλων διαλαβεῖν καὶ τότε περὶ τῶν ἐπ' εἶδους καὶ ἀνθρώπου σκέπτεσθαι. *P.* 1.5–6 τῆς σκεπτικῆς οὖν φιλοσοφίας ὁ μὲν λέγεται καθόλου λόγος ὁ δὲ εἰδικός ... (6) εἰδικός δὲ ἐν ᾧ πρὸς ἕκαστον μέρος τῆς καλουμένης φιλοσοφίας ἀντιλέγομεν. **Apuleius** *Plat.* 1.187. **Anon.** *Photii* cod. 249, p. 238.16–20 Thesleff

ὅτι τὴν μὲν θεωρητικὴν καὶ φυσικὴν Πλάτωνά φασι παρὰ τῶν ἐν Ἰταλίᾳ Πυθαγορείων ἐκμαθεῖν, τὴν δὲ ἠθικὴν μάλιστα παρὰ Σωκράτους, τῆς δὲ λογικῆς σπέρματα καταβαλεῖν αὐτῷ Ζήνωνι καὶ Παρμενίδει τοὺς Ἑλεάτας· καὶ οὗτοι δὲ τῆς Πυθαγορείου ἦσαν διατριβῆς. **Diogenes Laertius** *V.P.* 1.12 φιλοσοφίαν δὲ πρῶτος ὠνόμασε Πυθαγόρας (—) καὶ ἑαυτὸν φιλόσοφον. ... θάττον δὲ ἐκαλεῖτο σοφία, καὶ σοφὸς ὁ ταύτην ἐπαγγελλόμενος, ὃς εἴη ἂν κατ' ἀκρότητα ψυχῆς ἀπηκριβωμένος, φιλόσοφος δὲ ὁ σοφίαν ἀσπαζόμενος. *V.P.* 1.18 μέρη δὲ φιλοσοφίας τρία, φυσικόν, ἠθικόν, διαλεκτικόν· φυσικόν μὲν τὸ περὶ κόσμου καὶ τῶν ἐν αὐτῷ· ἠθικόν δὲ τὸ περὶ βίου καὶ τῶν πρὸς ἡμᾶς· διαλεκτικόν δὲ τὸ ἀμφοτέρων τοὺς λόγους πρεσβεῖον. καὶ μέχρι μὲν Ἀρχελάου τὸ φυσικόν ἦν εἶδος· ἀπὸ δὲ Σωκράτους, ὡς προεῖρηται (sc. *V.P.* 1.14), τὸ ἠθικόν ἀπὸ δὲ Ζήνωνος τοῦ Ἑλεάτου (—) τὸ διαλεκτικόν. *V.P.* 3.8 μίξιν τε ἐποίησατο (sc. Plato) τῶν τε Ἡρακλειτείων λόγων καὶ Πυθαγορικῶν καὶ Σωκρατικῶν· τὰ μὲν γὰρ αἰσθητὰ καθ' Ἡράκλειτον, τὰ δὲ νοητὰ κατὰ Πυθαγόραν, τὰ δὲ πολιτικά κατὰ Σωκράτην ἐφιλοσόφει. *V.P.* 3.56 (Arist. *de poet.* fr. 42 Janko) ὥσπερ δὲ τὸ παλαιὸν ἐν τῇ τραγωδίᾳ πρότερον μὲν μόνος ὁ χορὸς διεδραμάτιζεν, ὕστερον δὲ Θέσπεις ἓνα ὑποκριτὴν ἐξεῦρεν ὑπὲρ τοῦ διαναπαύεσθαι τὸν χορὸν καὶ δεῦτερον Αἰσχύλος, τὸν δὲ τρίτον Σοφοκλῆς καὶ συνεπλήρωσεν τὴν τραγωδίαν, οὕτως καὶ τῆς φιλοσοφίας ὁ λόγος πρότερον μὲν ἦν μονοειδὴς ὡς ὁ φυσικὸς, δεῦτερον δὲ Σωκράτης προσέθηκε τὸν ἠθικόν, τρίτον δὲ Πλάτων τὸν διαλεκτικόν καὶ ἐτελεσιούργησε τὴν φιλοσοφίαν. *V.P.* 7.39 τριμερῆ φασιν εἶναι τὸν κατὰ φιλοσοφίαν λόγον· εἶναι γὰρ αὐτοῦ τὸ μὲν τι φυσικόν, τὸ δὲ ἠθικόν, τὸ δὲ λογικόν. οὕτω δὲ πρῶτος διείλε Ζήνων ὁ Κιτιεὺς ἐν τῷ Περὶ λόγου (*SVF* 1.45) καὶ Χρύσιππος ἐν τῷ α' Περὶ λόγου καὶ ἐν τῇ πρώτῃ τῶν Φυσικῶν (*SVF* 2.37) καὶ Ἀπολλόδωρος ὁ Ἐφηλός (*SVF* 3 Apollod. 1) ἐν τῷ πρώτῳ τῶν Εἰς τὰ δόγματα εἰσαγωγῶν καὶ Εὐδρομος ἐν τῇ Ἠθικῇ στοιχειώσει (*SVF* 3 Eudr. 1) καὶ Διογένης ὁ Βαβυλώνιος (*SVF* 3 Diog. 16) καὶ Ποσειδώνιος (*F* 87 E.-K., 252a Theiler). ταῦτα δὲ τὰ μέρη ὁ μὲν Ἀπολλόδωρος τόπους καλεῖ, ὁ δὲ Χρύσιππος καὶ Εὐδρομος εἶδη, ἄλλοι γένη. *V.P.* 7.83 (*SVF* 2.130) δύοιν δ' οὕσαιν συνηθεῖαι ταῖν ὑποπιπτούσαιν τῇ ἀρετῇ (sc. τῇ ἐν λόγοις θεωρίᾳ), ἣ μὲν τί ἕκαστὸν ἐστὶ τῶν ὄντων σκοπεῖ, ἣ δὲ τί καλεῖται. *V.P.* 7.92 Παναίτιος (fr. 67 Alesse) μὲν οὖν δύο φησὶν ἀρετάς, θεωρητικὴν καὶ πρακτικὴν· ἄλλοι δὲ λογικὴν καὶ φυσικὴν καὶ ἠθικὴν· τέτταρας δὲ οἱ περὶ Ποσειδώνιον (*F* 180 E.-K., 424 Theiler) καὶ πλείονας οἱ περὶ Κλεάνθην (*SVF* 1.565) καὶ Χρύσιππον (*SVF* 3.261) καὶ Ἀντίπατρον (*SVF* 3 Antip. 60). ὁ μὲν γὰρ Ἀπολλοφάνης (*SVF* 1.406) μίαν λέγει, τὴν φρόνησιν. *V.P.* 7.125–126 τὰς δ' ἀρετάς λέγουσιν ἀντακολουθεῖν ἀλλήλαις καὶ τὸν μίαν ἔχοντα πάσας ἔχειν· εἶναι γὰρ αὐτῶν τὰ θεωρήματα κοινά, καθάπερ Χρύσιππος ἐν τῷ πρώτῳ Περὶ ἀρετῶν φησιν (*SVF* 3.295), Ἀπολλόδωρος δὲ ἐν τῇ Φυσικῇ κατὰ τὴν ἀρχαίαν (*SVF* 3 Apoll. 15), Ἐκάτων δὲ ἐν τῷ (126) τρίτῳ Περὶ ἀρετῶν (fr. 7 Gomoll). τὸν γὰρ ἐνάρετον θεωρητικόν τ' εἶναι καὶ πρακτικόν τῶν ποιητέων. *V.P.* 7.130 (*SVF* 3.687) βίων δὲ τριῶν ὄντων, θεωρητικοῦ καὶ πρακτικοῦ καὶ λογικοῦ, τὸν τρίτον φασὶν αἰρετέον· γεγονέναι γὰρ ὑπὸ τῆς φύσεως ἐπιτηδὲς τὸ λογικὸν ζῶον πρὸς θεωρίαν καὶ πρᾶξιν. but *V.P.* 6.103 ἀρέσκει οὖν αὐτοῖς (sc. τοῖς Κυνικοῖς, *V B* 368 Giannantoni) τὸν λογικόν καὶ τὸν φυσικόν τόπον περιαιρεῖν, ἐμπερὶς Ἀρίστωνι τῷ Χῷ (*SVF* 1.354), μόνῳ δὲ προσέχειν τῷ ἠθικῷ. **Hippolytus** *Ref.* 1 pinax 1–2 τάδε ἐνεστὶν ἐν τῇ πρώτῃ τοῦ Κατὰ πασῶν αἰρέσεων ἐλέγχου· (2) τίνα τὰ δόξαντα τοῖς φυσικοῖς φιλοσόφοις καὶ τίνες

οὔτοι· καὶ τίνα τὰ τοῖς ἠθικοῖς καὶ τίνες οὔτοι· καὶ τίνα τὰ τοῖς διαλεκτικοῖς καὶ τίνες οἱ διαλεκτικοί. **ps.Galen** *Hph* c. 5, *DG* pp. 602.18–603.2 οἱ μὲν γὰρ ἔφασαν τὴν φιλοσοφίαν εἶναι δύναμιν γνωστικὴν καὶ περιποιητικὴν ἀρίστου βίου, ἄριστον βίον εἰπόντες τὸ ζῆν ἕκαστον κατ’ ἀρετὴν, οἱ δὲ ἄσκησιν ἀνθρώπου {ἀρίστης ζωῆς} ἐπιτηδεΐας τέχνης ὥρισαντο, ἄσκησιν μὲν τὴν φιλοσοφίαν εἰπόντες, ἐπιτηδεΐαν δὲ τέχνην τὴν σοφίαν ὀνομάσαντες, ἢ τίς ἐστι κατάληψις θεῶν τε καὶ ἀνθρωπίνων πραγμάτων. *Hph* c. 6, *DG* p. 603.7–16 Πόσα μέρη τῆς φιλοσοφίας. μέρη δὲ τῆς φιλοσοφίας κατὰ τοὺς πλείστους ἀκριβεστάτους εἶναι δοκούντας τρία παρειλήφαμεν, τὸ τε λογικὸν δι’ οὗ καταμανθάνομεν, τί τῶν ὄντων ἕκαστον κατ’ οὐσίαν καὶ κατὰ συμβεβηκός, καὶ τὰς διαφορὰς τούτων πρὸς ἄλληλα καὶ τὰ τοιαῦτα γινώσκομεν· καὶ τὸ φυσικὸν δι’ οὗπερ ἔστι καθορᾶν, τίς ἡ αἰτία τοῦ τάξεϊ προΐεσθαι τῶν οὐρανίων τὴν κίνησιν ὅσα φέρεσθαι δοκεῖ, καὶ τίνες αὐτῶν ταχυτέρες ἢ βραδυτέρες πρὸς ἄλληλα καὶ ὅσα τούτων ἐστὶν ὅμοια (cf. ch. 2.16). καὶ τρίτον τὸ πάντων ἀναγκαιότατον καὶ τοῖς ἐπιτηδεύμασι χρησιμώτατον τὸ ἠθικόν, δι’ οὗ μανθάνομεν ἀλλήλοις ὁμιλεῖν καὶ συμβάλλειν προσηγῶς κτλ. **Isidore of Seville** *Etym.* 8.6.1 *est enim philosophus qui divinarum et humanarum rerum scientiam habet, et omnem bene vivendi tramitem tenet.* Note esp. **Cicero** *Fin.* 5.12 *vitae autem degendae ratio maxime quidem illis placuit quieta, in contemplatione et cognitione posita rerum, quae quia deorum erat vitae simillima, sapiente visa est dignissima.*

§3 **Aristotle Theophrastus Peripatetics: Doxographia Ethica A** at Stob. *Ecl.* 2.7.3g, pp. 50.11–51.16 Ἀριστοτέλης (sc. τὸ τέλος) ‘χρήσιν ἀρετῆς τελείας’ (*EN* 5.1 1129b31) ‘ἐν (βίῳ τελείῳ)’ (*EN* 1.7 1098a17) προηγουμένην (mss., Moraux (1973) 353 n. 117, χορηγ. Wachsmuth, cf. below). ἡ μὲν οὖν χρήσις ἐστὶ πλέον τῆς κτήσεως· ‘ἐνέργειαν’ γὰρ εἶναι βούλεται τὴν ‘εὐδαιμονίαν’ (*EN* 7.14 1153b14–17), καὶ τὸ ‘τέλος’ ἡμετέραν ‘πράξιν’ (cf. *EN* 1.1 1095a5–6). ἡ δ’ ‘ἀρετὴ ἕξις ἢ βελτίστη ψυχῆς’ (*EE* 2.1 1219a30–34): τελεία δὲ τριχῶς, καὶ γὰρ ἡ σύνθετος ἐκ τῶν θεωρητικῶν καὶ πρακτικῶν καὶ ἠθικῶν (τρία γὰρ ὑποτίθεται γένη), ἣν ἂν εἴποις ἀρετὴν κατὰ σύνθεσιν· καὶ ἡ ἐκ τῶν οἰκείων δυνάμεων συμπεπληρωμένη, φύσεως, λόγου, ἔθους (ταύτην κατ’ ἀριθμὸν ἐρεῖ τις)· καὶ ἡ κατὰ συμφωνίαν τοῦ λογικοῦ μέρους πρὸς ἄλλογον τῆς ψυχῆς, περὶ ᾧ ὑποβάς διαρθρώσω. πολλὰ γὰρ δ’ ἔξεστι τὴν εὐδαιμονίαν ὀρίζεσθαι κατ’ αὐτόν· ‘ἐνέργειαν κατ’ ἀρετὴν τελείαν ἐν βίῳ τελείῳ (cf. *EN* 1.7 1098a16–18, *MM* 2.7.2.4–6) προηγουμένην’ καὶ ‘βίος καλὸς καὶ τέλειος’ προηγουμένος· καὶ τὸ πάντων σαφέστατον ‘χρήσις ἀρετῆς τελείας’ (cf. *EN* 5.1 1129b31) ἐν βίῳ τελείῳ (*EN* 1.7 1098a17) προηγουμένη. ‘ἐν βίῳ δὲ τελείῳ’ λέγει πρὸς τὴν διάστασιν τῆς χρήσεως τῶν ἀγαθῶν· χορηγουμένην δὲ χάριν τοῦ τὴν χρήσιν ἐν ἀγαθοῖς γίγνεσθαι, μὴ ἐν κακοῖς. τοῦτο μὲν οὖν τέλος. **Doxographia Ethica B** (Stoic, ascribed to AD) at Stob. *Ecl.* 2.7.11g, p. 98.14–17 πάντα δὲ τὸν καλὸν καὶ ἀγαθὸν ἄνδρα τέλειον εἶναι λέγουσι διὰ τὸ μηδεμιᾶς ἀπολείπεσθαι ἀρετῆς. **Doxographia Ethica C** (Peripatetic, ascribed to AD) at Stob. *Ecl.* 2.13, pp. 117.17–118.4 διττὸν εἶναι καὶ τῶν ἀρετῶν τὸ εἶδος, τὸ μὲν λογικόν, τὸ δ’ ἄλλογον, ἐπειδὴ καὶ ταῦτα πέφυκε μὲν κατὰ θεωρίαν καὶ πράξιν, ὅθεν καὶ τὴν ἠθικὴν ἀρετὴν οὐκ εἶναι μὲν ἐπιστήμην, προαιρετικὴν δὲ τῶν καλῶν ὑπάρχειν (ἕξιν). at Stob. *Ecl.* 2.13, pp. 131.14–132.12 (on the τέλος and the τελείας ... ἀρετῆς ... χρήσιν ... ἐν βίῳ τελείῳ). **Philo of Alexandria** *Det.* 60 εὐδαιμονίαν δὲ χρήσιν ἀρετῆς τελείας ἐν βίῳ τελείῳ νενόηκα. *Leg.* 3.3 διὰ μὲν

δὴ τούτων ἐπιδέδεικται, πῶς ὁ μὲν φαῦλος ἀπολὶς τέ ἐστι καὶ ἄοικος, φυγὰς ἀρετῆς ὦν, ὁ δὲ σπουδαῖος καὶ πόλιν ἔχειν καὶ οἶκον σοφίαν κεκλήρωται. **Aspasius** in *EN* 19.10–11 ἐν κεφαλαίῳ δ' εἰπεῖν, ἔστιν ἡ εὐδαιμονία ψυχῆς λογικῆς ἐνέργεια κατ' ἀρετὴν τελείαν ἐν βίῳ τελείῳ. **Alcinous** *Did.* c. 3, p. 153.38–42 τῆς δὲ πρακτικῆς τὸ μὲν θεωρεῖται περὶ τὴν τῶν ἡθῶν ἐπιμέλειαν, τὸ δὲ περὶ τὴν τοῦ οἴκου προστασίαν, τὸ δὲ περὶ πόλιν καὶ τὴν ταύτης σωτηρίαν· τούτων τὸ μὲν πρῶτον ἠθικὸν κέκληται, τὸ δὲ δεύτερον οἰκονομικόν, τὸ δὲ λοιπὸν πολιτικόν. **ps.Galen** *Def.Med.* 19.351.8–11 K. ι'. τὰ ἀνωτάτω μέρη τῆς ἱατρικῆς ἐστὶ δύο, θεωρία καὶ πράξις. προηγείται δὲ τῆς πράξεως ἡ θεωρία. θεωρήσαι γάρ τι πρότερον χρή, ἔπειτα οὕτως πράξει. ἀρχὴ γάρ τῆς ἐπὶ τῶν ἔργων τριβῆς ἡ διὰ τοῦ λόγου διδασκαλία. *Def.Med.* 19.355.3–4 K. κε'. τέλειός ἐστιν ἱατρός ὁ ἐν θεωρίᾳ καὶ πράξει ἀπηρτισμένος. **Diogenes Laertius** *V.P.* 5.28 βούλεται (sc. Aristotle) δὲ ἐν αὐτοῖς (sc. τοῖς βιβλίοις) τάδε· διττὸν εἶναι τὸν κατὰ φιλοσοφίαν λόγον, τὸν μὲν πρακτικόν, τὸν δὲ θεωρητικόν. καὶ τοῦ πρακτικοῦ τὸν τε ἠθικὸν καὶ πολιτικόν, οὗ τὰ τε περὶ πόλιν καὶ τὰ περὶ οἶκον ὑπογεγράφθαι· τοῦ δὲ θεωρητικοῦ τὸν τε φυσικὸν καὶ λογικόν, οὗ τὸ λογικὸν οὐχ ὡς ὅλου μέρος, ἀλλ' ὡς ὄργανον προσηκριβωμένον. *V.P.* 5.30 τέλος δὲ ἐν ἐξέθετο χρήσιν ἀρετῆς ἐν βίῳ τελείῳ (*Arist. EN* 1.7 1098a12–20). *V.P.* 5.31 καὶ ἐρασθήσεται δὲ τὸν σοφὸν καὶ πολιτεύσεσθαι, γαμήσειν τε μὴν καὶ βασιλεῖ συμβίβησεσθαι. βίων τε τριῶν ὄντων, θεωρητικοῦ, πρακτικοῦ, ἡδονικοῦ, τὸν θεωρητικὸν προέκρινεν. **Sextus Empiricus** *M.* 7.14–15 τῶν δὲ διμερῆ τὴν φιλοσοφίαν ὑποστησάμενων Ξενοφάνης μὲν ὁ Κολοφώνιος (21A35 DK) τὸ φυσικὸν ἅμα καὶ λογικόν, ὥς φασί τινες, μετήρχετο, Ἀρχέλαος δὲ ὁ Ἀθηναῖος (60A6 DK) τὸ φυσικὸν καὶ ἠθικόν· μεθ' οὗ τινες καὶ τὸν Ἐπικούρου (fr. 242 Usener) τάττουσιν ὡς {καὶ} τὴν λογικὴν θεωρίαν ἐκβάλλοντα. ἄλλοι δὲ ἦσαν οἱ φασὶ μὴ κοινῶς αὐτὸν τὴν λογικὴν παρητήσθαι, μόνην δὲ τὴν τῶν Στωικῶν, ὥστε δυνάμει τριμερῆ πάλιν ἀπολείπειν τὴν φιλοσοφίαν. **Isidore of Seville** *Etym.* 2.24.1 *philosophia est rerum humanarum divinarumque cognitio cum studio bene vivendi coniuncta. haec duabus ex rebus constare videtur; scientia et opinione* (following *Lact. Inst.* 3.3.1?). **Achilles** c. 2, p. 9.2–7 Εὐδωρος (fr. 9 Mazzarelli) ὁ φιλόσοφος φησι Διόδωρον τὸν Ἀλεξανδρεῖα μαθηματικὸν τούτῳ διαφέρειν εἰπεῖν τὴν μαθηματικὴν τῆς φυσιολογίας, ὅτι ἡ μὲν μαθηματικὴ τὰ παρεπόμενα τῇ οὐσίᾳ ζητεῖ, πόθεν καὶ πῶς ἐκλείψει γίνονται (cf. chs. 2.24, 2.29), ἡ δὲ φυσιολογία περὶ τῆς οὐσίας (cf. ch. 2.20), τίς ἡλίου φύσις, πότερον μύδρος ἐστὶ κατὰ Ἀναξαγόραν (cf. ch. 2.20.8) ἢ ὑπὲρ κατὰ τοὺς Στωϊκοὺς (—) ἢ κατὰ Ἀριστοτέλην (cf. ch. 2.20.11) πέμπτη οὐσία.

exempla physica (*quaestiones physicae*, ζητήματα or προβλήματα φυσικά): **Cicero** *Inv.* 1.6.8 *nam Hermagoras* (fr. IB 6a Matthes, T14 Woerther) ... *quaestionem autem eam appellat, quae habeat in se controversiam in dicendo positam sine certarum personarum interpositione, ad hunc modum: ... 'veri ne sint sensus'* (cf. ch. 4.8) *'quae sit mundi forma?'* (cf. ch. 2.2) *'quae sit solis magnitudo'* (cf. ch. 2.21). *Part.Or.* 64 *rursus autem ex cognitionis consultatione, ubi sit necne sit, aut fuerit futurumve sit quaeritur, unum genus est quaestionis, possitne aliquid effici ... quous generis omnes sunt, in quibus, ut in obscuris naturalibusque quaestionibus, causae rationesque rerum explicantur. de Orat.* 2.66 *si enim est oratoris, quaecumque res infinite posita sit, de ea posse dicere,*

dicendum erit ei, quanta sit solis magnitudo (cf. ch. 2.21), *quae forma terrae* (cf. ch. 3.10). *Luc. 82 quid potest sole maius, quem mathematici amplius duodeviginti partibus confirmant maiorem esse quam terram: quantulus nobis videtur; mihi quidem quasi pedalis* (cf. ch. 2.21.4); *Epicurus* (—) *autem posse putat etiam minorem esse eum quam videatur, sed non multo; ne maiorem quidem multo putat esse, vel tantum esse quantus videatur, ut oculi aut nihil mentiantur {tamen} aut non multum* (cf. ch. 2.21.5)—*mentiantur {tamen}*. *Luc. 126–127 solis autem magnitudinem* (cf. ch. 2.21) (*ipse enim hic radiatus me intueri videtur admonens ut crebro faciam mentionem sui*) *vos ergo huius magnitudinem quasi decempeda permensi refertis; ego me, quasi malis architectis, mensurae vestrae nego credere: dubium est uter nostrum sit, leviter ut dicam, verecundior? nec tamen istas quaestiones physicorum exterminandas puto. est enim animorum ingeniorumque naturale quoddam quasi pabulum consideratio contemplatioque naturae*. *Tusc. 5.69–70* (cf. ch. 2.16) *cum totius mundi motus conversionesque perspexerit sideraque viderit innumerabilia caelo inhaerentia cum eius ipsius motu congruere certis infixis sedibus, septem alia suos quaeque tenere cursus multum inter se aut altitudine aut humilitate distantia, quorum vagi motus rata tamen et certa sui cursus spatia definiant* (cf. ch. 2.7)—*horum nimirum aspectus impulit illos veteres et admonuit, ut plura quaerent; inde est indagatio nata initiorum et tamquam seminum, unde essent omnia orta generata concreta, quaeque cuiusque generis vel inanimi vel animantis vel muti vel loquentis origo, quae vita, qui interitus quaeque ex alio in aliud vicissitudo atque mutatio, unde terra* (cf. ch. 3.9.4–5) *et quibus librata ponderibus* (cf. chs. 3.7, 3.15.7–10), *quibus cavernis maria sustineantur* (cf. ch. 3.16), *qua omnia delata gravitate medium mundi locum semper expetant, qui est idem infimus in rutundo* (cf. ch. 1.12.2–4). *ND 2.42 cum igitur aliorum animantium ortus in terra sit, aliorum in aqua, in aëre aliorum, absurdum esse Aristoteli* (fr. 23 R³, 835 Gigon) *videtur in ea parte quae sit ad gignenda animantia aptissima animal gigni nullum putare. sidera autem aetherium locum obtinent*. *Inv. 1.8* (Hermagoras fr. 6a Matthes, T14 Woerther) *quaestionem autem eam appellat, quae habeat in se controversiam in dicendo positam sine certarum personarum interpositione, ad hunc modum: ... ‘verine sint sensus?’* (cf. ch. 4.9), *‘quae sit mundi forma?’* (cf. ch. 2.2), *‘quae sit solis magnitudo?’* (cf. ch. 2.21). *ND 2.41 quare cum solis ignis similis eorum ignium sit qui sunt in corporibus animantium, solem quoque animantem esse oportet*. *Div. 2.10 num censes eos, qui divinare dicuntur, posse respondere, sol maiore quam terra sit an tantus, quantus videatur?* (cf. ch. 2.21.5). *Fin. 5.9–10 natura sic ab iis investigata est, ut nulla pars caelo, mari, terra, ut poëtice loquar, praetermissa sit; quin etiam, cum de rerum initiis omnique mundo locuti essent, ut multa non modo probabili argumentatione, sed etiam necessaria mathematicorum ratione concluderent, maximam materiam ex rebus per se investigatis ad rerum occultarum cognitionem attulerunt. persecutus est Aristoteles animantium omnium ortus* (Arist. GA), *victus, figuras* (Arist. HA), *Theophrastus* (fr. 385 FHS&G) *autem stirpium naturas omniumque fere rerum, quae e terra gignerentur, causas* (Thphr. CP) *atque*

rationes (Thphr. *HP*); *qua ex cognitione facilior facta est investigatio rerum occultissimarum*. **Philo of Alexandria** *Abr.* 162–163 ἡ δὲ (sc. διάνοια) ... εἰς σκέψιν ἦλθε, πότερον τὰ φανέντα ταῦτ' ἐστὶν ἀγένητα ἢ γενέσεως ἔλαβεν ἀρχὴν (cf. ch. 1.24) καὶ πότερον ἄπειρα ἢ πεπερασμένα καὶ πότερον εἰς ἢ πλείονές εἰσι κόσμοι (cf. ch. 1.5, ch. 2.1) καὶ πότερον τὰ τέτταρα στοιχεῖα τῶν ἀπάντων ἐστὶν ἢ φύσιν ἐξαίρετον οὐρανός καὶ τὰ ἐν αὐτῷ κεκλήρωται θειοτέρας καὶ οὐχὶ τοῖς ἄλλοις τῆς αὐτῆς οὐσίας ἐπιλαχόντα· (163) εἰ δὲ δὴ καὶ γέγονεν ὁ κόσμος (cf. ch. 2.4), ὑπὸ τίνος γέγονε καὶ τίς ὁ δημιουργὸς κατ' οὐσίαν ἢ ποιότητα καὶ τί διανοηθεὶς ἐποίησεν καὶ τί νῦν πράττει καὶ τίς αὐτῷ διαγωγή καὶ βίος καὶ ὅσα ἄλλα περιττὸς νοῦς φρονήσει συμβίων εἴωθε διερευνᾶσθαι. ταῦτα δὲ καὶ τὰ τοιαῦτα ἀνάκειται τῷ φιλοσοφεῖν. **Pliny** *Nat.* 1 p. 11.1–6 *libro 11 continentur: an finitus sit mundus et an unus* (cf. chs. 1.5, 2.1). *de forma eius* (cf. ch. 2.2). *de motu eius* (cf. ch. 2.7). *cur mundus dicatur* (cf. ch. 2.1.1). *de elementis* (cf. chs. 1.2–3). *de deo* (cf. ch. 1.7). *de siderum errantium natura* (cf. ch. 2.13). *de lunae et solis defectibus* (cf. chs. 2.24, 2.29). **Horace** *Ep.* 1.12.15–20 *nil parvum sapias et adhuc sublimia cures: / quae mare compescant causae* (cf. ch. 3.17), *quid temperet annum* (cf. ch. 3.8), */ stellae sponte sua iussae ne vagentur et errant* (cf. ch. 2.16), */ quid premat obscurum, lunae quid proferat orbem* (cf. ch. 2.27), */ quid velit et possit rerum concordia discors, / Empedocles an Stertinius deliret acumen?* **Ethical Doxography A** at Stob. *Ecl.* 2.2, p. 42.1–6 ἡγούμενος δ' ἐμαυτῷ πρέπειν πρὸ παντὸς τὴν οὐσίαν δεῖν ἐπισκοπεῖν οὐ τιςπραγματεύεται, κάπειτα ποιότητα τὴν περὶ αὐτὴν καὶ ποσότητα, καὶ τούτοις ἐφεξῆς τὸ πρὸς τί, νομίζω προσεπιπονητέον {τε} εἶναι καὶ τὰ τῶν ἄλλων ἐπισκοπεῖν, καθάπερ οὐ πάντων, οὕτως τῶν περὶ ταῦτα διενεγκάντων ('those who differ from each other on these matters'). **Aelius Theon** *Prog.* §11, p. 120.13–15 Patillon–Bolognesi θέσις ἐστὶ πρᾶγμα λογικὴν ἀμφισβήτησιν ἐπιδεχόμενον ἄνευ προσώπων ὠρισμένων καὶ πάσης περιστάσεως, οἷον εἰ γαμητέον, εἰ παιδοποιητέον, εἰ θεοὶ εἰσι (cf. ch. 1.7.1). *Prog.* §11, p. 121.7–15 Patillon–Bolognesi. **ps.Hermogenes** *Prog.* §11.4.1–5.5 Patillon τῶν δὲ θέσεων αἱ μὲν πολιτικάι, αἱ δὲ οὐ· καὶ πολιτικάι μὲν αἱ ὑποπεπτωκυῖαι ταῖς κοιναῖς ἐννοίαις, οἷον εἰ ῥητορευτέον καὶ ὅσα τοιαῦτα· οὐ πολιτικάι δέ, ὅσαι οἰκεῖαι τινος ἐπιστήμης καὶ προσήκουσαι τοῖς περὶ αὐτάς ἀναστροφόμενοις, οἷον εἰ σφαιροειδῆς ὁ οὐρανός (cf. ch. 2.2), εἰ πολλοὶ κόσμοι (cf. chs. 1.5, 2.1), εἰ ὁ ἥλιος πῦρ (cf. ch. 2.20). (5) αἶδε μὲν οὖν φιλοσόφοις ἀρμόζουσιν, ἐν δὲ ταῖς ἄλλαις τοῦς ῥήτορας γυμναστέον. ὠνόμασαν δὲ τινὲς ταύτας μὲν πρακτικὰς, ἐκείνας δὲ θεωρητικὰς· ταύτας μὲν γὰρ ἐνδέχεται καὶ πραχθῆναι, ἐκείνων δὲ τὸ τέλος ἢ θεωρία. **Seneca** *Dial.* 8.4.2 (*quaeramus*) *quod maria terrasque et mari ac terris inserta complectitur, an multa eiusmodi corpora deus sparserit* (cf. ch. 1.5, also 1.3); *continua sit omnis et plena materia ex qua cuncta gignuntur, an diducta et solidis inane permixtum* (cf. chs. 1.18, 2.9); *quae sit dei sedes, opus suum spectet an tractet, utrumne extrinsecus illi circumfusus sit an toti inditus* (cf. ch. 1.7); *immortalis sit mundus an inter caduca et ad tempus nata numerandus* (cf. ch. 2.4). *Dial.* 8.5.5–6 *nec enim omnia nec tanta visimus quanta sunt, sed acies nostra aperit sibi investigandi viam et fundamenta vero iacit, ut inquisitio transeat ex apertis in obscura et aliquid ipso mundo inveniat antiquius: unde ista sidera exierint* (cf. ch. 2.13); *quis fuerit universi status, antequam singula*

in partes discederent, quae ratio mersa et confusa diduxerit (cf. ch. 1.4); *quis loca rebus adsignaverit, suapte natura gravia descenderint, evolauerint levia, an praeter nisum pondusque corporum altior aliqua vis legem singulis dixerit* (cf. ch. 1.12); *an illud verum sit quo maxime probatur homines divini esse spiritus, partem ac veluti scintillas quasdam astrorum in terram desiluisse atque alieno loco haesisse* (cf. ch. 4.3.14). ... (6) *'illud' inquit* (sc. cogitatio nostra) *'scrutor quod ultra mundum iacet, utrumne profunda vastitas sit an et hoc ipsum terminis suis cludatur* (cf. chs. 1.8, 2.9); *qualis sit habitus exclusis, informia et confusa sint, {an} in omnem partem tantundem loci optinentia, an et illa in aliquem cultum discripta sint; huic cohaereant mundo, an longe ab hoc secesserint et hic in vacuo volutetur; individua sint per quae struitur omne quod natum futurumque est, an continua eorum materia sit et per totum mutabilis* (cf. ch. 1.9); *utrum contraria inter se elementa sint, an non pugnent sed per diversa conspirent.'* *Dial. 12.20.1–2* *animus omnis occupationis expers operibus suis vacat et modo se levioribus studiis oblectat, modo ad considerandam suam universique naturam veri avidus insurgit. terras primum situmque earum quaerit* (cf. chs. 3.9–15), *deinde condicionem circumfusi maris cursusque eius alternos et recursus* (cf. chs. 3.16–17); *tunc quidquid inter caelum terrasque plenum formidinis interiacet perspicit et hoc tonitribus fulminibus* (cf. ch. 3.3), *ventorum flatibus* (cf. ch. 3.7), *ac nimborum nivisque et grandinis iactu* (cf. ch. 3.4) *tumultuosum spatium; tum peragratis humilioribus ad summa perrumpit et pulcherrimo divinorum spectaculo fruitur* (cf. A Book 2), *aeternitatis suae memor in omne quod fuit futurumque est vadit omnibus saeculis.* **Quintilian** *Inst. 1.10.49* *illud utique iam proprium ad efficiendum quod intendimus, plurimas quaestiones, quibus difficilior alia ratione explicatio est, ut de ratione videndi* (cf. ch. 4.13), *de sectione {in} infinitum* (cf. ch. 1.16), *de celeritate augenda, linearibus illis probationibus solvi solere: ut, si est oratori, quod proximus demonstrabit liber, de omnibus rebus dicendum, nullo modo sine geometria esse possit orator.* *Inst. 2.17.38* *'sed nescit* (sc. orator), *an verum sit quod dicit.'* *ne ii quidem, qui ignem aut aquam aut quattuor elementa aut corpora insecabilia esse, ex quibus res omnes initium duxerint* (cf. ch. 1.3), *tradunt, nec qui intervalla siderum* (cf. ch. 2.31 and below, Ambrose) *et mensuras solis* (cf. ch. 2.21) *ac terrae* (cf. ch. 3.9) *colligunt: disciplinam tamen suam artem vocant.* *Inst. 3.5.5* *item convenit quaestiones esse aut infinitas aut finitas. infinitae sunt, quae remotis personis et temporibus et locis ceterisque similibus in utramque partem tractantur, quod Graeci θέσιν dicunt, ... alii quaestiones philosopho convenientis.* *Inst. 7.2.6* *quaeritur per coniecturam et qualitatem circa modum speciem numerum: an sol maior quam terra* (cf. ch. 2.21), *luna globosa an plana an acuta* (cf. ch. 2.27), *unus mundus an plures* (cf. chs. 1.5, 2.1). *Inst. 7.4.1* *est autem qualitas alia de summo genere atque ea quidem non simplex. nam et qualis sit cuiusque rei natura et quae forma quaeritur: an immortalis anima* (cf. ch. 4.7), *an humana specie deus* (cf. ch. 1.7.25), *et de magnitudine ac numero: quantus sol* (cf. ch. 2.21), *{et} an unus mundus* (cf. chs. 1.5, 2.1). *quae omnia coniectura quidem colliguntur, quaestionem tamen habent in eo, qualia sint.* **Athenagoras** *Leg. 7.13–14* Marcovich ἄλλος ἄλλως ἐδο-

γμάτισεν αὐτῶν καὶ περὶ θεοῦ (cf. ch. 1.7) καὶ περὶ ὕλης (cf. ch. 1.9) καὶ περὶ εἰδῶν (cf. ch. 1.10) καὶ περὶ κόσμου (cf. ch. 2.1). *Galen Pecc.Dig.* 67.8–16 de Boer (SVF 2.542) καὶ πρῶτόν γε τοῦτο λέγω μάλιστα· ἐπειδὴ (τῶνδε) τῶν Περιπατητικῶν τις ἀφίκεται {τῶν} φιλοσόφων, ἓνα τε τὸν κόσμον τοῦτον εἶναι πεπεισμένων (cf. chs. 1.5, 2.1), ἔξωθέν τ' αὐτοῦ μηδὲν εἶναι κενόν, ὥσπερ οὐδ' ἔνδον (cf. chs. 1.18, 2.9). διαφέρει γε μὴν, ἔφην, τῶνδε τῶν φιλοσόφων διττὴν διαφορὰν ἑκάτερος τούτων (ἐδείκνυσεν δὲ τὸν τε Στωϊκὸν καὶ τὸν Ἐπικουρείον), ὁ μὲν γὰρ Στωϊκὸς (cf. ch. 1.18.5) οὐκ ἔνδον εἶναι τι κενὸν (λέγων), ἔξωθεν δὲ τοῦ κόσμου ὑπάρχειν αὐτό. ταῦτα δ' ἄμφω συγχωρῶν ὁ Ἐπικουρεῖος (—) ἐν ἄλλῳ τινὶ διαφέρεται πρὸς αὐτούς. *PHP* 9.6.21 ἐν μὲν γὰρ φιλοσοφίᾳ μὴ πεπαῦσθαι τὰς πλείστας τῶν διαφωνιῶν οὐδὲν θαυμαστόν, ὥς ἂν μὴ δυναμένων τῶν πραγμάτων ἐναργῶς κριθῆναι τῇ πείρᾳ καὶ διὰ τοῦτο τινῶν μὲν ἀποφνημαζέμενων ἀγέννητον εἶναι τὸν κόσμον, τινῶν δὲ γεννητόν (cf. ch. 2.4), ὥσπερ γε καὶ τινῶν μὲν οὐδὲν ἔξωθεν αὐτοῦ περιέχον εἶναι, τινῶν δὲ εἶναι λεγόντων (cf. chs. 1.18, 2.9) κτλ. *PHP* 9.7.9 μόνοις οὖν ἐκείνοις τοῖς φιλοσόφοις ... , ὅσοι τὴν θεωρητικὴν φιλοσοφίαν εἴλοντο, καθάπερ γε καὶ εἰ μετὰ (τὸν) κόσμον τοῦτον ἐστὶ τι, καὶ εἰ ἔστιν, ὁποῖόν τι τοῦτο (cf. chs. 1.18, 2.9) κτλ. *Loc.Aff.* 8.158.14–159.8 K. τινὰ (sc. δόγματα) μὲν γὰρ ἀλλήλοις ἀκολουθεῖ, καθάπερ γε πάλιν ἕτερα μάχεται, τινὰ δὲ οὐτ' ἀκολουθεῖν οὐτε μάχην ἀναγκαίαν ἔχει, καθάπερ αὐτὸ τοῦτο τὸ περὶ τοῦ τῆς ψυχῆς ἡγεμονικοῦ. ἐάν τε γὰρ ἐν καρδίᾳ τις ἐάν τ' ἐν ἐγκεφάλῳ περιέχεσθαι τοῦτο φησὶ (cf. ch. 4.5), δυνατόν ἐστιν αὐτῷ καὶ περὶ τῶν φυσικῶν στοιχείων (cf. ch. 1.3) ἢ ἂν ἐτελήσῃ δόξαν ἐλομένῳ μῆτε μάχεσθαι τοῦτ' ἢ ἀκολουθεῖν· καὶ περὶ γενέσεως καὶ φθορᾶς (cf. ch. 1.24) ὁμοίως, ὥσπερ γε καὶ περὶ ψυχῆς οὐσίας (cf. chs. 4.2–3), καὶ περὶ θεῶν (cf. ch. 1.7), καὶ προνοίας καὶ εἰμαρμένης (cf. chs. 1.27–28), καὶ τοῦ γεννητόν εἶναι τὸν κόσμον, ἢ ἀγέννητον (cf. ch. 2.4), ἅπειρόν τε τὸ πᾶν ἢ πεπερασμένον (cf. chs. 1.5, 2.1), ἢ πολλοὺς εἶναι κόσμους ἢ ἀπεριλήπτους κατὰ τὸν ἀριθμὸν, ἢ ἓνα μόνον, τοῦτον (cf. chs. 1.5, 2.1). οὐδενὶ γὰρ ὦν εἴρηκα δογμάτων οὕτ' ἀκολουθεῖα τίς ἐστὶν οὔτε μάχη πρὸς τὸ τῆς ψυχῆς ἡγεμονικόν, ἐάν τε ἐν καρδίᾳ τις ἐάν τε ἐν ἐγκεφάλῳ φησὶ περιέχεσθαι. *Inst.Log.* 1.5 (εἰ μὲν οὖν αἰσθῇσιν προγόντες ἢ ἀποδείξει προτεϊνόμενά τι περὶ τῆς τῶν ὄντων φύσεως, ὀνομαζέσθω πρότασις (τοῦτο· οὕτω γὰρ καὶ τοῖς παλαιοῖς) ἔθος ἦν καλεῖν. *Inst.Log.* 2.1–2 (τῶν δὲ προτάσεων) εἶναι μὲν ὑπὲρ ἀπλῆς ὑπάρξεως ἀποφαινόνται, καθάπερ ὁπόταν εἴπῃς 'πρόνοια ἔστιν· 'ἵποκένταυρος οὐκ ἔστιν' {αἰνίγμα} ἢ (περὶ τῆς οὐσίας, καθάπερ) αἱ τοιαῖδε 'ὁ ἀνὴρ σῶμά ἐστιν· 'ὁ ἀνὴρ οὐκ ἔστι σῶμα', ὑπὲρ δὲ τοῦ μεγέθους 'ὁ ἥλιος (ποδιαίος ἐστίν)· 'ὁ ἥλιος) οὐκ ἔστι ποδιαίος' (cf. ch. 2.21), εἶναι δὲ ὑπὲρ τῆς ποιότητος 'ὁ ἥλιος (φύσει θερμός ἐστιν)· 'ὁ ἥλιος) οὐκ ἔστι φύσει θερμός' (cf. ch. 2.20), εἶναι δὲ ὑπὲρ τοῦ (πρός) τι 'μειζὼν ἐστὶν ὁ ἥλιος τῆς σελήνης· 'οὐ μείζων ἐστὶν ὁ ἥλιος τῆς σελήνης' (cf. ch. 2.21), εἶναι δὲ ὑπὲρ τοῦ ποτὲ 'κατὰ τὰ Πελοποννησιακὰ γέγονεν Ἰπποκράτης' ἢ 'οὐ γέγονε κατὰ τὰ Πελοποννησιακὰ', εἶναι δὲ ὑπὲρ τοῦ ποῦ 'δεύτερος ἀπὸ γῆς ἐστὶν ὁ ἥλιος· 'οὐκ ἔστιν δεύτερος ἀπὸ γῆς ὁ ἥλιος' (cf. ch. 2.15), τινὲς δὲ ὑπὲρ τοῦ κεῖσθαι 'καθήμενόν ἐστι τὸ τοῦ Διὸς Ὀλυμπιάσιν ἄγαλμα· 'οὐκ ἔστι καθήμενον τὸ τοῦ Διὸς Ὀλυμπιάσιν ἄγαλμα', τινὲς (δὲ ὑπὲρ τοῦ ἔχειν 'ὑπο)δέδεται τὸ τοῦ Διὸς ἄγαλμα· 'οὐχ ὑποδέδεται τὸ τοῦ Διὸς ἄγαλμα', τινὲς δὲ ὑπὲρ τοῦ ποιεῖν 'θερμαίνει τὸ ῥόδιον· 'τὸ ῥόδιον) οὐ θερμαίνει', εἶναι δὲ περὶ τοῦ πάσχειν 'θερμαίνεσθαι πεφύκαμεν ὑπὸ τοῦ ῥοδίνου· 'οὐ θερμαίνεσθαι πεφύ(2)καμεν ὑπὸ τοῦ ῥοδίνου'. *Inst.Log.* 14.1–

2 ὁ δ' ἐστὶ μέγιστόν τε καὶ πρῶτον ἐφ' ἑκάστου τῶν μὴ φαινομένων αἰσθήσει, τὸ κατὰ τὴν ὑπαρξιν ἥτοι οὐσίαν {γίγνεται *seclusimus*} μὴ εἶναι ζητήμ' ἐστίν, ἐν ᾧ γε τὰ τοιαῦτα προβάλλεται· ἄρ' αὖ γ' εἰμαρμένη ἔστιν (cf. chs. 1.27–28); ἄρ' αὖ γε πρόνοια ἔστιν; ἄρ' αὖ γε θεοὶ εἰσὶν (cf. ch. 1.7); ἄρ' αὖ γε κενὸν (2) ἔστιν (cf. chs. 1.18, 2.9); *Propr.Plac.* 2, p. 172.31–173.2 Boudon-Millot–Pietrobelli, text Lami πότερον ἀγέννητός ἐστιν ὁ κόσμος ἢ γέννητος (cf. ch. 2.4), εἴτε τι μετ' αὐτὸν ἔξωθεν, εἴτε μηδέν (cf. chs. 1.18, 2.9), ἔτι δὲ τὰ τοιαῦτα, ἀγνοεῖν φημι, δηλονότι καὶ τὸν δημιουργὸν ἀπάντων τῶν κατὰ τὸν κόσμον, ὁποῖός τι(ς) ἔστιν, εἴτ' ἀσώματος, εἴτε καὶ σωματοειδῆς (cf. ch. 1.7) καὶ πολὺ μᾶλλον ἐν τίνι τόπῳ διατρίβων (cf. chs. 1.7.2–4, 1.7.7, 1.7.21, 1.7.23)· ἄρ' οὖν καὶ περὶ θεῶν ἀπορεῖν φημι καθάπερ ὁ Πρωταγόρας ἔλεγεν (cf. Cic. *ND* 1.12); ἢ καὶ περὶ τούτων, ὅποιοι μὲν εἰσι τὴν οὐσίαν, ἀγνοεῖν, ὅτι δ' εἰσὶν, ἐκ τῶν ἔργων γινώσκειν. **Achilles** c. 13, pp. 20.16–21.12 Εἰ ζῶα οἱ ἀστέρες. Ζῶον δὲ ἐστίν, ὡς Εὐδωρος (fr. 10 Mazzarelli), ἔμψυχος οὐσία. τοὺς ἀστέρας δὲ ζῶα εἶναι οὕτε Ἀναξαγόρῃ (59A79 DK) οὕτε Δημοκρίτῳ ἐν τῷ Μεγάλῳ (δια)κόσμῳ (Leucippus 67B1 DK) δοκεῖ οὕτε Ἐπικούρῳ ἐν τῇ πρὸς Ἡρόδοτον Ἐπιτομῇ (*Ep.Hdt.* at D.L. 10.76–77), δοκεῖ δὲ Πλάτῳ ἐν Τιμαίῳ (40b), Ἀριστοτέλει ἐν δευτέρῳ Περὶ οὐρανοῦ (2.12 292b1–4), Χρυσίππῳ ἐν τῷ Περὶ προνοίας καὶ θεῶν (*SVF* 2.687). **Irenaeus of Lyon** *Haer.* 2.28.2 Rousseau–Doutreleau (trans. Rufini) *et non est mirum, si in spiritalibus et caelestibus et in his quae habent revelari hoc patimur nos, quandoquidem etiam eorum quae ante pedes sunt—dico autem quae sunt in hac creatura, quae et contrectantur a nobis et videntur et sunt nobiscum—multa fugerunt nostram scientiam et Deo haec ipsa committimus: oportet enim eum prae omnibus praecellere. quid enim si temptemus exponere causam ascensionis Nili* (cf. ch. 4.1)? *multa quidem dicimus, et fortassis suasoria, fortassis autem non suasoria; quod autem verum est et certum et firmum adiacet Deo. sed et volatilium animalium habitatio eorum quae verni tempore adveniunt ad nos, autumnus autem tempore statim recedunt, cum in hoc mundo hoc ipsum fiat, fugit nostram scientiam. quid autem possumus exponere de oceani accessu et recessu, cum constet esse certam causam* (cf. ch. 3.17)? *quidve de his quae ultra eum sunt enuntiare, qualia sint* (cf. chs. 1.5, 2.2)? *vel quid dicere possumus quomodo pluviae* (cf. ch. 3.4) *et coruscationes et tonitrua* (cf. chs. 3.2–3) *et collectiones nubium et nebulae* (cf. ch. 3.4) *et ventorum immissiones* (cf. ch. 3.7) *et similia his efficiuntur, adnuntiare quoque et thesauros nivium et grandinis* (cf. ch. 3.4) *et eorum quae his proxima sunt, quae autem haec nubium praeparatio, aut quis status nebulae* (cf. ch. 3.4), *quae autem causa est per quam crescit luna et decrescit* (cf. ch. 2.28), *aut quae causa aquarum distantiae* (cf. ch. 3.16) *et metallorum et lapidum et his similibus? in his omnibus nos quidem loquaces erimus, requirentes causas eorum; qui autem ea facit solus Deus veridicus est.* **Capitula Lucretiana** at *DRN*, e.g. at 1.112 *de anima* (cf. chs. 4.2–3), 1.277 *de vento* (cf. ch. 3.7), 6.535 *de terrae motu* (cf. ch. 3.13) etc. see at individual chapters. **Diogenes Laertius** *V.P.* 5.32 ἐν τε τοῖς φυσικοῖς αἰτιολογικώτατος πάντων ἐγένετο (sc. Aristotle) μάλιστα, ὥστε καὶ περὶ τῶν ἐλαχίστων τὰς αἰτίας ἀποδιδόναι (but cf. *de minimis non curat praetor*). *V.P.* 7.132 (de Stoicis) ζητοῦσι περὶ τε τῶν ἀπλανῶν καὶ τῶν πλανωμένων, οἷον εἰ ὁ ἥλιός ἐστι τηλικούτος ἡλικός φαίνεται (cf.

ch. 2.21 and our conjecture in §3), καὶ ὁμοίως εἰ ἡ σελήνη κτλ. **Arnobius of Sicca** *Adv.Nat.* 1.38 (see below, chs. 1.6, 1.7, 4.2, 4.7, 4.7a, and 4.8, all at section E(a) General texts). *Adv.Nat.* 2.7 (see below, chs. 5.2 and 5.3, at section E(a) General texts). *Adv.Nat.* 2.56–61, pp. 130.16–137.9 Marchesi *mundum quidam ex sapientibus aestimant neque esse natum neque ullo esse in tempore perituum; immortalem nonnulli, quamvis eum conscribant esse gnatum et genitum; tertiis vero conlibitum dicere est, et esse natum et genitum et ordinaria necessitate perituum* (cf. ch. 2.4). ... *eundem hunc alii elementis ex quatuor tradunt et pronuntiant stare, ex geminis alii, ex singulis tertii, sunt qui ex his nullo set individua corpora eius esse materiem et primam originem dicant* (cf. ch. 1.3). ... *sic et deos nonnulli esse abnegant prorsus; dubitare se alii an sint uspiam dicunt; alii vero existere neque humana curare: immo alii perhibent et rebus interesse mortalium et terrenas administrare rationes* (cf. ch. 1.7). ... (57) *non alia neque absimili ratione de animarum ab his condicione disseritur. hic enim eas retur et esse perpetuas et superesse mortalium functioni, superesse ille non credit, sed cum ipsis corporibus interire: alterius vero sententia est nihil eas continuo perpeti, sed post hominem positum aliquid eis ad vitam dari, mortalitatis deinde in iura succedere* (cf. ch. 4.7). ... (58) *si suspicionum exponere volueritis audaciam, potestis explicare ac promere, mundus iste qui nos habet utrumne sit (in)genitus an tempore in aliquo constitutus* (cf. ch. 2.4)? *si constitutus et factus est, quoniam operis genere aut rei cuius ob causam? potestis inducere atque expedire rationem, cur non fixus atque immobilis maneat sed orbito semper circumferatur in motu? sua ipse (se) sponte et voluntate circumagat an virtutis alicuius impulsione torqueatur? locus ipse ac spatium, in quo situs est ac volutatur, quid sit? infinitus, finitus* (cf. chs. 1.5, 2.1), *inanis an solidus* (cf. chs. 1.18, 2.9)? *axis eum sustineat extremis cardinibus nitens, an ipse se potius vi propria sufferat et spiritu interiore suspendat* (cf. ch. 3.15.8)? *potestis interrogati planum facere scientissimeque monstrare, quid nivem in plumeas subaperiat crustulas* (cf. ch. 3.4)? *quidnam fuerit rationis et causae, ut non ab occiduis partibus dies primus exurgeret et lucem in oriente finiret? quemadmodum sol ipse uno eodemque contactu tam varias res efficiat, quinimmo contrarias? quid sit luna* (cf. ch. 2.25)? *quid stellae* (cf. ch. 2.13)? *cur una specie aut illa non maneat* (cf. ch. 2.29), *aut per omne mundi corpus frustilla haec ignea convenerit atque oportuerit figi* (cf. ch. 2.14.3–4)? *cur alia ex his parva, ampliora et maiora sint alia, obtusi haec luminis, acutioris illa et fulgidae claritatis?* (59) *si praesto est quod libuerit scire et in aperto rerum est scientia constituta, edissertate nobis et dicite, quibus modis fiant et rationibus pluviae* (cf. ch. 3.4), *ut in superis partibus atque in aeris hoc medio suspensa aqua teneatur, natura res labilis et ad fluorem semper decursionemque tam prona? edissertate, inquam, et dicite, quid sit quod grandinem torqueat* (cf. ch. 3.4), *quod guttatim faciat pluviam labi* (cf. ch. 3.4), *quod imbres ruat* (cf. ch. 3.4), *nivis plumas et foliola dilatarit* (cf. ch. 3.4), *ventus unde oriatur et quid sit* (cf. ch. 3.7), *cur temporum vicissitudines institutae* (cf. ch. 3.8), *cum statui unum posset et una esse species caeli, nihil ut rerum desideraret integritas? quae est causa, quae ratio, ut maria salsa sint* (cf. ch. 3.16)

*aut terrae aquarum hae dulces (vel calidae), aliae sint amarae vel frigidae? quo ex materiae genere humanorum corporum concreta et stabilita sunt viscera, unde ossa solidata, quid intestina, quid venas fistulatas et conmeabiles fecerit? cur cum esset utilius oculis nos inluminare conpluribus ad periculum caecitatis, duorum sumus angustiiis adplicati? ... (61) quid est inquit vobis investigare, conquirere, quisnam hominem fecerit, animarum origo quae sit, quis malorum excogitaverit causas, orbe sit sol amplior an pedis unius latitudine metiatur (cf. chs. 1.titulus et index 3, 2.21.5), alieno ex lumine an propriis luceat fulgoribus luna (cf. ch. 2.28)? Lactantius Inst. 3.3.4–5 Heck–Wlosok nam causas naturalium rerum disquirere aut scire velle sol utrumne tantus quantus videtur an multis partibus maior sit quam omnis haec terra (cf. ch. 2.21), item luna globosa sit an concava (cf. ch. 2.27) et stellae utrumne adhaereant caelo an per aërem libero cursu ferantur (cf. ch. 2.16), caelum ipsum qua magnitudine, qua materia constet (cf. ch. 2.11), utrum quietum sit et immobile an incredibili celeritate volvatur, quanta sit terrae crassitudo (cf. ch. 3.9.5) aut quibus fundamentis librata et suspensa sit (cf. ch. 3.13, 3.15.7–9), (5) haec, inquam, disputando et coniecturis velle comprehendere tale est profecto, quale si disserere velimus, qualem esse arbitremur cuiuspiam remotissimae gentis urbem, quam numquam vidimus cuiusque nihil aliud quam nomen audivimus. Anon. (Porphyry?) in *Categorias*, Archim.-palimps. fol. 78^v + 75^r.20–28 (Strato fr. 26C Sharples) (cf. chs. 1.18, 2.9) τοῦ γὰρ κε[νοῦ] δοκοῦντος εἶναι τόπος [scripsimus, τόπου litteris incertis codex prob. edd.] ἐστερημένος σώματος, | λάβοντες τὸ ἐντὸς καὶ τὸ ἐκτὸς τοῦ κόσμου ὡς δύο, | [φήσομεν, τ]οῦ κενοῦ ἐνὸς κατὰ δυεῖν φερομένου, τέσ[σα]ρας γενέσθαι κατὰ διαίρεσιν προτάσεις, ἢ | ἐκτὸς (καὶ) ἐντὸς τοῦ κόσμου εἶναι κενόν ὡς Δημοκρίτῳ τε καὶ Ἐπικούρῳ ἤρεσκεν, ἢ οὔτ' ἐντὸς | οὔτε ἐκτὸς ὡς Ἀριστοτέλει καὶ Πλάτῳ, ἢ ἐκτὸς μὲν | ἐντὸς δὲ οὐ (cf. ch. 2.9.4), (καθάπερ τοῖς ἀπὸ Ζήνωνος, ἢ ἐντὸς μὲν ἐκτὸς δὲ οὐ) καθάπερ Στράτῳ ἐδοξεν [lacun. ex. gr. suppl. prob. edd. ap. Sharples]. Marius Victorinus in *Rhet.* 1.45, p. 114.22–28 Riesenweber *ergo, ut diximus, ex his quae in opinione sunt posita probabile colligitur argumentum, si dicas inferos esse vel non esse, deos esse vel non esse* (cf. ch. 1.7.1), *mundum natum, mundum non esse natum* (cf. ch. 2.4). {istae opiniones δόγματα dicuntur; δοκῶ enim Graece opinor et δόγμα opinio nuncupatur. secl. Orelli prob. Riesenweber} *adeo manifestum est omnia quae in mundo aguntur argumentis probabilibus persuaderi, quando etiam philosophorum professionibus ex opinione nomen impositum est ut δόγματα dicantur. Ambrose of Milan Exp. Psalm. 118, p. 215.20–21 Petschenig at illi, qui de rerum natura disputant, caeli scrutantur plagas* (cf. ch. 2.12; Ennius fr. 244 Vahlen, Cic. Resp. 1.30, Div. 2.30); *qui se ipsos scire non possunt, putant intelligentiam sine Dei dono posse concedi. Augustine Conf. 10.16 neque enim nunc 'scrutamur plagas caeli'* (cf. above on Ambrose) *aut siderum intervalla* (cf. ch. 2.31) *dimetimur vel terrae libramenta* (cf. ch. 3.11, ch. 3.15) *quaerimus. Isidore of Pelusium Ep. 2.273, MPG 78.704A σκοπήσωμεν οὖν, τί ἡμῖν λυσিতেλεῖ εἰς μακαριότητα, τί δ' οὐ· καὶ οὕτως βασιανίσωμεν τὰ λεγόμενα. τὸ λέγειν ἢ σφαῖραν εἶναι τὸν οὐρανόν, ἢ ἡμισφαῖριον* (cf. 2.11) *καὶ τὸ πολυπραγμονεῖν, ἡλίου μὲν τὸν ὠκύτατον δρόμον, σελήνης δὲ μειώσεις τε καὶ αὐξή-**

σεις (cf. 2.27), και τῶν ἄστρον τὴν θέσιν (cf. 2.15)· και τὸ ζητεῖν περὶ γῆς, ἡ κύλινδρός ἐστιν ἢ λικνοειδής (cf. 3.10), ἢ κέντρον τοῦ παντός (cf. 3.11), και τὸ τὰ ἐκείνου ἢ ταύτης διαστήματα εἰδέναι (cf. 2.31), τί συμβάλλεται εἰς ἀρίστην πολιτείαν, ἐγὼ μὲν οὐ συνορώ. **Philoponus in APO.** 238.22–239.5 εἰ γὰρ αἱ ἀποδείξεις τὰ ὑπάρχοντα τοῖς πράγμασιν ἀποδεικνύουσι, τοῦτο δ' ἐστὶν ἢ τὸ τί ἐστὶ τῶν πραγμάτων, λέγω δὴ τοὺς ὁρίσμούς, ἢ τὸ ποῖον τῶν οὐσιῶν ἢ τὸ ποσὸν ἢ τινα τῶν ἄλλων κατηγοριῶν, οἷον ὅταν μὲν ζητῶμεν, εἰ τύχοι, περὶ οὐρανοῦ, πότερον ἐκ τῶν τεσσάρων στοιχείων συνέστηκεν ἢ ἐτέρας τινός ἐστιν οὐσίας (cf. ch. 2.11), τὸ τί ἐστὶν αὐτοῦ ζητοῦμεν· ὅταν δὲ πότερον σφαιροειδής ἐστιν ἢ ποῖον ἕτερον ἔχει σχῆμα, τὸ ποῖον (cf. chs. 2.2 and 3.10)· ὅταν δὲ (πότερον) ἄπειρος ἢ πεπερασμένος, τὸ ποσὸν (cf. ch. 2.1.7–8)· ὅταν δὲ πότερον πάντα τὰ ὄντα ἐντὸς αὐτοῦ περιέχει ἢ οὐ, τὸ πρὸς τι (cf. chs. 1.5, 1.18, 2.9)· ὅταν δὲ πότερον ὁρᾷ εἰς τὰ τῆδε ἢ οὐ, και ὁρῶν ἄρα και ἀντιπᾶσχει ἢ οὐ, τὸ ποιεῖν και τὸ πᾶσχειν· ὅταν δὲ πότερον αἰδῖος ἢ οὐ, τὸ ποτέ (cf. ch. 2.4)· και ἐπὶ τῶν λοιπῶν ὡσαύτως. **Isidore of Seville** (excerpting Lact. *Inst.* 3.3.4–5, cited above) *Etym.* 2.24.2 *scientia est, cum res aliqua certa ratione percipitur; opinatio autem, cum adhuc incerta res latet et nulla ratione firma videtur, utputa sol utrumne tantus quantus videtur, an maior sit quam omnis terra* (cf. ch. 2.21): *item luna globosa sit an concava* (cf. ch. 2.26), *et stellae utrumne adhaereant caelo, an per aërem libero cursu ferantur* (cf. ch. 2.15): *caelum ipsum qua magnitudine, qua materia constat* (cf. ch. 2.11), *utrum quietum sit et immobile, an incredibili celeritate volvatur: quanta sit terrae crassitudo* (cf. ch. 3.9.5a), *aut quibus fundamentis librata et suspensa permaneat* (cf. ch. 3.13, 3.15.7–9).

exempla physica dogmatica: **Strabo** 1.1.20; 2.5.2 ἡ δὲ φυσικὴ ἀρετὴ τις· τὰς δ' ἀρετὰς ἀνυποθέτους φασὶν ἐξ αὐτῶν ἡρτημένας, και ἐν αὐταῖς ἐχούσας τὰς τε ἀρχὰς και τὰς περὶ τούτων πίστεις. τὰ μὲν οὖν παρὰ τῶν φυσικῶν δεικνύμενα τοιαῦτά ἐστι· σφαιροειδής μὲν ὁ κόσμος και ὁ οὐρανός (cf. ch. 2.2), ἡ ῥοπή δ' ἐπὶ τὸ μέσον τῶν βαρέων (cf. ch. 1.12)· περὶ τοῦτο τε συνεστῶσα ἡ γῆ σφαιροειδῶς (cf. ch. 3.10) ὁμόκεντρος τῷ μὲν οὐρανῷ μένει και αὐτῇ (cf. ch. 3.11) και ὁ δι' αὐτῆς ἄξων και τοῦ οὐρανοῦ μέσου τεταμένος, ὁ δ' οὐρανός περιφέρεται περὶ τε αὐτὴν και περὶ τὸν ἄξονα ἀπ' ἀνατολῆς ἐπὶ δύσιν (cf. ch. 2.10), σὺν αὐτῷ δὲ οἱ ἀπλανεῖς ἀστέρεις ὁμοταχεῖς τῷ πῶλῳ (cf. ch. 2.16). οἱ μὲν οὖν ἀπλανεῖς ἀστέρες κατὰ παραλλήλων φέρονται κύκλων· παράλληλοι δ' εἰσὶ γνωριμῶτατοι ὅ τε ἰσημερινός και οἱ τροπικοὶ δύο και οἱ ἀρκτικοί (cf. ch. 2.16)· οἱ δὲ πλάνητες ἀστέρες και ἥλιος και σελήνη κατὰ λοξῶν τινων τῶν τεταγμένων ἐν τῷ ζωδιακῷ. τούτοις δὲ πιστεύσαντες ἢ πᾶσιν ἢ τισὶν οἱ ἀστρονομικοὶ τὰ ἐξῆς πραγματεύονται, κινήσεις και περιόδους (cf. ch. 2.16) και ἐκλείψεις (cf. chs. 2.24, 2.29) και μεγέθη (cf. chs. 2.21, 2.26) και ἀποστάσεις (cf. ch. 2.31) και ἄλλα μυρία. **Ptolemy Synt.** 1.3–6.

exempla ethica (ζητήματα or προβλήματα ἠθικά): **Cicero Inv.** 1.8 *quaestionem autem eam appellat* (Hermagoras fr. IB 6a Mathes, T14 Woerther), *quae habeat in se controversiam in dicendo positam sine certarum personarum interpositione, ad hunc modum: 'ecquid sit bonum praeter honestatem?'* (cf. **Marius Victorinus in Rhet.** 1.8, pp. 30.24–31.12 Riesenweber). **Top.** 81–82 *quaestionum autem 'quacumque de re' sunt duo genera: unum cognitionis alterum actionis. (82) cognitionis sunt eae quarum est finis scientia, ut si quaeratur a naturane*

*ius profectum sit an ab aliqua quasi condicione hominum et pactione. actionis autem huius modi exempla sunt: 'sitne sapientis ad rem publicam accedere'. Part.Or. 62 prius de proposito dicamus: cuius genera sunt duo, cognitionis alterum; eius scientia est finis, ut verine sint sensus (cf. ch. 4.9): alterum actionis; quod refertur ad faciendum quid, ut si quaeratur quibus officiis amicitia colenda sit. Div. 2.11 quid? quem ad modum sit cum parentibus, cum fratribus, cum amicis vivendum? quem ad modum utendum pecunia, quem ad modum honore, quem ad modum imperio? ad sapientes haec, non ad divinos referri solent. Epictetus Diss. 3.23.17.1 τὸν διδάζοντα, πῶς δεῖ βιοῦν; Novum Testamentum Tit. 3:12 τέκνων καλῶς προϊστάμενοι. Seneca De ot., Dial. 8.4.2 huic maiori rei publicae et in otio deservire possumus, immo vero nescio an in otio melius, ut quaeramus quid sit virtus, una pluresne sint, natura an ars bonos viros faciat [for the sequel see above at *exempla physica*]. Aelius Theon Progymn. §11, 120.13–15 Patillon–Bolognesi θέσις ἐστὶ πρᾶγμα λογικὴν ἀμφισβήτησιν ἐπιδεχομένον ἄνευ προσώπων ὠρισμένων καὶ πάσης περιστάσεως, οἷον εἰ γαμητέον, εἰ παιδοποιητέον. Progymn. §11, 121.7–12 Patillon–Bolognesi ἐπεὶ δὲ τῶν θέσεων ... αἱ δὲ πρακτικαὶ εἰς τινα πρᾶξιν τὴν ἀναφορὰν ἔχουσιν, οἷον εἰ γαμητέον, φανερόν ὅτι αἱ μὲν πρακτικαὶ καὶ πολιτικώτεραί εἰσι καὶ κατὰ τὸν ῥητορικὸν χαρακτηρᾶ. Origen CC 3.12, p. 161.3–5 Marcovich ἡ φιλοσοφία ἀλήθειαν ἐπαγγελλομένη καὶ γινώσκουσιν τῶν ὄντων, πῶς δεῖ βιοῦν ὑποτίθεται καὶ πειράται διδάσκειν τὰ ὠφέλιμα ἡμῶν τῷ γένει. Iamblichus Protr. 20, p. 93.28 Pistelli τὸ πῶς δεῖ βιοῦν. Aspasius in EN 6.11–13 ὑπάρχει δὲ τῇ πολιτικῇ καὶ τὸ χρῆσθαι ταῖς πρακτικαῖς τῶν ἐπιστημῶν καὶ τὸ νομοθετεῖν (ἧ) προστάττειν τίνα δεῖ πράττειν καὶ τίνων ἀπέχεσθαι. Philo of Larissa at Stob. Ecl. 2.7.2, p. 41.6–16 καὶ δὴ κάπὶ τοῦ βίου θεωρημάτων τινῶν ἐστὶ χρεῖα, δι' ὧν ἡ φυλακὴ γενήσεται τοῦ τέλους. διττὸς δὲ καὶ ὁ περὶ βίων λόγος, ὃ μὲν ἴδιος, ὃ δὲ κοινός· ὧν τὸν μὲν ἴδιον ἐπισκοπεῖν δεόν ἐστὶ τὰ πρὸς ἕκαστον, οἷον εἰ τῷ νοῦν ἔχοντι πολιτευτέον ἢ τοῖς ἡγεμονικοῖς συμβιωτέον, ἢ γαμητέον τῷ σοφῷ· τὸν δὲ κοινὸν (τὰ) πρὸς ἅπαντας, οἷον ἐστὶ· τίς ἀρίστη πολιτεία; εἰ κοινὰς ποιητέον τὰς ἀρχὰς ἢ τιμητάς; τοῦτον δὲ τὸν κοινὸν προσαγορευτέον μὲν πολιτικόν, τακτέον δὲ καθ' αὐτὸν καίπερ ὄντα μέρος τοῦ περὶ βίων διὰ τε τὸ μέγεθος καὶ τὴν κοινότητα. Doxographia Ethica C (ascribed to AD) at Stob. Ecl. 2.24, pp. 143.24–145.10 (cf. above p. 150 Diogenes Laertius V.P. 5.31) βίον δ' αἰρήσεσθαι τὸν σπουδαῖον (τὸν σύνθετον add. Moraux) τὸν μετ' ἀρετῆς, εἴτ' ἐφ' ἡγεμονίας ποτὲ γένοιτο, τῶν καιρῶν αὐτὸν προαγαγόντων, εἴτε τινὶ βασιλεῖ δέοι συμβιοῦν εἴτε καὶ νομοθετεῖν ἢ ἄλλως πολιτεύεσθαι. ... προαιρησεσθαι μὲν γὰρ καὶ πράττειν καὶ θεωρεῖν τὰ καλά. κωλυόμενον δὲ περὶ ἄμφω γίνεσθαι διὰ καιροῦς, θατέρῳ χρῆσεσθαι, προτιμῶντα μὲν τὸν θεωρητικὸν βίον, διὰ δὲ τὸ κοινωνικὸν ἐπὶ τὰς πολιτικὰς ὁρμώντα πράξεις. δι' ὃ καὶ γαμήσειν καὶ παιδοποιήσεσθαι καὶ πολιτεύεσθαι καὶ ἐρασθήσεσθαι τὸν σῶφρονα ἔρωτα καὶ μεθυσθήσεσθαι κατὰ συμπεριφοράς, καὶ εἰ μὴ προηγουμένως. ... βίων δὲ τριττὰς ἰδέας εἶναι, πρακτικόν, θεωρητικόν, σύνθετον ἐξ ἀμφοῖν (τὸν μὲν γὰρ ἀπολαυστικὸν ἥττονα ἢ κατ' ἀνθρώπον εἶναι), προκρίνεσθαι δὲ τῶν ἄλλων τὸν θεωρητικόν. πολιτεύεσθαι τε τὸν σπουδαῖον προηγουμένως, μὴ κατὰ περίστασιν· τὸν γὰρ πρακτικὸν βίον τὸν αὐτὸν εἶναι τῷ πολιτικῷ. (κτλ.) (see also above at *exempla physica*: Aelius Theon, ps.Hermogenes).*

b Sources and Other Parallel Texts

General texts: Aristotle *Top.* 1.14 105b19–25 ἔστι δ' ὡς τύπῳ περιλαβεῖν τῶν προτάσεων καὶ τῶν προβλημάτων μέρη τρία· αἱ μὲν γὰρ ἠθικαὶ προτάσεις εἰσὶν, αἱ δὲ φυσικαὶ, αἱ δὲ λογικαὶ. ἠθικαὶ μὲν οὖν αἱ τοιαῦται, οἷον πότερον δεῖ τοῖς γονεῦσι μᾶλλον ἢ τοῖς νόμοις πειθαρχεῖν, ἐὰν διαφωνῶσιν· λογικαὶ δὲ οἷον πότερον τῶν ἐναντιῶν ἢ αὐτῇ ἐπιστήμῃ ἢ οὐ· φυσικαὶ δὲ οἷον πότερον ὁ κόσμος αἰδῖος ἢ οὐ (cf. ch. 2.4). ὁμοίως δὲ καὶ τὰ προβλήματα. *APo.* 1.23 89b7–9 τὰ δὲ λοιπὰ πῶς δεῖ διανεῖμαι ἐπὶ τε διανοίας καὶ νοῦ καὶ ἐπιστήμης καὶ τέχνης καὶ φρονήσεως καὶ σοφίας, τὰ μὲν φυσικῆς τὰ δὲ ἠθικῆς θεωρίας μᾶλλον ἔστιν. *PA* 1.1 642a24–31. *Met.* α.1 993.19–23 ὁρθῶς δ' ἔχει καὶ τὸ καλεῖσθαι τὴν φιλοσοφίαν ἐπιστήμην τῆς ἀληθείας. θεωρητικῆς μὲν γὰρ τέλος ἀλήθεια, πρακτικῆς δ' ἔργον (note that the ποιητική has been omitted)· καὶ γὰρ ἂν τὸ πῶς ἔχει σκοπῶσιν, οὐ τὸ αἰδῖον ἀλλ' ὁ πρὸς τι καὶ νῦν θεωροῦσιν οἱ πρακτικοί. *Resp.* 21 480b22–30 περὶ δὲ ὑγείας καὶ νόσου οὐ μόνον ἔστιν ἱατροῦ ἀλλὰ καὶ τοῦ φυσικοῦ μέχρι τοῦ τὰς αἰτίας εἰπεῖν. ἢ δὲ διαφέρουσι καὶ ἢ διαφέροντα θεωροῦσιν, οὐ δεῖ λανθάνειν, ἐπεὶ ὅτι γε σύνορος ἡ πραγματεία μέχρι τίνος ἔστι, μαρτυρεῖ τὸ γινόμενον· τῶν τε γὰρ ἱατρῶν ὅσοι κομποὶ καὶ περίεργοι λέγουσι τι περὶ φύσεως καὶ τὰς ἀρχὰς ἐκείθεν ἀξιοῦσι λαμβάνειν, καὶ τῶν περὶ φύσεως πραγματευθέντων οἱ χαριέστατοι σχεδὸν τελευτῶσιν εἰς τὰς ἀρχὰς τὰς ἱατρικὰς. **ps.Aristotle** *Div.Arist.* 42 διαιρεῖται τὰ ἐν φιλοσοφίᾳ προβλήματα εἰς πέντε. ἔστι γὰρ αὐτῶν ἐν μὲν πολιτικόν, ἐν δὲ διαλεκτικόν, ἐν δὲ φυσικόν, ἐν δὲ ἠθικόν, ἐν δὲ ῥητορικόν. πολιτικόν μὲν οὖν ἔστι τὸ ὑπὲρ νόμων καὶ τινων τιμωριῶν προβαλλόμενον, οἷον πότερον δεῖ κολάζειν τὰ ξενικὰ ἀμαρτήματα ἢ τὰ πολιτικὰ ἢ ἀνόμοια ἢ τᾶλλα τὰ τοιαῦτα. διαλεκτικόν δὲ, οἷον πότερον τῶν ἐναντιῶν ἢ αὐτῇ ἐπιστήμῃ ἢ ἑτέρα, καὶ τᾶλλα τὰ τοιαῦτα. φυσικόν δὲ, οἷον πότερον εἰς κόσμος ἔστιν ἢ πλείους (cf. chs. 1.5, 2.1), καὶ τᾶλλα τὰ τοιαῦτα. ἠθικόν δὲ, οἷον πότερον δεῖ πάντα χαρίζεσθαι τοῖς φίλοις ἢ τὰ μὲν τὰ δὲ οὐ, καὶ τᾶλλα τὰ τοιαῦτα. ῥητορικόν δὲ, οἷον ἐὰν τις ὑπὲρ ποιητῶν κατηγορῇ ἢ ἀπολογηται, οἷον διατὶ τὸν Ὀδυσσεῆα οἱ ἑταῖροι φρονιμώτατον ὄντα ἐξέθηκάν εἰς τὴν νῆσον καθεύδοντα, καὶ τὰ τοιαῦτα. **Cicero** *de Or.* 1.212 *philosophi denique ipsius, qui de sua vi ac sapientia unus omnia paene profitetur, est tamen quaedam descriptio, ut is, qui studeat omnium rerum divinarum atque humanarum vim, naturam causasque nosse et omnem bene vivendi rationem tenere et persequi, nomine hoc appelletur.* *Fin.* 5.58 *ergo hoc quidem apparet, nos ad agendum esse natos. actionum autem genera plura, ut obscurantur etiam minora maioribus; maximae autem sunt primum, ut mihi quidem videtur et iis, quorum nunc in ratione versamur, consideratio cognitioque rerum caelestium et earum quas a natura occultatas et latentes indagare ratio potest, deinde rerum publicarum administratio aut administrandi scientia, tum prudens, temperata, fortis, iusta ratio reliquaeque virtutes et actiones virtutibus congruentes.* **Philo of Alexandria** *Leg.* 1.57 (SVF 3.202) ἢ δὲ ἀρετὴ καὶ θεωρητικὴ ἔστι καὶ πρακτικὴ· καὶ γὰρ θεωρίαν ἔχει, ὁπότε καὶ ἢ ἐπ' αὐτὴν ὁδὸς φιλοσοφία διὰ τῶν τριῶν αὐτῆς μερῶν, τοῦ λογικοῦ, τοῦ ἠθικοῦ, τοῦ φυσικοῦ, καὶ πράξεις· ὅλον γὰρ τοῦ βίου ἐστὶ τέχνη ἢ ἀρετὴ· ἀλλὰ καίτοι θεωρίαν ἔχουσα καὶ πράξιν, πάλιν ἐν ἑκατέρῳ ὑπερβάλλει κατὰ τὸ κρεῖττον· καὶ γὰρ ἢ θεωρία τῆς ἀρετῆς παγκάλη καὶ ἢ πράξις καὶ ἢ χρῆσις περιμάχης. *Agr.* 14–15 τὸν γοῦν κατὰ φιλοσοφίαν λόγον τριδύμον ὄντα τοὺς παλαιούς

(SVF 2.39) ἀγρῷ φασιν ἀπεικάσαι, τὸ μὲν φυσικὸν αὐτοῦ δένδροις καὶ φυτοῖς παραβάλλοντας, τὸ δ' ἠθικὸν καρποῖς, ὧν ἕνεκα καὶ τὰ φυτά, τὸ δ' αὖ λογικὸν φραγμῷ καὶ περιβόλῳ· (15) καθάπερ γάρ τὸ περικείμενον τείχος ὁπώρας καὶ φυτῶν τῶν κατὰ τὸν ἀγρὸν ἐστὶ φυλακτῆριον τοὺς ἐπὶ τῷ σίνεσθαι παρειασφθεῖρεσθαι βουλομένους ἀνείργον, τὸν αὐτὸν τρόπον τὸ λογικὸν μέρος φιλοσοφίας φρουρά τις ἐστὶν ὀχυρωτάτη τῶν дуεῖν ἐκείνων, ἠθικοῦ τε καὶ φυσικοῦ. *Mut.* 74. *Virt.* 8 τοῦτον τὸν πλοῦτον σοφία χορηγεῖ διὰ λογικῶν καὶ ἠθικῶν καὶ φυσικῶν δογμάτων καὶ θεωρημάτων, ἐξ ὧν φύεσθαι τὰς ἀρετὰς συμβέβηκεν, αἱ τῆς ψυχῆς ὑποτέμνονται τὴν πολυτέλειαν εὐκολίας καὶ ὀλιγοδείας ἔρωτας ἐντίκτουςι κατὰ τὴν πρὸς θεὸν ἐξομοίωσιν (cf. Pl. *Tht.* 176b). differently *Prob.* 8o (on the Essenes) φιλοσοφίας τε τὸ μὲν λογικὸν ὡς οὐκ ἀναγκαῖον εἰς κτήσιν ἀρετῆς λογοθήραις, τὸ δὲ φυσικὸν ὡς μείζον ἢ κατὰ ἀνθρωπίνην φύσιν μετεωρολέσχαις ἀπολιπόντες, πλὴν ὅσον αὐτοῦ περὶ ὑπάρξεως θεοῦ (cf. ch. 1.7.1) καὶ τῆς τοῦ παντὸς γενέσεως (cf. ch. 1.4) φιλοσοφεῖται, τὸ ἠθικὸν εὖ μάλα διαπονοῦσιν ἀλείπταις χρώμενοι τοῖς πατρίοις νόμοις, οὓς ἀμήχανον ἀνθρωπίνην ἐπινοῆσαι ψυχὴν ἄνευ κατοκωχῆς ἐνθέου. *Cornutus Comp.* c. 14, p. 12.6–11 Torres λέγονται δὲ παρὰ τισι καὶ δύο μόναι εἶναι (sc. Μοῦσαι), παρ' οἷς δὲ τρεῖς, παρ' οἷς δὲ τέτταρες, παρ' οἷς δὲ ἑπτὰ· τρεῖς μὲν διὰ τὴν προειρημένην τῆς τριάδος τελειότητα ἢ καὶ διὰ τὸ τρία γένη σκευμάτων εἶναι, δι' ὧν ὁ κατὰ φιλοσοφίαν λόγος συμπληροῦται (cf. §2)· δύο δὲ ἀπὸ τοῦ θεωρεῖν τε καὶ πράττειν τὰ δέοντα ἐπιβάλλειν ἡμῖν καὶ ἐν δυσὶ τούτοις συνίστασθαι τὸ πεπαιδευθῆναι (cf. §3). *Comp.* c. 20, p. 31.18–21 Torres Τριτογένεια ... ἄλλοι δὲ φασι διὰ τούτου παρίστασθαι τὰ τρία γένη τῶν σκευμάτων τῆς κατὰ φιλοσοφίαν θεωρίας. *Hero Mechanicus Def.* 138.1 ἐκ τῶν Ἀνατολίου. Ἀριστοτέλης συνεστάναι τὴν πᾶσαν φιλοσοφίαν ἐκ θεωρίας καὶ πράξεως οἰόμενος καὶ τὴν μὲν πρακτικὴν διαιρῶν εἰς ἠθικὴν καὶ πολιτικὴν, τὴν δὲ θεωρίαν εἰς θεολογικὴν καὶ τὸ φυσικὸν καὶ τὸ μαθηματικόν, μάλα σαφῶς καὶ ἐντεχνῶς φιλοσοφίαν τὴν μαθηματικὴν ἀποδείκνυσιν. *Quintilian Inst.* 12.2.20–22 *pars vero naturalis, cum est ad exercitationem dicendi tanto ceteris uberior, quanto maiore spiritu (de) divinis rebus quam humanis eloquendum est, tum illam etiam moralem, sine qua nulla esse, ut docuimus, oratio potest, totam complectitur.* (21) *nam si regitur providentia mundus, administranda certe bonis viris erit res publica: si divina nostris animis origo, tendendum ad virtutem nec voluptatibus terreni corporis serviendum.* ... (22) *haec si rationi manifesta non essent, exemplis tamen crederemus, si quidem et Periclem, cuius eloquentiae, etiam si nulla ad nos monumenta venerunt, vim tamen quandam incredibilem cum historici tum etiam liberrimum hominum genus, comici veteres tradunt, Anaxagorae physici (—) constat auditorem fuisse.* *Pollux Onom.* 4.40 καὶ βίος πολιτικός ὁ καὶ πρακτικός, λογικός ὁ καὶ παιδευτικός, θεωρητικός ὁ καὶ φυσικός. *Atticus fr.* 1 Des Places at Eus. *PE* 11.2.1 τριχὴ τοῖνον διαιρουμένης τῆς ἐντελοῦς φιλοσοφίας, εἷς τε τὸν ἠθικὸν καλούμενον τόπον καὶ τὸν φυσικὸν καὶ ἔτι τὸν λογικὸν κτλ. *Galen Lib.Prop.* c. 19.tit–2, 19.48.1–7 K., pp. 172.17–173.1 Boudon-Millot (tit. Τὰ πρὸς τὴν Ἐπικούρου φιλοσοφίαν ἀνήκοντα) ... 19.2 Εἰ ἡ φυσιολογία χρῆσιμος εἰς τὴν ἠθικὴν φιλοσοφίαν, ἔν. *Alexander of Aphrodisias in Apr.* 1.3–14 ἡ λογικὴ τε καὶ συλλογιστικὴ πραγματεία ... ἔστι μὲν ἔργον φιλοσοφίας, ... οὕσα δὲ ἔργον αὐτῆς τοῖς μὲν (SVF 2.49a) καὶ μέρος φιλοσοφίας εἶναι δοκεῖ, οἱ δὲ οὐ μέρος ἀλλ'

ὄργανον αὐτῆς φασιν εἶναι. οἱ μὲν οὖν μέρος αὐτὴν λέγοντες ἡνέχθησαν ἐπὶ τοῦτο, διότι ὥσπερ περὶ τὰ ἄλλα, ἃ ὁμολογεῖται πρὸς ἀπάντων μέρη φιλοσοφίας εἶναι, ἡ φιλοσοφία καταγίνεται ἔργον ποιούμενη τὴν τε εὖρεσιν αὐτῶν καὶ τὴν τάξιν τε καὶ σύστασιν, οὕτω δὴ καὶ περὶ τὴν πραγματείαν τήνδε. οὕσα δὲ ταύτης ἔργον οὐδετέρου τῶν λοιπῶν τῆς φιλοσοφίας μερῶν μόνιον ἐστὶν οὔτε τοῦ θεωρητικοῦ οὔτε τοῦ πρακτικοῦ. *in Top.* 95.3–7 ἡθικὰς (sc. προτάσεις) μὲν γὰρ ἐροῦμεν τὰς τοιαύτας, ὅτι ὁ μὴ τοῦ καλοῦ χάριν κοινωνῶν οὐκ ἐλευθέριος, ὅτι ἡ ἀρετὴ δι' αὐτὴν αἰρετὴ, ὅσα περὶ αἰρετῶν, ὅσα περὶ πρακτῶν· φυσικὰς δὲ ὅσαι περὶ αὐξήσεως καὶ ὅσαι περὶ κινήσεως (cf. ch. 1.23) καὶ ὅσαι περὶ γενέσεως καὶ φθορᾶς (cf. ch. 1.24), καὶ ὅτι πᾶν τὸ γενητὸν φθαρτὸν, καὶ τὰς τούτων ἐχομένας. **ps.Galen** tit. Περὶ εἰδῶν φιλοσοφίας (but see Petrucci 2009: this is a witness for the text of David *Proleg.*). **Diogenes Laertius** *V.P.* 7.41 ὁ δὲ Κλεάνθης (*SVF* 1.482) ἔξ μέρη φησί (sc. τοῦ κατὰ φιλοσοφίαν λόγου) διαλεκτικόν, ῥητορικόν, ἡθικόν, πολιτικόν, φυσικόν, θεολογικόν. ἄλλοι δ' οὐ τοῦ λόγου ταῦτα μέρη φασίν, ἀλλ' αὐτῆς (τῆς) φιλοσοφίας, ὡς Ζήνων ὁ Ταρσεύς (*SVF* 3 Zeno Tars. 3). *V.P.* 10.29–30 (*Epicurea* pp. 104, 94, 124, 131 Usener) διαιρεῖται τοίνυν εἰς τρία, τό τε κανονικόν καὶ φυσικόν καὶ ἡθικόν. (30) τὸ μὲν οὖν κανονικόν ἐφόδους ἐπὶ τὴν πραγματείαν ἔχει, καὶ ἔστιν ἐν ἐνὶ τῷ ἐπιγραφομένῳ Κανῶν· τὸ δὲ φυσικόν τὴν περὶ φύσεως θεωρίαν πᾶσαν, καὶ ἔστιν ἐν ταῖς Περὶ φύσεως βίβλοις ἐπτὰ καὶ τριάκοντα καὶ ταῖς Ἐπιστολαῖς κατὰ στοιχείον· τὸ δὲ ἡθικόν τὰ περὶ αἰρέσεως καὶ φυγῆς· ἔστι δὲ καὶ ἐν ταῖς Περὶ βίων βίβλοις καὶ Ἐπιστολαῖς καὶ τῷ Περὶ τέλους. εἰώθασι μὲντοι τὸ κανονικόν ὁμοῦ τῷ φυσικῷ τάττειν· || (from here not in Usener) καλοῦσι δ' αὐτὸ περὶ κριτηρίου καὶ ἀρχῆς, καὶ στοιχειωτικόν· τὸ δὲ φυσικόν περὶ γενέσεως καὶ φθορᾶς, καὶ περὶ φύσεως· τὸ δὲ ἡθικόν περὶ αἰρετῶν καὶ φευκτῶν καὶ περὶ βίων καὶ τέλους. **Iamblichus** *CMSc.* c. 30. **Julian** *Or.* 7 215d μικρὰ οὖν ὑπὲρ τῶν τῆς φιλοσοφίας εἴτε μορίων εἴτε ὀργάνων (ῥητέον). ἔστι γὰρ οὐ μέγα τὸ διαφέρειν ὁποτέρως ἂν τις τῷ {τε} πρακτικῷ ἢ τῷ φυσικῷ τὸ λογικόν προσαρτιθῇ· ἀναγκαῖον γὰρ ὁμοίως φαίνεται κατ' ἀμφοτέρω. κτλ. **Aphthonius** *Prog.* c. 13.1 Patillon θέσις ἐστὶν ἐπίσκεψις λογικῇ θεωρουμένου τινὸς πράγματος. τῶν δὲ θέσεων αἱ μὲν εἰσι πολιτικάι, αἱ δὲ θεωρητικάι· καὶ πολιτικάι μὲν αἱ πρᾶξιν ἔχουσαι πόλιν συνέχουσιν, οἷον εἰ γαμητέον, εἰ πλευστέον, εἰ τειχιστέον· ταῦτα γὰρ πάντα πόλιν συνέχει γινόμενα· θεωρητικάι δὲ αἱ μόνω τῷ νῷ θεωρούμεναι, οἷον εἰ σφαιροειδὴς ὁ οὐρανός (cf. ch. 2.2), εἰ κόσμοι πολλοί (cf. chs. 1.5, 2.1)· ταῦτα γὰρ εἰς πείραν μὲν ἀνθρώποις οὐκ ἔρχεται, μόνω δὲ θεωρεῖται τῷ νῷ. cf. **Ioannes Sardianis** *Comm. in Aphthonium* pp. 232.9–233.22 Rabe. **Augustine** *C.D.* 8.4.17–33 Dombart-Kalb *itaque cum studium sapientiae in actione et contemplatione versetur, unde una pars eius activa, altera contemplativa dici potest (quarum activa ad agendam vitam, id est ad mores instituendos pertinet, contemplativa autem ad conspiciendas naturae causas et sincerissimam veritatem): Socrates in activa excelluisse memoratur; Pythagoras vero magis contemplativae, quibus potuit intelligentiae viribus, instituisse. proinde Plato utrumque iungendo philosophiam perfecisse laudatur, quam in tres partes distribuit: unam moralem, quae maxime in actione versatur; alteram naturalem, quae contemplationi deputata est; tertiam rationalem, qua verum disternitur a falso. quae licet utrique, id est actioni et contemplationi, sit necessaria, maxime tamen contemplatio perspectionem*

sibi vindicat veritatis. ideo haec tripartitio non est contraria illi distinctioni, qua intellegitur omne studium sapientiae in actione et contemplatione consistere.

Ammonius Hermeiou in Isag. 3.7–19 ἔστι δὲ καὶ τοιοῦτος ὁρισμὸς (sc. τῆς φιλοσοφίας) ἀπὸ τοῦ τέλους ὁ λέγων φιλοσοφία ἐστὶ ‘ὁμοίωσις θεῶ κατὰ τὸ δυνατόν’ (Pl. *Tht.* 176b) ‘ἀνθρώπων’ (*Resp.* 10 613a). οὕτω γὰρ ὁ Πλάτων ὠρίσατο. ὁ γὰρ θεὸς διττὰς ἔχει τὰς ἐνεργείας, τὰς μὲν γνωστικὰς, καθ’ ἃς τὰ πάντα γινώσκει ..., τὰς δὲ προνοητικὰς τῶν καταδεεστέρων, καθ’ ἃς τοῦ κόσμου ὅλου προνοεῖται, ... ὁ δὲ φιλόσοφος κατ’ ἄμφορ βούλεται ἐξομοιοῦν ἑαυτὸν τῷ θεῷ· βούλεται γὰρ καὶ θεωρητῆς εἶναι τῶν πάντων (πάντα γὰρ ἐπισκέπτεται), καὶ μέντοι καὶ πρόνοιαν τῶν καταδεεστέρων ποιεῖται (ὁ γὰρ τοι πολιτικὸς φιλόσοφος δικάζει καὶ νόμους τίθησιν). *in Isag.* 10.10–13 [passage bracketed by Busse, heeding Wendland’s ‘ineptum est de ordine partium loqui priusquam quae sint partes exposueris’] διαιρεῖται γάρ, ὡς ἀνωτάτω διελεῖν ἔστι, κατὰ μὲν τινὰς εἰς δύο, κατὰ δὲ ἑτέροισι εἰς τρία· τινὲς γὰρ εἰς τρία διαιροῦσι τὸν φιλοσοφίαν, εἰς θεωρητικὸν καὶ πρακτικὸν καὶ λογικόν. *in Isag.* 16.6–7 ἦθος τοίνυν ἐστὶν ἀνθρώπου κόσμος, κόσμος δὲ ἡ ἐκάστου τελειότης. *in Isag.* 11.6–22 διαιρεῖται οὖν ἡ φιλοσοφία ... εἰς τὸ θεωρητικὸν καὶ πρακτικόν. ἄξιον δὲ ζητῆσαι, δι’ ἣν αἰτίαν εἰς δύο καὶ διὰ τί εἰς ταῦτα διαιρεῖται καὶ μῆτε εἰς πλείονα μῆτε εἰς ἐλάττονα. ... πάλιν δὲ τῆς ἡμετέρας ψυχῆς διτταὶ αἱ ἐνέργειαι, αἱ μὲν γνωστικαὶ οἷον νοῦς διάνοια δόξα φαντασία καὶ αἴσθησις, αἱ δὲ ζωτικαὶ καὶ ὀρεκτικαὶ οἷον βούλησις θυμὸς ἐπιθυμία. ὁ οὖν φιλόσοφος πάντα τὰ τῆς ψυχῆς μέρη βούλεται κοσμήσαι καὶ εἰς τελείωσιν ἀγαγεῖν· διὰ οὖν τοῦ θεωρητικοῦ τελειοῦται τὸ ἐν ἡμῖν γνωστικόν, διὰ δὲ τοῦ πρακτικοῦ τὸ ζωτικόν. εἰκότως οὖν ἡ φιλοσοφία εἰς δύο διαιρεῖται, εἷς τε θεωρητικὸν καὶ πρακτικόν. **Boethius in Isag.** ed. sec. 1.3, p. 141.15–142.3 Brandt *quodsi in his tribus, id est speculativa, activa atque rationali, philosophia consistit, quae proprio triplicique a se fine disiuncta sunt, cum speculativa et activa philosophia partes esse dicuntur, non dubium est quin rationalis quoque philosophia pars esse convincatur. qui vero non partem, sed philosophiae instrumentum putant, haec fere afferunt argumenta* (see further below, On logic, whether part of philosophy or instrument). **David Prol.** 5.6–8 φασὶν οὖν ὅτι καθ’ ὑμᾶς ἡ φιλοσοφία διαιρεῖται εἰς θεωρητικὸν καὶ πρακτικόν. **Elias in Isag.** 26.35–27.5 διαιρεῖται τοίνυν ἡ φιλοσοφία εἰς δύο καὶ οὐχὶ εἰς τρία, ὡς οἱ τὸ λογικὸν αὐτῇ προσνέμοντες· δεῖχθήσεται γὰρ σὺν θεῷ ἐν τοῖς Ἀναλυτικοῖς (see below, On logic, whether part of philosophy or instrument, **Elias in Apr.**) ὅτι ἡ λογικὴ οὐ μέρος τῆς φιλοσοφίας, ἀλλ’ ὄργανον, διότι τὸ μὲν μέρος συμφυές, τὸ δὲ ὄργανον ἐπέισακτον. εἰς δύο δὲ διαιρεῖται ἡ φιλοσοφία, οὐχ ὥς φασιν αἱ ἐγκύκλιοι ἐξηγήσεις, ὅτι ἐπειδὴ ἡ φιλοσοφία γνῶσις θείων καὶ ἀνθρωπείων ἐστὶ, διὰ μὲν τὰ θεῖα τὸ θεωρητικὸν προεβάλλετο (θεωρητικὸν γὰρ, φασίν, εἴρηται ὡς τέλος ἔχον τὰ θεῖα ὄρανα), διὰ δὲ τὰ ἀνθρώπινα προεβάλλετο τὸ πρακτικόν. **Suda s.v.** Φ 862, p. 4.28–29 Adler φυσικὸς λόγος παρὰ φιλοσόφοις. μετὰ τὸν ἡθικὸν διεξέρχονται περὶ τοῦ φυσικοῦ (excerpts follow from Diogenes Laertius V.P. 7.133 and Philoponus(?) *in de An.* 55.26–57.7).

§1 Definition: Aristotle *Met.* α.1 995a17–18 διὸ σκεπτέον πρῶτον τί ἐστὶν ἡ φύσις· οὕτω γὰρ καὶ περὶ τίνων ἡ φυσικὴ δῆλον ἔσται. Cf. Alexander of Aphrodisias ad loc., *in Met.* 137.12–15 ὅσον δὲ πάλιν ἐπὶ τῷ τέλει αὐτοῦ, οὐ δόξει τοῦτο ἐκ ταύτης εἶναι τῆς συντάξεως, ἀλλὰ τῆς φυσικῆς πραγματείας προοίμιόν τι· ὡς γὰρ

περί φύσεως ἐν τοῖς ἐξῆς ἐρώων, καὶ ζητήσων τί ἐστὶν ἡ φύσις, ἐπαύσατο. **Aristoxenus Harm.** 2.30–31, p. 39.4–40.15 Da Rios βέλτιον ἴσως ἐστὶ τὸ προδιελθεῖν τὸν τρόπον τῆς πραγματείας τί ποτ' ἐστίν, ἵνα προγιγνώσκοντες ὥσπερ ὁδὸν ἢ βαδιστέον ῥάδιον πορευόμεθα εἰδότες τε κατὰ τί μέρος ἐσμέν αὐτῆς καὶ μὴ λάθωμεν ἡμᾶς αὐτοὺς παρυσπολαμβάνοντες τὸ πρᾶγμα. ... (31) προέλεγε μὲν οὖν καὶ αὐτὸς Ἀριστοτέλης (p. 111 Ross) δι' αὐτὰς ταύτας τὰς αἰτίας, ὡς ἔφη, τοῖς μέλλουσιν ἀκροᾶσθαι παρ' αὐτοῦ, περὶ τίνων τ' ἐστὶν ἡ πραγματεία καὶ τίς. **Seneca Ep.** 89.1 *rem utilem desideras et ad sapientiam properanti necessariam, dividi philosophiam et ingens corpus eius in membra disponi; facilius enim per partes in cognitionem totius adducimur.* **Geminus Elem.** 17.32 ὅσοι μέντοι γε τῶν ποιητῶν καὶ φιλοσόφων τὴν δύναμιν τῆς ἐπιτάσεως τῶν καυμάτων τῷ Κυνὶ προσάπτουσι, πολὺ τῆς ἀληθείας καὶ τοῦ φυσικοῦ λόγου πεπλανημένοι εἰσίν. **Plutarch SR 1035D** (after *SVF* 3.68) γίνεται τοίνυν ἅμα πρόσω καὶ ὀπίσω τῶν ἠθικῶν ὁ φυσικὸς λόγος κατὰ Χρῦσιππον. **Clement of Alexandria Strom.** 1.16.78.3 Ἀλκμαίων (24A2 DK) γοῦν Περὶ τοῦ Κροτωνιάτης πρῶτος φυσικὸν λόγον συνέταξεν. **Diogenes Laertius V.P.** 8.83 Ἀλκμαίων (24A1 DK) ... δοκεῖ δὲ πρῶτος φυσικὸν λόγον συγγεγραφέναι. *V.P.* 7.39 τριμερῆ φασι εἶναι τὸν κατὰ φιλοσοφίαν λόγον· εἶναι γὰρ αὐτοῦ τὸ μὲν τι φυσικόν ... οὕτω δὲ πρῶτος διεῖλε Ζήνων ὁ Κιτιεὺς (*SVF* 1.45) ἐν τῷ Περὶ λόγου καὶ Χρῦσιππος (*SVF* 2.37) ἐν τῷ α' Περὶ λόγου καὶ κτλ. *V.P.* 7.132. **Calcidius in Tim.** c. 4 *rationem tamen totius operis (sc. Timaei) et scriptoris propositum et ordinationem libri declaranda esse duxi.* **Macrobius in Somn.** 1.4.1 *nunc ipsam eiusdem Somnii mentem ipsumque propositum, quem Graeci σκοπόν vocant, antequam verba inspiciantur, temptemus aperire.* Cf. **Arius Didymus at. Stob. Ecl.** 2.7.5, p. 57.15–17 περὶ δὲ τῶν ἠθικῶν ἐξῆς ποιήσονται τὸν ὑπομνηματισμὸν τὰ κεφάλαια τῶν ἀναγκαίων δογμάτων ἀναλαβόν. ἄρξομαι δ' ἐντεῦθεν.

§2 **Stoics: Aristotle Met.** E.1. **Chrysippus** (verbatim) at **Plu. SR 1035A** (*SVF* 2.42) ἀρκέσει παραθέσθαι τὰ ἐν τῷ τετάρτῳ Περὶ βίων ἔχοντα κατὰ λέξιν οὕτως· 'πρῶτον μὲν οὖν δοκεῖ μοι κατὰ τὰ ὀρθῶς ὑπὸ τῶν ἀρχαίων εἰρημένα τρία γένη τῶν τοῦ φιλοσόφου θεωρημάτων εἶναι, τὰ μὲν λογικὰ τὰ δ' ἠθικὰ τὰ δὲ φυσικὰ.' **SVF** 2.35–44, 49–49a. **Cicero de Orat.** 1.68 *quoniam philosophia in tris partis est tributa, in naturae obscuritatem, in disserendi subtilitatem, in vitam atque mores.* *Leg.* 1.58–62. *Luc.* 116. *Tusc.* 5.68 *sumatur enim nobis quidam praestans vir optimis artibus, isque animo parumper et cogitatione fingatur. primum ingenio eximio sit necesse est; tardis enim mentibus virtus non facile comitatur; deinde ad investigandam veritatem studio incitato. ex quo triplex ille animi fetus existet, unus in cognitione rerum positus et in explicatione naturae, alter in descriptione expetendarum fugiendarumque rerum (et in ratione be)ne vivendi, tertius in iudicando, quid cuique rei sit consequens, quid repugnans, in quo inest omnis cum subtilitas disserendi, tum veritas iudicandi.* *Fin.* 1.22 *iam in altera philosophiae parte, quae est quaerendi ac disserendi, quae λογική dicitur.* *Fin.* 2.13 *non viderunt, ut ad cursum equum, ad arandum bovem, ad indagandum canem, sic hominem ad duas res, ut ait Aristoteles, ad intellegendum et agendum, esse natum quasi mortalem deum.* *Fin.* 3.72–73 (*SVF* 3.281–282) *ad easque virtutes, de quibus disputatum est (sc. amicitia etc.), dialecticam*

*etiam adiungunt et physicam, easque ambas virtutum nomine appellant, altera, quod habeat rationem ne cui falso adsentiamur neve umquam captiosa probabilitate fallamur, eaque, quae de bonis et malis didicerimus ut tenere tuerique possimus: nam sine hac arte quemvis arbitrantur a vero abduci fallique posse. recte igitur, si omnibus in rebus temeritas ignoratioque vitiosa est, ars ea, quae tollit haec, virtus nominata est. (73) physicae quoque non sine causa tributus idem est honos, propterea quod, qui convenienter naturae victurus sit, ei proficiscendum est ab omni mundo atque ab eius procuratione. nec vero potest quisquam de bonis et malis vere iudicare nisi omni cognita ratione naturae et vitae etiam deorum, et utrum conveniat necne natura hominis cum universa; quaeque sunt vetera praecepta sapientium, qui iubent 'tempori parere' et 'sequi deum' et 'se noscere' et 'nihil nimis'; haec sine physicis quam vim habeant (et habent maximam) videre nemo potest. atque etiam ad iustitiam colendam, ad tuendas amicitias et reliquas caritates quid natura valeat, haec una cognitio potest tradere. nec vero pietas adversus deos nec quanta iis gratia debeatur sine explicatione naturae intellegi potest. Off. 1.153 etenim cognitio contemplatioque naturae manca quodam modo atque inchoata sit si nulla actio rerum consequatur. Strabo 2.5.2, 110C.16–18 ἡ δὲ φυσικὴ ἀρετὴ τις τὰς δ' ἀρετὰς ἀνυποθέτους φασὶν ἐξ αὐτῶν ἡρτημένας, καὶ ἐν αὐταῖς ἐχούσας τὰς τε ἀρχὰς καὶ τὰς περὶ τούτων πίστεις (sequel above at *exempla physica dogmatica*). Philo of Alexandria Agr. 14–16. differently Arius Didymus at Stob. Ecl. 2.1.17, p. 6.19–7.4 ἡ μὲν γὰρ φιλοσοφία θήρα τῆς ἀληθείας ἐστὶ καὶ ὅρεξις· τῶν δὲ φιλοσοφησάντων ἔνιοι εὐρεῖν φασὶ τὸ θήραμα, ὡς Ἐπίκουρος (—) καὶ οἱ Στωικοὶ (—)· οἱ δὲ ἀκμὴν ἔτι ζητεῖν ὡς πού παρὰ θεοῖς ὄν, καὶ τῆς σοφίας οὐκ ἀνθρωπίνου χρήματος ὄντος· οὕτως ἔλεγε Σωκράτης καὶ Πύρρων (fr. 70 Decleva Caizzi). Philo of Alexandria Leg. 1.57 (SVF 3.202) ἡ δὲ ἀρετὴ καὶ θεωρητικὴ ἐστὶ καὶ πρακτικὴ· καὶ γὰρ θεωρίαν ἔχει, ὅποτε καὶ ἡ ἐπ' αὐτὴν ὁδὸς φιλοσοφία διὰ τῶν τριῶν αὐτῆς μερῶν, τοῦ λογικοῦ, τοῦ ἠθικοῦ, τοῦ φυσικοῦ, καὶ πράξεις· ὅλον γὰρ τοῦ βίου ἐστὶ τέχνη ἡ ἀρετὴ, ἐν ᾧ καὶ αἱ σύμπασαι πράξεις. *Ethical Doxography A* at Stob. Ecl. 2.7.3f, p. 49.8–25 Σωκράτης, Πλάτων, ταῦτα τῷ Πυθαγόρῳ, τέλος 'ὁμοίωσιν θεῷ' (*Tht.* 176b). σαφέστερον δ' αὐτὸ διήρθρωσε Πλάτων, προσθεὶς τὸ 'κατὰ τὸ δυνατόν' (*Resp.* 6.500d, 10.613d–e), φρονήσει δ' ἦν μόνως δυνατόν, τοῦτο δ' ἦν τὸ κατ' ἀρετὴν. ἐν μὲν γὰρ θεῷ τὸ κοσμοποιῶν καὶ κοσμοδιοικητικόν· ἐν δὲ τῷ σοφῷ βίου κατὰστασις καὶ ζωῆς διαγωγή· ... εἴρηται (sc. ὁμοίωσιν θεῷ) δὲ παρὰ Πλάτωνος κατὰ τὸ τῆς φιλοσοφίας τριμερές, ἐν Τιμαίῳ (90a–d) μὲν φυσικῶς, προσθήσω δὲ καὶ Πυθαγορικῶς, σημαίνοντος ἀφθόνως τὴν ἐκείνου προεπίνοιαν· ἐν δὲ τῇ Πολιτείᾳ (9.585b ff., 10.608c ff.) ἠθικῶς· ἐν δὲ τῷ Θεαιτήτῳ (176d–e) λογικῶς· περιπέφρασται δὲ καὶ ἐν τῷ τετάρτῳ περὶ Νόμων (4.716a ff.) ἐπὶ τῆς ἀκολουθίας τοῦ θεοῦ σαφῶς ἅμα καὶ πλουσίως. Seneca Dial. 8.5.1 *solemus dicere summum bonum esse secundum naturam vivere: natura nos ad utrumque genuit, et contemplationi rerum et actioni. Ep. 89.8–10 (FDS 18) quidam ex nostris, quamvis philosophia studium virtutis esset et haec peteretur, illa peteret, tamen non putaverunt illas distrahi posse; nam nec philosophia sine virtute est nec sine philosophia virtus. philosophia studium virtutis est, sed per ipsam virtutem; nec virtus autem esse sine**

studio sui potest nec virtutis studium sine ipsa. ... ad virtutem venit per ipsam, cohaerent inter se philosophia virtusque. (9) philosophiae tres partes esse dixerunt et maximi et plurimi auctores: moralem, naturalem, rationalem. prima componit animum; secunda rerum naturam scrutatur; tertia proprietates verborum exigit et structuram et argumentationes, ne pro vero falsa subreperant. ceterum inventi sunt et qui in pauciora philosophiam et qui in plura diducerent. Ep. 88.24 'quemadmodum' inquit (Posidonius F 90 E.-K., 447 Theiler) 'est aliqua pars philosophiae naturalis, est aliqua moralis, est aliqua rationalis, sic et haec quoque liberalium artium turba locum sibi in philosophia vindicat. cum ventum est ad naturales quaestiones, geometriae testimonio statur; ergo eius quam adiuvat pars est.' **Plutarch** *Quaest. Conv.* 744C–D ἀπάσας δ' ὡς ἐγὼ νομίζω τὰς διὰ λόγου περαινομένας ἐπιστήμας καὶ τέχνας οἱ παλαιοὶ καταμαθόντες ἐν τρισὶ γένεσιν οὕσας, τῷ φιλοσόφῳ καὶ τῷ ῥητορικῷ καὶ τῷ μαθηματικῷ, τριῶν ἐποιοῦντο δῶρα καὶ χάριτας θεῶν ἅς Μούσας ὠνόμαζον. ... ἐν δὲ τῷ φιλοσόφῳ τὸ λογικὸν καὶ τὸ ἡθικὸν καὶ τὸ φυσικὸν κτλ. **Quintilian** *Inst.* 6.2.8 *mores appellantur, atque inde pars quoque illa philosophiae ἡθικὴ moralis est dicta. Inst.* 12.2.10 sqq. *quae (sc. studium sapientiae) quidem cum sit in tris divisa partis, naturalem moralem rationalem etc.* **Heracitus** *All.Hom.* 33.9–10 αὐτός γε μὴν ὁ τρικέφαλος δειχθεὶς ἡλίῳ Κέρβερος εἰκότως ἂν τὴν τριμερῆ φιλοσοφίαν ὑπαινίττοιτο· τὸ μὲν γάρ αὐτῆς λογικόν, τὸ δὲ φυσικόν, τὸ δὲ ἡθικὸν ὀνομάζεται· (10) ταῦτα δ' ὥσπερ ἄφ' ἐνὸς αὐχένος ἐκπεφυκότες τριχὴ κατὰ κεφαλὴν μερίζεται. **Alcinous** *Did.* c. 3, p. 153.25–154.8 H. ἡ δὲ τοῦ φιλοσόφου σπουδὴ κατὰ τὸν Πλάτωνα ἐν τρισὶν ἔοικεν εἶναι· ἐν τε τῇ θεᾷ τῇ τῶν ὄντων καὶ γνώσει, καὶ ἐν τῇ πράξει τῶν καλῶν, καὶ ἐν αὐτῇ τῇ τοῦ λόγου θεωρίᾳ· καλεῖται δὲ ἡ μὲν τῶν ὄντων γνώσις θεωρητικὴ, ἡ δὲ περὶ τὰ πρακτέα πρακτικὴ, ἡ δὲ περὶ τὸν λόγον διαλεκτικὴ. ... τῆς δὲ πρακτικῆς τὸ μὲν θεωρεῖται περὶ τὴν τῶν ἡθῶν ἐπιμέλειαν, τὸ δὲ περὶ τὴν τοῦ οἴκου προστασίαν, τὸ δὲ περὶ πόλιν καὶ τὴν ταύτης σωτηρίαν· τούτων τὸ μὲν πρῶτον ἡθικὸν κέκληται, τὸ δὲ δευτέρον οἰκονομικόν, τὸ δὲ λοιπὸν πολιτικόν. τοῦ δὲ θεωρητικοῦ τὸ μὲν περὶ τὰ ἀκίνητα καὶ τὰ πρῶτα αἴτια καὶ ὅσα θεία θεολογικὸν καλεῖται, τὸ δὲ περὶ τὴν τῶν ἄστρον φορὰν καὶ τὰς τούτων περιόδους καὶ ἀποκαταστάσεις καὶ τοῦδε τοῦ κόσμου τὴν σύστασιν φυσικόν, τὸ δὲ θεωρούμενον διὰ γεωμετρίας καὶ τῶν λοιπῶν μαθημάτων μαθηματικόν. τῆς δὲ διαιρέσεως τοιαύτης οὔσης καὶ τοῦ μερισμοῦ τῶν τῆς φιλοσοφίας εἰδῶν, περὶ τῆς διαλεκτικῆς θεωρίας πρότερον ῥητέον τῆς ἀρεσκούσης τῷ Πλάτῳ κτλ. **Albinus** *Prol.* c. 6, p. 151.35–151.4 H. ἵνα δὲ τις τὰ οἰκεία δόγματα παραλάβῃ, τοῖς τοῦ ὑφηγητικοῦ χαρακτήρος διαλόγοις δεήσει ἐντυγχάνειν· τοῦτο γάρ ἐστιν αὐτῶν ἴδιον, εἴ γε ἐν τούτοις ἐστὶ μὲν τὰ φυσικὰ δόγματα, ἐστὶ δὲ καὶ τὰ ἡθικὰ καὶ τὰ πολιτικά καὶ οἰκονομικά, ὧν τὰ μὲν ἐπὶ θεωρίαν καὶ τὸν θεωρητικὸν βίον ἔχει τὴν ἀναφοράν, τὰ δ' ἐπὶ πράξιν καὶ τὸν πρακτικὸν βίον, ἅμφω δὲ ταῦτα ἐπὶ τὸ ὁμοιωθῆναι θεῷ. **Atticus** fr. 2.1–2 des Places (verbatim) at Eus. *PE* 11.2.1–2 τριχὴ τοίνυν διαιρουμένης τῆς ἐντελοῦς φιλοσοφίας, εἰς τε τὸν ἡθικὸν καλούμενον τόπον καὶ τὸν φυσικὸν καὶ ἔτι τὸν λογικόν, καὶ τοῦ μὲν πρώτου κατασκευάζοντος ἡμῶν ἕκαστον καλὸν καὶ ἀγαθόν ..., τοῦ δευτέρου δὲ πρὸς τὴν περὶ τῶν θείων γνώσιν διήκοντος, αὐτῶν τε τῶν πρώτων καὶ τῶν αἰτίων καὶ τῶν ἄλλων, ὅσα ἐκ τούτων γίνονται, ἃ δὴ περὶ φύσεως ἱστορίαν ὁ Πλάτων ὠνόμακεν (*Phd.* 96a)· εἰς δὲ

τὴν περὶ τούτων ἀμφοτέρων διάκρισιν τε καὶ εὑρεσιν, τοῦ τρίτου παραλαβομένου· (2) ὅτι μὲν Πλάτων πρῶτος καὶ μάλιστα συναγείρας εἰς ἓν, πάντα τὰ τῆς φιλοσοφίας μέρη ... , σῶμά τι καὶ ζῶον ὁλόκληρον ἀπέφηνε τὴν φιλοσοφίαν, δῆλα παντὶ λεγόμενα. **Apuleius Plat.** 1.3 *nam quamvis de diversis officinis haec ei essent philosophiae membra suscepta, naturalis a Pythagoreis, de Eleaticis rationalis atque moralis ex ipso Socratis fonte, unum tamen ex omnibus et quasi proprii partus corpus effecit* (sc. Plato). **ps.Plutarch Hom.** 2.92, 944–950 Kindstrand ὁ δὲ θεωρητικὸς λόγος ἐστὶν ὁ περιέχων τὰ καλούμενα θεωρήματα, ἅπερ ἐστὶ γνώσις τῆς ἀληθείας γινομένη μετὰ τέχνης. ἅφ' ὧν ἔστι τὴν φύσιν τῶν ὄντων, θείων τε καὶ ἀνθρωπίνων πραγμάτων, κατανοεῖν, καὶ τὰς περὶ τὸ ἥθος ἀρετὰς καὶ κακίας διαιρεῖν, καὶ εἴ τινη τέχνη λογικῇ μετέρχεσθαι τὴν ἀλήθειαν προσήκει μανθάνειν. ταῦτα δὲ μετεχειρίσαντο οἱ ἐν φιλοσοφίᾳ διατρίψαντες, ἧς ἐστὶ μέρη τὸ φυσικὸν καὶ ἠθικὸν καὶ διαλεκτικόν. **Quintilian Inst.** 1 pr. 16–17 *haec autem quae velut propria philosophiae adseruntur, passim tractamus omnes. quis enim non de iusto, aequo ac bono, modo non et vir pessimus, loquitur? quis non etiam rusticorum aliqua de causis naturalibus quaerit? nam verborum proprietas ac differentia omnibus, qui sermonem curae habent, debet esse communis.* (17) *sed ea et sciet optime et eloquetur orator: qui si fuisset aliquando perfectus, non a philosophorum scholis virtutis praecepta peterentur.* **ps.Apuleius Interpr.** 1, p. 176.1–4 Thomas (FDS 14) *studium sapientiae, quod philosophiam vocamus, plerisque videtur tres species seu partes habere: naturalem, moralem et de qua nunc dicere proposui rationalem, qua continetur ars disserendi.* **Theon of Smyrna Exp.** p. 15.14–16 Hiller ἡ τῶν κατὰ φιλοσοφίαν θεωρημάτων παράδοσις, τῶν τε λογικῶν καὶ πολιτικῶν καὶ φυσικῶν. **Aristocles fr.** 1.6 Chiesara (verbatim) at Eus. **PE** 11.3.6 Πλάτων μέντοι κατανοήσας ὡς εἴη μία τις ἡ τῶν θείων καὶ ἀνθρωπίνων ἐπιστήμη, πρῶτος διείλε καὶ ἔφη τὴν μὲν τινα περὶ τῆς (τοῦ) παντὸς φύσεως εἶναι πραγματεῖαν, τὴν δὲ περὶ τῶν ἀνθρωπίνων, τρίτην δὲ τὴν περὶ τοὺς λόγους. **Galen Opt.Med.** 3.5, 1.59.11–61.1 K., p. 290.7–291.5 Boudon-Millot καὶ μὲν δὴ καὶ (τὴν) λογικὴν μέθοδον ἀσκεῖν (χρῆ) (sc. τὸν ἰατρὸν) χάριν τοῦ γυνῶναι, πόσα τὰ πάντα κατ' εἶδη τε καὶ γένη νοσήματα ὑπάρχει καὶ πῶς ἐφ' ἐκάστου ληπτέον ἐνδειξίην τινα ἰαμάτων. ἡ δ' αὐτὴ μέθοδος ἦδε καὶ τὴν τοῦ σώματος αὐτοῦ διδάσκει φύσιν, τὴν τ' ἐκ τῶν πρώτων στοιχείων, ἃ δι' ἀλλήλων ὅλα κέκραται, καὶ τὴν ἐκ τῶν δευτέρων, τῶν αἰσθητῶν, ἃ δὴ καὶ ὁμοιομερῆ προσαγορεύεται, καὶ τρίτην ἐπὶ ταύταις τὴν ἐκ τῶν ὀργανικῶν μορίων. ἀλλὰ καὶ τίς ἡ χρεια τῷ ζῳῷ τῶν εἰρημένων ἐκάστου καὶ τίς ἡ ἐνέργεια, δέον μανθάνειν ταῦτα μὴ ἀβασανίστως, ἀλλὰ μετ' ἀποδείξεως πιστῶσθαι, πρὸς τῆς λογικῆς δὴπου διδάσκεται μεθόδου. τί δὴ οὖν ἔτι λείπεται πρὸς τὸ μὴ εἶναι φιλόσοφον τὸν ἰατρὸν; ... ἡ γάρ, ἵνα μὲν ἐξεύρῃ φύσιν σώματος καὶ νοσημάτων διαφορὰς καὶ ἰαμάτων ἐνδείξεις, ἐν τῇ λογικῇ θεωρίᾳ γεγυμνάσθαι προσήκει, ἵνα δὲ φιλοπόνως τῇ τούτων ἀσκήσει παραμένῃ, χρημάτων τε καταφρονεῖν καὶ σωφροσύνην ἀσκεῖν, πάντα δὴ τῆς φιλοσοφίας ἔχει τὰ μέρη, τό τε λογικὸν καὶ τὸ φυσικὸν καὶ τὸ ἠθικόν. **Alexander of Aphrodisias in Top.** 74.11–13 καὶ ἔσται πᾶν μὲν πρόβλημα διαλεκτικὸν θεωρημα ἢ ἠθικὸν ἢ φυσικὸν ἢ λογικόν (τούτων γὰρ δηλωτικὰ τὰ προειρημένα), οὐ μὴν πᾶν θεωρημα ἠθικὸν ἢ φυσικὸν ἢ λογικόν πρόβλημα ἢ δὴ διαλεκτικόν. **Sextus Empiricus P.** 3.188 ἄλλιν οἱ Στωικοὶ (SVF 2.96) περὶ ψυχῇ

ἀγαθὰ φασιν εἶναι τέχνας τινὰς τὰς ἀρετάς. **Diogenes Laertius** *V.P.* 7.46–47 (on Stoics, *SVF* 2.130) αὐτὴν δὲ τὴν διαλεκτικὴν ἀναγκαίαν εἶναι καὶ ἀρετὴν ἐν εἵδει περιέχουσαν ἀρετάς· τὴν τε ἀπροπτωσίαν ... · (47) τὴν δὲ ἀνεικαιότητα ... · τὴν δὲ ἀνελεγκίαν ... · τὴν δὲ ἀματαιότητα κτλ. **Eusebius** *PE* 15.62.12–13 (**Ariston** *SVF* 1.353) καὶ ἄλλως δὲ εἶναι τοὺς φυσικοὺς λόγους οὐ χαλεποὺς οὐδὲ ἀδυνάτους μόνον, ἀλλὰ καὶ ἀσεβεῖς καὶ τοῖς νόμοις ὑπεναντίους. τοὺς μὲν γὰρ ἀξιοῦν μὴδ' εἶναι θεοὺς τὸ παράπαν, τοὺς δὲ τὸ ἄπειρον ἢ τὸ ὄν ἢ τὸ ἐν, καὶ πάντα μᾶλλον ἢ τοὺς νομιζομένους· (13) τὴν τ' αὖ διαφωνίαν παμπόλλην οὖσαν· τοὺς μὲν γὰρ ἄπειρον ἀποφαίνειν τὸ πᾶν, τοὺς δὲ πεπερασμένον, καὶ τοὺς μὲν ἀξιοῦν ἅπαντα κινεῖσθαι, τοὺς δὲ καθάπαξ μὴδέν. **ps.Andronicus de Pass.** 3.2.32–54 (*SVF* 3.267) §1 ἔστι δὲ φρόνησις μὲν ἀρετὴ τοῦ λογιστικοῦ κατασκευαστικὴ τῶν εἰς εὐδαιμονίαν συντεινόντων. §2 σύμβωμοι δὲ εἰσιν αὐτῆς (sc. τῆς φρονήσεως) ... ἡθικὴ [secl. Glibert-Thierry, but it is also represented by several of its subordinate virtues], διαλεκτικὴ· ῥητορικὴ· φυσικὴ. ... ι' διαλεκτικὴ δὲ ἐπιστήμη τοῦ εὖ διαλέγεσθαι. ια' ῥητορικὴ δὲ ἐπιστήμη τοῦ εὖ λέγειν. ιβ' φυσικὴ δὲ ἐπιστήμη τῶν περὶ τὴν φύσιν. **Stobaeus** *Ecl.* 2.7.2, p. 42.7–13 ἔστιν οὖν Εὐδώρου τοῦ Ἀλεξανδρέως, Ἀκαδημικοῦ φιλοσόφου (fr. 1 Mazzarelli), διαίρεσις τοῦ κατὰ φιλοσοφίαν λόγου, βιβλίον ἀξιόκτητον, ἐν ᾧ πάσαν ἐπεξελήλυθε προβληματικῶς τὴν ἐπιστήμην, ἧς ἐγὼ διαιρέσεως ἐκθήσομαι τὸ τῆς ἡθικῆς οἰκεῖον. ἔχει δ' οὕτως. τριμεροῦς ὄντος τοῦ κατὰ φιλοσοφίαν λόγου, τὸ μὲν ἔστιν αὐτοῦ ἡθικόν, τὸ δὲ φυσικόν, τὸ δὲ λογικόν. τοῦ δὲ ἡθικοῦ κτλ. **Pomponius Porphyrio** in *Hor. Ep.* 1.12 lemm. 16 *hae quaestiones sunt pertinentes ad physicam philosophiae partem.* in *Hor. Ep.* 1.18 lemm. 100 *hae omnes quaestiones de hac morali philosophia sumuntur.* **Origen** in *Cant. Cant.* prol. 3.1 (trans. Rufinus) *et temptemus primum de eo requirere, quid illud sit, quod, cum tria volumina ecclesiae Dei a Solomone scripta susceperint, primus ex ipsis Proverbiorum liber positus sit, secundus is, qui Ecclesiastes appellatur, tertio vero in loco Cantici Canticorum volumen habeatur. quae ergo nobis occurrere possunt in hoc loco, ista sunt. generales disciplinae, quibus ad rerum scientiam pervenitur tres sunt, quas Graeci ethicam, physicam, enopticen appellarunt; has nos dicere possumus moralem, naturalem, inspectivam. nonnulli sane apud Graecos etiam logicen, quam nos rationalem possumus dicere, quarto in numero posuere.* **Macrobius** in *Somn.* 2.17.15 *cum sint totius philosophiae tres partes, moralis, naturalis et rationalis, et sit moralis quae docet morum elimatam perfectionem, naturalis quae de divinis corporibus disputat, rationalis* (sc. in the Neoplatonic sense) *cum de incorporeis sermo est quae mens sola complectitur, nullam de tribus Tullius in hoc Somnio praetermisit.* **Jerome** *Ep.* 30.1, p. 243.5–10 *Hilberg quomodo philosophi solerent disputationes suas in physicam et ethicam logicamque partiri, ita et eloquia divina aut de natura disputare, ut in Genesi et Ecclesiaste, aut de moribus, ut in Proverbiis et in omnibus sparsim libris, aut de logica, pro qua nostri θεολογικὴν sibi vindicant, ut in Cantico canticorum et Evangeliiis.* **Adv. Pelag.** 1.22, p. 28.11–12 *Moreschini philosophiae tria genera, physicam, ethicam, logicam.* **Simplicius** in *Cat.* 18.28–19.7 Κορνοῦτος καὶ Ἀθηνόδορος ... εἶναι τὸ βιβλίον (sc. Aristotle's *Categories*) παντοδαπῶν θεωρημάτων σωρείαν ὑπολαμβάνουσιν λογικῶν τε καὶ φυσικῶν καὶ ἡθικῶν καὶ θεολογικῶν· εἶναι

γὰρ τὰ μὲν περὶ ὁμωνύμων καὶ συνωνύμων καὶ παρωνύμων σκέμματα λογικά, ἔτι δὲ καὶ τὸ περὶ τῶν ἀντικειμένων, τὰ δὲ περὶ κινήσεως φυσικά, ἠθικά δὲ τὰ περὶ ἀρετῆς καὶ κακίας, ὥσπερ θεολογικά τὰ περὶ τῶν δέκα γενῶν φιλοσοφήματα. τὸ δὲ ἀληθές οὐχ οὕτως ἔχει. **Philoponus** in *Cat.* 5.19–23 Ἀνδρόνικος ὁ Ῥόδιος ἀκριβέστερον ἐξετάζων ἔλεγε χρῆναι πρότερον ἀπὸ τῆς λογικῆς ἄρχεσθαι, ἥτις περὶ τὴν ἀπόδειξιν καταγίνεται. ἐπειδὴ οὖν ἐν πάσαις αὐτοῦ ταῖς πραγματείαις ὁ φιλόσοφος κέχρηται τῇ ἀποδεικτικῇ μεθόδῳ, δέον ἡμᾶς πρότερον ταύτην κατορθῶσαι, ἵνα εὐχερέστερον παρακολουθήσωμεν τοῖς ἄλλοις αὐτοῦ συγγράμμασι. in *Mete.* 1.4–11 εἴρηται μὲν ἤδη καὶ πρότερον ἡμῖν ὡς εἰκότως τὴν εἰς δύο τομὴν ἡ φιλοσοφία δέχεται, εἰς τε τὸ πρακτικὸν καὶ εἰς τὸ θεωρητικόν, διότι καὶ αἱ τῆς ἡμετέρας ψυχῆς δυνάμεις ὑπάρχουσι δύο, ζωτικὴ τε καὶ θεωρητικὴ, ἃς ἡ φιλοσοφία κοσμεῖν ἐθέλει καὶ τελειοῦν, τὴν μὲν δι' ἀρετῆς, τὴν δὲ διὰ τῆς τῶν ὄντων γνώσεως· τελειοῦται γὰρ ἕκαστον τὸ ἑαυτοῦ τέλος ἀπολαμβάνον δι' ὃ γέγονεν. ὅθεν καὶ ὁμοίως θεῶ κατὰ τὸ δυνατόν (Pl. *Th.* 176b) ἡ φιλοσοφία εἶναι λέγεται. καὶ γὰρ τῶν θείων ἐνεργειῶν αἱ μὲν ἀπάντων εἰσὶ γνωστικά τῶν ὄντων, αἱ δὲ δημιουργικαὶ τούτων καὶ προνοητικά. **Olympiodorus Diaconus** in *Eccles.* MPG 93, p. 477.35–40 (p. 1.2–6 Boli) τῶν ὄντων τὴν γνῶσιν ἀψευδῇ δεξάμενος ὑπὸ Θεοῦ Σολομών, ὁ τοῦ Δαβὶδ υἱός, οὐ μόνον κατὰ σάρκα, ἀλλὰ κατ' ἀρετὴν, τριχῇ τὰ ὄντα διείλεν· εἰς ἠθικά, καὶ φυσικά, καὶ νοητά. καὶ τὰ μὲν ἠθικά διὰ τῶν Παροιμιῶν παρέδωκε· τὰ δὲ φυσικά διὰ τῶν τοῦ Ἐκκλησιαστοῦ· τὰ δὲ νοητά διὰ τοῦ Ἀίσματος τῶν Αἰσμάτων. **Isidore of Seville** *Etym.* 2.24.3–7. *Etym.* 2.24.8 in his quippe tribus generibus philosophiae etiam eloquia divina consistunt. nam aut de natura disputare solent, ut in Genesi et in Ecclesiaste: aut de moribus, ut in Proverbiis et in omnibus sparsim libris: aut de Logica, pro qua nostri Theoreticam sibi vindicant, ut in Cantico canticorum, et Evangeliiis.

Definition of philosophy: **Plato** *Resp.* 6 486a καὶ μὴν που καὶ τόδε δεῖ σκοπεῖν, ὅταν κρίνειν μέλλῃς φύσιν φιλόσοφόν τε καὶ μὴ.—τὸ ποῖον;—μὴ σε λάθῃ μετέχουσα ἀνελευθερίας· ἐναντιώτατον γὰρ που σμικρολογία ψυχῇ μελλούσῃ τοῦ ὅλου καὶ παντός αἰεὶ ἐπορέξεσθαι θείου τε καὶ ἀνθρωπίνου. **Philodemus** *de Mus.* Δ col. 142.1–8 Delattre (cf. *SVF* 1.486) εἰ μὴ [τοῖς π]αρὰ Κλεάνθει λέγειν [ῖσ]α θελήσουσι, ὃς φησιν | ... , καὶ τοῦ λ[ό]γου τοῦ τῆς φιλοσοφίας ἱκανῶς μὲν ἐξαγγέλλειν δυνάμενου τὰ θεῖα καὶ | ἀνθ[ρ]ώ[πι]ν[α] κτλ. **Cicero** *Fin.* 2.37 *adhibita primum divinarum humanarumque rerum scientia, quae potest appellari rite sapientia.* *Tusc.* 4.57 *sapientiam esse rerum divinarum et humanarum scientiam cognitionemque, quae cuiusque rei causa sit.* **Seneca** *Ep.* 89.5 (*FDS* 2) *sapientiam quidam ita finierunt ut dicerent divinarum et humanorum scientiam; quidam ita: sapientia est nosse divina et humana et horum causas.* **ps.Plutarch** *Hom.* 2.92 ὁ δὲ θεωρητικὸς λόγος ἐστὶν ὁ περιέχων τὰ καλούμενα θεωρήματα, ἅπερ ἐστὶ γνῶσις τῆς ἀληθείας γινομένη μετὰ τέχνης· ἀφ' ᾧν ἔστι τὴν φύσιν τῶν ὄντων, θείων τε καὶ ἀνθρωπίνων πραγμάτων, κατανοεῖν. **Septuaginta** *Macc.* 4.1.16 σοφία δὴ τοῖνυν ἐστὶν γνῶσις θείων καὶ ἀνθρωπίνων πραγμάτων καὶ τῶν τούτων αἰτιῶν (cited at *Orig. Cels.* 3.72, p. 209.3–5 Marcovich). **Philo of Alexandria** *Congr.* 79 ἔστι γὰρ φιλοσοφία ἐπιτήδευσις σοφίας, σοφία δὲ ἐπιστήμη θείων καὶ ἀνθρωπίνων καὶ τῶν τούτων αἰτιῶν (cited at *Clem. Strom.* 1.5.30). **Sextus Empiricus** *M.* 9.13 ἐντεῦθεν τὴν φιλοσοφίαν φασὶν (sc. οἱ δογματικῶς φιλοσοφοῦντες, *SVF* 2.36, Posidonius

fr. 251c Theiler) ἐπιτήδευσιν εἶναι σοφίας, τὴν δὲ σοφίαν ἐπιστήμην θείων τε καὶ ἀνθρωπίνων πραγμάτων. **Aristocles** fr. 1.6 Chiesara (verbatim) at Eus. *PE* 11.3.6 Πλάτων μέντοι κατανοήσας ὡς εἴη μία τις ἢ τῶν θείων καὶ ἀνθρωπίνων ἐπιστήμη. **Augustine** *Trin.* 14.1.48–51 Mountain–Glorie. **John of Damascus** *Dial.* c. 3.2–3 Kotter φιλοσοφία ἐστὶ γνῶσις θείων τε καὶ ἀνθρωπίνων πραγμάτων τουτέστιν ὁρατῶν τε καὶ ἀοράτων. (N.B. ἐπιστήμη θείων τε καὶ ἀνθρωπίνων πραγμάτων said of wisdom, e.g., at Phil. *Congr.* 79, Gal. *MM* 10.2.5–7 K., Alcın. *Did.* 1, p. 152.5–6 H., August. *Trin.* 14.1.48–51 Mountain–Glorie; said of philosophy, e.g. at Quint. *Inst.* 12.2.8, Ammon. *in Isag.* 5.29–30, Olymp. *Prol.* 16.23–24, El. *in Isag.* 8.9, Cassiod. *Inst.* 2.3.5 p. 110.14–15 Mynors, Isid. *Hisp. Etym.* 2.24.1, David *Prol.* 78.9–10; said of physics ps.*Plu. Hom.* 2.92).

§3 **Aristotle Theophrastus Peripatetics: Aristotle** *Top.* 1.11 104b1–8 πρόβλημα δ' ἐστὶ διαλεκτικὸν θεώρημα τὸ συντεῖνον ἢ πρὸς αἴρεσιν καὶ φυγὴν ἢ πρὸς ἀλήθειαν καὶ γνῶσιν, ἢ αὐτὸ ἢ ὡς συνεργὸν πρὸς τι ἕτερον τῶν τοιούτων, περὶ οὗ ἢ οὐδετέρως δοξάζουσιν ἢ ἐναντίως οἱ πολλοὶ τοῖς σοφοῖς ἢ οἱ σοφοὶ τοῖς πολλοῖς ἢ ἑκάτεροι αὐτοὶ ἑαυτοῖς. ἔνια μὲν γὰρ τῶν προβλημάτων χρήσιμον εἶδέναι πρὸς τὸ ἐλέσθαι ἢ φυγεῖν, οἷον πότερον ἢ ἡδονὴ αἰρετὸν ἢ οὐ· ἔνια δὲ πρὸς τὸ εἰδέναι μόνον, οἷον πότερον ὁ κόσμος αἰδίδος ἢ οὐ (cf. ch. 2.4). *Protr.* fr. B32 Düring at Iambl. *Protr.* c. 6, p. 37.26–38.3 ὅτι μὲν οὖν τὰς περὶ τῶν δικαίων καὶ τῶν συμφερόντων, ἔτι δὲ περὶ φύσεώς τε καὶ τῆς ἄλλης ἀληθείας ἐπιστήμας δυνατοὶ λαβεῖν ἔσμεν, ῥᾶδιον ἐπιδείξει. *Met.* α.1 993b19–23 ὁρθῶς δ' ἔχει καὶ τὸ καλεῖσθαι τὴν φιλοσοφίαν ἐπιστήμην τῆς ἀληθείας. θεωρητικῆς μὲν γὰρ τέλος ἀλήθεια πρακτικῆς δ' ἔργον· καὶ γὰρ ἂν τὸ πῶς ἔχει σκοπῶσιν, οὐ τὸ αἰδίδον ἀλλ' ὁ πρὸς τι καὶ νῦν θεωροῦσιν οἱ πρακτικοί. *Met.* Δ.16 1021b12–17 τέλειον λέγεται ... καὶ τὸ κατ' ἀρετὴν καὶ τὸ εὖ μὴ ἔχον ὑπερβολὴν πρὸς τὸ γένος, οἷον τέλειος ἰατρός καὶ τέλειος αὐλητῆς ὅταν κατὰ τὸ εἶδος τῆς οἰκείας ἀρετῆς μὴ ἐλλείπωσιν. *Rhet.* 1.2 1358a17–20 ἴδια δὲ ὅσα ἐκ τῶν περὶ ἕκαστον εἶδος καὶ γένος προτάσεών ἐστιν, οἷον περὶ φυσικῶν εἰσι προτάσεις ἐξ ὧν οὔτε ἐνθύμημα οὔτε συλλογισμὸς ἔστι περὶ τῶν ἠθικῶν, καὶ περὶ τούτων ἄλλαι ἐξ ὧν οὐκ ἔσται περὶ τῶν φυσικῶν. *EE* 1.1 1215a35–b14 τρεῖς ὁρῶμεν καὶ βίους ὄντας, οὓς οἱ ἐπ' ἐξουσίας τυγχάνοντες προαιροῦνται ζῆν ἅπαντες, πολιτικὸν φιλόσοφον ἀπολαυστικόν. τούτων γὰρ ὁ μὲν φιλόσοφος βούλεται περὶ φρόνησιν εἶναι καὶ τὴν θεωρίαν τὴν περὶ τὴν ἀλήθειαν, ὁ δὲ πολιτικὸς περὶ τὰς πράξεις τὰς καλὰς (αὗται δ' εἰσὶν αἱ ἀπὸ τῆς ἀρετῆς) ὁ δ' ἀπολαυστικὸς περὶ τὰς ἡδονὰς τὰς σωματικὰς. διόπερ (ἕτερος) ἕτερον τὸν εὐδαίμονα προσαγορεύει, καθάπερ ἐλέχθη καὶ πρότερον. Ἀναξαγόρας μὲν ὁ Κλαζομένιος (cf. 59A30 DK) ἐρωτηθεὶς τίς ὁ εὐδαίμονέστατος, 'οὐθεὶς', εἶπεν, 'ὦν σὺ νομίζεις; ἀλλ' ἄτοπος ἂν τίς σοι φανείη'· τοῦτον δ' ἀπεκρίνατο τὸν τρόπον ἐκεῖνος, ὁρῶν τὸν ἐρόμενον ἀδύνατον ὑπολαμβάνοντα μὴ μέγαν ὄντα καὶ καλὸν ἢ πλούσιον ταύτης τυγχάνειν τῆς προσηγορίας, αὐτὸς δ' ἴσως ᾤετο τὸν ζῶντα ἀλύπως καὶ καθαρῶς πρὸς τὸ δίκαιον ἢ τινος θεωρίας κοινωνοῦντα θείας, τοῦτον ὡς ἄνθρωπον εἰπεῖν μακάριον εἶναι. *EN* 1.7 1098a12–18 ἀνθρώπου δὲ τίθεμεν ἔργον ζῶντινα, ταύτην δὲ ψυχῆς ἐνέργειαν καὶ πράξεις μετὰ λόγου, σπουδαίους δ' ἀνδρὸς εὖ ταῦτα καὶ καλῶς, ἕκαστον δ' εὖ κατὰ τὴν οἰκείαν ἀρετὴν ἀποτελεῖται· εἰ δ' οὕτω, τὸ ἀνθρώπινον ἀγαθὸν ψυχῆς ἐνέργεια γίνεται κατ' ἀρετὴν, εἰ δὲ πλείους αἱ ἀρεταί, κατὰ τὴν ἀρίστην καὶ τελειοτάτην. ἔτι δ' ἐν βίῳ τελείῳ. μία γὰρ χελιδὼν

ἔαρ οὐ ποιεῖ κτλ. (cf. **Clement of Alexandria** *Strom.* 2.128.4 δεῖ γάρ καὶ χρόνου τινὸς τῇ ἀρετῇ· οὐ γάρ ἐν μιᾷ ἡμέρᾳ περιγίνεται, ἢ καὶ ἐν τελείῳ συνίσταται, ἐπεὶ μὴ ἔστιν, ὥς φασι, παῖς εὐδαίμων ποτέ· τέλειος δ' ἂν εἴη χρόνος ὁ ἀνθρώπινος βίος.) *Pol.* 7.2 1324a25–29 ἀμφισβητεῖται δὲ παρ' αὐτῶν τῶν ὁμολογούντων τὸν μετ' ἀρετῆς εἶναι βίον αἰρετώτατον πότερον ὁ πολιτικὸς καὶ πρακτικὸς βίος αἰρετός ἢ μᾶλλον ὁ πάντων τῶν ἐκτὸς ἀπολελυμένος, οἷον θεωρητικὸς τις, ὃν μόνον τινὲς φασιν εἶναι φιλοσόφου. *Met.* E.1 1025b19–1026a33. **Epicurus** (on the uses of physics) *Ep.Hdt.* at D.L. 10.78 καὶ μὴν καὶ τὴν ὑπὲρ τῶν κυριωτάτων αἰτίαν ἐξακριβῶσαι φυσιολογίας ἔργον εἶναι δεῖ νομίζειν, καὶ τὸ μακάριον ἐν τῇ περὶ μετεώρων γνῶσει ἐνταῦθα πεπτωκέναι καὶ ἐν τῷ τίνες φύσεις αἱ θεωρούμεναι κατὰ τὰ μετέωρα ταυτί, καὶ ὅσα συγγενῇ πρὸς τὴν εἰς τοῦτο ἀκρίβειαν· ἔτι τε οὐ τὸ πλεοναχῶς ἐν τοῖς τοιοῦτοις εἶναι καὶ τὸ ἐνδεχόμενον καὶ ἄλλως πως ἔχειν, ἀλλ' ἀπλῶς μὴ εἶναι ἐν ἀφθάρτῳ καὶ μακαρίᾳ φύσει τῶν διάκρισιν ὑποβαλλόντων ἢ τάραχον μηθέν. καὶ τοῦτο καταλαβεῖν τῇ διανοίᾳ ἔστιν ἀπλῶς εἶναι. *Ep.Pyth.* at D.L. 10.85 πρῶτον μὲν οὖν μὴ ἄλλο τι τέλος ἐκ τῆς περὶ μετεώρων γνῶσεως εἶτε κατὰ συναφὴν λεγομένων εἶτε αὐτοτελῶς νομίζειν εἶναι ἢ περὶ ἀταραξίαν καὶ πίστιν βέβαιοι, καθάπερ καὶ ἐπὶ τῶν λοιπῶν. **Cicero** *Top.* 81 *quaestionum autem 'quacumque de re' sunt duo genera: unum cognitionis alterum actionis.* *de Orat.* 1.212 *is, qui studeat omnium rerum divinarum atque humanarum vim naturam causasque nosse et omnem bene vivendi rationem tenere et persequi, nomine hoc (sc. philosophi) appelletur.* *Tusc.* 2.4 *in ipsa ... Graecia philosophia tanto in honore numquam fuisset, nisi doctissimorum contentionibus dissensionibusque viguisset.* *ad Att.* 2.16.3 *nunc prorsus hoc statui ut, quoniam tanta controversia est Dicaearcho (fr. 25 Wehrli, 33 Mirhady), familiari tuo, cum Theophrasto (fr. 481 FHS&G), amico meo, ut ille tuus τὸν πρακτικὸν βίον longe omnibus anteponat, hic autem τὸν θεωρητικόν, utrique a me mos gestus esse videatur.* **Varro** at **August.** *C.D.* 19.3.71–73 *Dombart–Kalb ex tribus porro illis vitae generibus, otioso, actiuoso et quod ex utroque compositum est, hoc tertium sibi placere adseverant. haec sensisse atque docuisse Academicos veteres Varro (fr. 5 Langenberg) adserit, auctore Antiocho (fr. 57 Luck), magistro Ciceronis et suo.* **Soranus** *Gyn.* 1.1 **Ilberg** τινὲς μὲν οὖν εἰς δύο μέρη τέμνουσιν αὐτὴν (sc. gynaecology), εἷς τε τὸ θεωρητικὸν καὶ τὸ πρακτικὸν κτλ. **Philo of Alexandria** *Praem.* 11 ἐλπίς εὐδαιμονίας καὶ τοὺς ἀρετῆς ζηλωτὰς ἐπαίρει φιλοσοφεῖν, ὥς ταύτῃ δυνησομένους καὶ τὴν τῶν ὄντων φύσιν ἰδεῖν καὶ δρᾶσαι τὰ ἀκόλουθα πρὸς τὴν τῶν ἀρίστων βίων θεωρητικοῦ τε καὶ πρακτικοῦ τελείωσιν, ὧν ὁ τυχὼν εὐθύς ἐστιν εὐδαίμων. **ps.Archytas de Educ.** p. 42.5–16 **Thesleff** at **Stob.** *Ecl.* 2.31.120, p. 230.6–19 δύο μὲν ὧν ἔντι βίοι ἀντίπαλοι, τοῖ τῶν πρατῶν ἀντιποιεύμενοι, πρακτικὸς τε καὶ φιλόσοφος· πολὺ δὲ κάρρων δοκεῖ εἶμεν ὁ ἐξ ἀμφοτέρων κεκραμένος ποτὶ καιρῶς τῶς ἀρμόσδοντας συντεταγμένος καθ' ἑκατέραν διέξοδον. γεγόναμες γὰρ ποτ' ἐνέργειαν νοεράν, ἂν καλέοιμες πράξιν· τὰς δὲ διανοίας ἃ μὲν πρακτικὰ ἐπὶ τὰν πολιτικὰν φέρεται, ἃ δὲ ἐπιστημονικὰ ἐπὶ τὰν θέαν τῶν συμπάντων, αὐτὸς δ' ὁ καθόλου νόος ταύτας τὰς δύο δυνάμεις ἀμπέχων ἐπὶ τὰν εὐδαιμονίαν, τὰν φαμές ἐνέργειαν ἀρετὰς ἐν εὐτυχίᾳ εἶμεν, οὔτε πρακτικὰν ἔασαν μόνον ὥστε καὶ μὴ τὰν ἐπιστήμαν περιέχεν, οὔτε θεωρητικὰν ὥς ἀπρακτον εἶμεν· ἃ γὰρ τέλῃς διάνοια ποτὶ δύο ἀρχὰς ἐπικρατέας ῥέπει, ποθ' ἄς καὶ

ὁ ἄνθρωπος πέφυκε, τὰν τε κοινωνικὰν καὶ τὰν εἰδημονικὰν. **Seneca** *Ep.* 92.3 *ad haec* (sc. animi magnitudinem etc.) *quomodo pervenitur? si veritas tota perspecta est; si servatus est in rebus agendis ordo, modus, decor, innoxia voluntas ac benigna, intenta rationi nec umquam ab illa recedens, amabilis simul mirabilisque.* *Ep.* 95.10–12 *philosophia autem et contemplativa est et activa: spectat simul agitque. erras enim, si tibi illam putas tantum terrestres operas promittere: altius spirat. ... (11) ... sequitur ergo ut, cum contemplativa sit, habeat decreta sua. (12) quid? quod facienda quoque nemo rite obibit nisi is, cui ratio erit tradita, qua in quaque re omnes officiorum numeros exequi possit, quos non servabit, qui in rem praesentem praecepta acceperit, non in omnem.* *De ot., Dial.* 8.5.1 *solemus dicere summum bonum esse secundum naturam vivere: natura nos ad utrumque genuit, et contemplationi rerum et actioni.* *Ep.* 89.11 *Epicurei* (fr. 242 Usener) *duas partes philosophiae putaverunt esse, naturalem atque moralem: rationalem removerunt. deinde cum ipsis rebus cogherentur ambigua discernere, falsa sub specie veri latentia coarguere, ipsi quoque locum quem 'de iudicio et regula' appellant—alio nomine rationalem—induxerunt, sed eum accessionem esse naturalis partis existimant.* *Nat.* 1. praef.1–2 *quantum inter philosophiam interest ... et ceteras artes, tantum interesse existimo in ipsa philosophia inter illam partem quae ad homines et hanc quae ad deos pertinet. altior est haec et animosior; multum permisit sibi; non fuit oculis contenta; maius esse quiddam suspicata est ac pulchrius quod extra conspectum natura posuisset. (2) denique tantum inter duas interest quantum inter deum et hominem: altera docet quid in terris agendum sit, altera quid agatur in caelo.* **Plutarch** *Virt.Mor.* 443E ἄμφω δὲ τοῦ λόγου θεωροῦντος, τὸ μὲν περὶ τὰ ἀπλῶς ἔχοντα μόνον ἐπιστημονικὸν καὶ θεωρητικὸν ἐστὶ, τὸ δ' ἐν τοῖς πῶς ἔχουσι πρὸς ἡμᾶς βουλευτικὸν καὶ πρακτικὸν· ἀρετὴ δὲ τούτου μὲν ἡ φρόνησις ἐκείνου δ' ἡ σοφία. **Aspasius** in *EN* 1.2–11 ἡ περὶ τὰ ἡθὴ πραγματεία καὶ μάλιστα ἡ πολιτικὴ {ἡθικὴ} κατὰ μὲν τὸ ἀναγκαῖον προτέρα ἐστὶ τῆς θεωρητικῆς φιλοσοφίας, κατὰ δὲ τὸ τίμιον ὑστέρα κτλ. **Albinus** *Prol.* 6, pp. 150. 35–151.4 H. ἵνα δὲ τις τὰ οἰκεία δόγματα παραλάβῃ, τοῖς τοῦ ὑψηλῆς κοῦ χαρακτήρος διαλόγοις (sc. Platonis) δεῖσιν ἐντυγχάνειν· τοῦτο γὰρ ἐστὶν αὐτῶν ἴδιον, εἴ γε ἐν τούτοις ἐστὶ μὲν τὰ φυσικὰ δόγματα, ἐστὶ δὲ καὶ τὰ ἡθικὰ καὶ τὰ πολιτικὰ καὶ οἰκονομικά, ὧν τὰ μὲν ἐπὶ θεωρίαν καὶ τὸν θεωρητικὸν βίον ἔχει τὴν ἀναφορὰν, τὰ δ' ἐπὶ πράξιν καὶ τὸν πρακτικὸν βίον, ἄμφω δὲ ταῦτα ἐπὶ τὸ ὁμοιωθῆναι θεῷ. **Alcinous** *Did.* c. 2, p. 152.30–153.2 H. διττοῦ δ' ὄντος τοῦ βίου, τοῦ μὲν θεωρητικοῦ, τοῦ δὲ πρακτικοῦ, τοῦ μὲν θεωρητικοῦ τὸ κεφάλαιον ἐν τῇ γνώσει τῆς ἀληθείας κεῖται, τοῦ πρακτικοῦ δὲ ἐν τῇ πράξει τὰ ὑπαγορευόμενα ἐκ τοῦ λόγου. τίμιος μὲν δὴ ὁ θεωρητικὸς βίος, ἐπόμενος δὲ καὶ ἀναγκαῖος ὁ πρακτικὸς· ὅτι δὲ τοῦτο οὕτως ἔχει, ἐντεῦθεν ἂν γένοιτο δῆλον. (κτλ.) **Marcus Aurelius** 11.1. **Ptolemy** *Jucid.* 2, p. 4.21–5.3 Lammert ὁ δ' ἄνθρωπος ὁρέγεται φύσει τῆς ἀληθείας καθάπερ τῆς κοινωνίας, ἐν μὲν ταῖς πράξεσι φιλοικειοτάτος τις ὢν, ἐν δὲ τοῖς θεωρήμασι φιλαληθέστατος. **Apuleius** *Plat.* 2.252–253 *sapientiae finis est, ut (ad) dei meritum sapiens provehatur hancque futuram eius operam, ut aemulatione vitae ad deorum actus accedat* (cf. *Pl. Thet.* 176a–b πειράσθαι χρή ἐνθένδε ἐκείσε φεύγειν ὅτι τάχιστα. φυγὴ δὲ ὁμοίωσις θεῷ κατὰ τὸ δυνατόν). *verum hoc ei poterit*

provenire, si virum perfecte iustum, pium, prudentem (cf. Pl. *Tht.* 176b δίκαιον καὶ ὅσιον μετὰ φρονήσεως) *se praebeat.* (253) *unde non solum in perspectandi cognitione, verum etiam agendi opera sequi eum convenit. quae diis atque hominibus sint probata, quippe cum summus deorum cuncta haec non solum cogitationum ratione consideret, sed prima, media, ultima obeat compertaque intime providae ordinationis universitate et constantia regat. ... sapientem quippe pedisequum et imitatore dei dicimus et sequi arbitramur deum: id est enim* ἔπου θεῷ (cf. above, Ethical Doxography A). **Galen** *PHP* 9.7.9–14 μόνοις οὖν ἐκείνοις τοῖς φιλοσόφοις καὶ τὸ μηδὲν εἰς ἡθὺς τε καὶ τὰς πολιτικὰς πράξεις χρήσιμον ζητεῖν ἀκόλουθόν ἐστιν, ὅσοι τὴν θεωρητικὴν φιλοσοφίαν εἵλοντο, καθάπερ γε καὶ εἰ μετὰ (τὸν) κόσμον τοῦτόν ἐστί τι, καὶ εἰ ἔστιν, ὁποῖόν τι τοῦτο for μετὰ (τὸν) κόσμον cf. *Propr.Plac.* c. 2, p. 172.31–173.2 Boudon-Millot–Pietrobelli, text Lami πότερον ἀγέννητός ἐστιν ὁ κόσμος ἢ γέννητος, εἴτε τι μετ’ αὐτὸν ἔξωθεν, εἴτε μηδὲν, ... ἀγνοεῖν φημι, and *Gloss.* 19.73.9–11 K. **Alexander of Aphrodisias** at **Averroes** *Long Commentary on Aristotle’s Physics* proem pp. 73–75 Harvey The utility [of this book] is part of the utility of theoretical science. It has already been explained in the voluntary science, i.e. [the science] that inquires into voluntary actions, that the existence of man in his ultimate perfection and in his perfect essence is his being perfect in [the knowledge of] the theoretical sciences. His having achieved this state is the ultimate happiness and [the cause of] eternal life. ... Now in addition to what follows from a knowledge of the theoretical sciences, there is [the acquisition] of important qualities, for when the students of these sciences attain to what is natural for them, it will follow necessarily that they will be distinguished in all the kinds of important virtues, which are justice, temperance, courage, magnanimity, generosity, truth, faith, humility, and the other human virtues. Alexander has already explained in his foreword to this book how the existence of these virtues follows from a knowledge of the theoretical sciences. **Ptolemy** *Synt.* 1.1, p. 4.6–9 Heiberg α’. Προοίμιον. πάνυ καλῶς οἱ γνησίως φιλοσοφῆσαντες, ὧς Σύρε, δοκοῦσί μοι κεχωρικέναι τὸ θεωρητικὸν τῆς φιλοσοφίας ἀπὸ τοῦ πρακτικοῦ. *Iudic.* c. 10, p. 16.10–12 ὁ δὲ νοῦς τὴν μὲν οὐσίαν ἀμέριστος δυνάμεσι δὲ δυσὶ ταῖς πρώταις κεχρημένος τῇ τε θεωρητικῇ καὶ τῇ πρακτικῇ. *Harm.* 3.6 καὶ τοίνυν καθ’ ἑκατέραν ἀρχήν, τουτέστι τὴν θεωρητικὴν καὶ τὴν πρακτικὴν, τριῶν ὄντων γενῶν, ἐπὶ μὲν τῆς θεωρητικῆς τοῦ τε φυσικοῦ καὶ τοῦ μαθηματικοῦ καὶ τοῦ θεολογικοῦ, ἐπὶ δὲ τῆς πρακτικῆς τοῦ τε ἡθικοῦ καὶ τοῦ οἰκονομικοῦ καὶ τοῦ πολιτικοῦ (κτλ.). **Diogenes Laertius** *V.P.* 3.48 τοῦ δὴ (δια)λόγου τοῦ Πλατωνικοῦ δὴ εἰσὶν ἀνωτάτω χαρακτῆρες, ὃ τε ὑψηλῆς καὶ ὁ ζητητικός. διαιρεῖται δὲ ὁ ὑψηλῆς εἰς ἄλλους δύο χαρακτῆρας, θεωρηματικόν τε καὶ πρακτικόν. καὶ τῶν ὁ μὲν θεωρηματικός εἰς τὸν φυσικὸν καὶ λογικόν, ὁ δὲ πρακτικός εἰς τὸν ἡθικόν καὶ πολιτικόν. *V.P.* 7.87–88 διόπερ πρῶτος ὁ Ζήνων (*SVF* 2.179) ἐν τῷ Περὶ ἀνθρώπου φύσεως τέλος εἶπε τὸ ὁμολογουμένως τῇ φύσει ζῆν, ὅπερ ἐστὶ κατ’ ἀρετὴν ζῆν· ἄγει γὰρ πρὸς ταύτην ἡμᾶς ἡ φύσις. ... πάλιν δ’ ἴσον ἐστὶ τὸ κατ’ ἀρετὴν ζῆν τῷ κατ’ ἐμπειρίαν τῶν φύσει συμβαινόντων ζῆν, ὥς φησι Χρῆσιππος (*SVF* 3.4) ἐν τῷ (88) πρώτῳ Περὶ τελῶν· μέρη γὰρ εἰσὶν αἱ ἡμέτεραι φύσεις τῆς τοῦ ὅλου. διόπερ τέλος γίνεται τὸ ἀκολουθῶς τῇ φύσει ζῆν, ὅπερ ἐστὶ κατὰ τε τὴν αὐτοῦ καὶ

κατὰ τὴν τῶν ὄλων. V.P. 7.92 Παναίτιος (fr. 108 Van Straaten, 67 Alesse) μὲν οὖν δύο φησὶν ἀρετάς, θεωρητικὴν καὶ πρακτικὴν. V.P. 7.130 (SVF 3.687) βίων δὲ τριῶν ὄντων, θεωρητικοῦ καὶ πρακτικοῦ καὶ λογικοῦ, τὸν τρίτον φασὶν αἰρετέον· γεγονέναι γὰρ ὑπὸ τῆς φύσεως ἐπιτήδεις τὸ λογικὸν ζῶον πρὸς θεωρίαν καὶ πράξιν. **Codex Vaticanus 435** (Δικαιάρχῳ (fr. 31 Wehrli, 36 Mirhady) ... δοκεῖ) εἶναι τὴν σοφίαν τότε γοῦν ἐπιτηδεύειν ἔργων καλῶν, χρόνῳ δὲ λόγων ὀχλικῶν γενέσθαι τέχνην. καὶ νῦν μὲν τὸν πιθανῶς διαλεχθέντα μέγαν εἶναι δοκεῖν φιλόσοφον, ἐν δὲ τοῖς πάλαι χρόνοις ὁ ἀγαθὸς μόνος ἦν φιλόσοφος, εἰ καὶ μὴ περιβλέπτους καὶ ὀχλικούς ἀσκοῖτο λόγους. οὐ γὰρ ἐξήτουν ἐκεῖνοί γε εἰ πολιτευτέον οὐδὲ πῶς, ἀλλ' ἐπολιτεύοντο αὐτοὶ καλῶς, οὐδὲ εἰ χρὴ γαμῆν, ἀλλὰ γήμαντες ὃν δεῖ τρόπον γαμῆν ταῖς γυναιξὶ συνεβίου. ταῦτα ἦν, φησὶν, ἔργα ἀνδρῶν καὶ ἐπιτηδεύματα σοφῶν, αἱ δὲ ἀποφθέγγεις αὐταὶ πράγματα φορτικόν. **Calcidius in Tim.** c. 264 *duplex namque totius philosophiae spectatur officium, consideratio et item actus, consideratio quidem ob assiduam contemplationem rerum divinarum et immortalium nominata, actus vero, qui iuxta rationabilis animae deliberationem progreditur in tuendis conservandisque rebus mortalibus*. **Boethius in Isag.** ed. pr. 1.3, p. 8.1–2 *Brandt est enim philosophia genus, species vero duae, una quae theoretica dicitur, altera quae practica, id est speculativa et activa*. **Cons.** 1 prosa 1.4 (on the garb of Philosophy) *harum in extremo margine Π graecum, in supremo vero Θ legabatur intextum atque inter utrasque litteras in scalarum modum gradus quidam insigniti videbantur, quibus ab inferiore ad superius elementum esset ascensus*. **Simplicius in Phys.** 4.17–29 (see above, Alexander in Averroes) χρήσιμος δὲ ἐστὶν ἡ φυσιολογία οὐ μόνον ... , ἀλλ' ὅτι καὶ πρὸς τὰς ἄλλας τῆς ψυχῆς τελειώσεις τὰ μέγιστα συντελεῖ. καὶ γὰρ ταῖς πρακτικαῖς ἀρεταῖς συλλαμβάνει, δικαιοσύνη μὲν καθ' ὅσον ἐπιδείκνυσι τὰ τε στοιχεῖα καὶ τὰ μέρη τοῦ παντός ἀλλήλοις εἰκόντα καὶ ἀγαπῶντα τὴν ἑαυτῶν τάξιν καὶ τὴν ἰσότητα φυλάττοντα τὴν γεωμετρικὴν καὶ διὰ τοῦτο πλεονεξίας ἀφίστησι, σωφροσύνη δὲ τὴν φύσιν δεικνύσα τῆς ἡδονῆς, ὅτι προηγούμενον μὲν οὐδὲν ἐστὶν ἀγαθόν, παρακολούθημα δὲ τι ἕως τότε σφοδρὸν καὶ αἰρετὸν δοκοῦν, ἕως ἔτι πολλῷ τῷ παρὰ φύσιν συνανακέκρται. **Ammonius Hermiou in Isag.** 15.1–6 ἔπειδ' ἡ δὲ καὶ τὸ πρακτικὸν μέρος τῆς φιλοσοφίας εἰρήκαμεν, ἀνάγκη καὶ τοῦτο διελεῖν. διαιρεῖται τοίνυν τὸ πρακτικὸν εἰς τε τὸ ἡθικὸν καὶ οἰκονομικὸν καὶ πολιτικόν. ὁ γὰρ πράττων τι ἀγαθὸν ἢ εἰς ἑαυτὸν πράττει κοσμῶν αὐτοῦ τὰ ἡθικὰ καὶ τὸν βίον καὶ λέγεται ἡθικός, ἢ εἰς τὸν ἑαυτοῦ οἶκον καὶ λέγεται οἰκονομικός, ἢ τὴν ὅλην κοσμεῖ πόλιν καὶ λέγεται πολιτικός. **Sergius of Reshaina Introduction to Aristotle and his Categories** §3 Aydin Those, who in wisdom have spoken about wisdom, say firstly that philosophy is divided into two parts, that is into theory and practice. **Commentaire sur les Catégories (à Théodore)** [I 1–2] Hugonnard-Roche. **Philoponus in Cat.** 4.23–27 διαιροῦνται δὲ τὰ αὐτοπρόσωπα [sc. Aristotle's acromatic works] εἰς τε τὰ θεωρητικὰ καὶ τὰ πρακτικὰ καὶ τὰ ὀργανικά, ὅτι καὶ ἡ φιλοσοφία εἰς δύο ταῦτα διήρηται, εἰς τε τὸ θεωρητικὸν καὶ τὸ πρακτικόν, καὶ θεωρητικὰ μὲν εἰσιν ἐν οἷς ἐπισκέπτεται περὶ τῆς ἀληθείας καὶ τοῦ ψεύδους, πρακτικὰ δὲ ἐν οἷς ἐπισκοπεῖ περὶ τοῦ ἀγαθοῦ καὶ τοῦ κακοῦ. **Asclepius in Met.** 359.3–5 καὶ ἐντεῦθεν ἀναφαίνεται ἡμῖν ἡ διαίρεσις τῆς φιλοσοφίας, ὅτι εἰκότως εἰς δύο τμήματα διαιρεῖται εἰς τε τὸ πρακτικὸν καὶ εἰς τὸ θεωρητικόν. **Elias in Isag.**

26.7 διαιρείται τοῖνυν ἡ φιλοσοφία εἰς τὸ θεωρητικὸν καὶ πρακτικόν. **David Prol.** 17.1–17 ὅτι δὲ τέλειος φιλόσοφος ὁμοίος ἐστὶ τῷ θεῷ, δῆλον, ἐπειδὴ τοῖς αὐτοῖς χαρακτηρίζεται, οἷσπερ καὶ ὁ θεός· ὥσπερ γάρ ὁ θεὸς χαρακτηρίζεται τῷ ἀγαθῷ καὶ τῷ γνωστικῷ καὶ τῷ δυνατῷ, ... τὸν αὐτὸν δὴ τρόπον καὶ ὁ τέλειος φιλόσοφος τοῖς τρισὶ τούτοις χαρακτηρίζεται, λέγω δὴ τῷ ἀγαθῷ καὶ τῷ γνωστικῷ καὶ τῷ δυνατῷ· καὶ τῷ μὲν ἀγαθῷ, ὅτι ὥσπερ ὁ θεὸς προνοεῖται τῶν πάντων, οὕτω καὶ ὁ φιλόσοφος προνοεῖται τῶν ἀτελῶν ψυχῶν καὶ ἐπὶ τὸ τέλειον αὐτὰς ἄγει διὰ τοῦ ἀγνοοῦσας αὐτὰς ἐπὶ τὴν γνῶσιν μεταφέρειν· τῷ δὲ γνωστικῷ, ὅτι ὥσπερ τὸ θεῖον πάντα γινώσκει, οὕτω καὶ ὁ τέλειος φιλόσοφος ἐπαγγέλλεται πάντα γινώσκειν· τῷ δὲ δυνατῷ, ὅτι ὥσπερ τὸ θεῖον ὅσα δύναται καὶ βούλεται, οὕτω καὶ ὁ τέλειος φιλόσοφος ὅσα δύναται καὶ βούλεται. **Prol.** 55.17–21 οὕτως οὖν καὶ ἡ φιλοσοφία διαιρείται εἰς θεωρητικὸν καὶ πρακτικόν. καὶ διὰ μὲν τοῦ θεωρητικοῦ γινώσκει πάντα τὰ ὄντα, διὰ δὲ τοῦ πρακτικοῦ κατόρθωσιν ποιεῖται τῶν ἡθῶν. ἄξιον δὲ ζητῆσαι διὰ τί ἡ φιλοσοφία εἰς δύο διηρέθη, φημί δὴ εἰς θεωρητικὸν καὶ πρακτικόν, καὶ μὴ εἰς ἓν ἢ εἰς πλείονα. **Prol.** 70.29–71.4 ἀλλ’ οὖν τῷ ὅλῳ ὁμωνύμως λέγονται (sc. τὸ θεωρητικὸν καὶ τὸ πρακτικόν)· καὶ γὰρ καὶ τὸ θεωρητικὸν λέγεται φιλοσοφία ὁμωνύμως τῇ φιλοσοφίᾳ καὶ τὸ πρακτικὸν ὁμοίως. λείπεται οὖν λέγειν ὅτι ὡς τὰ ἀφ’ ἑνὸς εἰσιν· ἀπὸ γὰρ τῆς φιλοσοφίας ὠνομάσθησαν· καὶ γὰρ καὶ τὸ θεωρητικὸν ἀπὸ τῆς φιλοσοφίας λέγεται φιλοσοφία καὶ τὸ πρακτικὸν ὁμοίως. ὁ μὲντοι Ἀριστοτέλης λέγει (*Met.* α. 1.993b19–23?) ὅτι ὡς ἀπὸ ὅλου εἰς μέρη ἐγένετο ἡ διαίρεσις, καὶ καλῶς λέγει· καὶ γὰρ φησιν ὅτι τὸ θεωρητικὸν καὶ πρακτικὸν μέρη τῆς φιλοσοφίας εἰσιν· ὥσπερ (γὰρ) ἑνὸς τῶν μερῶν ἀπολιμπανόμενου ἀτελές τὸ ὅλον γίνεται (καὶ γὰρ χειρὸς ἀπουσίας ἀτελές τὸ ὅλον σώμα ἐστὶ), τὸν αὐτὸν τρόπον καὶ τοῦ θεωρητικοῦ ἀπόντος ἢ τοῦ πρακτικοῦ ἀτελὲς ἐστὶν ἡ φιλοσοφία· δεῖ γὰρ τὸν τέλειον φιλόσοφον μὴ μόνον τῇ θεωρίᾳ κοσμεῖσθαι, ἀλλὰ καὶ τῇ πράξει ἐγκαλλωπίζεσθαι. **Cassiodorus Inst.** 2.3.3–4 *consuetudo itaque est doctoribus philosophiae, antequam ad Isagogen veniant exponendam, divisionem philosophiae paucis attingere; quam nos quoque servantes praesenti tempore non immerito credimus intimandam. philosophia dividitur in inspectivam (haec dividitur in naturalem, doctrinalem (haec dividitur in arithmeticam, musicam, geometriam, astronomiam), divinam) et actualem (haec dividitur in moralem, dispensativam, civilem).* **Isidore of Seville Etym.** 2.23.3 *solent autem philosophi antequam ad Isagogen veniant exponendam, definitionem philosophiae ostendere, quo facilius ea, quae ad eam pertinent, demonstrantur.* **Etym.** 2.24.9 *philosophia dividitur in duas partes: prima inspectiva; secunda actualis.* **On the Elements According to the Opinion of Hippocrates**, the third work in the 6th cent. *Alexandrian Epitomes of Galen*, p. 134 Walbridge, 6. To which of the two parts of the art [of medicine] does it belong? This book belongs to the theoretical part of medicine. **Agnellus of Ravenna** in *Gal. De sectis* c. 5, p. p. 24.9–11 *dicamus nunc in quot partes dividitur medicina: in duas, theoreticon et practicon.* **Miskawaih Tartīb as-sa’ādāt** p. 58.2 ff. (tr. Gutas (1983) 232–233) Whoever wishes to perfect himself as a human being and reach the rank which is meant by ‘human nature’ in order to integrate his self and have the same preferences and intentions as those of the philosophers, let him acquire these two arts—I mean the theoretical and practical parts of philosophy; as a re-

sult, there will accrue to him the essential natures of things by means of the theoretical part, and good deeds by means of the practical part. As for the classification [of the parts] of these two arts and how they are to be followed toward the two goals mentioned above, this has to be done in accordance with what Aristotle the philosopher did. For it was he who classified and sorted [the parts] of philosophy and who established for it a method to be followed from beginning to end, as Paul (i.e. Paul the Persian) mentioned in what he wrote to Anûsirwân. **John of Damascus** *Dial.* c. 3.28 Kotter διαιρείται δὲ ἡ φιλοσοφία εἰς θεωρητικὸν καὶ πρακτικόν. **Eustratius** in *EN prim.* 1.1–2 τῆς φιλοσοφίας εἰς δύο διαιρουμένης, λέγω δὲ τὸ θεωρητικὸν τε καὶ πρακτικόν, περὶ ἅμφω ὁ Ἀριστοτέλης ἐσπούδασεν. **Psellus** *Or.Hag.* 8.343–344 Fisher δύο τὰ ἀνωτάτω γένη τῆς ἀρετῆς, θεωρία καὶ πράξις, ὧν αἱ παραφυάδες ἀσύνοπτοι. differently **Hippolytus** *Ref.* 7.19.4 καὶ γέγονεν αὐτῷ κατὰ τὴν διαίρεσιν τοῦ κόσμου καὶ ὁ τῆς φιλοσοφίας διηρημένος λόγος. Φυσικὴ γάρ τις ἀκρόασις αὐτῷ γέγονεν, ἐν ᾗ πεπόνηται περὶ τῶν φύσει καὶ οὐ προνοίᾳ διοικουμένων ἀπὸ τῆς γῆς μέχρι τῆς σελήνης πραγμάτων. γέγονε δὲ αὐτῷ καὶ Μετὰ τὰ φυσικὰ περὶ τῶν μετὰ (τὴν) σελήνην ἰδία τις ἄλλη οὕτως ἐπιγραφομένη πραγματεία λόγων. γέγονε δὲ αὐτῷ περὶ (τῆς) πέμπτης οὐσίας ἰδίου λόγος, ὅς ἐστιν αὐτῷ θεολογούμενος. τοιαύτη τις (ἐστὶ) καὶ ἡ διαίρεσις τῶν λόγων, ὡς τύπῳ περιλαβεῖν, (τῆς) κατ' Ἀριστοτέλην φιλοσοφίας.

On logic, whether part of philosophy or instrument: **Alexander of Aphrodisias** in *APr.* 1.7–8 (ἡ λογικὴ τε καὶ συλλογιστικὴ πραγματεία) τοῖς μὲν καὶ μέρος φιλοσοφίας εἶναι δοκεῖ, οἱ δὲ οὐ μέρος ἀλλ' ὄργανον αὐτῆς φασιν εἶναι. in *Top.* 74.29–30 ἡ ... λογικὴ πραγματεία ὄργανον χώραν ἔχει ἐν φιλοσοφίᾳ. **Galen** *Lib.Propr.* 19.39.8 K., p. 164.7–8 Boudon-Millot τὸ λογικὸν μέρος τῆς φιλοσοφίας. **Diogenes Laertius** *VP.* 5.28 (on Aristotle) τοῦ δὲ θεωρητικοῦ τὸν τε φυσικὸν καὶ λογικόν, οὗ τὸ λογικὸν οὐχ ὡς ὅλου μέρος, ἀλλ' ὡς ὄργανον προσηκριβωμένον. **Ammonius Hermeiou** in *Isag.* 23.23–24 ἡ δὲ λογικὴ οὐ μέρος τῆς φιλοσοφίας ἀλλ' ὄργανον, ὡς ἐν ἐτέρῳ δείξομεν. in *APr.* 8.20–25 οἱ μὲν Στωικοὶ (*SVF* 2.49) τὴν λογικὴν οὐ μόνον ὄργανον οὐκ ἀξιοῦσι καλεῖσθαι φιλοσοφίας, ἀλλ' οὐδὲ μόνον τὸ τυχόν, ἀλλὰ μέρος. καὶ τινὲς δὲ τῶν Πλατωνικῶν ταύτης ἐγένοντο τῆς δόξης, ὅτι κατὰ Πλάτωνα οὐκ ὄργανον ἡ λογικὴ ἀλλὰ μέρος καὶ τιμιώτατον μέρος ἐστὶν φιλοσοφίας. οἱ δὲ Περιπατητικοὶ ὄργανον αὐτὴν λέγουσιν ἀλλ' οὐ μέρος. in *APr.* 10.36–38 κατὰ γὰρ Πλάτωνα καὶ τὸν ἀληθὴ λόγον οὕτε μέρος ἐστὶν (sc. ἡ λογικὴ), ὡς οἱ Στωικοὶ (—) φασιν καὶ τινὲς τῶν Πλατωνικῶν, οὔτε μόνως ὄργανον, ὡς οἱ ἐκ τοῦ Περιπάτου φασίν, ἀλλὰ καὶ μέρος ἐστὶν καὶ ὄργανον φιλοσοφίας. **Sergius of Reshaina** *Commentaire sur les Catégories (à Théodore)* [III 1–13] Hugonnard-Roche. **Olympiodorus** *Prol.* 14.13–21 ἐπειδὴ τῶν Προλεγομένων ἀρχόμενοι πρὸς τρία τινὰ τὴν διδασκαλίαν ὑπισχνούμεθα ποιήσασθαι, πρὸς τε πᾶσαν φιλοσοφίαν, τὴν ἐπιστήμην φημί, καὶ πρὸς τὴν μέθοδον, τοῦτ' ἔστι τὴν λογικὴν, καὶ πρὸς τὸ σύγγραμμα, τοῦτ' ἔστι τὰς Κατηγορίας, φέρε διανύσαντες τὸ πρῶτον τῶν προτεθέντων ἡμῖν εἰς ἐξέτασιν ἐπὶ τὸ δεύτερον εὐτάκτως χωρήσωμεν, ἐπὶ τὴν μέθοδον φημι, ζητοῦντες εἰ μέρος ἢ ὄργανον ἡ λογικὴ τῆς φιλοσοφίας. δεῖ τοίνυν εἰδέναι ὅτι διάφοροι δόξαι γεγόνασι περὶ ταύτης, τῶν μὲν Στωϊκῶν (—) μέρος αὐτὴν εἶναι νομιζόντων, τῶν δὲ Περιπατητικῶν ὄργανον, τοῦ δὲ θείου Πλάτωνος μέρος ἅμα καὶ

ὄργανον. **Boethius** in *Isag.* ed. pr. 1.4, p. 9.24–10.4 *Brandt necessarius maxime uberrimusque fructus est artis eius quam Graeci λογικήν, nos rationalem possumus dicere. ... quam quidem artem quidam partem philosophiae, quidam non partem, sed ferramentum et quodammodo supellectilem iudicarunt.* in *Isag.* ed. sec. 1.3, p. 141.12–143.3 **Brandt.** **Elias** in *APr.* 134.4–13 **Westerink** εἰ μέρος ἢ ὄργανον ἢ λογικὴ φιλοσοφίας, Εὐτόκιος μὲν ζητεῖ τῆς Εἰσαγωγῆς ἀρχόμενος, Ἀλέξανδρος (in *APr.* 1.1sq.) δὲ καὶ Θεμίστιος τῶν συλλογιστικῶν πραγματειῶν ἀρχόμενοι. καὶ ἄμεινον οὗτοι· ἡ γὰρ λογικὴ κατὰ μόνην τὴν συλλογιστικὴν μέθοδον ζητεῖται εἰ μέρος ἢ ὄργανόν ἐστι φιλοσοφίας. τρεῖς τοίνυν γεγόνασι περὶ τοῦτου δόξαι, ἡ Στωϊκὴ, ἡ Περιπατητικὴ, ἡ Πλατωνικὴ ἢ τοι Ἀκαδημαϊκὴ. οἱ μὲν γὰρ Στωϊκοὶ μέρος οἶον τὴν λογικὴν φιλοσοφίας· τοιγαροῦν ἀντιδιαροῦσιν αὐτὴν τῷ θεωρητικῷ καὶ τῷ πρακτικῷ· οἱ δὲ Περιπατητικοὶ ὄργανον· Πλάτων δὲ τὰς ἀμφοτέρων νίκας ἀναδυσάμενος μέρος ἅμα καὶ ὄργανον τὴν λογικὴν φιλοσοφίας ἐκήρυξε (κτλ.). **Philoponus** in *APr.* 6.19–24. **David** in *APr.* 3.1, pp. 47.22–49.4 **Topchyan** (versio armenica).

exempla physica (ζητήματα sive προβλήματα φυσικά): **Xenophon** *Mem.* 4.7.7 (Anaxagoras 59A73 DK) ἐκείνος γὰρ λέγων μὲν τὸ αὐτὸ εἶναι πῦρ τε καὶ ἥλιον. **Plato** *Tim.* 40b–c ἐξ ἧς δὴ τῆς αἰτίας γέγονεν ὅς' ἀπλανῆ τῶν ἄστρον ζῶα θεῖα ὄντα καὶ αἰδία καὶ κατὰ ταῦτ' ἐν ταῦτ' στρεφόμενα αἰεὶ μένει· τὰ δὲ τρεπόμενα καὶ πλάτην τοιαύτην ἴσχοντα, καθάπερ ἐν τοῖς πρόσθεν ἐρρήθη, κατ' ἐκείνα γέγονεν. γῆν δὲ τροφὸν μὲν ἡμετέραν, ... (c) πρῶτην καὶ πρεσβυτάτην θεῶν ὅσοι ἐντὸς οὐρανοῦ γεγόνασιν (cf. ch. 2.13). **ps.Plato** *Epin.* 983a πρῶτον τὸ μέγεθος αὐτῶν (sc. τῶν ἄστρον) διανοηθῶμεν. οὐ γάρ, ὡς σμικρὰ φαντάζεται, τηλικαῦτα ὄντως ἐστίν, ἀλλ' ἀμήχανον ἕκαστον αὐτῶν τὸν ὄγκον. **Aristotle** *Top.* 1.11 104b1–8 see above §3. *Top.* 1.14 105b19–25 ἐστὶ δ' ὡς τύπῳ περιλαβεῖν τῶν προτάσεων καὶ τῶν προβλημάτων μέρη τρία· αἱ μὲν γὰρ ἠθικαὶ προτάσεις εἰσὶν, αἱ δὲ φυσικαὶ, αἱ δὲ λογικαὶ. ἠθικαὶ μὲν οὖν αἱ τοιαῦται, οἷον πότερον δεῖ τοῖς γονεῦσι μάλλον ἢ τοῖς νόμοις πειθαρχεῖν, ἐὰν διαφωνώσιν· λογικαὶ δὲ οἷον πότερον τῶν ἐναντίων ἢ αὐτῇ ἐπιστήμῃ ἢ οὐ· φυσικαὶ δὲ οἷον πότερον ὁ κόσμος αἰδῖος ἢ οὐ (cf. ch. 2.4). ὁμοίως δὲ καὶ τὰ προβλήματα. *Cael.* 2.7 289a16–18 οἱ πύρινα φάσκοντες εἶναι (sc. τὰ ἄστρα) διὰ τοῦτο λέγουσιν, ὅτι τὸ ἄνω σῶμα πῦρ εἶναι φασιν (cf. ch. 2.13). *Mete.* 1.3 341a35–36 ὁ ἥλιος, ὅσπερ μάλιστα εἶναι δοκεῖ θερμός, φαίνεται λευκὸς ἀλλ' οὐ πυρώδης ὢν (cf. ch. 2.20). *Met.* A.2 982b11–17 ὅτι δ' οὐ ποιητικὴ (sc. the discipline we are looking for), δῆλον καὶ ἐκ τῶν πρώτων φιλοσοφῶντων· διὰ γὰρ τὸ θαυμάζειν οἱ ἄνθρωποι καὶ νῦν καὶ τὸ πρῶτον ἠρξάντο φιλοσοφεῖν, ἐξ ἀρχῆς μὲν τὰ πρόχειρα τῶν ἀτόπων θαυμάσαντες, εἴτα κατὰ μικρὸν οὕτω προϊόντες καὶ περὶ τῶν μειζόνων διαπορήσαντες, οἷον περὶ τε τῶν τῆς σελήνης παθημάτων (cf. chs. 2.26–28) καὶ τῶν περὶ τὸν ἥλιον (cf. chs. 2.23–24) καὶ ἄστρα (cf. chs. 2.15–19) καὶ περὶ τῆς τοῦ παντός γενέσεως (cf. chs. 1.5, 2.4). *Met.* A.8 1207a4b1–10 (cf. ch. 1.6) παραδέδοται δὲ παρὰ τῶν ἀρχαίων καὶ παμπαικῶν ἐν μύθῳ σχήματι καταλελειμμένα τοῖς ὕστερον ὅτι θεοὶ τέ εἰσιν οὗτοι (sc. οἱ ἀστέρες) καὶ περιέχει τὸ θεῖον τὴν ὅλην φύσιν. τὰ δὲ λοιπὰ μυθικῶς ἤδη προσήκται πρὸς τὴν πειθὴ τῶν πολλῶν καὶ πρὸς τὴν εἰς τοὺς νόμους καὶ τὸ συμφέρον χρῆσιν· ἀνθρωποειδεῖς τε γὰρ τούτους καὶ τῶν ἄλλων ζώων ὁμοίους τισὶ λέγουσι, καὶ τούτοις ἕτερα ἀκόλουθα καὶ παραπλήσια τοῖς εἰρημένοις, ὧν εἴ τις χωρίσας αὐτὸ λάβοι μόνον τὸ πρῶτον, ὅτι θεοὺς ὦντο τὰς πρώτας οὐσίας εἶναι, θείως ἂν εἰρησθαι νομί-

σειεν. **ps.Plato** *Def.* 411a ἥλιος πῦρ οὐράνιον (cf. ch. 2.20)· ... ζῶον αἰδίδιον ἔμψυχον τὸ μέγιστον. **Epicurus** *Ep.Hdt.* at D.L. 10.76–77 καὶ μὴν ἐν τοῖς μετεώροις φορὰν καὶ τροπὴν καὶ ἔκλειψιν καὶ ἀνατολὴν καὶ δύσιν καὶ τὰ σύστοιχα τούτοις μήτε λειτουργοῦντός τινος νομίζειν δεῖ γίνεσθαι καὶ διατάττοντος ἢ διατάξαντος ... (77) ... μήτε αὖ πῦρ ἅμα ὄντα συνεστραμμένον τὴν μακαριότητα κεκτημένα κατὰ βούλησιν τὰς κινήσεις ταύτας λαμβάνειν. *Ep.Pyth.* at D.L. 10.88–116 on the more important issues (86 φυσικῶν προβλημάτων) in cosmology and meteorology, too long to quote. **Posidonius** (F 18 E.-K., 255 Theiler) in *Geminus' Epitome* at Alexander of Aphrodisias at *Simp. in Phys.* 292.3–5 πολλαχοῦ τοῖνυν ταυτὸν κεφάλαιον (cf. ch. 4.14.4) ἀποδείξεια προθήσεται ὃ τε ἀστρολόγος καὶ ὁ φυσικός, οἷον ὅτι μέγας ὁ ἥλιος (cf. ch. 2.21), ὅτι σφαιροειδὴς ἢ γῆ (cf. ch. 3.10.1). **Cicero** *ND* 2.41 *quare cum solis ignis similis eorum ignium sit qui sunt in corporibus animantium, solem quoque animantem esse oportet, et quidem reliqua astra quae oriantur in ardore caelesti qui aether vel caelum nominatur.* *Div.* 2.11 *quid? quae a dialecticis aut a physicis tractantur, num quid eorum divinari potest? unusne mundus sit an plures* (cf. chs. 1.5, 2.1), *quae sint initia rerum, ex quibus nascuntur omnia* (cf. ch. 1.3): *physicorum est ista prudentia.* **Ovid** *Met.* 15.67–72 *magni primordia mundi* (cf. ch. 1.3) / *et rerum causas et, quid natura* (cf. ch. 1.1), *docebat* (sc. Pythagoras), / *quid deus* (cf. ch. 1.7), *unde nives* (cf. ch. 3.4), *quae fulminis esset origo* (cf. ch. 3.3), / *Iuppiter an venti discussa nube tonarent* (cf. ch. 3.3), / *quid quateret terras* (cf. ch. 3.15), *qua sidera lege mearent* (cf. ch. 2.16), / *et quodcumque latet.* **Diogenes Laertius** *V.P.* 2.1 (Anaximander 11A1 DK) τὸν ἥλιον οὐκ ἐλάττονα τῆς γῆς καὶ καθαρώτατον πῦρ (cf. chs. 2.20–21). **Arius Didymus** fr. 10 Diels at *Stob. Ecl.* 1.25.4, p. 212.13–19 Ἀριστοτέλης ἐκ πέμπτῃς οὐσίας τὸν ἥλιον. ... οὔτε δὲ τὸν ἥλιον οὔτε τῶν ἄλλων ἀστρῶν ὅτιοῦν πῦρ εἶναι (cf. ch. 2.20). fr. 21 Diels at *Stob. Ecl.* 1.10.16c, p. 130.10 (*SVF* 2.413) ὁ γὰρ ἥλιος πῦρ ἐστὶν εἰλικρινές (cf. ch. 2.20). **Plutarch** *Fac.* 940C (*SVF* 2.677) καὶ γὰρ αὐτὴν τὴν σελήνην ὥσπερ τὸν ἥλιον, ζῶον ὄντα πύρινον καὶ τῆς γῆς ὄντα πολλαπλάσιον. *SR* 1053A (*SVF* 2.579) ἔμψυχον ἡγεῖται (sc. Χρῦσιππος) τὸν ἥλιον, πύρινον ὄντα καὶ γεγενημένον ἐκ τῆς ἀναθυμιάσεως εἰς πῦρ μεταβαλοῦσης. **Lucian** *Paras.* 11 ὁ ... ζητῶν περὶ σχήματος γῆς (cf. ch. 3.10) καὶ κόσμων ἀπειρίας (cf. ch. 1.5) καὶ μεγέθους ἡλίου (cf. ch. 2.21) καὶ ἀποστημάτων (cf. ch. 2.31) καὶ πρώτων στοιχείων (cf. ch. 1.3) καὶ περὶ θεῶν, εἴτε εἰσὶν εἴτε οὐκ εἰσὶ (cf. ch. 1.7), καὶ περὶ αὐτοῦ τοῦ τέλους αἰεὶ πολεμῶν καὶ διαφερόμενος πρὸς τινὰς οὐ μόνον ἐν ἀνθρωπίναις, ἀλλὰ καὶ ἐν κοσμικαῖς ἐστὶν ὀχλήσεσιν. **Diogenes Laertius** *V.P.* 7.144 εἶναι δὲ τὸν μὲν ἥλιον εἰλικρινές πῦρ (cf. ch. 2.20.2–6), καθὰ φησι Ποσειδώνιος (F 17 E.-K., 312 Theiler) ἐν τῷ ἐβδόμῳ *Περὶ μετεώρων* καὶ μείζονα τῆς γῆς (cf. ch. 2.20.1), ὡς ὁ αὐτὸς ἐν τῷ ἕκτῳ τοῦ Φυσικοῦ λόγου (F 9 E.-K., 261a Theiler). **Plotinus** 5.1[10].2 ἔστι δὲ καὶ ἥλιος θεός, ὅτι ἔμψυχος, καὶ τὰ ἄλλα ἄστρα. **Photius** *Bibl.* 212 (*Aenesidemus* fr. B8 Polito) ἐν δὲ τῷ β' (sc. τῶν Πυρρωνίων λόγων) κατὰ μέρος ἤδη ἀρχόμενος ἐπεξίεναι τὰ ἐν κεφαλαίῳ εἰρημένα, περὶ τε ἀληθῶν (ἀρχῶν *coni.* Pappenheim *prob.* Polito, cf. ch. 1.3) καὶ αἰτίων (cf. ch. 1.11) διαλαμβάνει καὶ παθῶν καὶ κινήσεως (cf. ch. 1.23), γενέσεώς τε καὶ φθοράς (cf. ch. 1.24) καὶ τῶν τούτοις ἐναντίων, κατὰ πάντων αὐτῶν τὸ ἀπορόν τε καὶ ἀκατάληπτον πυκνοῖς, ὡς οἴεται, ἐπιλογισμοῖς ὑποδεικνύς. καὶ ὁ γ' δὲ αὐτῷ λόγος περὶ

κινήσεως (νοήσεως coni. Natorp prob. Polito) καὶ αἰσθήσεως (cf. chs. 4.8–12) καὶ τῶν κατ' αὐτάς ιδιωμάτων, τὰς ὁμοίας περιεργαζόμενος ἐναντιολογίας. ... ἐν δὲ τῷ δ' ... ἐγείρει δὲ τὰς ἐξ ἔθους ἐφεξῆς ἀπορίας περὶ τε ὅλης τῆς φύσεως καὶ κόσμου (cf. chs. 1.1, Book 2) καὶ θεῶν (cf. chs. 1.6–7), οὐδὲν τῶν εἰς κατὰληψιν πεσεῖν ἐντεινόμενος. **Macrobius** in *Somn.* 2.17.16 *cum vero vel de sphaerarum modo vel de novitate sive magnitudine siderum deque principatu solis et circis caelestibus cingulisque terrestribus et Oceani situ loquitur* (sc. Cicero in the *Somnium Scipionis*) *et harmoniae superum pandit arcanum, physicae secreta commemorat; at cum de motu et immortalitate animae disputat, cui nihil constat inesse corporeum, cuiusque essentiam nullus sensus sed sola ratio apprehendit, illic ad altitudinem philosophiae rationalis* (sc. in the Neoplatonic sense) *ascendit*.

On the sun: **Aristotle** *de An.* 3.3 428b2–4 φαίνεται δὲ γε καὶ ψευδῇ, περὶ ὧν ἅμα ὑπόληψιν ἀληθῆ ἔχει, οἷον φαίνεται μὲν ὁ ἥλιος ποδιαῖος, πιστεύεται δ' εἶναι μείζων τῆς οἰκουμένης (cf. ch. 2.21). ad loc. see **Simplicius** (fort. **Priscianus Lydus**) in *de An.* 213.1–11 'φαίνεται δὲ γε καὶ ψευδῇ, περὶ ὧν ἅμα ὑπόληψιν ἀληθῆ ἔχει'. ἐναργές οἶμαι καὶ τοῦτο ὡς οὐ μόνον δεῖ ἀμφοτέρως καθ' αὐτὸ περὶ τοῦ αὐτοῦ εἶναι, ἀλλὰ καὶ μὴ διαστασιάζειν πρὸς ἀλλήλας. στάσις δὲ ἐν ταῖς γνώσεσιν ἢ κατὰ τὸ ἀληθές καὶ τὸ ψεῦδος. ὅταν οὖν ὡς ἐπὶ τοῦ ἡλίου ἢ μὲν αἰσθησις ἢ ψευδής, ἢ δὲ δόξα ἀληθής, συμβήσεται τὴν ἐξ ἀμφοῖν κατὰ συμπλοκὴν συστάσαν φαντασίαν τὴν αὐτὴν ἅμα τε ἀληθῆ καὶ ψευδῇ γίνεσθαι, εἰ μὴ ἄρα μεταπίπτειν τις καὶ γίνεσθαι ψευδῇ θεῖτο καὶ τὴν δόξαν' ὅτι γὰρ ἢ αἰσθησις οὐ μετατίθεται εἰς τὸ ἀληθές ἢ περὶ τοῦ ἡλίου, φανερόν. ἀλλ' οὐδὲ ἢ δόξα ἐπὶ τὸ ψεῦδος, μήτε ἡμῶν μεταδοξασάντων μήτε τοῦ ἡλίου ἄλλως νῦν ἢ πρότερον ἔχοντος. **Epicurus** *Ep.Pyth.* at D.L. 10.91 τὸ δὲ μέγεθος ἡλίου τε καὶ τῶν λοιπῶν ἀστρῶν κατὰ μὲν τὸ πρὸς ἡμᾶς τηλικούτον ἐστὶν ἡλικὸν φαίνεται. ... κατὰ δὲ τὸ καθ' αὐτὸ ἢτοι μείζων τοῦ ὁραμένου ἢ μικρῷ ἔλαττον ἢ τηλικούτον (cf. ch. 2.21). **Posidonius** (F 18 E.-K., 255 Theiler) at **Geminus'** *Epitome* at **Alexander of Aphrodisias** at **Simp.** in *Phys.* 292.3–5 πολλὰ τοῖς ταῦτον κεφάλαιον ἀποδείξει προθήσεται ὅ τε ἀστρολόγος καὶ ὁ φυσικός, οἷον ὅτι μέγας ὁ ἥλιος (cf. ch. 2.21). **Lucretius** *DRN* 2.1048–1050 *principio nobis in cunctas undique partis / et latere ex utroque (supra) superque per omne / nulla est finis* (cf. chs. 1.5, 2.1). **Cicero** *Luc.* 126 *solis autem magnitudinem (ipse enim hic radiatus me intueri videtur admonens ut crebro faciam mentionem sui) vos ergo huius magnitudinem quasi decempeda permensi refertis; ego me, quasi malis architectis, mensurae vestrae nego credere: dubium est uter nostrum sit, leviter ut dicam, verecundior? nec tamen istas quaestiones physicorum exterminandas puto*. **Cleomedes** *Cael.* 2.1.2–3 'Ἐπίκουρος (—) καὶ οἱ πολλοὶ τῶν ἀπὸ τῆς αἰρέσεως τηλικούτων εἶναι τὸν ἥλιον ἀπεφώνησαν ἡλικὸς φαίνεται (refuted at length by **Cleomedes**). **Galen** *Aff.Dig.* 5.67.11–13 K. οὐ μὴν εἰ γέγονεν ἢ ἀγέννητος ὁ κόσμος ἐστί (cf. ch. 2.4), δύναται τὸ πρᾶγμα αὐτὸ μαρτυρησά, καθάπερ οὐδὲ εἰ πεπερασμένον ἢ ἀπειρον τὸ πᾶν (cf. ch. 1.5) ἢ πόσος ὁ τῶν κυμάτων ἀριθμός. **Damascius** in *Phd.* §522.20–22 τρίτον δέ, εἰ μὴ τηλικούτος μόνον ὁ οὐρανὸς ἡλικὸς ὁράται—οὐδὲ γὰρ ὁ ἥλιος οὐδὲ ἡ σελήνη οὐδὲ ἄλλος ἀστήρ, ἀλλὰ πολλῶ τιμι μείζων ἕκαστος καὶ αὐτός γε ὁ οὐρανός. **Boethius** *Div.* p. 42.5–11 *Magee alio autem modo* (sc. divisionis) *secundum modum, haec enim non plura significant, sed multis*

modis, ut cum dicimus 'infinitum', unam rem quidem significat, cuius terminus inveniri non possit. sed hoc dicimus aut secundum mensuram, aut secundum multitudinem, aut secundum speciem: secundum mensuram, ut est infinitum esse mundum (cf. chs. 1.5, 2.1); secundum multitudinem, ut est infinitam esse corporum divisionem (cf. ch. 1.16). **Simplicius in Cael.** 202.11–13 οἱ μὲν ἓνα κόσμον καὶ πεπερασμένον ἔλεγον, ὅσοι μὴ ἐδέχοντο τὸ ἄπειρον ἐν ἀρχῇ, ὡς Ἀριστοτέλης καὶ Πλάτων, οἱ δὲ ἓνα ἄπειρον, ὡς Ἀναξιμένης (fr. 153 Wöhrle) (cf. chs. 1.5, 2.1). **Aristotle Phys.** 3.6 206b23–24 ὥσπερ φασὶν οἱ φυσιολόγοι τὸ ἔξω σῶμα τοῦ κόσμου, οὐ ἢ οὐσία ἢ ἄλλο ἢ ἄλλο τι τοιοῦτον, ἄπειρον εἶναι (cf. ch. 2.9). **Cleomedes Cael.** 1.1.55 οἱ λέγοντες ἔξω τοῦ κόσμου μὴδὲν εἶναι φλυαροῦσιν. 1.1.81–82 Ἀριστοτέλης δὲ καὶ οἱ ἀπὸ τῆς αἰρέσεως οὐδ' ἔξω τοῦ κόσμου κενὸν ἀπολείπουσι (cf. ch. 2.9). **Diogenes Laertius V.P.** 7.140 (SVF 2.543) ἔξωθεν δὲ αὐτοῦ (sc. τοῦ κόσμου) περιγεχυμένον εἶναι τὸ κενὸν ἄπειρον (cf. chs. 1.18, 2.9). **Simplicius in Phys.** 648.12–17 οἱ περὶ Δημόκριτον καὶ Λεῦκιππον (67A20 DK) ἔλεγον, οὐ μόνον ἐν τῷ κόσμῳ κενὸν εἶναι τι λέγοντες, ἀλλὰ καὶ ἔξω τοῦ κόσμου. ὅπερ δῆλον ὅτι τόπος μὲν οὐκ ἂν εἴη, αὐτὸ δὲ καθ' αὐτὸ ὑφέστηκε. ταύτης δὲ τῆς δόξης γέγονε καὶ Μητροδόωρος ὁ Χίος (70A8 DK), καὶ τῶν Πυθαγορείων τινές (—), ὡς μετ' ὀλίγον αὐτὸς (sc. Ἀριστοτέλης) ἐρεῖ· ὕστερον δὲ καὶ Ἐπίκουρος (fr. 274 Usener) (cf. chs. 1.18, 2.9).

Exempla ethica: Aristotle Top. 1.11 104b1–8 see above §3.

Question types: Cicero Top. 81–82 cited above p. 158. **Clement of Alexandria Strom.** 8.6.17.2–3 ἔπειτα ζητητέον ..., εἰ ἔστι, τί ἐστι, τί αὐτῷ συμβέβηκεν, ἢ καὶ οὕτως, εἰ ἔστι, τί ἐστι, διότι ἐστίν. **Galen UP** 6.17, 3.495.18–496.4 K. νυνὶ γὰρ οὐχ ὅτι τὸδε γίνεταί κατὰ τὸ σῶμα τοῦ ζώου, πρόκειται δεικνύειν, ἀλλὰ διότι τῷ δ' ἐξ ἀνάγκης προηγεῖσθαι, καθάπερ καὶ Ἀριστοτέλης ἔλεγε, τοῦ διότι τὸ ὅτι. *in lib. vi Epid.* p. 12.16–19 Wenkebach–Pfaff ὁ γὰρ Ἀριστοτέλης ἀξιοῖ προεγνωσμένου βεβαίως τοῦ ὅτι ζητεῖσθαι χρῆναι τὸ διότι. πρὶν δ' ὅτι γίνεται βεβαίως μαθεῖν, εἴ τις ζητοῖ τὸ διότι, φανερός ἐστιν ἀδολεσχεῖν τε καὶ ληρεῖν προηρημένος, οὐ τάλῃθες εὔρεῖν ὀρεγόμενος. **Alexander of Aphrodisias in Top.** 92.31–93.3 πρῶτον μὲν τὸ τί ἐστι τάσσοντας, οἷον ὅτι πᾶν ζῶον οὐσία ἐστὶν ἔμψυχος αἰσθητικὴ, ἢ ὅτι οὐσία, εἴτα ποῖόν τι, ὅτι ἔμψυχον, ὅτι αἰσθητικόν, ἢ ὅλως εἴ τι αὐτῷ ὑπάρχει, οἷον ὅτι πᾶν ζῶον ἢ πεζὸν ἢ ἔνυδρον ἢ πτηνόν. **Proclus in Alc.** 275.1–5 εἰρηταιῶν που καλῶς ὑπὸ τοῦ Ἀριστοτέλους (*APo.* 2.1), ὅτι τέτταρα προβλήματά ἐστι δι' ἃ οἱ λόγοι καὶ αἱ ζητήσεις, τὸ εἰ ἔστι, τὸ τί ἐστι, τὸ ποῖόν τι ἐστι καὶ τὸ διατί ἐστι, καὶ ὅτι τὸν μέλλοντα γνῶσεσθαι τὸ τί ἐστὶν ἀνάγκη προειδέναι τὸ εἰ ἔστιν. **Trophonius Prol.** p. 1.3–5 Rabe ἐπειδὴ τέσσαρες εἰσὶν αἱ ἀνωτάτω ζητήσεις, φημί δὴ τὸ εἰ ἔστι, τὸ τί ἐστι, τὸ ποῖόν τι ἐστι καὶ τὸ διὰ τί ἐστὶν κτλ. **Elias in Isag.** 2.3–6 ἔδει μὲν γὰρ ἡμᾶς ἀρχομένους τῆς φιλοσοφίας ἀπὸ τοῦ εἰ ἔστιν ἄρξασθαι, ἐπομένους νόμῳ διαλεκτικῷ τῷ λέγοντι δεῖν ἐπὶ πάσης τέχνης καὶ ἐπιστήμης τέσσαρα προβλήματα ζητεῖν, εἰ ἔστι, τί ἐστίν, ποῖόν τι ἐστὶ καὶ διὰ τί ἐστὶ. **David Prol.** 1.13–15 δοκεῖ δέ μοι μικρὸν ἀναβάλλεσθαι τὴν ἐγκύκλιον ἐξηγήσιν Ἀριστοτελικοῖς πειθομένῳ θεσμοῖς, ὡς δεῖ ἐν ἐκάστῳ σχεδὸν πράγματι τὰ τέσσαρα ταῦτα ζητεῖν κεφάλαια· εἰ ἔστι, τί ἐστὶ, ποῖόν τι ἐστὶ καὶ διὰ τί ἐστὶ. **Agnellus of Ravenna in Galeni de Sectis** 3, p. 18.9–12 *dicamus nunc de quattuor titulis quibus utuntur philosophi in arte medicina: primo si est, secundo quid est, tertio qualis est, quarto propter quod est.*

Liber 1 Caput 1

P^B : ps.Plutarchus *Plac.* 875A–D; pp. 274^a18–275^a12 Diels—**P^G** : ps.Galenus *HPh* c. 20; p. 611.16–21 Diels—**P^Q** : Qustā ibn Lūqā pp. 94–95 Daiber—**P^S** : Psel-lus *Omn.Doctr.* c. 57, p. 40 Westerink—**P^{Sy}** : Symeon Seth *CRN* 4.59, p. 62.13–15 Delatte

Cf. Nem: Nemesius *NH* c. 39, p. 112.13–19 Morani

Titulus α'. Τί ἐστι φύσις (P)

- §1 ἐπειδὴ πρόκειται ἡμῖν τὰ φυσικὰ θεωρῆσαι, ἀναγκαῖον ἡγοῦμαι δηλῶ-
σαι, τί ποτ' ἐστὶν ἡ φύσις· ἄτοπον γὰρ πειρᾶσθαι μὲν φυσιολογεῖν,
ἀγνοεῖν δ' αὐτὸ τοῦτο, τὴν τῆς φύσεως δύναμιν. (P1)
- §2 ἔστιν οὖν κατὰ τὸν Ἀριστοτέλην φύσις ἀρχὴ κινήσεως καὶ ἡρεμίας, ἐν ᾧ 5
πρώτως ἐστὶ καὶ οὐ κατὰ συμβεβηκός· πάντα γὰρ τὰ ὀρώμενα, ὅσα
μήτε ὑπὸ τύχης μήτε ὑπ' ἀνάγκης μήτ' ἐστὶ θεῖα μήτε τοιαύτην αἰτίαν
ἔχει, φυσικὰ λέγεται καὶ φύσιν ἔχει ἰδίαν· οἷον γῆ πῦρ ὕδωρ ἀήρ φυτὰ
ζῶα· ἔτι δὲ ταῦτα τὰ γινόμενα, ὄμβροι χάλαζαι κεραυνοὶ πρηστήρες
ἄνεμοι· ταῦτα γὰρ ἔχει ἀρχὴν τινα· οὐ γὰρ ἐξ αἰῶνος ἕκαστον τούτων 10
ἐστὶν ἀλλ' ἀπὸ τινος ἀρχῆς γίνεται· καὶ ταῦτα μέντοι, οἷον ζῶα φυτὰ,
ἀρχὴν γενέσεως ἔχει· ἐν δὲ τούτοις ἡ φύσις ἀρχὴ τὸ πρῶτόν ἐστι·
ἀρχὴ δὲ κινήσεως ἐστὶ, καὶ οὐ μόνον κινήσεως ἀλλὰ καὶ ἡρεμίας· ὅσα
γὰρ ἀρχὴν κινήσεως ἔλαβε, ταῦτα δύναται λαβεῖν καὶ τελευτήν. διὰ
τοῦτο οὖν ἡ φύσις ἀρχὴ κινήσεως ἐστὶ καὶ ἡρεμίας. (P2) 15

§1 —; §2 Aristoteles cf. *Phys.* 2.1 192b8–193a8

lemmata non hab. ST **titulus** Τί ἐστι φύσις **P^{BQP}**s (deest in **P^{B(II)}**) : post ἐστὶ add. ἡ index
libri, Περὶ φύσεως **P^G**, Περὶ φύσεως καὶ τῶν συμβαινόντων ἐξ αὐτῆς αἰτίων S §1 [2] ἐπειδὴ
P^{B(III:AE)} : ἐπεὶ δὲ **P^{B(I–III:α)}** || ἡγοῦμαι || ἡγοῦμεθα **P^{B(II)}** || [4] αὐτὸ τοῦτο] deest in Q §2[5–6]
ἐν ᾧ πρώτως ἐστὶ] al. **P^G** ὡς πρῶτόν ἐστι || [7] post ἀνάγκης add. Gigon (μήτε ὑπὸ νοῦ γίνε-
ται) || [8] ἔχει ἰδίαν] ἰδίαν ἔχει **P^{B(III)}** || πῦρ] post ἀήρ **P^{Q1}**, ante ἀήρ **P^{Q2}** || [10] ταῦτα ... τινα **P^B** :
denn dieses alles ist natürlich und hat ein gewisses Prinzip Q || ἔχει ἀρχὴν **P^{B(I,II)}** : ἀρχὴν ἔχει
P^{B(III)} || [11] ἀπὸ ... γίνεται **P^B** : *es hat ein gewisses Prinzip* Q || [12] γενέσεως **P^{B(II)}** : γεννήσεως
P^{B(III)}, κινήσεως con. Corsinus || [12] forsan (καὶ) post ἀρχὴ om. P || [13] ἀρχὴ δὲ κινήσεως
ἐστὶ **P^{B(I,II)Q}** : om. **P^{B(III)}** Diels (qui repetita ex l. 14 opinatur) Mau Lachenaud || [15] ἐστὶ]
om. **P^{B(II)}**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 20 (~ tit.) Περὶ φύσεως (text Diels)

20.1 al. φύσιν τινὲς εἶναι λέγουσι πνεῦμα ἔντεχνον ὁδοποιητικόν (verisim. legen-
dum ὁδῶ ποιητικόν, cf. Diogenes Laertius *V.P.* 7.156 etc. ὁδῶ βαδίζον).

20.2 ἄλλοι δὲ τὴν τῶν σωμάτων σύγκρισιν εἶναι καὶ διάκρισιν τὴν φύσιν ὑπολαμβάνουσιν² (~ P 1.30.2).

20.3 (~ P2) Ἀριστοτέλης δὲ ἀρχὴν κινήσεως καὶ ἡρεμίας εἵρηκεν, ὡς πρῶτόν ἐστι, καὶ οὐ κατὰ συμβεβηκὸς γεγενῆσθαι νομίζει. φυσικὰ δὲ εἶναι λέγει τὰ περὶ τὸν ἀέρα, φυτὰ ζῶα καὶ τὰ τοιαῦτα.

Psellus *Omn.Doctr.* c. 57 (~ tit.) Τί ἐστὶ φύσις

(~ P2) φύσις ἐστὶ δύναμις ὀφθαλμοῖς μὲν ἀθέατος, νῶ δὲ θεωρητῇ, τοῖς σώμασιν ἐγκατεσπαρμένη παρὰ θεοῦ, ἀρχὴ κινήσεως καὶ ἡρεμίας. αὕτη γάρ ἐστιν ἡ κινουσα τὰ φυσικὰ σώματα καὶ αὕθις ἡρεμεῖν ποιοῦσα. ...

Symeon Seth *CRN* 4.59 (~ tit.) Περὶ φύσεως

(~ P2) ἡ φύσις κατὰ Ἀριστοτέλην ἀρχὴ καὶ αἰτία πέφυκε τοῦ κινεῖσθαι καὶ ἡρεμεῖν ἐν ᾧ ὑπάρχει πρῶτως καθ' αὐτὸ καὶ μὴ κατὰ συμβεβηκὸς.

Testes secundi:

Nemesius *NH* c. 39, p. 112.13–19 τῶν γινομένων πάντων ἢ θεὸν φασιν αἴτιον εἶναι ἢ ἀνάγκην ἢ εἰμαρμένην ἢ φύσιν ἢ τύχην ἢ τὸ αὐτόματον, ἀλλὰ τοῦ μὲν θεοῦ ἔργον οὐσία καὶ πρόνοια, τῆς δὲ ἀνάγκης τῶν ἀεὶ ὡσαύτως ἐχόντων ἢ κινήσεις, τῆς δὲ εἰμαρμένης τὸ ἐξ ἀνάγκης τὰ δι' αὐτῆς ἐπιτελεῖσθαι (καὶ γὰρ αὕτη τῆς ἀνάγκης ἐστὶ), τῆς δὲ φύσεως γένεσις αὐξήσις φθορὰ φυτὰ καὶ ζῶα, τῆς δὲ τύχης τὰ σπάνια καὶ ἀπροσδόκητα (~ P2).

Loci Aetiani:

titulus A 1.30 Περὶ φύσεως

§2 A 1.29.2 Ἀριστοτέλης ... αἰτίας δὲ τέτταρας ἐν τοῖς ὅλοις, καθ' ἃς ἅπαντα συνίσταται, νοῦν, φύσιν, ἀνάγκην, τύχην. A 1.29.7 Ἀναξαγόρας καὶ οἱ Στωικοὶ ἄδηλον αἰτίαν ἀνθρωπίνῳ λογισμῷ (sc. τὴν τύχην εἶναι)· ἃ μὲν γὰρ εἶναι κατ' ἀνάγκην, ἃ δὲ καθ' εἰμαρμένην, ἃ δὲ κατὰ προαίρεσιν, ἃ δὲ κατὰ τύχην, ἃ δὲ κατὰ τὸ αὐτόματον. A 3.3 tit. Περὶ βροντῶν ἀστραπῶν κεραυνῶν πρηστήρων τε καὶ τυφῶνων. A 3.4 tit. Περὶ νεφῶν ὁμίχλης ὑετῶν δρόσου χιόνος πάχνης χαλάζης. A 3.7 tit. Περὶ ἀνέμων.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The witnesses are only P and his tradition, including extracts in the Byzantine witnesses P^{Ps} and P^{Sy}, but not including P^E.

(2) S's ch. 1.41 'On nature and its causes' (heading only extant in the index of Photius) contains nothing but generous abstracts from the *Corpus Herme-*

ticum, ps.Archytas *On Principles*, and Plato's *Cratylus*. S anyhow was under no obligation to copy out A's treatise in full, as is already clear from the fact that he sometimes left out whole chapters and also individual lemmata preserved in P's *Epitome*. One of course does not know what may have been omitted by S's Byzantine editors. In S a very brief version of Aristotle's definition of *physis* is found at the beginning of Arius Didymus fr. 2 Diels at *Ecl.* 1.11.4, p. 132.10–11, in the chapter Περὶ ὕλης; cited below section E(b)§2.

(3) The remarkable division of the material on φύσις over two chapters in P^B, one at the beginning and the other, ch. 1.30 Περὶ φύσεως (a far more common phrase), at the end of Book 1, is confirmed by P^Q. One cannot exclude that originally there was only a single chapter on φύσις, and that the sub-archetype from which P^B and (one stage further) P^G derive, omitted from ch. 1.1 the material now in ch. 1.30, and added this at the end of the book. Compare the final chapter in the third Book of P (not copied out by G, however), which we have put back after ch. 3.5, giving it the number 3.5a. In ch. 1.30 φύσις is used in a sense that is different than in the present chapter, namely 'origin' or 'generation', and though the reality of generation is denied in that chapter (cf. also A 1.24.1–2), the outcome of this denial is not equivalent to 'the principle of movement and rest' of our §2. But the question of generation and its denial do play a part in (the history of) natural philosophy, so a reminder is appositely appended at the end of the Book. Apparently it makes better sense to introduce the doxai of Empedocles and Anaxagoras after mixture has been dealt with in ch. 1.17, and generation and corruption in 1.24.

(4) G begins with a lemma of Stoic provenance not paralleled in other representatives of P. His second lemma, very brief, is abstracted from P 1.30.2, his third, also very brief, from P 1.1.2. For a preliminary overview of extra lemmata in G see M–R 1.149–150. Because he occasionally preserves elsewhere unparalleled ps.Plutarchean material that should be accepted (the Antinoopolis papyrus sometimes supports G's readings, see M–R 1.126–130 and e.g. at ch. 5.1), we could feel justified in accepting it in the present case too, and in adding his first lemma to the present chapter (not, certainly, to ch. 1.30). Its contents, moreover, are diaphonically opposed to those of §2. But the eclectic way in which G has cobbled together his ch. 20 plus the fact that, with the exception of chs. 20 and 21 (the latter corresponding to P 1.2), the first section of his treatise (chs. 1–24), before he begins epitomising P and only P from ch. 25, has been derived from another source or sources, speaks against this inclusion. What is more, §2 follows on after §1 without a break and in a leisurely manner of address which is quite unusual in A. So we have decided not to include the extra lemma this time, and cite P only as a witness for §2.

(5) T could find no use for this chapter.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The proximate tradition for §2 is limited to later explanations in the commentators on the passages in Aristotle's *Physics* and on other works that are the source of the exposition in §2.

(2) *Sources.* §2 to some degree reads like a vague reminiscence of the famous prologue of Aristotle's *Meteorology*, see below, section D(a). It also echoes various passages in the *pragmateiai*.

C Chapter Heading

(1) *Headings formulated as questions.* The dominant umbrella type *περὶ τοῦ δεῖναι* (for which see ch. 1.3 Commentary C) is not used here, which is worth noting. The heading is formulated according to the question type/category of substance (*τί ἐστίν*) and aiming at a definition, cf. below, section D(c) ad init. The number of headings formulated as *questions* signaled by forms of *τίς* (including the important causal formula *διὰ τί*) in the *Placita* is not insignificant. Inclusive of the present chapter we have seventeen cases beginning with, or containing, forms of *τίς*, or about 13 % of the chapter headings of the treatise: chs. 1.3, 1.7, 2.8, 2.10, 2.11 (combined with umbrella type), 2.13, 2.30 (combined with umbrella type), 2.32, 3.8 (combined with umbrella type), 4.3, 4.12, 5.3, 5.9, 5.14, 5.17, and 5.18.

We may compare those headings which begin with, or contain, other words signaling *questions*, namely *πῶς* (chs. 1.4—where cf. Commentary C), 2.19, 3.16, 3.17, 4.11, 4.14, 4.20, 5.2, 5.6, 5.7, 5.8, 5.10, 5.12, 5.13, 5.16, 5.19 (combined with umbrella type), 5.24, 5.26, and 5.29; or *πόθεν* (chs. 2.5, 2.17, 4.21 (combined with umbrella type), 5.11, and 5.28); or *ἀπὸ ποίου* (ch. 2.6) / *ἐκ ποίων* (ch. 5.22); or *πόσαι* (ch. 4.10) / *πόσα* (ch. 5.20) / *ἐν πόσῳ* (ch. 5.21); or *πότε* (ch. 5.23); or *ποτέρου* (ch. 5.23); or *εἰ* (chs. 1.5, 2.3–4, 4.3, 4.9, 4.15, 4.20, 5.4–5, 5.15). For parallels in Dionysius of Halicarnassus see above, ch. 1.0, Commentary D(e)(1). A useful discussion of these interrogative formulas is found at Lachenaud (1998) 42–45, who *de facto* distinguishes between the various categories and question types involved. For a classification of headings see further below, section D(e)(3).

In the paragraphs of the chapters *answers* to these questions are provided. This elementary erotapocritic technique is evidence of the presence in the *Placita* of the well-known *dialectical* form of teaching by means of questions-and-answers, for which see e.g. Volgers–Zamagni (2004) and Taub (2015).

(2) *Categories and question types.* On categories and question types see M–R 2.1, index nominum et rerum and for the four kinds of question type see below, ch. 1.6, Commentary D(a). Aristotle did not present these analytical instruments primarily as didactic tools, though according to his actual prac-

tice they are so used again and again. In the *Placita* (and often elsewhere) their function is in the first place didactic.

(3) Note the minor discrepancy with the heading in the Index at the beginning of the Book, where the article has been added.

(4) Headings are also discussed above at ch. 1. *titulus et index*, Commentary D.

D *Analysis*

a Context

(1) *Introduction*. The chapter is part of the introduction of the treatise. Between the presentation of the *skopos* ('purpose') of the treatise and of the exemplification of the *physikos logos* in the proem on the one hand, and the chapters on the principles and that on cosmogony on the other, the meaning and denotation of *physis* that are to be applied in what follows are set out with some care. However a rival sense of *physis*, namely 'becoming', is reserved for a chapter at the end of the Book: 1.30 *Περὶ φύσεως*, since both lemmata of this chapter are concerned with denying the validity of φύσις in the sense of substance, or permanent essence.

(2) In §2 physics is described in a general way, and the four physical elements are listed, followed by plants (at the end in Aristotle *Mete.* 1.1) and animals, in their turn followed by a comprehensive list of meteorological phenomena, and concluded by a resumption of the general theme. This compressed sequence to some extent covers the contents of the work.

b Number-Order of Lemmata

There are two lemmata, §1 announcing that *physis* will be defined, §2 providing these definitions. That the announcement of §1 should come first is of course clear.

c Rationale–Structure of Chapter

(1) *Definitions*. The first lemma shows that the aim of the chapter is to determine *what* 'nature', φύσις, *is* (question type of the τί ἐστίν, cf. above at section C), i.e. to provide a definition. The author adds that it would be odd to discourse about nature without knowing the 'meaning', δῶναμις, of 'nature', i.e. of the word 'nature' (cf. Lachenaud's translation following that of Torraca). This implies that a nominal definition is intended to begin with.

In §2 we have a definition of the meaning of φύσις in the technical context of natural philosophy, viz. 'principle of motion and rest for the object in which it exists primarily and not incidentally'. Such a preliminary clarification is needed because in untechnical language φύσις means 'character', 'birth', etc. This is not

anonymous but explicitly attributed to Aristotle (briefly formulated e.g. *Met.* Δ.4 1014b16–20). It is followed and elucidated by a several ostensive, i.e. real, definitions pointing out examples, here naturally of natural things, also derived from Aristotle. We know ostensive definition was rejected by Plato, but not entirely successfully, as the present chapter and other cases demonstrate, e.g. the ostensive definitions of principle and element in the next chapter and the examples cited at Aristotle *Phys.* 2.1 192b8–23, *Met.* H.1 1042a7–11, and Eudemus fr. 50 Wehrli at Simp. in *Phys.* 263.18–30 (cited section E(b)§2). For definition in the *Placita* see further our detailed discussion at ch. 1.9, Commentary D(c) and (e)(2)).

(2) *Natural things.* Natural things according to §2 are ‘*not* the result of chance or necessity, they are *not* divine and do *not* have such a (divine) cause’ (our emphasis). That they are neither divine nor necessitated implicitly sets them off from the order of nature according to Platonism and Stoicism. The doxographer in this paragraph also anticipates a point made by Alexander of Aphrodisias at Simplicius in *Phys.* 264.18–22 (cited at section E(b)§2), namely that the divine is excluded because it does not have in itself a cause of rest. That what happens accidentally does not happen ‘by nature’ is a well-known Aristotelian view (e.g. *Phys.* 2.5 and below, ch. 1.27.1), while according to the Stoics chance is a predetermined event, the cause of which is hidden from us so chance is still natural in their sense of the word; see e.g. below ch. 1.29.7 (*SVF* 2.966). Aristotle himself at *Phys.* 2.2 192b8–23 (cited section E(b)§2) merely distinguishes between things that exist by nature and things that exist ‘through other causes’, without specifying these other causes, while in our chapter the author, presumably following the later Peripatetic tradition, feels compelled to spell these out.

(3) *Secular stance.* A thus emphasizes his secular stance at the very beginning of his treatise. This stance is also exemplified in ch. 1.6, *ubi vide* Commentary D(d)[43–52], and ch. 1.7, see Commentary B *ad finem*. Cf. Runia at M–R 3.268 with n. 56, Mansfeld (2013a). An implicit preference for the Peripatetic position is also clear at ch. 1.proœm., where see Commentary D(c) *ad finem*. By singling out Aristotle’s definitions, cited from e.g. *Met.* Δ.4 and *Phys.* 2.1 (quoted below, section E(b)§2) as the most important, in fact as the only, definition of nature, the author shows which allegiance he prefers.

Even so, Book 1 contains a chapter (1.7) ‘Who is the god?’, two chapters on fate (1.27–28), and one on chance (1.29), thus still giving some purchase to the opposite view. One should also take into account Stoic and Platonic reworking, which could have taken place later.

d Further Comments

Individual Points

Heading This is the earliest occurrence of the phrase τί ἐστὶ φύσις (but we need not believe it was coined by A). The next is at Alexander of Aphrodisias in *Met.* 196.28, who focuses on the distinction between physics and metaphysics. Epicetetus *Diss.* 1.20.16–17 (~ *SVF* 1.182) is somewhat different.

§2 (a) Because ἀρχή means ‘beginning’ as well as ‘principle’, *arche* has been added in brackets in the translation.

(b) The repetition of the gist of the first clause (the *probandum*) at the end (as a *q.e.d.*) is a noteworthy didactic ploy. A similar stylistic feature is to be observed at ch. 1.2.2.

(c) §2[13]. Against Diels and subsequent editors we have retained the majority text (supported by Q), which though unquestionably verbose makes good sense.

e Other Evidence

(1) The list of definitions of φύσις in ps.Galen’s *Definitiones medicae* (cited section E(b) General texts), with its preference for definitions of Stoic provenance (cf. ps.Galen *HPh* 20.1 cited at *testes primi*), does not contain any of the Aristotelian definitions of the present chapter. On φύσις see also ch. 1.30 below.

(2) The variously formulated chapter headings of ps.Galen’s *Introductio sive medicus*, listed in the indices in the manuscripts but also embedded in the body of the text (accessible in Petit 2009, cxxxv–cxxxviii), provide useful material for comparison with those of the *Placita*. The majority belongs with the umbrella type περὶ τοῦ δεῖναι, but there are three cases of τίνες as first word, two of τί, two of εἰ, one of πῶς, one of πόσαι, and one of πόσα. With one exception these headings beginning with a question word belong to the introductory chapters of the treatise.

(3) *Classification of headings*. Five types of heading are distinguished by Mutschmann (1911) 98–102, who revises Laqueur (1908) 221, namely: (1) those beginning with τίς or other interrogative pronouns such as πόσα, πῶς, ποσαχῶς; (2) those beginning with ὅτι or ὡς; (3) those beginning with περὶ plus genitive; (4) those beginning with εἰ; and (5) just a nominative. On the meaning and variety of reference of the simple (umbrella) ‘Titel περὶ τοῦ δεῖναι’ as well as its generality (‘allgemeine Beschaffenheit’) see Leo (1960) 2.390–392.

E Further Related Texts

a Proximate Tradition

General texts: Photius *Bibl.* cod. 212, p. 170b12–16 (Aenesidemus fr. 8B Polito)

ἐν δὲ τῷ δ’ σημείῳ μὲν ὥσπερ τὰ φανερά φαμεν τῶν ἀφανῶν, οὐδ’ ὅλως εἶναι φησιν,

ἡπατῆσθαι δὲ κενὴ προσπαθεία τοὺς οἰομένους· ἐγείρει δὲ τὰς ἐξ ἔθους ἐφεξῆς ἀπορίας περὶ τε ὕλης τῆς φύσεως καὶ κόσμου καὶ θεῶν.

§2 **Aristotle: Arius Didymus** fr. 2 Diels at Stob. *Ecl.* 1.11.4 p. 132.10–11 Ἀριστοτέλους. ἐπειδὴ δ' ἡ μὲν φύσις κατ' ἐπίνοιαν ἀρχὴ τίς ἐστι κινήσεως καὶ στάσεως κτλ. **Hippolytus** *Ref.* 7.19.4 καὶ γέγονεν αὐτῷ (sc. Aristotle) κατὰ τὴν διαίρεσιν τοῦ κόσμου καὶ ὁ τῆς φιλοσοφίας διηρημένος λόγος. 'Φυσικὴ' γὰρ τις 'ἀκρόασις' αὐτῷ γέγονεν, ἐν ᾗ πεπónηται περὶ τῶν φύσει καὶ οὐ προνοίᾳ διοικουμένων ἀπὸ τῆς γῆς μέχρι τῆς σελήνης παραγμάτων.

b Sources and Other Parallel Texts

§1 **General texts: ps.Galen** *Def.Med.* 19.371.4–17 K. ϸδ'. φύσις ἐστὶ πῦρ τεχνικὸν ὁδῷ βαδίζον εἰς γένεσιν καὶ ἐξ ἑαυτοῦ ἐνεργητικῶς κινούμενον. ἐτέρως κατὰ Πλάτωνα. φύσις ἐστὶ θεία τέχνη. ἢ φύσις ἐστὶν οἷα τεχνικὴ δύναμις. ἐτέρως. φύσις ἐστὶ πνεῦμα ἔνθερμον ἐξ ἑαυτοῦ κινούμενον καὶ κατὰ τὰς σπερματικὰς δυνάμεις γεννῶν τε καὶ τελειοῦν καὶ διατηροῦν τὸν ἄνθρωπον. ἢ οὕτως. φύσις ἐστὶ δύναμις ἐξ ἑαυτῆς κινουμένη, αἰτία γενέσεώς τε καὶ διαπλάσεως καὶ τελειότητος γεννώσά τε καὶ τελειοῦσα τὸν ἄνθρωπον. φύσις καὶ ἡ κρᾶσις λέγεται, φύσις καὶ ἡ ἕξις. φύσις καὶ ἡ καθ' ὁρμὴν κίνησις. φύσις καὶ ἡ διοικοῦσα τὸ ζῶον δύναμις λέγεται. δύναται δὲ καὶ οὕτως ὀρίσασθαι. φύσις ἐστὶ πνεῦμα ἔνθερμον ἐξ ἑαυτοῦ κινούμενον κατὰ σπερματικούς λόγους γεννῶν τε καὶ τελειοῦν καὶ διατηροῦν τὸν ἄνθρωπον ἐν χρόνις καὶ μεγέθεσιν ὀρισμένους.

§2 **Aristotle: Aristotle** *Phys.* 2.1 192b8–23 τῶν ὄντων τὰ μὲν ἐστὶ φύσει, τὰ δὲ δι' ἄλλας αἰτίας, φύσει μὲν τὰ τε ζῶα καὶ τὰ μέρη αὐτῶν καὶ τὰ φυτὰ καὶ τὰ ἀπλά τῶν σωμάτων, οἷον γῆ καὶ πῦρ καὶ ἀήρ καὶ ὕδωρ (ταῦτα γὰρ εἶναι καὶ τὰ τοιαῦτα φύσει φαμέν), ... τούτων μὲν γὰρ ἕκαστον ἐν ἑαυτῷ ἀρχὴν ἔχει κινήσεως καὶ στάσεως. ... ὡς οὕσης τῆς φύσεως ἀρχῆς τινὸς καὶ αἰτίας τοῦ κινεῖσθαι καὶ ἡρεμεῖν ἐν ᾧ ὑπάρχει πρῶτως καθ' αὐτὸ καὶ μὴ κατὰ συμβεβηκός. *Phys.* 8.3 253b7–9 ἐτέθη μὲν γὰρ ἡ φύσις ἐν τοῖς φυσικοῖς ἀρχῇ, καθάπερ κινήσεως, καὶ ἡρεμίας. *Met.* 2.4 361a30–b1 ἐπεὶ δ' ἐστὶν ἄνεμος πλῆθός τι τῆς ξηρᾶς ἐκ γῆς ἀναθυμιάσεως κινούμενον περὶ τὴν γῆν, δῆλον ὅτι τῆς μὲν κινήσεως ἡ ἀρχὴ ἀνωθεν ... ἡ δὲ τῆς γενέσεως ἀρχὴ δῆλον ὡς ἐκ τῆς γῆς ἐστίν. *Phys.* 2.5–6. *EN* 3.5 1112a31–33 αἰτίαι γὰρ δοκοῦσιν εἶναι φύσις καὶ ἀνάγκη καὶ τύχη, ἔτι δὲ νοῦς καὶ πᾶν τὸ δι' ἀνθρώπου. *de An.* 2.1 412b15–17 οὐ γὰρ τοιοῦτου σώματος τὸ τί ἦν εἶναι καὶ ὁ λόγος ἡ ψυχὴ, ἀλλὰ φυσικοῦ τοιοῦδι, ἔχοντος ἀρχὴν κινήσεως καὶ στάσεως ἐν ἑαυτῷ. *Met.* A.3 995.16–18 διὸ σκεπτέον πρῶτον τί ἐστὶν ἡ φύσις· οὕτω γὰρ καὶ περὶ τίνων ἡ φυσικὴ δῆλον ἔσται. *Met.* Δ.4 1014b16–20 φύσις λέγεται ... ἔτι ὅθεν ἡ κίνησις ἡ πρώτη ἐν ἐκάστῳ τῶν φύσει ὄντων ἐν αὐτῷ ἢ αὐτὸ ὑπάρχει. *Met.* Δ.4 1015a13–19 ἐκ δὲ τῶν εἰρημένων ἡ πρώτη φύσις καὶ κυρίως λεγομένη ἐστὶν ἡ οὐσία ἡ τῶν ἐχόντων ἀρχὴν κινήσεως ἐν αὐτοῖς ἢ αὐτὰ· ἡ γὰρ ὕλη τῷ ταύτης δεκτικὴ εἶναι λέγεται φύσις, καὶ αἱ γενέσεις καὶ τὸ φύεσθαι τῷ ἀπὸ ταύτης εἶναι κινήσεις. καὶ ἡ ἀρχὴ τῆς κινήσεως τῶν φύσει ὄντων αὕτη ἐστίν, ἐνυπάρχουσα πῶς ἢ δυνάμει ἢ ἐντελεχείᾳ. *Met.* E.1 1025.19–21 ἡ φυσικὴ ἐπιστήμη τυγχάνει οὖσα περὶ γένος τι τοῦ ὄντος, περὶ γὰρ τὴν τοιαύτην ἐστὶν οὐσίαν ἐν ᾗ ἡ ἀρχὴ τῆς κινήσεως καὶ στάσεως ἐν αὐτῇ. *Met.* H.1 1042a7–11 ὁμολογούμεναι μὲν αἱ φυσικαὶ (sc. οὐσίαι), οἷον πῦρ γῆ ὕδωρ ἀήρ καὶ τᾶλλα τὰ ἀπλά σώματα, ἔπειτα τὰ

φυτὰ καὶ τὰ μόρια αὐτῶν, καὶ τὰ ζῶα καὶ τὰ μόρια τῶν ζῶων, καὶ τέλος ὁ οὐρανὸς καὶ τὰ μόρια τοῦ οὐρανοῦ. **Sextus Empiricus** *M.* 10.47 (**Aristotle de Phil.** fr. 9 Walzer/Ross) ἀρχὴ κινήσεως ἐστὶν ἡ φύσις. **Eudemos** fr. 50 Wehrli at **Simp. in Phys.** 263.18–30 καὶ ὅτι τὰ ζῶα καὶ τὰ φυτὰ οὐ καθὼς ζῶα καὶ φυτὰ παρέλαβεν ἐν τοῦτοις ὁ Ἀριστοτέλης ὡς φύσει ὄντα, ἀλλὰ καθὼς καὶ αὐτὰ φυσικὰ, δηλοῖ καὶ Εὐδημος ἐν τῷ πρώτῳ τῶν Φυσικῶν τάδε γράφων· ‘ἐπεὶ δὲ λέγομεν πολλὰ φύσει εἶναι· καὶ γὰρ ἵππον καὶ ἄνθρωπον καὶ πᾶν ζῶον καὶ τὰ τούτων μόρια, ἔτι δὲ ἐλαίαν καὶ πᾶν φυτὸν καὶ τὰ μόρια αὐτῶν καὶ πόαν καὶ ὄλως τὰ φύσις, ἔτι δὲ γῆν καὶ πῦρ καὶ πολλὰ τῶν ἀψύχων, τί πᾶσι τούτοις ὑπάρχει; ἡ μὲν γὰρ αἴσθησις ἰδιὸς ἐστὶ τῶν ζῶων καὶ πολλὰ ἕτερα, ἡ δὲ αὐξήσις τῶν ζωτικῶν, κινεῖται δὲ πάντα ὡς εἰπεῖν, καὶ γὰρ ξύλον καὶ χαλκὸς καὶ πῦρ καὶ ὄλως πᾶν σῶμα, οὐχ ὁμοίως δὲ πάσας τὰς κινήσεις, οἷον ὁ λίθος καὶ πάντα ὅσα βάρος ἔχει ἄνω μὲν καὶ εἰς τὸ πλάγιον ὑφ’ ἐτέρου, κάτω δὲ ὑφ’ ἑαυτοῦ· τὸ δὲ πῦρ κάτω μὲν ὑφ’ ἐτέρου, ἄνω δὲ καθ’ αὐτό. καὶ τὸ μὲν ξύλον καθ’ αὐτὸ κινεῖται κάτω, ἡ δὲ κλίνη ἢ ξυλίνη, οὐχ ἢ κλίνη· περὶν γὰρ γενομένη οὐκ οἰσθήσεται κάτω’. **Aspasius in EN** 72.3–5 αἰτίαι γὰρ εἰσι τῶν ὄντων πάντων καὶ γινομένων ἀνάγκη καὶ φύσις καὶ τύχη· πρὸς δὲ τοῦτοις καὶ νοῦς καὶ πᾶν τὸ δι’ ἀνθρώπου· τοῦτο δὲ ἐστὶν ἐπιθυμία θυμὸς βούλευσις καὶ ὄλως ἡ ὄρεξις. **Alexander of Aphrodisias in Met.** 169.23–26 προγραφόμενόν τι πάσης τῆς θεωρητικῆς φιλοσοφίας, ἥς ὡς πρὸς ἡμᾶς πρώτη ἡ φυσικὴ, ἣν ὁποῖα τίς ἐστὶ καὶ περὶ τίνων, εὐροιμεν ἂν ἐκ πρώτου τί ποτέ ἐστιν ἡ φύσις ἐπισκεψαίμεθα. *in Met.* 442.27–29 πρόκειται αὐτῷ δεῖξαι ὅτι ἡ φυσικὴ θεωρητικὴ τίς ἐστὶν ἄλλ’ οὐ πρακτικὴ, καὶ ὅτι περὶ τοιοῦτον δὲν ἀναστρέφεται ἔχον ἀρχὴν κινήσεως καὶ ἡρεμίας ἐν ἑαυτῷ, τοῦτο δὲ ἐστὶ τὸ φυσικὸν σῶμα. **Alexander of Aphrodisias** at **Simp. in Phys.** 264.18–22 ἐφίσταται δὲ ὁ Ἀλέξανδρος, ὅτι ... ‘ἂ προείρηκε, τούτεστι τὰ ζῶα καὶ τὰ φυτὰ καὶ τὰ ἀπλὰ τῶν σωμάτων, ἀλλ’ οὐχὶ πάντα τὰ φυσικὰ· καὶ γὰρ τὸ κυκλοφορητικὸν σῶμα φυσικὸν καὶ αὐτὸ δὲ κινήσεως μὲν ἀρχὴν ἔχει ἐν ἑαυτῷ, στάσεως δὲ οὐκ ἔχει ἀπαύστως κινούμενον.’ **Porphry in Tim.** fr. 2.48 Sodano at **Philop. Aet.** p. 546.16–18 Rabe ἐν κινήσει μὲν αὐτὰ πάντως θεάσεται διὰ τὸ φυσικὰ εἶναι σώματα, τὴν δὲ φύσιν κινήσεως εἶναι καὶ ἡρεμίας ἀρχὴν. **Simplicius in Phys.** 2.8–3.12 τοῦ δὲ φυσικοῦ λόγου τὸ μὲν περὶ τὰς ἀρχὰς ἐστὶ τῶν φυσικῶν πραγμάτων πάντων καθ’ ὃ φυσικὰ, ταῦτὸν δὲ εἰπεῖν σωματικά, καὶ περὶ τὰ ταῖς τοιαύταις ἀρχαῖς ἐξ ἀνάγκης ἀκολουθοῦντα, τὰ δὲ περὶ τὰ ἀπὸ τῶν ἀρχῶν ... (an overview follows including the titles of *De caelo*, *Meteorologica*, *Historia animalium*, *De generatione animalium*, *De partibus animalium*, *De motu animalium*, *Parva naturalia*, *De plantis*). ἡ μὲν οὖν διαίρεσις τοιαύτη τίς ἐστὶ τοῦ φυσικοῦ τῆς φιλοσοφίας κατὰ τὴν Περιπατητικὴν αἵρεσιν ὡς συνελόντι εἰπεῖν. *in Phys.* 177.10–15 ὅπερ δὲ ὁ ἐν Φαίδωνι (97c–98c) Σωκράτης ἐγκαλεῖ τῷ Ἀναξαγόρῃ, τὸ ἐν ταῖς τῶν κατὰ μέρος αἰτιολογίαις μὴ τῷ νῷ κεχρησθαι ἀλλὰ ταῖς ὕλικαῖς ἀποδόσεσιν, οἰκεῖον ἦν φυσιολογίᾳ. τοιγαροῦν καὶ αὐτὸς ὁ Πλάτων ἐν Τιμαίῳ τὴν ποιητικὴν πάντων αἰτίαν ὀλικῶς παραδούς ἐν τοῖς κατὰ μέρος διαφορὰς ὄγκων καὶ σχημάτων αἰτιάται τῆς τε θερμότητος καὶ ψυχρότητος καὶ ἐπὶ τῶν ἄλλων ὡσαύτως. *in Phys.* 261.7–16 πρὸ τῶν ἄλλων ἀπάντων τί ποτέ ἐστιν ἡ φύσις ζητεῖ τε καὶ ἀποδεικνυσιν· οὔτε γὰρ τὸ φύσει οὔτε τὸ κατὰ φύσιν οὔτε ἄλλο τι τῶν φυσικῶν καθὼς φυσικὰ γινώμαι δυνατόν τῆς φύσεως ἀγνωσμένης. εὐρίσκει δὲ τί ποτέ ἐστὶν ἡ φύσις ἀπὸ τῆς διαφορᾶς τῶν φύσει πρὸς τὰ μὴ φύσει. ... γίνεταί δὲ τίνα καὶ διὰ τύχην ὥσπερ θησαυροῦ

περίπτωσις, καὶ ἐκ ταυτομάτου ὡς τέρατος γένεσις ἢ λίθου κατάπτωσις εἰς καθέδρας θέσιν. **Philoponus** *in de An.* 101.35–102.4 φασὶν οὖν πάνυ προσφυῶς οἱ ἀπὸ τοῦ (102) Περιπάτου ἐξηγηταί, ὧν ἐστι καὶ ὁ Ἀλέξανδρος, ὅτι οὐχ ὑπὸ φύσεως κινεῖται τὰ οὐράνια σώματα, ἀλλ' ὑπὸ κρείττονος δυνάμεως, τῆς ἐν αὐτοῖς λέγω ψυχῆς, εἴ γε, ὡς αὐτὸς φησιν ὁ Ἀριστοτέλης (*Met.* Λ.7), κατὰ ὄρεξιν τοῦ πρώτου ταύτην ἔχει τὴν κίνησιν.

Liber 1 Caput 2

P^B : ps.Plutarchus *Plac.* 875C–D; pp. 275^a13–276^a2 Diels—**P^G** : ps.Galenus *HPh* c. 21; p. 612.1–8 Diels—**P^Q** : Qustā ibn Lūqā pp. 94–97 Daiber—**P^s** : Psellus *Omn.Doctr.* 82, p. 50 Westerink
S: Stobaeus *Ecl.* 1.10.16b, p. 128.14–22 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112a42 Henry (titulus solus)

Titulus β'. Τίни διαφέρει ἀρχή καὶ στοιχεῖα (P,S)

- §1 οἱ μὲν οὖν περὶ Ἀριστοτέλην καὶ Πλάτωνα διαφέρειν ἡγούνται ἀρχὴν καὶ στοιχεῖα. (P1,S1)
- §2 Θαλῆς δ' ὁ Μιλήσιος ταῦτόν νομίζει ἀρχὴν καὶ στοιχεῖα. πλείστον δ' ὅσον διαφέρει ἀλλήλων· τὰ μὲν γὰρ στοιχεῖα ἐστὶ σύνθετα, τὰς δ' ἀρχὰς φαμεν εἶναι οὔτε συνθέτους οὔτ' ἀποτελέσματα· οἷον στοιχεῖα μὲν καλοῦμεν γῆν ὕδωρ ἀέρα πῦρ· ἀρχὰς δὲ λέγομεν διὰ τοῦτο, ὅτι οὐκ ἔχει τι πρότερον ἐξ οὗ γεννᾶται, ἐπεὶ οὐκ ἔσται ἀρχὴ τοῦτο, ἀλλ' ἐκεῖνο ἐξ οὗ γεγέννηται. τῆς δὲ γῆς καὶ τοῦ ὕδατος ἐστὶ τινὰ πρότερα ἐξ ὧν γέγονεν, ἡ ὕλη ἄμορφος οὖσα καὶ ἀειδής, καὶ τὸ εἶδος ὃ καλοῦμεν ἐντελέχειαν, καὶ ἡ στέρησις. ἀμαρτάνει οὖν ὁ Θαλῆς στοιχεῖον καὶ ἀρχὴν λέγων τὸ ὕδωρ. (P2,S2)

§1 Plato cf. *Tim.* 48b–c; Aristoteles cf. *Met.* Δ.1 1012b34, Δ.3 1014a26, Δ.4 1070b23; §2 Thales fr. 146, 343, 345 Wöhrl

titulus ante τίνι add. καὶ **P^{B(II)}** || στοιχεῖα **P^{B(I,II)G}** cf. **S** : στοιχεῖον **P^{B(III)QPs}**; al. Περὶ διαφορὰς στοιχείων καὶ ἀρχῆς **G**; Περὶ ἀρχῶν (tit. 1.3) καὶ στοιχείων (tit. 1.2) καὶ (exhib. **S^{FPP}Phot**, om. **S^{L-ind}** prob. Wachsmuth) τοῦ παντός **S** §1 [2] οὖν om. **S^P** §2 [4–5] πλείστον ... στοιχεῖα om. **S** (haplographia) || [6] ἀποτελέσματα] ἀποτέλεσμα **P^{B(III)}** || [7] διὰ ... ἔχει **P^B** : διὰ τὸ οὐδὲν ἔχειν **S** || [8–9] γεννᾶται ... ἐξ οὗ om. **P^{B(II)}** (parablepsis) || [9] γεγέννηται **P^{B(I)}** Corsinus Mau Lachenaud : γεγέννηται **P^{B(II,III)}** Diels **DG** : γεννᾶται **S** || ὕδατος] *die Luft und das Feuer* add. **Q** || [10] ἡ om. **S** || οὖσα καὶ ἀειδής **P^B**, cf. **P^G** (om. καὶ ἀειδής **P^Q**) : καὶ ἀνείδεος **S** (om. οὖσα) || [10–12] καὶ² ... ὕδωρ om. **S** || [10] δ] ἦν **P^{B(III)}** α)

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 21 (~ tit.) Περὶ διαφορὰς στοιχείων καὶ ἀρχῆς (text Diels)

21.1 (~ P2) τῶν ἀπὸ Ἰωνίας φιλοσόφων οὐδὲν διαλλάττειν αὐτὰ νομιζόντων, Πλάτων πλείστον διεννηοχέναί ταῦτα κέκρικε τῆς ἀρχῆς. καὶ γὰρ οὐδὲν εἶναι πρότερον, ἀφ' οὗ γεννᾶσθαι ταύτην. συμβέβηκεν δὲ στοιχείων προτέραν εἶναι τιν' ἀειδῆ καὶ ἄμορφον οὐσίαν, ἣν οἱ μὲν ἄποιον ὕλην, οἱ δὲ ἐντελέχειαν καὶ στέρησιν ὀνομάζουσιν. ἔτι δὲ τὰ μὲν στοιχεῖα εἶναι σύνθετα καὶ ἀποτελέσματα, τὴν δ' ἀρχὴν οὐδέτερον τούτων ὑπάρχειν. ὥστ' εἰκότως ὁ Πλάτων τὴν ἐν τούτοις παραλλαγὴν κατελιγφῶς ἀποφαίνεται.

Psellus *Omn. Doctr.* c. 82 (~ tit.) Τίνι διαφέρει ἀρχή καὶ στοιχείον
(~ P2) ἡ μὲν ἀρχὴ οὐκ ἔχει τὶ πρότερον ἑαυτῆς, ὥσπερ ἡ ὕλη καὶ τὸ εἶδος· τὸ δὲ στοι-
χείον σύνθετον ὄν καὶ ξυγκείμενον ἐξ ὕλης καὶ εἶδους ἀρχὴν ἔχει τὴν ὕλην καὶ τὸ
εἶδος ...

Loci Aetiani:

titulus A 4.12.tit. Τίνι διαφέρει φαντασία φανταστὸν φανταστικὸν φάντασμα.
A 1.3.tit. Περί τῶν ἀρχῶν τί εἰσιν. A 2.prooem. τετελεκῶς τοίνυν τὸν περὶ ἀρχῶν
καὶ στοιχείων ... λόγον.

§1 A 1.3.20 Ἀριστοτέλης δὲ Νικομάχου Σταγειρίτης ἀρχὰς μὲν ἐντελέχειαν ἦτοι εἶδος
ὕλην στέρησιν· στοιχεῖα δὲ τέσσαρα. A 1.3.22 Ζήνων Μνασέου Κιτιεύς ἀρχὰς μὲν
τὸν θεὸν καὶ τὴν ὕλην ... στοιχεῖα δὲ τέτταρα. A 1.9.4 Πλάτων τὴν ὕλην σωμα-
τοειδῇ ἄμορφον ἀνείδεν. A1.11.3 Πυθαγόρας Ἀριστοτέλης τὰ μὲν πρῶτα αἰτία
ἀσώματα, τὰ δὲ κατὰ μετοχὴν ἢ κατὰ συμβεβηκὸς τῆς σωματικῆς ὑποστάσεως.
A 1.17.4 Πλάτων τὰ μὲν τρία σώματα (οὐ γὰρ θέλει κυρίως αὐτὰ εἶναι στοιχεῖα
ἢ προσονομάζειν) τρεπτὰ εἰς ἄλληλα, πῦρ ἀέρα ὕδωρ, τὴν δὲ γῆν εἰς τι τούτων
ἀμετάβλητον. A 4.2.6 Ἀριστοτέλης ἐντελέχειαν πρῶτην σώματος φυσικοῦ ὄργα-
νικοῦ (sc. τὴν ψυχὴν εἶναι), δυνάμει ζωὴν ἔχοντος· τὴν δ' ἐντελέχειαν ἀκουστέον
ἀντὶ τοῦ εἶδους καὶ τῆς ἐνεργείας.

§2 A 1.3.7[54–58] Πυθαγόρας ... ἀρχὰς τοὺς ἀριθμοὺς καὶ τὰς συμμετρίας τὰς ἐν
τούτοις, ἃς καὶ ἀρμονίας καλεῖ, τὰ δ' ἐξ ἀμφοτέρων σύνθετα στοιχεῖα, καλού-
μενα δὲ γεωμετρικά· πάλιν δὲ τὴν μονάδα καὶ τὴν ἀόριστον δυάδα ἐν ταῖς ἀρχαῖς.
A 1.3.12 Λεύκιππος Μιλήσιος ἀρχὰς καὶ στοιχεῖα τὸ πλήρες καὶ τὸ κενόν. A 1.9.4
Πλάτων τὴν ὕλην σωματοειδῇ ἄμορφον ἀνείδεν ἀσχημάτιστον ἅποιον μὲν ὅσον
ἐπὶ τῇ ἰδίᾳ φύσει, δεξαμένην δὲ τῶν εἰδῶν κτλ. A 1.3.1 Θαλῆς ὁ Μιλήσιος ἀρχὴν
τῶν ὄντων ἀπεφώνητο τὸ ὕδωρ. A 1.3.2 ἀμαρτάνει δ' οὗτος μὴ λέγων ... ἀμαρτά-
νει οὖν κτλ. A 1.3.3 ἀμαρτάνει δὲ καὶ οὗτος κτλ. A 1.7.7 κοινῶς οὖν ἀμαρτάνουσιν
ἀμφοτέροι κτλ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The principal witnesses for this relatively brief chapter are P^{BQ} and S. They have the same two lemmata in the same order, which suggests that S wrote out the whole brief chapter and P refrained from abridging it. In S the phrase §2 [4–5] *πλείστον ... στοιχεῖα* has been the victim of haplography.

G provides a rather free but acceptable paraphrase, Ps has a bit more than the heading.

(2) S 1.10.16b, as noted by Diels in the apparatus, adds an excerpt from the *Timaeus* (30a) at the end of ch. 1.2 as transcribed by him, that is, immediately

after the Thales lemma. For the ignorant reader the standard Stobaeian introductory words λέγει γοῦν ἐν Τιμαίῳ (for the phrase λέγει γοῦν see Diels *DG* 216, Mansfeld 2016a, 301, Jeremiah at M–R 4.286 and 352) would make Thales the author of the dialogue.

T could find no use for this chapter.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition, apart from a passage on Plato's elemental figures, is limited to examples of the absence of the distinction between principle and element among the Presocratics.

(2) *Sources.* The sources for the distinction, accepted by many, are to be found in Plato and esp. Aristotle, see below, section E(b)§2. For the (Aristotelian) ἀμαρτάνει criticism see below, section D(d)§2, and ch. 1.3, Commentary D(c).

C *Chapter Heading*

It is difficult to determine whether A wrote the singular στοιχείον or the plural στοιχεῖα in his chapter heading. There is solid support for both readings. The singular is also found in the listing in the index at the beginning of the Book. The reason that we have opted for the plural is because that is the reading that occurs throughout the body of the chapter (four times), with the singular used only in the final sentence. The precise heading of P is to be preferred, as S's chapter with a more general heading (beginning with the umbrella formula) comprises the contents of, *inter alia*, both ch. 1.2 and ch. 1.3. For the dialectical aspect of the question word see above, ch. 1.1, Commentary C, and for the phrase τίτι διαφέρει the parallel in the heading of ch. 4.12 below.

D *Analysis*

a Context

Introduction. The chapter is part of the introduction of the treatise. The account of the difference between physical principle (ἀρχή) and physical elements (στοιχεῖα), continuing the introductory section of the treatise after the proem on φύσις, is a prelude of sorts to the long ch. 1.3 which according to its heading deals with the principles (ἀρχαί), some among which however also function as elements (στοιχεῖα). A returns to the question of matter and body (including the elements) in ch. 1.9 (Περὶ ὕλης) and 1.12 (Περὶ σωμάτων). There is no separate chapter Περὶ στοιχείων.

b Number–Order of Lemmata

P and S have the same two lemmata and have them in the same order, which there is no reason to change. Note however that G begins with a generalized version of the name-label of §2.

Ps partly takes over the contents of §2 but does not make reference to the name-label.

c Rationale–Structure of Chapter

(1) The chapter formulates a clear diaphonia between the view attributed to Plato and Aristotle that there is a fundamental difference between principle as primary and elements as secondary, and the view of Thales (representing the Presocratic materialists, as G probably saw), who failed to make this distinction. This particular criticism, or at least this way of formulating the criticism, goes back to Aristotle and became widespread (below section E(b)§2, which includes Aristotle's criticism). Element and principle are here first defined in opposition to each other, each being what the other is not. But, more importantly, elements as well as principles are then defined by *ostensive definition*, that is, by means of concrete instances: earth water air fire for the elements, matter and form, or entelechy, for the principles. This has implications with regard to the next chapter, 1.3 'On principles' (ἀρχαί). In everyday parlance ἀρχή means 'beginning', or 'command', etc. Its technical meaning in the context of natural philosophy is explained in the present chapter, so that ch. 1.3 does not need to commence with a nominal or conceptual definition expressive of this technical meaning. For definition in the *Placita* see below, ch. 1.9, Commentary D(c) and ((e)(2)).

Thales at ch. 1.3.1 posits Water as the principle into which and from which, so also there makes the 'mistake' announced and explicitly exposed at ch. 1.2.2; the criticism is not repeated. The other early materialists, Anaximander and Anaximenes at ch. 1.3.2–3, also fail to make the correct distinction by making their principle function as element; yet they are not criticized for this error, but for another one. We note the evaluative term ἀμαρτάνει found in the Thales lemma of the present chapter and in the Anaximander and Anaximenes lemmata of the next chapter, 1.3.2–3, see further below, section D(d)§2. We also note that in four doxai of 1.3 both ἀρχαί and στοιχεῖα are listed and so distinguished, viz. 1.3.19 (Empedocles), 1.3.21 (Aristotle), 1.3.22 (Xenocrates), and 1.3.23 (Zeno). In our present chapter the reasons for making the distinction are spelled out in considerable detail.

(2) The author, no less than four times using the first person plural of a verb, explicitly declares that this distinction is his own view (a rare phenomenon in the *Placita*), so comes down in favour of Plato and Aristotle. This authorial

‘we’ is not a pallid generalising plural, also because the principle(s) stated to be ‘ours’ are clearly Aristotelian: ‘matter which is without shape or form, and also form which we call ‘entelechy’ and ‘privation’’. Further compare ch. 1.3.21 below: ‘Aristotle, the son of Nicomachus, from Stagira (says that the) principles are *entelecheia* or form, matter, privation, but elements are four’. The four standard elements are the property of Plato, Aristotle, and others (the Aristotelian aether is presumably omitted for the sake of general acceptability and application). This preference for and emphasis upon an Aristotelian stance agrees with the position of the previous chapter, cf. Alt (1973) 135.

(3) *Stoics absent*. The Stoic view, entirely clear about the fundamental difference between principles and elements (see Diogenes Laertius *V.P.* 7.134 cited section E(b)§1), is surprisingly absent. Nevertheless a Stoic would hardly be in a position to dispute the argument of this chapter.

d Further Comments

Individual Points

§1 Plato in the *Timaeus de facto* distinguishes the demiurge, ideas, and receptacle from the physical elements, and at *Tim.* 48b–c and 53d hints that there are principles beyond the particles constitutive of the four elements. Aristotle distinguishes between principles (*principia realia*, Bonitz 112a41 ff.) and elements (e.g. in the context of his discussion of the Unmoved Mover, *Met.* A.3 11070b22–24), but occasionally still uses these terms interchangeably. See also below section D(e)(1). Also compare the distinction between transcendent and immanent causes in ch. 1.11.3.

§2 (1) In the *Placita* ethnicon (Μιλήσιος) and patronymic (not here, but see ch. 1.3.1) are as a rule provided by way of introduction and identification the first time—which even may be the only time—a name-label is cited (for clear examples see at chs. 1.7 and 4.1 below). Examples of the ethnicon often occur in Aristotle’s dialectical overviews already, and of ethnicon plus patronymic on a more systematic basis in the fragments, mainly in Simplicius, attributed by Usener and Diels to Theophrastus’ *Physicorum Opiniones* (frs. 224–230 FHS&G, better referred to as *Physicae Opiniones*; but we prefer to think of his *Physics* as the source). There is no need to assign these ingredients to the genre of biography. See below ch. 1.3, Commentary D(c) ad init. See also M–R 2.1.93 with n. 196, 174 with n. 361, 194.

(2) The elements, presumably, are said to be ‘composites’ because they are compounds of matter and form, or of sensible qualities, although Aristotle himself distinguishes between compounds and elements (e.g. *Cael.* 3 8.306b19–20, τὰ στοιχεῖα δεῖ νομίζειν ὥσπερ ὕλην εἶναι τοῖς συνθέτοις), or of triangles and squares, as in Plato’s *Timaeus*.

(3) For the critical phrase ‘is ... mistaken when he says’ (ἀμαρτάνει ... λέγων) see the parallels in *Loci Aetiani* ad fin., and some Aristotelian antecedents, e.g. at *Phys.* 4.6 213a24 ἀμαρτάνοντες λέγουσιν, or *Cael.* 3.5 304b11–12 κοινὸν δὲ πᾶσιν ἀμάρτημα τοῖς ἐν τὸ στοιχείῳ ὑποτιθεμένοις. Also the compositum in Theophrastus *Sens.* 24 Ἐμπεδοκλῆς μὲν οὖν ἔοικεν ἐν πολλοῖς διαμαρτάνειν, and 48 Διογένης μὲν οὖν, ὥσπερ εἴπομεν, ἅπαντα προθυμούμενος ἀνάγειν εἰς τὴν ἀρχὴν πολλὰ διαμαρτάνει τῶν εὐλόγων. Diels *DG* 58–59 believed that ‘a Placitorum certe instituto distat ... dialectica confutatio’ but in view of the Peripatetic background it is more surprising that examples are rare, cf. Alt (1973) 139, 143, and M–R 2.1.32, 2.1.69–72. For dialectical discussion in Theophrastus’ *Physikai Doxai* see *Phys.Op.* fr. 11a Diels = 241A FHS&G (ποιεῖται τὰς ἐνστάσεις—for the term cf. e.g. Aristotle *Top.* 8.2 157a38, *Rhet.* 2.25 1402a34–37), and e.g. Sedley (1998b) ch. 6. Also see ch. 1.7, Commentary D(d), individual points §1[38–39], and for the Peripatetic background cf. ch. 1.proœm., Commentary D(b) and D(c)(1).

(4) The general point of the first sentence, a mere affirmation concerned with ‘principle and elements’, is specified in its final sentence, where Thales is said to have erred in respect of the status of ‘water’ by declaring it to be both—this following upon the argument concerned with the elements ‘Water’ etc. that is in between. This sort of ring composition is also found in ch. 1.1.2, where see at Commentary D(d)§2.

e Other Evidence

(1) Plato’s refusal at *Tim.* 48b–c to identify what is primary may nevertheless have inspired Aristotle to be clear about the distinction between what is primary and what is not. For later Platonists on this issue and possible antecedents in the *Timaeus* and elsewhere see Bonazzi (2013) 392–395. Aristotle, again, followed by Theophrastus and echoed by others, insisted that his Presocratic predecessors failed to be aware of this unavoidable contrast. As to the general point they have been largely followed, as is clear from sources referring to the Stoics, and passages in Galen and elsewhere.

(2) *On the Elements According to the Opinion of Hippocrates*, the third work in the sixth cent. *Alexandrian Epitomes of Galen*, ch. 2.4, p. 139 Walbridge, also deals with the difference between element and principle.

E Further Related Texts

a Proximate Tradition

Chapter heading: *Capitula Lucretiana* at DRN 1.705 *neque ignem neque aëra neque umorem principia esse.* Pliny *Nat.* 1.1, p. 11.7 *de elementis.* Isidore of Seville *Etym.* 13.3 *De elementis.* Diogenes Laertius *V.P.* 7.132 (on the Stoics) ... καὶ περὶ ἀρχῶν καὶ στοιχείων καὶ κτλ.

§1 Plato: Diogenes Laertius V.P. 3.75–76 (on Plato) ἐπεὶ δ' αἰτίαι εἰσὶ δύο, τὰ μὲν διὰ νοῦ εἶναι, τὰ δ' ἐξ ἀναγκαίας αἰτίας, φησί, λεκτέον. ταῦτα δ' ἐστὶν ἀήρ, πῦρ, γῆ, ὕδωρ καὶ οὐκ ὄντα μὲν στοιχεῖα κατὰ ἀκρίβειαν, ἀλλὰ δεκτικά. ταῦτα δ' ἐκ τῶν τριγώνων εἶναι συντιθεμένων καὶ διαλύεσθαι εἰς ταῦτα· στοιχεῖα δ' αὐτῶν εἶναι τό τε πρόμηκες τρίγωνον καὶ τὸ ἰσοσκελές. ἀρχὰς μὲν οὖν εἶναι καὶ αἰτία τὰ λεχθέντα δύο τῶν ὧν παράδειγμα τὸν θεὸν καὶ τὴν ὕλην· ὅπερ ἀνάγκη ἄμορφον εἶναι ὥσπερ καὶ ἐπὶ τῶν ἄλλων δεκτικῶν.

§2 Thales: Arius Didymus fr. 5 Diels at Stob. *Ecl.* 1.12.1b, p. 134.19–20 τὸ εἶδος, ὃ καὶ μορφήν καλεῖ καὶ ἐντελέχειαν καὶ κτλ. **Sextus Empiricus M.** 9.360 Φερεκύδης μὲν ὁ Σύριος (Schibli p. 179) γῆν ἔλεξε πάντων εἶναι ἀρχὴν καὶ στοιχεῖον, Θαλῆς δὲ ὁ Μιλήσιος (fr. 143 Wöhrle) ὕδωρ, Ἀναξίμανδρος (fr. 51 Wöhrle) δὲ ὁ ἀκουστής τούτου τὸ ἄπειρον, Ἀναξίμενης (fr. 30 Wöhrle) δὲ καὶ Ἰδαῖος ὁ Ἱμεραῖος (63 DK) καὶ Διογένης ὁ Ἀπολλωνιάτης (—) καὶ Ἀρχέλαος ὁ Ἀθηναῖος (60A7 DK), Σωκράτους δὲ καθηγητής, καὶ κατ' ἐνίους Ἡράκλειτος (T 696 Mouraviev) ἀέρα, Ἴππασος δὲ ὁ Μεταποντῖνος (—) καὶ κατ' ἐνίους Ἡράκλειτος (T 696 Mouraviev) πῦρ κτλ. (see on A 1.3). **Diogenes Laertius V.P.** 2.1 Ἀναξίμανδρος Πραξιάδου Μιλήσιος (11A1 DK). οὗτος ἔφασκεν ἀρχὴν καὶ στοιχεῖον τὸ ἄπειρον. **Hippolytus Ref.** 1.6.1–2 Θαλοῦ (fr. 211 Wöhrle) τοίνυν Ἀναξίμανδρος γίνεταί ἀκροατής. Ἀναξίμανδρος Πραξιάδου Μιλήσιος (12A11 DK). ... οὗτος μὲν ἀρχὴν καὶ στοιχεῖον εἶρηκε τῶν ὄντων τὸ ἄπειρον. **Achilles c.** 3, p. 10.10–17 cited below ch. 1.3 at *Testes secundi*. **Scholía in Hesiodum Th.** 116b, p. 23.1–3 Di Gregorio ἔστι δὲ τὰ προϋφεστώτα τοῦ παντὸς ὕλη καὶ ἀρχὴ καὶ στοιχεῖα, καὶ οἱ μὲν συνώνυμα ἔφασκον εἶναι τὰ προειρημένα καὶ ἐν ἑτερον (sc. οὐσία). p. 23.14–16 καὶ Φερεκύδης δὲ ὁ Σύρος (cf. 7Bia DK = Ach p. 10.10–11) καὶ Θαλῆς ὁ Μιλήσιος (fr. 583 Wöhrle) ἀρχὴν τῶν ὄλων τὸ ὕδωρ φασὶ εἶναι, τὸ ῥητὸν τὸ τοῦ Ἡσιόδου ἀναλαβόντες.

b Sources and Other Parallel Texts

General texts: **ps.Plato Def.** 411c στοιχεῖον τὸ συνάγον καὶ διαλύον τὰ σύνθετα. **Galen PHP** 8.2.2–4 + 8–9 ὀνομάζεται μὲν οὖν στοιχεῖον ὅπερ ἂν ἐλάχιστον ἢ μέρος ἐκείνου τοῦ πράγματος οὐπερ ἂν ἢ στοιχεῖον. ἐκ γὰρ τῆς τοῦ πρὸς τι κατηγορίας ἐστὶν ἢ στοιχεῖον φωνὴ καθάπερ καὶ (ἢ) {τοῦ} μέρος· τό τε γὰρ στοιχεῖον τινός ἐστι στοιχεῖον τό τε μέρος τινός ἐστι μέρος, ὥσπερ οὖν τῆς φωνῆς ἡμῶν, ἢ χρώμεθα διαλεγόμενοι πρὸς ἀλλήλους, τέτταρα καὶ εἴκοσι ἐστὶ στοιχεῖα, κατὰ τὸν αὐτὸν τρόπον ἀπάντων τῶν γεννητῶν καὶ φθαρτῶν σωμάτων ἐλάχιστα μόρια γῆ καὶ ἀήρ ἐστὶν ὕδωρ τε καὶ πῦρ, ἐλαχίστου δὲ λεγομένου τοῦ μηκέτι τομῆν ἐγκωροῦντος. ἢ μὲν γὰρ κατὰ τὸ μέγεθος τομῆ τοιοῦτον οὐδὲν ἐλάχιστον ἔχει, μόνῃ δὲ ἢ κατ' εἶδος ἴσταται ποτε καθάπερ ἐπὶ τῆς φωνῆς. (8–9) περὶ μὲν οὖν τοῦ στοιχεῖον ὀνόματος ὅλον ἔχεις γεγραμμένον βιβλίον ἐν τῇ τῶν Ἱατρικῶν ὀνομάτων πραγματείᾳ (cf. *Med.Nam.* pp. 27.39–28.12 Meyerhof–Schacht, where little to be found). περὶ δὲ τῆς κατὰ μέγεθος τομῆς τῶν σωμάτων ἐπιδέδεικται τοῖς γεωμετρικοῖς ἀνδράσιν ὡς οὐδέποτε στήναι δυναμένης ἀλλ' αἰεὶ τοῦ τεμνομένου μικρότερον ἑαυτοῦ τὸ μέγεθος ἔχοντος. ἀπολειπομένης δὲ μόνῃς τῆς κατ' εἶδος τομῆς ὡμολόγηται πάλιν αὖθις περὶ τῆς καθ' ἕκαστον γένος τῶν ὄντων ἄτομον εἵναι τι ἐνυπάρχοντος καὶ εἰς ὃ ἔσχατον ἀναλύεται.

Chapter heading: Galen Περὶ τῶν καθ' Ἱπποκράτους στοιχείων. **Diogenes Laertius** *V.P.* 7.134 (*SVF* 3 Arch. 12) and 7.136 Ἀρχέδημος ἐν τῷ Περὶ στοιχείων. *V.P.* 7.178 (Sphaerus *SVF* 1.620) Περὶ στοιχείων.

§1 Plato Aristotle: Plato *Tim.* 48b–c τὴν δὴ πρὸ τῆς οὐρανοῦ γενέσεως πυρὸς ὕδατος τε καὶ ἀέρος καὶ γῆς φύσιν θεατέον αὐτὴν καὶ τὰ πρὸ τούτου πάθη· νῦν γὰρ οὐδεὶς πω γένεσιν αὐτῶν μεμήνυκεν, ἀλλ' ὡς εἰδόσιν πῦρ ὅτι ποτὲ ἐστὶν καὶ ἔκαστον αὐτῶν λέγομεν ἀρχὰς αὐτὰ τιθέμενοι στοιχεῖα τοῦ παντός, προσήκον αὐτοῖς οὐδ' ἂν ὡς ἐν συλλα(ε)βῆς εἴδωσιν μόνον εἰκότως ὑπὸ τοῦ καὶ βραχὺ φρονούντος ἀπεικασθῆναι. νῦν δὲ οὖν τό γε παρ' ἡμῶν ὥδε ἐχέτω· τὴν μὲν περὶ ἀπάντων εἴτε ἀρχὴν εἴτε ἀρχὰς εἴτε ὅπῃ δοκεῖ τούτων πέρι τὸ νῦν οὐ ῥητέον, δι' ἄλλο μὲν οὐδέν, διὰ δὲ τὸ χαλεπὸν εἶναι κατὰ τὸν παρόντα τρόπον τῆς διεξόδου δηλῶσαι τὰ δοκοῦντα, μήτ' οὖν ὑμεῖς οἴεσθε δεῖν ἐμὲ λέγειν, οὔτ' αὐτὸς αὖ πείθειν ἐμαυτὸν εἴην ἂν δυνατός ὡς ὁρθῶς ἐγχειροῖμ' ἂν τοσοῦτον ἐπιβαλλόμενος ἔργον. *Tim.* 53d τὰς δ' ἔτι τούτων (sc. of the triangles that constitute (53c) πῦρ καὶ γῆ καὶ ὕδωρ καὶ ἀήρ) ἀρχὰς ἀνωθεν θεὸς οἶδεν καὶ ἀνδρῶν ὅς ἂν ἐκείνῳ φίλος ᾖ. **Aristotle** *Met.* Δ.3 1014a26–1014b15 στοιχεῖον λέγεται ἐξ οὗ σύγκειται πρῶτου ἐνυπάρχοντος ἀδιαιρέτου τῷ εἶδει εἰς ἕτερον εἶδος κτλ. *Met.* Ζ.17 1041b30–33 φανεῖν ἂν {καὶ} αὕτη ἢ φύσις οὐσία, ἢ ἐστὶν οὐ στοιχεῖον ἀλλ' ἀρχή—· στοιχεῖον δ' ἐστὶν εἰς ὃ διαιρεῖται ἐνυπάρχον ὡς ὕλην, οἷον τῆς συλλαβῆς τὸ α' καὶ τὸ β'. *Met.* Λ.4 1070b23–24 δῆλον ὅτι ἕτερον ἀρχὴ καὶ στοιχεῖον, αἷτια δ' ἄμφω. **Cicero** *Varr.* 26 *earum igitur qualitatum sunt aliae principes aliae ex his ortae. principes sunt unius modi et simplices; ex his autem ortae variae sunt et quasi multiformes.* **Diogenes Laertius** *V.P.* 7.132 τὸν δὲ φυσικὸν λόγον διαιροῦσιν εἰς τε τὸν ... στοιχείων (sc. τόπον) κτλ. *V.P.* 7.134 (*SVF* 2.299) διαφέρειν δὲ φασιν (sc. οἱ Στωικοὶ) ἀρχὰς καὶ στοιχεῖα· τὰς μὲν γὰρ εἶναι ἀγενήτους καὶ ἀφθάρτους, τὰ δὲ στοιχεῖα κατὰ τὴν ἐκπύρωσιν φθείρεσθαι. ἀλλὰ καὶ σώματα εἶναι τὰς ἀρχὰς καὶ ἀμόρφους, τὰ δὲ μεμorfώσθαι.

§2 Thales: Aristotle *Met.* Α.3 983b6–11 τῶν δὴ πρώτων φιλοσοφούντων οἱ πλείστοι τὰς ἐν ὕλης εἶδει μόνας ὥθησαν ἀρχὰς εἶναι πάντων· ἐξ οὗ γὰρ ἔστιν ἅπαντα τὰ ὄντα καὶ ἐξ οὗ γίγνεται πρῶτου καὶ εἰς ὃ φθείρεται τελευταῖον, τῆς μὲν οὐσίας ὑπομενούσης τοῖς δὲ πάθεσι μεταβαλλούσης, τοῦτο στοιχεῖον καὶ ταύτην ἀρχὴν φασιν εἶναι τῶν ὄντων. *Cael.* 3.8 306b16–19 ὥσπερ γὰρ ἐν τοῖς ἄλλοις αἰεδὲς καὶ ἄμορφον δεῖ τὸ ὑποκείμενον εἶναι (μάλιστα γὰρ ἂν οὕτω δύναιτο ῥυθμιζεσθαι, καθάπερ ἐν τῷ Τιμαίῳ γέγραπται, τὸ πανδεχές) κτλ. **Simplicius in Phys.** 24.13–15 (Theophrastus *Phys.Op.* fr. 2 Diels, 216A FHS&G) τῶν δὲ ἐν καὶ κινούμενον καὶ ἄπειρον λεγόντων Ἀναξίμανδρος μὲν Πραξιάδου Μιλήσιος (12A9 DK), Θαλοῦ γενόμενος διάδοχος καὶ μαθητῆς, ἀρχὴν τε καὶ στοιχεῖον εἴρηκε τῶν ὄντων τὸ ἄπειρον. **Alexander of Aphrodisias in Met.** 178.5–8 τῶν ἀρχαίων φυσικῶν τινες τὴν ὕλην αἰτίαν ὑποθέμενοι μόνον καθ' αὐτήν, τὰ ταύτης πάθη κατὰ συμβεβηκός αἰτίας ἔλεγον, οὐ καθ' αὐτά. καθ' αὐτὸ μὲν γὰρ αἴτιον ἦν αὐτοῖς ὁ ἀήρ ἢ τὸ ὕδωρ ἢ τὸ μεταξὺ ἢ τι ἄλλο, ὃ ἀρχὴν καὶ στοιχεῖον ὑπετίθεντο. **Aristotle de An.** 2.1 412a9–10 τὸ δ' εἶδος ἐντελέχεια. Differently **ps.Galen Def.Med.** 19.356.4–6 K. λα'. στοιχεῖον ἐστὶν ἐξ οὗ πρῶτου καὶ ἀπλουστάτου τὰ πάντα γέγονε καὶ εἰς ὃ ἀπλουστάτον τὰ πάντα ἀναλυθήσεται ὃν ἔσχατον. **ps.Galen HPh** c. 21 *DG* p. 612.4–6 συμβέ-

βηκεν δὲ στοιχείων προτέραν εἶναι τιν' αἰδιῆ καὶ ἄμορφον οὐσίαν, ἣν οἱ μὲν ἄποιον ὕλην, οἱ δὲ ἐντελέχειαν καὶ στέρησιν [sic] ὀνομάζουσιν. *Scholia* (of Melampus and Diomedes) *in Dionysium Thracem* p. 31.9–11 Uhlig στοιχείον ἐστὶν ἐξ οὗ ἐλαχίστου συνίσταται τι ἐν συνθέσει καὶ εἰς ὃ ἐλάχιστον ἀναλύεται.

Liber 1 Caput 3

- P^B** : ps.Plutarchus *Plac.* 875D–878C; pp. 276^a3–289^a4 Diels—**P^{Ph}**: Philo *Prov.* 1.22 Aucher (interpolatus)—**P^E**: Eusebius *PE* 7.12.1 + 14.14.1–6, pp. 1.386.8–10 + 2.293.19–296.9 Mras—**P^J**: ps.Iustinus *Coh.Gr.* 3.2.12–4.1.10, 5.4.31–6.1.8—**P^Q** : Qustā ibn Lūqā pp. 96–107 Daiber—**P^L**: *Mens.* 2.9, pp. 28.21–29.5 Wuensch—**P^{Ps}** : Psellus *Omn.Doctr.* c. 83, p. 50 Westerink, *Theolog. opusc.* 6.12–23, 69–103 + 61.11–12 + 52–71 Gautier—**P^{Tz}** : Ioannes Tzetzes *Exeg. in Iliad.* 1.5.29, p. 102.7–9 Papathomopoulos—cf. **P^{Ath}** : Athenagoras *Leg.* 18.3.23–4.24; 22.1.3–7 Marcovich
- S**: Stobaeus *Ecl.* 1.10.12, pp. 122.12–125.16 + 1.10.14, pp. 126.7–127.4 + 1.10.16ab, pp. 127.16–128.12 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112a42 Henry (titulus solus); cf. *Ecl.* 1.10.11a, pp. 121.10–14 Wachsmuth
- T**: Theodoretus *CAG* 4.11–12, p. 103.3–12 Raeder
- Cf. Ach: Achilles *Univ.* c. 3, pp. 9.10–10.17 Di Maria; Nem: Nemesius *NH* c. 5, p. 52.18–23, p. 54.12–20 Morani; Hermias *Irr.* 10.1–7, 11.1–12, 12.9–13, 13.2–10, 14.1–9, 16.1–6 Hanson; *Scholia in Basilium I* 1–3 pp. 195.1–196.7 Pasquali = ps.Clemens Romanus tr. Rufini *Recog.* 8.15.1–3, p. 225.10–226.4 Rehm-Paschke

Titulus γ'. Περὶ τῶν ἀρχῶν, τί εἰσιν (P, cf. S)

- §1 Θαλῆς ὁ Μιλήσιος ἀρχὴν τῶν ὄντων ἀπεφάνητο τὸ ὕδωρ—δοκεῖ δ' ὁ ἀνὴρ οὗτος ἄρξει τῆς φιλοσοφίας καὶ ἀπ' αὐτοῦ ἡ Ἰωνικὴ αἵρεσις προσ-
 ηγορεύθη· ἐγένοντο γὰρ πλείσται διαδοχαὶ φιλοσοφίας· φιλοσοφίας δ'
 ἐν Αἰγύπτῳ ἦλθεν εἰς Μίλητον πρεσβύτερος—ὃς ἐξ ὕδατος φησι πάντα
 εἶναι καὶ εἰς ὕδωρ πάντα ἀναλύεσθαι· στοχάζεται δ' ἐκ τούτου πρῶτον,
 ὅτι πάντων τῶν ζώων ἡ γονὴ ἀρχὴ ἐστίν, ὑγρὰ οὖσα· οὕτως εἰκὸς καὶ τὰ
 πάντα ἐξ ὑγροῦ τὴν ἀρχὴν ἔχειν. δεύτερον, ὅτι πάντα τὰ φυτὰ ὑγρῷ
 τρέφεται καὶ καρποφορεῖ, ἀμοιροῦντα δὲ ξηραίνεται· τρίτον, ὅτι καὶ

§1 Thales 11A11 DK, Homerus *Il.* 14.246

titulus τῶν **P^{B(11)Q^{Ps}}** prob. Mau Lachenaud : om. **P^{B(11)}**, cf. **P^E** δόξα φιλοσόφων περὶ ἀρχῶν
 prob. Diels || τί εἰσιν|| om. **P^{B(11)}** || al. S Περὶ ἀρχῶν [i.q. tit. 1.3] καὶ στοιχείων [i.q. tit. 1.2] καὶ
 [καὶ **S^{FPP}**Phot : om. L prob. Wachsmuth] τοῦ παντός §1 [2] post ἀπεφάνητο hab. **P^E** εἶναι || [2–
 5] δοκεῖ ... πρεσβύτερος non hab. S, ut emblema Plutarchi uncis saepsit Diels cf. *DG* 61 || [3]
 φιλοσοφίας|| om. **P^E** || [5] ὃς ἐξ ὕδατος **P^B** : ἐξ ὕδατος δὲ **P^E** : ἐξ ὕδατος γὰρ **P^J**S Diels || [6] ἐκ||
 om. **P^{B(11)}** || πρῶτον **P^{BS}** (cf. **P^J**) : πρῶτου **P^E** : om. **P^Q** || [7] τῶν ζώων|| om. **P^{B(11)}**, om. τῶν **P^E** ||
 οὖσα|| **P^B** : οὐσία **P^{ES}** || [8] ὅτι|| om. **P^{ES}** || τὰ om. S || [9] καὶ|| τε καὶ **P^E** || τρίτον|| δὲ add. **P^E**

αὐτὸ τὸ πῦρ τὸ τοῦ ἡλίου καὶ τὸ τῶν ἄστρον ταῖς τῶν ὑδάτων 10
ἀναθυμιάσσει τρέφεται καὶ αὐτὸς ὁ κόσμος· διὰ τοῦτο καὶ Ὅμηρος
ταύτην τὴν γνώμην ὑποτίθεται περὶ τοῦ ὕδατος·

Ἵκκεανός, ὅσπερ γένεσις πάντεσσι τέτυκται. (P1,S2)

§2 Ἀναξίμανδρος δὲ Πραξιάδου Μιλήσιός φησι τῶν ὄντων τὴν ἀρχὴν εἶναι 15
τὸ ἄπειρον· ἐκ γὰρ τοῦτου πάντα γίνεσθαι καὶ εἰς τοῦτο πάντα
φθίρεσθαι· διὸ καὶ γεννᾶσθαι ἀπείρους κόσμους, καὶ πάλιν φθίρεσθαι
εἰς τὸ ἐξ οὗ γίνονται. λέγει γοῦν διότι ἀπέραντον ἐστίν, ἵνα μηδὲν
ἐλλείπῃ ἢ γένεσις ἢ ὑφισταμένη. ἀμαρτάνει δ' οὗτος μὴ λέγων τί ἐστι
τὸ ἄπειρον, πότερον ἀήρ ἐστίν ἢ ὕδωρ ἢ γῆ ἢ ἄλλα τινὰ σώματα. ἀμαρ- 20
τάνει οὖν τὴν μὲν ὕλην ἀποφαινόμενος τὸ δὲ ποιοῦν αἴτιον ἀναιρῶν· τὸ
γὰρ ἄπειρον οὐδὲν ἄλλο ἢ ὕλη ἐστίν· οὐ δύναται δ' ἡ ὕλη εἶναι ἐνεργεῖα,
ἂν μὴ τὸ ποιοῦν ὑποκέηται. (P2,S3)

§3 Ἀναξίμενης Εὐρυστράτου Μιλήσιος ἀρχὴν τῶν ὄντων ἀέρα ἀπεφάνετο· 25
ἐκ γὰρ τοῦτου πάντα γίνεσθαι καὶ εἰς αὐτὸν πάλιν ἀναλύεσθαι· οἶον ἢ
ψυχὴ, φησίν, ἢ ἡμετέρα ἀήρ οὐσα συγκρατεῖ ἡμᾶς, καὶ ὅλον τὸν κόσμον
πνεῦμα καὶ ἀήρ περιέχει· λέγεται δὲ συνωνύμως ἀήρ καὶ πνεῦμα.
ἀμαρτάνει δὲ καὶ οὗτος ἐξ ἀπλοῦ καὶ μονοειδοῦς ἀέρος καὶ πνεύματος
δοκῶν συνεστάναι τὰ ζῶα· ἀδύνατον γὰρ ἀρχὴν μίαν τὴν ὕλην τῶν
ὄντων ὑποστήναι, ἀλλὰ καὶ τὸ ποιοῦν αἴτιον χρῆ ὑποτιθέναι· οἶον 30
ἄργυρος οὐκ ἀρκεῖ πρὸς τὸ ἐκπωμα γενέσθαι, ἂν μὴ καὶ τὸ ποιοῦν ᾗ,
τουτέστιν ὁ ἀργυροκόπος· ὁμοίως καὶ ἐπὶ τοῦ χαλκοῦ καὶ τοῦ ξύλου καὶ
τῆς ἄλλης ὕλης. (P3,S6)

§2 Anaximander 12A14 DK; §3 Anaximenes 13B2 DK

[10] τὸ² P^{B(11)ES} : om. P^{B(111)} || [11–13] διὰ ... τέτυκται om. S, cf. infra §6 || [11] διὰ τοῦτο] om.
P^Q || γνώμην P^{EQS} : γένεσιν P^B, corr. in marg. P^{B(1)} || [13] *Il.* 14.246 hic om. S transposuit ap.
Ecl. 1.10.2 || Ἵκκεανός P^B S (add. θ' S) : Ἵκκεανόν P^E (Ἵκκεανού text. Homeri) §2 [14] δὲ Πραξι-
άδου S (legunt S^{FP} Προυξιάδου, corr. Heeren) : δ' ὁ P || τὴν P^{BE} : om. S || [15] εἰς] om. P^E || [17]
γίνονται P^{B(11)} : γίνεταί P^{B(111)ES} : γίνεσθαι dub. Diels || γοῦν P^{B(1)S} : οὖν P^{B(1111)} : δ' οὖν P^E ||
διότι P^{EQS} : διὰ τί P^B || ἀπέραντον P^{EQ}, cf. S ἀπέρατον : ἄπειρον P^B || [18] ante ἢ γένεσις hab. P^E
καὶ || ἡ¹ ... ὑφισταμένη] *und* (cf. P^E) *es ewig existiere* Q || ante οὗτος hab. P^E καὶ || οὗτος] om. S ||
[19–20] πότερον ... ἀναιρῶν om. S || [21] γὰρ P^{B(111)E} : δὲ P^{B(11)S} || ἐνεργεῖα P^{EQ} : ἐνεργεία P^{BS}
Diels §3 [23] Εὐρυστράτου S : δ' ὁ P || [24] πάντα P^{ES} Diels non prob. Laks–Most: τὰ πάντα
P^{BJ} || [25] οὐσα ... ἡμᾶς P^{BS} : ἐστι· συγκρατεῖ γὰρ P^E || συγκρατεῖ] *bewahrt* Q || [26] περιέχει]
ἐμπεριέχει P^E || [28] post μίαν hab. S ἢ || [29] ὄντων P^{EQS} : ὄντων ἐξ ἧς πάντα P^B || [29–32]
ἀλλὰ ... ὕλης om. S || [29] ὑποτιθέναι P^B : τιθέναι P^E, cf. *zusammenstellen* Q || [30] ἄργυρος οὐκ]
inv. P^{B(111)} || γενέσθαι P^B : γίνεσθαι P^E (coni. Mras, mss. γίνεταί) || [31] τοῦ ξύλου P^{BQ} : ξύλων
P^E §§4–8 om. P^E

- §4 Ἀναξαγόρας Ἠγησιβούλου ὁ Κλαζομένιος ἀρχὰς τῶν ὄντων τὰς
ὁμοιομερείας ἀπεφάνητο· ἐδόκει γὰρ αὐτῷ ἀπορώτατον εἶναι, πῶς ἐκ
τοῦ μὴ ὄντος δύναιται τι γίνεσθαι ἢ φθείρεσθαι εἰς τὸ μὴ ὄν· τροφήν γούν 35
προσφερόμεθα ἀπλὴν καὶ μονοειδῆ οἶον τὸν Δημήτριον ἄρτον, τὸ ὕδωρ
πίνοντες· καὶ ἐκ ταύτης τῆς τροφῆς τρέφεται θριξὶ φλὲξ ἀρτηρία σὰρξ
νεῦρα ὅσα καὶ τὰ λοιπὰ μόρια. τούτων οὖν γινομένων ὁμολογητέον
ἐστὶν ὅτι ἐν τῇ τροφῇ τῇ προσφερομένῃ πάντα ἐστὶ τὰ ὄντα καὶ ἐκ τῶν 40
ὄντων πάντα αὖξεται καὶ ἐν ἐκείνῃ ἐστὶ τῇ τροφῇ μόρια αἵματος
γεννητικὰ καὶ νεύρων καὶ ὀστέων καὶ τῶν ἄλλων· ἃ ἦν λόγῳ θεωρητὰ
μόρια. οὐ γὰρ δεῖ πάντα ἐπὶ τὴν αἴσθησιν ἀνάγειν, ὅτι ἄρτος καὶ τὸ ὕδωρ
ταῦτα κατασκευάζει, ἀλλ' ἐν τούτοις ἔστι λόγῳ θεωρητὰ μόρια. ἀπὸ
τοῦ οὖν ὅμοια τὰ μέρη εἶναι ἐν τῇ τροφῇ τοῖς γεννωμένοις ὁμοιομερείας
αὐτὰς ἐκάλεσε καὶ ἀρχὰς τῶν ὄντων ἀπεφάνητο· καὶ τὰς μὲν ὁμοιο- 45
μερείας ὕλην, τὸ δὲ ποιοῦν αἴτιον τὸν νοῦν τὸν τὰ πάντα διαταξάμενον.
ἄρχεται δ' οὕτως· ὁμοῦ πάντα χρήματα ἦν, νοὺς δ' αὐτὰ διήρει καὶ
διεκόσμησε, 'χρήματα' λέγων τὰ πράγματα. ἀποδεκτέος οὖν ἐστίν, ὅτι
τῇ ὕλῃ τὸν τεχνίτην προσέξευξεν. (P4,S7)
- §5 Ἀρχέλαος Ἀπολλοδώρου Ἀθηναῖος ἀέρα ἄπειρον καὶ τὴν περὶ αὐτὸν 50
πυκνότητα καὶ μάνωσιν· τούτων δὲ τὸ μὲν εἶναι πῦρ τὸ δ' ὕδωρ. (P5,S8)
- §6 οὗτοι μὲν οὖν ἐφεξῆς ἀλλήλοις ταῖς διαδοχαῖς γενόμενοι τὴν λεχθείσαν
Ἰωνικὴν ἐκπληροῦσι φιλοσοφίαν ἀπὸ Θάλητος. (P6, cf. S9)

§4 Anaxagoras 59A46 DK; §5 Archelaus 60A7 DK; §6 Thales fr. 344 Wöhrl cf. fr. 148 ubi
textus P, et cf. D.L. 1.13, 8.1

§4 [33] Ἠγησιβούλου S : om. P || ὁ || δὲ P^{B(11)} || [34–35] ἐδόκει ... ὄν om. S || [35] γινέσθαι P^{B(11)} :
γενέσθαι P^{B(11,111)} || [36] μονοειδῆ ... τὸν om. P^Q || [36–37] τὸν Δημήτριον ἄρτον P^B (ἄρτον om.
Q) : crucif. Diels explic. 'poeticus flos sive a Plutarcho sive post a librario additus imper-
fectus mansit', τὸν Δημήτριον et πίνοντες om. S, post ἄρτον lac. pos. Mau Lachenaud, ἔδοντες
prop. Mau fort. recte || θριξὶ P^{BQ} : om. S || σὰρξ S : om. P, sed fort. pro θριξὶ scripsit S σὰρξ ||
[38] ὅσα om. Q || [40–43] καὶ ... κατασκευάζει om. S || [42] οὐ ... πάντα καὶ ... πάντως
P^{B(11)} || [42–43] ὅτι ... κατασκευάζει om. Q || [43] ἀλλ' ἐν τούτοις P^B : ἐν τούτῳ οὖν S (ταύτῃ sc.
τροφῇ Wachsmuth) || [43–44] ἀπὸ ... ὅμοια excidit in mss. S || [47–49] ἄρχεται ... προσέξευξεν
om. S || [47] ante πάντα hab. P^{B(11)} τὰ || [47–48] διήρε ... διεκόσμησε scripsimus, cf. Wytt-
enbach: διήρε ... διεκόσμησε P^B : διήρε καὶ διεκόσμεε Valckenaer, διήρ(η)κε καὶ δι(α)κεκόσμηκε
Mau, διήρ(η)κε Lachenaud prob. Laks–Most; sed perperam, vid. adn. comm. infra §5 [50]
Ἀπολλοδώρου Ἀθηναῖος P : om. S || ἀέρα om. P^Q || ante τὴν susp. Mau τὴν μεταβολὴν aut τὴν
ποιότητα vel sim. §6 [52] λεχθείσαν P^B : om. P^{QS} || [53] ἐκπληροῦσι S : συμπληροῦσι P^B || ἀπὸ
Θάλητος P : οὕτω προσαγορευθεῖσαν διότι Μιλήσιος αὐτῆς κατήρξεν ἀνὴρ ὁ Θαλῆς ἀπὸ τῆς τῶν
Ἰώνων μητροπόλεως paraphr. S ex §1

§7 πάλιν δ' ἀπ' ἄλλης ἀρχῆς Πυθαγόρας Μνησάρχου Σάμιος, ὁ πρῶτος φιλοσοφίαν τούτῳ τῷ ῥήματι προσαγορεύσας, ἀρχὰς τοὺς ἀριθμοὺς καὶ τὰς συμμετρίας τὰς ἐν τούτοις, ἃς καὶ ἀρμονίας καλεῖ, τὰ δ' ἐξ ἀμφοτέρων σύνθετα στοιχεῖα, καλούμενα δὲ γεωμετρικά· 55

πάλιν δὲ τὴν μονάδα καὶ τὴν ἀόριστον δυάδα ἐν ταῖς ἀρχαῖς. σπεύδει δ' αὐτῷ τῶν ἀρχῶν ἡ μὲν ἐπὶ τὸ ποιητικὸν αἴτιον καὶ εἰδικόν, ὅπερ ἐστὶ νοὺς ὁ θεός, ἡ δ' ἐπὶ τὸ παθητικόν τε καὶ ὑλικόν, ὅπερ ἐστὶν ὁ ὁρατὸς κόσμος. 60

εἶναι δὲ τὴν φύσιν τοῦ ἀριθμοῦ δεκάδα· μέχρι γὰρ τῶν δέκα πάντες Ἕλληνες, πάντες βάρβαροι ἀριθμοῦσιν, ἐφ' ἃ ἐλθόντες πάλιν ἀναποδίζουσιν ἐπὶ τὴν μονάδα· καὶ τῶν δέκα πάλιν, φησὶν, ἡ δύναμις ἐστὶν ἐν τοῖς τέσσαρσι καὶ τῇ τετράδι· τὸ δ' αἴτιον, εἴ τις ἀπὸ τῆς μονάδος κατὰ πρόσθεσιν τιθεῖ τούς ἀριθμούς, ἄχρι τῶν τεσσάρων προελθὼν ἐκπληρώσει τὸν δέκα ἀριθμόν· ἐάν δὲ ὑπερβάλῃται τὸν τῆς τετράδος, καὶ τῶν δέκα ὑπερεκπεσεῖται· οἷον εἴ τις θεῖ ἕν καὶ δύο προσθεῖν καὶ τρία καὶ τούτοις τέσσαρα, τὸν τῶν δέκα πληρώσει ἀριθμόν· ὥστε ὁ ἀριθμὸς κατὰ μὲν μονάδα ἐν τοῖς δέκα κατὰ δὲ δύναμιν ἐν τοῖς τέσσαρσι. διὸ καὶ 70 ἐπεφθέγγοντο οἱ Πυθαγόρειοι, ὡς μεγίστου ὅρκου ὄντος τῆς τετράδος,

οὐ μὰ τὸν ἀμετέρα ψυχᾷ παραδόντα τετρακτύν,

παγὰν ἀενάου φύσεος ῥίζωμά τ' ἔχουσιν.

καὶ ἡ ἡμετέρα ψυχὴ, φησὶν, ἐκ τετράδος σύγκειται· εἶναι γὰρ νοῦν ἐπιστήμην δόξαν αἴσθησιν, ἐξ ὧν πᾶσα τέχνη καὶ ἐπιστήμη καὶ αὐτοὶ λογικοὶ ἐσμεν. νοὺς μὲν οὖν ἡ μονὰς ἐστὶν· ὁ γὰρ νοὺς κατὰ μονάδα θεωρεῖται, οἷον πολλῶν ὄντων ἀνθρώπων οἱ μὲν ἐπὶ μέρους εἰσὶν 75

§7 Pythagorei 58B15 DK; l. [44–45] Homerus *Od.* 5.306

§7 [54] πάλιν ... ἀρχῆς om. S || ante Σάμιος add. ὁ P^{B(II)} || ὁ] om. S || [56] καὶ P^B (om. P^Q ut vid.).: τινὰς S || δ'] om. S || [57] καλούμενα ... γεωμετρικά P^{BQ} : om. S || [59] εἰδικόν P^{BQ} : ἰδιον S^{FP}, ἰδιον Heeren Diels (S) || [60] ὁ] P^{B(II,III)Q} (ut vid.) S : καὶ P^{B(II)} || ὅπερ] *aus ihr* (sc. *die Materie*) Q || [62] τοῦ ἀριθμοῦ] om. S || [63] Ἕλληνες ... βάρβαροι] om. S || ἀναπο(δι)ζουσιν Beck prob. Mau Lachenaud Laks–Most: ἀναποδοῦσιν PS prob. Diels *DG VS*, ἀναπολοῦσιν Reiske, καταποδοῦσιν prop. Kranz *VS* || [64] φησὶν P^{BQ} : φασὶν S || [65] καὶ ... τετράδι] om. S || [65–67] τὸ δ' ... ἀριθμόν P^{BQ} : al. S ἐκ γὰρ τῆς τετράδος καὶ τῶν αὐτῆς μερῶν ἀναπληροῦται || [65] post μονάδος hab. ἀναποδῶν P^B (cf. l. 12) prob. Laks–Most, om. P^Q edd. || [67] ὑπερβάλῃται P^B : ὑπερβάλῃ S (et τις add. Wachsmuth) || [68] ὑπερεκπεσεῖται] ἐκπεσεῖται P^{B(II)} || [68–70] οἷον ... τέσσαρσι om. S || [69] πληρώσει P^B prob. Laks–Most: ἐκπληρώσει dub. Diels || [70] δύναμιν P^{BS} : δύαδα P^Q || [71] ἐπεφθέγγοντο S : ἐφθέγγοντο P^B || ὅρκου] om. S || [72] ψυχᾷ P^{BQ} : κεφαλᾷ S || παραδόντα P^B (*leitit* Q) : ἐπιθέντα S || [73] παγὰν] πᾶσαν *perperam* S || ἀενάου] ἀενάου P^{B(III)} edd. || φύσεος Mau Lachenaud (φύσεως P^B Diels, *Natur* Q) : σοφίαν S^{FP}, φύσιος P^{Paris}. 1734 prob. Wachsmuth || ῥίζωμά τ' corr. Wytttenbach : ῥίζωματ' sive ῥίζώματα P^{BS} || [74–89] om. S || [76] λογικοὶ om. P^Q || [77] θεωρεῖται P^{BQ} prob. Mau : θεωρεῖ con. Usener prob. Diels Lachenaud Laks–Most

- ἀναίσθητοι ἀπερίληπτοι καὶ ἄπειροι, ἀλλ' αὐτὸ τοῦτο ἄνθρωπον ἕνα
μόνον νοοῦμεν, ᾧ οὐδείς ἔτυχεν ὅμοιος· καὶ ἵππον ἕνα μόνον νοοῦμεν, οἱ
δ' ἐπὶ μέρους εἰσὶν ἄπειροι. τὰ γὰρ εἶδη ταῦτα πάντα καὶ γένη κατὰ 80
μονάδας εἰσὶ· διὸ καὶ ἐπὶ ἐνὸς ἐκάστου αὐτῶν τοῦτον τὸν ὅρον
ἀποδιδόντες λέγουσι ζῶον λογικόν ἢ ζῶον χρεμετιστικόν. διὰ τοῦτο οὖν
νοῦς ἢ μονάς, ᾧ ταῦτα νοοῦμεν, καὶ ἡ δυάς δ' ἢ ἀόριστος ἐπιστήμη,
εἰκότως· πᾶσα γὰρ ἀπόδειξις καὶ πᾶσα πίστις ἐπιστήμης, πρὸς δὲ καὶ
πᾶς συλλογισμὸς ἔκ τινων ὁμολογουμένων τὸ ἀμφισβητούμενον 85
συνάγει καὶ ῥαδίως ἀποδείκνυται ἕτερον· ὣν ἡ ἐπιστήμη κατὰλήψις
ἐστὶ, διὸ εἴη ἂν δυάς· ἡ δὲ δόξα τριάς ἐκ καταλήψεως ἐστίν, εὐλόγως,
ὅτι πολλῶν ἐστίν ἡ δόξα· ἡ δὲ τριάς πλήθος, ὡς 'τρισμάκαρες Δαναοί'.
διὰ τοῦτο οὖν ἐγκρίνει τὴν τριάδα ***. (P7,S12)
- §8 ἡ δὲ τούτων αἵρεσις Ἰταλικὴ προσηγορεύθη διὰ τὸ τὸν Πυθαγόραν ἐν 90
Ἰταλίᾳ σχολάσαι· μετέστη γὰρ ἀπὸ Σάμου τῆς πατρίδος, τῇ Πολυκρά-
τους τυραννίδι δυσαρεστήσας. (P14)
- §9 Ἡράκλειτος καὶ Ἴππασος ὁ Μεταποντίνος ἀρχὴν τῶν πάντων τὸ πῦρ·
ἐκ πυρὸς γὰρ τὰ πάντα γίνεσθαι καὶ εἰς πῦρ πάντα τελευτᾶν λέγουσι·
τούτου δὲ κατασβεννυμένου κοσμοποιεῖσθαι τὰ πάντα. πρῶτον μὲν γὰρ 95
τὸ παχυμερέστατον αὐτοῦ εἰς αὐτὸ συστελλόμενον γῆ γίγνεται, ἔπειτ'
ἀναχαλωμένην τὴν γῆν ὑπὸ τοῦ πυρὸς φύσει ὕδωρ ἀποτελεῖσθαι, ἀνα-
θυμιάμενον δ' ἀέρα γίνεσθαι· πάλιν δὲ τὸν κόσμον καὶ πάντα τὰ
σώματα ὑπὸ πυρὸς ἀναλοῦσθαι ἐν τῇ ἐκπυρώσει. ἀρχὴ οὖν τὸ πῦρ, ὅτι
ἐκ τούτου τὰ πάντα· τέλος δέ, ὅτι καὶ εἰς τοῦτο ἀναλύεται τὰ πάντα. 100
(P8,S13)
- §10 Διογένης δὲ ὁ Ἀπολλωνιάτης ἀέρα ἄπειρον. (S15)

§8 —; §9 Heraclitus 22A5 DK; Hippasus 18.7 DK; §10 Diogenes 64A7 DK, T3b Laks

[78] καὶ] om. P^{B(11)} || [79] ᾧ ... ὅμοιος om. P^Q || μόνον P^{B(111)} : om. P^{B(1,11)} || [82] post χρεμε-
τιστικόν hab. ῥητέον P^B (sed non Q), del. edd. || [84–85] ἐπιστήμης et ἔκ ... ὁμολογουμένων]
om. P^Q || [86] συνάγει] ἀνάγει P^{B(11)} || [87] ἐκ ... ἐστίν] om. P^Q || [89] οὖν coni. Corsinus, prob.
Diels Lachenaud : οὐκ P^B Mau (διὰ ... τριάδα om. P^Q) || post l. 89 lac. susp. edd. §8 om. S,
exhib. P ad fin., transp. post §7 Beck Diels Mau Lachenaud §9 [93] Ἡράκλειτος ... Μετα-
ποντίνος P^{BEPhQ} : Ἡράκλειτος ὁ Μεταπόντιος P^I : Ἡράκλειτος καὶ Ἴππαλος S^{FPPhot}, emend.
Ἴππασος edd. || πάντων P^{EJQ} Diels (ἀπάντων S) : P^B ὧν prob. Mau Lachenaud || [93–95]
ἐκ πυρὸς ... πάντα hic om. S sed poetice transcripsit Ecl. 1.10.7 || πυρὸς P^{BJ} : τοῦ πυρὸς P^{EQ(ut}
vid.) || [94] λέγουσι om. P^I || [96] παχυμερέστατον P^{B(1,11)E} : παχυμερέστερον P^{B(11)S} (das Dicke
Q) || συστελλόμενον] στελλόμενον P^E || γῆ γίγνεται P^{BS} Diels (om. γῆ S) : γῆν γίγνεσθαι coni.
edd. || [97] φύσει P^{BEQS} : χύσει coni. Döhner, fort. recte || [97–98] ἀναθυμιάμενον ... γίνεσθαι]
om. P^Q || [98] τὰ] om. P^{B(11)} || [99] ἐν τῇ] om. P^E || [99–100] ἀρχὴ ... πάντα P^{BQE} (om. τέλος
δέ, ὅτι P^Q) : om. S, secl. Diels || [100] ὅτι P^B : καθότι P^E §§10–15 om. P

- §11 Ξενοφάνης ἀρχὴν τῶν πάντων εἶναι τὴν γῆν· γράφει γὰρ ἐν τῷ Περὶ φύσεως·
 ἐκ γῆς γὰρ πάντα καὶ εἰς γῆν πάντα τελευτᾷ. (S5) 105
- §12 Φιλόλαος ὁ Πυθαγόρειος τὸ πέρας καὶ τὸ ἄπειρον. (S10)
- §13 Λεύκιππος Μιλήσιος ἀρχὰς καὶ στοιχεῖα τὸ πλήρες καὶ τὸ κενόν. (S17)
- §14 Δημόκριτος τὰ ναστὰ καὶ κενόν. (S18, Tiv)
- §15 Μητρόδωρος Θεοκρίτου Χίος τὰ ἀδιαίρετα καὶ τὸ κενόν. (S14, Tv)
- §16 Ἐπίκουρος Νεοκλέους Ἀθηναῖος κατὰ Δημόκριτον φιλοσοφήσας ἔφη 110
 τὰς ἀρχὰς τῶν ὄντων σώματα, λόγῳ θεωρητά, ἀμέτοχα κενού, ἀγέννη-
 ητα, ἀδιάφθαρτα, οὔτε θραυσθῆναι δυνάμενα οὔτε διαπλασμὸν ἐκ τῶν
 μερῶν λαβεῖν οὔτ' ἀλλοιωθῆναι· εἶναι δ' αὐτὰ λόγῳ θεωρητά· ταῦτα
 μέντοι κινεῖσθαι ἐν τῷ κενῷ καὶ διὰ τοῦ κενού· εἶναι δὲ καὶ αὐτὸ τὸ
 κενὸν ἄπειρον καὶ τὰ σώματα ἄπειρα. συμβεβηκέναι δὲ τοῖς σώμασι 115
 τρία ταῦτα, σχῆμα μέγεθος βάρος. Δημόκριτος μὲν γὰρ ἔλεγε δύο,
 μέγεθός τε καὶ σχῆμα, ὁ δ' Ἐπίκουρος τούτοις καὶ τρίτον, τὸ βάρος,
 ἐπέθηκεν· 'ἀνάγκη γάρ', φησί, 'κινεῖσθαι τὰ σώματα τῇ τοῦ βάρους
 πληγῇ· ἐπεὶ οὐ κινήθησεται'. εἶναι δὲ τὰ σχήματα τῶν ἀτόμων 'ἀπερί-
 ληπτά· οὐκ ἄπειρα· μὴ γὰρ εἶναι μήτ' ἀγκιστροειδεῖς μήτε τριαινο- 120
 ειδεῖς μήτε κρικοειδεῖς· ταῦτα γὰρ τὰ σχήματα εὐθραυστὰ ἐστίν, αἱ δ'
 ἄτομοι ἀπαθείς ἄθραυστοι· ἴδια δ' ἔχειν σχήματα λόγῳ θεωρητά. καὶ
 εἴρηται ἄτομος, οὐχ ὅτι ἐστὶν ἐλαχίστη ἀλλ' ὅτι οὐ δύναται τμηθῆναι,
 ἀπαθὴς οὖσα καὶ ἀμέτοχος κενού· ὥστε, ἐὰν εἴπῃ ἄτομον, ἄθραυστον
 λέγει καὶ ἀπαθὴ, ἀμέτοχον κενού. ὅτι δὲ ἔστιν ἄτομος, σαφές· καὶ γὰρ 125
 ἔστι στοιχεῖα αἰεὶ ὄντα καὶ ζῶα (ἄ)κενα καὶ ἡ μονάς. (Pg, S19, cf. Tvi)

§11 Xenophanes 21A36, B27 DK; §12 Philolaus 44A9 DK; §13 Leucippus 67A12 DK; §14 Democritus 68A46 DK; §15 Metrodorus 70A2 DK; §16 Epicurus fr. 267 Usener

§11 [105] γῆς S^{FP} Diels (cf. T 4.5 et ap. *Schol.vet. in Il.* 7.99 ἐκ γῆς γὰρ πάντα καὶ εἰς γῆν πάντα τελευτᾷ) : γαίης conl. S.E. M. 10.313 Meineke Wachsmuth DK || πάντα S^P (et *Schol.Vet. in Il.* 7.99) : τὰ πάντα S^F (cf. τάδε πάντα T 4.5) §14 [108] κενόν corr. Wachsmuth : κενά S Diels §16 [110] Ἐπίκουρος ... ἔφη P^{BQ} : Ἐπίκουρος S : Δημόκριτος, ᾧ μετὰ πλείστον Ἐπίκουρος ἠκολούθησεν P^E || [111] τὰς ἀρχὰς P^{BQ} (ut vid.) : ἀρχὰς P^E : ἀρχὰς εἶναι S, qui ἔφη om. et εἶναι post ἀρχὰς subst. || post σώματα hab. P^E ἄτομα, fort. recte (cf. T 4.9) || [111–112] ἀγέννητα P^{BE2SFP} : ἀγέννητα P^{EU} edd. || [112] ἀδιάφθαρτα P^{ES} Diels : αἰδία, ἀφθαρτα P^{BQ}, cf. ἀφθαρτα PJ || [112–113] οὔτε² ... λαβεῖν om. S || [112] διαπλασμὸν P^{B(I,II)} Mau Lachenaud : διαπλασίον P^{B(II)E} : διάπλασιν PJ Diels || [113–112] εἶναι ... θεωρητά om. S || [114] καί² om. P^{B(III)AE} || [116] σχῆμα] σχήματα P^E || Δημόκριτος μὲν γὰρ P^B : ἀλλ' ὁ μὲν Δημόκριτος P^E || δύο P^{BQ} : om. P^E || [117] τὸ P^{BQ} (ut vid.) : om. P^E || [118] ἐπέθηκεν P^B : προσέθηκεν P^E Diels || [119–120] ἀπερίληπτα emend. Dübner conl. D.L. 10.42 Diels prob. Laks–Most : περίληπτα P^{BEQ} || [121] σχήματα] σώματα P^Q || εὐθραυστὰ P^{B(I,II)EQ} : θραυστὰ P^{B(II)} || [122–123] καὶ εἴρηται P^{BE} : εἴρηται δὲ S || [124–126] ὥστε ... μονάς P : non hab. S, secl. Diels || [124] ἄθραυστον ... καὶ ἀπαθὴ P^B : καὶ om. P^E, inv. ord. P^Q || [126] αἰεὶ ὄντα P^B : om. P^{EQ} || (ἄ)κενα conl. Mras sed dubium, crucif. Diels Mau Lachenaud : κενά P^{BE} : καὶ κενόν P^Q (ut vid.) : fort. ἀμέτοχα κενού legendum

- §17 Ἐκφαντος Συρακούσιος, εἰς τῶν Πυθαγορείων, πάντων τὰ ἀδιαίρετα σώματα καὶ τὸ κενόν. τὰς γὰρ Πυθαγορικός μονάδας οὗτος πρῶτος ἀπεφάνετο σωματικῶς. (S20,Tvii)
- §18 Διόδωρος ἐπὶ κλην Κρόνος τὰ ἀμερῇ σώματα ἄπειρα, τὰ δ' αὐτὰ λεγόμενα καὶ ἐλάχιστα· ἄπειρα μὲν κατ' ἀριθμόν. ὠρισμένα δὲ κατὰ μέγεθος. (S23)
- §19 Ἐμπεδοκλῆς Μέτωνος Ἀκραγαντίνος τέσσαρα μὲν λέγει στοιχεῖα, πῦρ ἄερα ὕδωρ γῆν, δύο δ' ἀρχικὰς δυνάμεις, Φιλίαν τε καὶ Νεῖκος· ὣν ἡ μὲν ἐστὶν ἐνωτικὴ τὸ δὲ διαιρετικόν. φησὶ δ' οὕτως·
 τέσσαρα τῶν πάντων ῥιζώματα πρῶτον ἄκουε·
 Ζεὺς ἀργῆς Ἥρην τε φερέσβιος ἡδ' Ἀιδωνεύς,
 Νῆστις θ', ἣ δακρύοις τέγγει κρούνωμα βρότειον.
 Δία μὲν γὰρ λέγει τὴν ζέσιν καὶ τὸν αἰθέρα, Ἥρην τε φερέσβιον τὸν ἄερα, τὴν δὲ γῆν τὸν Ἀιδωνέα, Νῆστιν δὲ καὶ κρούνωμα βρότειον οἶονεῖ τὸ σπέρμα καὶ τὸ ὕδωρ. (P10, cf. S1)
- §20 Σωκράτης Σωφρονίσκου Ἀθηναῖος καὶ Πλάτων Ἀρίστωνος Ἀθηναῖος (αἱ γὰρ αὐταὶ περὶ παντὸς ἐκατέρου δόξαι) τρεῖς ἀρχάς, τὸν θεὸν τὴν ὕλην τὴν ἰδέαν· ὕφ' οὗ, ἐξ οὗ, πρὸς ὃ. ὃ δὲ θεὸς νοῦς ἐστὶ τοῦ κόσμου, ὕλη δὲ τὸ ὑποκείμενον πρῶτον γενέσκει καὶ φθορᾷ, ἰδέα δ' οὐσία ἀσώματος ἐν τοῖς νοήμασι καὶ ταῖς φαντασίαις τοῦ θεοῦ. (P11, S21,Tviii)
- §21 Ἀριστοτέλης δὲ Νικομάχου Σταγειρίτης ἀρχὰς μὲν ἐντελέχειαν ἦτοι εἶδος ὕλην στέρησιν· στοιχεῖα δὲ τέσσαρα, πέμπτον δὲ τι σῶμα αἰθέριον ἀμετάβλητον. στοιχεῖα δὲ τῶν γενητῶν κατὰ μὲν τὰς δυνάμεις θερμόν, ψυχρόν, ὑγρόν, ξηρόν, κατὰ δὲ τὰς οὐσίας, ἐν αἷς καὶ περὶ αἷς ὑπάρχουσιν αὐταὶ, τὰ τέτταρα. (P12,S22,Tix)

§17 Ecphantus 51.2 DK; §18 Diodorus Cronus fr. 117A Döring, II F8 Giannantoni; §19 Empedocles 31A33, B6 DK; §20 Socrates Plato Baust. 113.2 Dörrie–Baltes; §21 Aristoteles cf. *Met.* Λ 1.1069b32–34 etc.

§18 [130] ἄπειρα S Wachsmuth, delere voluit Diels || [131] κατ' ἀριθμόν S^{FP} : κατὰ τὸν ἀριθμόν SCod.Aug. §19 de S qui Emp. 31B6 DK hic om. vid. comm. infra || [133] λέγει P^B : om. P^E || [134] ἀρχικὰς δυνάμεις P^{BJ} : ἀρχὰς καὶ δυνάμεις P^E (cf. *Prinzipien* Q) || [136] τῶν om. P^{B(11)} || [137] ἀργῆς i.e. ἀρ(γ)ῆς P^E : ἀργῆς alii (i.e. S, S.E., D.L. etc.) Beck Diels Viték, αἰθήρ P^{BQ} Mau Lachenaud || [139] τὴν ... αἰθέρα P^{BS} : *die Hitze und das Sieden und die Luft* Q || Ἥρην τε P^B (ἦρην S^{FP}, δὲ Diels) : Ἥραν δὲ P^E || [139–140] τὸν ἄερα P^{BE} : *die Erde* Q || [140] τὴν δὲ γῆν P^{BE} : *die Luft* Q || οἶονεῖ P^B : om. P^{Q(ut vid.)} || [141] τὸ σπέρμα *das menschliche Pneuma* Q §20 [142–143] Σωκράτης ... δόξαι P^B (cf. Ach p. 9.18 Di Maria Σωκράτης τε καὶ Πλάτων) prob. Mau Lachenaud Dörrie–Baltes : om. Ἀθηναῖος bis Q : Πλάτων Ἀρίστωνος S : Πλάτων Ἀρίστωνος Ἀθηναῖος Diels || [144] ὕφ' ... ὃ S : desunt in P^{BQ} || ὃ ... κόσμου S : ἔστι δὲ ὁ θεὸς ὁ νοῦς P^{BQ}, sed iter. verba ὁ ... κόσμου ad fin. lemmatis, ubi del. edd. || ὕλη δὲ P^B : ἡ δὲ ὕλη S || [145] πρῶτον P^{BQ} : om. S || [146] νοήμασι et φαντασίαις inv. P^Q post θεοῦ vid. supra ad [144] §21 [147] δὲ P^B : om. S || ἐντελέχειαν ἦτοι P^B : non hab. P^{QS} || [148] αἰθέριον P^B : τὸ αἰθέριον S, cf. T 4.11 || [149–151] στοιχεῖα ... τέτταρα S : om. P

- §22 Ξενοκράτης συνεστάναι τὸ πᾶν ἐκ τοῦ ἐνὸς καὶ τοῦ ἀεννάου, ἀένναον τὴν ὕλην αἰνιττόμενος διὰ τοῦ πλήθους. (S4,Tx)
- §23 Ζήνων Μνασέου Κιτιεύς ἀρχὰς μὲν τὸν θεὸν καὶ τὴν ὕλην, ὧν ὁ μὲν ἐστὶ τοῦ ποιεῖν αἴτιος ἡ δὲ τοῦ πάσχειν, στοιχεῖα δὲ τέτταρα. (P13,S16,Txi) 155
- §24 Στράτων στοιχεῖα <θερμὸν> καὶ ψυχρόν. (S11)

§22 Xenocrates fr. 28 Heinze, F 21 Isnardi Parente²; §23 Zeno SVF 1.85; §24 Strato fr. 45 Wehrli, 46 Sharples

§22 [152] ἀεννάου, ἀένναον S^{FP} : ἀενάου, ἀένναον Diels Wachsmuth, edd. Xenocratis §23 [154] Μνασέου] Μνασαίου S || [154–155] ὧν ... πάσχειν P^{BQ} : om. S §24 [156] <θερμὸν> καὶ ψυχρόν Fabricius Diels Wachsmuth Sharples (τὸ θερμὸν καὶ τὸ ψυχρόν Heeren) : θερμὸν om. S^{FP}

Testes primi:

Theodoretus CAG 4.9–12 (CAG 2.9–11 et 4.5–8 + 4.10 + 4.12 vid. Testes prox. infra Comm. E(a) General texts)

Tiv (~ §14) Δημόκριτος δὲ ὁ Ἀβδηρίτης ὁ Δαμασίππου τὴν τοῦ κενοῦ καὶ τῶν ναστῶν πρῶτος ἐπέσιγγαγε δόξαν·

Tv (~ §15) ταῦτα δὲ Μητρόδωρος ὁ Χίος ἀδιαίρετα καὶ κενὸν προσηγόρευσεν,

Tvi (~ §§16, 14, 15) ὥσπερ αὐτὸς πάλιν Ἐπίκουρος ὁ Νεοκλέους ὁ Ἀθηναῖος (—), πέμπτη γενεὴ μετὰ Δημόκριτον (fr. 113 Luria) γεγονώς, τὰ ὑπ' ἐκείνων ναστὰ καὶ ἀδιαίρετα δὴ κληθέντα ἄτομα προσηγόρευσεν. (4.10) ἀδιαίρετον δὲ καὶ ἄτομον καὶ ναστὸν οἱ μὲν διὰ τὸ ἀπαθὲς ὠνομάσθαι φασίν, οἱ δὲ διὰ τὸ ἄγαν σμικρόν, ἅτε δὴ τομὴν καὶ διαίρεσιν δέξασθαι οὐ δυνάμενον.

Tvii (~ §17) τοῦτοις καὶ Ἐκφαντος ὁ Συρακούσιος Πυθαγόρειος ἠκολούθησε.

Tviii (~ §20) Πλάτων δὲ ὁ Ἀρίστωνος ἀρχὰς εἶναι τῶν ὅλων τὸν θεὸν καὶ τὴν ὕλην καὶ τὰς ιδέας φησιν·

Tix (~ §21) Ἀριστοτέλης δὲ ὁ Σταγειρίτης ὁ Νικομάχου εἶδος καὶ ὕλην καὶ στέρησιν· στοιχεῖα οὐ τέσσαρα, ἀλλὰ πέντε· ἕτερον γὰρ εἶναι τὸ αἰθέριον εἵρηκεν, ἄτρεπτόν τε καὶ ἀμετάβλητον.

Tx (~ §22) Ξενοκράτης δὲ ὁ Χαλκηδόνιος ἀένναον τὴν ὕλην, ἐξ ἧς ἅπαντα γέγονε, προσηγόρευσεν.

Txi (~ §23) Ζήνων δὲ ὁ Κιτιεύς ὁ Μνασέου, ὁ Κράτητος φοιτητής, ὁ τῆς Στωϊκῆς ἄρξας αἰρέσεως, τὸν θεὸν καὶ τὴν ὕλην ἀρχὰς ἔφησεν εἶναι.

Traditio ps.Plutarchi:

Athenagoras Leg. 18.3.23–4.24 “Ὁκεανός, ὅσπερ γένεσις πάντεσσι τέτυκται” (II. 14.246). (4) ἦν γὰρ ὕδωρ ἀρχὴ κατ’ αὐτὸν (sc. Orpheus) τοῖς ὅλοις (§1). Leg. 22.1.3–7 “Ζεὺς ἀρχῆς, ὡς φησιν Ἐμπεδοκλῆς (31B6 DK), “Ἥρη τε φερέσβιος ἡδ’ Αἰδωνεύς / Νῆστις θ’ ἡ δακρυῖος τέγγει κρούνωμα βρότειον”. εἰ τοίνυν Ζεὺς μὲν τὸ πῦρ, Ἥρα δὲ ἡ γῆ καὶ ὁ ἀήρ Αἰδωνεύς καὶ τὸ ὕδωρ Νῆστις, στοιχεῖα δὲ ταῦτα κτλ. (~ §19).

Philo Alexandrinus (interpolatus) Prov. 1.22 Aucher, cf. Diels DG pp. 1–2 *quoniam et Judaeorum legislator Moyses aquam tenebras et chaos dixit ante*

mundum fuisse. Plato autem materiam (P₁₁), (P₁) Thales Milesius aquam, (P₂) Anaximander (item) Milesius infinitum, (P₃) Anaximenes aërem, (P₄) Anaxagoras Clazomenius homoeomeriam (partes similes), (P₇) Pythagoras Mnesarchi filius numeros, commensurationes, et harmonia; (P₈) Heraclitus et Hippasus Metapontius ignem, (P₁₀) Empedocles Agrigentinus ignem aquam aërem terram, et duo principia amorem et odium, (P₁₂) Aristoteles Nicomachi filius formam materiam privationem, elementa quatuor, et quintum aetherem. ... (P₁₃) Zeno Menae filius aërem deum materiam et elementa quatuor.

Eusebius *PE* 7.12.1 (P₁) Θαλῆς μὲν ὁ Μιλήσιος ἀρχὴν τῶν ἀπάντων τὸ ὕδωρ εἶναι ἀπεφήνατο, (P₂) Ἀναξίμενης δὲ τὸν ἀέρα, Ἡράκλειτος τὸ πῦρ (P₈), Πυθαγόρας ἀριθμούς (P₇), (P₉) Ἐπίκουρος ἅμα Δημοκρίτῳ σώματα ἄτομα, Ἐμπεδοκλῆς τὰ τέσσαρα στοιχεῖα (P₁₀).

ps.Iustinus *Coh.Gr.* 3.2.12–4.1.10 (P₁) Θαλῆς μὲν γάρ ὁ Μιλήσιος ὁ πρῶτος τῆς φυσικῆς φιλοσοφίας ἄρξας, ἀρχὴν εἶναι τῶν ὄντων ἀπάντων ἀπεφήνατο τὸ ὕδωρ· ἐξ ὕδατος γάρ φησι τὰ πάντα εἶναι καὶ εἰς ὕδωρ τὰ πάντα ἀναλύεσθαι. (P₂) Ἀναξίμανδρος δὲ μετὰ τοῦτον, ἀπὸ τῆς αὐτῆς ὁρμώμενος Μιλήτου τὸ ἄπειρον ἀρχὴν ἀπάντων ἔφησεν εἶναι· ἐκ τούτου γάρ δὴ τὰ πάντα γίνεσθαι καὶ εἰς τοῦτο τὰ πάντα φθειρεσθαι. (P₃) τρίτος Ἀναξίμενης, καὶ οὗτος ἐκ τῆς Μιλήτου ὑπάρχων, ἀέρα τοῦ παντός ἀρχὴν εἶναι λέγει· ἐκ γάρ τούτου τὰ πάντα γίνεσθαι καὶ εἰς τοῦτον τὰ πάντα ἀναλύεσθαι φησιν. (P₈) Ἡράκλειτος (καὶ Ἰππᾶσος non necessarie Sylburg Maran, cf. P) ὁ Μεταπόντιος ἀρχὴν τῶν πάντων τὸ πῦρ εἶναι λέγει· ἐκ πυρὸς γάρ τὰ πάντα γίνεσθαι καὶ εἰς τὸ πῦρ τὰ πάντα τελευτᾶν. Ἀναξαγόρας ὁ Κλαζομένιος ἀρχὰς τῶν πάντων τὰς ὁμοιομερείας εἶναι φησιν (P₄). (P₅) Ἀρχέλαος ὁ Ἀπολλοδώρου Ἀθηναῖος ἀέρα ἄπειρον καὶ τὴν περὶ αὐτὸν πυκνότητα καὶ μάνωσιν ἀρχὴν ἀπάντων εἶναι λέγει. (P₆) οὔτοι πάντες, ἀπὸ Θαλοῦ τὰς διαδοχὰς ἐσχηκότες, τὴν φυσικὴν ὑπ' αὐτῶν καλουμένην μετῆλθον φιλοσοφίαν. (4) (P₇) εἴθ' ἐξῆς ἀφ' ἑτέρας ἀρχῆς Πυθαγόρας Μνησάρχου Σάμιος ἀρχὰς τοὺς ἀριθμούς καὶ τὰς συμμετρίας καὶ τὰς ἐν αὐτοῖς ἁρμονίας καλεῖ τὰ τ' ἐξ ἀμφοτέρων σύνθετα στοιχεῖα, ἔτι μέντοι (τὴν Marcovich) μονάδα καὶ τὴν ἀόριστον δυάδα. (P₉) Ἐπίκουρος Νεοκλέους Ἀθηναῖος ἀρχὰς εἶναι τῶν ὄντων σώματα λόγῳ θεωρητὰ λέγει, ἀμέτοχα κενοῦ, ἀγέννητα, ἀφθαρτα, οὔτε θραυσθῆναι δυνάμενα οὔτε διὰ πλάσιν ἐκ τῶν μερῶν λαβεῖν οὔτ' ἀλλοιωθῆναι, διὰ τοῦτο καὶ λόγῳ θεωρητὰ (εἶναι Riedweg). (P₁₀) Ἐμπεδοκλῆς Μέτωνος ὁ Ἀκραγαντίνος τέσσαρα στοιχεῖα (πῦρ ἀέρα ὕδωρ γῆν), δύο δὲ ἀρχικὰς δυνάμεις, φιλίαν τε καὶ νεῖκος, ὧν ἡ μὲν ἐστὶν ἐνωτικὴ, τὸ δὲ διαιρετικόν.

Coh.Gr. 5.4.31–6.1.8 (P₁) Θαλῆς γάρ ὁ Μιλήσιος, ὁ πρῶτος παρ' αὐτοῖς τῆς φιλοσοφίας ἄρξας, τὴν πρόφασιν παρ' αὐτοῦ (sc. Homerus, vid. infra; παραυτόθεν Riedweg) λαβὼν τὰς πρώτας αὐτοῦ περὶ ἀρχῶν ἀθετήσκει δόξας. αὐτοῦ γάρ Ἀριστοτέλους [sic; cf. Zeno P₁₃] θεὸν καὶ ὕλην ἀρχὰς εἶναι τῶν πάντων εἰρηκότος, (P₁) ὁ πρεσβύτατος τῶν κατ' αὐτοὺς ἀπάντων Θαλῆς ἀρχὴν τῶν ὄντων ὕδωρ εἶναι λέγει· ἐξ ὕδατος γάρ φησι τὰ πάντα εἶναι καὶ εἰς ὕδωρ ἀναλύεσθαι τὰ πάντα.

στοχάζεται δὲ πρῶτον μὲν ἀπὸ τοῦ πάντων τῶν ζώων τὴν γονήν, ἀρχὴν οὖσαν, ὑγρὰν εἶναι· δευτέρον δὲ ὅτι πάντα τὰ φυτὰ ὑγρῷ τρέφεται καὶ καρποφορεῖ, ἀμοιροῦντα δὲ τοῦ ὑγροῦ ξηραίνεται. εἴθ', ὥσπερ μὴ ἀρκούμενος οἷς στοχάζεται, καὶ τὸν Ὀμηρον ὡς ἀξιόπιστον μαρτύρεται οὕτως λέγοντα (P1a, II. 14.246): Ὁκεανός, ὃς περ γένεσις πάντεσσι τέτυκται!· πῶς οὖν οὐκ εἰκότως ὁ Θαλῆς πρὸς αὐτὸν φήσιν· δι' ἣν αἰτίαν, ὦ Ἀριστότελες, τὰς μὲν Πλάτωνος ἀναίρειν ἐθέλων δόξας, ὡς ἀληθεύοντι προσέχεις Ὀμήρῳ, ἡμῶν δὲ τὴν ἐναντίαν ἀποφηνάμενος δόξαν οὐκ ἀληθεύειν Ὀμηρον οἶσι; (6) ὅτι τοίνυν οἱ σφόδρα θαυμαστοὶ καθ' ὑμᾶς σοφοὶ οὐδ' ἐν τοῖς ἄλλοις συμφωνοῦντες φαίνονται, καὶ ἀπὸ τούτων γινώσκειν ῥάδιον. (P11) τοῦ γὰρ Πλάτωνος τρεῖς ἀρχαὶ τοῦ παντός εἶναι λέγοντος, θεὸν καὶ ὕλην καὶ εἶδος (θεὸν μὲν τὸν πάντων ποιητὴν, ὕλην δὲ τὴν ὑποκειμένην τῇ πρώτῃ τῶν γενομένων γενέσει καὶ τὴν πρόφασιν αὐτῇ τῆς δημιουργίας παρέχουσαν, εἶδος δὲ τὸ ἐκάστου τῶν γινομένων παράδειγμα), Ἀριστοτέλης τοῦ μὲν εἶδους ὡς ἀρχῆς οὐδαμῶς μέμνηται, δύο δὲ ἀρχάς, θεὸν καὶ ὕλην (vid. supra), εἰναί φησι.

Ioannes Lydus Mens. 2.9 αὐτῷ (sc. τῷ Ἑρμῇ) τοῖνυν τὴν τετράδα οἱ φιλοσοφούντες ἀνέθεντο ὡς ἐφόρῳ τῶν μιγάδων ψυχῶν· τὰ γὰρ τῆς ψυχῆς στηρίγματα τέσσαρά ἐστι, νοῦς ἐπιστήμη δόξα αἴσθησις. ἡ ψυχὰ γὰρ ἀνθρώπου, φησὶν ὁ Πυθαγόρας (p. 165.23–26 Thesleff), ἔστι τετραγώνον εὐθυγώνιον' (~ P7).

Psellus Omn.Doctr. c. 83 (~ tit.) Περὶ τῶν ἀρχῶν, τί εἰσὶν (~ tit.)

... ἀλλ' οἱ μὲν ἄλλοι τῶν φιλοσόφων διηρέθησαν· καὶ τοῖς μὲν ἔδοξεν ἀρχὴ τὸ πῦρ (~ P9), διὰ τὴν δύναμιν καὶ τὸ καταναλίσκειν πάντα εἰς ἑαυτὸ· τοῖς δὲ ὁ ἀήρ (~ P3, P10), διὰ τὴν τῶν ζώων ἀναπνοήν· τοῖς δὲ τὸ ὕδωρ, διὰ τὴν γόνιμον φύσιν (~ P1)· τισὶ δὲ τούτων καὶ ἡ γῆ ἀρχὴ ἔδοξε (—), διὰ τὸ τὰ πλεῖω τῶν ζώων ὑπὸ τῆς γῆς γεννᾶσθαι καὶ εἰς αὐτὴν ἀναλύεσθαι (~ P11)· ἕτεροι δὲ αὐτὰ τὰ τέσσαρα στοιχεῖα ἀρχαὶ τῶν ὄντων ἀπεφάναντο (~ P19). Πλάτων δὲ ἀρχὰς εἴρηκε τὸν θεὸν ὡς πατέρα καὶ ποιητὴν, τὴν ὕλην ὡς δεχομένην τὴν δημιουργίαν, καὶ τὴν ἰδέαν (~ P20). ... *Theolog.* opusc. 6.1–5 tit. κζ'. Εἰς τὸ ῥητὸν τῆς πρώτης ὁμιλίας τῆς Ἑξαήμερου τοῦ μεγάλου Βασιλείου τὸ λέγον (Exaem. 1.6.12–16)· διὰ τοῦτο οἱ μὲν ἐπὶ τὰς ὑλικὰς ὑποθέσεις κατέφυγον, τοῖς τοῦ κόσμου στοιχείοις τὴν αἰτίαν τοῦ παντός ἀναθέντες· οἱ δὲ ἄτομα καὶ ἀμερῆ σώματα καὶ ὄγκους καὶ πόρους συνέχιν τὴν φύσιν τῶν ὁρατῶν ἐφαντάσθησαν. 6.69–85 ἀλλὰ τίνες 'οἱ καταφυγόντες ἐπὶ τὰς ὑλικὰς ὑποθέσεις' (Bas. Exaem. 1.2); οἱ μὲν καθ' ἐν τῶν στοιχείων· Θαλῆς μὲν γὰρ τὸ ὕδωρ τοῦ παντός ἡτιάσατο (~ P1), τὸ δὲ πῦρ Ἀναξίμανδρος (sic), τὴν δὲ γῆν Ἰππων (—) (~ P19) Ἐμπεδοκλῆς δὲ μόνα τὰ τέσσαρα στοιχεῖα ὁμοῦ ἀρχὰς ἐπέστησε τῷ παντί, μεθ' ὧν τὸν παρ' ἐκείνου Σφαῖρον ὀνομασθέντα καὶ τὸ Νεῖκος καὶ τὴν Φιλίαν, περὶ ὧν εἰ ἀρξόμεθα λέγειν, πολὺν ἂν λόγον καταναλώσωμεν· συμβολικὰ γὰρ ταῦτα πάντα καὶ Πυθαγόρεια. (~ P4) Ἀναξαγόρας δὲ ὁ ἀπὸ τοῦ Μίμαντος τὰς ὁμοιομερείας ἀρχὰς ἡγήσατο τοῦ παντός· ὁ μὲν γὰρ Ἐμπεδοκλῆς, ἀπλὰ τὰ στοιχεῖα ἡγούμενος, ἀπὸ τούτων ἀπεγένην καὶ ξύλα καὶ λίθους, σάρκα τε καὶ νεῦρα καὶ αἷμα καὶ τᾶλλα τῶν ὁμοιομερῶν· ὁ δ' Ἀναξαγόρας τὰς ὁμοιομερείας μᾶλλον τῶν ὄντων τιθέμενος ἀρχὰς, ἀπὸ τούτων ἔλεγε τὰ στοιχεῖα συνίστασθαι, ὡς συμβαίνειν τὸν μὲν Ἐμπεδοκλέα ἀπλὰ ἡγεῖσθαι τὰ

στοιχεία, σύνθετα δὲ τὰ ὁμοιομερῆ, τὸν δὲ Ἀναξαγόραν ἀπλᾶ μὲν τὰ ὁμοιομερῆ, σύνθετα δὲ τὰ στοιχεῖα. ὅπως δ' ἂν αἱ δόξαι αὐτοῖς ἔχωσιν, ὕλिकाί πάντως εἰσίν. ἐνιαχοῦ δὲ Ἀναξαγόρας νοῦν ἐφιστάνει τῷ παντὶ καὶ ὑπὸ νοῦ λέγει κεκοσμηθῆαι τὸ πᾶν· ἀλλὰ βραχὺ κατιῶν, ἐπιλανθάνεται τῶν δογμάτων καὶ πάλιν ἐπὶ τὰς ὁμοιομερείας τὸν λόγον ἐγκαθορμίζει.

Ioannes Tzetzes *Exeg. in Iliad.* 1.5.29 φησὶ γὰρ ἐν ἀρχῇ τοῦ αὐτοῦ Ἀναξαγόρας· 'ὁμοῦ πάντα χρήματα ἦν, νοῦς δ' αὐτὰ διήρε (sic) καὶ διεκόσμησεν' (~ P5).

Testes secundi:

Achilles Univ. c. 3, p. 9.10–10.17 Περὶ τῆς τῶν ὄλων ἀρχῆς. (~ §23) Ζήνων ὁ Κιτιεὺς (*SVF* 1.85) ἀρχὴν εἶναι λέγει τῶν ὄλων θεὸν καὶ ὕλην, θεὸν μὲν τὸ ποιοῦν ὕλην δὲ τὸ ποιούμενον, ἀφ' ὧν τὰ τέσσαρα στοιχεῖα γεγονέναι. (~ §16) Ἐπίκουρος δὲ ὁ Ἀθηναῖος (fr. 267 Usener) ἐκ σωμάτων νοητῶν σμικροτάτων τὰς ἀρχὰς τῶν ὄλων εἶναι φησι, καλεῖ δὲ αὐτὰς ἀτόμους ἢ διὰ σμικρότητα ἀκαριαίας τινὸς οὐσας ἢ διὰ τὸ ἀφθάρτους αὐτὰς εἶναι καὶ μὴ τέμνεσθαι. (~ §21) Ἀριστοτέλης δὲ ὁ Σταγειρίτης (cf. *Phys.* 1.5–7, *Cael.* 1.3) ἀρχὰς λέγει τῶν ὄλων εἶδος καὶ ὕλην καὶ στέρησιν, ἐκ δὲ τούτων τὰ τέσσαρα στοιχεῖα, καὶ πέμπτον σῶμα ἀδιάφθαρτον καὶ καθαρὸν, ὃ δὴ αἰθέρα λέγουσιν. (~ §20) Σωκράτης δὲ καὶ Πλάτων (cf. *Tim.* 29e–30b) ἀρχὰς τῶν ὄλων καλοῦσι θεὸν καὶ ὕλην καὶ τρίτον τὸ ὑποκείμενον γενέσει καὶ φθορᾷ, ἐκ δὲ τούτων τὰ τέσσαρα στοιχεῖα γενέσθαι. (~ §19) Ἐμπεδοκλῆς (31B6 DK) δὲ ἀρχὰς φησι τῶν ὄλων τὰ τέσσαρα στοιχεῖα καὶ τὸ μὲν πῦρ καλεῖ Δία καὶ αἰθέρα, τὴν δὲ γῆν Ἥραν, τὸν δὲ ἀέρα Αἰδωνέα, τὸ δὲ ὕδωρ Νῆστιν, τὰς δὲ τούτων δυνάμεις Νεῖκος καὶ Φιλίαν, Νεῖκος μὲν τὴν διάλυσιν Φιλίαν δὲ τὴν σύνοδον. Ἀπολλώνιος δὲ ὁ Ῥόδιος ἐν τῷ πρώτῳ τῶν Ἀργοναυτικῶν εἰσάγει τὸν Ὀρφέα ταῦτα λέγοντα (*Arg.* 1.496–498)· 'ἤειδεν δ', ὡς γαῖα καὶ οὐρανὸς εὐρύς ὑπερθε / τὸ πρὶν ἐπ' ἀλλήλοισι μὴ συναρηρότα μορφή / Νεῖκος ἐξ ὀλοῖο διέκριθεν ἀμφὶς ἕκαστον· πάλαι γάρ ποτε ἀναμιξέμερον τῶν στοιχείων ὑπὸ τοῦ Νεῖκου ὕστερον διακριθῆναι αὐτὰ, παντὸς μὲν τοῦ γεώδους συστρέφοντος εἰς ἓν, ὄλου δὲ τοῦ πυρώδους περιελθέντος εἰς τὸ αὐτὸ καὶ τοῦ ὕδατῶδους συρρέοντος εἰς τὸ ὅμοιον καὶ τοῦ ἀέρος περιχυθέντος πρὸς τὸ ὁμόφυλον. Θαλῆς δὲ ὁ Μιλήσιος (fr. 232 Wöhrlé) καὶ Φερεκύδης ὁ Σύριος (7B1a DK) ἀρχὴν τῶν ὄλων τὸ ὕδωρ ὑφίστανται, ὃ δὴ καὶ 'χάος' καλεῖ ὁ Φερεκύδης, ὡς εἰκὸς τοῦτο ἐκλεξάμενος παρὰ τοῦ Ἡσιόδου οὕτω λέγοντος (*Th.* 116) 'ἦτοι μὲν πρώτιστα χάος γένετο· παρὰ γάρ τὸ χεῖσθαι, ὑπολαμβάνει, τὸ ὕδωρ 'χάος' ὠνόμασται (~ §1). Ἡράκλειτος (—) δὲ πῦρ πρῶτον φησι γεγονέναι (~ §9). εἰσὶ δ' οἱ τὴν γῆν πρῶτον λέγουσι γεγονέναι (~ §11), θλιβομένην δὲ καὶ σφιγγομένην οὕτως ἐνάψαι μὲν τὸ πῦρ, ἀναπέμψαι δὲ τὸ ὕδωρ, διαδοῦναι δὲ τὸν ἀέρα (~ §9).

Nemesius NH 5, p. 52.18–23 λέγουσι δὲ οἱ Στωικοὶ τῶν στοιχείων τὰ μὲν εἶναι δραστικά, τὰ δὲ παθητικά· δραστικά μὲν ἀέρα καὶ πῦρ, παθητικά δὲ γῆν καὶ ὕδωρ (~ §22). Ἀριστοτέλης δὲ καὶ πέμπτον εἰσάγει σῶμα τὸ αἰθέριον καὶ κυκλοφορικόν, μὴ βουλόμενος τὸν οὐρανὸν ἐκ τῶν τεσσάρων στοιχείων γεγενῆσθαι· (κυκλοφορικὸν δὲ λέγει τὸ πέμπτον σῶμα, ὅτι ἐν κύκλῳ περὶ αὐτὸ φέρεται (~ §21)). *NH* 5,

p. 54.12–20 Θαλής (fr. 324 Wöhrle), τὸ ὕδωρ μόνον λέγων εἶναι στοιχεῖον (~ §1), πειράται δεικνύναι τὰ ἄλλα τρία ὑπὸ τούτου γινόμενα· τὴν μὲν γὰρ ὑποστάθμην αὐτοῦ γῆν γίνεσθαι, τὸ δὲ λεπτομερέστερον ἀέρα, τοῦ δὲ ἀέρος τὸ λεπτομερέστερον πῦρ. Ἀναξίμενης (fr. 118 Wöhrle) δέ, ἀέρα μόνον λέγων, καὶ αὐτὸς ὁμοίως πειράται δεικνύναι τὰ ἄλλα στοιχεῖα ἐκ τοῦ ἀέρος αποτελούμενα (~ §2). (~ §9) Ἡράκλειτος (T 867 Mouraviev) δὲ καὶ Ἱππαρχος 9prob. Morani, leg. Ἱππασος ὁ Μεταποντίνος, τὸ πῦρ λέγοντες, ταῖς αὐταῖς ταύταις ἀποδείξεις κέχρηται, ἐξ ὧν τοῖνυν καὶ αὐτοὶ φασὶ τὸ πῦρ εἶναι τῶν ἄλλων στοιχείων γεννητικόν (~ §9), καὶ τῶν ἄλλων ὁ μὲν τὸ ὕδωρ (~ §2), ὁ δὲ τὸν ἀέρα (~ §3).

Hermias Irr. 10.1–7 ἀλλαχόθεν δέ μοι Θαλής (fr. 230 Wöhrle) τὴν ἀλήθειαν νεύει ὀριζόμενος ὕδωρ τοῦ παντός ἀρχήν. καὶ ἐκ τοῦ ὕγρου τὰ πάντα συνίσταται καὶ εἰς ὕγρον ἀναλύεται. ... διὰ τί τοῖνυν μὴ πεισθῶ Θαλῇ τῷ πρεσβυτάτῳ τῶν Ἰώνων; (~ §1). ἀλλ' ὁ πολίτης αὐτοῦ (sc. τοῦ Θάλητος) Ἀναξίμανδρος (fr. 230 Wöhrle) τοῦ ὕγρου πρεσβυτέραν ἀρχήν εἶναι λέγει τὴν αἰδίων κίνησιν καὶ ταύτῃ τὰ μὲν γεννᾶσθαι, τὰ δὲ φθείρεσθαι (~ §2). *Irr.* 11.1–12 καὶ μὴν οὐκ εὐδοκίμει Ἀρχέλαος (60A8 DK) ἀποφαινόμενος τῶν ὅλων ἀρχὰς θερμὸν καὶ ψυχρόν (~ §5). ἀλλὰ καὶ τούτῳ (sc. τῷ Ἀρχελάῳ) πάλιν ὁ μεγαλόφωνος Πλάτων οὐχ ὁμολογεῖ λέγων ἀρχὰς εἶναι θεὸν καὶ ὕλην καὶ παράδειγμα. νῦν μὲν καὶ δὴ πέπεισμαι (~ §20). ... κατόπιν δὲ αὐτοῦ (sc. τοῦ Πλάτωνος) μαθητῆς Ἀριστοτέλης ἔστηκε ζηλοτυπῶν τὸν διδάσκαλον τῆς ἀρματοποιίας. οὗτος ἀρχὰς ἄλλας ὀρίζει τὸ ποιεῖν καὶ τὸ πάσχειν. καὶ τὸ μὲν ποιοῦν ἀπαθὲς εἶναι τὸν αἰθέρα, τὸ δὲ πάσχον ἔχειν ποιότητος τέσσαρας, ξηρότητα ὑγρότητα θερμότητα ψυχρότητα· τῇ γὰρ τούτων εἰς ἀλλήλα μεταβολῇ πάντα γίνεται καὶ φθίρεται (~ §21). *Irr.* 12.9–13 ταῦτα γὰρ τοι πάντα ὁ Λεύκιππος (67A17DK) λήρον ἡγούμενος ἀρχὰς εἶναι φησὶ τὰ ἀπειρα καὶ ἀεικίνητα καὶ ἐλάχιστα· καὶ τὰ μὲν λεπτομερῆ ἄνω χωρήσαντα πῦρ καὶ ἀέρα γενέσθαι, τὰ δὲ παχυμερῆ κάτω ὑποστάντα ὕδωρ καὶ γῆν (~ §13 cf. ch. 1.4). *Irr.* 13.2–10 (68A44 DK) Δημόκριτος ἀπαλλάξει με τῆς πλάνης ἀποφαινόμενος ἀρχὰς τὸ ὄν καὶ τὸ μὴ ὄν, καὶ τὸ μὲν ὄν πλήρες, τὸ δὲ μὴ ὄν κενόν. τὸ δὲ πλήρες ἐν τῷ κενῷ τροπῇ ἢ ῥυθμῷ ποιεῖ τὰ πάντα (~ §14). ... Ἡράκλειτος (T 678 Mouraviev) ... ἀρχὴ τῶν ὅλων τὸ πῦρ, δύο δὲ αὐτοῦ πάθη ἀραιότης καὶ πυκνότης, ἡ μὲν ποιοῦσα ἢ δὲ πάσχουσα, ἡ μὲν συγκρίνουσα ἢ δὲ διακρίνουσα (~ §9). ... *Irr.* 14.1–9 ἀλλὰ με παρακαλεῖ κάκειθεν Ἐπίκουρος μηδαμῶς ὑβρίσαι τὸ καλὸν αὐτοῦ δόγμα τῶν ἀτόμων καὶ τοῦ κενοῦ. τῇ γὰρ τούτων συμπλοκῇ πολυτρόπῳ καὶ πολυσχηματίστῳ τὰ πάντα γίνεται καὶ φθίρεται (~ §16). ... ἀλλ' ὁ Κλεάνθης (SVF 1.495) ἀπὸ τοῦ φρέατος ἐπάρας τὴν κεφαλὴν καταγελά σου (sc. τοῦ Ἐπικούρου) τοῦ δόγματος καὶ αὐτὸς ἀνιμᾷ τὰς ἀληθεῖς ἀρχὰς θεὸν καὶ ὕλην. καὶ τὴν μὲν γῆν μεταβάλλειν εἰς ὕδωρ, τὸ δὲ ὕδωρ εἰς ἀέρα, τὸν δὲ ἀέρα (ἄνω) φέρεσθαι, τὸ δὲ πῦρ εἰς τὰ περίγεια χωρεῖν (~ §23) *Irr.* 16.1–6 ἄλλοι τοῖνυν ἀπὸ τῆς παλαιᾶς φυλῆς Πυθαγόρας (—) καὶ οἱ τούτου συμφυλέται σεμνοὶ καὶ σιωπηλοὶ παραδιδόασιν ἄλλα μοι δόγματα ὥσπερ μυστήρια, καὶ τοῦτο δὴ τὸ μέγα καὶ ἀπόρρητον {τὸ} (αὐτὸς ἔφα') ἀρχὴ τῶν πάντων ἡ μονάς· ἐκ δὲ τῶν σχημάτων αὐτῆς καὶ ἐκ τῶν ἀριθμῶν τὰ στοιχεῖα γίνεται (κτλ.) (~ §7).

Scholia in Basilium 1 p. 195.1–5 τοῖς τοῦ κόσμου στοιχείοις] οἱ περὶ Θαλῆν (fr. 579 Wöhrlé) Ἡράκλειτον (—) Διογένην τὸν Ἀπολλωνιάτην (—) καὶ ὅσοι τὰ στοιχεῖα τῶν ὄντων ἀρχὰς ἀπέλιπον· Θαλῆς (—) μὲν γὰρ ὕδωρ (~ §1)· πῦρ δὲ ὁ Μεταποντίνος Ἴππασος (—) καὶ ὁ Ἐφέσιος Ἡράκλειτος (—)(~ §9)· ἀέρα Διογένης ὁ Ἀπολλωνιάτης (—) (~ §10)· τὴν δὲ γῆν ὁ Σύριος Φερεκύδης (—)· τὰ δὲ τέσσαρα ὁμοῦ ὁ Ἀκραγαντίνος Ἐμπεδοκλῆς (—) (~ §19). **Scholia in Basilium** 2 p. 195.6–9 ἄτομα καὶ ἀμερῇ σώματα] Δημόκριτος (—) Λεύκιππος (—) Μητρόδωρος (—) Ἐπίκουρος (—) ἀτόμους ἀρχὰς τῶν ὄντων εἰσηγήσαντο· (~ §13, 12, 15, 16) Διόδωρος (—) ἀμερῇ (~ §18)· ὄγκους ὁ Βιθυνὸς Ἀσκληπιάδης (—)· τοῦ δὲ αὐτοῦ θιάσου ὁ Κλαζομένιος Ἀναξαγόρας (—) τὰς ὁμοιομερείας εἰσηγησάμενος (~ §4). **Scholia in Basilium** 3 pp. 195.11–196.7 = **ps.Clemens Romanus** transl. Rufini *Recog.* 8.15.1–3, p. 225.10–226.4 Rehm–Paschke, cf. *DG* 251–252 συνέχεν τὴν φύσιν τῶν ὁρατῶν] ὅτι δὲ ἐκ πλείονων τὸν κόσμον καὶ τὴν ὕλην συνέσταναι λέγουσιν οἱ πάντες Ἑλλήνων σοφοί, φανερόν ἐστιν· αὐτίκα γοῦν ὁ μὲν Πυθαγόρας (—) τῶν ἀρχῶν τὰ στοιχεῖα ἀριθμοὺς καλεῖ (~ §7)· Στράτων ποιότητος (—)(~ §24)· Ἀλκμαίων ἀντιθέσεις (—)· Ἀναξίμανδρος (—) ἄπειρον (~ §1)· Ἀναξαγόρας (—) ὁμοιομερείας (~ §4)· Ἐπίκουρος (—) ἀτόμους (~ §16)· Διόδωρος (—) ἀμερῇ (*D. amere, hoc est {ex his} in quibus partes non sint*)· Ἀσκληπιάδης (cf. Vallance *ANRW* 2.37.1, p. 715) ὄγκους (*A. oncos, quod nos tumores vel elationes possumus dicere*) (~ §18)· γεώμετρα πέρα(τα) [*scripsimus; fines* transl. Rufini, cf. *Sext. M.* 9.364 οἱ δὲ μαθηματικοὶ τὰ πέρατα τῶν σωμάτων : mss. πέρας probant Pasquali, Sharples *Strato* fr. 45C]· Δημόκριτος (68A57 DK) ἰδέας (~ §13)· Θαλῆς (fr. 580 Wöhrlé) ὕδωρ (~ §1)· Ἡράκλειτος (—) πῦρ (~ §9)· Διογένης (—) ἀέρα (~ §10)· Παρμενίδης (—) γῆν (~ T8, Tii)· Ζήνων (—) Ἐμπεδοκλῆς (—) Πλάτων (—) πῦρ ὕδωρ γῆν ἀέρα (~ §23, §19, §20)· Ἀριστοτέλης (—) καὶ πέμπτον ἀκατονόμαστον (*id est inconpellabile nominavit*) p. 225.5–6 Rehm–Paschke *sive igitur duo sive tria sive quattuor aut etiam plura sint vel innumera ex quibus mundus constat ...* (~ §21).

Loci Aetiani:

titulus A 1.2 tit. Τίτι διαφέρει ἀρχὴ καὶ στοιχεῖα. A 2.prooem. τετελεκῶς τοῖνυν τὸν περὶ ἀρχῶν καὶ στοιχείων καὶ τῶν συνεδρευόντων αὐτοῖς λόγον κτλ.

§1 1.prooem. 3[15–16] ὁ ἥλιος, εἴ π(ύ)ρ'. A 1.2.2 ἀμαρτάνει οὖν ὁ Θαλῆς στοιχεῖον καὶ ἀρχὴν λέγων τὸ ὕδωρ. A 1.7.2 Θαλῆς νοῦν τοῦ κόσμου τὸν θεόν ...· διήκειν δὲ καὶ διὰ τοῦ στοιχειώδους ὕγρου δύναμιν θεῖαν κινητικὴν αὐτοῦ. A 2.5.3 καὶ τούτων (sc. τὸ μὲν ἐξ οὐρανίου πυρὸς and (τοῦ) ὕδατος σεληνιακοῦ) εἶναι τὰς ἀναθυμιάσεις τροφὰς τοῦ κόσμου. A 1.17.4 Ἡράκλειτος καὶ οἱ Στωικοὶ τρέφεσθαι τοὺς ἀστέρας ἐκ τῆς ἐπιγείου ἀναθυμιάσεως. A 2.23.6 οἱ Στωικοὶ κατὰ τὸ διάστημα τῆς ὑποκειμένης τροφῆς διέρχεσθαι τὸν ἥλιον· ὡκεανὸς δ' ἐστὶν ἡ γῆ, ἥς τὴν ἀναθυμίασιν ἐπινέμεται. A 4.2.1 Θαλῆς ἀπεφάνητο πρῶτος τὴν ψυχὴν φύσιν αἰκίνητον ἢ αὐτοκίνητον.

§2 A 1.7.3 Ἀναξίμανδρος ἀπεφάνητο τοὺς ἀπείρους οὐρανοὺς θεοὺς. A 2.1.3 Ἀναξίμανδρος Ἀναξίμενης Ἀρχέλαος Ξενοφάνης Διογένης Λεύκιππος Δημόκριτος Ἐπίκουρος καὶ ὁ τούτου καθηγητὴς Μητρόδωρος ἀπείρους κόσμους ἐν τῷ ἀπείρῳ

- κατὰ πᾶσαν περίστασιν. A 2.1.4 τῶν ἀπείρους ἀποφνημαμένων τοὺς κόσμους Ἄναξιμανδρος τὸ ἴσον αὐτοὺς ἀπέχειν ἀλλήλων. A 1.2.2 ἀμαρτάνει οὖν κτλ.
- §3 A 1.7.4 Ἄναξιμένης τὸν ἀέρα (sc. τὸν θεόν εἶναι). A 1.2.2 ἀμαρτάνει οὖν κτλ. A 4.3.2 Ἄναξιμένης Ἄναξιμανδρος Ἄναξαγόρας Ἀρχέλαος Διογένης ἀεροειδῆ ἔλεγόν τε καὶ σῶμα (sc. τὴν ψυχὴν).
- §4 A 1.7.6 Ἄναξαγόρας νοὺν κοσμοποιὸν τὸν θεόν.
- §5 A 1.7.5 Ἀρχέλαος ἀέρα καὶ νοὺν τὸν θεόν. A 4.3.2 Ἄναξιμένης ... Ἀρχέλαος ... ἀεροειδῆ ἔλεγόν τε καὶ σῶμα (sc. τὴν ψυχὴν).
- §7 A 1.2.2 τὰ μὲν γὰρ στοιχεῖα ἐστὶ σύνθετα, τὰς δ' ἀρχὰς φαμεν εἶναι οὔτε συνθέτους οὔτ' ἀποτελέσματα. A 1.7.9 Πυθαγόρας τῶν ἀρχῶν τὴν μὲν μονάδα θεόν καὶ τάγαθόν, ἧτις ἐστὶν ἡ τοῦ ἐνὸς φύσις, αὐτὸς ὁ νοῦς· τὴν δ' ἀόριστον δυάδα δαίμονα καὶ τὸ κακόν, περὶ ἣν ἐστὶ τὸ ὑλικόν πλήθος. A 1.10.3 Πυθαγόρας τὰ λεγόμενα εἶδη καὶ τὰς ιδέας ἐν τοῖς ἀριθμοῖς καὶ ταῖς ἀρμονίαις αὐτῶν καὶ τοῖς καλουμένοις γεωμετρικοῖς ἐτίθετο ἀχώριστα τῶν σωμάτων. A 1.9.2 οἱ ἀπὸ Θάλεω καὶ Πυθαγόρου, λέγω δὲ τοὺς μέχρι τῶν Στωικῶν καταβεβηκότας σὺν Ἡρακλείτῳ, τρεπτὴν καὶ ἀλλοιωτὴν καὶ μεταβλητὴν καὶ ῥευστὴν ὄλην δι' ὅλης τὴν ὕλην. A 1.11.3 Πυθαγόρας Ἀριστοτέλης τὰ μὲν πρῶτα αἴτια ἀσώματα, τὰ δὲ κατὰ μετοχὴν ἢ κατὰ συμβεβηκὸς τῆς σωματικῆς ὑποστάσεως ὥστ' εἶναι τὸν κόσμον σῶμα. A 4.4.1 Πυθαγόρας Πλάτων κατὰ μὲν τὸν ἀνωτάτω λόγον διμερῆ τὴν ψυχὴν, τὸ μὲν γὰρ ἔχειν λογικὸν τὸ δ' ἄλογον· κατὰ δὲ τὸ προσεχές καὶ ἀκριβές τριμερῆ, τὸ γὰρ ἄλογον διαιροῦσιν εἰς τε τὸ θυμικόν καὶ τὸ ἐπιθυμητικόν. A 4.4.6 οἱ δὲ γε Πυθαγόρου διάδοχοι ἐκ πέντε στοιχείων τὸ σῶμα κραθῆναι φάντες—τοῖς γὰρ τέτταρσι ξυνέταξαν τὸ αἰθέριον—ἰσαριθμούς εἶναι ἔφασαν αὐτῇ καὶ τῆς ψυχῆς τὰς δυνάμεις· καὶ αὐτάς ὠνομάκασιν νοὺν καὶ φρόνησιν καὶ ἐπιστήμην καὶ δόξαν καὶ αἴσθησιν.
- §9 A 1.7.13 Ἡράκλειτος τὸ περιοδικὸν πῦρ αἰδίων (sc. τὸν θεόν εἶναι).
- §10 A 1.7.10 Διογένης καὶ ... τὴν τοῦ κόσμου ψυχὴν (sc. τὸν θεόν εἶναι).
- §13 A 1.18.3 Λεύκιππος ... τὰ μὲν ἄτομα ἄπειρα τῷ πλήθει, τὸ δὲ κενὸν ἄπειρον τῷ μεγέθει.
- §14 A 1.9.3 οἱ ἀπὸ Δημοκρίτου ἀπαθῆ τὰ πρῶτα, τὴν ἄτομον καὶ τὸ κενὸν τὸ ἀσώματον. A 1.12.6 Δημόκριτος τὰ πρῶτά φησι σώματα (ταῦτα δ' ἦν τὰ ναστά) A 1.15.8 Δημόκριτος ... τὰ μὲν γὰρ στοιχεῖα ἅποια, τὰ τε ναστά καὶ τὸ κενόν. A 1.18.3 Δημόκριτος ... τὰ μὲν ἄτομα ἄπειρα τῷ πλήθει, τὸ δὲ κενὸν ἄπειρον τῷ μεγέθει.
- §16 A 1.7.25 Ἐπίκουρος ... τέσσαρας φύσεις κατὰ γένος ἀφθάρτους τάσδε, τὰ ἄτομα τὸ κενὸν τὸ ἄπειρον τὰς ὁμοιότητας· αὗται δὲ λέγονται ὁμοιομέρειαι καὶ στοιχεῖα. A 1.16.2 οἱ τὰς ἀτόμους (εἰσάγοντες) περὶ τὰ ἀμερῆ ἴστασθαι καὶ μὴ εἰς ἄπειρον εἶναι τὴν τομὴν. A 1.26.2 Δημόκριτος τὴν ἀντιτυπίαν καὶ φορὰν καὶ πληγὴν τῆς ὕλης (sc. τὴν οὐσίαν ἀνάγκης εἶναι).
- §17 A 2.3.3 Ἐκφαντος ἐκ μὲν τῶν ἀτόμων συνεστάναι τὸν κόσμον.
- §18 A 1.13.2 Ἡράκλειτος ψηγμάτιά τινα ἐλάχιστα καὶ ἀμερῆ εἰσάγει. A 1.13.3 Ξενοκράτης καὶ Διόδωρος ἀμερῆ τὰ ἐλάχιστα ὠρίζοντο. A 1.16.2 οἱ τὰς ἀτόμους (εἰσάγοντες) περὶ τὰ ἀμερῆ ἴστασθαι καὶ μὴ εἰς ἄπειρον εἶναι τὴν τομὴν. A 4.9.10 οἱ τὰ ἄτομα καὶ οἱ τὰ ὁμοιομερῆ καὶ οἱ τὰ ἀμερῆ καὶ τὰ ἐλάχιστα κτλ.

§19 A 1.7.19 (Ἐμπεδοκλῆς τὸν σφαῖρον καὶ) τὸ ἓν (sc. θεοὺς εἶναι), καὶ τὸ μὲν ἓν τὴν ἀνάγκην, ὕλην δὲ αὐτοῦ τὰ τέσσαρα στοιχεῖα, εἶδη δὲ τὸ νείκος καὶ τὴν φιλίαν. λέγει δὲ καὶ τὰ στοιχεῖα θεοὺς καὶ τὸ μίγμα τούτων τὸν κόσμον. A 1.26.1 Ἐμπεδοκλῆς οὐσίαν ἀνάγκης αἰτίαν χρηστικὴν τῶν ἀρχῶν καὶ τῶν στοιχείων.

§20 A 1.7.9 Πυθαγόρας τῶν ἀρχῶν τὴν μὲν μονάδα θεὸν καὶ τάγαθόν, ἥτις ἐστὶν ἡ τοῦ ἐνὸς φύσις καὶ αὐτὸς ὁ νοῦς, τὴν δ' ἀόριστον δυάδα δαίμονα καὶ τὸ κακόν κτλ. A 1.7.21 Ξενοκράτης ... τὴν μονάδα καὶ τὴν δυάδα θεοὺς κτλ. A 1.7.22 Σωκράτης καὶ Πλάτων τὸ ἓν, τὸ μονοφυές καὶ αὐτοφυές, τὸ μοναδικόν, τὸ ὄντως ἀγαθόν (sc. τὸν θεόν εἶναι)· πάντα δὲ τ(ὰ τοι)αῦτα τῶν ὀνομάτων εἰς τὸν νοῦν σπεύδει· νοὺς οὖν ὁ θεός. A 1.9.1 ὕλη ἐστὶ τὸ ὑποκείμενον πάσῃ γενέσει καὶ φθορᾷ καὶ ταῖς ἄλλαις μεταβολαῖς. A 1.9.2 οἱ ἀπὸ Θάλεω καὶ Πυθαγόρου, λέγω δὲ τοὺς μέχρι τῶν Στωικῶν καταβεβηκότας σὺν Ἡρακλείτῳ, τρεπτὴν καὶ ἀλλοιωτὴν καὶ μεταβλητὴν καὶ ῥευστὴν ὄλην δι' ὅλης τὴν ὕλην. A 1.9.4 Πλάτων τὴν ὕλην σωματοειδῆ ἄμορφον ἀνείδειον ἀσχημάτιστον ἅποιον μὲν ὅσον ἐπὶ τῇ ἰδίᾳ φύσει, δεξαμένην δὲ τῶν εἰδῶν οἶον τιθήνην καὶ ἐκμαγεῖον καὶ μητέρα γενέσθαι. A 1.10.1 ἰδέα ... εἰκονίζουσα δὲ τὰς ἀμόρφους ὕλας. A 1.10.2 Σωκράτης καὶ Πλάτων χωριστὰς τῆς ὕλης οὐσίας τὰς ἰδέας ὑπολαμβάνει, ἐν τοῖς νοήμασι καὶ ταῖς φαντασίαις τοῦ θεοῦ, τοῦτέστι τοῦ νοῦ, ὕφεστώσας. A 1.11.2 Πλάτων τριχῶς τὸ αἶτιον· φησὶ γὰρ ὕφ' οὗ ἐξ οὗ πρὸς ὃ· κυριώτερον δ' ἡγείται τὸ ὕφ' οὗ· τοῦτο δ' ἦν τὸ ποιοῦν, ὃ ἐστὶ νοῦς. A 1.19.1 Πλάτων (sc. τόπον εἶναι) τὸ μεταληπτικὸν τῶν εἰδῶν, ὅπερ εἴρηκε μεταφορικῶς τὴν ὕλην, καθάπερ τινὰ τιθήνην καὶ δεξαμένην. A 1.24.3 Πυθαγόρας καὶ πάντες, ὅσοι παθητὴν τὴν ὕλην ὑποτίθενται, κυρίως γένεσιν καὶ φθορὰν γίνεσθαι· ἐκ γὰρ ἀλλοιώσεως τῶν στοιχείων καὶ τροπῆς καὶ ἀναλύσεως γένεσ(ιν) καὶ φθορ(άν), παρὰθεσιν καὶ μίξιν, κράσιν τε καὶ σύγχυσιν γίνεσθαι. A 1.26.3 (Περὶ οὐσίας ἀνάγκης) Πλάτων ὅτε μὲν τὴν ὕλην ὅτε δὲ τὴν τοῦ ποιοῦντος πρὸς τὴν ὕλην σχέσιν.

§21 A 1.2.2 στοιχεῖα μὲν καλοῦμεν γῆν ὕδωρ ἀέρα πῦρ ... τῆς δὲ γῆς καὶ τοῦ ὕδατος ἔστι τινὰ πρότερα ἐξ ὧν γέγονεν, ἡ ὕλη ἄμορφος οὐσα καὶ ἀειδής, καὶ τὸ εἶδος ὃ καλοῦμεν ἐντελέχειαν, καὶ ἡ στέρησις. A 1.7.23 Ἀριστοτέλης τὸν μὲν ἀνωτάτω θεὸν εἶδος (χωριστόν) ἐπιβεβηκότα τῇ σφαίρᾳ τοῦ παντός, ἥτις ἐστὶν αἰθέριον σῶμα, τὸ πέμπτον ὑπ' αὐτοῦ καλούμενον. A 1.12.3 Ἀριστοτέλης βαρύτατον μὲν εἶναι τὴν γῆν ἀπλῶς, κουφότατον δὲ τὸ πῦρ· ἀέρα δὲ καὶ ὕδωρ ἄλλοτ' ἄλλως. μὴδὲν δὲ πῦρ κυκλοτερώς φύσει κινεῖσθαι, μόνον δὲ τὸ πέμπτον σῶμα. A 1.28.1 αὕτη δ' ἐστὶ τὸ αἰθέριον σῶμα. A 2.7.5 Ἀριστοτέλης πρῶτον μὲν αἰθέρα ἀπαθῆ, πέμπτον δὲ τι σῶμα· μεθ' ὃν παθητὰ πῦρ ἀέρα ὕδωρ· τελευταίαν δὲ γῆν. τούτων δὲ τοῖς μὲν οὐρανίοις ἀποδεδόσθαι τὴν κυκλικὴν κίνησιν. A 2.11.5 Ἀριστοτέλης ἐκ πέμπτου σώματος (sc. τὸν οὐρανόν). A 2.13.12 Ἀριστοτέλης ἐκ τοῦ πέμπτου σώματος (sc. τὰ ἄστρα). A 2.20.11 Ἀριστοτέλης σφαῖραν ἐκ τοῦ πέμπτου σώματος (sc. τὸν ἥλιον). A 2.30.7 ... τοῦ αἰθέρος, ὃν προσαγορεύει σῶμα πέμπτον. A 4.2.6 Ἀριστοτέλης ἐντελέχειαν πρῶτην σώματος φυσικοῦ (sc. τὴν ψυχὴν εἶναι), ὀργανικοῦ, δυνάμει ζῶν ἔχοντος· τὴν δ' ἐντελέχειαν ἀκουστέον ἀντὶ τοῦ εἶδους καὶ τῆς ἐνεργείας. A 4.4.6 οἱ δὲ γε Πυθαγόρου διάδοχοι ἐκ πέντε στοιχείων τὸ σῶμα κραθῆναι φάντες—τοῖς γὰρ τέτταρσι ξυνέταξαν τὸ αἰθέριον.

§22 A 1.7.21 Ξενοκράτης Ἀγαθήνορος Καλχηδόνιος τὴν μονάδα καὶ τὴν δυάδα θεούς.
 §23 A 1.7.14 Ζήνων ὁ Στωικὸς νοῦν κόσμου πύρινον (sc. τὸν θεὸν εἶναι). A 1.7.24 οἱ
 Στωικοὶ νοερὸν θεὸν ἀποφαίνονται, πῦρ τεχνικὸν ὁδῶ βαδίζον ἐπὶ γένεσιν κόσμου.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

This chapter on the first principles of the φυσικὸς λόγος, the account or theory of physics, the most difficult in the work, plays a key role in the structure and organization of the *Placita*. It is the longest chapter in the treatise and is well attested, with no less than nine witnesses. We have been obliged to treat it at unusual and quasi-monograph length, because it is a ‘signature’ chapter, which will be consulted much more often than most others. Unfortunately, however, the transmission is rather chaotic and will not allow a reconstruction that accurately represents its original contents in every detail.

(1) The Byzantine mss. of P preserve fourteen doxai, as does Q’s translation. Some of the lemmata are of considerable length, esp. that of Pythagoras (§7). Only six of these fourteen doxai are written out by E, with numerous interesting textual variants, namely P1–3 Thales (plus Homer), Anaximander, Anaximenes, P8 Heraclitus/Hippasus, P9 Epicurus/Democritus (putting the latter first), and P10 Empedocles. Thus from P’s chapter he selects lemmata that designate material entities or quasi-material concepts as principles and omits those involving immaterial principles, and he does so on purpose, cf. M–R 1.132, 134–135. Of these six lemmata not a single one is paralleled in T (see below, section A(5)).

Following after his abstracts from P (from which *inter alia* §4 on Anaxagoras was omitted, as his Νοῦς was seen as immaterial) E adds a paragraph about this Νοῦς, including a paraphrase of the opening sentence of 58B1 DK, which is not derived from P. This is followed by a substantial chapter entitled Περὶ τῆς Ἀναξαγόρου δοξῆς (PE 4.15) containing Plato *Phd.* 97b–99b. So, by updating and highlighting (whether he was aware of this or not) what was the point of Aristotle’s eulogy at *Met.* A 1.3 984b14–18 (58A58DK, echoed at the end of P4 and elsewhere) through the inclusion of Epicurus and the addition of the *Phaedo* passage, he effectively introduces a contrast between a collection of P’s materialists with the first philosopher to add Intellect as a cause in nature.

(2) A brief list of ten name-labels plus corresponding doxai has been interpolated into the text of Philo *Prov.* 1.22 (extant only in an Armenian transla-

tion). Ps. Justin *Cohortatio ad Graecos* paraphrases ten doxai at greater length in his polemics against the Hellenic tradition, including a couple of valuable readings (Riedweg 1994 plausibly attributed the work to the mid-fourth cent. CE author Marcellus of Ancyra; if true then his textual evidence is just a little later than that of E). Given that there are only fourteen doxai in P and that not a single allusion related to the twenty-four doxai is present in A but is not to be found in P, we can be virtually certain that ps. Justin drew on P. Ioannes Lydus paraphrases a point of detail on Pythagoras. Much later Ps takes over the chapter heading in one work and makes use of its contents in another. In the case of the early Christian apologist Athenagoras, however, the source of the Homeric quotes cannot be determined with certainty. They may have taken directly from A or via P; see above General Introduction section 4.1.(2). We therefore do not list his text above together with the tradition of P.

(3) All the material that S preserves from this chapter is found in ch. 10 of Book 1, 'On the principles and elements of the universe'. It comprises twenty-three doxai, including all fourteen doxai found in P—except P14 as independent lemma (our §8)—but often in a reduced form, and instead of the prose part of §19 (Empedocles) providing other, quite dissimilar material on Empedocles. He has abridged several lemmata, namely §1 Thales plus Homer, §2 Anaximander, §3 Anaximenes, §4 Anaxagoras, §7 Pythagoras and the Pythagoreans (rather drastically, even omitting the entire final part, §7[74–89], on epistemology), §9 Heraclitus and Hippasus, and §16 Epicurus (rather drastically too). His order is in part bizarre, esp. the placement of doxai of Xenocrates and Xenophanes (no Milesian) in between the two Milesians Anaximander and Anaximenes at the beginning of S 1.10.12.

Because of this position Elter (1880) 19 n. 1 argued that these lemmata were abstracted by S from elsewhere: Xenophanes is included in the Ionic Succession where he does not belong, and the phrase *συνεστάναι τὸ πᾶν* in the doxa of Xenocrates is 'a little different' ('*paululum differt*') from what is in the other doxai of ch. 1.3. He therefore hypothesized a lost chapter 'On the All' (Περὶ τοῦ παντός) for A. We shall come back to this issue below in section A(5).

Summarizing the result of these inquiries in advance, we posit that the erratic position of the Xenocrates and Xenophanes lemmata and the particular contents of the Xenocrates doxa are not decisive. These lemmata are shared between T and S, which at a first glance is proof of their derivation from A. T provides a shorter version of S's Xenocrates lemma, while S's Xenophanes lemma with its a little garbled quotation of the verse 21B27 DK is paralleled especially in a few lines of T's far longer lemma on Xenophanes at CAG 4.5, but

also briefly in *CAG* 2.10. The Xenocrates lemma in S and T can be assigned to A for various reasons, not the least important of which is that it occurs in an Aëtian enclave in T at *CAG* 4.9–12. For these enclaves see the General Introduction, sections 2.4 and 2.5. In S the Xenocrates lemma occurs in such an enclave as well. But the situation of the Xenophanes lemmata in T differs from the position of their equivalent in S. It turns out that in T this lemma does not belong with the *traditio Aetii* but with one of the numerous proximate traditions concerned with the *archai*, excerpted by T and coalesced by him together with his excerpts from A at *CAG* 4.5–12. The reason for ascribing it to A is the fact that, though inappropriately placed, it still is firmly included in the Aëtian enclave enclosed within S 1.10–12. The Xenophanes lemmata in S and in T are false friends but full-blooded cousins.

(4) Because of the different locations of the line *Il.* 14.246 in P and S Schubert (2017) 53–54 argues for an irreconcilable difference between these two main sources, but fails to realize that S several times transfers lines or phrases from an Aëtian lemma on purpose to the cluster of poetic quotations found at the beginning of his composite chapters. As to lemmata of ch. A 1.3 included with other material in his own ch. 1.10, he (1) not only transferred the above-mentioned Homeric hexameter (part of P's text for A 1.3.1) from the prose lemma to S 1.10.2, but (2) also transformed the standard prose formula ἐκ πυρὸς γὰρ τὰ πάντα γίνεσθαι καὶ εἰς πῦρ πάντα τελευτᾶν λέγουσι (part of P's text for A 1.3.9) in the (quasi-)poetic line ἐκ πυρὸς γὰρ τὰ πάντα καὶ εἰς πῦρ πάντα τελευτᾷ at S 1.10.7. (3) The cento Emp. 31B6 (3 lines in P10) + 31B36 DK (1 line not in P) at S 1.10.11a is placed before the Empedocles lemma in prose following at S 1.10.11a, which as to contents differs to a degree from the Empedocles lemma in prose in P at A 1.3.20 (see further below, section D(d)§19). In P's lemma the first three of these Empedoclean hexameters (i.e. 31B6 DK) are found inside the prose text. This transfer of poetic or quasi-poetic ingredients from prose lemmata to a separate cluster of poetic quotations is a variety of S's crucial technique of *coalescence*, discussed and explained M–R 1.218–224 (and above, Introduction section 2.4). Note however that he must have considered the line 21B27 at §11, which does not scan, as prose (see below section A(5)(d)).

(5)(a) Considerable complexities arise when the evidence of T is taken into account. He treats the subject of the *archai* twice, in *CAG* Books 2 and 4. Both accounts are compressed, the former much more than the latter. The former list with fourteen brief doxai is in *CAG* Book 2 entitled 'On the principle' (Περὶ ἀρχῆς, 2.9–11). The latter list, with thirteen doxai, more clearly orientated towards cosmology, occurs in Book 4 entitled 'On matter and cosmos' (Περὶ ὕλης καὶ κόσμου, 4.5–12). Just like other doxographical passages in T these

two lists are connected with each other, since no less than *four* lemmata in the first list resemble abridged versions of lemmata in the second list (cf. M–R 1.274–275 and 4.242–249). As a matter of fact T was not averse to utilizing the same or similar quotations or abstracts several times (e.g. Plato *Crat.* 397c–d verbatim at CAG 2.27 and 3.7, abridged at 3.23), as is abundantly clear from Raeder’s useful *index scriptorum et philosophorum*. There are four more such anticipatory passages, to be discussed in detail below, namely CAG 1.63, 1.96, 1.97–98 and 6.3. The list at CAG 2.9–11 in relation to that at 4.5–12 is no exception.

The first important clue is that the doxai of Hippasus-cum-Heraclitus, Diogenes of Apollonia, Xenophanes and Parmenides in the first list briefly anticipate the four doxai with these name-labels in the second list, and that the order of the name-labels Hippasus and Heraclitus, which occurs twice, is the reverse of the order at ch. 1.3.9. The second clue is that the doxai of the Atomists Democritus and Epicurus on the first list (no doxa is cited for Metrodorus) are significantly different from the doxai connected with these name-labels in the second list, and close to those of the Eleatics. In the tables printed immediately below the name-labels found on both lists have been picked out in bold (we include ethnica and patronymics but omit doxai).

CAG 2.9–11

- T1 Thales
- (T1a Homer)
- T2 Anaximander
- T3 Anaximenes
- T4 (cf. Txiii)** Diogenes of Apollonia
- T5 (cf. Txii)** Hippasus of Metapontum and Heraclitus of Ephesus
- T6 Empedocles of Agrigentum
- T7 (cf. Ti)** Xenophanes of Colophon
- T8 (cf. Tii)** Parmenides of Elea
- T9 Democritus of Abdera
- T10 Epicurus son of Nicocles of Athens
- T11 Metrodorus of Chios
- T12 Zeno of Elea
- T13 Diogenes of Smyrna

CAG 4.5–12

- Ti (cf. T7)** Xenophanes son of Orthomenes of Colophon
- Tii (cf. T8)** Parmenides son of Pyres of Elea
- Tiii** Melissus son of Ithagene of Miletus (*sic* for Samos)

Tiv Democritus of Abdera son of Damasippus
 Tv Metrodorus of Chios
 Tvi Epicurus son of Nicocles of Athens
 Tvii Ecphantus of Syracuse the Pythagorean
 Tviii Plato son of Ariston
 Tix Aristotle of Stagira son of Nicomachus
 Tx Xenocrates of Carchedon (*sic* for Chalkedon)
 Txi Zeno of Citium son of Mnaseas
 Txii (cf. T5) Hippasus of Metapontum and Heraclitus son of Blosson of
 Ephesus
 Txiii (cf. T4) Diogenes of Apollonia

Apart from CAG 2.9–11 anticipating 4.5–12, the passages that anticipate other passages further down in the treatise are the following:

The first, at CAG 1.63, relates to five different subsequent presentations. T first summarizes the theme of the mortality vs. immortality of the soul of ch. 4.7, which further down at 5.23 he discusses at greater length. He next speaks of ‘what is visible’ as either generated or ungenerated, as it seems briefly formulating a general issue, for throughout his treatise he criticizes the philosophical majority for neglecting the invisible. Since the phrase ‘what is visible’ pertains to the visible world, the allusion applies in particular to the brief treatment of ch. 2.4 at CAG 4.16 on the indestructibility of the cosmos. He continues with generation from earth, briefly mentioned at CAG 2.10 and treated at greater length at CAG 4.5. He then mentions the contrast between generation from (continuous) matter and from atoms, anticipating the detailed abstract from ch. 1.9 at CAG 4.13. And he ends with the theme of ch. 2.3 that the All is ensouled or soulless, also acknowledged further down at CAG 4.16. This means that the very first time he speaks of differences of view among the philosophers his brief sample pertains to theoretical physics, cosmology, and psychology, the main themes in A he focuses on further down.

Secondly, at CAG 1.96 he summarizes the different views on the distances of heavenly bodies from each other found in ch. 2.31, and does so again at 4.24.

Thirdly, at CAG 1.97–98 he provides a detailed abstract of ch. 2.21 on the size of the sun, and a second detailed abstract of the same chapter subsequently at 4.22, where he omits the doxa of Anaximenes but includes that of Empedocles. One may of course also say that at 1.97–98 he omitted the doxa of Empedocles and included that of Anaximenes.

And finally, at CAG 6.3 he briefly summarizes the issues of chs. 1.25 and 1.27–28, namely necessity, fate and chance, treated in detail a few pages further down at 6.13–15.

In all these passages T's earlier presentation preludes exclusively on his own subsequent treatment of these matters. It is not so easy to explain the differences between these accounts or their mutual relationships, or such variations of phrasing and ordering as can be pointed out in these earlier occurrences. Perhaps the simplest explanation is that the more detailed passages are directly based on the *hypomnemata* T must have compiled before he carefully composed his work. But so of course may the brief passages, though these summaries may also have been abstracted from the longer passages relating to them we now find further down. At CAG 1.97–98 and 4.22 on the size of the sun he certainly relied on these *hypomnemata* both times.

(b) According to Diels *DG* 45, 170 and the apparatus ad loc. in the *DG* the material at CAG 4.5–12 should be assigned to A. He includes the Hippasus-cum-Heraclitus lemma in ch. 1.5, the rest in the apparatus of ch. 1.3. At M–R 1.274 we pointed out that the provenance of CAG 4.5–8 from A is doubtful, but in chapter 7 of M–R 2.1 we attempted to salvage the evidence for ch. 1.3. This approach has been abandoned by Mansfeld (2018b) at M–R 4.215–275. Diels' influential treatment of CAG 4.5–12 necessitates dealing with this difficult issue at some length. The argument of the long chapter in M–R 4 is summarized in what follows. It has been also been revised, because it has become clearer that only part of the second list derives from A. Earlier hesitations concerned with the assignment of the lemmata for Xenophanes (in S) and Xenocrates (in S and T) to A have been overcome,

The problem of the sources used by T on the principles has recently been discussed in detail by Journée (2018) at M–R 4.196–214. He provides an excellent and innovative overview of the primary and secondary literature, and of the various difficulties and prospects involved. Because some pieces of the puzzle do not fit with each other (the Hippasus-cum-Heraclitus lemma for instance is hard to place, see below) he discusses the possibility that not only A, but also another source or sources are involved. In the end, however, he tentatively concludes that the evidence at our disposal will go back to different stages in the development of the living text of the *Placita*. This is one of the reasons why he is not against accepting Diels' (or our earlier) attribution of lemmata from CAG 4.5–12 to A. In our view, however, he pays insufficient attention to the particular character of this material, and regrettably fails to deal with the crucial links between sections of CAG 2.9–11 and 4.5–12 summarily mentioned in section A(a) above, or with the parallels for several of T's lemmata to be discerned in the *Stromateis* attributed to ps.Plutarch. Mansfeld, for his part, argues that in CAG 4.5–12 T coalesced a cluster of lemmata abstracted from A with evidence deriving from a source shared with these *Stromateis*. Parallel material going back to this shared source pertaining to at

least Hippasus-cum-Heraclitus, Xenophanes, Parmenides and Epicurus is also present in the earlier overview at CAG 2.9–11 (cf. M–R 4.242–249 and section A(5)(a) above).

The lemmata at CAG 2.9 plus the matching lemmata at 4.5–9 dealing with the Eleatic Succession are found in T alone. Consequently they belong with the class of so-called irreducible lemmata (on these see General Introduction, section 3.3). We are certainly justified in attributing irreducible lemmata in T (or S for that matter) to A whenever they occur in an unmistakably Aëtian enclave or micro-environment, see the General Introduction at sections 2.3–5. This does not apply to the entirely or partly irreducible lemmata on the principles, whose nearest relatives are found in the *Stromateis* of ps.Plutarch.

We now turn to the list at CAG 2.9–11, but in the course of our analysis also have to adduce the evidence of the *Stromateis* and of the more detailed list at 4.5–12. The *conspectus parallelorum* over three columns at pp. 221–223 undergirds the complicated argument.

Conspectus Parallelorum:

Theodoret CAG 2.9–11	Theodoret CAG 4.5–12	Ps.Plutarch <i>Strom.</i> 4–11
(T5) Ἰππασος δὲ ὁ Μεταποντί- νος καὶ Ἡράκλειτος ὁ Ἐφέσιος τῷ πυρὶ τὴν ἀρχὴν τῶν πάντων ἀπενειμάτην·	(Txii) Ἰππασος δὲ ὁ Μεταποντί- νος καὶ Ἡράκλειτος ὁ Βλόσωνος ὁ Ἐφέσιος ἐν εἶναι τὸ πᾶν, ἀκί- νητον (ἀ(ει)κίνητον Zeller) καὶ πεπερασμένον, ἀρχὴν δὲ τὸ πῦρ ἐσχηκέναι.	<i>deest</i>
(T7) Ξενοφάνης δὲ ὁ Κολοφώνιος τὸ πᾶν αἰδίων, ἐκ δὲ τῆς γῆς τὰ πάντα·	(Ti) Ξενοφάνης μὲν οὖν ὁ Ὀρθο- μένους ὁ Κολοφώνιος, ὁ τῆς Ἑλεατικῆς αἰρέσεως ἡγησά- μενος, ἐν εἶναι τὸ πᾶν ἔφησε, σφαιροειδὲς καὶ πεπερασμένον, οὐ γενητόν, ἀλλ' αἰδίων καὶ πάμ- παν ἀκίνητον· πάλιν δ' αὖ τῶνδε τῶν λόγων ἐπιλαθόμενος, ἐκ τῆς γῆς φύναι ἅπαντα εἴρηκεν. αὐτοῦ γὰρ δὴ τόδε τὸ ἔπος ἐστίν· ἐκ γῆς γὰρ τάδε πάντα, καὶ εἰς γῆν πάντα τελευτᾷ.	(§4) Ξενοφάνης δ' ὁ Κολοφώ- νιος, ἰδίαν τινὰ ὁδὸν πεπορευμέ- νος καὶ παρηλλαχίαν πάντας τοὺς προειρημένους, οὔτε γενεσιν οὔτε φθορὰν ἀπολείπει, ἀλλ' εἶναι λέγει τὸ πᾶν αἰεὶ ὅμοιον· εἰ γὰρ γίγνοιτο τοῦτο, φησίν, ἀναγκαῖον πρὸ τούτου μὴ εἶναι· τὸ μὴ ὄν δ' οὐκ ἂν γένοιτο οὐδ' ἂν τὸ μὴ ὄν ποιήσαι τι οὔτε ὑπὸ τοῦ μὴ ὄντος γένοιτ' ἂν τι. ἀποφαίνεται δὲ καὶ τὰς αἰσθήσεις ψευδεῖς (see

(cont.)

Theodoret CAG 2.9–11

Theodoret CAG 4.5–12

Ps.Plutarch *Strom.* 4–11

(4.6) ἀξύφωνοι δὲ ἀντικρυς οἶδε οἱ λόγοι. εἰ γὰρ αἰδῖος ὁ κόσμος, καὶ ἀναρχος· εἰ δὲ γε ἀναρχος, καὶ ἀναίτιος· εἰ δὲ ἀναίτιος, οὐκ ἔχει δῆπου μητέρα τὴν γῆν. εἰ δὲ αἰτίαν ἔχει τὴν γῆν, οὐκ ἄρα ἀναίτιος· εἰ δὲ οὐκ ἀναίτιος, οὐδὲ ἀναρχος· εἰ δὲ οὐκ ἀναρχος, οὐκ ἄρα αἰδῖος.

(T8) καὶ Παρμενίδης δὲ ὁ τούτου ἐταῖρος ὁ Ἑλεάτης ὡσαύτως τόνδε τὸν λόγον ἐκράτυνε, *ψεῦδος δὲ ἀπέφηνε τῶν αἰσθήσεων τὸ κριτήριον, ἥκιστα λέγων ἐφικνεῖσθαι τοῦτο τῆς ἀληθείας* (cf. Xenophanes and Parmenides at *Strom.* 4–5).

(Tii) καὶ Παρμενίδης δὲ ὁ Πύρρητος ὁ Ἑλεάτης, Ξενοφάνους ἐταῖρος γενόμενος, κατὰ μὲν τὸν πρῶτον λόγον ξύμφωνα τῷ διδασκάλῳ συγγέγραφε· αὐτοῦ γὰρ δὴ τόδε τὸ ἔπος εἶναι φασιν·

οὐλον μουνογενές τε καὶ ἀτρεμές ἡδ' ἀγένητον.
αἴτιον δὲ τῶν ὄλων οὐ τὴν γῆν μόνον, καθάπερ ἐκεῖνος (see above Xenoph.), ἀλλὰ καὶ τὸ πῦρ εἵρηκεν οὗτος.

Parmenides below §5), καὶ καθόλου σὺν αὐταῖς καὶ αὐτὸν τὸν λόγον διαβάλλει. ἀποφαίνεται δὲ καὶ τῷ χρόνῳ καταφερομένην συνεχῶς καὶ κατ' ὀλίγον τὴν γῆν εἰς τὴν θάλασσαν χωρεῖν.

(§5) Παρμενίδης δ' ὁ Ἑλεάτης, ἐταῖρος Ξενοφάνους, ἅμα μὲν καὶ τῶν τούτου δοξῶν ἀντεποιήσατο, ἅμα δὲ καὶ τὴν ἐναντίαν ἐνεχείρησε στάσιν· αἰδῖον μὲν γὰρ τὸ πᾶν καὶ ἀκίνητον ἀποφαίνεται {καὶ} κατὰ τὴν τῶν πραγμάτων ἀλήθειαν· εἶναι γὰρ αὐτὸ μόνον μουνογενές τε καὶ ἀτρεμές ἡδ' ἀγένητον·
γένεσιν δὲ τῶν καθ' ὑπόληψιν ψευδῇ δοκούντων εἶναι· καὶ τὰς αἰσθήσεις ἐκβάλλει ἐκ τῆς ἀληθείας (see CAG T8 and Xenophanes above §4)· φησὶ δ' ὅτι, εἴ τι παρὰ τὸ ὄν ὑπάρχει, τοῦτο οὐκ ἔστιν ὄν, τὸ δὲ μὴ ὄν ἐν τοῖς ὄλοις οὐκ ἔστιν. οὕτως οὖν τὸ ὄν ἀγένητον ἀπολείπει. λέγει δὲ τὴν γῆν τοῦ πυκνοῦ καταρρυέντος ἀέρος γεγενῆναι

(cont.)

Theodoret CAG 2.9–11	Theodoret CAG 4.5–12	Ps.Plutarch Strom. 4–11
<p>(T11–13) καὶ Ζήνων ὁ Ἐλεάτης καὶ Διογένης ὁ Σμυρναῖος διαφο- ρους ἀρχὰς τῶν ὄλων ὑπέθεντο</p> <p>(T9) Δημόκριτος δὲ ὁ Ἀβδηρί- της ἄπειρον τὸ πᾶν εἶρηκε καὶ ἀγέννητον·</p> <p><i>no doxa defined</i></p> <p>(T10) Ἐπίκουρος δὲ ὁ Νεοκλέ- ους ὁ Ἀθηναῖος ἐκ τῶν ἀτόμων ἐξ ἀρχῆς ξυστήναι τὸ πᾶν, εἶναι μέντοι ἀναρχον καὶ αἰδῖον.</p>	<p><i>deest</i></p> <p><i>different doxa for Democritus</i> (Tiii) Μέλισσος δὲ ὁ Ἰθαγένους ὁ Μιλήσιος τούτου μὲν ἐταῖρος ἐγένετο, τὴν δὲ παραδοθεῖσαν διδασκαλίαν ἀκήρατον οὐκ ἐτή- ρησεν· ἄπειρον γὰρ οὗτος ἔφη τὸν κόσμον, ἐκείνων φάντων πεπε-ρασμένων.</p> <p><i>different doxa</i></p> <p><i>different doxa</i></p>	<p>(§6) Ζήνων δ' ὁ Ἐλεάτης ἴδιον μὲν οὐδὲν ἐξέθετο, διηπόρησε δὲ περὶ τούτων ἐπὶ πλείον</p> <p>(§7) Δημόκριτος δ' ὁ Ἀβδηρί- της ὑπεστήσατο τὸ πᾶν ἄπειρον διὰ τὸ μηδαμῶς ὑπὸ τινος αὐτὸ δεδημιουργησθαι, ἔτι δὲ καὶ ἀμετάβλητον αὐτὸ λέγει· καὶ καθόλου, οἷον τὸ πᾶν ἐστι, ῥητῶς ἐκτίθεται, μηδεμίαν ἀρχὴν ἔχειν τὰς αἰτίας τῶν νῦν γιγνομένων, ἄνωθεν δ' ὅλως ἐξ ἀπείρου χρό- νου προκατέχεσθαι τῇ ἀνάγκῃ πάνθ' ἀπλῶς τὰ γεγονότα καὶ έόντα καὶ ἐσόμενα. ἡλίου δὲ καὶ σελήνης γένεσιν φησι.</p> <p>(11) Μητροδωρος ὁ Χίος αἰδῖον εἶναι φησι τὸ πᾶν, ὅτι, εἰ ἦν γενητόν, ἐκ τοῦ μὴ ὄντος ἂν ἦν· ἄπειρον δὲ, ὅτι αἰδῖον· οὐ γὰρ ἔχειν ἀρχὴν ὅθεν ἤρξατο οὐδὲ πέρας οὐδὲ τελευτήν.</p> <p>(§8) Ἐπίκουρος Νεοκλέους Ἀθη- ναῖος ... οὐδὲν, φησί, γίγνεται ἐκ τοῦ μὴ ὄντος· ὅτι τὸ πᾶν αἰ- τιοῦτον ἦν καὶ ἔσται τοιοῦ- τον· ὅτι οὐδὲν ξένον ἐν τῷ παντὶ ἀποτελεῖται παρὰ τὸν ἤδη γεγε- νημένον χρόνον ἄπειρον. ὅτι πᾶν ἐστι σῶμα, καὶ οὐ μόνον ἀμετά- βλητον ἀλλὰ καὶ ἄπειρον.</p>

At *DG* 170–171 Diels left room for a few points of resemblance between the list of *CAG* 2.9–11 and the contents of ch. 1.3: ‘nonnulla videntur Aëtianis cognata’. Nevertheless he declined to utilize its evidence (‘it seems to have been derived from a poor Successions compendium, and to have been beefed up with Theodoret’s own learning or balderdash’); and so did we at *M–R* 1. 284 with n. 36, while in *M–R* 2.1 we even neglected this passage entirely. But Diels saw that the contents of two brief lemmata, namely T7 Xenophanes and T5 Hippasus-cum-Heraclitus, anticipate the more substantial lemmata for these name-labels and doxai in the later list at *CAG* 4.5–6. He moreover spotted specific echoes of Aristotle’s famous preliminary overview of the principles, or elements, as material causes in the first Book of *Metaphysics*. The Homeric line (*Il.* 14.201 = 14.302 with Okeanos and Tethys) cited at T1a for Thales is not that of ch. 1.3.2 (where we have *Il.* 14.246 with Okeanos alone), but of *Arist. Met.* A.3 983b30–31. This Aristotelian echo also includes the combination *CAG* 2.9 T3–T4 Anaximenes-cum-Diogenes for air, and then *CAG* 2.10 and 4.12 Hippasus-cum-Heraclitus (T5)—with its name-labels, as we have seen, not in the reverse order of ch. 1.3.9—which in *CAG* 2.10 is immediately followed by T6 Empedocles. This, we may readily agree, indeed resembles an updated calque of Aristotle’s shortlist at *Met.* A.3 984a2–8, i.e. ‘Thales (sc. water), ... Anaximenes air plus Diogenes (sc. of Apollonia), Hippasus of Metapontum fire plus Heraclitus, and Empedocles the four ...’: monists for the elements water, air and fire, and the pluralist Empedocles to complete the full set of four with earth. This is a sequence that is not paralleled in P or S.

Diels also argued that T2 Anaximander plus the whole series from T7 Xenophanes to T11–13 Metrodorus, Zeno of Elea and Diogenes of Smyrna are foreign to Aristotle, though he grants T a recollection of the Aëtian Xenophanes’ doxa (presumably Ti at *CAG* 4.5, ch. 1.3.12 Diels). We also note—Diels surprisingly is not explicit on this point—that Anaximander, not in Aristotle in this context, ultimately goes back to Theophrastus’ account of the principles, and that, though the wording has been updated, the succession of the three Ionians also recalls the Eresian (*Phys. Op.* fr. 2 Diels = 226A FHS&G). Metrodorus (T11), never mentioned by Aristotle, ultimately goes back to Theophrastus too (*Phys. Op.* fr. 8 Diels = 229 FHS&G), while the obscure Diogenes of Smyrna (T13), elsewhere listed as a follower of Metrodorus, is only rarely mentioned, and only by late authors. And while the relative order of appearance of the Eleatics and Atomists as protagonists at *CAG* 2.10–12 and 4.5–11 is the reverse of that in *Metaphysics* A, the Eleatic triad is the same in T (we anticipate by including Tiii Melissus of *CAG* 4.8) as in Aristotle at *Met.* A.5: Xenophanes–Parmenides–Melissus.

Compared with what is in Aristotle and Theophrastus the theological doxa of T7 Xenophanes has been ‘Parmenideanized’ in a physicalist sense in T as τὸ πᾶν

ἄπειρον. Both Eleatics are moreover implicitly charged with self-contradiction: Xenophanes said ‘the All is everlasting, but all things (come to be) from earth’, and T8 Parmenides ‘confirmed this argument in the same way, and declared the criterium of the senses/sensations to be false’. This criticism resembles the well-known analysis of Parmenides (not Xenophanes) of Aristotle *Met.* A.5 986b27–33 and Theophrastus *Phys.Op.* fr. 6 Diels (= 227C FHS&G), but goes one crucial step further. We note in passing that in the VS Diels did nothing to help students to discover the linkage between Aristotle’s and Theophrastus’ statements, because he placed the Theophrastus fragment in the *Leben* and the Aristotle quotation at a considerable distance in the *Lehre* section of the Parmenides chapter in that work. This picture of Eleatic philosophy as fundamentally at odds with itself is also found in the second *archai* list in CAG Book 4, where it is set out explicitly and in more detail. It is also matched in the ps.Plutarchean *Stromateis*, and is a feature of the parallel accounts of Hippolytus, *Refutation of All Heresies* 1.14 (Xenophanes) and 1.11 (Parmenides), so clearly is a later development.

We should further note that according to Theophrastus on Xenophanes as cited by Galen *HHN*, CMG 9.1 p. 15.13–254 (= *Phys.Op.* 5a ~ 213 FHS&G, 21A36 DK), the work in which the Eresian ‘epitomized the physical doctrines (ἐπιτομήν ἐποιήσατο τῶν φυσικῶν δοξῶν)’ was silent about earth as element or principle (cf. Mansfeld 1987). Parmenides’ rejection of the senses at T8 cannot be attributed to Theophrastus either, see now Mansfeld (2018c); here Timon the Pyrrhonist, *Suppl.Hell.* 818 at Diogenes Laertius *V.P.* 9.23, is the first witness we know of. The inclusion of the Hellenistic philosopher Epicurus (T10) is further proof of updating. The hurried and rather contemptuous ending with T 11–13 Metrodorus, Zeno of Elea and Diogenes of Smyrna shows that T epitomized his source. Though here we are not told that Metrodorus is an Atomist, this will be the reason why he is included. He is explicitly cited as an Atomist at CAG 4.9 (Tv), but—as we shall see—in a section of this larger list T derived from A.

Other lemmata worthy of note are at CAG 2.11 for Democritus (T9), listed third after Xenophanes and Parmenides, and for Epicurus (T10): ‘Democritus of Abdera said the All is infinite and ungenerated, and Epicurus son of Nicocles of Athens (said) the All consisted of atoms from the beginning, yet is *without beginning*, and *everlasting*’. The doxa attributed to Democritus presented here is better known as one of Melissus (e.g. 30A10 DK). Because Melissus does occur in the other list at CAG 4.8 (Tiii), where however his infinite Being has been turned into an ‘infinite cosmos’, one could be tempted to argue that, in spite of the ethnicon, ‘Democritus’ is a banal doxographical error for ‘Melissus’. But the quasi-Melissean doxa can easily be interpreted as an emphatic rendering of an important aspect of Democritus’ doctrine of infinity. An illuminating paral-

lel is found in the *Stromateis* of ps.Plu. §7: 'Democritus of Abdera posited that the All is *infinite* because it was absolutely not manufactured by anyone ... And what sort of All this is he sets out verbatim, (saying) that the causes of things that are taking place now have *no beginning*'. In ps.Plu. *Strom.* 10 we moreover meet with a similar picture of Metrodorus of Chios, who 'says that the All is everlasting, because, if it were generated, it would proceed from what is not. It is *infinite*, because it is *everlasting*, for it has *no beginning* from where it began, nor any limit or termination'. This suggests what the doxa of Metrodorus that has fallen by the wayside at CAG 2.11 could have looked like.

Zeller (1919–1920) 1186 n. 1, who noticed the resemblance with the tenet of Melissus, argued that Metrodorus was influenced by Melissus, while Bicknell (1982) 197 believed that the *Stromateis* passage is mistaken and that the name-label Metrodorus plus ethnicon is a banal doxographical error for Melissus plus ethnicon. Palmer (2001) 9, who recognized the 'striking similarity' to Melissus' view too, argued that ps.Plu. *Strom.* 7 is fully compatible with the main doctrine of Democritus, so *Strom.* 10 would have to be compatible with the doctrine of Metrodorus as well. These scholars do not take into consideration the also indubitably 'Melissean' doxa which as we saw is attributed to the Atomist Democritus at CAG 2.11 (T₉).

As intimated above, we believe we are dealing with a non-standard picture of Atomist theory. This may have been prompted by the fact that Melissus posited that Being (in later reports modified to the All, or the cosmos) is infinite and everlasting, a view the Atomists maintained with regard to the totality of matter and void. This interesting interpretation brings the Atomists closer to the Eleatics.

Epicurus (T₁₀) is even made to contradict himself in exactly the same way as the Eleatics, for 'the All', though constituted from atoms 'from the beginning' (we note the conflict with the Democritean view of *Strom.* 7), is nevertheless 'without beginning', and everlasting. We may be faced with an *ad hoc* adaptation of Epicurus' doctrine to that of the Xenophanes and Parmenides who come before him on the list. To a large extent this surprising interpretation is paralleled in the Epicurus lemma at *Strom.* §8: 'Epicurus son of Nicocles of Athens ... says that nothing comes to be from what is not, because the All always was as it is and always shall be as it is, while nothing unusual will be brought about in the All in the course of infinite time, because the All is a body and not only *unchangeable*, but also *infinite*'. We note the 'Melissean' ingredients here too.

The Democritus doxa at CAG 2.11 (T₉) with its 'infinite and ungenerated All' is quite different both from its counterpart at 4.9 (T_{iv}) and from the match of the latter found at S 10.14, with their standard 'void and solids'. We of course accept that this doxa shared by S and T should be attributed to A (ch. 1.3.14). The

Epicurus doxa at CAG 2.11 (T10) with its ‘All consisting of atoms from the beginning’ that is yet ‘without beginning and everlasting’ is very different both from its counterpart at CAG 4.10 (Tvi) with ‘atoms’ that are explained in some detail while the void is left out, and also from the detailed Epicurean doxa common to P and S at ch. 1.3.16. The irreducibility of these two doxai to or incompatibility with doxai that are to be assigned to A is proof of provenance from a different source. The parallels in ps.Plu. *Strom.* §7 and §8, respectively, enable us to pinpoint this source as the one shared by T with this ps.Plutarch.

The Hippasus-cum-Heraclitus doxa at CAG 4.12 (Txii) is incompatible with the Heraclitus-cum-Hippasus doxa shared by P and S (ch. 1.3.9). See Journée at M–R 4.205–207, with table at p. 206, who correctly states ‘[l]a comparaison des textes est sur ce point sans appel’. Diels *DG* 45 had already noticed that this lemma at CAG 4.12 cannot be located in ch. 1.3, so he put it in ch. 1.5, entitled “Εν τὸ πᾶν. Where, as he admitted, it is not really at home because of the reference to fire the physical principle, which does belong in the context of ch. 1.3. He remained convinced, however, that it should be assigned to A, even if it remained unclear exactly where.

If now for a moment we forget about post-Theophrastean interpretations and accretions, we may conclude that the list at CAG 2.9–11 forms a unity with respectable Peripatetic, that is, Aristotelian-cum-Theophrastean antecedents, and is far from being as trivial as Diels believed. Its coherence is enhanced by the surprising proximity of the Atomists to the Eleatics as to doctrine and, in the case of Epicurus, through an implicitly self-contradictory position. A coherence that is not undermined by T’s exploitation of its skeptical colouring for his missionary purpose. The Hippasus-cum-Heraclitus lemma at CAG 2.10, a shorter version of the one at 4.12, is firmly part of this list because of its shared antecedents.

We do not know when the standard Successions template was first imposed here on the monists from Thales to Anaximenes, but the use of the terms διαδεξάμενος and διάδοχος certainly points to a date after Sotion, so after the beginning of the second cent. BCE. This provides a most interesting parallel for the dual origin of the macrostructure of ch. 1.3, for which see below at section D(c)(4).

(c) At CAG 4.5–8, not inaugurated by the Milesian trio, T immediately begins with the Eleatic Succession absent from P and S: Ti Xenophanes son of Orthomenes of Colophon, Tii Parmenides son of Pyrrhes of Elea, and Tiii Melissus son of Ithagenes of Miletus (a slip of the stylus). The long Xenophanes section is irreducible to what is in S, for the ingredient that is matched is a matter of coincidence rather than proof of a shared source. The line 21B27 DK, quoted at S 1.10.12 and CAG 4.5 (with incorrect γῆς) to attest generation from earth, also

occurs as an option in Sextus Empiricus *M.* 10.313 (~ fr. 89 Strobel–Wöhrle, with the correct γαίης), so is a *Wanderzitat* (see below). The Parmenides and Melissus lemmata are likewise irreducible.

At CAG 4.5–7 Ti Xenophanes and Tii Parmenides are provided with first principles, but these are metaphysical and cannot serve as principles in physics. Nevertheless physical principles are listed *next to* these sterile firsts (earth for Xenophanes, earth and fire for Parmenides). We are told explicitly that Xenophanes was inconsistent and ‘forgot about’ his ‘immobile One and All’, and that Parmenides acted like his inconsistent master, so is a physicist *malgré lui* as well. As we saw above in section A(5)(b), a downsized version of this purportedly deplorable state of affairs is already found in the earlier list at CAG 2.10 (T7–8). It should be noted that this Eleatic ontology with its unfortunate consequences is not part of the Xenophanes lemma we have included at ch. 1.3.11(S5), where the doxa is limited to physics with earth as the element or principle, and, as we have seen above, the line 21B27 is also quoted.

The metaphysical firsts of Parmenides and Melissus (and Zeno) cannot serve as physical principles, but they can be made to function as gods, see ch. 1.7.17, ‘Parmenides (says that the deity is) the unmoved and limited spherical (being).’, and 1.7.18 ‘Melissus and Zeno (say that the deity is) the One and All and solely everlasting and unlimited’. The divine first principles of the Eleatics are qualified in such a way that (unlike the divine principles of other philosophers) they cannot function in nature.

We note that at *Vors.* 21A36 and 21B27 (like in the *DG*) Diels attributes CAG 4.5 (Ti) on Xenophanes to A. But at *Vors.* 21A36 he attributes the parallel in S, which at *DG* 284 he had included in the right-hand column for A as his §12, to the ‘homerischen Allegorien’ (presumably because of the quoted line), so no longer to A; he moreover omits to refer to the parallel for this quotation in Sextus *M.* 10.133, which in *PPF* is still cited at Xenoph. B27. But it actually is the other way round. Only the lemma in S can be assigned to A, for it has successfully infiltrated the early Ionian phalanx after Anaximander, so most certainly occurs in an Aëtian enclave (see the General Introduction, sections 2.4 and 2.5). S refrained from lifting it from its position in the Xenophanes lemma and moving it to the collection of poetical quotes at the begin of his chapter (for which cf. above section A(4)), because with the incorrect γῆς for γαίης the line does not scan. The parallels in T CAG 2.10 and 4.5–6 (where the line is also cited with γῆς, but T knows the phrase is an ἔπος), firmly encapsulated in passages of different provenance, belong with a proximate tradition different from A.

CAG 4.8 does not mention a first principle for Tiii Melissus, but cites the opposition between those who hold the cosmos to be limited (i.e. Xenophanes and Parmenides) and those who hold it to be unlimited. This is a downsized

cosmological version of the well-known contrast between the Being of Parmenides and that of Melissus insisted upon by Aristotle (*Met.* A.5 986b18–21). There is no mention of Melissus in the extant remains of Theophrastus, so for this detail we seem to be closer to Aristotle.

(d) We now come to the cluster of doxai in *CAG* 4.5–12 derived from A. Most remarkably and usefully, there are also four lemmata or parts of lemmata, matched in S, for which there is no parallel in P (and so, of course, not in E either), namely the triad of Atomists: §14 Democritus at S 1.10.14 and *CAG* 4.9 (Tiv), §15 Metrodorus at S 1.10.14 and *CAG* 4.9 (Tv), and §17 Ecphantus at S 1.10.16a and at *CAG* 4.11 (Tvi), plus §22 the Academic Xenocrates at S 1.10.12 and *CAG* 4.12 (Tx). In S Ecphantus is called a Pythagorean ("Ἐκφάντος Συρακούσιος, εἷς τῶν Πυθαγορείων), he is the first to make the monads corporeal, and he follows immediately after the Atomists, just as in T's list. In his usual brief way T only says that "Ἐκφάντος ὁ Συρακούσιος Πυθαγόρειος 'followed', as to doctrine, that is, the Atomists just mentioned (τούτοις ... ἠκολούθησε), which *ad sententiam* amounts to the same thing. These lemmata for the three Atomists plus Xenocrates provide the first evidence in both our chief witnesses for the S/T source, of paramount importance for the reconstruction of A (see above, General Introduction section 3.2). This was not taken into account by Mansfeld (2016), but is argued for the three Atomist lemmata in the slightly revised version of this paper at M–R 4.251–262, together with the conclusion at 262–263.

Elter (1880) 19 n. 1 argued that the Xenocrates lemma Tx at S 1.10.12 does not belong with ch. 1.3, because the phrase 'the All is constituted' (συνέσταναι τὸ πᾶν) is different from similar phrases used in the other lemmata of A 1.3 according to the other evidence of S and P for this chapter, where τὸ πᾶν is not found. He acutely hypothesized a lost chapter 'On the All' (Περὶ τοῦ παντός), attested in his view by the heading of S 1.10, which he reads as: 'On principles and elements and the All' (Περὶ ἀρχῶν καὶ στοιχείων καὶ τοῦ παντός). On this 'chapitre fantôme' see also Journée at M–R 4.211–213. Against Elter, however, Wachsmuth *ad loc.* rightly pointed out that the καὶ before τοῦ παντός, though found in the main manuscripts as well as in Photius' index, is not confirmed in the Florentine florilegium which attests an earlier stage of the transmission, and he therefore preferred the more appropriate 'On principles and elements of the All' (Περὶ ἀρχῶν καὶ στοιχείων τοῦ παντός). The phrase τοῦ παντός without καὶ is also linked to στοιχεῖα at S 1.10.6, where Homer is said to have really meant 'the generative elements of the All' (τὰ γεννητικὰ στοιχεῖα τοῦ παντός) at *Il.* 7.99, 'may you all become water and earth!' The presence of τὸ πᾶν in the Xenocrates lemma in ch. 1.3 is not decisive. As we shall see below, it also occurs in the Xenophanes lemma in ch. 1.7.17.

We feel justified in adding the Xenocrates lemma of S 1.10.12 and CAG 4.12 (Tx) as a fourth witness to the S/T source. The doubts of Mansfeld (2018b) at M–R 4.256–258 were also occasioned by the fact that further down, at ch. 1.7.21, the name-label Xenocrates (in this respect the exception in that chapter) is accompanied by patronymic and ethnon: Ξενοκράτης Ἀγαθήνορος Καλχηδόνιος, just as is the case with 21 out of 24 name-labels in the combined evidence of P and S for ch. 1.3 (not all equally complete). With the exception of Θαλῆς δ' ὁ Μιλήσιος, already found ch. 1.2.2 (see above, ch. 1 Commentary D(d)§2), these make their first appearance in the present ch. 1.3. Thales had to be identified again as a Milesian because of his explicit role in the Ionic Succession. This identification (or some other information, e.g. affiliation, or profession) as a rule is supplied in the *Placita* by way of introduction the first time—which may be the only time—a name-label is cited, see Elter (1880) 18–20. For clear examples see at chs. 1.7 and 4.1 below. It would follow that the first time a doxa of Xenocrates appeared in A occurs at 1.7.21, and not at 1.3.22 (cf. M–R 2.1.93).

But we now believe that this anomaly does not tip the scales in favour of the exclusion of the Xenocrates lemma from A. The assumption that S and T did derive their Xenocrates lemmata from their common source A is supported by the presence in both of the florid term ἀένναον, 'ever-flowing' i.e. 'inexhaustible', or perhaps rather or with as sub-text 'negating unity' (ἀ-έν-αον). This is unparalleled elsewhere as standing for 'matter'. And Xenophanes' two principles are paralleled in divine form in ch. 1.7.21 (in S alone) Ξενοκράτης Ἀγαθήνορος Καλχηδόνιος τὴν μονάδα καὶ τὴν δυάδα θεούς, 'Xenocrates the son of Agathenor from Chalcedon (says that) the Monad and the Dyad are gods'. The cosmological One appears again as the theological Monad, just as, conversely, Plato's cosmological God of ch. 1.3.20 reappears as his theological Monad in ch. 1.7.22.

S's phrase συνέσταναι τὸ πᾶν ἐκ ... τοῦ ἀεννάου, ἀεννάον τὴν ὕλην αἰνιττόμενος is moreover both *ad sententiam* and *ad verbum* absolutely equivalent to T's terse phrase ἀεννάον τὴν ὕλην, ἐκ ἧς ἅπαντα γέγονε (not counting T's omission of S's τοῦ ἐνός). S's Xenocrates is a dualist with two principles, 'the One' and the 'ever-flowing', 'by which (term) he hints at matter', while T's is a monist, whose only principle is this 'everflowing matter'. The florid term in fact overrules this changeover to monism. That T's text is shorter is in character, since often enough his abstracts from A are shorter, or even much shorter, than those of the other two witnesses. The doxa is of course inferior to its Sto-baeian twin, because the derivation of all things from matter alone is hard to square with Xenocrates' doctrine. T's arbitrary abridgement turns Xenocrates into someone on the level of the earliest philosophers of nature, like T₁ Thales, T₂ Anaximander and T₃ Anaximenes cited in the earlier passage at CAG 2.9–

10, and T4/Txiii Diogenes of Apollonia and T5/Txii Hippasus-cum-Heraclitus, cited both in the earlier passage and at CAG 4.5–12. They generated all things out of a single material principle.

It should further be noted that the sequence Tvii Ecphantus, Tviii Plato, and Tix Aristotle at CAG 4.11 occurs in the same order at S 1.10.16a, and without Tvii Ecphantus at the beginning but ending with Txi Zeno of Citium at P 1.3.11–13, just as at CAG 4.12. This sequential communality beyond doubt indicates A as the common source for all four doxai. The passus in T is an Aëtian enclave, or micro-environment. This further supports attribution of the Xenocrates doxa, in this environment wedged in between Tix Aristotle (also in P and S) and Txi Zeno (also in P and S), to A. In S's array of abstracts, as we have seen in section A(3) above, Xenocrates has oddly strayed to the beginning of the Aëtian enclave, but this does not have sufficient weight to neutralize counter the arguments in favour of reduction to A.

The doxai of Tiv Democritus and Tv Metrodorus at CAG 4.9–10 (different as we have seen from what is at 2.11), not matched in P, are the same as those attributed to Metrodorus and Democritus (at some distance from each other) at S 1.10.14. Being shared by S and T they can safely be assigned to A. They are the first lemmata of the Aëtian micro-environment.

It is tempting to argue that the brief reference to Tvi Epicurus at CAG 4.9 between Tv Metrodorus and Tvii Ecphantus should also be included in the Aëtian enclave. And the compact comparison appended at CAG 4.10 of the various terms used to qualify the corpuscles (conflict again!) is not incompatible with the descriptions and explanations of the terminology of Democritus Epicurus in both P and S, and of Metrodorus in S. The original version in A must have been ruthlessly abridged by T. Following on after Tvii Ecphantus, the next set of lemmata at CAG 4.11–12, namely T viii Plato, Tix Aristotle, and Txi Zeno of Citium are shared by T with both P and S, and continue the Aëtian enclave.

The reminiscence of the simile visualizing atoms as motes in a sunbeam entering through 'windows' at Arist. *de An.* 1.2 404a.1–4 (= 67A28 DK) that concludes the section on Atomism is in this form unparalleled elsewhere, and we can no longer find out where T found this information. Sextus Empiricus *M.* 7.129 on the 'mind' (no atoms here) using the 'pores of the senses' as 'windows' to be able to perceive beyond the body is too different. Thus in the midst of the excerpts from A we find a passage of unknown provenance, which we can only assign to the wider proximate tradition.

T *ad finem* returns to the source shared with the *Stromateis* after these excerpts from A at CAG 4.12: 'Hippasus of Metapontum and Heraclitus son of Blosson of Ephesus (Txii) held that *the All* (τὸ πᾶν) is *one, unmoved* [ἀκίνητον, after Zeller generally amended to 'always in motion' ἀ(εὶ)κίνητον] and *limited*,

and that the principle is fire; Diogenes of Apollonia (Txiii) said *the All* has been composed from air'. As we have seen these lemmata are anticipated at CAG 2.9–10: T4 'Diogenes agreed (sc. with T3 Anaximenes) in addressing air as the principle', and T5 'Hippasus of Metapontum and Heraclitus of Ephesus assigned (being) the principle of all things to fire'. We have italicized the differences, which are less important than they have been believed to be. In fact the italicized words could simply be omitted in the earlier list.

Journée at M–R 4.197–199 and 205–207 provides an excellent discussion of the Theophrastean parallels for Txii, namely Theophr. *Phys.Op.* fr. 1 (= 225 FHS&G) "Ἰππασος δὲ ὁ Μεταποντίνος καὶ Ἡράκλειτος ὁ Ἐφέσιος ἐν καὶ οὗτοι καὶ κινούμενον καὶ πεπερασμένον, and Diogenes Laertius *V.P.* 8.84 Ἰππασος Μεταποντίνος (18.1 DK) ... ἔφη ... πεπερασμένον εἶναι τὸ πᾶν καὶ ἀκίνητον. Zeller's conjecture ἀ(ει)κίνητον in Txii is supported by these two passages. We note in passing, however, that T's (ἐν ... τὸ πᾶν) ἀκίνητον (πεπερασμένον) agrees with Ti Xenophanes' (ἐν ... τὸ πᾶν ... πεπερασμένον) ἀκίνητον and Tii Parmenides' ἀτρεμές. The ancient *Verschlimmbesserung*, if that is what it is, makes sense in T's context, for it proves Hippasus and Heraclitus to be guilty of self-contradiction. They posit a physical principle next to an immovable first, just as the Eleatics and some others.

In our view the considerations of Elter (a lost chapter) and Journée (various stages in the development of the *Placita*) unnecessarily complicate matters. The lemma T5 'Hippasus of Metapontum and Heraclitus of Ephesus assigned (being) the principle of all things to fire' is a false friend of ch. 1.3.9 'Heraclitus and Hippasus from Metapontum (say that the) principle of all things is fire'. This is confirmed by the different order of the name-labels, the fact that T5 is a shorter version of Txii with its extra reference to a 'finite and immobile All', the closeness to the Aristotelian-Theophrastean tradition, and the solid position of the shorter version in the coherent list of CAG 2.9–11. The simplest solution, surely, is the assumption of a related source, *proximate to but other than A*. And the particular and close relationship of two plus five irreducible lemmata, namely T7 and Ti for Xenophanes, T8 and Tii for Parmenides, Tiii for Melissus, T9 for Democritus and T10 for Epicurus with the sequence consisting of respectively ps.Pl. *Strom.* §4 Xenophanes, §5 Parmenides, §7 Democritus, and §8 Epicurus also points to the presence of a different source, which for the sake of convenience we designate as Σ. The doxa of T12 Zeno of Elea is not described, but a correspondence may perhaps be posited with the unspecified Eleatic stance of Zeno at ps.Pl. *Strom.* §6, between §5 Parmenides and §4 Epicurus. We assume that this source Σ, shared by T and the *Stromateis*, should be assumed for T5/Txii as well, and in the wake of this assumption for T9 Democritus and Tiii Melissus too, and probably also for the Milesians at T1–3 and

Diogenes of Apollonia at Txiii, which are false friends of ch. 1.3.1–3 and 3.10. *Fontes non multiplicandae praeter necessitatem.*

T cannot depend on the *Stromateis* in Eusebius, where T5/Txii Hippasus-cum-Heraclitus and Tiii Melissus are not found. At CAG 4.5–12 he carefully supplied ethnica and patronymics, and even a few details concerned with affiliations. For these adornments he was not dependent on the sources he excerpted, as is for instance clear from the patronymic and ethnicon of Democritus, added at CAG 4.1 in a passage quoted from Clement. He must have had, or known by heart, a list of Diadochai equipped with full paraphernalia.

Summarizing the above we may conclude that T has combined, or rather intertwined, material deriving from Σ with abstracts deriving from A, in the order Σ A Σ A Σ : first a large portion of Σ at CAG 4.5–9 (Xenophanes–Parmenides–Melissus), then A at 4.9–10 (Democritus–Metrodorus–Epicurus), followed by a short passage of uncertain provenance at 4.10, followed by a quite substantial chunk of A again at 4.11 (Ecphantus–Plato–Aristotle–Xenocrates–Zeno of Citium), and finally briefly Σ again (Hippasus-cum-Heraclitus and Diogenes of Apollonia). Switching between sources is not unusual with T. At CAG 4.9 he switched from one source to another one containing the information on the principles from Democritus to Zeno of Citium, just as at for instance CAG 5.24 (p. 129.3 Raeder) he switched from an analogue of P 4.2–5 on the soul (of which E only wrote out chs. 4–5) to an abstract from Clement of Alexandria *Strom.* 8.4.10.3–5 on the question whether or not plants are ‘animals’, ζῷα, preferring this *testis proximus* to an analogue to P 5.26.

T may well have decided to include his damning information on the Eleatics and Atomists and to add it to what he could find in A, because their views are not only in the usual way at variance with those of other philosophers, but as we have seen are also marked out as striking examples of self-contradiction. For T’s crusade against the philosophers of nature they are thus a boon and a blessing.

Finally, we should point out that our presentation of the Greek text of the passages from T corresponds to the above analysis and is thus divided between two different locations: CAG 4.9–12 (but not entirely) is printed above as the first *testis primus*; CAG 2.9–11 et 4.5–8 + 4.10 + 4.12 is printed below in section E(a) General texts among the *testes proximi*. For the distinction between these two kinds of witnesses see the General Introduction section 4.1. For both texts we include the numbering of the lists set out above in sub-section (5a).

(6) The *Testes secundi*, comprising substantial passages in Achilles, Nemesius, Hermias, and the *Scholia in Basilium* are particularly numerous and rich for this chapter, as is appropriate for its foundational theme.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition, beginning with Lucretius and Cicero and ending with Calcidius and Augustine, and echoed even later, e.g. in Epiphanius and Bar-Hebraeus, is also appropriately rich (for Cicero in this role see also below chs. 1.7, 4.2–7, 4.9, and 5.1). For the most part these texts provide overviews of the *archai*, sometimes with interspersed material. Equally or even more substantial passages are found, as already discussed, in the ps.Plutarch to whom a collection of abstracts in E entitled *Stromateis* is ascribed, and in Sextus Empiricus, Ambrose of Milan, Servius, ps.Valerius Probus and Theodoret. For these texts see below, section D(e). As has been noted above at *Testes primi* and been argued at some length at section A(5), *pace* Diels and others T CAG 4.5–10 and 4.12 (just as 2.9–11) belongs with the *testes proximi* and has not been included among the evidence for the *testes primi*. The text is printed below at section E(a).

(2) *Sources.* The traditions relevant for this chapter go back a long way, even before Plato and Aristotle (see also below, section D(e) and section E(b) General texts). The first Book of Aristotle's *Physics* and the first of *Metaphysics* as well as the fragments to be attributed to (the first Book of) Theophrastus' *Physics*—rather than to the so-called *Physicorum Opiniones*, better called *Physicae Opiniones*, see above, Book 1.titulus et index Commentary D(e)3—are important from the point of view of contents, structure, and dialectical criticism relating to the Presocratics and Plato. Aristotle had studied the originals and so had Theophrastus, though the latter in his exposition is much influenced by the former, whom he sometimes supplements or corrects. According to Burkert (1972) 53–66, followed by many (the present authors are no exception), the Early Academy is often supposed to be involved with most of the doxai of the Platonized Pythagoras; this has been called into doubt (Zhmod 2013b). The systematic account of Pythagorean philosophy with its echoes of the interpretation of Pythagoreanism in the Early Academy in §7 may be derived from one or more ps.Pythagorean treatises, see below, section D(d) individual points, §7. The Successions literature initiated by Sotion—more on which at section D(c)(4) below—also plays a decisive role in this chapter.

The ultimate sources for early Hellenistic doxai must be the writings of the individuals at issue, but these cannot be traced further than a hypothetical reworking of the chapter for which the name-label Strato provides a preliminary t.p.q. But see further section D(e) below.

C *Chapter Heading*

Umbrella headings. The majority of chapter headings in the *Placita*, like the first half of the present one, are patterned according to the bland 'on x' formula,

namely περί-plus-substantive(s)-in the genitive (περί τοῦ δεῖναι), which because of its lack of specification allows for the presence of a multiplicity of question types and/or categories in a chapter (or book, for that matter). See Mansfeld (1992a) 93: 'It is to be noted that the majority of chapter-titles in Aëtius has been simplified to the seemingly descriptive and innocuous 'περί x' type (e.g. ch. 1.9 'on matter', περί ὑλης); but study of their contents shows that they are concerned with problematic issues'. Numerous instances of this umbrella function are cited below, section D(e) individual points: chapter headings.

Leszl (2002) 174–175 suggests that the περί + substantive formula perhaps should apply to existence only, and the περί + οὐσία + substantive to essence; he is aware, however, that this is not the case for e.g. chs. 1.21 Περί χρόνου and 1.22 Περί οὐσίας χρόνου. He is followed by Bottler (2014) 229–230, 251, and 262. Leszl concludes, again followed by Bottler, that this makes the application of question types and categories as principles of organization uncertain, but fails to see that this is not a matter of the headings alone, because it is the contents and structure of the individual chapters that show what categories and/or question types are at issue, as is also pointed out in Lachenaud's discussion of 'la formulation la plus neutre', (1998) 42–43: 'il faut lire le chapitre pour se faire une idée de la question philosophique'. The formula περί τοῦ δεῖναι is not about the existence of whatever it is about, or at the very least not about its existence alone (often enough this is taken for granted), but about this something as a subject of description or a matter of inquiry, to be looked at from various angles.

In the present chapter this umbrella heading is further specified by means of an added phrase, τί εἶναι, which pertains to the question types/categories of substance and quality. An enlightening parallel for this dual denotation is found in the *Placita* itself: ch. 1.7 has the more specific heading Τίς ἐστὶν ὁ θεός, but is simply referred to in the next chapter (1.8.1) with an umbrella phrase, namely as τῷ Περί θεῶν λόγῳ.

The question-types/categories of substance and quality here pertain to the nature(s) of the elements and the corporeality or incorporeality of the principles (incorporeals are involved in §7, §20, §21, and §22). There is no need for a nominal or conceptual definition of ἀρχή in the technical sense required in the present context, as this has been taken care of in the previous chapter, for which see this chapter at Commentary D(c). Without ceremony we are confronted with a long haul of more or less, but often more than less conflicting real definitions proposed by individual philosophers or schools. For *types of* definition in the *Placita* see below, ch. 1.9, Commentary D(c) and ((e)(2).

The category of quantity is also involved, as we learn how many principles and/or elements are assumed each time. Perhaps unintentionally it also

includes the category of time, or the sub-question of origin (*πόθεν, ἀπό* ... — cf. the headings of chs. 1.6, 2.5, 2.17, 4.21, 5.11, 5.28 and 2.6; the question *unde*, a sub-sub-species of the theoretical *quaestio*, cf. Cicero *Top.* 82), because Successions are also about beginnings and ‘first finders’: thus 1.3.1 ‘Thales ... appears to have commenced (the pursuit of) philosophy’ (P), in S’s paraphrastic version coalesced with §6 as ‘the Ionian philosophy, given this name because a man from Miletus, Thales, began it’; and 1.3.7 ‘next, from another beginning, Pythagoras’ (P). See further at ch. 1.1 above, Commentary C.

D Analysis

a Context

Introduction. The chapter is part of the introduction of the treatise. Having explained the nature of the φυσικός λόγος and the purpose of the treatise (prooemium), the characteristics of φύσις which determine the objects of that λόγος (ch. 1.1), and the difference between ἀρχή and στοιχείον (ch. 1.2), A is now in a position to give the views of the philosophers on the ἀρχαί, since Aristotle traditionally the first subject of natural philosophy. Even in its currently mutilated form, it is the longest chapter in the work and is used by the doxographer to introduce the Successions and many of the main philosophers in the tradition. Such a combination of systematic and prosopographic ingredients is virtually *de rigueur* in the introductory sections of technical treatises; see above, ch. 1.1 Commentary D(e)(1) and (4).

That our chapter is followed by one on the origin of the world (1.4, Πῶς συνέστηκεν ὁ κόσμος), and then by the theological chs. 1.6–1.8 is not a coincidence, but *inter alia* due to the influence of Stoic and Platonizing procedures. The first subpart of the Stoic φυσικός λόγος at Diogenes Laertus *V.P.* 7.132 is further subdivided into among other things ‘a part about principles, one about elements, and one about gods’. See the quotation below at section E(b)§1. On the divisions of the Stoic φυσικός λόγος, its Aristotelian precedents, and their reverberations in the sequential arrangement of chapters in the *Placita* see M–R 2.1.97–109 and above, General Introduction sections 2.8 and 5.2.1. Also compare the slightly different order in the Platonist treatise Alcinoüs *Did.* c. 8, p. 162.24–27 H.: ‘Following on these topics [sc. introductory matters, logic, mathematics], let us turn to a discussion of the principles [cf. A’s present chapter] and of the doctrines of theology [cf. A 1.6–8], taking our start from above from the first principles [cf. A 1.3], and then descending from these to examine, first, the origin of the world [cf. A 1.4], etc. The schema essentially derives from Plato’s *Timaeus* (itself influenced by the writings of the early philosophers), the most influential philosophical work in the first century BCE and CE when the *Placita* tradition was developed in the form that we find in A chs. 1.6–9.

For further details see the Introduction to Book 1 section 2, and for ch. 1.4 after 1.3 also below at ch. 1.4, Commentary D(a).

The second part of ch. 1.7, §§2–25, which deals with the nature and substance of the divinity, is to some extent a counterpart and mirror reflection (*mise en abyme*) of ch. 1.3 on the principles (cf. M–R 2.1.87–88), and conversely, for the principle can be divine and the divinity a principle. For details see below at ch. 1.7 Commentary D(a)(2), and also the parallels listed in *Loci Aetiani* above. Furthermore, in the theological ch. 1.7 at §9 the two divinities attributed to Pythagoras, namely the (Platonic and Neopythagorean) Monad and the undetermined Dyad, are *disertis verbis* called *principles*. And Plato's θεός at §20 is a principle too, the first of the Middle Platonist triad.

b Number–Order of Lemmata

(1) *In the two main sources:* The (parts of) doxai preserved in P and S can be placed side by side, using the name-labels for identification:

		S[2a]	Homer (1.10.2)
		S[13a]	Heraclitus (1.10.7)
		S[1]	Empedocles (1.10.11)
P1	Thales	S2	Thales (1.10.12a)
P1a	Homer	S3	Anaximander (12b)
P2	Anaximander	S4	Xenocrates (12c)
P3	Anaximenes	S5	Xenophanes (12d)
P4	Anaxagoras	S6	Anaximenes (12e)
P5	Archelaus	S7	Anaxagoras (12f)
		S8	Archelaus (12g)
P6	Ionic Succession	S9	Ionic Succession (12h)
		S10	Philolaus (12i)
		S11	Strato (12j)
P7	Pythagoras	S12	Pythagoras (12k)
P8	Heraclitus and Hippasus	S13	Heraclitus and Hippasus (14a)
		S14	Metrodorus (14b)
		S15	Diogenes of Apollonia (14c)
		S16	Zeno Stoicus (14d)
		S17	Leucippus (14e)
P9	Epicurus (and Democritus)	S18	Democritus (14f)
P10	Empedocles	S19	Epicurus (14g)
P11	Socrates and Plato	S20	Ecphantus (16a1)
P12	Aristotle	S21	Plato (16a2)
P13	Zeno Stoicus	S22	Aristotle (16a3)
P14	Italic Succession	S23	Diodorus Cronus (16a4)

It is immediately apparent that there is a large agreement between the two witnesses, in spite of P's exclusion of a considerable number of mainly short doxai retained by S (who in turn abridges a number of the longer doxai written out in full by P). The only lemma in P that is wholly absent in S is the final comment on the Italic Succession (P14), while S provides different material on Empedocles instead of P10 (apart from the three shared lines of the verbatim fragment 31B6 DK he moved to the beginning of his chapter). This results in a total of 24 lemmata of which 23 contain doxai. The first fruit of this comparison is that we recognize 14 doxai which are shared by P and S and so have to be attributed to A, namely:

§1	Thales	(P1,S2)
§2	Anaximander	(P2,S3)
§3	Anaximenes	(P3,S6)
§4	Anaxagoras	(P4,S7)
§5	Archelaus	(P5,S8)
§6	Ionic Succession	(P6,S9)
§7	Pythagoras	(P7,S12)
§9	Heraclitus and Hippasus	(P8,S13)
§16	Epicurus	(P9,S19)
§19	Empedocles	(P10,S1) (<i>fr. 31B6 DK shared, explanations differ</i>)
§20	Plato	(P11,S21)
§21	Aristotle	(P12,S22)
§23	Zeno Stoicus	(P13,S16)

The order of these shared doxai in the two witnesses also largely corresponds, as we see. But Empedocles is brought forward in S because, as always, he commences his chapter with poetic quotes, among which are included three lines from Homer (1.10.2, 1.10.4, 1.10.6), the first of which has been abstracted from the Thales lemma, as well as a brief poeticized quote dealing with Heraclitus abstracted from the Heraclitus-plus-Hippasus lemma (cf. above, section A(2)). Although the earlier placement of Zeno the Stoic in S is puzzling when compared with P, it is nevertheless justified to retain the order in P as the basic framework for the chapter's reconstruction, as done by Diels, and as will become clearer as the result of our comparison of the three witnesses P, S, and T.

As we saw the one lemma in P not recorded by S is P14 on the Italic Succession. It was inserted (perhaps correctly) by Diels after P7 Pythagoras (his §8) in the left Aëtian column. Consistently, at S12 the anthologist also omit-

ted the words ‘We next have another beginning’ (πάλιν δ’ ἀπ’ ἄλλης ἀρχῆς, sc. next to that starting with Thales also acknowledged at S9), preserved by P as the opening words of P7. S thus obliterates every explicit reference to the Italic Succession. This may help explain the rather chaotic character of his presentation of the evidence. S appears to have interposed ten shorter lemmata (S4–5, S10–11, S14–15, S17–18, S20, S23) within the framework of the order as attested by P, the rationale of which is sometimes quite obscure. To achieve variety he also interposed other material, namely at 1.10.13 a fragment attributed to Theano (*de Piet.*, p. 195 Thesleff) between Pythagoras and Heraclitus-and-Hippasus, and one of a tract from the *Corpus Hermeticum* (4.10, p. 1.53 Nock–Festugière) at 1.10.15 between Epicurus and Ecphantus.

(2) As argued above in section A5, T at CAG 4.9–12 contains the following Aëtian enclave with eight lemmata:

Tiv	Democritus	(~ S18, cf. P9)
Tv	Metrodorus	(~ S14)
Tvi	Epicurus	(~ P9, S19)

(the words κατὰ Δημόκριτον φιλοσοφήσας in the Epicurean doxa P9 are omitted in S19. They presumably are an indication of the original sequence in A)

Tvii	Ecphantus	(~ S20)
Tviii	Plato	(~ P11, S21)
Tix	Aristotle	(~ P12, S22)
Tx	Xenocrates	(~ S4)
Txi	Zeno of Citium	(~ P13, S16)

For the natural cluster of Atomists cf. M–R 2.1.80. T’s lemmata for Democritus, Epicurus, Plato, Aristotle and Zeno which are paralleled in P are listed at 4.9–12 in the same order as in P’s chapter 1.3, so T and P follow the same original order. This order is also followed by S for Democritus, Epicurus, Plato and Aristotle, which confirms this order as original in A. The position of Ecphantus between Epicurus and Plato is matched in S, so is original too. The original position of the Xenocrates lemma, matched in S but found there in an irregular place, is only warranted by its position in T’s Aëtian enclave. The position of the Zeno lemma in S is also irregular, but its original place is warranted by the agreement between T and P.

If next we look for other clusters of lemmata with corresponding name-labels plus doxai in the same order in our main witnesses, the following partial Successions can be discerned (cf. M–R 2.1.76–81):

– Thales (P₁,S₂)

– Anaximander (P₂,S₃)

(in S Anaximander is separated from Heraclitus and Hippasus by two interpolated lemmata, namely Xenocrates and Xenophanes)

– Anaximenes (P₃,S₆)

– Anaxagoras (P₄,S₇)

– Archelaus (P₅,S₈)

– note on Ionic Succession (P₆, cf. S₉)

(in S separated from Pythagoras by two interpolated lemmata, namely Philolaus and Strato, not paralleled in either P or T)

plus

– Pythagoras (P₇,S₁₂)

(in S separated from Heraclitus and Hippasus by a pseudepigraphic Pythagorean text)

– Heraclitus and Hippasus (P₈,S₁₃)

(3) *Relative sequence and remaining problems.* This results in the following relative sequence of which we can be reasonably certain. *Mirabile dictu* it is the same as that of Diels in the *DG* (so we retract our critique of Diels at M–R 2.1.76):

- | | | |
|-----|--------------------------|--------------|
| 1. | Thales | 1.3.1 Diels |
| 2. | Anaximander | 1.3.3 Diels |
| 3. | Anaximenes | 1.3.4 Diels |
| 4. | Anaxagoras | 1.3.5 Diels |
| 5. | Archelaus | 1.3.6 Diels |
| 6. | note on Ionic Succession | 1.3.7 Diels |
| 7. | Pythagoras | 1.3.8 Diels |
| 8. | Heraclitus and Hippasus | 1.3.11 Diels |
| 9. | Leucippus | 1.3.15 Diels |
| 10. | Democritus | 1.3.16 Diels |
| 11. | Metrodorus | 1.3.17 Diels |
| 12. | Epicurus | 1.3.18 Diels |
| 13. | Ecphantus | 1.3.19 Diels |
| 14. | Plato | 1.3.21 Diels |
| 15. | Aristotle | 1.3.22 Diels |
| 16. | Xenocrates | 1.3.23 Diels |
| 17. | Zeno Stoicus | 1.3.25 Diels |

Only limited conclusions can be drawn and differences of opinion will occur regarding the location or relative position of the majority of the other lem-

mata (for details cf. Mansfeld 2018b at M–R 4.265–266), namely that referring to the Italic Succession (1.3.9 Diels) and those with the name-labels Philolaus (1.3.10 Diels), Xenophanes (1.3.12 Diels), Empedocles (1.3.19 Diels), Strato (1.3.24 Diels), Diogenes of Apollonia (1.3.26 Diels), and Diodorus Cronus (1.3.27 Diels). Positions in the Successions that may be preferred are Philolaus after Heraclitus and Hippasus and the note on the Italic Succession after Philolaus (or after Pythagoras), Xenocrates after Plato (in the Succession), or perhaps after Pythagoras (because of a similar dualism), Strato after Aristotle, and Diodorus Cronus after Ecphantus (and not, as in Diels, bringing up the rear). We may place Empedocles before Plato, as in P. Xenophanes and Diogenes of Apollonia belong in the first half of the list rather than in the second, but where one might prefer to put them remains unclear. Diels placed Xenophanes in the first half after Heraclitus and Hippasus and, oddly, Diogenes in the penultimate position of the second half.

Given these problems of our evidence we have in the end been forced to adopt the unsatisfactory procedure of placing the various additional ten doxai in S in the most logical sequence that can be built around the order of doxai in P and T. Fortunately the explanation of the present condition of the chapter, also works for P and T (who have preserved A's order) alone.

c Rationale–Structure of Chapter

(1) *Ethnicon and patronymic*. 21 out of 24 name-labels in the present ch. 1.3 are accompanied by ethnicon and patronymic, though by no means all of them are equally complete. Bottler (2014) 509, 517 and passim oddly believes that this signifies the complicating influence of the genre of biography.

To give only a few examples of passages where the issue is not the *bios* but doctrine: the patronymic plus a reference to the ethnicon is already found in Heraclitus fr. 22B39 DK (ἐν Πιρήνῃ Βίας ἐγένετο ὁ Τευτάμεω). Ethnica are prominently present in Plato's list of Wise Men (*Prot.* 343a); also cf. his remarks about the Eleatics (*Phdr.* 261d, *Sph.* 242d). The ethnica already occur in Aristotle's dialectical overviews, e.g. *Cael.* 1.10 279b16–17 Ἐμπεδοκλῆς ὁ Ἀκραγαντίνος καὶ Ἡράκλειτος ὁ Ἐφέσιος, *Cael.* 2.10 294a22–23 Ξενοφάνης ὁ Κολοφώνιος and 29–30 Θαλῆν τὸν Μιλήσιον, and—coupled with a relative chronology—*Mete.* 2.7 365a17–19 Ἀναξαγόρας τε γὰρ ὁ Κλαζομένιος καὶ πρότερον Ἀναξίμανης ὁ Μιλήσιος ἀπεφάναντο, καὶ τούτων ὕστερον Δημόκριτος ὁ Ἀβδηρίτης. The patronymic is added in Theophr. *Phys.Op.* fr. 1 Diels = 225 FHS&G (Θαλῆς μὲν Ἐξαμύου Μιλήσιος), *Phys.Op.* fr. 2 Diels = 226A FHS&G (Ἀναξίμανδρος μὲν Πραξιάδου Μιλήσιος, Ἀναξίμανης δὲ Εὐρυστράτου Μιλήσιος), *Phys.Op.* fr. 4 Diels = 228A FHS&G (for Ἀναξαγόρας μὲν γὰρ Ἡγησιβούλου Κλαζομένιος), and *Phys.Op.* fr. 6 Diels = 227C FHS&G (verbatim ἐν τῷ πρώτῳ Περὶ τῶν φυσικῶν—*Physics*, as we saw—,

Παρμενίδης Πύρητος ὁ Ἐλεάτης). Master–pupil relationships are already included in Plato, Aristotle, and Theophrastus.

(2) *Various diaereses/diaphoniae*. With regard to contents various diaereses or diaphoniae can be distinguished: (1) according to number (of principles, elements, or causes), viz. between monists and (several types of) pluralists, cf. M–R 2.1.83; (2) between those who accept and those who reject coming to be and passing away; (3) between those who posit corporeal principles or elements only and those who posit or include incorporeal elements; and (4) between those who fail to distinguish between principle(s) and element(s) (Thales, Anaximander, Anaximenes, Anaxagoras, Heraclitus and Hippasus etc.) and those who do (Empedocles, Socrates and Plato, Aristotle, Zeno). Some of these contrasts go back a long way (see also below, section D(e)).

(3) *The Successions principle*. According to Diels *DG* 178–180 the Successions principle, however confusedly applied, is the only (or at least the main) rationale of the present chapter, which as he allows, however, also contains Theophrastean ingredients. This analysis was endorsed by Schofield (1975) 3–4. Referring to Diels' view Lachenaud (1993) 209 too speaks of a 'confusion entre le schéma d'exposition propre aux doxographes et celui des διαδοχαί.' The comment is worthwhile, but he seems to misunderstand Diels' point and omits to tell us what this doxographical scheme would be.

At M–R 2.1.76 we admitted to being unable to provide a better or even an alternative reconstruction than that of Diels in the *DG*. So we limited the inquiry to the investigation of 'particular clusters of name-labels that occupy the same, or about the same, sequential arrangement in the three main sources' (for which see now also above, section D(b)). Most of chapter 7 of our earlier book, M–R 2.1.72–90, concentrated on this analysis. Cf. Journée (2014) 37, who points out that S's chapter on the principles, which 'abondamment utilise Aétius', results in 'un texte dont l'ordre général reste ... difficile à expliquer'. See also *ibid.* 46–53 his comparison of P, S and T. Since then, however, we have made considerable progress.

(4) *Successions plus diaeresis according to number*. On the basis of all the considerations above we now believe that the best explanation for the confused and confusing order of the lemmata in our chapter is that it is the result of the *interweaving* of a sequence determined by a diaeresis according to number with the other form of organization already mentioned above, viz. that according to Successions. This interweaving also took place in ch. 1.7.2–25, which deals with the principles qua divinities; see below, ch. 1.7 Commentary D(c). An earlier example of a sequence of physical principles according to number that has been reorganized according to Succession is Cicero *Luc.* 118 (cited below section E(a) General texts), for which see Mansfeld (1989b).

It is generally agreed that the chapter (at least explicitly as to its first part) is set out according to the Successions model originally designed by Sotion. This structure is explicitly assigned in §1 (P) and §6 (P and S) to the Ionic *diadoche/hairesis* beginning with its archegete Thales, and in §7 and §8 (P alone) to the Italic *hairesis* beginning with its archegete Pythagoras. Note that P uses the words διαδοχή (here only), αἵρεσις ('sect'), and φιλοσοφία interchangeably, while S does not use διαδοχή. The date of Sotion in the first third of the second cent. BCE gives us the t.p.q. for this crucial modification of the chapter, and for the whole of the *Placita* insofar as the Successions template plays a (relatively modest) part in the treatise (for the latter see Jeremiah at M–R 4.314–319).

Diaeresis according to number is first found in Gorgias. It was perfected by Aristotle and Theophrastus, and widely applied by later authors: varieties of monists versus pluralists, the latter divided into finitists and infinitists, and those who accept movement and those who do not. See e.g. Mansfeld (1989b) 138–148, Viano (1995) 112–126, M–R 2.1.154–157 (with references), and for more details also below, section D(e) General points. It also underlies the structure of the chapter dealing with corporeal theories, or the elemental constitution, of soul; see ch. 4.3 at Commentary (D)(c.). We posit that this was the original arrangement of ch. 1.3, before the application of the Successions scheme, though it is no longer entirely clear what it may have looked like. The presence of Peripatetic-sounding criticisms in several lemmata of ch. 1.3 will also date from the phase *before* it was reconstructed according to the pattern of the Diadochai.

As a result we have the following sequence, which from the point of view of the number of principles is irregular:

- §§1–3 Thales, Anaximander, Anaximenes: 1 material principle;
- §4 Anaxagoras: many material principles plus 1 efficient cause;
- §5 Archelaus: 1 material principle that splits up into two;
- §7 Pythagoras: many principles, viz. numbers and proportions, and (equally many?) elements, viz. the geometricals derived from these principles. Also 2 principles, viz. the Monad and the Indeterminate Dyad (the latter related to matter);
- §9–11 Heraclitus plus Hippasus, Diogenes, Xenophanes: 1 material principle;
- §12 Philolaus: 2 principles;
- §§13–15 Leucippus, Democritus, Metrodorus: 2 kinds of principles;
- §16 Epicurus: infinitely many material principles in the void (presumably qua other principle);

- §17 Ecphantus: 2 kinds of principles;
- §18 Diodorus Cronus: infinitely many material principles;
- §19 Empedocles: 4 elements, 2 principle-like powers;
- §20 Socrates, Plato: 3 principles;
- §21 Aristotle: 3 principles 4 + 1 elements;
- §22 Xenocrates: 2 principles/elements;
- §23 Zeno: 2 principles 4 elements;
- §24 Strato: 2 elements.

The arithmetic becomes a bit complicated because not only principles but also elements are counted. But things actually become quite simple as soon as we realize that §§1–3 + §§9–11 are about monists and §§4–5 + §7 + §§12–24 about pluralists, that is, are distributed in keeping with the standard diaeresis according to number. It is this primary diaeresis that is *disturbed* because of the combination with the Successions criterion.

The pluralist Pythagoras in §7 qua archegete of his *hairesis* simply *had* to be inserted before the (Pythagorean) monist ‘Hippasus of Metapontum’ in §9, who belongs with the Italic Succession also because of his ethnicon. Conversely, the pluralist Anaxagoras in §4 had to be separated from the other pluralists further down because of his firm position in the Ionic Succession, and moved upwards. Archelaus (§5) followed his master Anaxagoras upwards also because of the Succession. The single principle, air, namely that of Anaxagoras’ purported teacher Anaximenes, which is attributed to Archelaus here—for another tradition, which paradoxically enough makes his relation to Anaxagoras as his master clearer than the present one see below, section D(d)—splits up into two, viz. the elements fire and water. Therefore he may originally have occupied a position as a sort of *Übergangsfigur* between the monists and the pluralists, before the imposition of the Successions model.

These decisions apparently made it difficult or unattractive to separate the next Ionians, i.e. Diogenes and the Socratic line or lines, neatly from a line or lines of later Italians. Also note that Μιλήσιος, the only ethnicon here of Leucippus (no mention of the alternatives Ἐλεάτης or Ἀβδηρίτης as at Diogenes Laertius *V.P.* 9.30), may cause confusion. §8, which in retrospect tells us that ‘[t]he school of thought of these men has been named the ‘Italic’’, was placed by P at the end of his limited series of excerpts and omitted by S, which shows that both P and S did not really know where to put it in the doxai sequence (already jumbled in A). As a matter of fact the respective decisions of S and P were not such a bad idea in view of this fuzzy state of affairs. Diels relocated the lemma immediately after §7—certainly with some justification, because the Pythagoras lemma at line [71] also speaks of the Pythagoreans in the plural. We have followed his example for want of a better alternative.

As we follow the remaining doxai down, the block §§11–16, from Xenophanes via Philolaus, Leucippus, Democritus and Metrodorus to Epicurus, may be viewed as part of the Italic Succession, as in the account of the two Successions of Diogenes Laertius at *V.P.* 1.15. In other sources such as the one used by T for *CAG* 2.9–11 and important parts of 4.5–12, they may be included in a third, namely the Eleatic Succession beginning with the Xenophanes also found in T. §§20–24 present us with various branches of the Ionic Succession all descending from Socrates: Plato and Xenocrates represent the Early Academy, Aristotle and Strato the Peripatos, and Zeno the Stoa. The Hellenistic philosophers Zeno and Strato appropriately bring up the rear.

Accordingly the two main Successions break down into several sub-Successions and even individual master-pupil relationships, or διαδοχαί in the individual sense. This may explain why A at P1 (§1[4]) says that there ‘were quite a number of Successions of philosophy’ (ἐγένοντο γὰρ πλείσται διαδοχαί φιλοσοφίας), see M.-R. 1.2.74. ‘Succession’, strictly speaking, is from one person to another and only then applicable to a whole line. Compare the first sentence of Theophrastus *Sens.* 1 ‘the numerous different doxai concerning sense perception, when regarded from a general point of view, are two (sets)’ (περὶ δ’ αἰσθήσεως αἱ μὲν πολλαὶ καὶ καθόλου δόξαι δὴ εἰσὶν); or Sextus Empiricus *M.* 9.359 (full text quoted below, section E(b) General texts): ‘concerning the highest and most primal elements there are two primary positions, with several more subdivisions’ (δύο μὲν αἱ πρῶται γεγόνασι στάσεις, πλείους δὲ κατ’ εἶδος). A motive for placing the lemma with the backward glance at the Ionic Succession at §6, after Archelaus, is perhaps found in the remark of Diogenes Laertius *V.P.* 2.16 that ‘natural philosophy ended with him’ because Socrates (i.e. the next in line) introduced ethics. Also cf. *V.P.* 1.18, ‘The physical part (of philosophy) lasted until Archelaus’.

(5) *Content of doxai.* There are also traces of systematic arrangement based on content of doxai: §17 the Pythagorean Atomist Ecphantus has been tacked on to the Atomists of §§13–16 and not straightaway to the Pythagorean Succession (as represented by §7 Pythagoras or §12 Philolaus). Diodorus Cronus in §18, too, has been attached to the Atomists although, as a Socratic, he belongs with the Ionic Succession. §10 Diogenes and §11 Xenophanes perhaps follow each other in view of their material principles air and earth, not far from §9 Heraclitus and Hippasus with fire, though §19 Empedocles with all four elements is far away. Empedocles §19, as we have seen, introduces the block of doxai that alternate between principles plus elements and principles or elements alone.

(6) *The Milesians and Anaxagoras.* The first four lemmata moreover form a particular ensemble. A further structural arrangement in various ways characterizes each of §§1–4, the three Milesians (see Alt 1973, 139–140, 153–154) plus

Anaxagoras. At §§1–4 we in each case find (a) personal identification plus principle; (b) a formula for change from the principle and back to it (a maxim ultimately deriving from Arist. *Met.* A.3 983b6–13, cited section E(b) §§1–3); (c) an explanatory comment. §§2–3 add (d) a strong criticism, §4 the opposite of this criticism in the form of an eulogy. The greater part of this arrangement is paralleled at §9 (Heraclitus and Hippasus): (a) personal identification plus principle; (b) formula for change from the principle and back; (c) explanatory comment. No criticism or eulogy here. This structure is quite similar to that of the fragments of Theophrastus on the principles of Anaximander (*Phys.Op.* fr. 2 = 226A FHS&G) and Heraclitus (*Phys.Op.* fr. 1 = 225 FHS&G) and some related texts analyzed by Schwabl (1964) 61–64, where we also find the ingredients (a), (b) and (c). See also below, section D(d)§1.

(7) *Eleatic position of Anaxagoras.* An important diaphonia between the Milesians and Heraclitus plus Hippasus on the one hand and Anaxagoras on the other, amounting to a further structural element, is that the former explicitly accept coming to be and passing away, while the latter (as *de facto* the only representative of Parmenidean ontology in the chapter) rejects it: §1 Thales [5–6] ἐξ ... εἶναι + εἰς ... ἀναλύεσθαι, §2 Anaximander [15–16] ἐκ ... γίνεσθαι + εἰς ... φθείρεσθαι, §3 Anaximenes [24] ἐκ ... γίνεσθαι + εἰς ... πάλιν ἀναλύεσθαι, §9 Heraclitus and Hippasus [93–94] ἐκ ... γίνεσθαι + εἰς ... τελευτᾶν, versus §4 Anaxagoras [34–35] πῶς ἐκ τοῦ μὴ ὄντος δύνανται τι γίνεσθαι ἢ φθείρεσθαι εἰς τὸ μὴ ὄν; Elsewhere in this chapter hints at coming to be and passing away are only found in §16 Epicurus Democritus [111–112] ἀγέννητα, ἀδιάφθαρτα and §20 Socrates Plato [145] τὸ ὑποκείμενον πρῶτον γενέσκει καὶ φθορᾷ; hints at coming to be only at §21 Aristotle [149] τῶν γενητῶν.

(8) *Dialectical scrutiny.* The critique addressed at both §2 Anaximander and §3 Anaximenes is that they made the serious mistake of positing only the material cause and omitting the efficient cause. This ultimately derives from Aristotle *Met.* A.3 984a17–27 and 8 988b22–28 (where note ἀμαρτάνουσιν, cited section E(b)§3 and §2, and cf. below, section D(d)). We may however observe that Aristotle elsewhere (*GC* 2.3 330b9–13) argues that those monists who generate things through condensation and rarefaction in fact posit two principles, the rare and the dense, or the hot and the cold, ‘for these are the demiurgic forces, and the one underlies them as matter’ (ταῦτα γὰρ τὰ δημιουργοῦντα, τὸ δ’ ἐν ὑπόκειται καθάπερ ὕλη). This is tantamount to granting them, or at any rate the likes of Archelaus, a preliminary notion of the efficient cause. Also cf. *Mete.* 4.1 378b10–13, cited section E(b)§21. More clearly so Theophrastus *Phys.Op.* fr. 6 Diels (= 227C FHS&G, 28A7 DK) at Alexander of Aphrodisias *in Met.* 31.13–14 (verbatim) on Parmenides: δύο ποιῶν τὰς ἀρχάς, πῦρ καὶ γῆν, τὸ μὲν ὡς ὕλην τὸ δὲ ὡς αἴτιον καὶ ποιοῦν. It is brought against the leading Atomists by Cicero *Fin.*

1.18, quoted below, section E(a) §2 and §3. It must have been acceptable from a Stoic point of view as well, see §23 Zeno and cf. the texts quoted ad loc., section E(a)&(b). That a serious attempt was made to blunt this arrow by upgrading the doxa is clear from a note in ch. 1.7.4 below: ‘Anaximenes (says that the deity is) the air. Statements such as these *should be understood* as referring to the powers that pervade through all parts of the elements or the bodies’.

Alt (1973) 141–142 believes, perhaps correctly, that this censure is not leveled against Thales in §1 because Aristotle *de An.* 1.2 405a19–21 (Thales fr. 31 Wöhrle) cited the attribution to him of the idea that the soul is a ‘motive force’. But the ‘statements’ in ch. 1.7.4 include that of Thales at ch. 1.7.2 (though not that of Anaximander at 1.7.3). We recall that another dialectical arrow had already been shot at Thales in ch. 1.2, and may add that at ch. 4.2.1 below he is said to have been ‘the first to declare that the soul is a nature that is ever-moving, or rather self-moved’—which however does not yet turn it into the efficient cause (τὸ ποιῶν) required here.

The specific criticism addressed at Anaximander in §2 of the present chapter is that he fails to tell us which of the standard elements the Infinite should be identified with (that is, he fails to tell us τί ἐστὶ: question type of substance), which derives from Aristotle *GC* 2.1 329a8–13, cited section E(b)§2. In Theophrastus *Phys.Op.* fr. 2 Diels (= 226A FHS&G) we also read that he fails to identify the Infinite with one of the standard elements (λέγει δὲ αὐτὴν μήτε ὕδωρ μήτε ἄλλο τι τῶν καλουμένων εἶναι στοιχείων), but here the explicit criticism of *GC* 2.1 329a8–13 as well as that concerned with the efficient cause are lacking.

Anaxagoras at §4 on the other hand is applauded for adding the efficient cause. This ultimately derives from Aristotle’s eulogy at *Met.* A.3 984b15–20 followed by Theophrastus *Phys.Op.* fr. 4 Diels (= 228A FHS&G), both cited section E(b)§4. Alt (1973) 139 posits that the majority of the lemmata of 1.3 contain a hint (‘Hinweis’) at the efficient cause, but this is true of only six among twenty-three, viz. §7 and §§19–23. However the reference to the missing cause or principle (which could have been added in §9–11) makes the diaphonia between monists and pluralists even more explicit.

(9) *Interpretative techniques.* Interpretation, in Antiquity, often entails eliciting the ‘real’ intention or meaning of a statement or view believed to be insufficiently clear, or in need of exemplification. Aristotle applied this interpretative technique to the tenets of, for instance, Thales, Anaximander, and Empedocles. The Aëtian explanatory comment (c) at §1 (Thales) derives with certain modifications from his not implausible but hypothetical explanation at *Met.* A.3 983b622–628 (sperm is moist etc.), followed by Theophrastus *Phys.Op.* fr. 1 Diels (= 225 FHS&G), both cited at section E(b)§1; cf. Alt (1973) 140–141. (A similar but Stoicized comment on Thales is found at Heraclitus *All.Hom.* 22.3–

5). The explanatory comment (c) at our §2 (Anaximander) derives from one of Aristotle's suggestions at *Phys.* 3.4 203b18–20 (coming to be should never fail), cited at section E(b)§2 (cf. Alt 1973, 142–143). There is no evidence or proof that Anaximander provided this comment himself.

But the explanatory comment (c) at §2 (Anaximenes: 'just as our soul, being air, holds us together and dominates us, so air contains the whole cosmos') cannot be derived from such a remark of Aristotle or Theophrastus. Though both the wording and the thought are disconcerting (the overworked compositum συγκρατεῖ is late and somewhat unusual; for ψυχή and κόσμος in something like the sense required here we apparently have to wait till Heraclitus at the earliest; the idea that the soul holds the body together is first paralleled in Aristotle; a form of the microcosm–macrocosm analogy is first attested for Democritus), the statement or its separate halves are widely believed to go back in some way to Anaximenes himself (this is of course true for air as the principle). It has been argued (e.g. Alt 1973, 155–156) that the reference to the soul is awkward because it is generally seen as a motive force, so the criticism based on the absence of the efficient cause loses its point. One could also argue that the comment is unfortunate because the cohesive and containing, i.e. preserving, impact of soul and air fails to illustrate coming to be from and passing away into the principle. But the aim of the comment is merely to prove by analogy that air is the principle: as it is in our bodies, so it is in the universe. See further below at section D(d) individual points, §3.

What follows is that, just as in §§1–3, the elucidation of the ontological maxim derives from Aristotle, or rather from an upgraded version of what is in Aristotle.

d Further Comments *General Points*

The chapter is a mixed bag. Quite a few lemmata are quite lengthy and are written in an expository style, namely §§1–5, 7, 9, 16, 20–21, and perhaps 19. §7, expounding a Neopythagorean system, is even the third longest of the whole treatise (see at (d)§7 below). But §§10, 12–15 and 24 are typically terse and elliptic 'oneliners' consisting of name-label in the nominative plus tenet in the accusative plus (only in the present chapter, four cases) ethnicon and/or patronymic or affiliation-label. And five of these belong to early philosophers: §10 Diogenes (tenet deriving from Theophrastus, see at §10 below), §12 Philolaus, §13–15 Leucippus–Democritus–Metrodorus, §§17–18 and 20–23 are very terse, consisting of elliptic first sentences with name-label etc. and tenet followed by concise explanations of terminology. Also noteworthy is that the latest philosophers listed are Zeno the Stoic, Diodorus Cronus and Strato.

Date. Alt (1973) 153 argues that the chapter cannot be much later than the early Hellenistic period, since the last physicists to be listed (Zeno Stoicus and Strato of Lampsacus) provide a t.p.q. But such a relatively early casting is found in quite a few other *Placita* chapters without entailing an early date for the chapter itself. The synchronism of Pythagoras and Polycrates in §8, first mentioned by Aristoxenus, probably derives from Apollodorus (second half of 2nd cent. BCE), cf. Mosshammer (1979) 278. The use of αἵρεσις to denote a Presocratic school of thought can hardly be posited before works bearing the title Περί αἱρέσεων, such as those composed by Clitomachus (Diogenes Laertius *V.P.* 2.92, fr. 10 Mette) or Panaetius (*V.P.* 2.87, T 141 Alesse) had become part of the standard literature. The combination Ἰωνικῇ αἵρεσιν at §1[3] is a *hapax*, while §8[90] αἵρεσις Ἰταλική is only duplicated at T CAG 1.55. Several rare words are not paralleled earlier than the first centuries CE, viz. §3[25] συγκρατεῖ, §7[82] χρεμετιστικός in a standard definition, §16[112] διαπλάσμός, and §16[120–121] ἀγκιστροειδής, τριαινοειδής and κρικοειδής (for such words on –ειδής see below, chs. 2.2.2, 2.17.2, 3.15.9). The final version of the chapter as a whole cannot be earlier than its most recent vocabulary.

The phrase ἀρχή or ἀρχαὶ τῶν ὄντων, applied to §1 Thales, §2 Anaximander, §3 Anaximenes (twice), §4 Anaxagoras (twice), and §16 Epicurus, is originally Aristotelian (e.g. *Met.* A.3 983b11 the majority of the early philosophers, A.4 985b25 the Pythagoreans, A.5 986b3 the Pythagoreans and Alcmaeon; *Phys.* 1.6 189b13 an ‘early view’, 2.3 203a3–4, the Pythagoreans and Plato). Then once in Theophrastus (on Anaximander, *Phys.Op.* fr. 2 Diels = 226A FHS&G at Simplicius in *Phys.* 24.14–15). Among the *testes proximi* it is paralleled at Hippolytus *Ref.* 1.6.2 (Anaximander). In A ὄντα in the required sense are only paralleled at ch. 1.7.13 (Heraclitus, S only).

Individual Points

§1 We have kept P’s text, rejecting Diels’ bracketing of ὅς and addition of S’s γάρ in the text of P, an intervention in support of his view that the mini-biography of Thales which in this form is absent in S, but still part of the revision according to Successions of this chapter, should be attributed not to A but to P. The absence of ὅς from S and the presence of γάρ in S are necessary because of S’s abridgement of §1. S inserted part of the material he omitted here in his version of §6 (see also below), which proves that the mini-biography was to be found in A after all. The whole of §1[2] δοκεῖ ... [5] ὅς will have been interpolated in an earlier version of the lemma when the chapter was revised to accommodate the Successions template. Because of the parallel formula for change from the principle and back to it in §2[15–16] (Anaximander), §3[24] (Anaximenes), §9[94] (Heraclitus and Hippasus) the part of the sentence from [5] ἐξ to [6] ἀναλύε-

σθαι may derive from A. The formula ultimately derives from Aristotle *Met.* A.3 983b6–13, who applies it to the ‘majority of the first philosophers’ (τῶν ... πρώτων φιλοσοφησάντων οἱ πλείστοι), and continues with Thales. But we note that Theophrastus applies it to Anaximander (*Phys.Op.* fr. 2 Diels = 226A FHS&G) and to Hippasus and Heraclitus (*Phys.Op.* fr. 1 Diels = 225 FHS&G) but not to Thales. Extending it to Thales must be a later development. See also above, section D(c).

Bottler (2014) 68, who apparently fails to see where P₁ is paralleled in S, adverts to a purported similarity of P’s paragraph with Porphyry’s custom (according to T CAG 2.95–96) of providing both doxai and bios, and recalls T’s remark that A and P provided (only) doxai. Nevertheless she is prepared to grant the passage to P, who then would be more than a mere epitomator, namely an author adding material of his own accord. But this again is to neglect the striking parallels in S. We may add that S abridged several other lemmata as well, namely §2, §3, §4, §7, §9 and §16 (see above, section A(2)); so he also abridged §1.

We have also refrained from following Diels’ example in giving Homer a separate lemma, as this would clearly interrupt the chronological sequence of Ionians, as noted at M–R 2.1.77. For S’s location of the line see above, sections A(2) and D(b).

In earlier publications we have made various suggestions about the provenance of these passages on Homer in P and S (cf. also Diels *DG* 95, 170). We now believe that the evidence of P is sufficient and reliable, because a Homeric line is included as part of the tradition ever since the authority cited by (and so via) Arist. *Met.* 1.3 983b30 (cf. Alt 1973, 142). Aristotle’s paraphrastic Ὠκεανὸν τε γὰρ καὶ Τηθὺν ἐποίησαν τῆς γενέσεως πατέρας refers to *Il.* 14.201 (= 14.302), subsequently cited in relation to Thales in Iren. *Haer.* 2.14.2, S.E. *M.* 10.314, Calc. in *Tim.* c. 280 and Prob. in *Buc.* 6.31, p. 344.14–15 Hagen. But P cites the other line, *Il.* 14.246 Ὠκεανοῦ (changed, as in the parallel passages, to nominative Ὠκεανός) ὃς περ γένεσις πάντεσσι τέτυκται, found in relation to Thales also Heracl. *All.* 22.3–6, ps.Iust. *Coh.* 5.42, and ps.Plut. *Vit.Hom.* 2.93. These passages have been quoted below, section E(a)§1 and section E(b)§1; a glance at the apparatus of West (2000) *ad locos* shows that *Il.* 14.201 is cited more often than 14.246.

The first reason why A prefers *Il.* 14.246, we believe, is that Oceanus *alone* qua ‘origin for all things’ can with greater likelihood be claimed as being similar to, or even anticipating, Thales’ monistic principle. Secondly, *Il.* 14.201 is too mythological, or theological. In the present lemma, A and the tradition he depends on and/or shares, are not concerned with so undeniably a mythological figure as ‘mother Tethys’, but with water as the *arche*. For A’s secular preferences see above, ch. 1.1, Commentary D(c) *ad finem*. Note the formula διὰ τοῦτο καὶ Ὅμη-

πος. The reasons for Thales' assumption originally hypothesized by Aristotle are here attributed to Homer, too, which gives further point to the latter's πάντεσσι: Oceanus, too, is a general principle. T CAG 2.9 (T1) cites the other text, *Il.* 14.201, so here is closer to the Peripatetic tradition, as noted by Diels *DG* 170.

§§2–3 For ἀμαρτάνει ... οὔτος and explicit dialectical argument in the *Placita* see above at ch. 1.2, Commentary D(d)(3); also ch. 1.7, Commentary D(d), individual points §1[35].

§2 Here and in the next two lemmata S records the patronymics of the philosophers Anaximander, Anaximenes and Anaxagoras. Given that P (who abridges here) reverts back to giving a patronymic to Archelaus in §5, it is as good as certain that he left them out rather than that S added them (but in this chapter S too abridges elsewhere, most extensively in §7).

Anaximander was first inserted into a proto-Succession by Theophrastus, see *Phys.Op.* fr. 2 Diels (= 226A FHS&G), where he is the pupil of Thales and then himself the teacher of Anaximenes.

§2[16] ἀπείρους κόσμους: a garbled version of Anaximander's view, for which see e.g. Mansfeld (2011a).

§2[17–18] λέγει γοῦν διότι ἀπέραντον ἐστίν, ἵνα μηδὲν ἐλλείπη ἢ γένεσις ἢ ὑφισταμένη. The formula λέγει γοῦν, here both in P and S midway a paragraph, as a rule introduces verbatim quotations, so we may interpret what follows as the paraphrase of a purported quotation. In S it is as a rule used to tack on such quotations, for instance from the *Timaeus* (cf. Diels *DG* 75, 216, Jeremiah at M–R 4.286, 353). Aristotle too uses it a few times to announce verbatim quotations, though once what follows is a paraphrase, see *GC* 1.1 314a13–15 (Anaxagoras 59A52 DK); cf. e.g. Plutarch *CN* 1077D (*SVF* 2.1064). The quasi-Anaximandrian paraphrase ἵνα μηδὲν ἐλλείπη ἢ γένεσις ἢ ὑφισταμένη derives from Aristotle *Phys.* 3.4 203b18–20 (cited below section E(b)§2), while ἀπέραντον (first found Pindar *Nem.* 8.38) varies the standard ἀπειρον already paralleled in Homer.

§3 The contrast with the previous lemma indicated by the particle δ(έ) is between Anaximenes' air and Anaximander's inability to say whether the principle is air etc. S omits καὶ οὔτος because he interpolated Xenocrates Xenophanes between the two Eleatics.

The striking parallels with this purported Anaximenes fragment as to content and structure found in later authors show that this particular form of parallelism between human soul and cosmos should not be dated before the early Hellenistic period. These authors are Chrysippus and Posidonius cited at Diogenes Laertius *V.P.* 7.138, Diogenes of Babylon cited by Philodemus, Varro cited by Tertullian, and Cornutus (Varro and Philodemus, to the best of our knowledge, are never mentioned in this context); they are cited at section E(b)§3

below. What we have here is a routine explication of what was believed to have been left unexpressed by the early physicist. On φησιν as not introducing formal quotations or even as introducing bogus quotations see the material collected by Kerschensteiner (1962) 76–77 n. 4, and cf. §7[74] καὶ ἡ ἡμετέρα ψυχὴ, φησὶν, ἐκ τετράδος σύγκειται (our emphasis), which likewise focuses on the parallel between the human soul and something constitutive of reality in general. The phrase ἡ ἡμετέρα ψυχὴ (§3[24–25] and §7[74]) is only paralleled as late as Plotinus *Enn.* 5.1[10].10.11 and later. One of the best parallels for the Aëtian pseudo-quotation of the Anaximenean doxa is provided by Philoponus, a phrase (cited section E(a)§3) that cannot count as independent evidence. The suggestion of Alt (1973) 157–161 that Anaximenes was confused with Diogenes of Apollonia has not been successful. As a matter of fact Anaximenes is very safe because of his unassailable position in the Ionic Succession, which is operative also here. But we note the absence of the theory of condensation and rarefaction attested elsewhere for him, which in our present chapter has been shifted to Archelaus (§5) and Heraclitus and Hippasus (§9). See further Mansfeld (2018e).

§4 We have not followed Mau and others in converting the Anaxagorean quote into archaic language. The verbal form διήρε is not standard Greek. The quote has been modernized by A or a predecessor. For further examples see Sextus Empiricus *M.* 9.6, Diogenes Laertius *VP.* 2.6, and Hippolytus *Ref.* 1.8.1 (59A42 DK) cited section E(a)§4.

Just as in §§1–3, an ontological maxim is followed by an explanatory passage, here dealing with foodstuffs as the source of a generous collection of parts of the human anatomy. In support of the genuine Anaxagorean origin of this maxim a purported ontological fragment (verbatim) extant in a late scholion on Gregory of Nazianzus (59B10 DK) used to be quoted widely, but the doubts of Schofield (1980a) 106 and 136–107 have now been vindicated by a discovery of Gemelli Marciano (2010) 155–159. This so-called fragment has been formulated by Psellus, who turns out to be an important source of the scholion and the originator of the pseudo-quotation. At best there is Aristotelian precedent for part of its contents, viz. of the opposites black and white and of soft *homoiomere* ('uniform parts') such as flesh and of hard *homoiomere* such as hair. Aristotle provides this information when discussing Anaxagoras' main doctrine in the *Physics*, and when discussing spermatology in the *De generatione animalium*. We prefer the translation 'tendons' for νεῦρα instead of 'nerves' (which would produce an anachronism comparable to the presence of entities only 'discerned by reason'), because the νεῦρα are listed together with the bones (ὀστᾶ), not with the arteries and veins. Veins, arteries and tendons are already mentioned together in ps.Aristotle *De spiritu*, e.g. 3 483b12–16. A remarkably similar

doctrine concerning the *homoiomere* of the body as ‘discerned by reason’ is provided by the Anon. Londiniensis, who attributes it to Erasistratus. The texts at issue are cited below at section E(a)§4 and section E(b)§4.

§5 Archelaus is never mentioned by Aristotle, but added to the early physicists by Theophrastus at Simplicius in *Phys.* 27.23–26, who briefly cites him and attributes ‘the same principles’ to him as to Anaxagoras, whose ‘pupil’ he is (*Phys.Op.* fr. 4 Diels = 228A FHS&G). The attribution of air as principle, not in Theophrastus, is also found at ch. 1.7.5 (and cf. ch. 4.3.2, where Anaximenes, Archelaus and others declare the soul is air-like). This attribution is paralleled at Sextus Empiricus *M.* 9.360, so A is not alone. According to Theophrastus—who presumably corrects a general statement of Aristotle (*Met.* A.4 985b10–12) and in his turn is contradicted by Simplicius who refers to this statement—compression and rarefaction are valid for Anaximenes alone (cf. above, section D(d)§3, and below, texts at section E(b)§5). ‘Fire’ and ‘water’ are presumably paralleled at Diogenes Laertius *V.P.* 2.16, δύο αἰτίαι εἶναι γενέσεως, θερμὸν καὶ ψυχρόν. The link with Anaximenes is not confirmed by Theophrastus, Hippolytus, and Augustine, who posit that Archelaus followed Anaxagoras in assuming the *homoiomereiai*. These two traditions are difficult to reconcile with each other, though attempts have been made. Betegh (2013) 8 n. 18 prefers the version of A. For Aristotelian precedent for the attribution of a notion of the efficient cause to Archelaus see above at section D(c).

§6 The fact that οὔτοι μὲν οὖν ... φιλοσοφίαν is identical in P and S, and that S continues with a paraphrase of part of §1 omitted in his own abridged version of §1, proves that these references to the Successions were already to be found in A.

§7 The Pythagoras lemma with its 381 words is the third largest of the *Placita* and by far the largest devoted to a single philosopher and his immediate following. It is also exceptional in providing a brief overview of the physics of a philosopher and his followers as a whole, i.e. including epistemology, rather than of the principles of physics in a narrow sense. This makes Pythagoras the protagonist of the chapter. The reason probably is not that A felt attracted to Pythagoreanism (in chs. 1.titulus et index & 1.1 we have noticed a preference for the Peripatos), but because Platonizing Pythagoreanism had become an unavoidable factor on the philosophical scene from the time when the traditions on which he depends took shape. These began with the Early Academy, as presumably already attested also by Theophrastus, and are very much present from the second century BCE, see e.g. Gaiser (1963a) 475, Burkert (1972) 15–96, Dillon (2003) 56–59, Dillon (2010), (2014), A.A. Long (2013) 145–146; contra Zhmud (2013b).

That the *Placita* tradition accepts and applies this unhistorical but creative and highly influential construction is very clear from ch. 2.6.5–6, where A at P comments on the relation, established as we know at *Tim.* 53c–55c between the five regular bodies and the elements plus the sphere of the All, but here attributed to Pythagoras with the words ‘Plato in these matters too Pythagorizes’ (Πλάτων δὲ καὶ ἐν τούτοις πυθαγορίζει). This, by the way, is the first time the verb occurs in relation to doctrine rather than lifestyle. The attribution of Plato’s view to Pythagoras at A 2.6.5 is paralleled at Ach p. 17.10–13, who however speaks of ‘the Pythagoreans’. See M–R 2.2.386. Also cf. *Ethical Doxography A* at *S Ecl.* 2.7.3f, p. 49.18–21 εἴρηται (sc. ὁμοίωσιν θεῷ) δὲ παρὰ Πλάτωνος κατὰ τὸ τῆς φιλοσοφίας τριμερές, ἐν Τιμαίῳ (90a–d) μὲν φυσικῶς, προσθήσῃ δὲ καὶ Πυθαγορικῶς, σημαίνοντος ἀφθόνως τὴν ἐκείνου προεπίνοιαν. See also M–R 2.1.85–86.

The long lemma may be subdivided into five sections: (1) §7[54–55 (προσ-)αγορεύσας] Pythagoras as archegete, name patronymic ethnicon; first finder motif; (2) §7[55 ἀρχᾶς—57] numbers doctrine similar to that attributed to the Pythagoreans by e.g. Aristotle and Cicero; (3) §7[58–61] Neopythagorean, i.e. Platonized account (One and Indefinite Dyad as principles), cf. above, this section ad init., and below, this section §7[55–89] and the very similar passage ch. 1.7.9; (4) §7[62–73] continuation and illustration of the numbers doctrine of §7[55 ἀρχᾶς—57], ending with the oath and thus commencing psychology and epistemology; and (5) §7[74–89] Neopythagorean, i.e. Platonized interpretation of the oath in epistemic terms. The transition is signaled by §7[58] πάλιν δέ.

At a first glance section §7[74–89] dealing with the soul and epistemology will surprise in a chapter *disertis verbis* dealing with the *archai*. But the excerpt of ps.Archyta’s Περὶ ἀρχῶν, *On Principles* (*de Princ.*) cited S 1.41.5 ~ p. 36.13–37.12 Thesleff, is also about epistemology—which is why Thesleff adds this excerpt to ps.Archyta’s Περὶ νοῦ καὶ αἰσθήσεως, *On Intellect and Sense-Perception* (*de Intell.*) cited by S further down at 1.48.6. But a few pages up in the same chapter, at 1.41.2, S cites another excerpt from the Περὶ ἀρχῶν, this time dealing with ‘two principles of the things that are, one containing the *systoichia* of what is orderly and limited, the other the *systoichia* of what is disorderly and unlimited’. Ps.Archyta’s macro-structure, physics followed by psychology in the ancient sense of the word i.e. including epistemology, is not unusual. It is paralleled in the *Pythagorean Hypomnemata* of Alexander Polyhistor at Diogenes Laertius *V.P.* 8.24–33. See Laks (2013b) 379 on the ‘organized series of all the topics you can expect from a philosophical treatise—a doctrine of principles, a cosmology’ [lacking in our §7, but amply represented elsewhere in the *Placita*], ‘a psychology [including a paragraph on perception], a theology, and a code of moral and religious practice’ [of course also lacking in our physical *Placita*], to

be found there. For epistemology included in psychology see also below, Introduction to Book 4 at section (6). The present lemma is the only one in ch. 1.3 comprising a section dealing with epistemology. In the *Placita* other references to Pythagorean epistemic views are scarce. Those at chs. 4.9.1, 4.13.5–6 + 4.14.3 and 4.20.1 are hardly significant in themselves. Only ch. 1.10.3, ‘Pythagoras’ on ‘the so-called εἶδη and the ἰδέας’ is more or less consistent with our §1.3.7. The ps.Archytean order: principles of reality followed by principles of knowledge (based on the principles of reality), is precisely parallel to that of the present Aëtian paragraph.

The theory of principles in our §7 places the two principles One and Indefinite Dyad on the same level. This means that this Aëtian version of the Pythagorean first principles is earlier than, or at least not influenced by, one of Eudorus in the first cent. BCE, according to whom the Monad produces the Dyad (Eud. frs. 3–5 Mazzarelli, in part verbatim, at Simplicius in *Phys.* 181.7–30). For further details see Mansfeld (2020a).

§7[54] ἀπ’ ἄλλης ἀρχῆς links up well with §6[53] ἀπὸ Θάλητος. Philosophy is believed to have begun with Thales (§1[2–3] δοκεῖ δ’ ὁ ἀνὴρ οὗτος ἄρξαι τῆς φιλοσοφίας) and gets a ‘second beginning’ (ἄλλη ἀρχή) with Pythagoras. For the expression cf. e.g. Galen in *Prorrh.* 16.750.9–10 K., ἀπ’ ἄλλης ἀρχῆς κελεύοντας ἀναγινώσκειν τὰ μετὰ ταῦτα, in *Epid.* vi 17a.980.10 K. καὶ πάλιν ἀπ’ ἄλλης ἀρχῆς, Sextus M. 5.106, Origen C.C. 6.42 ἐξῆς δὲ τούτοις ἀπὸ ἄλλης ἀρχῆς ὁ Κέλσος τοιαῦτα φησι καθ’ ἡμῶν. One also finds ἀπὸ ἐτέρας ἀρχῆς.

§7[54–55] The πρῶτος εὐρετής (‘first finder’) motif is quite frequently encountered elsewhere in the *Placita*, see M–R 2.1.94–96, and e.g. chs. 2.1.1 with Commentary D(d)§1, 2.12.2 and 3.14.2. The attribution of the first use of φιλοσοφία to Pythagoras goes back to Heraclides of Pontus, e.g. fr. 87 Wehrli = 84 Schütrumpf at Diogenes Laertius *V.P.* proœm 12. See further Kleingünther (1933), Thraede (1960).

§7[55–89] The One and the Indeterminate Dyad, attributed to Plato’s Unwritten Doctrines by Aristotle, are already attributed to *both* Plato *and* the Pythagoreans (*not*: Pythagoras) by Theophrastus. These two principles were widely attributed to Plato, but next, as we see, also to the Pythagoreans, and then to the Pythagoreans alone, e.g. in the *Pyth.Hyponemata* cited by Alexander Polyhistor, and finally to Pythagoras himself, as in our chapter. Baltes (1976) 96 points out that Speusippus and Xenocrates (like Aristotle and Theophrastus) still speak of Pythagoreans—not of Pythagoras, which is what Heraclides of Pontus appears to have been the first to do (frs. 87–88 Wehrli, 84–85 Schütrumpf).

The (of course originally and exclusively Platonic) monadic Ideas produced from these principles will be based on a creative interpretation of *Phlb.* 15a–b,

where ‘monads’ (μονάδας) and ‘henads’ (ἐνάδων) refer to Ideas. In what follows at *Phlb.* 16c–17c Plato, speaking of the limited and the unlimited (πέρας and ἀπειρία), uses concepts that are inspired by Pythagorean thought, esp. what are held to be the genuine fragments of Philolaus (see Huffman 2001). The view that the Platonic Ideas are numbers is several times attributed by Aristotle to Xenocrates, at least one of whose doctrines (soul as moving number, cf. ch. 4.2.3–4) came to be attributed to Pythagoras as well. Thus not only the two Platonic principles (the One or Monad, and the Indefinite Dyad), but also the Ideas derived therefrom came to be attributed to Pythagoras. For the interpretation of *Phlb.* 15a–b in later authors from Alexander of Aphrodisias to Damascius (and possibly ps.Ammonius) see below section E(b)§7[76–82]. As far as we know the ‘Pythagorean’ doctrine at ch. 1.3.7[76–82] has not played a part in the discussion of these later passages in the secondary literature.

Aristotle’s cryptic phrase at *Met.* A.5 987b20–22, ending with the harsh ἐξ ἐκείνων γὰρ κατὰ μέθεξιν τοῦ ἐνὸς τὰ εἶδη εἶναι τοὺς ἀριθμούς, can also be interpreted as referring to Ideas qua numbers (not: ideal numbers!), and so supports the reading of the *Philebus* passage. Aristotle’s text at 987b22 has been emended in various ways, most recently by Primavesi (2012), who athetizes τοὺς ἀριθμούς. But as Steel (2012a) 186 points out, the awkward ending of the sentence is supported by virtually the entire textual tradition. One may also appeal to *Met.* A.9 991b9 ‘if the forms are numbers’ (ἐτι εἴπερ εἰσὶν ἀριθμοὶ τὰ εἶδη), a phrase that also joins these crucial terms up with each other. Ambiguous or difficult texts provoke interpretative ingenuity—this time *more pythagorico*, hardly surprising in a much-visited contexts such as *Phlb.* 15a–17c, or chapter 5 of *Metaphysics* A, where Aristotle compares Plato with the Pythagoreans, but also insists on the differences. This Platonizing picture of Pythagoras (two principles) is notably different from the Middle Platonist account of Plato at §20 (triad of principles).

‘Man’ and ‘horse’ as examples of Ideas, or general concepts, or substantives, are found remarkably often, namely in Plato, Eurytus, Aristotle, the Stoics, etc. A few cases are quoted at section E(b)§7[76–80] below.

§7[71–73]. This is the earliest attestation of the famous oath. We note that P has ψυχᾷ, while S has κεφαλᾷ. The transmission elsewhere is also divided between these terms, or even has γενεᾷ (the latter in Nicomachus, Porphyry and Iamblichus). Here of course we need ψυχᾷ in view of the exegesis concerned with the structure of *soul* that follows in P; so S, who omits this exegesis, was able to modify the quotation. Kranz (1938) 438 argued that Empedocles must have known the oath, for he calls the elements ῥιζώματα and uses πηγὴ in a cosmological sense (31B23.10 DK). Burkert (1972) 186–187 suggests that though the first line of the oath may originally ‘have stood by itself’, the second, that is, the line παγὰν ἀενάου φύσεως ῥιζώμα τ’ ἔχουσιν, ‘cannot be older than Empe-

docles', since ῥιζώματα and πηγὴ will derive from Empedocles, and 'the general idea of φύσις is scarcely likely to have existed before the second half of the fifth century'. If this is correct, the second line shows that Empedocles was seen as a Pythagorean, or at least as a kindred spirit, by other Pythagoreans. References to earlier discussions and the usual balanced judgement are found at Zeller–Nestle (1920) 1025–1026 with n. 2. On the oath see also below, ch. 1.15 Commentary D(d)§7. It serves as epigraph of Schopenhauer's dissertation.

§7[75] The series νοῦς ἐπιστήμη δόξα αἴσθησις is originally Platonic (according to Aristotle, see section E(b)§7[25–43]); the Aristotelian and Stoic concept of φαντασία is notably absent.

§7[76–87] Each individual monadic entity can be defined (i.e. a *horos* be formulated) in the proper way *per genus et differentiam*, here man as 'rational living being' and horse 'as living being that neighs'. This adds a Platonic-cum-Aristotelian ingredient that had become common property. In Alcinous' *Didascalicus* c. 5 this theory of definition is attributed to Plato. We also read that 'every syllogism deduces what is in dispute and effortlessly demonstrates something else from agreed premises', which is nothing more or less than a version of Aristotle's famous definition. In Alcinous' *Didascalicus* c. 6 this definition is attributed to Plato. Essential features of Aristotle's logic that we find integrated (at far greater length) in a standard Middle Platonist handbook, are in §7 already part of a Neopythagorean synthesis. The τινων ὁμολογουμένων are the premises of the syllogism taken as a unity, so the deduction is from this unity to the other unity, the conclusion, see Themistius' paraphrase of a passage in Aristotle quoted section E(b)§7[84–87].

§7[77] The reading θεωρεῖται as the *lectio difficilior* should be retained rather than the conjecture of Usener and Diels θεωρεῖ, esp. since it is supported by Q.

§7[89] It is possible, as surmised by the editors, that there is a lacuna at the end of the doxa, because A does not deal with the tetrad of sensation. But it is perhaps also possible that P has abridged the last part. S does not help us, since (hard to see for what good reason) he omitted all of section (5) §7[74–89], i.e. the epistemic interpretation of the oath (he did preserve the epistemic section of ps. Archytas *de Princ.*).

§9 T gives the ethnicon for Heraclitus in T5 and both patronymic and ethnicon in Txii. In general he gives more of these than we find in P/S (e.g. Xenophanes T7, Democritus T9–Tiv), but may have added these himself, see above section A(5)(c). It is probable that some have been abridged away, esp. by S (e.g. in S17–19, but not S14 and S20).

The order of names in P/S is the reverse of that in the tradition beginning with Aristotle (*Met.* A.3 984a7) and Theophrastus (*Phys.Op.* fr. 1 Diels = 225 FHS&G), cf. Diels *DG* 170. T CAG 2.10 (T5), 4.12 (Txii), and 5.18 (where he has

added Heraclitus after Hippasus to ch. 4.3.4), Sextus Empiricus *M.* 10.313, and Clement of Alexandria *Protr.* 64.2 too begin with Hippasus. The change may at some time have been introduced because Heraclitus was much more prominent than Hippasus (cited only once more at S for A 4.3).

We note that the four-elements cosmology (with air) is more familiar as a Stoic doctrine, though it has again been argued that it was already Heraclitean (Betegh 2007). The final conflagration is certainly Stoic and probably not Heraclitean, and condensation and rarefaction are probably un-Heraclitean as well. *Pace* Rösler (1973) 51 the attribution of πυκνῶσει καὶ μανῶσει at Theophr. *Phys.Op.* fr. 1 Diels (= 225 FHS&G) to Hippasus-cum-Heraclitus cannot be derived from Theophrastus, since he claimed *Phys.Op.* fr. 2 (= 226B FHS&G) that these concepts are only valid for Anaximenes. *Pace* DK 1.145.8–9 (followed by Kahn 1978, 134, 290) this entails that Diogenes Laertius *V.P.* 9.8, where we also find ἀραιῶσει καὶ πυκνῶσει, cannot be unadulterated Theophrastus, whose support for the ἐκπύρωσις described there too therefore becomes dubious as well. So his authority should not be invoked for what is in ch. 1.3.9. Heraclitean doxai are upgraded elsewhere in the *Placita* too, see e.g. at chs. 4.7.2 and 4.3.12.

§10 Diogenes' doxa in T CAG 4.12 is significantly different from its parallel in S 1.10.14. In the latter 'air' (the principle) is said to be 'infinite' (ἄερα ἄπειρον), an epitheton not found here in T but paralleled in *Phys.Op.* fr. 2 ap. Simplicius in *Phys.* 25.4 and attributed by Theophrastus to the 'air' of both Anaximenes and his purported follower Diogenes. T moreover writes that according to Diogenes air is the principle of 'the All' (τοῦ παντός), just as Theophrastus. This means that both lemmata, that of S as well as that of T, in some way ultimately derive from Theophrastus, according to whom Diogenes declared that 'the nature of the All [cf. T] is air which is unlimited [cf. S] and everlasting', but do so in disparate ways.

§11 Xenophanes is listed as a monist. Elsewhere lines are quoted that make him a dualist (21B29, B33 DK, see also *PPF* at fr. 33).

§12 A doctrine Aristotle ascribes to a group of 'Pythagoreans' is here ascribed to an individual Pythagorean, Philolaus. The doctrine itself, formulated in a more archaic way, is attested in verbatim texts cited as by Philolaus in Diogenes Laertius and Stobaeus. These have been generally accepted as genuine fragments since the pioneering work of Burkert (1962, Engl. version 1972), and are quoted below, section E(b)§12. It should in any case be noted that the *Placita* are the *earliest* work to make this identification also with regard to doctrines beyond the verbatim fragments explicitly attributed to Philolaus by later authors. The attribution of (most of) the first part of the detailed cosmology of ch. 2.7.6 with its central fire and counter-earth to Philolaus by A has been accepted, because Arist. *Cael.* 2.13 293a17–b11 attributes this to (again) 'the

Pythagoreans'. This also holds for the cosmological views concerned with the earth at chs. 3.11.3 and 3.13.2, once more ascribed to Philolaus. Yet the counter-earth is also attributed to the Pythagorean Hicetas at ch. 3.9.2, which if correct militates in favour of Aristotle's 'Pythagoreans', or of the phrase 'some of the Pythagoreans, of whom Philolaus is one' found at ch. 2.30.1. Other cosmological lemmata with name-label Philolaus have also been accepted as deriving from the original treatise, namely chs. 2.5.3, 2.20.12, and 2.30.1 (where the name-label is a little different, see above), although there is no corresponding passage in Aristotle. For further information see below at the chapters concerned. For other lemmata where the doxography 'knows' who is meant by Aristotle, see below at chs. 1.13 Commentary D(d)§2(4) and 1.21, Commentary B(2). On this issue of Pythagorean anonymity vs. naming see also M–R 2.1.176–177.

§14 The terms *ναστά* and *κενόν* used here and below, chs. 1.12.6 and 1.14.8, derive from Aristotle's account in the fragment of his *On Democritus* preserved by Simplicius, cited below section E(b)§14.

§§16–17 The diaphonia between Epicurus and Ecphantus regarding atomic motion only becomes clear when Hippolytus *Ref.* 1.15.2 is adduced.

§16 S has abridged this doxa considerably compared with P. It is likely that both references to Democritus in P were originally present in A (cf. also Tiv). E's text, however, introduces the Democritean name-label first. Given the evidence of the other witnesses (including J and T), this is best seen as a modification by E himself.

§16[116–118] The difference between Epicurus' and Democritus' views on weight may be explained by assuming that the intrinsic tendency of all atoms to move downwards according to Epicurus is lacking in Democritus, according to whom weight is not a permanent property like unsplitability, size, or shape, but one that is relative and depends on circumstances in compounds (cf. Theophrastus *Sens.* 61–62, cited section E(b)§16[115–116]). Later reports apparently reduced relative weight to absence of weight. For other suggestions see the discussion at Bakker (2016) 216–220.

The final clause of the Democritus fragment may perhaps be translated as 'not by a word' (but we have not done so). Cf. epic phrases such as *Il.* 1.504 ἢ ἔπει ἢ ἔργω, *Il.* 15.106, ἢ ἔπει ἢ ἐ βίῃ, and Plato's πᾶς ἡμῖν αἰδέσθω τὸν ἑαυτοῦ πρεσβύτερον ἔργω τε καὶ ἔπει at *Nom.* 879c.

§16[120–121] The shapes that are excluded by Epicurus as too fragile were allowed by Leucippus and Democritus according to Aristotle and Cicero, see e.g. texts at section E(b)§16[118–120].

§16[126] We have included Mras' emendation in our text. He elucidates this baffling passage as follows: 'Die Existenz von Atomen folgt aus der von ἄκενα (also unteilbaren) στοιχεῖα καὶ ζῶα sowie aus der der (ebenfalls unteil-

baren) μόνας, which is quite incomprehensible. A difficulty is that the word ἄκενος is scarcely used in Greek texts (it occurs once at Philo *QG* 4.30, Greek fragment) and elsewhere only, though often, in Hero *Mechanicus*. Perhaps we should rewrite ms. κενά as ἀμέτοχα κενού. ζῶα here presumably means ‘figures’, i.e. atoms of different shapes and sizes ([119–120]); cf. ῥυσμός in earlier Atomism, e.g. Aristotle *Met.* A.4 985b15–16, while μόνας may stand for the theoretical minimal part of the atom (cf. a definition at Iamblichus. *in Nicom.* 2.1 Vinel μωνάς δέ ἐστι ποσοῦ τὸ ἐλάχιστον). But one cannot be sure.

§17 Fortunately Ecphantus’ atomism, lacking in P, is here attested for A by the convergence of S and T, which again underlines the importance of the evidence of S/T. At A 2.3.3 this doxa is attested by S alone. P significantly epitomizes it away both times, perhaps because it conflicts with the view of flexible and infinitely divisible matter attributed to the successors of Thales and Pythagoras at chs. 9.1 and 1.16.2. According to Aristotle *Met.* M.6 1080b16–20 the ‘Pythagoreans’ posited that the ‘monads’ of which number is composed ‘have size’ (τὰς μονάδας ... ἔχειν μέγεθος). Which does not make them indivisible—but this is not the place for a discussion of the vexing issue of so-called number atomism.

For the πρῶτος εὔρετής motif see above, section D(d)§7[54–55]. The three principles attributed to Plato by Middle Platonist and other later sources are first found in Varro *Antiquitates rerum divinarum* fr. 206 Cardauns (quoted below section E(b)§20), where we also have three prepositional phrases, the first two identical with those at ch. 1.3.20, the third the same *ad sententiam*. See also at Dörrie–Baltes (1996) Baust. 113. They are of Peripatetic and then doxographical origin; see references at Mansfeld (2002a) 30–34, repr. M–R 3.385–389. For these principles as involved in the chapter sequence see above, section D(a) ad init. and below ch. 1.6 Commentary D(a), ch. 1.7 Commentary D(a), as well as ch. 1.11 Commentary D(d)§2.

§19 S at 1.10.11a begins by quoting four Empedoclean lines (31B6 + B36 DK). These are followed at *Ecl.* 1.10.11b by an explanation of the divine names in prose, which is followed in its turn by 31B16–17 on Philia and Neikos, plus a Homeric parallel of three lines for Philia and Neikos (Hera’s words at *Il.* 14.201–203, including the line 14.202 already quoted by him at 1.10.4!). The greater part of this explanation differs from P and is quite similar to what is in Heraclitus *All.Hom.* 24 and ps.Plutarch *Vit.Hom.* 99–100. The reference back to Homer is precisely paralleled at *Vit.Hom.* 99, and the singular and lengthy further explanation of Aidoneus as air is to some extent paralleled in Hippolytus *Ref.* 1.29.5. This explanation must be derived from a different kind of *testis proximus* (cf. Diels *DG* 88–89). Presumably the fourth Empedoclean line (B36) derives from a similar source. As a complete line this is only extant in S, while only the

last three words (plus a paraphrase of the first three) are paralleled elsewhere, namely in a different context at Aristotle *Met.* B.4 1000b2–3.

S's first series of excerpts from A 1.3 then follow at 1.10.12, but he does not return to Empedocles either here or in his second and third series of excerpts of A 1.3 further down, at chs. 1.10.14 and 1.10.16a. Even so, it may look as if S begins his excerpts from A 1.3 with (a version of) the Empedocles lemma. But because of the extra Empedoclean line and the Homeric lines it is clear that S 1.10.11a–b are the last of the series of poetic quotations with which in the usual way he begins his chapter. Kingsley (1994) wanted to derive S 1.10.11a–b from Theophrastus and so to attribute it to A, and is followed by Bottler (2014) 111–114. They have missed S's consistency in declining to repeat (parts of) paragraphs included by him and thus anticipated in the poetical section of the chapter among the prose abstracts from A.

P begins with a succinct explanatory introduction in prose, and then quotes the three lines of 31B6 but not B36. This is followed by a much shorter and different explanation in prose compared with what is in S. Diels rightly did not place S 1.10.11a–b in the right-hand column of *DG* 286–287 (but he does find a place for it in the parallel columns at *DG* 88). There also is a major discrepancy between P^{BE}, who equate Hera with air and Aidoneus with earth, and S who reverses the identification and adds some words of explanation. Hera as air is Platonic (*Crat.* 404c) and Stoic, e.g. Diogenes Laertius *V.P.* 7.147 = *SVF* 2.1021, and attributed to Theagenes of Rhegium, 8.2 DK; also Cicero *ND* 2.66 *aër autem, ut Stoici disputant, interiectus inter mare et caelum Iunonis nomine consecratur*, with Pease's long note ad loc. (Philippson's fragment of Philodemus *De pietate* purportedly pertaining to Empedocles (?) printed *ad finem* at 31A33 DK is too uncertain). At ch. 1.7.21 below Xenocrates is said to have held that air is Hades and to have passed on this idea to the Stoics which, to say the least, is curious in view of the Stoics' own doctrine. Remarkably Q (who as we know translates a version of P that is not everywhere identical with P^B and sometimes has better readings, but also introduces changes and mistakes of his own) supports the reading of S rather than P. It is therefore a real possibility, *pace* Diels *DG* 89 and Mansfeld at M–R 3.339, that Q did preserve A's reading, while S adopted the same reading via another intermediary. But it is also possible that Q made a swap, as he did with φιλοσοφίαν and σοφίαν at 1.prooem. 2. Finally it is not to be excluded that the explanation of the divine names in the text translated by Q had been corrected to make it fall in line with the other interpretation, which is that of the majority (Athenagoras *Leg.* 22.1, Heraclitus *All.Hom.* 24.7, Ach c. 3, p. 9.31–22, Diogenes Laertius *V.P.* 8.76, Hippolytus *Ref.* 7.29.4, ps.Probus in *Buc.* 6.31, p. 333.15 Thilo, and S).

This majority interpretation is probably the right one, since Zeus and Hera, mentioned first, may well represent heaven and earth, Aidoneus/air and Nestis/water being in between and listed top down as well. The epitheton *φερέςβιος* is almost always used of the earth, e.g. Hesiod *Th.* 693 γαῖα φερέςβιος. For a third view, which interprets Zeus as air and Aidoneus as fire (and so Hera as earth and Nestis, of course, as water) see Willi (2006) 226–228.

Hillgruber (1994) 38–49, who critically reviews the parallels in the sources that are concerned and the interpretations that have been propounded, argues (like Diels and others) that S derives from a tract dealing with Homer, though he has failed to take the evidence of Q into account. This complicated source-critical issue cannot be further dealt with in the present context.

§20 Plato's principles here are based on the *Timaeus* and represent his physics; see Runia (2003). At ch. 1.7.22 his metaphysical principles are the first to be mentioned: 'the One, the single-natured, the monadic, the true Being, the Good. All such names refer to the Intellect. The deity, then, is an Intellect, a separate Form'. We note the Early Academic colouring. The Platonic 'metaphysical' principles One and Indeterminate Dyad have been transferred to Pythagoras in §7 above (the One becoming 'Monad', as with Xenocrates), see this section §7.

§20[142–143] Diels deleted *Σωκράτης Σωφρονίσκου Ἀθηναῖος καί* and αἱ γὰρ αὐταὶ περὶ παντὸς ἐκατέρου δόξαι as early ps.Plutarchean interpolations (*DG* 14 'Socratis memoria impudentissima fraude adiectus est'). Additions these words certainly are, but assuredly of Aëtian provenance. The relative date of this change can be exactly determined: it is contemporaneous with the reshuffling and upgrading of the lemmata according to the Successions model, which (as the parallels in S prove) had already been applied in A. Socrates simply *had* to be present because he had been installed in the *Diadochai* as the link between Archelaus and Plato (and the other Socratics). Consequently both Socrates and Plato are also mentioned in 1.7.22 (the principles qua divinities) and 1.10.2 (the same description of the ideas as in 1.3.20), so there is emphatic consistency in this adaptation. Diels of course deleted 1.7.22 and 1.10.2 *Σωκράτης καί* as well. The attribution of Plato's three principles to Socrates is unique, false, and interesting. It may be due to the belief that he is one of Plato's spokespersons, for which see e.g. Diogenes Laertius *V.P.* 3.52.

§20[144] The three prepositional phrases placed after (and implicitly connected with) the three standard principles of the later accounts of Plato's thought are found only in S and could conceivably have been added by him. But the same prepositional phrases are found at ch. 1.11.2 (Plato again), in both P and S, so they must be retained here; for the precedent in Varro see above, this section §17.

§20[145–146] The addition of the god's 'internal representations' to his thoughts (ἐν τοῖς νοήμασι καὶ ταῖς φαντασίαις θεοῦ) is found only here and at ch. 1.10.2 below.

§21 Aristotle himself calls the element πρῶτον σῶμα, never πέμπτον, but in the doxographical tradition and elsewhere 'fifth' is preferred to 'first'. The validity of this fifth beyond the traditional four was questioned by many. See discussion at ch. 2.11 Commentary D(e)§4.

§22 (1) Heinze prints the texts from S and T separately but gives them the same fragment number (fr. 28), as he generally does with evidence that belongs together. Isnardi Parente (2nd ed.) numbers the text of S (calling it Aëtius) as F 21 and the text of T as F 22, calling it a 'dull repetition' of 'probably the same doxographer Aëtius' in her Commentary (2012, 262), and rejecting its derivation of things from matter for Xenocrates.

(2) A tenet rather similar to (one interpretation of) Xenocrates' description of matter is attributed to Pythagoras by Aristotle. This, at least, is what Damascius says, in *Parm.* 172.20–22 'Aristotle in his *Matters concerning Archytas* recounts that Pythagoras, too [sc. just as Plato], called matter the 'other', as it is flowing and continuously becoming 'other' ('Αριστοτέλης δὲ ἐν τοῖς Ἀρχυτείοις (Aristoteles fr. 207 R³; Archytas 47A13 DK) ἱστορεῖ καὶ Πυθαγόραν ἄλλο τὴν ὕλην καλεῖν ὡς ῥευστήν καὶ ἀεὶ ἄλλο γιγνόμενον). The attribution to Aristotle of this attribution to Pythagoras himself is dubious, but maybe Aristotle spoke of 'the Pythagoreans', even including Pythagoreanizing Platonists. For discussion of the notion of 'streaming matter' see Decleva Caizzi (1988) and the criticism of Isnardi Parente (1990) and (2012) 261, who for Xenocrates prefers the etymologizing ἄ-ἐν-αον (thus accepting Diels' emendation of ἀένναον, 'ever streaming'), but also admits a more literal secondary sense, namely 'inexhaustible'. The former in fact accords better with the 'multiplicity' of matter given as explanation in the tenet itself in the version in S, but we have not put the emendation in the text.

§23 Μνασέου: S reads Μνασαίου, and so do a number of mss. of T followed by Diels ('eodem errore Theodoretus'), for whom what he sees as a shared error in the Lachmannian sense of the concept is proof that T here derives from A. But Raeder follows the better mss. of T, which have Μνασέου like P. Wachsmuth follows the example of P and reads Μνασέου in the text of S. Rather than thinking of confusion with the physician Mnaseas cited by Galen we should accept a shared spelling mistake, occurring independently in both cases.

e Other Evidence

General Points

(1) *Lists of elements/principles.* The enumeration, description and discussion concerned with the principles and elements of ‘the things that are’ begin for us in the second half of the fifth century BCE, and continue until the end of Antiquity, cf. above, section D(d)(3). As this is not the place to provide a fuller history of this complicated subject we shall discuss a few examples with regard to differences and similarities without going into details.

The earliest extant lists (cf. below section E(b) General texts) in Gorgias, an Hippocratic author, Isocrates, Plato, and Xenophon diaeretically deal with the number (one or many, and/or how many, i.e. according to later terminology the category of quantity) and the nature (in later terminology the category of substance) of the principles or elements, and in some cases also with the issue of whether or not they are in motion, and of whether or not they come into being and pass away. In Plato we moreover already have a more or less historical account, in the sense that the doxai are to some extent described in chronological sequence (cf. *Sph.* 242c–243a, ἔτι πρόσθεν, ὕστερον—in later terminology the category of time). Aristotle, who appropriates and substantially refines this mode of exposition and analysis and for the most part collects his own evidence, applies it on a large scale in his dialectical overviews, which are also arranged according to his series of categories. And he combines a more or less chronological sequence with a systematic analysis according to the number and nature of the principles and elements and their being moved or immobile. As a further diaeretic criterium Aristotle added the distinction between corporeal or incorporeal to the division. Because of his subsumption of elements and principles under the concept of ‘cause’ he was capable of alternatively combining multiplicities of elements (*homoiomere*, atoms) under a single overarching material cause. In various ways this organization was taken over and modified by Theophrastus *Phys.Op.* frs. 1–9 Diels (= 224–230 + 234 FHS&G) and the late commentators on *Physics* 1 and *Metaphysics* A, see e.g. Mansfeld (1986a) 7–15 and (1989b) 134–138, with references to other literature. Cf. above, General Introduction sections 5.2.1 and 5.2.2.

Seneca *Ep.* 39.2 speaks of an *index philosophorum* (the phrase is unique), i.e. a ‘list of philosophers’; they are role models, which is a different arrangement.

(2) *Successions.* The arrangement of the philosophers in schools according to Succession was originally designed by Sotion in the early third cent. BCE. In Aristotle and Theophrastus partial antecedents are found of Successions in the form of master-pupil relationships, see Diels *DG* 104 with n. 3, and Wehrli (1978) 10. Presumably such isolated connections, encouraging the overhaul according to the template of Sotion, were already present in an earlier version of our chapter.

The Successions template is used by a wide variety of later authors. Among the texts parallel to our ch. 1.3 cited at *Testes primi* plus *Testes secundi* above, and section E(a) General texts plus section E(b) General texts below, those combining the arrangement according to the number of the principles on the one hand with that according to Succession on the other are a small minority: among the *Testes primi* ps. Justin *Coh. Gr.* 3.2–4.1, 5.4–6.1; among the other proximate texts Cicero *Luc.* 118 (who also imposed upon an earlier arrangement according to number, see Mansfeld 1989b), ps. Plutarch *Stromateis*, Epiphanius, Augustine *De civitate Dei* 8.2.1–3.4, T CAG 1.55, 2.9–11 and 4.5–11, and ps. Galen *HPh* c. 3 and c. 18. Augustine's is a straightforward account in an order that is the opposite of A's: *De duobus philosophorum generibus, id est Italico et Ionico, eorumque auctoribus*, i.e. first the Italians, then the Ionians. It was also applied to doctors, see e.g. Celsus *De medicina* proœm. 6–8 and above; to rhetors, see e.g. Quintilian *Institutiones* 3.1.8–2.1, and even to Roman *iuris consulti*, see Sextus Pomponius (a contemporary of the emperor Hadrian) at Justinian *Digesta* 1 tit. 2 rubr. 2.35 ff.

For discussions in the scholarly literature see Von Kienle (1959), Nörr (1976) 514–516, Mejer (1978) 62–73, Giannatasio Andria (1989), M–R 2.1.73–96, and the editions of Sotion by Wehrli (1978) as well as those of Philodemus on the Academics by Dorandi (1991) and on the Stoics by Dorandi (1994). On *Diadochai* as lists see Regenbogen (1950) 1448–1453, and for ancient definitions of ἀρεσις e.g. Havrda (2016) 210–217. See further M–R 2.1 ch. 7 'Successions and sects', dealing also with references to Successions elsewhere in the *Placita*, and Jeremiah (2018).

(3) *Order according to quantity*. Other authors have not modified the traditional order according to quantity, for to a decisive extent these later lists are rather faithful descendants of Aristotle *Met.* A and its first revision by Theophrastus as preserved in Simplicius, though they have been upgraded in various ways.

Heraclitus *All.Hom.* 22.2–9 has a list going from one via two to four, as already noted by Diels *DG* 94: 'ab elementorum numero procedens oratio'. On Sextus Empiricus see the next subsection.

(4) *Lists in Sextus Empiricus*. Sextus provides several lists, with interesting differences from each other, which serve as dialectical introductions to his treatment of specific themes and so are adjusted to criteria deriving therefrom. First, the main diaeresis at *M.* 9.4–11 distinguishes those who say the principles are 'efficient', or 'active' (δραστηρίους), from those who say they are 'material' (ὕλικός), cf. ps. Galen *HPh* c. 3 ad init. This recalls the part played by this distinction in A 1.3.2–3, where Anaximander and Anaximenes are criticized for omitting the efficient cause. Also interesting is a rare explicit reference to

and paraphrase of Aristotle *Met.* A.3 984b18–31 on Hermotimus, Parmenides, and Hesiod. Because this is a dialectical prelude to the discussion of the doctrines concerning the gods in Book 9, the emphasis is on the efficient principle. At *P.* 3.1–12 Sextus goes immediately from *archai* (divided into material and active) to gods, discussing the material principles separately at *P.* 3.30–37. The link between a discussion of principles and one of gods recalls the relation between A 1.3 and A 1.6–7. The influence of Peripatetic and Stoic modes of organization is also conspicuous in Sextus *M.* Books 9 and 10, and *P.* 3.1–150, both devoted to a critical discussion of physics. His choice of topics is parallel to the themes of a select group of chapters of A Book 1. The order is not the same but similar. He begins *M.* 9.13–198 ~ *P.* 3.2–12 with the active cause, i.e. with issues concerned with the gods (cf. A 1.6–7), adding cause *per se* at *M.* 9.195–330 (which also includes other themes) ~ *P.* 9.13–29 (cf. A 1.11), and then, *M.* 9.360–365 (cf. *M.* 10. 228.234, 312–318) ~ *P.* 3.30–37, treats the material cause, i.e. the principles and elements (cf. A 1.2–3). At *M.* 10.310–318 (the prelude to Sextus' chapters on coming to be and passing away), we have a straightforward division in a rising sequence according to number from one to infinitely many, that is, according to the category of quantity ('elementorum ordine niti videtur' Diels, *DG* 93). Here the distinction is between 'qualified' (ἐκ ποιοῦ) and 'unqualified' (ἐξ ἀποιοῦ), so according to the category of quality, is an additional criterium for division. In relation to the former only the Stoics are mentioned. The infinitists are divided into those whose first principles are similar and those whose first principles are dissimilar (category of quality again) to what is generated. This text is capably discussed by Warren (2015) 368–372, and compared with *M.* 9.360–364.

At *M.* 9.360–364 (the prelude to the chapters 'On body') Sextus begins with a division between those who say the elements are 'corporeal' (σώματα) and those who say they are 'incorporeal' (ἀσώματα). As representatives of the latter category he *ad finem* lists only Pythagoras, the mathematicians, and Plato. The first category is represented by no less than twenty-two individuals from Pherecydes to Asclepiades in a more or less historical order; they are listed in a division according to number in a rising sequence. Eight name-labels are accompanied by the ethnicon, and two display a reference to a master-pupil relationship, while Empedocles 31B6 is quoted just as in ch. 1.3.19. Finally a similar but shorter list, dealing with the 'material principles' only (περὶ ὑλικῶν ἀρχῶν), is found at *P.* 3.30–33. The lists in ps.Galen *HPh* c. 18 and Sextus *P.* 3.30–32 plus *M.* 9.360–364 are placed in parallel columns and compared by Betegh (2015) 179–183, who agrees with Volkmann's correction of Diels' original hypothesis in his dissertation—which was that ps.Galen derives from Sextus—in favour of the assumption of a shared tradition, already accepted by Diels *DG*

246–248. Betegh has noticed (ibid. 182) that the elements are ordered according to number, and argues that where applicable they are arranged in order of relative weight.

Further parallels will be mentioned below at the chapters that are concerned, see (listed in a Sextusian order) at A 1.12, ‘On bodies’, 1.17 ‘On mixture and blending’, 1.23 ‘On motion’, 1.24 ‘On coming to be and passing away’, 1.19 ‘On place’, and 1.21 ‘On time’.

(5) *Parallels in the Stromateis*. The important and substantial series of excerpts from ps.Plutarch *Stromateis* preserved by Eusebius is not explicit about Succession, but at 1–3 lists the three Milesians after each other and at 4–8 the Eleatics Xenophanes, Parmenides and Zeno, after whom the (Eleatic) Atomists Democritus and Epicurus. All this is clear enough. At a first glance the lemma 9 on Aristippus’ ethical principle (brought along as offering a contrast with Epicurus’ hedonistic *telos*, also cited) and his famous proscription of physics is a surprising *Fremdkörper* in this physical doxography. But this reference may well constitute a zero-option contrasting with the positive physics of the others that are listed. It recalls the position of Socrates among the physicists at Aristotle *Met.* A.6 987b1–2; note that the line *Od.* 4.392 is often attributed to or connected with Socrates, e.g. Musonius *Diss.* 3.24, Sextus *M.* 7.21, 11.2, Diogenes Laertius *V.P.* 2.21, 6.103, so Aristippus indeed looks like his stand-in. For Socrates’ similar role in the Ionic Succession at §20 see section D(d) §20[142–143].

At *Strom.* 10–12 the list concludes with Empedocles, Metrodorus and Diogenes of Apollonia in a sequence without credible order. There is no way of telling what Eusebius may have omitted (as he did in P 1.3, where we do know).

For the relation of the *Stromateis* to T CAG 2.9–11 and 4.5–12 see above, sections A(5)(b)–(c).

(6) *Further parallels, mainly later*. The list of Ach c. 3, p. 9.10–10.17 (discussed M–R 2.127–128) is peculiar in beginning with Zeno and Epicurus and ending with Thales and Pherecydes with water as principle and Heraclitus with fire and the (here anonymous) partisans of earth, so is following an inverted chronological order (cited above at *Testes secundi*). True to the tract’s isagogic purpose it includes a quotation from Aratus. Calcidius in *Tim.* cc. 280–282 is even closer to Aristotle’s account in *Met.* A than Sextus’ first list; see Van Winden (1959) 71–74. The enormous list of Epiph. *Haer.* 3.505–509 (quite a mixed bag, at least for the first section) appears to be divided over Ionians, Italians and Eleatics. The lists in the commentaries of Servius in *Buc.* 6.31 and of ps.Valerius Probus on the same passage, rich in quotations, belong with the evidence of the *testes proximi*. Ps.Galen *HPh* c. 3 (only the beginning quoted at section E(a) below), a long and substantial chapter but again a mixed bag, mentions the three standard Successions and provides extensive information on the Ionic (including Stoics,

Academics, and Minor Socratics) and rather less on the Italic and Eleatic Successions. We need a new critical edition of this chapter (as of the other chapters not edited by Jas 2018), which was in part reordered and also interlarded with asterisks by Diels, who moreover, following Usener, condemned the lines *DG* 601.3–4 with their explicit references to Ἰταλιῶται and Ἑλαίαν.

Another late list is found in ch. 2 137–138 (according to the division into chapters of the translator of the Arabic text, Walbridge 2014) of *On the Elements According to the Opinion of Hippocrates*, the third work in the sixth cent. *Alexandrian Epitomes of Galen*. These *Epitomes* combine abstracts from Galen with comments and other ingredients. This very interesting chapter, too long to quote, deals with the disagreement about the elements in elaborate detail. Some say there is one element, others more than one, some of the monists say it moves, others that it does not. And so on, quite close to Sextus Empiricus *M.* 9.4–11, 9.359–364 and 10.310–318, and to the divisions one encounters at the beginning of commentaries on Aristotle's *Physics*, for which see Mansfeld (1989b) and Wiesner (1989).

An even later and most interesting representative of an overview according to number and, apparently, the distinction between corporeal and incorporeal, is the long and composite list of the polymath Barhebraeus (13th cent.), *Lamp of the Holy Things*, 2nd base introd., translated by Gottheil (1887), and by Bakoš (1930) 542–547, who adds some parallels. Most of the time the name-labels are accompanied by doxai. This list begins with the materialist monists Thales, Homer, Anaximenes (fr. 235 Wöhrle), Diogenes, Hippasus, Heraclitus and Theophrastus. It goes on with Xenophanes (fr. 331 Strobel–Wöhrle) (1 moving principle), Parmenides (1 unmoving principle but only in thought, and limited), Melissus (1 principle, unlimited). It then deals with (explicitly) the pluralists, first in descending order, namely Anaxagoras, Leucippus, Democritus, and Epicurus with infinitely many elements, and Empedocles with 4 plus Love and Strife, then Aristotle with 3 and the Stoics with 2 principles. Pythagoras follows (numbers, presumably as incorporeal principles), who in his turn is followed by a couple of Platonists: Atticus, who says Plato has 4 principles, whereas Plato in the *Timaeus* says 3 and once elsewhere only 2, then Proclus, Plotinus, Syrianus, and Longinus the teacher of Porphyry, who are merely mentioned and not discussed further. At the end we find Bardesanes (5 principles) and Mani (2 principles). Compare the doxography about the soul in Nemesius *NH* c. 2 (see below, chs. 4.2–3), where the Manichaeans are mentioned as well, just before Ammonius, Plotinus, and Numenius (p. 17.13–17). A similar doxography on the soul is found at *Lamp of the Holy Things*, 8th base introd., translated Bakoš (1948) 1–2; there the last authority to be mentioned is Gregory of Nyssa; see below, ch. 4.2, Commentary D(e) *ad finem*.

Individual Points

Chapter heading. Numerous parallel titles and headings with umbrella function found elsewhere could be enumerated, but a few instances have to suffice. Think, for instance, of the titles of Aristotle's *pragmateiai*, often quoted by himself, e.g. Περὶ οὐρανοῦ (cf. A 2.11), Περὶ γενέσεως καὶ φθοράς (cf. A 1.24), Περὶ φιλοσοφίας, Περὶ ῥητορικῆς, etc. The so-called second titles, viz. those ἀπὸ τοῦ πράγματος, 'pertaining to the subject', of Platonic dialogues and of numerous titles of Democritus' books in the œuvre catalogues of Thrasyllus are early. For Plato it is sufficient to cite as examples Diogenes Laertius *V.P.* 3.58 Παρμενίδης ἢ περὶ ἰδεῶν (cf. A 1.10) or *V.P.* 3.60 Τίμαιος ἢ περὶ φύσεως (cf. A 1.30); for Democritus *V.P.* 9.46 Περὶ αἰσθησίων (cf. A 4.8) and Περὶ χρόνων (cf. A 1.15). Callimachus already refers to the *Phaedo* by its second title alone (Πλάτωνος ἐν τῷ περὶ ψυχῆς / γράμμ(α), *Epigr.* 23.3–4 Pfeiffer; cf. Plutarch *An.Procr.* 1013D), and the contents of this dialogue are far from being limited to the soul's existence. Aristotle quite often refers to the treatise we know as his Περὶ ψυχῆς with this title (*Int.* 1.16a8–9, *GA* 2.3 736a37, etc.)—a work that deals with much more than the existence of the soul; actually, this existence is tacitly presupposed. In the same way he uses ἐν τοῖς Περὶ φύσεως to refer to the *Physics* and other physical treatises (*Met.* A.3 983a33–b1, *Met.* M.9 1086a23–24, etc.) with their multiplicities of contents. Philoponus, briefly describing the contents of the *Physics*, says that in Books 1–4 Aristotle deals with ὅλη εἶδος τόπος χρόνος, and in all of Books 5–8 with motion, 'because the account of motion is complicated, and has many implications' (*in Phys.* 2.16–18 ἐν δὲ τοῖς τελευταίοις τέτρασι (sc. διδάσκει) περὶ κινήσεως· ποικίλος γάρ ἐστιν ὁ περὶ κινήσεως λόγος, καὶ πολλὰ τούτῳ ἐστὶ τὰ παρακολουθήματα). P^B's own book title, Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν δογμάτων, allows of course for much more than the existence *simpliciter* of the physical tenets. At ch. 1.25.4 below (chapter heading Περὶ ἀνάγκης) the theme of necessity (or Necessity) is said to have been treated by Leucippus in a treatise entitled Περὶ νοῦ. See also above, section A.

Regenbogen (1950) 1474–1475 mentions the popularity of the umbrella heading in scientific and scholarly literature. On this vocabulary also in Plato and Aristotle see e.g. Zamagni (2004) 88–97. On Aristotle's references to his own titles see further Bonitz 102a19–104a2, Goulet *DPhA* 1.424–431. As an embedded phrase in Aristotle ('eorum fit mentio quae proxime vel antecedunt vel sequuntur', Bonitz 95b33; examples also at Friderici (1911) 30–31), a formula of this nature is the predecessor or equivalent of the chapter heading, or book title, see M–R 2.1.48, 159–161, 162–163, 170, 202–204. The heading or title Περὶ ἀρχῶν itself is widely paralleled, see below, section E(b) Chapter heading. Unnumbered chapter headings of the umbrella type, followed by definitions (e.g. p. 106.4–6 Περὶ τόπου. τόπος ἐστὶ λόγος αὐξητικὸς ὁμολογουμένου πράγματος ἥτοι ἀμαρτήμα-

τος ἢ ἀνδραγαθήματος) are found in the *Progymnasmata* of Theon, probably to be dated to the first half of the first century CE.

§9 The attribution of a (Heraclitean or ps.Heraclitean) cosmic cycle to Hip-pasus perhaps helps understand the difficult lemma on the destruction and generation of the world according to Philolaus at ch. 2.5.3.

§11 In an edition of Xenophanes the line 21B27 DK should of course read ἐκ γαίης γὰρ πάντα καὶ εἰς γῆν πάντα τελευτᾷ as at Sextus Empiricus *M* 10.313, but we have here followed the reading ἐκ γῆς of T, and of the mss. of S and of Hippolytus *Ref.* 10.4 (where as we know he plagiarizes Sextus). The beginning and end of the line are epic idiom: for ἐκ γαίης at the beginning cf. Hom. *Il.* 10.303 and Hes. *Th.* 725, for πάντα τελευτᾷ at the end cf. Hom. *Il.* 18.328 and 19.90. But note that in Xenophanes' line the verb is intransitive with πάντα as subject, in Homer transitive with πάντα as object.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *Luc.* 117–118 (Diels *DG* 119–121) *non persequor quaestiones infinitas* ('theoretical', or 'abstract' issues are not Lucullus' turf, but he makes an exception here); *tantum de principiis rerum e quibus omnia constant videamus quem probet; est enim inter magnos homines summa dissensio.* (118) *princeps Thales* (fr. 71 Wöhrlé) *unus e septem, cui sex reliquos concessisse primas ferunt, ex aqua dixit constare omnia* (~ §1). *at hoc Anaximandro* (12A13 DK) *populari et sodali suo non persuasit; is enim infinitatem naturae dixit esse e qua omnia gignerentur* (~ §2). *post eius auditor Anaximenes* (13A9 DK) *infinitum aëra, sed ea quae ex eo orerentur definita; gigni autem terram aquam ignem, tum ex iis omnia* (~ §3). *Anaxagoras* (59A49 DK) *materiam infinitam, sed ex ea particulas similes inter se minutas, eas primum confusas postea in ordinem adductas mente divina* (~ §4). *Xenophanes* (21A4, A34 DK) *paulo etiam antiquior, unum esse omnia neque id esse mutabile, et id esse deum, neque natum umquam et sempiternum, conglobata figura* (~ §10). *Parmenides* (28A35 DK) *ignem qui moveat, terram quae ab eo formetur. Leucippus* (67A8 DK) *plenum et inane* (~ §13). *Democritus* (67A8 DK) *huic in hoc similis, uberior in ceteris* (~ §16). *Empedocles* (—) *haec pervulgata et nota quattuor* (~ §18). *Heraclitus* (T 304 Mouraviev) *ignem* (~ §9). *Melissus* (30A9 DK) *hoc quod esset infinitum et inmutabile et fuisse semper et fore* (~ Tiii). *Plato ex materia in se omnia recipiente mundum factum esse censet a deo sempiternum* (~ §20). *Pythagorei* (—) *e numeris et mathematicorum initiis proficisci volunt omnia* (~ §7). *Div.* 2.11 *quae sint initia rerum, ex quibus nascuntur omnia: physicorum est ista prudentia. Lucretius DRN* (1.635–691) *quapropter qui materiem rerum esse putarunt / ignem atque ex igni summam consistere solo, / magno opere a vera lapsi ratione videntur.* / *Heraclitus* (T 312 Mouraviev) *init quorum dux proelia primus. ... (645) nam cur tam variae res possent esse, requiro, / ex uno si sunt igni puroque creatae? / nil prodesset enim calidum denserier ignem / nec*

rare fieri. ... / (665) quod si forte alia credunt ratione potesse / ignis in coetu stinguere mutareque corpus ... / (690) dicere porro ignem res omnis esse neque ullam / rem veram in numero rerum constare nisi ignem. DRN 1.712–772 adde etiam qui conduplicant primordia rerum / aëra iungentes igni terramque liquori, / et qui quattuor ex rebus posse omnia rentur / ex igni terra atque anima procrecere et imbri. / quorum Acragantinus cum primis Empedocles (31A21 DK) est. ... / (763) denique quattuor ex rebus si cuncta creantur / atque in eas rursum res omnia dissolvuntur. ... / (770) sin ita forte putas ignis terraeque coire / corpus et aërias auras roremque liquoris, / nil in concilio naturam ut mutet eorum. DRN 1.830–842 nunc et Anaxagorae (59A44 DK) scrutemur homoeomerian / quam Grai memorant nec nostra dicere lingua / concedit nobis patrii sermonis egestas, / sed tamen ipsam rem facilest exponere verbis. / principio, rerum quam dicit homoeomerian, / ossa videlicet e pauxillis atque minutis / ossibus hic et de pauxillis atque minutis / visceribus viscus gigni sanguenque creari / sanguinis inter se multis coeuntibus guttis / ex aurique putat micis consistere posse / aurum et de terris terram con crescere parvis, / ignibus ex ignis, umorem umoribus esse, / cetera consimili fingit ratione putatque. Vitruvius 2.2.1 Thales (fr. 85 Wöhrle) primum aquam putavit omnium rerum esse principium (~ §1); Heraclitus Ephesius (T 322 Mouraviev), qui propter obscuritatem scriptorum a Graecis σκοτεινός est appellatus, ignem (~ §9); Democritus (—) quique est eum secutus Epicurus (—) atomos, quas nostri insecabilia corpora, nonnulli individua vocitaverunt (~ §14, §16); Pythagoreorum (—) vero disciplina adiecit ad aquam et ignem aëra et terrenum (~ §19). ergo Democritus, etsi non proprie res nominavit sed tantum individua corpora proposuit, ideo ea ipsa dixisse videtur, quod ea, cum sint disiuncta, nec laeduntur nec interitionem recipiunt nec sectionibus dividuntur, sed sempiterno aevo perpetuo infinitam retinent in se soliditatem.

ps.Plutarch Strom. (Plu. fr. 179 Sandbach) at Eus. *PE* 1.8.1–12 Θάλητα (frs. 135, 260 Wöhrle) πρῶτον πάντων φασὶν ἀρχὴν τῶν ὅλων ὑποστήσασθαι τὸ ὕδωρ· ἐξ αὐτοῦ γὰρ εἶναι τὰ πάντα καὶ εἰς αὐτὸ χωρεῖν (~ §1). (2) μεθ' ὃν Ἀναξίμανδρον (12A10 DK), Θάλητος ἑταῖρον γενόμενον, τὸ ἄπειρον φάναι τὴν πᾶσαν αἰτίαν ἔχειν τῆς τοῦ παντὸς γενέσεώς τε καὶ φθορᾶς· ἐξ οὗ δὴ φησὶ τοὺς τε οὐρανούς ἀποκεκρίσθαι, καὶ καθόλου τοὺς ἅπαντας ἀπείρους ὄντας κόσμους (~ §2). (...) (3) Ἀναξίμανην (13A6 DK) δὲ φασὶ τὴν τῶν ὅλων ἀρχὴν τὸν ἀέρα εἰπεῖν, καὶ τοῦτον εἶναι τῷ μὲν μεγέθει ἄπειρον, ταῖς δὲ περὶ αὐτὸν ποιότησιν ὠρισμένον· γεννᾶσθαι τε πάντα κατὰ τινὰ πύκνωσιν τούτου καὶ πάλιν ἀραιῶσιν (~ §3). (...) (4) Ξενοφάνης δ' ὁ Κολοφώνιος (21A32 DK, fr. 79 Strobel–Wöhrle), ἰδίαν τινὰ ὁδὸν πεπορευμένος καὶ παρηλλαχίδα πάντας τοὺς προειρημένους, οὔτε γένεσιν οὔτε φθορὰν ἀπολείπει, ἀλλ' εἶναι λέγει τὸ πᾶν αἰεὶ ὅμοιον· εἰ γὰρ γίγνοιτο τοῦτο, φησὶν, ἀναγκαῖον πρὸ τούτου μὴ εἶναι· τὸ μὴ ὂν δ' οὐκ ἂν γένοιτο οὐδ' ἂν τὸ μὴ ὂν ποιῆσαι τι οὔτε ὑπὸ τοῦ μὴ ὄντος γένοιτ' ἂν τι. ἀποφαίνεται δὲ καὶ τὰς αἰσθήσεις ψευδεῖς, καὶ καθόλου σὺν αὐταῖς καὶ αὐτὸν τὸν λόγον διαβάλλει. ἀποφαίνεται δὲ καὶ τῷ χρόνῳ καταφερομένην συνεχῶς καὶ κατ' ὀλίγον τὴν γῆν εἰς τὴν θάλασσαν χωρεῖν (~ §11, Ti). (...) (5) Παρμενίδης δ' ὁ Ἐλεάτης (28A22 DK), ἑταῖρος Ξενοφάνους, ἅμα μὲν καὶ τῶν τούτου δοξῶν ἀντεποίησατο, ἅμα δὲ καὶ τὴν ἐναντίαν ἐνεχείρησε στάσιν· αἰδίων μὲν γὰρ τὸ πᾶν

καὶ ἀκίνητον ἀποφαίνεται {καί} κατὰ τὴν τῶν πραγμάτων ἀλήθειαν· εἶναι γὰρ αὐτὸ (cf. 28B8.3 DK) 'μόνον μονογενές τε καὶ ἀτρεμές ἡδ' ἀγένητον'· γένεσιν δὲ τῶν καθ' ὑπόληψιν ψευδῇ δοκούντων εἶναι· καὶ τὰς αἰσθήσεις ἐκβάλλει ἐκ τῆς ἀληθείας· φησὶ δ' ὅτι, εἴ τι παρὰ τὸ ὄν ὑπάρχει, τοῦτο οὐκ ἔστιν ὄν, τὸ δὲ μὴ ὄν ἐν τοῖς ὄλοις οὐκ ἔστιν. οὕτως οὖν τὸ ὄν ἀγένητον ἀπολείπει. λέγει δὲ τὴν γῆν τοῦ πυκνοῦ καταρρύντος ἀέρος γεγενῆσθαι (~ Tii). (6) Ζήνων δ' ὁ Ἐλεάτης (29A23 DK) ἴδιον μὲν οὐδὲν ἐξέθετο, διηπόρησε δὲ περὶ τούτων ἐπὶ πλείον (~ T12). (7) Δημόκριτος δ' ὁ Ἀβδηρίτης (68A39 DK) ὑπεστήσατο τὸ πᾶν ἄπειρον διὰ τὸ μηδαμῶς ὑπὸ τινος αὐτὸ δεδημιουργῆσθαι, ἔτι δὲ καὶ ἀμετάβλητον αὐτὸ λέγει· καὶ καθόλου, οἷον τὸ πᾶν ἐστὶ, ῥητῶς ἐκτίθεται, μηδεμίαν ἀρχὴν ἔχειν τὰς αἰτίας τῶν νῦν γιγνομένων, ἄνωθεν δ' ὅλως ἐξ ἀπείρου χρόνου προκατέχεσθαι τῇ ἀνάγκῃ πάνθ' ἄπλως τὰ γεγονότα καὶ ἔοντα καὶ ἐσόμενα. ἡλίῳ δὲ καὶ σελήνῃς γένεσιν φησι· (~ §14) (...) (8)· (~ §16) Ἐπίκουρος Νεοκλέους Ἀθηναῖος ... ὅτι οὐδὲν ξένον ἐν τῷ παντὶ ἀποτελεῖται παρὰ τὸν ἡδὴ γεγεννημένον χρόνον ἄπειρον· ὅτι πᾶν ἐστὶ σῶμα, καὶ οὐ μόνον ἀμετάβλητον ἀλλὰ καὶ ἄπειρον· ὅτι τέλος τῶν ἀγαθῶν ἡδονή. (9) Ἀρίστιππος ὁ Κυρηναῖος (IV A 166 Giannantoni) τέλος ἀγαθῶν τὴν ἡδονὴν κακῶν δὲ τὴν ἀλγὴν δόνα· τὴν δ' ἄλλην φυσιολογίαν περιγράφει, μόνον ὠφέλιμον εἶναι λέγων τὸ ζητεῖν (*Od.* 4.392) 'ὅττι τοι ἐν μεγάρῳσι κακὸν τ' ἀγαθὸν τε τέτυκται' (—). (10) Ἐμπεδοκλῆς ὁ Ἀκραγαντῖνος (31A30 DK) στοιχεῖα τέσσαρα, πῦρ, ὕδωρ, αἰθέρα, γαῖαν· αἰτίαν δὲ τούτων Φιλίαν καὶ Νεῖκος (~ §19)· (...) (11) Μητροδῶρος ὁ Χίος (70A4 DK) αἰδῖον εἶναι φησι τὸ πᾶν, ὅτι, εἰ ἦν γενητόν, ἐκ τοῦ μὴ ὄντος ἂν ἦν· ἄπειρον δέ, ὅτι αἰδῖον· οὐ γὰρ ἔχειν ἀρχὴν ὅθεν ἦρξατο οὐδὲ πέρας οὐδὲ τελευτήν (~ §15). ... (12) Διογένης ὁ Ἀπολλωνιάτης (64A6 DK, T22 Laks) ἀέρα ὑφίσταται στοιχείῳ (~ §10) κτλ. **Heraclitus** *All.Hom.* 22.2–9 καὶ τῶν φυσικῶν κατὰ τὰ στοιχεῖα δογμάτων εἰς ἀρχηγὸς Ὁμηρος, ἐκάστω τινὶ τῶν μετ' αὐτὸν ἥς ἔδοξεν εὐρεῖν ἐπινοίας γεγενῶς διδασκαλός. Θάλητα μὲν γε τὸν Μιλήσιον (fr. 94 Wöhrle) ὁμολογοῦσι πρῶτον ὑποστήσασθαι τῶν ὄλων κοσμογόνον στοιχείῳ τὸ ὕδωρ· (cf. *infra* §1) ... ἀλλ' ὁ Κλαζομένιος Ἀναξαγόρας [sic, for Xenophanes], κατὰ διαδοχὴν γνῶριμος ὢν Θάλητος, συνέχευε τῷ ὕδατι δεύτερον στοιχείῳ τὴν γῆν κτλ. ... ἐσχάτη τοίνυν ὑπὸ τῶν μεγίστων φιλοσόφων ἡ τελεία τετράς ἐν τοῖς στοιχείοις συνεπληρώθη. ... **Galen** *Hipp.Elem.* 2, p. 58.7–10 De Lacy χρὴ γὰρ διελέσθαι πρῶτον μὲν, εἰ ἐν τι τὴν ιδέαν ἐστὶ τὸ στοιχεῖον ἢ πολλὰ καὶ ποικίλα καὶ ἀνόμοια, δεύτερον δ' εἰ πολλὰ καὶ ποικίλα καὶ ἀνόμοια, πόσα τε καὶ τίνα καὶ ὅποια ταῦτ' ἐστὶ καὶ ὅπως ἔχοντα τῆς πρὸς ἄλληλα κοινωνίας.

Diogenes of Oenoanda fr. 6 col. I.8–III.6 Smith παραθήσομεν προ[διαλ]υσάμενοι τὰς ἐτέ[ρων] δόξας. Ἡράκλειτος (T 376 Mouraviev) | [μὲν] οὖν ὁ Ἐφέσιος πῦρ εἶ[ναι] σ[τοιχείῳ] εἶ[πεν], Θα[λῆς] (fr. 188 Wöhrle) δ[ὲ] ὁ Μελήσιος ὕδωρ, | [Διογέ]νης [δὲ] ὁ Ἀπολλω[II.1]νιάτης (—) καὶ Ἀναξίμενης (fr. 61 Wöhrle) | ἀέρα, Ἐμπεδοκλῆς δ' ὁ Ἀκραγ(αντεῖνος) (—) | καὶ πῦρ καὶ ἀέρα | καὶ ὕδωρ καὶ γῆν, Ἀναξ(αγόρας) δ' ὁ Κλαζομένιος (—) | τὰς ὁμοιομερείας ἐκάσ[του] πράγματος, οἱ δ' ἀπὸ | τῆς Στοᾶς (—) ὕλην καὶ θε[όν]. Δημόκριτος δὲ ὁ Ἀβδηρίτης (fr. 39 Luria) εἶπε μὲν ἀτό[μους] φύσεις, καλῶς γε ποι[ῶν]· ἐπεὶ δὲ περὶ αὐτῶν | ἐσφάλη τινὰ, ἐν ταῖς ἡ[μετέραις] δόξαις ἐπισκε[III.1]φθήσεται. νυνεὶ δὲ τοῖς | εἰρημένους ἀνδρά[σιν] ἐν[ὲν] καλέσομεν, οὐ φιλο[νεί]κω πρὸς αὐτοὺς π[ά]θει | χρώμενοι, τὴν δ' ἀλ[γῇ]αν σωθῆναι θέλον[τες]. fr. 100 Smith (2003).

Irenaeus of Lyon (cited Diels *DG* 171–172) *Haer.* 2.14.2–6 Rousseau–Doutreleau (trans. Rufini) *Thales quidem Milesius* (fr. 145 Wöhrle) *universorum generationem et initium aquam dixit esse: idem autem est dicere aquam et Bythum. Homerus autem poeta* (*Il.* 14.201) *Oceanum deorum genesim et matrem Tethyn dogmatizavit: quae quidem hi* (sc. the Valentinians) *in Bythum et Sigen transtulerunt. Anaximander* (fr. 52 Wöhrle) *autem hoc quod immensum est omnium initium subiecit, seminaliter habens in semetipso omnium genesim, ex quo immensos mundos constare ait: et hoc autem in Bythum et in Aeonas ipsorum transfigurauerunt. Anaxagoras* (59A113 DK) *autem, qui et atheus cognominatus est, dogmatizavit facta animalia decidentibus e caelo in terram seminibus: quod et hi ipsi in Matris suae transtulerunt semina, et esse hoc semen seipsos, statim confitentes apud eos qui sensum habent et ipsos esse quae sunt Anaxagoris irreligiosi semina.* (3) *umbram autem et vacuum ipsorum a Democrito* (—) *et Epicuro* (—) *sumentes sibimetipsis aptaverunt, cum illi primum multum sermonem fecerint de vacuo et de atomis, quorum alterum quidem quid esse vocaverunt, alterum vero quod non est appellaverunt: quemadmodum et hi esse quidem illa quae sunt intra Pleroma vocant, quemadmodum illi atomos, non esse autem haec quae sunt extra Pleroma, quemadmodum illi vacuum. semetipsos ergo in hoc mundo cum sint extra Pleroma, in locum qui non est deputaverunt. quod autem dicunt imagines esse haec eorum quae sunt sursum, manifestissime Democriti et Platonis sententiam edisserunt: Democritus enim primus ait multas et varias ab universitate figuras expressas descendisse in hunc mundum, Plato vero rursus materiam dicit et exemplum et Deum. ...* (4) *et hoc autem quod ex subiecta materia dicunt Fabricatorem fecisse mundum, et Anaxagoras* (—) *et Empedocles* (—) *et Plato primi ante hos dixerunt, ut videlicet datur intellegi, et ipsi a Matre sua inspirati. quod autem ex necessitate unumquidque in illa secedit ex quibus et factum esse dicunt, et huius necessitatis servum esse Deum, ita ut non possit mortali immortalitatem addere vel corruptibili incorruptelam donare, sed secedere unumquemque in similem naturae suae substantiam, et hi qui ex porticu Stoici* (—) *appellantur et universi quotquot Deum ignorant poetae et conscriptores adfirmant. ...* (6) *quod autem velint in numeros transferre universum hoc, a Pythagoricis* (—) *acceperunt. primum enim hi initium omnium numeros substituerunt, et initium ipsorum parem et imparem, ex quibus et ea quae sensibilia et insensata sunt subiecerunt. ... sensationis autem initia dixerunt, in quem sensus intellegens est eius quod primum adsumptum est, quaerit quoadusque defatigata ad unum et indivisibile concurrat. et esse omnium initium et substantiam universae generationis hen, id est unum: ex hoc autem dyadem et tetradem et pentadem et reliquorum multifariam generationem.*

Diogenes Laertius *V.P.* 7.132 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. οἱ Στωικοί) εἷς τε ... καὶ περὶ ἀρχῶν καὶ στοιχείων (cf. chs. 1.2–3). **Tertullian** *de An.* 32.4 *ceterum si et atomos Epicuri tenerem et numeros Pythagorae viderem et ideas Platonis offenderem et entelechias Aristotelis occuparem, etc.* **Sextus Empiricus** *M.* 9.4–11 ἐπεὶ οὖν οἱ δοκοῦντες ἀκριβέστερον κατὰ τὸν φυσικὸν τρόπον περὶ τῶν τοῦ παντὸς ἀρχῶν διατετάχθαι τὰς μὲν τινὰς αὐτῶν δραστηρίους εἶναι λέγουσι, τὰς δὲ ὑλικὰς (***) ὥν τῆς δόξης ἀρχηγὸς ἀξιούται τυγχάνειν ὁ ποιητὴς Ὅμηρος καὶ μετὰ

τούτον γε Ἀναξαγόρας ὁ Κλαζομένιος (—) καὶ Ἐμπεδοκλῆς ὁ Ἀκραγαντίνος (—) καὶ ἄλλοι παμπληθεῖς. (5) ὁ μὲν γὰρ ποιητὴς περὶ τούτων ἀποδιδοὺς φασιν ἐν οἷς περὶ Πρωτέως καὶ Εἰδοθέας ἀλληγορεῖ (*Od.* 4.365–366), τὸ μὲν πρῶτον καὶ ἀρχικώτατον αἴτιον Πρωτέα καλῶν, τὴν δὲ εἰς εἶδη τρεπομένην οὐσίαν Εἰδοθέαν. (6) ὁ δὲ Ἀναξαγόρας φησὶν (cf. 59B1 DK): ‘ἦν πάντα ὁμοῦ χρήματα, νοὺς δὲ ἐλθὼν αὐτὰ διεκόσμησεν’, τὸν μὲν Νοῦν, ὅς ἐστι θεὸς κατ’ αὐτόν, δραστήριον ὑποτιθέμενος ἀρχήν, τὴν δὲ τῶν ὁμοιομερειῶν πολυμιγίαν ὕλικήν. (7) ὁ δὲ Ἀριστοτέλης (*Met.* A.3 984b18–31 where the fragments of Hesiod and Parmenides are also cited) καὶ Ἐρμότιμόν φησι τὸν Κλαζομένιον καὶ Παρμενίδην τὸν Ἐλεάτην καὶ πολὺ πρότερον τὸν Ἡσίοδον ταῦτα φρονεῖν κατασκευάζοντες γὰρ τὴν τῶν ὅλων γένεσιν ἔρωτα συμπαρέλαβον, τουτέστι τὴν κινητικὴν καὶ συναγωγὸν τῶν ὄντων αἰτίαν, (8) ὁ μὲν Ἡσίοδος λέγων (*Th.* 116–117 + 120) ‘ἦτοι μὲν πρῶτιστα χάος γένετ’, αὐτὰρ ἔπειτα / γαῖ’ εὐρύστερνος, πάντων ἔδος ἀσφαλὲς αἰεὶ, / ... / ἡδ’ ἔρος, ὃς κάλλιστος ἐν ἀθανάτοισι θεοῖσιν’, (9) ὁ δὲ Παρμενίδης (28B13 DK) ῥητῶς ἀποφηνάμενος ‘πρῶτιστον μὲν ἔρωτα θεὸν μητίσατο πάντων’. (10) δόξαι δ’ ἂν, ὡς προεῖπον, καὶ ὁ Ἐμπεδοκλῆς τοιοῦτος εἶναι· σὺν γὰρ τοῖς τέσσαρσι στοιχείοις τὸ Νεῖκος καὶ τὴν Φιλίαν καταριθμεῖται, τὴν μὲν Φιλίαν ὡς συναγωγὸν αἰτίαν, τὸ δὲ Νεῖκος ὡς διαλυτικὴν· ‘πῦρ’ γὰρ φησι (31B17.18–20 DK) ‘καὶ ὕδωρ καὶ γαῖα καὶ ἡέρος ἥπιον ὕψος, / Νεῖκός τ’ οὐλόμενον δίχα τῶν, ἀτάλαντον ἀπάντη, / καὶ Φιλότης μετὰ τοῖσιν, ἴση μῆκός τε πλάτος τε’. (11) οὐ μὴν ἀλλὰ καὶ οἱ ἀπὸ τῆς Στοᾶς (*SVF* 2.301) δύο λέγοντες ἀρχάς, θεὸν καὶ ἄποιον ὕλην, τὸν μὲν θεὸν ποιεῖν ὑπειλίφασιν, τὴν δὲ ὕλην πάσχειν τε καὶ τρέπεσθαι. *M.* 9.359–364 περὶ τῶν ἀνωτάτων καὶ ἀρχικωτάτων στοιχείων δύο μὲν αἱ πρῶται γεγόνασιν στάσεις, πλείους δὲ κατ’ εἶδος. οἱ μὲν γὰρ σώματα ἔλεξαν εἶναι τὰ τῶν ὄντων στοιχεῖα, οἱ δὲ ἀσώματα. (360) καὶ τῶν σώματα φαμένων Φερεκύδης μὲν ὁ Σύριος (*Schibli* p. 179) γῆν ἔλεξε πάντων εἶναι ἀρχὴν καὶ στοιχεῖον, Θαλῆς δὲ ὁ Μιλήσιος (*fr.* 143 *Wöhrlé*) ὕδωρ, Ἀναξίμανδρος (*fr.* 51 *Wöhrlé*) δὲ ὁ ἀκουστής τούτου τὸ ἄπειρον, Ἀναξίμένης (*fr.* 30 *Wöhrlé*) δὲ καὶ Ἰδαῖος ὁ Ἱμεραῖος (63 DK) καὶ Διογένης ὁ Ἀπολλωνιάτης (—) καὶ Ἀρχέλαος ὁ Ἀθηναῖος (60A7 DK), Σωκράτους δὲ καθηγητῆς, καὶ κατ’ ἐνίους Ἡράκλειτος (*T* 696 *Mouraviev*) ἀέρα, Ἰππασος δὲ ὁ Μεταποντίνος καὶ κατ’ ἐνίους Ἡράκλειτος (*T* 696 *Mouraviev*) πῦρ, (361) Ξενοφάνης δὲ ὕδωρ καὶ γῆν, ‘πάντες γὰρ γαῖης τε καὶ ὕδατος ἐκγενόμεσθα’ (21B33 DK), Ἰππῶν δὲ ὁ Πηγίνος (38A5DK) πῦρ καὶ ὕδωρ, Οἰνοπίδης δὲ ὁ Χίος (—) πῦρ καὶ ἀέρα, Ὀνομάκριτος (*Orph.* 108I *Bernabé*) δὲ ἐν τοῖς Ὀρφικοῖς πῦρ καὶ ὕδωρ καὶ γῆν, (362) οἱ δὲ περὶ τὸν Ἐμπεδοκλέα (31B6 DK) καὶ οἱ ἀπὸ τῆς Στοᾶς (—) γῆν καὶ ὕδωρ καὶ ἀέρα καὶ πῦρ, ‘τέσσαρα γὰρ πάντων ριζώματα πρῶτον ἄκουε· / Ζεὺς ἀργῆς Ἥρη τε φερέσβιος ἡδ’ Αἰδωνεύς / Νῆστis θ’, ἡ δακρύοις τέγγει κρούνωμα βρότειον’, (363) Δημόκριτος (68A55 DK) δὲ καὶ Ἐπίκουρος (—) ἀτόμους, εἰ μὴ τι ἀρχαιοτέραν ταύτην θετέον τὴν δόξαν καί, ὡς ἔλεγεν ὁ Στωικὸς Ποσειδώνιος (*F* 286 E.-K., 57b *Theiler*), ἀπὸ Μῶχου τινὸς ἀνδρὸς Φοίνικος καταγομένην, Ἀναξαγόρας δὲ ὁ Κλαζομένιος (—) ὁμοιομερείας, Διόδωρος δὲ ὁ ἐπικληθεὶς Κρόνος (*fr.* 117D *Döring*, II *F* 8 *Giannantonio*) ἐλάχιστα καὶ ἀμερῆ σώματα, Ἀσκληπιάδης δὲ ὁ Βιθυνὸς (cf. *Vallance ANRW* 2.37.1, p. 726) ἀνάρμους ὄγκους. (364) τῶν δὲ ἀσώματα δογματιζόντων οἱ μὲν περὶ Πυθαγόραν (—) τοὺς ἀριθμοὺς ἔλεξαν πάντων ἀρχεῖν, οἱ δὲ μαθηματικοὶ τὰ πέρατα τῶν σωματῶν, οἱ δὲ περὶ τὸν Πλάτωνα τὰς ιδέας. (365) τοιαύτης δὲ οὕσης τῆς κατὰ γένος καὶ κατ’ εἶδος

τῶν φυσικῶν διαστάσεως, ἐνέσται πρὸς πάντας κοινῶς ἀντερεῖν. *M.* 10.310–318 (quoted without naming Sextus in Hippol. *Ref.* 10.6.2–7.6) τῶν σκεψαμένων περὶ τῆς τοῦ παντὸς συστάσεως οἱ μὲν ἐξ ἐνὸς ἐγέννησαν τὰ πάντα, οἱ δ' ἐκ πλειόνων, καὶ (311) τῶν ἐξ ἐνὸς οἱ μὲν ἐξ ἀποίου, οἱ δὲ ἐκ ποιοῦ, καὶ τῶν ἐκ ποιοῦ οἱ μὲν ἐκ πυρὸς, οἱ δ' (ἐξ) ἀέρος, οἱ δ' ἐξ ὕδατος, ἄλλοι ἐκ γῆς, καὶ τῶν ἐκ πλειόνων οἱ μὲν (ἐξ) ἀριθμητῶν, οἱ δ' ἐξ ἀπείρων, καὶ τῶν ἐξ ἀριθμητῶν οἱ μὲν ἐκ δύο, οἱ δ' ἐκ τεσσάρων, οἱ δ' ἐκ πέντε, οἱ δ' ἐξ ἑξ, καὶ τῶν ἐξ ἀπείρων οἱ μὲν ἐξ ὁμοίων τοῖς γεννωμένοις, οἱ δὲ ἐξ ἀνομοίων, καὶ τούτων οἱ μὲν ἐξ ἀπαθῶν, οἱ δ' ἐκ παθητῶν. (312) ἐξ ἀποίου μὲν οὖν καὶ ἐνὸς σώματος τὴν τῶν ὅλων ὑπεστήσαντο γένεσιν οἱ Στωικοὶ (*SVF* 2.309)· ἀρχὴ γάρ τῶν ὄντων κατ' αὐτοὺς ἐστὶν ἡ ἀποῖος ὕλη καὶ δι' ὅλων τρεπτή, μεταβαλλούσης τε ταύτης γίνεται τὰ τέσσαρα στοιχεῖα, πῦρ καὶ ἀήρ, ὕδωρ καὶ γῆ. (313) ἐξ ἐνὸς δὲ καὶ ποιοῦ γεγενῆσθαι τὰ πάντα θέλουσιν οἱ τε περὶ τὸν Ἰππασσον (—) καὶ Ἀναξίμενη (fr. 33 Wöhrle) καὶ Θαλῆ (fr. 144 Wöhrle), ὧν Ἰππασσος μὲν καὶ κατὰ τινας Ἡράκλειτος ὁ Ἐφέσιος (*T* 697 Mouraviev) ἐκ πυρὸς ἀπέλιπον τὴν γένεσιν, Ἀναξίμενης δὲ ἐξ ἀέρος (fr. 33 Wöhrle), Θαλῆς δὲ ἐξ ὕδατος (fr. 144 Wöhrle), Ξενοφάνης (—) δὲ κατ' ἐνίους ἐκ γῆς· ἐκ γαίης γάρ πάντα, καὶ εἰς γῆν πάντα τελευτᾷ' (21B27 DK). (314) ἐκ πλειόνων δὲ καὶ ἀριθμητῶν, δυεῖν μὲν, γῆς τε καὶ ὕδατος, ὁ ποιητὴς Ὅμηρος, ὅτε μὲν λέγων (*Il.* 14.201) Ὠκεανόν τε, θεῶν γένεσιν, καὶ μητέρα Τηθύν, ὅτε δὲ (*Il.* 7.99) ἄλλ' ὑμεῖς μὲν πάντες ὕδωρ καὶ γαῖα γένοισθε'. συμφέρεσθαι δ' αὐτῷ δοκεῖ κατ' ἐνίους καὶ ὁ Κολοφώνιος Ξενοφάνης· φησὶ γάρ (21B33 DK)· πάντες γάρ γαίης τε καὶ ὕδατος ἐκγενόμεσθα'. (315) ἐκ γῆς δὲ καὶ αἰθέρος Εὐριπίδης, ὡς πάρεστιν ἐκδέξασθαι ἐκ τοῦ λέγειν αὐτόν (*Antigone* fr. 1023 N², 182a Kannicht) Ἀιθέρα καὶ Γαίαν πάντων γενέτειραν αἰεῖδω'. ἐκ τεσσάρων δὲ ὁ Ἐμπεδοκλῆς (31B6 DK)· τέσσαρα γάρ πάντων ριζώματα πρῶτον ἄκουε· / Ζεὺς ἀργῆς Ἥρῃ τε φερέσβιος ἡ δ' Αἰδωνεύς / Νηστῆς θ', ἡ δακρύοις τέγγει κρούνωμα βρότειον'. (316) ἐκ πέντε δὲ Ὀκελος ὁ Λευκανὸς (48.3a DK) καὶ Ἀριστοτέλης· συμπάρελαβον γάρ τοῖς τέσσαρσι στοιχείοις τὸ πέμπτον καὶ κυκλοφορητικὸν σῶμα, ἐξ οὗ λέγουσιν εἶναι τὰ οὐράνια. (317) ἐκ δὲ τῶν ἐξ τὴν πάντων ὑπέθεντο γένεσιν οἱ περὶ τὸν Ἐμπεδοκλέα. ἐν οἷς μὲν γάρ λέγει (31B6.1 DK) τέσσαρα τῶν πάντων ριζώματα' ἐκ τεσσάρων ποιεῖ τὴν γένεσιν· ὅταν δὲ προσθῇ (31B17.19–20 DK) Νεῖκος τ' οὐλόμενον δίχα τῶν, ἀτάλαντον ἀπάντη, / καὶ Φιλίη μετὰ τοῖσιν, ἴση μῆκος τε πλάτος τε', ἐξ παραδίδωσι τὰς τῶν ὄντων ἀρχάς, τέσσαρας μὲν τὰς ὕλικάς, γῆν ὕδωρ ἀέρα πῦρ, δύο δὲ τὰς δραστηρίους, Φιλίαν καὶ Νεῖκος. (318) ἐξ ἀπείρων δ' ἐδόξασαν τὴν τῶν πραγμάτων γένεσιν οἱ περὶ Ἀναξαγόραν τὸν Κλαζομένιον (—) καὶ Δημόκριτον (—) καὶ Ἐπίκουρον (—) καὶ ἄλλοι παμπληθεῖς, ἀλλ' ὁ μὲν Ἀναξαγόρας ἐξ ὁμοίων τοῖς γεννωμένοις, οἱ δὲ περὶ τὸν Δημόκριτον καὶ Ἐπίκουρον ἐξ ἀνομοίων τε καὶ ἀπαθῶν, τουτέστι τῶν ἀτόμων, οἱ δὲ περὶ τὸν Ποντικὸν Ἡρακλείδην (fr. 120 Wehrli, 61 Schütrumpf) καὶ Ἀσκληπιάδην (cf. Vallance *ANRW* 2.37.1, p. 726) ἐξ ἀνομοίων μὲν, παθητῶν δὲ, καθάπερ τῶν ἀνάρμων ὄγκων. *P.* 3.30–32 ζ' Περὶ ὕλικῶν ἀρχῶν. (30) ... συντόμως δὲ καὶ περὶ τῶν ὕλικῶν καλουμένων ἀρχῶν λεκτέον. ὅτι τοίνυν αὐταῖ εἰσὶν ἀκατάληπτοι, ῥᾶδιον συνιδεῖν ἐκ τῆς περὶ αὐτῶν γεγενημένης διαφωνίας παρὰ τοῖς δογματικοῖς. Φερεκύδης μὲν γάρ ὁ Σύριος (fr. 77 Schibli) γῆν εἶπε τὴν πάντων εἶναι ἀρχήν, Θαλῆς δὲ ὁ Μιλήσιος (fr. 140 Wöhrle) ὕδωρ, Ἀναξίμανδρος δὲ ὁ ἀκουστής τούτου (fr. 49 Wöhrle) τὸ ἄπειρον, Ἀναξίμενης (fr. 30 Wöhrle) δὲ καὶ Διογένης ὁ Ἀπολλωνιάτης

(—) ἀέρα, Ἰππασος δὲ ὁ Μεταποντίνος (—) πῦρ, Ξενοφάνης δὲ ὁ Κολοφώνιος (—) γῆν καὶ ὕδωρ, Οἰνοπίδης δὲ ὁ Χίος (41.5 DK) πῦρ καὶ ἀέρα, Ἰππων δὲ ὁ Ῥηγίνος (38.1 DK) πῦρ καὶ ὕδωρ, Ὀνομάκριτος δὲ ἐν τοῖς Ὀρφικοῖς (*Orph.* 108I Bernabé) πῦρ καὶ ὕδωρ καὶ γῆν, (31) οἱ δὲ περὶ τὸν Ἐμπεδοκλέα (—) καὶ τοὺς Στωικοὺς (—) πῦρ ἀέρα ὕδωρ γῆν—περὶ γὰρ τῆς τερατολογουμένης ἀποίου παρὰ τισιν ὕλης, ἣν οὐδὲ αὐτοὶ καταλαμβάνειν διαβιβάζονται, τί δεῖ καὶ λέγειν; οἱ δὲ περὶ Ἀριστοτέλην τὸν Περιπατητικὸν (—) πῦρ ἀέρα ὕδωρ γῆν τὸ κυκλοφορητικὸν σῶμα, (32) Δημόκριτος (cf. fr. 124 Luria) δὲ καὶ Ἐπίκουρος (—) ἀτόμους, Ἀναξαγόρας δὲ ὁ Κλαζομένιος (—) ὁμοιομερείας, Διόδωρος δὲ ὁ ἐπικληθεὶς Κρόνος (fr. 117C Döring, II F 8 Giannantoni) ἐλάχιστα καὶ ἀμερῆ σώματα, Ἡρακλείδης δὲ ὁ Ποντικός (fr. 119b Wehrli, 60B Schütrumpf) καὶ Ἀσκληπιάδης ὁ Βιθυνὸς (cf. Vallance *ANRW* 2.37.1, p. 726) ἀνάρμους ὄγκους, οἱ δὲ περὶ Πυθαγόραν (—) τοὺς ἀριθμούς, οἱ δὲ μαθηματικοὶ τὰ πέρατα τῶν σωμάτων, Στράτων δὲ ὁ φυσικός (fr. 43 Wehrli, 45B Sharples) τὰς ποιότητας. **ps.Galen** *Hph* c. 18, *DG* pp. 610.8–611.3 καὶ περὶ μὲν τῆς δραστηκῆς αἰτίας ἐπὶ τοσούτον. διεξελεῖν δ' ἂν εἴη καιρὸς καὶ περὶ τῆς ὕλικῆς. οἱ φυσικοὶ περὶ ταύτης εἰπόντες εἶναι μὲν ἀρχὴν ὕλικήν ἅπαντες ὁμοίως δεδώκασι, οὐ μὴν ἅπαντες εἶναι τὴν αὐτήν. ἀλλὰ Φερεκύδης μὲν ὁ Ἀσσύριος [read Σύρος] γῆν εἶναι ταύτην ἐνόμισε, Θαλῆς (fr. 392 Wöhrlé) δὲ ὕδωρ, Ἀναξίμανδρος (fr. 219 Wöhrlé) δὲ τὸ ἀπειρον, Ἀναξίμενης (fr. 178 Wöhrlé) δὲ καὶ Διογένης ὁ Ἀπολλωνιάτης (—) ἀέρα, πῦρ δὲ Ἰππασος ὁ Μεταποντίνος (—), Ξενοφάνης δ' ὁ Κολοφώνιος (fr. 92 Strobel-Wöhrlé) γῆν καὶ ὕδωρ. Ἰππων δὲ ὁ Ῥηγίνος (—) πῦρ καὶ ὕδωρ, Οἰνοπίδης δὲ ὁ Χίος (see fr. 5 Boddinar) πῦρ καὶ ἀέρα, Ὀνομάκριτος (see 1A1, *VS* p. 1.10 in app.) δὲ ἐν τοῖς Ὀρφικοῖς (108 F ii, 1114 F i Bernabé) γῆν καὶ πῦρ καὶ ὕδωρ, οἱ Στωικοὶ (—) δὲ τέσσαρα στοιχεῖα γῆν καὶ πῦρ καὶ ὕδωρ καὶ ἀέρα, Ἀριστοτέλης (—) δὲ τούτοις προσέθηκε καὶ τὸ κυκλοφορητικὸν σῶμα. Ἐμπεδοκλῆς (—) δὲ τέτταρσι στοιχείοις προσήγαγε Φιλίαν καὶ Νεῖκος, τῶν μὲν τεσσάρων στοιχείων ὕλικῶν ὄντων (καὶ) τῆς Φιλίας ταῦτα συγκρινούσης, τοῦ δὲ Νείκους διαλύοντος καὶ διακρίνοντος· Δημόκριτος (fr. 124 Luria) δὲ καὶ Ἐπίκουρος (—) τὰς ἀτόμους ἀρχὰς πάντων νομίζουσιν, Ἡρακλείδης δὲ ὁ Ποντικός (fr. 119a Wehrli, 60A Schütrumpf) καὶ Ἀσκληπιάδης ὁ Βιθυνὸς (cf. Vallance *ANRW* 2.37.1, p. 721) ἀνάρμους ὄγκους τὰς ἀρχὰς ὑποτίθενται τῶν ὄλων, Ἀναξαγόρας δὲ ὁ Κλαζομένιος (—) τὰς ὁμοιομερείας, Διόδωρος δὲ ὁ Κρόνος (fr. 117 Döring, II F 8 Giannantoni) ἐπικεκλημένος ἀμερῆ καὶ ἐλάχιστα σώματα, Πυθαγόρας (—) δὲ τοὺς ἀριθμούς, οἱ μαθηματικοὶ (—) δὲ τὰ πέρατα τῶν σωμάτων, Στράτων (fr. 42 Wehrli, 45A Sharples) δὲ ὁ φυσικός προσωνομασμένος τὰς ποιότητας.

Clement of Alexandria *Strom.* 1.11.52.4 στοιχεῖα δὲ σέβουσι Διογένης (—) μὲν τὸν ἀέρα, Θαλῆς (fr. 198 Wöhrlé) δὲ τὸ ὕδωρ, Ἰππασος (—) δὲ τὸ πῦρ, καὶ οἱ τὰς ἀτόμους ἀρχὰς ὑποτιθέμενοι (—), φιλοσοφίας ὄνομα ὑποδυόμενοι, ἄθεοι τινες ἀνθρωπίσκοι καὶ φιλήδονοι. *Strom.* 1.62.1–64.5 φιλοσοφίας τοῖνυν μετὰ τοὺς προειρημένους ἄνδρας (sc. the seven sages) τρεῖς γεγόνασι διαδοχαὶ ἐπάνωμι τῶν τόπων περὶ οὓς διέτριψαν, Ἰταλικὴ μὲν ἢ ἀπὸ Πυθαγόρου, Ἰωνικὴ δὲ ἢ ἀπὸ Θαλοῦ, Ἑλεατικὴ δὲ ἢ ἀπὸ Ξενοφάνους κτλ. **Eusebius** *PE* 1.7.16 (introducing ps.Plut. *Strom.*) τούτῳ (sc. συντυχητὴν δὲ τινα καὶ αὐτόματον εἶναι τὴν τοῦ παντὸς διακόσμησιν) δ' ἂν εὖροις συμφώνους καὶ τοὺς πλείστους τῶν παρ' Ἑλλήσι φιλοσόφων, ὧν ἐγὼ σοι τὰς περὶ ἀρχῶν δόξας καὶ τὰς πρὸς ἀλλήλους διαστάσεις καὶ διαφωνίας, ἐκ στοχασμῶν ἄλλ' οὐκ ἀπὸ καταλήψεως ὀρμηθείσας, ἀπὸ τῶν Πλουτάρχου Στρωματέων ἐπὶ τοῦ παρόν-

τος ἐκθήσομαι. *PE* 10.14.9–14 Θαλῆς ὁ Μιλήσιος (fr. 265 Wöhrle) φυσικὸς πρῶτος Ἑλλήνων γεγωνὸς περὶ τροπῶν ἡλίου καὶ ἐκλείψεως καὶ φωτισμῶν σελήνης καὶ ἰσημερίας διελέχθη· ἐγένετο δ' ὁ ἀνὴρ ἐπιστημώτατος ἐν τοῖς Ἑλλήσι. Θάλεω δὲ γίνεται ἀκουστικὸς Ἀναξίμανδρος (fr. 102 Wöhrle), Πραξιάδου μὲν παῖς, γένος δὲ καὶ αὐτὸς Μιλήσιος. οὗτος πρῶτος γνῶμονας κατεσκεύασε πρὸς διάγνωσιν τροπῶν τε ἡλίου καὶ χρόνων καὶ ὥρων καὶ ἰσημερίας. Ἀναξίμανδρου δὲ γνώριμος ἐγένετο Ἀναξίμενης Εὐρυστράτου Μιλήσιος (fr. 85 Wöhrle)· τούτου δὲ Ἀναξαγόρας Ἡγησιβούλου Κλαζομένιος (see below, §4). ... Ἀναξαγόρου δὲ ἐγένοντο γνώριμοι τρεῖς, Περικλῆς, Ἀρχέλαος, Εὐριπίδης· ὁ δὲ Ἀρχέλαος (—) ἐν Λαμψάκῳ διεδέξατο τὴν σχολὴν τοῦ Ἀναξαγόρου, μεταβάς δ' εἰς Ἀθήνας ἐκεῖ ἐσχόλασε καὶ πολλοὺς ἔσχεν Ἀθηναίων γνωρίμους, ἐν οἷς καὶ Σωκράτην. *PE* 14.3.7–9 (cited Diels *DG* 169) ὁ δὲ Δημόκριτος (—) ἀρχὰς τῶν ὄλων ἔφη εἶναι τὸ κενὸν καὶ τὸ πλήρες· τὸ πλήρες δὲ λέγων καὶ στερεόν, τὸ δὲ κενὸν μὴ ὄν. ... ὁ δὲ Ἡράκλειτος (T 844 Mouraviev) ἀρχὴν τῶν πάντων ἔφη εἶναι τὸ πῦρ, ἐξ οὗ τὰ πάντα γίνεται καὶ εἰς ὃ ἀναλύεται. ἀμοιβὴν γὰρ εἶναι τὰ πάντα χρόνον τε ὥρισθαι τῆς τῶν πάντων εἰς τὸ πῦρ ἀναλύσεως καὶ τῆς ἐκ τούτου γενέσεως. οἷδε μὲν οὖν πάντα κινεῖσθαι ἔφασαν. ὁ δὲ Παρμενίδης (—), τὸ γένος Ἑλεάτης ὢν, ἐν μὲν εἶναι τὸ πᾶν, ἀγέννητον δὲ καὶ ἀκίνητον καὶ κατὰ σχῆμα σφαιροειδὲς ὑπάρχειν ἐδογματίζε. Παρμενίδου δὲ Μέλισσος (—) ἐταίρος γέγονε, τὰ αὐτὰ τῷ Παρμενίδῃ δοξάζων. *Protr.* 66.1 (cited Diels *DG* 129) τῶν δὲ ἄλλων φιλοσόφων ὅσοι τὰ στοιχεῖα ὑπερβάντες ἐπολυπραγμόνησάν τι ὑψηλότερον καὶ περιττότερον, οἱ μὲν αὐτῶν τὸ ἄπειρον καθύμνησαν, ὡς Ἀναξίμανδρος (Μιλήσιος ἦν) (fr. 72 Wöhrle) καὶ Ἀναξαγόρας ὁ Κλαζομένιος (60A11 DK) καὶ ὁ Ἀθηναῖος Ἀρχέλαος (—). τούτῳ μὲν γε ἄμφω τὸν νοῦν ἐπεστησάτην τῇ ἀπειρίᾳ, ὁ δὲ Μιλήσιος Λεύκιππος (cf. 67A12 DK) καὶ ὁ Χῖος Μητροδῶρος (cf. 70A3 DK) διττάς, ὡς ἔοικεν, καὶ αὐτῷ ἀρχὰς ἀπειλίπτην τὸ πλήρες καὶ τὸ κενόν.

ps.Galen *Hph* c. 3, *DG* pp. 598.226–601.18 ἔστι τοίνυν ὁ πρῶτος ὑπὸ τῶν πλείστων ὑπειλημμένος τὸν φιλόσοφον τρόπον εἰς τοὺς Ἰωνας ὑπειλημμένους Θαλῆς ὁ Μιλήσιος (fr. 391 Wöhrle), δι' ὃν καὶ τὴν κατ' ἐκείνον φιλοσοφίαν Ἰωνικὴν ἄπαντες ὀνομάζουσιν (~ §1). τούτου δὲ γνώριμος Ἀναξίμανδρος (fr. 218 Wöhrle) γεγωνὸς ὁμοίως φιλοσοφῶν γέγονε (~ §2) καὶ τὸν Ἀναξίμενην (fr. 177 Wöhrle) μετὰ ταῦτα ζηλωτὴν εἶναι (~ §3) τῆς αὐτοῦ προαιρέσεως πεπονηκῶς Ἀναξαγόρου (—) καθηγητὴν γενέσθαι (~ §4) παρεσκεύασεν. οὗτος δὲ τὴν Μίλητον ἀπολελοιπὼς ἦκεν εἰς τὰς Ἀθήνας καὶ Ἀρχέλαον τὸν Ἀθηναῖον (—) (~ §5) πρῶτον εἰς φιλοσοφίαν παρῶρμησεν. ... Λεύκιππος ὁ Ἀβδηρίτης (—) ... τὴν τῶν ἀτόμων εὐρεσιν ἐπινενόηκε πρῶτος (~ §13)· Δημόκριτος (fr. 152 Luria) δὲ παρ' αὐτοῦ τὸ δόγμα παρειληφώς (~ §14). κτλ. *Hph* c. 18 see above p. 276.

Arnobius of Sicca *Adv.Nat.* 2.9–10, pp. 74.25–75.19 (cited Diels *DG* 172–173) *qui cunctarum rerum originem ignem esse dicit aut aquam, non Thaleti* (fr. 259 Wöhrle) *aut Heraclito* (T 684 Mouraviev) *credit? qui causam in numeris ponit, non Pythagorae Samio* (—), *non Archytae* (—)? *qui animam dividit et incorporales constituit formas, non Platoni Socratico? qui quintum elementum principalibus adplicat causis, non Aristoteli Peripateticorum patri? qui ignem minatur mundo, et venerit cum tempus arsurum, non Panaetio* (T 135 Alesse) *Chrysippo* (—) *Zenoni* (SVF 1.107)? *qui individuus corporibus mundos semper fabricatur et destruit, non Epicuro* (—) *Democrito* (—) *Metrodoro* (—)?

qui nihil ab homine comprehendi (autumat) atque omnia caecis obscuritatibus involuta, non Arcesilae (F 14a Mette), Carneadi (F 13c Mette), non alicui denique Academiae veteris recentiorisque cultori? ... ipsi demus principes et praedictarum patres sententiarum, nonne ea quae dicunt suis credita suspicionibus dicunt? vidit enim Heraclitus res ignium conversionibus fieri, concretionem aquarum Thales, Pythagoras (—) numeros coire, incorporeales formas Plato, individuorum Democritus concursiones? Adv.Nat. 2.56, pp. 130.24–131.7 eundem hunc (sc. mundum) alii elementis ex quatuor tradunt et pronuntiant stare, ex geminis alii, ex singulis tertii, sunt qui ex his nullo set individua corpora eius esse materiem et primam originem dicant. cumque ex his vera sit una sententia, at nulla ex his certa, similiter hic quoque argumenta omnibus praesto sunt, quibus et ea quae dicunt vera esse constituent et redarguant positas in aliorum sententiis falsitates.

Themistius Or. 26.317A–C Θαλής (fr. 300 Wöhrle) δὲ ὕστερον καὶ πρὸς γῆρα φύσεώς τε ἤψατο πρῶτος καὶ ἀνέβλειψεν εἰς τὸν οὐρανὸν καὶ τὰ ἄστρα ἐξήτασε, καὶ προεφήτευσεν ἐν κοινῷ ἅπασι Μιλησίοις ὅτι νῦξ ἔσοιτο ἐν ἡμέρᾳ καὶ δύσεται ἄνω ὁ ἥλιος καὶ ὑποθεύσεται αὐτὸν ἢ σελήνη, ὥστε ἀποτέμενεσθαι τὴν αὐγὴν καὶ τὰς ἀκτῖνας. Θαλῆς μὲν δὴ τοσαῦτα εἰσενεγκάμενος οὐ κατέθετο ὅμως εἰς συγγραφὴν τὰ εὐρήματα, οὔτε αὐτὸς ὁ Θαλῆς οὔτε ἄλλος τις τῶν εἰς ἐκεῖνον τὸν χρόνον. τοῦτου γεροντὸς ζηλωτῆς Ἀναξίμανδρος ὁ Πραξιάδου (fr. 120 Wöhrle) οὐ πάντῃ ὁμοίως ἐξήλωσεν, ἀλλὰ τοῦτ' εὐθὺς παρήλλαξε τε καὶ ἐξετράπετο, ὅτι ἐθάρρησε πρῶτος ὧν ἴσμεν Ἑλλήνων λόγον ἐξενεγκεῖν περὶ φύσεως συγγεγραμμένον. πρὶν δ' εἰς ὄνειδος καθεισθῆναι τὸ λόγου συγγράφειν, ἀλλ' οὐκ ἐνομίζετο τοῖς πρόσθεν Ἑλλήσι. καὶ ἐὼ τὸν Κλαζομένιον Ἀναξαγόραν (—) καὶ ἐφ' ὅσον οὗτος ἐνεωτέρησε, νοῦν καὶ θεὸν πρῶτος ἐπαγόμενος τῇ κοσμοποιίᾳ, καὶ οὐ πάντ' ἀνάψας τῆς φύσεως τῶν σωμάτων. ἀλλὰ Σωκράτης ὁ γενναῖος ἄρα τὴν ἀρχαίαν καὶ τετριμμένην ἐβάδιζε καὶ ἐγκατέμενε τοῖς ἴχνεσι τοῦ Ἀρχελαίου.

Basil of Caesarea in Hexaem. 1.2, p. 4.6–12 Amand de Mendieta–Rudberg διὰ τοῦτο οἱ μὲν ἐπὶ τὰς ὑλικὰς ὑποθέσεις κατέφυγον, τοῖς τοῦ κόσμου στοιχείοις τὴν αἰτίαν τοῦ παντὸς ἀναθέντες· οἱ δὲ ἄτομα καὶ ἀμερῆ σώματα, καὶ ὄγκους καὶ πόρους συνέχρινον τὴν φύσιν τῶν ὁρατῶν ἐφαντάσθησαν. νῦν μὲν γὰρ συνιόντων ἀλλήλοις τῶν ἀμερῶν σωμάτων, νῦν δὲ μετασυγκρινομένων, τὰς γενέσεις καὶ τὰς φθοράς ἐπιγίνεσθαι· καὶ ἐπὶ τῶν διαρκεστέρων σωμάτων τὴν ἰσχυροτέραν τῶν ἀτόμων ἀντεμπλοκὴν τῆς διαμονῆς τὴν αἰτίαν παρέχουσιν.

Calcidius in Tim. cc. 280–282 *alii formam dederunt, ut Thales (fr. 287 Wöhrle), quem ferunt ante omnes naturalia esse secreta rimatum, cum initium rerum aquam esse dicat, opinor ideo quod omnem victum quo utuntur quae vivunt humectum videret; inque eadem sententia Homerus esse invenitur, cum Oceanum et Tethyn dicat parentes esse geniturae (Il. 14.201 and 14.302), cumque iusiurandum deorum constituat aquam, quam quidem ipse appellat Stygem (Il. 5.185 and 15.37), antiquitati tribuens reverentiam et iureiurando nihil constituens reverentius. at vero Anaximenes (fr. 94 Wöhrle) aëra iudicans initium rerum, initium quoque corporum ceterorum et ipsius aquae non consentit Heraclito caput rerum ignem putanti. omnes ergo hi qui vel aquae vel aëri vel igni*

tribuunt principatum, in motu positam rerum originem censuerunt. (281) sunt tamen qui immobilem fore defendant et eandem ex omnibus in unam molem redactam, unum omnia esse censentes immobile sine ortu et sine interitu, ut Xenophanes Melissus Parmenides; sed Parmenides quidem unum omne perfectum et definitum pronuntiat, Melissus infinitum et indeterminatum. (282) Empedocles varium et multiforme quiddam esse silvam docet quattuor diversis sustentatum radicibus ignis aquae aëris terrae atque ex his fieri corporum modo concretionem, modo discretionem; idemque concretionem quidem vocat amicitiam, discretionem vero discordiam. in Tim. c. 286 haec ad praesens visa nobis necessaria fore ad explanationem Aristotelici dogmatis de initiis rerum. in Tim. c. 295 Numenius (fr. 52 des Places) ex Pythagorae magisterio Stoicorum hoc de initiis dogma refellens Pythagorae dogmate, cui concinere dicit dogma Platonicum. in Tim. c. 305 et quoniam singula haec initia sunt, rursus erit ex integro de initiis disserendum.

Ambrose of Milan Exam. 1.1 tantum ne opinionis adsumpsisse homines, ut aliqui eorum tria principia constituerent omnium, deum et exemplar et materiam, sicut Plato discipulique eius, et ea incorrupta et increata ac sine initio esse adseverarent deumque non tamquam creatorem materiae, sed tamquam artificem ad exemplar, hoc est ideam intendentem fecisse mundum de materia, quam vocant ὕλην, quae gignendi causas rebus omnibus dedisse adseratur, ipsum quoque mundum incorruptum nec creatum aut factum aestimarent, alii quoque, ut Aristoteles cum suis disputandum putavit, duo principia ponerent, materiam et speciem, et tertium cum his, quod operatorium dicitur, cui subpeteret competenter efficere quod adoriendum putasset. **Servius** in Buc. 6.31, p. 69.14–70.6 Thilo variae sunt philosophorum opiniones de rerum origine: nam alii dicunt omnia ex igne procreari, ut Anaxagoras [sic]; alii ex umore, ut Thales Milesius (fr. 319 Wöhrle), unde est Oceanumque patrem (Il. 14.201 = 14.302); alii ex quattuor elementis, ut Empedocles (—), secundum quem ait Lucretius ex imbri, terra atque anima nascuntur et igni (DRN 1.714–715). Epicurei (—) vero, quos nunc sequitur (sc. Vergil), nihil horum comprobant, sed dicunt duo esse rerum principia, corpus et inane: omne enim quod est, aut continet aut continetur. et corpus volunt esse atomos, id est quasdam minutissimas partes, quae τομήν, id est sectionem, non recipiunt, unde et atomi dictae sunt: quas Lucretius (DRN 1.268–270, 2.125–128) minutiores dixit esse illis corpusculis, quae in infusis per fenestram radiis solis videmus; dicit enim illas nec visum posse recipere. inane vero dicunt spatium, in quo sunt atomi. de his itaque duobus principiis volunt quattuor ista procreari, ignem, aërem, aquam, terram, et ex his cetera, ut illa duo elementa [et atomi et inane,] sint, haec vero quattuor syntheta, id est composita ex illis duobus, praestent originem aliis omnibus rebus. hac autem ratione comprobatur, ex atomis et inani omnia esse, quod nihil est in rerum natura, quod non et corpus habeat, et quia recipit sectionem, indicet etiam inanitatem. [ergo] ‘uti magnum per inane coacta / semina’ canebat (Verg. Buc. 6.31–32), inquit, mundi principium, id est quemadmodum coactae et collectae atomi per magnum inane fuissent origo ignis, aëris, terrarum et maris; nam

'semina' atomos dicit. dicimus autem 'haec atomus' et 'hae atomi'. cf. **Isidore of Seville** *Etym.* 13.2. **ps.Valerius Probus** in *Buc.* 6.31, pp. 332.25–335.27 Thilo omnem igitur hanc rerum naturae formam tenui primum et inani mole dispersam refert in quattuor elementa concretam ... (p. 334.29) Ciceronis diversa opinione (see below §19). Aristoteles quattuor elementa ait, aquam et terram ponderibus suis deorsum ferri, ignem et aëra tenuitate sua sublevare, et his quattuor elementis quintum quasi proprium aethera addit privata mole discretum. idem Aristoteles ait non esse idem ignem et aethera diversitatemque eorum elementorum probari ex eo, quod ignis omnia consumat, aether omnia conservet et nutriet. Anaxagoras (—) quattuor elementis constitutis rectorem adiungit sive spiritum sive Deum sive mentem, per quem haec quattuor regantur. (hic Anaxagoras Abderites fuit Democrito popularis et discipulus, quamquam alii Dionysium Smyrnaeum (—), quidam Aristotelem magistrum eius adfirmant, vir nobilis, amicus Alexandro, apud Persas comes (sic)). in *Buc.* 6.31, p. 343.21–344.18 Thilo sunt qui binis principiis mundum discriminant. nam Xenophanes Colophonius (fr. 182 Strobel–Wöhrle) terram et aquam prodidit: quamquam haec antea ab Homero tractata sit opinio (*Il.* 7.99) 'ἄλλ' ὑμεῖς μὲν πάντες ὕδωρ καὶ γαῖα γένοισθε'. consentit in numero Euripides (fr. 1023 N², 182a Kannicht), sed speciem discriminat. terram enim et aërem inducit principia rerum esse in *Antiopa*. ... (p. 344.8) sunt qui singulis elementis principia adsignaverunt: Parmenides Eleates terram [sic], Hippasus Metapontinus et Heraclitus Ephesius (T 779 Mouraviev), qui σκοτεινός appellatur, ignem, Anaximenes Lampsacenus [sic], qui primus existimatur physica induxisse, aërem (—), Thales Milesius (fr. 286 Wöhrle), magister eius, aquam. hanc quidem Thaletis opinionem ab Hesiodo putant manare, qui dixerit (*Th.* 116) 'ἦτοι μὲν πρότεστα χάος γένετ'· αὐτὰρ ἔπειτα'. nam Zenon Citieus (SVF 1.103, 1.496) sic interpretatur, aquam χάος appellatam ἀπὸ τοῦ χεῖσθαι, quamquam eandem opinionem ab Homero possimus intellegere, quod ait (*Il.* 14.201) 'Ὠκεανὸν τε θεῶν γένεσιν καὶ μητέρα Τηθύν', quod Vergilius quoque imitatus ait (*Georg.* 4.382) 'Oceanumque patrem rerum Nymphasque sorores'.

Augustine *C.D.* 8.2.1–3.4 Dombart–Kalb (cited Diels *DG* 173–174) (tit. *De duobus philosophorum generibus, id est Italico et Ionico, eorumque auctoribus.*) quantum enim adtinet ad litteras Graecas, quae lingua inter ceteras gentium clarior habetur, duo philosophorum genera traduntur: unum Italicum ex ea parte Italiae, quae quondam Magna Graecia nuncupata est; alterum Ionicum in eis terris, ubi et nunc Graecia nominatur. Italicum genus auctorem habuit Pythagoram Samium (—), a quo etiam ferunt ipsum philosophiae nomen exortum. nam cum antea sapientes appellarentur, qui modo quodam laudabilis vitae aliis praestare videbantur, iste interrogatus, quid profiteretur, philosophum se esse respondit, id est studiosum vel amatorem sapientiae; quoniam sapientem profiteri arrogantissimum videbatur. Ionici vero generis princeps fuit Thales Milesius (fr. 311 Wöhrle), unus illorum septem, qui sunt appellati sapientes. sed illi sex vitae genere distinguebantur et quibusdam praeceptis ad bene vivendum accommodatis; iste autem Thales, ut successores etiam propagaret, rerum naturam scrutatus suasque disputationes litteris mandans eminuit maximeque

admirabilis extitit, quod astrologiae numeris comprehensis defectus solis et lunae etiam praedicere potuit. aquam tamen putavit rerum esse principium et hinc omnia elementa mundi ipsumque mundum et quae in eo gignuntur existere. nihil autem huic operi, quod mundo considerato tam mirabile aspicimus, ex divina mente praeposuit. huic successit Anaximander (12A17 DK), eius auditor, mutavitque de rerum natura opinionem. non enim ex una re, sicut Thales ex umore, sed ex suis propriis principiis quasque res nasci putavit. quae rerum principia singularum esse credidit infinita, et innumerabiles mundos gignere et quaecumque in eis oriuntur; eosque mundos modo dissolvi, modo iterum gigni existimavit, quanta quisque aetate sua manere potuerit; nec ipse aliquid divinae menti in his rerum operibus tribuens. iste Anaximenes (13A10 DK), discipulum et successorem reliquit, qui omnes rerum causas aëri infinito dedit, nec deos negavit aut tacuit; non tamen ab ipsis aërem factum, sed ipsos ex aëre ortos credidit. Anaxagoras (—) vero eius auditor harum rerum omnium, quas videmus, effectorem divinum animum sensit et dixit ex infinita materia, quae constaret similibus inter se particulis rerum omnium; quibus suis et propriis singula fieri, sed animo faciente divino. Diogenes (64A8 DK, T 7c Laks) quoque Anaximenes alter auditor, aërem quidem dixit rerum esse materiam, de qua omnia fierent; sed eum esse compotem divinae rationis, sine qua nihil ex eo fieri posset. Anaxagorae successit auditor eius Archelaus (60A10 DK). etiam ipse de particulis inter se similibus, quibus singula quaeque fierent, ita putavit constare omnia, ut inesse etiam mentem diceret, quae corpora aeterna, id est illas particulas, coniungendo et dissipando ageret omnia. (3) Socrates huius discipulus fuisse perhibetur, magister Platonis, propter quem breviter cuncta ista recolui. Socrates ergo, primus universam philosophiam ad corrigendos componendosque mores flexisse memoratur, cum ante illum omnes magis physicis, id est naturalibus, rebus perscrutandis operam maximam impenderent.

Theodoret CAG 2.9–11: (2.9: T1) Θαλῆς (fr. 329 Wöhrle) μὲν γάρ, τῶν ἐπὶ καλουμένων σοφῶν ὁ πρεσβύτατος, ἀρχὴν πάντων τὸ ὕδωρ ὑπέλαβεν, (T1a) 'Ομήρῳ (Il. 14.201) γε οἶμαι εἰρηκότι πιστεύσας· 'Ωκεανόν τε θεῶν γένεσιν καὶ μητέρα Τηθύν'. (T2) Ἀναξίμανδρος (fr. 134 Wöhrle) δέ, τοῦτον διαδεξάμενος, ἀρχὴν ἔφη τὸ ἄπειρον· (T3) Ἀναξίμενης (fr. 111 Wöhrle) δέ, ὁ τοῦτου διάδοχος (T4) καὶ Διογένης ὁ Ἀπολλωνιάτης (—) τὸν ἀέρα ξυμφώνως ἀρχὴν προσηγορευσάτην· (2.10: T5) 'Ιππασος δέ ὁ Μεταποντῖνος (—) καὶ Ἡράκλειτος ὁ Ἐφέσιος (fr. 898 Mouraviev) τῷ πυρὶ τὴν ἀρχὴν τῶν πάντων ἀπενειμάτην· (T6) ὁ δὲ Ἀκραγαντῖνος Ἐμπεδοκλῆς (—) τὰ στοιχεῖα ἔφη τὰ τέτταρα· (T7) Ξενοφάνης δέ ὁ Κολοφώνιος (fr. 194 Strobel–Wöhrle) τὸ πᾶν αἰθέρ, ἐκ δὲ τῆς γῆς τὰ πάντα· (T8) καὶ Παρμενίδης (—) δὲ ὁ τοῦτου ἐταῖρος ὁ Ἐλεάτης ὡσαύτως τόνδε τὸν λόγον ἐκράτυνε, ψεῦδος δὲ ἀπέφηνε τῶν αἰσθήσεων τὸ κριτήριον, ἥμισυ λέγων ἐφικνεῖσθαι τοῦτο τῆς ἀληθείας· (2.11: T9) Δημόκριτος δὲ ὁ Ἀβδηρίτης (—) ἄπειρον τὸ πᾶν εἶρηκε καὶ ἀγένητον· (T10) Ἐπίκουρος δὲ ὁ Νεοκλέους ὁ Ἀθηναῖος (—) ἐκ τῶν ἀτόμων ἐξ ἀρχῆς ξυστῆναι τὸ πᾶν, εἶναι μέντοι ἀναρχον καὶ αἰθέρ· (T11) καὶ Μητρόδωρος δὲ ὁ Χίος (—), (T12) καὶ Ζήνων ὁ Ἐλεάτης (—) (T13) καὶ Διογένης ὁ Σμυρναῖος (—) διαφόρους ἀρχὰς τῶν ὄλων ὑπέθεντο.

CAG 4.5–12: (4.5: Ti) Ξενοφάνης μὲν οὖν ὁ Ὀρθομένους ὁ Κολοφώνιος (21A36 DK, fr. 197 Strobel–Wöhrle), ὁ τῆς Ἑλεατικῆς αἰρέσεως ἡγησάμενος, ἔν εἶναι τὸ πᾶν ἔφησε, σφαιροειδὲς καὶ πεπερασμένον, οὐ γενητόν, ἀλλ’ αἶδιον καὶ ἀάπειρον ἀκίνητον· πάλιν δ’ αὖ τῶνδε τῶν λόγων ἐπιλαθόμενος, ἐκ τῆς γῆς φύναι ἅπαντα εἴρηκεν. αὐτοῦ γὰρ δὴ τότε τὸ ἔπος ἐστίν· (21B27 DK) ‘ἐκ γῆς γὰρ τάδε πάντα, καὶ εἰς γῆν πάντα τελευτᾷ’. (4.6) ἀξυμῶνοι δὲ ἀντικρυς οἶδε οἱ λόγοι. εἰ γὰρ αἶδιος ὁ κόσμος, καὶ ἀναρχος· εἰ δὲ γε ἀναρχος, καὶ ἀναίτιος· εἰ δὲ ἀναίτιος, οὐκ ἔχει δῆπου μητέρα τὴν γῆν. εἰ δὲ αἰτίαν ἔχει τὴν γῆν, οὐκ ἄρα ἀναίτιος· εἰ δὲ οὐκ ἀναίτιος, οὐδὲ ἀναρχος· εἰ δὲ οὐκ ἀναρχος, οὐκ ἄρα αἶδιος. (4.7: Tii) καὶ Παρμενίδης δὲ ὁ Πύρρητος ὁ Ἑλεάτης (fr. 55 Coxon, Xenophanes fr. 198 Strobel–Wöhrle), Ξενοφάνους ἐταῖρος γενόμενος, κατὰ μὲν τὸν πρῶτον λόγον ξυμῶνα τῷ διδασκάλῳ συγγέγραφε· αὐτοῦ γὰρ δὴ τότε τὸ ἔπος εἶναι φασιν· (28B8.4 DK) ‘οὐλον μουνόγενές τε καὶ ἀτρεμές ἡδ’ (28B28.3 DK) ἀγένητον’. αἴτιον δὲ τῶν ὄλων οὐ τὴν γῆν μόνον, καθάπερ ἐκεῖνος, ἀλλὰ καὶ τὸ πῦρ εἴρηκεν οὗτος. (4.8: Tiii) Μέλισσος δὲ ὁ Ἰθαγένους ὁ Μιλήσιος (30A9 DK) τούτου μὲν ἐταῖρος ἐγένετο, τὴν δὲ παραδοθεῖσαν διδασκαλίαν ἀκήρατον οὐκ ἐτήρησεν· ἄπειρον γὰρ οὗτος ἔφη τὸν κόσμον, ἐκείνων φάντων πεπερασμένον. [CAG 4.9 (~ Tiv–vi) see above *testes primi*] (4.10) (fr. 201 Luria) καλοῦσι δὲ οὕτω τὰ σμικρότατα ἐκεῖνα καὶ λεπτότατα σώματα, ἃ διὰ τῶν φωταγωγῶν εἰσβάλλων ὁ ἥλιος δείκνυσιν ἐν ἑαυτῷ ἄνω καὶ κάτω παλλόμενα. [CAG 4.11–12 (~ Tviii–xi) see above *Testes primi*] (4.12: Txi) Ἰππασος δὲ ὁ Μεταποντῖνος (18.7 DK) καὶ Ἡράκλειτος ὁ Βλόσωνος ὁ Ἐφέσιος (—) ἔν εἶναι τὸ πᾶν, ἀκίνητον (ἀ(ε)κίνητον Zeller edd.) καὶ πεπερασμένον, ἀρχὴν δὲ τὸ πῦρ ἐσχηκέναι. (Txiii) ὁ δὲ Ἀπολλωνιάτης Διογένης (—) ἐκ τοῦ ἀέρος ἔφη ξυστῆναι τὸ πᾶν.

Epiphanius Haer. 3.505.1–508.15 Holl. **Olympiodorus the Alchemist** *Art.Sacr.* 18–25, pp. 80.19–83.14 Berthelot–Ruelle ἡ ἀρχὴ τοῖνυν παντὸς πράγματος κατὰ τινὰς ἢ μία ἐστίν, ἢ πολλαί, καὶ εἰ μὲν ἐστὶ μία, ἢ ἀκίνητός ἐστιν, ἢ ἄπειρος, ἢ πεπερασμένη· ὡσαύτως καὶ εἰ μὲν πολλαί ἀρχαί εἰσιν, πάλιν αὐταὶ ἢ ἀκίνητοί εἰσιν, ἢ πεπερασμέναι, ἢ ἄπειροι. ... (21) μίαν δὲ πεπερασμένην ἀρχὴν τῶν ὄντων ἐδόξαζεν Θάλης (—) τὸ ὕδωρ, ἐπειδὴ γόνιμόν ἐστιν καὶ εὐδιάπλαστον· γόνιμον γὰρ οὕτω, ἐπειδὴ γεννᾷ ἰχθύας· εὐδιάπλαστον δὲ, τὸ δυνάμενον διαπλάσθαι ὡσάν βούλης νῦν· καὶ τὸ ὕδωρ ὡσάν θέλης διαπλάττει· ἐν ᾧ γὰρ ἀγγεῖω βάλῃς τοῦτο ... (22) ὁ δὲ Διογένης (—) τὸν ἀέρα, ἐπειδὴ οὗτος πλούσιός ἐστιν καὶ γόνιμος· τίκτει γὰρ ὄρνεα· καὶ εὐδιάπλαστος καὶ αὐτός· ὡς γὰρ θέλεις διαπλάττει καὶ τοῦτον· ἀλλὰ καὶ εἰς ἐστὶν οὗτος καὶ κινούμενος, καὶ οὐκ αἶδιος. (23) Ἡράκλειτος (—) δὲ καὶ Ἰππασος (—) τὸ πῦρ ἐδόξασαν εἶναι ἀρχὴν πάντων τῶν ὄντων, ἐπειδὴ δραστικόν ἐστιν τοῦτο· δραστικὴ δὲ βούλεται εἶναι ἡ ἀρχὴ τῶν γινομένων ὑπ’ αὐτὴν πλέον, ὡς δὲ τινες λέγουσι, καὶ γόνιμόν ἐστιν τὸ πῦρ· γίνεται γὰρ ἐν τῷ ὑπεκκαύματι. (24) τὴν γὰρ γῆν οὐδεὶς ἐδόξασεν εἶναι ἀρχὴν, εἰ μὴ Ξενοφάνης ὁ Κολοφώνιος (21A36 DK)· διὰ δὲ τὸ μὴ εἶναι αὐτὴν γόνιμον, οὐδεὶς αὐτὴν στοιχεῖον ἐδόξασεν. ... (25) μίαν δὲ κινουμένην ἄπειρον ἀρχὴν πάντων τῶν ὄντων δοξάζει Ἀναξίμανδρος (fr. 174 Wöhrle) τὸν ἀέρα. λέγει γὰρ οὕτως (13B3 DK, *spurium*)· ‘ἐγγὺς ἐστὶν ὁ ἀήρ τοῦ ἀσώματου· καὶ ὅτι κατ’ ἔκροιαν τοῦτου γινόμεθα, ἀνάγκη αὐτόν καὶ ἄπειρον εἶναι καὶ πλούσιον διὰ τὸ μηδέποτε ἐκλείπειν’. Ἀναξίμανδρος

(fr. 216 Wöhrle) δὲ τὸ μεταξύ ἔλεγεν ἀρχὴν εἶναι· μεταξύ δὲ λέγω τὸν ἀτμὸν ἢ τὸν καπνόν· ὁ μὲν γὰρ ἀτμός μεταξύ ἐστὶν πυρὸς καὶ γῆς, καὶ καθόλου δὲ εἰπεῖν, πᾶν τὸ μεταξύ θερμῶν καὶ ὑγρῶν ἀτμός ἐστι· τὰ δὲ μεταξύ θερμῶν καὶ ξηρῶν, καπνός.

Chapter heading: Pliny *Nat.* 1 p. 11.7 *de elementis*. Seneca *Ep.* 89.16 *ipse (de) elementis locus*. Clement of Alexandria *Strom.* 3.3.13.1 τὸν περὶ ἀρχῶν ... λόγον. Q.D.S. 26.8 ἐν τῇ περὶ ἀρχῶν καὶ θεολογίας ἐξηγήσει. Eusebius *PE* 1.8 ὅσα τοῖς φυσικοῖς φιλοσόφοις Περὶ ἀρχῶν διαπεφώνηται (ps.Plut. *Strom.* follows). *PE* 10.14.12 τὸν Περὶ ἀρχῶν λόγον.

§§1–5, 20 **Ionian tradition:** Hippolytus *Ref.* 1.10.1 ἡ μὲν οὖν φυσικὴ φιλοσοφία ἀπὸ Θάλητος (fr. 212 Wöhrle) ἕως Ἀρχελάου διέμεινε· τούτου γίνεταί Σωκράτης ἀκροατής.

§1 **Thales Homer:** Hippolytus *Ref.* 1.1.1 λέγεται Θαλὴν τὸν Μιλήσιον (fr. 210 Wöhrle), ἓνα τῶν ἐπτά σοφῶν, πρῶτον ἐπικειρημένον φιλοσοφίαν φυσικὴν. οὗτος ἔφη ἀρχὴν τοῦ παντὸς εἶναι καὶ τέλος τὸ ὕδωρ· ἐκ γὰρ αὐτοῦ τὰ πάντα συνίστασθαι πηγνυμένου καὶ πάλιν διανιεμένου (εἰς αὐτὸ διαχεῖσθαι *addidimus*). Heraclitus *All.Hom.* 22.2–6 καὶ τῶν φυσικῶν κατὰ τὰ στοιχεῖα δογμάτων εἰς ἀρχηγὸς Ὁμηρος, ἐκάστω τινὶ τῶν μετ' αὐτὸν ἡς ἔδοξεν εὐρεῖν ἐπινοίας γενοῦντος διδάσκαλος. (3) Θάλητα μὲν γε τὸν Μιλήσιον (fr. 94 Wöhrle) ὁμολογοῦσι πρῶτον ὑποστήσασθαι τῶν ὄλων κοσμογόνον στοιχεῖον τὸ ὕδωρ· ἡ γὰρ ὑγρὰ φύσις, εὐμαρῶς εἰς ἕκαστα μεταπλαττομένη, πρὸς τὸ ποικίλον εἴωθε μορφοῦσθαι. (4) τό τε γὰρ ἐξατμιζόμενον αὐτῆς ἀερούται, καὶ τὸ λεπτότατον ἀπὸ ἀέρος αἰθὴρ ἀνάπτεται, συνιζάνον τε τὸ ὕδωρ καὶ μεταβαλλόμενον εἰς ἰλὸν ἀπογαιούται· (5) διὸ δὴ τῆς τετράδος τῶν στοιχείων ὥσπερ αἰτιώτατον ὁ Θάλης ἀπεφώνητο στοιχεῖον εἶναι τὸ ὕδωρ. (6) τίς οὖν ἐγέννησε ταύτην τὴν δόξαν; οὐχ Ὁμηρος, εἰπὼν (*Il.* 14.246)· Ὡκεανός, ὅσπερ γένεσις πάντεσσι τέτυκται'.

§§2–3 **Anaximander Anaximenes (criticism):** Cicero *Fin.* 1.18 *quamquam utriusque cum multa non probo, tum illud in primis, quod, cum duo quaerenda sint, unum, quae materia sit, ex qua quaeque res efficiatur, alterum, quae vis sit, quae quidque efficiat, de materia disseruerunt* (sc. Democritus fr. 301 Luria, Epicurus fr. 281 Usener), *vim et causam efficiendi reliquerunt*. Seneca *Ep.* 89.16 *ipse (de) elementis locus, ut quidam putant, simplex est, ut quidam, in materiam et causam omnia moventem et elementa dividitur*.

§2 **Anaximander:** Cicero *ND* 1.25 *Anaximandri* (fr. 29 Wöhrle) *autem opinio est nativos esse deos longis intervallis orientis occidentisque, eosque innumerabiles esse mundos*. ps.Plutarch *Strom.* (Plu. fr. 179 Sandbach) at Eus. *PE* 1.8.2 μεθ' ὃν Ἀναξίμανδρον (12A10 DK), Θάλητος ἐτάειρον γενόμενον, τὸ ἄπειρον φάναι τὴν πᾶσαν αἰτίαν ἔχειν τῆς τοῦ παντὸς γενέσεώς τε καὶ φθοράς· ἐξ οὗ δὴ φησι τοὺς τε οὐρανούς ἀποκεκρίσθαι, καὶ καθόλου τοὺς ἅπαντας ἀπείρους ὄντας κόσμους. Hippolytus *Ref.* 1.6.1 Θαλοῦ τοίνυν Ἀναξίμανδρος γίνεται ἀκροατής· Ἀναξίμανδρος Πραξιάδου Μιλήσιος (12A11 DK). οὗτος ἀρχὴν ἔφη τῶν ὄντων φύσιν τινὰ τοῦ ἀπείρου, ἐξ ἧς γίνεσθαι τοὺς οὐρανούς καὶ τοὺς ἐν αὐτοῖς κόσμους. ταύτην δὲ αἰδίον εἶναι καὶ ἀγήρω, ἣν καὶ πάντας περιέχειν τοὺς κόσμους. Augustine *C.D.* 8.2.23–30 Dombart–Kalb *Anaximander* (12A17 DK) ... *innumerabiles mundos gignere et*

quaecumque in eis oriuntur; eosque mundos modo dissolvi, modo iterum gigni existimavit, quanta quisque aetate sua manere potuerit.

§3 Anaximenes: Diogenes Laertius *V.P.* 2.3 Ἀναξίμενης (13A1 DK) Εὐρυστράτου, Μιλήσιος, ἤκουσεν Ἀναξίμανδρου. **Hippolytus** *Ref.* 1.7.1 Ἀναξίμενης δέ, καὶ αὐτὸς ὢν Μιλήσιος (13A7 DK), υἱὸς δὲ Εὐρυστράτου, ἀέρα ἀπειρον ἔφη τὴν ἀρχὴν εἶναι, ἐξ οὗ τὰ γινόμενα (καὶ) τὰ γεγονότα καὶ τὰ ἐσόμενα καὶ θεοὺς καὶ θεία γίνεσθαι. **Philoponus** *in de An.* 87.2–5 Διογένης ὁ Ἀπολλωνιάτης (—) καὶ Ἀναξίμενης (fr. 168 Wöhrle) ἀρχὴν τῶν ὄντων τὸν ἀέρα λέγοντες, ἐκ τούτου καὶ τὴν ψυχὴν ἔλεγον, καὶ γινώσκουν μὲν πάντα τὴν ψυχὴν ὡς ἔχουσιν τὴν τῶν πάντων ἀρχήν, κινητικωτάτην δὲ εἶναι διὰ λεπτομέρειαν.

§4 Anaxagoras: Strabo 14.1.36, 645C.34–36 Κλαζομένιος δ' ἦν ἀνὴρ ἐπιφανὴς Ἀναξαγόρας (59A7 DK) ὁ φυσικός, Ἀναξιμένους ὁμιλητὴς τοῦ Μιλήσιου· διήκουσαν δὲ τούτου Ἀρχέλαος (—) ὁ φυσικός καὶ Εὐριπίδης ὁ ποιητής. **ps.Aristotle** *Spir.* 3 483b12–16 τὴν ἀρτηρίαν μόνον εἶναι δεκτικὴν πνεύματος, τὸ δὲ νεῦρον οὐ. διαφέρειν δὲ καὶ ὅτι τὸ μὲν νεῦρον ἔχει τάσιν, ἡ δ' ἀρτηρία ταχὺ διαρρήγνυται, καθάπερ καὶ ἡ φλέψ. τὸ δὲ δέρμα ἐκ φλεβῶς καὶ νεύρου καὶ ἀρτηρίας. **Anon. Londiniensis** *Iatr.* col. xxi.23–28 + 32–38 Manetti ὁ μὲν γὰρ Ἑρασίστρατος (fr. 87 Garofalo) καὶ π[ό]ρρω τοῦ ἱατρικοῦ κανόνος προήλθε· ὑπέλαβεν γὰρ τὰ πρῶτα | σώματα λόγῳ θεωρητὰ εἶναι ὥστε τὴν | [αἰσθητ]ήν φλέβα συνεστάναι ἐγ' λόγῳ | θε[ω]ρητῶν σωμάτων, φλεβὸς, ἀρτηρίας, νεῦρο(υ). ... (32) ἀπλὰ μὲν οὖν ἐστὶ τὰ ὅμοιο[μερῆ], κατὰ τὰς τομὰς διαιρούμενα | εἰς ὅμ[οι]α μέρη ὡς ἐγκέφαλός τε καὶ νεῦρον καὶ ἀρτηρία, φλέψ· καὶ τὰ ὑγρά. ἔκασ[το]ν γὰρ τούτων καὶ ὁμοιομερές ἐστίν | καὶ τ[ε]μ[ν]όμενον εἰς ὅμοια χωρίζεται | μέρη. **Hippolytus** *Ref.* 1.8.1 μετὰ τοῦτον γίνεται Ἀναξαγόρας Ἑγησιβούλου ὁ Κλαζομένιος (59A42 DK). οὗτος ἔφη τὴν τοῦ παντὸς ἀρχὴν Νοῦν καὶ ὕλην· τὸν μὲν Νοῦν ποιοῦντα, τὴν δὲ ὕλην γινομένην· ὄντων γὰρ πάντων ὁμοῦ, Νοὺς ἐπελθὼν διεκόσμησεν'. τὰς δὲ ὑλικὰς ἀρχὰς ἀπείρους ὑπάρχειν καὶ τὰς μικροτέρας αὐτῶν ἀπειρα λέγει. **Diogenes Laertius** *V.P.* 2.6 Ἀναξαγόρας Ἑγησιβούλου (59A1 DK) ἡ Εὐβούλου, Κλαζομένιος. οὗτος ἤκουσεν Ἀναξιμένους, καὶ πρῶτος τῇ ὕλῃ Νοῦν ἐπέστησεν, ἀρξάμενος οὕτω τοῦ συγγράμματος, ὃ ἐστίν ἡδέως καὶ μεγαλοφρόνως ἡρμηνευμένον (59B1 DK)· 'πάντα χρήματα ἦν ὁμοῦ· εἶτα Νοὺς ἐλθὼν αὐτὰ διεκόσμησεν'. **Eusebius** *PE* 10.14.12 Ἀναξαγόρας Ἑγησιβούλου Κλαζομένιος (—). οὗτος δὴ πρῶτος διήρθρωσε τὸν Περί ἀρχῶν λόγον. οὐ γὰρ μόνον περὶ τῆς πάντων οὐσίας ἀπεφάνητο, ὡς οἱ πρὸ αὐτοῦ, ἀλλὰ καὶ περὶ τοῦ κινούντος αὐτὴν αἰτίου. 'ἦν γὰρ ἀρχήν', φησί (59B1 DK), 'τὰ πράγματα ὁμοῦ πεφυρμένα· Νοὺς δὲ εἰσελθὼν αὐτὰ ἐκ τῆς ἀταξίας εἰς τάξιν ἤγαγεν'. *PE* 14.14.8–9 μόνος δ' οὖν πρῶτος Ἑλλήνων Ἀναξαγόρας μνημονεύεται ἐν τοῖς Περί ἀρχῶν λόγοις Νοῦν τὸν πάντων αἴτιον ἀποφῆναισθαι. ... τὸν τε Περί ἀρχῶν λόγον πρῶτος Ἑλλήνων διήρθρωσεν. οὐ γὰρ μόνον περὶ τῆς πάντων οὐσίας ἀπεφάνητο, ὡς οἱ πρὸ αὐτοῦ, ἀλλὰ καὶ περὶ τοῦ κινούντος αὐτὴν αἰτίου. (9) 'ἦν γὰρ ἐν ἀρχῇ', φησὶν (59B1 DK), 'ὁμοῦ τὰ πράγματα πεφυρμένα, Νοὺς δὲ εἰσελθὼν αὐτὰ ἐκ τῆς ἀταξίας εἰς τάξιν ἤγαγε'. **Servius** *in Aen.* 4.625, p. 573.7–12 Thilo *ex ossibus: secundum Anaxagoran* (—), *qui homoeomerian dicit, id est omnium membrorum similitudinem, esse in rebus creandis {id est} ex ossibus, ex sanguine, ex medullis: nam omnia pro parte sui transeunt in procreationem.* **Lucretius** *DRN* 1.830 *nunc ad Anaxagorae veniamus homoeomerian etc.*, see

General texts above. *Capitula Lucretiana* at DRN 1.830 *contra Anaxagoran*. *Simplicius in Phys.* 162.26–33 τοῦτο οὖν ὡς ἀξίωμα προλαβὼν ὁ Ἀναξαγόρας (—) τὸ μηδὲν ἐκ τοῦ μὴ ὄντος γίνεσθαι, δοκεῖ τοιοῦτόν τινα τῇ δυνάμει λόγον ἐρωτᾶν. τὸ γινόμενον ἢ ἐξ ὄντος γίνεται ἢ ἐκ μὴ ὄντος· ἀλλ’ ἐκ μὴ ὄντος ἀδύνατον· ἐξ ὄντος ἄρα. εἰ δὲ τοῦτο, καὶ ἐνυπάρχοντος τῷ ἐξ οὗ ἐστίν. οὐ γὰρ ἔξωθεν ποθεν ἐπεισὶν φαίνεται, ὅταν ἐξ ἵππων γεννῶνται σφήκες ἢ ἐξ ὕδατος ἀήρ. ἔνεστιν ἄρα ἐν τῇ ὁμοιομερείᾳ καὶ σὰρξ καὶ ὅστουν καὶ αἷμα καὶ χρυσὸς καὶ μόλυβδος καὶ γλυκὺ καὶ λευκόν, ἀλλὰ διὰ μικρότητα ἀναίσθητα ἡμῖν ἐστίν, ὄντα πάντα ἐν πᾶσι. *Psellus Op.Theol.* 1.61.11–12 + 52–78 Gautier ‘καὶ εἰ τὸ πάντα’ γὰρ φησιν (sc. Gregory of Nazianzus) ‘ἐν πᾶσι κείσθαι μὴ πειστέον τοῖς λέγουσιν, ἀλλ’ ἡμῖν γε πειστέον ὡς ἐν ἀλλήλοις καὶ παρ’ ἀλλήλοις ἐκείμεθα’. ... (p. 241.55) ἀλλὰ τοῖς Ἀριστοτέλους λόγοις ὠμίληκώς φύσεως τὴν Ἀναξαγόρου (38E Gemelli Marciano) δόξαν ἐκέισε διαθρυλλουμένην ἐνταῦθα διαμασάται. οὗτος γὰρ ὁ ἀνὴρ φανερώς ὤπται διαμαρτάνων γένεσιν ἀναιρῶν καὶ εἰσάγων διάκρισιν· ἐπειδὴ γὰρ εὔρε φυσικὸν δόγμα λέγον μηδὲν ἐκ τοῦ μηδενὸς γίνεσθαι, ἀλλὰ πάντα ἐκ τινος, ἀγνοήσας ὅσαχῶς τὸ μὴ ὄν λέγεται καὶ ὅτι τὸ μὲν δυνάμει, τὸ δὲ ἐνεργείᾳ, ὑπερβάς τὴν ὕλην ἀφ’ ἧς οἱ φυσικοὶ πάντα γεννῶσι καὶ εἰς ἣν ἀναλύουσιν, ἐδογματίζε ‘πάντα ἐν πᾶσι μεμίχθαι’, καὶνόν τινα λόγον εἰσάγων. ἐν γὰρ τῇ αὐτῇ γονῇ καὶ τρίχας ἔλεγεν εἶναι καὶ ὄνυχας καὶ φλέβας καὶ ἀρτηρίας καὶ συνδέσμους καὶ τᾶλλα πάντα τοῦ σώματος, ἀφανῆ δὲ διὰ μικρομέρειαν, αὐξάνειν δὲ κατὰ μικρὸν καὶ ἀπ’ ἀλλήλων διακρίνεσθαι. ‘πῶς γὰρ ἂν’, φησίν, ‘ἐκ μὴ τριχὸς θριξί γένοιτο ἢ σὰρξ ἐκ μὴ σαρκός’; ἀλλ’ εἶναι καὶ σαρκία βραχύτατα καὶ νεῦρα καὶ ὅστ’ αὖ καὶ τᾶλλα πάντα ἐν ἀλλήλοις συγκείμενα, βραχύτατά γε μὴν ὥστε μὴ ὁράσθαι, αὐξάνεσθαι δ’ ὕστερον καὶ διακρίνεσθαι ἀπ’ ἀλλήλων καὶ διαφανῆ γίνεσθαι. οὐ τῶν σωμάτων δὲ μόνον κατηγόρει τὴν τοιαύτην σύγκρασιν, ἀλλὰ καὶ τῶν χρωμάτων· εἶναι γὰρ ἔφασκε λευκὸν ἐν τῷ μέλανι καὶ μέλαν ἐν τῷ λευκῷ. τοῦτο δὲ καὶ κατὰ τῶν ῥοπῶν ἐτίθει· ἐν γὰρ τῷ βαρεῖ τὸ κοῦφον ἐμίγνυε καὶ ἐν τῷ κοῦφῳ τὸ βαρὺ, αἱ δὲ ἅπαντα ὁ Σταγειρίτης φιλόσοφος φιλοσόφοις λόγοις ἐξήλεγξε. ταῦτη γοῦν τῇ δόξῃ καὶ ὁ μέγας διαμαχόμενος Γρηγόριος, εἰ καὶ μὴ δεῖν φησιν ἔπεσθαι ταῖς Ἀναξαγορείοις δόξαις μηδὲ πιστεύειν τοῖς λέγουσι πάντα ἐν πᾶσι κείσθαι (πῶς γὰρ ἂν τὰ ἐναντία ἐν τοῖς ἐναντίοις εὔρεθῇ;), ‘ἀλλ’ ἡμῖν γε’ φησίν ‘πειστέον ὡς ἐν ἀλλήλοις καὶ παρ’ ἀλλήλοις ἐκείμεθα’. τὸ γὰρ ἀδύνατον, φησί, τῆς ἐκείσε δόξης δυνατόν ἐν τοῖς ἡμετέροις εὐρίσκεισθαι ἤθεσιν· ἐν ἀλλήλοις γὰρ καὶ παρ’ ἀλλήλοις ἐκείμεθα.

Scholium in Gregorium Nazianzenum MPG 36.91a23–38 (Nicetas *Comm. in xvi Or. Gregorii Nazianzeni* fr. 109 Constantinescu, excerpting Psellus) ὁ δὲ Ἀναξαγόρας (59B10 DK) παλαιὸν εὐρὼν δόγμα ὅτι οὐδὲν ἐκ τοῦ μηδαμῇ γίνεται, γένεσιν μὲν ἀνῆρει, διάκρισιν δὲ εἰσήγεν ἀντὶ γενέσεως. ἐλήρει γὰρ ἀλλήλοις μὲν μεμίχθαι πάντα, διακρίνεσθαι δὲ αὐξάνόμενα. καὶ γὰρ ἐν τῇ αὐτῇ γονῇ καὶ τρίχας εἶναι καὶ ὄνυχας καὶ φλέβας καὶ ἀρτηρίας καὶ νεῦρα καὶ ὅστ’ αὖ καὶ τυγχάνειν μὲν ἀφανῆ διὰ μικρομέρειαν, αὐξάνόμενα δὲ κατὰ μικρὸν διακρίνεσθαι. ‘πῶς γὰρ ἂν’, φησίν, ‘ἐκ μὴ τριχὸς γένοιτο θριξί καὶ σὰρξ ἐκ μὴ σαρκός’; οὐ μόνον δὲ τῶν σωμάτων ἀλλὰ καὶ τῶν χρωμάτων ταῦτα κατηγόρει. καὶ γὰρ ἐνεῖναι τῷ λευκῷ τὸ μέλαν καὶ τὸ λευκὸν τῷ μέλανι. τὸ αὐτὸ δὲ ἐπὶ τῶν ῥοπῶν ἐτίθει, τῷ βαρεῖ τὸ κοῦφον σύμμικτον εἶναι δοξάζων καὶ τοῦτο αὐθις ἐκείνῳ. ἅτινα πάντα ψευδῆ ἐστί, πῶς γὰρ ἂν τὰ ἐναντία τοῖς ἐναντίοις συνέσονται;

§§5–6 *Archelaus Ionic Succession: Diogenes Laertius V.P.* 2.16–17 Ἀρχέλαος (60A1 DK) Ἀθηναῖος ἢ Μιλήσιος, πατὴρ Ἀπολλοδώρου, ὡς δέ τινες, Μίδωνος, μαθητῆς Ἀναξαγόρου, διδάσκαλος Σωκράτους· οὗτος (sc. Anaxagoras?) πρῶτος ἐκ τῆς Ἰωνίας τὴν φυσικὴν φιλοσοφίαν μετήγαγεν Ἀθήναζε, καὶ ἐκλήθη φυσικός, παρὸ καὶ ἔληξεν ἐν αὐτῷ (sc. Archelaus) ἡ φυσικὴ φιλοσοφία, Σωκράτους τὴν ἠθικὴν εἰσαγαγόντος. ... ὁ δὲ λόγος αὐτῷ οὕτως ἔχει. τηκόμενον φησι τὸ ὕδωρ ὑπὸ τοῦ θερμοῦ, καθὸ μὲν εἰς τὸ (μέσον διὰ τὸ) πυρῶδες συνίσταται, ποιεῖν γῆν· καθὸ δὲ περιρρεῖ, ἀέρα γεννᾶν. cf. *V.P.* 1.18 καὶ μέχρι μὲν Ἀρχελάου (—) τὸ φυσικὸν εἶδος ἦν (sc. τῆς φιλοσοφίας).

§5 *Archelaus: Sextus Empiricus M.* 9.360 Ἀναξιμένης (fr. 30 Wöhrle) δὲ καὶ Ἰδαῖος ὁ Ἱμεραῖος (63 DK) καὶ Διογένης ὁ Ἀπολλωνιάτης (—) καὶ Ἀρχέλαος ὁ Ἀθηναῖος (60A7 DK), Σωκράτους δὲ καθηγητής, καὶ κατ' ἐπίου Ἡράκλειτος (T 696 Mouraviev) ἀέρα (sc. ἔλεξε πάντων εἶναι ἀρχὴν καὶ στοιχεῖον). *Hippolytus Ref.* 1.9.1–2 Ἀρχέλαος (60A4 DK) τὸ μὲν γένος Ἀθηναῖος, υἱὸς δὲ Ἀπολλοδώρου. οὗτος ἔφη τὴν μίξιν τῆς ὕλης ὁμοίως Ἀναξαγόρα, τὰς τε ἀρχὰς ὡσαύτως, αὐτὸς δὲ τοῦ Νοῦ ἐνυπάρχειν τι εὐθέως (τῷ) μίγμα(τι). (2) εἶναι (δὲ) ἀρχὴν τῆς κινήσεως (τὸ) ἀποκρίνεσθαι ἀπ' ἀλλήλων τὸ θερμὸν καὶ τὸ ψυχρόν. *Diogenes Laertius V.P.* 2.16 Ἀρχέλαος (60A1 DK) ... ἔλεγε δὲ δύο αἰτίας εἶναι γενέσεως, θερμὸν καὶ ψυχρόν. *Augustine C.D.* 8.2.42–44 Dombart–Kalb *Anaxagorae successit auditor eius Archelaus* (60A10 DK) *etiam ipse de particulis inter se similibus* (i.e. ὁμοιομερεῖαι) *quibus singula quaeque fierent ita putavit constare omnia.*

§6 *Ionic Succession: Clement of Alexandria Strom.* 1.14.62.1 φιλοσοφίας τοῖνυν ... τρεῖς γεγονάσι διαδοχαὶ ἐπώνυμοι τῶν τόπων περὶ οὓς διέτριψαν, Ἰταλικὴ μὲν ἢ ἀπὸ Πυθαγόρου, Ἰωνικὴ δὲ ἢ ἀπὸ Θαλοῦ, Ἑλεατικὴ δὲ ἢ ἀπὸ Ξενοφάνους. *Diogenes Laertius V.P.* proem. 13–15 (Socratici fr. I H 6 Giannantoni, *FDS* 121) φιλοσοφίας δὲ δύο γεγονάσιν ἀρχαί, ἡ τε ἀπὸ Ἀναξιμάνδρου καὶ ἡ ἀπὸ Πυθαγόρου ... καὶ ἐκαλεῖτο ἡ μὲν Ἰωνικὴ, ὅτι Θαλῆς (fr. 236 Wöhrle) Ἴων ὢν, Μιλήσιος γάρ, καθηγήσατο Ἀναξιμάνδρου. ... (14) καταλήγει δὲ ἡ μὲν εἰς Κλειτόμαχον καὶ Χρύσιππον καὶ Θεόφραστον ἢ Ἰωνικὴ. ... Θαλοῦ μὲν γάρ Ἀναξίμανδρος, οὗ Ἀναξιμένης, οὗ Ἀναξαγόρας, οὗ Ἀρχέλαος, οὗ Σωκράτης ὁ τὴν ἠθικὴν εἰσαγωγών· οὗ οἱ τε ἄλλοι Σωκρατικοὶ καὶ Πλάτων ὁ τὴν ἀρχαίαν Ἀκαδήμειαν συστήσας· οὗ Σπεύσιππος (test. 13 Tarán) καὶ Ξενοκράτης (—), οὗ Πολέμων (fr. 1 Gigante), οὗ Κράντωρ (test. 4c Mette) καὶ Κράτης, οὗ Ἀρκεσίλαος (test. 4c Mette) ὁ τὴν μέσσην Ἀκαδήμειαν εἰσηγησάμενος· οὗ Λακύνδης (test. 4 Mette) ὁ τὴν νέαν Ἀκαδήμειαν φιλοσοφῆσας· οὗ Καρνεάδης (test. 4c Mette), οὗ Κλειτόμαχος (test. 6b Mette). καὶ ὧδε μὲν εἰς Κλειτόμαχον. (15) εἰς δὲ Χρύσιππον οὕτω καταλήγει· Σωκράτους Ἀντισθένης, οὗ Διογένης ὁ κύων, οὗ Κράτης ὁ Θηβαῖος, οὗ Ζήνων ὁ Κιτιεύς, οὗ Κλεάνθης, οὗ Χρύσιππος. εἰς δὲ Θεόφραστον οὕτως· Πλάτωνος Ἀριστοτέλης, οὗ Θεόφραστος. καὶ ἡ μὲν Ἰωνικὴ τοῦτον καταλήγει τὸν τρόπον. *V.P.* 8.1 ἐπεὶ δὲ τὴν Ἰωνικὴν φιλοσοφίαν τὴν ἀπὸ Θαλοῦ καὶ τοὺς ἐν ταύτῃ διαγενομένους ἄνδρας ἀξιολόγους διεληλύθαμεν κτλ. *Eusebius PE* 10.14.9–18. *PE* 14.17.10.

§§7–8 *Pythagoras Italic Succession: Hippolytus Ref.* 1.2.1 ἔστι δὲ καὶ ἑτέρα φιλοσοφία οὐ μακρὰν τῶν αὐτῶν χρόνων, ἧς ἤρξε Πυθαγόρας, ὃν Σάμιόν τινες λέγου-

σιν. ἦν Ἰταλικὴν προσηγόρευσαν διὰ τὸν Πυθαγόραν φεύγοντα Πολυκράτην τὸν Σαμίων τύραννον οἰκῆσαι πόλιν τῆς Ἰταλίας κάκει τὸν βίον πληρῶσαι. οὐ τὴν αἴρεσιν διαδεξάμενοι κτλ. (see below §7).

§7 *Pythagoras: Cicero Luc. 118 Pythagorei e numeris et mathematicorum initiis proficisci volunt omnia.* Hippolytus Ref. 1.2.1–2 ... Πυθαγόρας ... δὲ περὶ φυσικῶν ζητήσας ἔμιξεν ἀστρονομίαν καὶ γεωμετρίαν καὶ μουσικὴν (καὶ ἀριθμητικὴν add. edd.)· (2) καὶ οὕτως μονάδα μὲν εἶναι ἀπεφάνετο τὸν θεόν. Ref. 1.2.6–9 τῶν δὲ ἀριθμῶν ἀρχὴ γέγονε καθ' ὑπόστασιν ἢ πρώτη μονάς, ἣτις ἐστὶ μονάς ἄρσην, γεννώσα πατρικῶς πάντας τοὺς ἄλλους ἀριθμούς. δευτέρον ἢ дуάς, θήλυς ἀριθμός, ὃ δὲ αὐτὸς καὶ ἄρτιος ὑπὸ τῶν ἀριθμητικῶν καλεῖται. τρίτον ἢ τριάς, ἀριθμός ἄρσην· οὗτος καὶ περισσὸς ὑπὸ τῶν ἀριθμ(ητικ)ῶν νενομοθέτηται καλεῖσθαι. ἐπὶ πᾶσι δὲ τούτοις ἢ τετράς, θήλυς ἀριθμός, ὃ δὲ αὐτὸς καὶ ἄρτιος καλεῖται, ὅτι θήλυν ἐστίν. γεγόνασιν οὖν οἱ πάντες ἀριθμοὶ ληφθέντες ἀπὸ γένους τέσσαρες—ἀριθμός δ' ἦν τὸ γένος ἀόριστος—, ἀφ' ὧν ὁ τέλειος αὐτοῖς συνέστηκεν ἀριθμός, ἢ δεκάς· τὸ γὰρ ἕν, δύο, τρία, τέσσαρα γίνεται δέκα, ἐὰν ἐκάστῳ τῶν ἀριθμῶν φυλάσσεται κατ' οὐσίαν τὸ οἰκείον ὄνομα. ταύτην ὁ Πυθαγόρας ἔφη ἱεράν τετρακτύν, 'πηγὴν ἀνάου φύσεως' ὡς 'ρίζωματ' ἔχουσιν ἐν ἑαυτῇ.

§8 *Italic Succession: Diogenes Laertius V.P. proem. 13–15* (Socratici fr. I H 6 Giannantoni, FDS 121) φιλοσοφίας δὲ δύο γεγόνασιν ἀρχαί, ἡ τε ἀπὸ Ἀναξίμανδρου καὶ ἡ ἀπὸ Πυθαγόρου ... (15) ἡ δὲ Ἰταλικὴ οὕτω (sc. καταλήγει): Φερεκύδους Πυθαγόρας, οὐ Τηλαύγης ὁ υἱός, οὐ Ξενοφάνης, οὐ Παρμενίδης, οὐ Ζήνων ὁ Ἐλεάτης, οὐ Λεύκιππος, οὐ Δημόκριτος, οὐ πολλοὶ μὲν, ἐπ' ὀνόματος δὲ Ναυσιφάνης (75.1 DK) {καὶ Ναυκύδης}, ὧν Ἐπίκουρος. 1.122 ἀρκτέον ἀπὸ τῆς Ἰωνικῆς φιλοσοφίας, ἥς καθηγήσατο Θαλῆς, οὐ διήκουσεν Ἀναξίμανδρος. V.P. 8.1–3 ... φέρε καὶ περὶ τῆς Ἰταλικῆς διαλάβωμεν, ἥς ἤρξε Πυθαγόρας Μνησάρχου ... , Σάμιος· ... (3) εὐρὼν τὴν πατρίδα τυραννουμένην ὑπὸ Πολυκράτους, ἀπῆρεν εἰς Κρότωνα τῆς Ἰταλίας· κάκει νόμους θείας τοῖς Ἰταλιώταις ἐδοξάσθη σὺν τοῖς μαθηταῖς. Hippolytus Ref. 1.2.1–2 ἔστι δὲ καὶ ἐτέρα φιλοσοφία ... , ἦν Ἰταλικὴν προσηγόρευσαν διὰ τὸν Πυθαγόραν φεύγοντα Πολυκράτην τὸν Σαμίων τύραννον οἰκῆσαι πόλιν τῆς Ἰταλίας κάκει τὸν βίον πληρῶσαι. οὐ τὴν αἴρεσιν οἱ διαδεξάμενοι οὐ πολὺ διήνεγκαν τοῦ αὐτοῦ φρονήματος. Eusebius PE 10.4.17 ὁ μὲν οὖν Πυθαγόρας τοιοῦτος. πρώτη δ' ἐκ τῆς τούτου διαδοχῆς ἡ κληθεῖσα Ἰταλικὴ φιλοσοφία συνέστη, τῆς ἐπυνυμίας ἐκ τῆς κατὰ τὴν Ἰταλίαν διατριβῆς ἀξιωθεῖσα· μεθ' ἣν ἡ ἀπὸ Θαλοῦ τοῦ τῶν ἐπτά σοφῶν ἐνὸς Ἰωνικῆ προσαγορευθεῖσα· κάπειτα ἡ Ἐλεατικὴ, Ξενοφάνην τὸν Κολοφώνιον πατέρα ἐπιγραψαμένη.

§9 *Heraclitus Hippasus: Lucretius DRN 1.635–638 quapropter qui materiem rerum esse putarunt / ignem atque ex igni summam consistere solo, / magno opere a vera lapsi ratione videntur. / Heraclitus init quorum dux proelia primus. Capitula Lucretiana* at 1.635 *Contra Heraclitum.* Diogenes Laertius V.P. 8.84 Ἰππασος Μεταποντίνος (18A1 DK) καὶ αὐτὸς Πυθαγορικός. ἔφη δὲ χρόνον ὠρίσμενον εἶναι τῆς τοῦ κόσμου μεταβολῆς καὶ πεπερασμένον εἶναι τὸ πᾶν καὶ αἰετίνητον. 9.7–8 (on Heraclitus, 22A1 DK) ἐδόκει δ' αὐτῷ καθολικῶς μὲν τὰδε· ἐκ πυρὸς τὰ πάντα συνεστάναι καὶ εἰς τοῦτο ἀναλύεσθαι· ... (8) ... πῦρ εἶναι στοιχεῖον καὶ πυρὸς ἀμοιβῆν τὰ πάντα, ἀραιώσει καὶ πυκνώσει {τὰ} γινόμενα. σαφῶς δ' οὐδὲν ἐκτίθε-

ται. ... γεννάσθαι τε αὐτὸν (sc. τὸν κόσμον) ἐκ πυρὸς καὶ πάλιν ἐκπυροῦσθαι κατὰ τινας περιόδους ἐναλλάξ τὸν σύμπαντα αἰῶνα· τοῦτο δὲ γίνεσθαι καθ' εἰμαρμένην. τῶν δὲ ἐναντίων τὸ μὲν ἐπὶ τὴν γένεσιν ἄγον καλεῖσθαι πόλεμον καὶ ἔριν, τὸ δ' ἐπὶ τὴν ἐκπύρωσιν ὁμολογίαν καὶ εἰρήνην, καὶ τὴν μεταβολὴν ὁδὸν ἄνω κάτω, τὸν τε κόσμον γίνεσθαι κατ' αὐτήν. **Hippolytus Ref. 1.4.1** Ἡράκλειτος (T 658 Mouraviev) δὲ φυσικὸς φιλόσοφος ὁ Ἐφέσιος κτλ.

§10 Diogenes: Diogenes Laertius V.P. 9.57 Διογένης (59A1 DK) Ἀπολλοθέμιδος Ἀπολλωνιάτης· ... ἤκουσε δέ, φησὶν Ἀντισθένης (fr. 15 Giannatasio Andria), Ἀναξιμένους. ἦν δὲ τοῖς χρόνοις κατ' Ἀναξαγόραν. ... ἐδόκει δὲ αὐτῷ τάδε· στοιχεῖον εἶναι τὸν ἀέρα. ... τὸν τε ἀέρα πυκνούμενον καὶ ἀραιούμενον γεννητικὸν εἶναι τῶν κόσμων.

§11 Xenophanes: Hippolytus Ref. 1.14.1–4 Ξενοφάνης δὲ ὁ Κολοφώνιος (21A33 DK) Ὁρθομένους υἱός. ... (4) τὰ δὲ πάντα εἶναι ἐκ γῆς.

§12 Philolaus: Varro L.L. 5.1.10 *Pythagoras Samius ait omnium rerum initia esse bina ut finitum et infinitum, bonum et malum, vitam et mortem, diem et noctem.* **Diogenes Laertius V.P. 8.84** Φιλόλαος (44A1 DK) Κροτωνιάτης Πυθαγορικός.

§13 Leucippus: Diogenes Laertius V.P. 9.30–31 Λεύκιππος (67A1 DK) Ἐλεάτης, ὡς δὲ τινες, Ἀβδηρίτης, κατ' ἐνίους δὲ Μιλήσιος. οὗτος ἤκουσε Ζήνωνος. ... πρῶτός τ' ἀτόμους ἀρχὰς ὑπεστήσατο. ... (31) τὸ μὲν πᾶν ἄπειρόν φησιν, ὡς προείρηται· τούτου δὲ τὸ μὲν πλήρες εἶναι, τὸ δὲ κενόν, (ἄ) καὶ στοιχεῖα φησι. **Hippolytus Ref. 1.12.1** Λεύκιππος (67A10 DK) δὲ Ζήνωνος ἐταῖρος ... στοιχεῖα δὲ λέγει τὸ πλήρες καὶ (τὸ) κενόν.

§14 Democritus: Diogenes Laertius V.P. 9.44 (Democritus 68A1 DK) ἀρχὰς εἶναι τῶν ὄλων ἀτόμους καὶ κενόν. **V.P. 9.45** φύσει δε ἄτομα καὶ κενόν. **Hippolytus Ref. 1.13.1** Δημόκριτος δὲ Λευκίππου γίνεται γνώριμος· Δημόκριτος Δαμασπίπου Ἀβδηρίτης (68A40 DK) λέγει δὲ ὁμοίως Λευκίππῳ περὶ στοιχείων, πλήρους καὶ κενού.

§16 Epicurus Democritus: Diogenes Laertius V.P. 10.1 Ἐπίκουρος Νεοκλέους ... Ἀθηναῖος. **Hippolytus Ref. 1.22.1–2** Ἐπίκουρος (fr. 271 adn., fr. 267 Usener) δὲ σχεδὸν ἐναντίαν πᾶσι δόξαν ἔθετο. ἀρχὰς μὲν τῶν ὄλων ὑπέθετο ἀτόμους καὶ κενόν—κενὸν μὲν οἶον τόπον τῶν ἐσομένων, ἀτόμους δὲ τὴν ὕλην, ἐξ ἧς τὰ πάντα—, ἐκ δὲ τῶν ἀτόμων συνελθουσῶν γενέσθαι καὶ τὸν θεόν, καὶ τὰ στοιχεῖα {πάντα}, καὶ (τοὺς κόσμους, καὶ) τὰ ἐν αὐτοῖς πάντα, καὶ ζῶα καὶ (τ)ἄλλα, ὡς μὴδὲν (μήτε) γίνεσθαι μήτε συνεστάναι, εἰ μὴ ἐκ τῶν ἀτόμων εἴη. τὰς δὲ ἀτόμους τὸ λεπτομερέστατον καὶ καθ' οὗ οὐκ ἂν γένοιτο κέντρον οὐδὲ σημεῖον οὐδέν, οὐδὲ διαίρεσις οὐδέμια, ἔφη εἶναι· διὸ καὶ ἀτόμους αὐτάς ὠνόμασεν.

§16[110–114] Epicurus Democritus: Capitula Lucretiana at DRN 1.419 *corpus et inane esse natura rerum.*

§16[113–114] Epicurus Democritus: Lucretius 1.269–270 *accipe praeterea quae corpora tute necessest / confiteare esse in rebus nec posse videri.* **Capitula Lucretiana at DRN 1.269** *corpora quae non videantur.*

§16[116–118] Epicurus Democritus: Lucretius DRN 2.83–87 *nam quoniam per inane vagantur, cuncta necessest/ aut gravitate sua ferri primor-*

dia rerum / aut ictu forte alterius. nam <cum> cita saepe / obvia confluxere, fit ut diversa repente / dissiliant.

§16[118–122] *Epicurus Democritus*: Lucretius DRN 2.216–224 *illud in his quoque te rebus cognoscere avemus, / corpora cum deorsum rectum per inane feruntur / ponderibus propriis, incerto tempore ferme / incertisque locis spatio depellere paulum, / tantum quod momen mutatum dicere possis. / quod nisi declinare solerent, omnia deorsum / imbris uti guttae caderent per inane profundum / nec foret offensus natus nec plaga creata / principiis; ita nihil umquam natura creasset.* DRN 2.333–341 *nunc age iam deinceps cunctarum exordia rerum / qualia sint et quam longe distantia formis, / percipe, multigenis quam sint variata figuris; / non quo multa parum simili sint praedita forma, / sed quia non volgo paria omnibus omnia constant. / nec mirum; nam cum sit eorum copia tanta, / ut neque finis, uti docui, neque summa sit ulla, / debent ni mirum non omnibus omnia prorsum / esse pari filo similique adfecta figura.* DRN 2.478–480 ... *pergam conectere rem quae / ex hoc apta fidem ducat, primordia rerum / finita variare figurarum ratione.* *Capitula Lucretiana* at DRN 2.333 *De figura atomorum.*

§16[122–124] *Epicurus Democritus*: Lucretius DRN 1.526–535 ... *sunt ergo corpora certa, / quae spatium pleno possint distinguere inane. / haec neque dissolvi plagis extrinsecus icta / possunt nec porro penitus penetrata retexi / nec ratione queunt alia temptata labare; / ... / (532) nam neque conlidi sine inani posse videtur / quicquam nec frangi nec findi in bina secando / nec capere umorem neque item manabile frigus / nec penetralem ignem, quibus omnia conficiuntur.* *Dionysius of Alexandria* Περὶ φύσεως at Eus. PE 14.23.3 ταύτης δὲ τῆς δόξης (sc. on atoms and worlds infinite in number) Ἐπίκουρος (cf. fr. 301 Usener) γεγόνاسι καὶ Δημόκριτος (68A43 DK)· τοσοῦτον δὲ διεφώνησαν ὅσον ὁ μὲν ἐλαχίστας πάσας καὶ διὰ τοῦτο ἀνεπαισθήτους, ὁ δὲ καὶ μεγίστας εἶναι τινας ἀτόμους ὁ Δημόκριτος ὑπέλαβεν. ἀτόμους δὲ εἶναι φασιν ἀμφοτέροι καὶ λέγεσθαι διὰ τὴν ἄλυτον στερρότητα.

§17 *Ecpphantus*: Hippolytus Ref. 1.15.1–2 Ἐκφαντός (51.1 DK) τις Συρακούσιος ... τὰ μὲν πρῶτα ἀδιαίρετα εἶναι σώματα. καὶ παραλλαγὰς αὐτῶν τρεῖς ὑπάρχειν, μέγεθος (2) σχῆμα δύναμιν, ἐξ ὧν τὰ αἰσθητὰ γίνεσθαι· εἶναι δὲ τὸ πλῆθος αὐτῶν ... ἄπειρον. κινεῖσθαι δὲ τὰ σώματα μήτε ὑπὸ βάρους μήτε πληγῆς, ἀλλ' ὑπὸ θείας δυνάμεως, ἣν νοῦν καὶ ψυχὴν προσαγορεύει.

§18 *Diodorus Cronus*: Sextus Empiricus M. 9.363, P. 3.32 Διόδωρος δὲ ὁ ἐπικληθεὶς Κρόνος (fr. 117C Döring, II F 8 Giannantoni) ἐλάχιστα καὶ ἀμερῆ σώματα.

§19 *Empedocles*: Lucretius DRN 1.763–766 *denique quattuor ex rebus si cuncta creantur / atque in eas rursum res omnia dissolvuntur, / qui magis illa queunt rerum primordia dici / quam contra res illorum retroque putari?* etc. *Capitula Lucretiana* at DRN 1.716 *Contra Empedoclen.* *Heraclitus All.Hom.* 24.6–7 τί δ' ὁ Ἀκραγαντίνος Ἐμπεδοκλῆς; οὐχὶ τὰ τέτταρα στοιχεῖα βουλόμενος ἡμῖν ὑποσημῆναι τὴν Ὀμηρικὴν ἀλληγορίαν μεμίμηται; (31B6.2–3 DK) 'Ζεὺς ἀργῆς Ἥρῃ τε φερέσβιος ἢ δ' Αἰδωνεύς / Νῆστis θ' ἢ δακρύοις τέγγει κρούνωμα βρότειον'.

(7) Ζῆνα μὲν εἶπε τὸν αἰθέρα, γῆν δὲ τὴν Ἥραν, Ἀιδωνέα δὲ τὸν ἀέρα, τὸ δὲ δακρύοις τεγγόμενον κρούνωμα βρότειον τὸ ὕδωρ. **Diogenes Laertius** *V.P.* 8.51 Ἐμπεδοκλῆς ... Μένωνος ... Ἀκραγαντίνος (31A1 DK). *V.P.* 8.76 ἐδόκει δ' αὐτῷ τάδε (31A1 DK)· στοιχεῖα μὲν εἶναι τέτταρα, πῦρ, ὕδωρ, γῆν, ἀέρα· Φιλίαν θ' ἢ συγκρίνεται καὶ Νεῖκος ᾧ διακρίνεται. φησὶ δ' οὕτω (31B6.2–3 DK)· 'Ζεὺς ἀργῆς Ἥρη τε φερέσβιος ἡδ' Ἀιδωνεύς / Νῆστis θ' ἢ δακρύοις τέγγει κρούνωμα βρότειον· Δία μὲν τὸ πῦρ λέγων, Ἥρην δὲ τὴν γῆν, Ἀιδωνέα δὲ τὸν ἀέρα, Νῆστιν δὲ τὸ ὕδωρ. **Hippolytus** *Ref.* 1.3.1 Ἐμπεδοκλῆς (31A31 DK) δὲ μετὰ τούτους (sc. τοὺς Πυθαγορείους) γενόμενος ... οὗτος τὴν τοῦ παντὸς ἀρχὴν Νεῖκος καὶ Φιλίαν ἔφη. *Ref.* 7.29.4–5 λέγων ὡδὲ πως (31B6 DK)· τέσσαρα τῶν πάντων ριζώματα πρῶτον ἄκουε· / Ζεὺς *** Ἥρη τε φερέσβιος ἡδ' Ἀιδωνεύς / Νῆστis θ' ἢ δακρύοις τέγγει κρούνωμα βρότειον· Ζεὺς ἐστὶ τὸ πῦρ, Ἥρη δὲ φερέσβιος ἡ γῆ, ἡ φέρουσα τοὺς πρὸς τὸν βίον καρπούς, Ἀιδωνεύς δὲ ὁ ἀήρ, ὅτι πάντα δι' αὐτοῦ βλέπο(ν)τες μόνον αὐτὸν οὐ καθορώμεν, Νῆστις δὲ τὸ ὕδωρ. **Stobaeus** 1.10.11b (after 31B6 + B36 DK cited 1.10.11a) Ἐμπεδοκλῆς Δία μὲν λέγει τὴν ζέσιν (καὶ) τὸν αἰθέρα, Ἥρην δὲ φερέσβιον τὴν γῆν· ἀέρα δὲ τὸν Ἀιδωνέα, ἐπειδὴ φῶς οἰκεῖον οὐκ ἔχει, ἀλλὰ ὑπὸ ἡλίου καὶ σελήνης καὶ ἀστρων καταλάμπεται· Νῆστιν δὲ καὶ 'κρούνωμα βρότειον' τὸ σπέρμα καὶ τὸ ὕδωρ. ἐκ τεσσάρων οὖν στοιχείων τὸ πᾶν, τῆς τούτων φύσεως ἐξ ἐναντίων συνεστῶσης, ξηρότητός τε καὶ ὑγρότητος καὶ θερμότητος καὶ ψυχρότητος, ὑπὸ τῆς πρὸς ἄλληλα ἀναλογίας καὶ κράσεως ἐναπεργαζομένης τὸ πᾶν καὶ μεταβολὰς μὲν μερικὰς ὑπομενούσης, τοῦ δὲ παντὸς λύσιν μὴ ἐπιδεχομένης. λέγει γὰρ οὕτως (fr. 31B17.7–8 DK follows) κτλ.

ps.Valerius Probus in *Buc.* 6.31, pp. 332.25–334.28 Hagen *omnem igitur hanc rerum naturae formam tenui primum et inani mole dispersam refert in quattuor elementa concretam et ex his omnia esse postea effigiata, (ut) Stoici tradunt Zenon Citieus* (SVF 1.102) *et Chrysippus Solaeus* (SVF 2.413), *Cleanthes et Assius* (SVF 1.496), *qui principem habuerunt Empedoclem Agrigentinum, qui de his ita scribit* (31B6 DK)· τέσσαρα γὰρ πάντων ριζώματα πρῶτον ἄκουε· / Ζεὺς ἀργῆς Ἥρη τε φερέσβιος ἡδ' Ἀιδωνεύς / Νῆστis θ' ἢ δακρύοις (†) γε πικροῖς νωμὰ βρότειον γένος (interpretative paraphrase of τέγγει κρούνωμα βρότειον), *ut accipiamus* Ζεὺς ἀργῆς *ignem, qui sit ζέων et candens, quod ignis est proprium, de quo Euripides* (fr. 941 N² / Kannicht) ὄρῃς τὸν ὑψοῦ τόνδ' ἄπειρον αἰθέρα / καὶ γῆν πέριξ ἔχονθ' ὑγραῖς ἐν ἀρχαλαῖς; / τοῦτον νόμιζε Ζῆνα', *et Ennius* (*Thyest.* fr. vii TRF³ p. 66 Ribbeck, fr. cliii Jocelyn) *'aspice hoc sublime candens, quem vocant omnes Iovem'*. ἀργῆς *autem id est λαμπρός vel ταχύς. nam et Homerus* (*Il.* 1.50) καὶ κύνας ἀργούς, *et Argus undique lucens et videns* (sc. Ἄργος ὁ πανόπτης). [...] Ἥρη *autem* φερέσβιος *terram tradit, quae victum firmet, de qua Homerus* ζεῖδωρος ἄρουρα (*Il.* 2.548 etc.) *unde τὴν Ἥραν quidam ἐραν appellarunt. ἡδ' Ἀιδωνεύς Ditem quidem patrem glossa significat, sed accipere debemus aëra, quem Euripides* (fr. 448 N², [448] Kannicht) *in Cadmo χάος appellavit sic: οὐρανὸς ὑπὲρ ἡμᾶς †καινώως φωτῶν† ἔδος δαιμόνιον/ τόδ' ἐν μέσῳ τοῦ οὐρανοῦ τε καὶ χθονός, / οἱ μὲν ὀνομάζουσι χάος, [...]* Νῆστis *aquam significat, quae scilicet sincero habitu cuncta confirmet. nam creditur id eundem hominem, quem acceperit, servare. Cicero autem* Ἀιδωνέα *pro terra interpretatur, Ἥραν pro aëre versa vice in libro secundo De deorum natura* (ND 2.66): *'aer', inquit, 'ut Stoici* (SVF 2.1075) *dis-*

putant, interiectus inter mare et caelum Iunonis nomine consecratur, quae est soror et coniunx Iovis, quod ei similitudo est aëris et cum eo summa coniunctio' (etc.). [... Homer *Il.* 15.189–193 is also cited]. *quoad ad Iovem aether pertineat, mare ad Neptunum, aër ad Ditis imperia, in Here terram remansisse. in quo animadvertendum, quod Homerus consentiat Empedocli et Heracleoni Ciceronis diversa opinione* (see above, General texts). **Ioannes Tzetzes Exeg. in Iliad.** 1.1.17 p. 80.9–15 Papat homopoulos και ἄλλα δὲ μυρία ὁ αὐτὸς Ὀρφεὺς ἀλληγορεῖ. ἀκούσατε μικρὸν καὶ τοῦ πρώτου τῶν Φυσικῶν Ἐμπεδοκλέους (B6 follows)· πάντως ἀλληγορικῶς και οὐ μυθικῶς φασιν. Fr. 31B6 DK is also cited at Sext. *M.* 9.362, *M.* 10.315 reading Ζεὺς ἀργής.

§20 Socrates Plato: Diogenes Laertius V.P. 2.18–19 Σωκράτης Σωφρονίσκου ... Ἀθηναῖος ... (19) ἀκούσας δὲ Ἀναξαγόρου κατὰ τινας ... , μετὰ τὴν ἐκείνου καταδίκην διήκουσεν Ἀρχελάου τοῦ φυσικοῦ. 3.1 Πλάτων Ἀρίστωνος ... Ἀθηναῖος. *V.P.* 3.69 δύο δὲ τῶν πάντων ἀπέφηνεν (sc. Plato) ἀρχάς, θεὸν και ὕλην, ὃν και νοῦν προσγορεύει και αἴτιον. *V.P.* 3.76 ἀρχάς μὲν οὖν εἶναι και αἴτια τὰ λεχθέντα δύο † μὲν ὦν παράδειγμα τὸν θεὸν και τὴν ὕλην· ὅπερ ἀνάγκη ἄμορφον εἶναι, ὥσπερ και ἐπὶ τῶν ἄλλων δεκτικῶν. αἴτιον δὲ τούτων ἐξ ἀνάγκης εἶναι· δεχόμενον γὰρ πως τὰς ἰδέας γεννᾷ τὰς οὐσίας. **Hippolytus Ref.** 1.19.1–2 ἀρχάς εἶναι τοῦ παντὸς θεὸν και ὕλην και παράδειγμα· θεὸν μὲν τὸν ποιητὴν και διακοσμήσαντα τόδε τὸ πᾶν και προνοούμενον αὐτοῦ· ὕλην δὲ τὴν πᾶσιν ὑποκειμένην, ἣν και δεξαμένην (*Tim.* 53a) και τιθήνην (*Tim.* 49a etc.) καλεῖ ... τὸ δὲ παράδειγμα τὴν διάνοιαν τοῦ θεοῦ εἶναι· δ και ἰδέαν καλεῖ, οἷον εἰκόσισμά τι, (ῶ) προσέχων ἐν τῇ ψυχῇ ὁ θεὸς τὰ πάντα ἐδημιούργει. **Ambrose of Milan Exam.** 1.1, p. 3.1–3 Schenkl *tantumne opinionis adsumpsisse homines, ut aliqui eorum tria principia constituerent omnium, deum et exemplar et materiam, sicut Plato discipulique eius.* **Calcidius in Tim.** c. 307 *sunt igitur initia deus et silva et exemplum, et est deus quidem origo primaria moliens et posita in actu, silva vero ex qua prima fit quod gignitur.*

§21 Aristotle: Arius Didymus fr. 3 Diels at Stob. *Ecl.* 1.12.1b, pp. 134.18–135.10 ταύτας δὲ τὰς ἀρχάς ποτὲ μὲν εἶναι φησιν Ἀριστοτέλης δύο, τὴν τε ὕλην και τὸ εἶδος, δ και μορφήν καλεῖ και ἐντελέχειαν ... ἐντελέχειαν (δ') αὐτὸ προσεῖπεν ἦτοι διὰ τὸ ἐνδελεχῶς ὑπάρχειν ἢ ὅτι τῶν μετεχόντων αὐτοῦ ἕκαστον παρέχεται τέλειον· ὁ γὰρ χαλκὸς ἀνδριάς οὐδέπω πλὴν ὅτι μὴ δυνάμει, διαπλασθεὶς δὲ και τὴν πρόσφορον λαβὼν μορφήν ἐντελεχεῖα λέγεται· τότε γὰρ ἀπελήφει τὸ τέλος. **Diogenes Laertius V.P.** 5.1 Ἀριστοτέλης Νικομάχου ... Σταγειρίτης. *V.P.* 5.32 εἶναι δὲ παρὰ τὰ τέταρα στοιχεῖα και ἄλλο πέμπτον, ἐξ οὗ τὰ αἰθέρια συνεστάναι. ἄλλοιαν δ' αὐτοῦ τὴν κίνησιν εἶναι· κυκλοφορητικὴν γάρ. **Hippolytus Ref.** 1.20.1 + 1.20.4 Ἀριστοτέλης τούτου (sc. Plato's) γενόμενος ἀκροατὴς κτλ. ... τῷ πέμπτῳ σώματι, δ ὑποτίθεται εἶναι {μετὰ secl. Marcovich} τῶν ἄλλων τεσσάρων—τοῦ τε πυρὸς και τῆς γῆς και τοῦ ὕδατος και τοῦ ἀέρος—λεπτότερον, οἷον πνεῦμα.

§22 Xenocrates: Diogenes Laertius V.P. 4.6 Ξενοκράτης Ἀγαθήνορος Χαλκηδόνιος (Test. 2 Insnardi-Parente)²· οὗτος ἐκ νέου Πλάτωνος ἤκουσεν.

§23 Zeno Stoicus: Clement of Alexandria Strom. 5.14.89.2 φασὶ γὰρ σῶμα εἶναι τὸν θεὸν οἱ Στωϊκοὶ (*SVF* 2.1035) και πνεῦμα κατ' οὐσίαν. **Eusebius PE** 15.14.1 (**Aristocles** fr. 3 Chiesara, *SVF* 1.98) στοιχεῖον εἶναι φασὶ τῶν ὄντων τὸ πῦρ ... τοῦ-

του δ' ἀρχὰς ὕλην καὶ θεόν, ὡς Πλάτων. ἀλλ' οὗτος (sc. Zeno—) ἄμφω σώματ' αὖ φησιν εἶναι, καὶ τὸ ποιοῦν καὶ τὸ πάσχον. **Diogenes Laertius** *V.P.* 7.1 Ζήνων Μνασέου ... Κιτιεύς (*SVF* 1.1). *V.P.* 7.134 δοκεῖ δ' αὐτοῖς (*SVF* 1.85 etc.) ἀρχὰς εἶναι τῶν ὅλων δύο, τὸ ποιοῦν καὶ τὸ πάσχον. τὸ μὲν οὖν πάσχον εἶναι τὴν ἅποιον οὐσίαν τὴν ὕλην, τὸ δὲ ποιοῦν τὸν ἐν αὐτῇ λόγον τὸν θεόν. ... ἀλλὰ καὶ σώματα [ἄσώματα Φ, ἄσωμάτους *Suda*, *perperam uterque*] εἶναι τὰς ἀρχὰς καὶ ἀμόρφους. **Origen** *Cels.* 6.71, p. 448.13–14 Marcovich κατὰ μὲν οὖν τοὺς ἀπὸ τῆς Στοᾶς (*SVF* 2.1051), σωματικὰς λέγοντας εἶναι τὰς ἀρχὰς. **Hippolytus** *Ref.* 1.21.1 Στωϊκοὶ (*SVF* 1.153, 2.1029) ... , ὁμοδοξοὶ γενόμενοι ὃ τε Χρύσιππος καὶ (ὁ) Ζήνων. οἱ ὑπέθεντο καὶ αὐτοὶ ἀρχὴν μὲν τῶν πάντων θεόν. **Calcidius** in *Tim.* c. 289 *Stoici* (—) *quoque ortum silvae reiciunt, quin potius ipsam et deum duo totius rei sumunt initia, deum ut opificem, silvam ut quae operationi subiciatur; una quidem essentia praeditos, facientem et quod fit ac patitur, corpus esse, diversa vero virtute, quia faciat, deum, quia fiat, silvam fore.* **Simplicius** in *Phys.* 25.16–18 ὡς οἱ Στωϊκοὶ (*SVF* 2.312) θεὸν καὶ ὕλην, οὐχ ὡς στοιχεῖον δηλονότι τὸν θεὸν λέγοντες, ἀλλ' ὡς τὸ μὲν ποιοῦν τὸ δὲ πάσχον.

§24 **Strato**: **Diogenes Laertius** *V.P.* 5.58 διεδέξατο δ' αὐτοῦ (sc. Θεοφράστου) τὴν σχολὴν Στράτων Ἀρκεσιλάου Λαμψακηνός (fr. 18 Wehrli, 1 Sharples).

b Sources and Other Parallel Texts

General texts: *Corpus Hippocraticum* *NH* 1.2–4, pp. 164.10–166.11 Jouanna φασί τε γὰρ ἔν τι εἶναι, ὃ τί ἐστι, καὶ τοῦτ' εἶναι τὸ ἔν τε καὶ τὸ πᾶν, κατὰ δὲ τὰ οὐνόματα οὐχ ὁμολογέουσιν· λέγει δ' αὐτέων ὁ μὲν τις φάσκων ἡέρα εἶναι τοῦτο τὸ ἔν τε καὶ τὸ πᾶν, ὁ δὲ πῦρ, ὁ δὲ ὕδωρ, ὁ δὲ γῆν, καὶ ἐπιλέγει ἕκαστος τῷ ἑωυτοῦ λόγῳ μαρτυρία τε καὶ τεκμήρια, ἃ γέ ἐστιν οὐδέν. ὁπότε δὲ γνώμῃ τῇ αὐτῇ πάντες προσχρέωνται, λέγουσι δ' οὐ τὰ αὐτὰ, δηλὸν ὅτι οὐδὲ(ν) γινώσκουσιν. ... ἀλλ' ἔμοιγε δοκεῖουσιν οἱ τοιοῦτοι ἄνθρωποι αὐτοὶ ἑωυτοὺς καταβάλλειν ἐν τοῖσιν ὀνόμασι λόγων (τῶν) ἑαυτῶν ὑπὸ ἀσυνεσίας, τὸν δὲ Μελίσσου (30A6 DK) λόγον ὁρθεῖν. **Gorgias** at **ps.Aristotle** *MXG* 5.979a13–18 (cf. 82B3 DK *ad finem*, *VS* p. 2.283) καὶ ὅτι μὲν οὐκ ἔστι, συνθεῖς τὰ ἐτέροις εἰρημένα, ὅσοι περὶ τῶν ὄντων λέγοντες τάναντία, ὡς δοκοῦσιν, ἀποφαίνονται αὐτοῖς, οἱ μὲν ὅτι ἔν καὶ οὐ πολλὰ, οἱ δὲ αὖ ὅτι πολλὰ καὶ οὐχ ἔν, καὶ οἱ μὲν ὅτι ἀγέννητα, οἱ δ' ὡς γενόμενα ἐπιδεικνύντες ταῦτα. **Isocrates** *Hel.* 3 πῶς γὰρ ἂν τις ὑπερβάλαιτο Γοργίαν (82B1 DK) τὸν τολμήσαντα λέγειν ὡς οὐδὲν τῶν ὄντων ἔστιν ἡ Ζήνων (cf. 82B1 DK) τὸν ταῦτα δυνατὰ καὶ πάλιν ἀδύνατα πειρώμενον ἀποφαίνειν ἢ Μελίσσον (—) ὃς ἀπείρων τὸ πλῆθος πεφυκότων τῶν πραγμάτων ὡς ἐνός ὄντος τοῦ παντός ἐπεχείρησεν ἀποδείξει εὐρίσκειν; *Antid.* 268 τοὺς λόγους τοὺς τῶν παλαιῶν σοφιστῶν, ὧν ὁ μὲν (—) ἄπειρον τὸ πλῆθος ἔφησεν εἶναι τῶν ὄντων, Ἐμπεδοκλῆς (—) δὲ τέτταρα καὶ Νεῖκος καὶ Φιλίαν ἐν αὐτοῖς, Ἴων (36A6 DK) δ' οὐ πλείω τριῶν, Ἀλκμέων (24A3 DK) δὲ δύο μόνα, Παρμενίδης (—) δὲ καὶ Μελίσσος (—) ἔν, Γοργίας (82B1 DK) δὲ παντελῶς οὐδέν. **Xenophon** *Mem.* 1.1.14 τῶν τε περὶ τῆς τῶν πάντων φύσεως μεριμνώντων τοῖς μὲν δοκεῖν ἐν μόνον τὸ ὄν εἶναι, τοῖς δ' ἄπειρα τὸ πλῆθος, καὶ τοῖς μὲν αἰεὶ πάντα κινεῖσθαι, τοῖς δ' οὐδὲν ἂν ποτε κινηθῆναι, καὶ τοῖς μὲν πάντα γίγνεσθαι τε καὶ ἀπόλλυσθαι, τοῖς δὲ οὔτ' ἂν γενέσθαι ποτὲ οὐδὲν οὔτε ἀπολεῖσθαι. **Plato** *Phdr.* 270c–d (quoted *Gal. MM* 10.13.13–14.6,

HNH 15.4.12–5.6 K. = p. 4.26–5.6 Mewaldt, etc.) τὸ τοίνυν περὶ φύσεως σκόπειν τί ποτε λέγει Ἰπποκράτης τε καὶ ὁ ἀληθὴς λόγος. ἄρ' οὐχ ὧδε δεῖ διανοεῖσθαι (d) περὶ οὗτουον φύσεως· πρῶτον μὲν, ἀπλοῦν ἢ πολυειδές ἐστιν οὐ πέρι βουλησόμεθα εἶναι αὐτοὶ τεχνικοὶ καὶ ἄλλον δυνατοὶ ποιεῖν, ἔπειτα δέ, ἂν μὲν ἀπλοῦν ἦ, σκοπεῖν τὴν δύναμιν αὐτοῦ, τίνα πρὸς τί πέφυκεν εἰς τὸ δρᾶν ἔχον ἢ τίνα εἰς τὸ παθεῖν ὑπὸ τοῦ, ἐὰν δὲ πλείω εἶδη ἔχῃ, ταῦτα ἀριθμησάμενον, ὅπερ ἐφ' ἐνός, τοῦτ' ἰδεῖν ἐφ' ἐκάστου, τῷ τί ποιεῖν αὐτὸ πέφυκεν ἢ τῷ τί παθεῖν ὑπὸ τοῦ; *Sph.* 242c–243a μῦθόν τινα ἕκαστος φαίνεται μοι διηγείσθαι παισὶν ὡς οὖσιν ἡμῖν, ὁ μὲν ὡς τρία τὰ ὄντα, πολεμεῖ δὲ (d) ἀλλήλοις ἐνίοτε αὐτῶν ἅττα πη, τοτὲ δὲ καὶ φίλα γιγνόμενα γάμους τε καὶ τόκους καὶ τροφὰς τῶν ἐκγόνων παρέχεται· δύο δὲ ἕτερος εἰπών, ὑγρὸν καὶ ξηρὸν (—), ἢ θερμὸν καὶ ψυχρὸν (cf. 60A8 DK), συνοικίζει τε αὐτὰ καὶ ἐκδίδωσι· τὸ δὲ παρ' ἡμῖν Ἑλεατικὸν ἔθνος, ἀπὸ Ξενοφάνους (21A29 DK) τε καὶ ἔτι πρόσθεν (—) ἀρξάμενον, ὡς ἐνός ὄντος τῶν πάντων καλουμένων οὕτω διεξέρχεται τοῖς μύθοις. Ἰάδης (Heraclitus 22A10, cf. 22B10 DK) δὲ καὶ Σικελαί (Empedocles 31A29 DK) τινες ὕστερον Μοῦσαι συνενόησαν ὅτι συμπλέκειν ἀσφαλέστατον ἀμφοτέρω καὶ λέγειν ὡς τὸ ὄν πολλά τε καὶ ἓν ἐστίν, ἔχθρα δὲ καὶ φιλία συνέχεται. 'διαφερόμενον γὰρ αἰεὶ συμφέρεται' (fr. 27(c) Marcovich), φασὶν αἱ συντονώτεροι τῶν Μουσῶν· αἱ δὲ μαλακώτεροι τὸ μὲν αἰεὶ ταῦτα οὕτως ἔχῃν ἐχάλασαν, ἐν μέρει δὲ τοτὲ μὲν ἓν εἶναι φασὶν τὸ πᾶν καὶ φίλον ὑπ' (243a) Ἀφροδίτης, τοτὲ δὲ πολλά καὶ πολέμιον αὐτὸ αὐτῷ διὰ Νεϊκός τι (cf. 31B17 DK). *Aristotle Phys.* 1.2 184b15–25 ἀνάγκη δ' ἦτοί μιν εἶναι τὴν ἀρχὴν ἢ πλείους, καὶ εἰ μίαν, ἥτοι ἀκίνητον, ὡς φησὶ Παρμενίδης (—) καὶ Μέλισσος (—), ἢ κινουμένην, ὥσπερ οἱ φυσικοί, οἱ μὲν ἀέρα φάσκοντες εἶναι οἱ δ' ὕδωρ τὴν πρώτην ἀρχὴν· εἰ δὲ πλείους, ἢ πεπερασμένας ἢ ἀπείρους, καὶ εἰ πεπερασμένας πλείους δὲ μίας, ἢ δύο ἢ τρεῖς ἢ τέτταρας ἢ ἄλλον τινὰ ἀριθμόν, καὶ εἰ ἀπείρους, ἢ οὕτως ὥσπερ Δημόκριτος (fr. 223 Luria), τὸ γένος ἓν, σχήματι δὲ (διαφερούσας), ἢ εἶδει διαφερούσας ἢ καὶ ἐναντίας. ὁμοίως δὲ ζητοῦσι καὶ οἱ τὰ ὄντα ζητοῦντες πόσα· ἐξ ὧν γὰρ τὰ ὄντα ἐστὶ πρῶτων, ζητοῦσι ταῦτα πότερον ἓν ἢ πολλά, καὶ εἰ πολλά, πεπερασμένα ἢ ἀπειρα, ὥστε τὴν ἀρχὴν καὶ τὸ στοιχεῖον ζητοῦσι πότερον ἓν ἢ πολλά. *Cael.* 1.8 277b24–26 περὶ μὲν οὖν τῶν σωματικῶν στοιχείων, ποῖά τ' ἐστὶ καὶ πόσα, καὶ τίς ἐκάστου τόπος, ἔτι δ' ὅλως πόσοι τὸ πλῆθος οἱ τόποι, δῆλον ἡμῖν ἐκ τῶν εἰρημένων. *GC* 2.3 330b7–22 ἅπαντες γὰρ οἱ τὰ ἀπλὰ σώματα στοιχεῖα ποιοῦντες οἱ μὲν ἓν, οἱ δὲ δύο, οἱ δὲ τρία, οἱ δὲ τέτταρα ποιοῦσιν. ὅσοι μὲν οὖν ἓν μόνον λέγουσιν, εἴτα πυκνώσει καὶ μανώσει τὰλλα γεννώσι, τούτοις συμβαίνει δύο ποιεῖν τὰς ἀρχάς, τὸ τε μανὸν καὶ τὸ πυκνὸν ἢ τὸ θερμὸν καὶ τὸ ψυχρὸν· ταῦτα γὰρ τὰ δημιουργοῦντα, τὸ δ' ἓν ὑπόκειται καθάπερ ὕλη. οἱ δ' εὐθύς δύο ποιοῦντες, ὥσπερ Παρμενίδης (28A35 DK) πῦρ καὶ γῆν, τὰ μεταξὺ μίγματα ποιοῦσι τούτων, οἷον ἀέρα καὶ ὕδωρ. ὡσαύτως δὲ καὶ οἱ τρία λέγοντες, καθάπερ Πλάτων (*Test. Plat.* 46A Gaiser) ἐν ταῖς διαιρέσεσιν· τὸ γὰρ μέσον μίγμα ποιεῖ. καὶ σχεδὸν ταῦτ' ἀλέγουσιν οἱ τε δύο καὶ οἱ τρία ποιοῦντες· πλὴν οἱ μὲν τέμνουσιν εἰς δύο τὸ μέσον, οἱ δ' ἓν μόνον ποιοῦσιν. ἔνιοι δ' εὐθύς τέτταρα λέγουσιν, οἷον Ἐμπεδοκλῆς (31A36 DK)· συνάγει δὲ καὶ οὗτος εἰς τὰ δύο· τῷ γὰρ πυρὶ τὰλλα πάντα ἀντιτίθῃσιν· οὐκ ἔστι δὲ τὸ πῦρ καὶ ὁ ἀήρ καὶ ἕκαστον τῶν εἰρημένων ἀπλοῦν, ἀλλὰ μικτόν. *Mete.* 1.1 338a22–23 καὶ περὶ τῶν στοιχείων τῶν σωματικῶν, πόσα τε καὶ ποῖα. *Theophrastus Phys. Op.* fr. 4 Diels, 228A FHS&G at *Simp. in Phys.* 27.3–4 τὰς περὶ τῶν ἀρχῶν δόξας. *Sens.* 82 πλείστη γὰρ ἀπορία περὶ τῶν

ἀρχῶν. **Cicero** *Div.* 2.11 *quae sint initia rerum, ex quo nascuntur omnia?* **Galen** *Hipp.Elem.* 2.2, 1.415.7–11 K. χρή γὰρ διελέσθαι πρῶτον μὲν, εἰ ἔν τι τὴν ιδέαν ἐστὶ τὸ στοιχεῖον ἢ πολλὰ καὶ ποικίλα καὶ ἀνόμοια, δεύτερον δέ, εἰ πολλὰ καὶ ποικίλα καὶ ἀνόμοια, πόσα τε καὶ τίνα καὶ ὅποια ταῦτά ἐστι καὶ ὅπως ἔχοντα τῆς πρὸς ἄλληλα κοινωνίας. *HNH* 15.5.14–6.6 K. = p. 5.16–30 Mewaldt ἄρχεται γὰρ καὶ αὐτός (sc. Epicurus, fr. 73 Usener), ὥσπερ οὖν καὶ οἱ ἄλλοι πάντες, ἀπὸ τοῦ ζητῆσαι πότερον ἔν τι καὶ ἀπλοῦν ἐστίν, οὗ τὴν φύσιν εὐρεῖν ἐπιχειροῦμεν, ἢ σύνθετον ἐκ τινων ἑαυτοῦ προτέρων ἀπλῶν, ἅπερ οἱ μετ' αὐτοὺς τοὺς παλαιοὺς εἰθίσθησαν ὀνομάζειν στοιχεῖα, καθάπερ ἐπὶ τῆς φωνῆς οἱ γραμματικοὶ δ' καὶ κ' φασιν εἶναι τὰ στοιχεῖα, τουτέστιν ἀπλὰ καὶ πρῶτα μόρια καὶ μηκέτ' εἰς ἄλλα διαιρεῖσθαι δυνάμενα καθάπερ αἱ συλλαβαί. **Sextus Empiricus** *P.* 1.131 (tenth mode) δογματικὰς δὲ ὑπολήψεις ἀλλήλαις ἀντιτίθεμεν, ὅταν λέγωμεν τοὺς μὲν ἔν εἶναι στοιχεῖον ἀποφαίνεσθαι, τοὺς δὲ ἄπειρα. **Lactantius** *Inst.* 3.25.13 Brandt *quomodo ergo illa quae de principiis rerum dicuntur intelligent, quae perplexa et involuta vix etiam politi homines adsecuntur?* **Simplicius** in *Phys.* 28.30–31 (**Theophrastus** *Phys.Op.* fr. 8 Diels, 229 FHS&G) αὕτη μὲν ἡ σύντομος περίληψις τῶν ἱστορημένων περὶ ἀρχῶν οὐ κατὰ χρόνους ἀναγραφείσα, ἀλλὰ κατὰ τὴν τῆς δόξης συγγένειαν. **Philoponus** in *Phys.* 23.29–24.2 τῶν δὲ πολλὰς ὑποθεμένων τὰς ἀρχὰς οἱ μὲν ἀπείρους ὑπέθεντο, οἱ δὲ πεπερασμένας, καὶ τούτων ἀμφοτέρων οἱ μὲν ἀκινήτους, οἱ δὲ κινουμένας· πλείους μὲν καὶ πεπερασμένας καὶ ἀκινήτους ὁ Τίμαιος (*Pl. Tim.*) ὑπετίθετο, θεὸν ιδέαν καὶ ὕλην, πλείους δὲ καὶ πεπερασμένας καὶ κινουμένας ὁ τε Ἐμπεδοκλῆς (—) τὰ τέσσαρα στοιχεῖα καὶ τὸ Νεῖκος καὶ τὴν Φιλίαν. differently **Clement of Alexandria** *Strom.* 2.4.14.2 οὐ προεγινώσκετο δὲ ἡ τῶν ὄλων ἀρχὴ τοῖς Ἑλλήσιν, οὐτ' οὖν Θαλῇ (fr. 206 Wöhrle) ὕδωρ ἐπισταμένῃ τὴν πρῶτην αἰτίαν οὐτε τοῖς ἄλλοις {τοῖς} φυσικοῖς τοῖς ἐξῆς· ἐπεὶ (εἰ) καὶ Ἀναξαγόρας (59A57 DK) πρῶτος ἐπέστησε τὸν Νοῦν τοῖς πράγμασιν, ἀλλ' οὐδὲ οὗτος ἐτήρησε τὴν αἰτίαν τὴν ποιητικὴν, δίνους τινὰς ἀνοήτους ἀναζωγραφῶν σὺν τῇ τοῦ νοῦ ἀπραξίᾳ τε καὶ ἀνοίᾳ. *On the Elements According to the Opinion of Hippocrates* ch. 2, the third work of the *Alexandrian Epitomes of Galen* at Walbridge (2104) 137–140. **Barhebraeus** *Candélabre des sanctuaires* 2nd base, *PO* 42.2.542–547 Bakoš.

Chapter heading: **Theophrastus** *De principiis* trans. lat. p. 3.1–2 Kley *incipit liber Aristotelis De principiis translatus de greco in latinum a magistro bartholomeo de messina* i.e. Theophrastus *Περὶ ἀρχῶν* (transm. as Θεοφράστου τῶν Μετὰ τὰ φυσικά, so with a different (pseudo-)title, see Gutas 2010, 25–32). **Diogenes Laertius** *V.P.* 5.23 (catalog of Aristotle) no. 41 *Περὶ ἀρχῆς α'*. 42 *Περὶ φύσεως γ'*. **ps.Hesychius** *Vita Aristotelis* catal. no. 21 Düring *Περὶ ἀρχῶν ἢ φύσεως α'*. **ps.Archytas** *de Princ.* at Stob. *Ecl.* 1.41.2, p. 278.16 ἐκ τοῦ Ἀρχύτου (47B9 DK 'unecht') *Περὶ ἀρχῶν*, cf. 1.42.5, p. 282.21, ~ pp. 19.3 + 37.13 Thesleff. **Diogenes Laertius** *V.P.* 7.133 (on the Stoics) τὸν δὲ φυσικὸν λόγον διαιροῦσιν εἰς ... καὶ περὶ ἀρχῶν καὶ στοιχείων κτλ. **Origen** *Philocal.* 1.1 n. 4 ἐκ τοῦ δ' τόμου τοῦ *Περὶ ἀρχῶν*. **Porphry** *Plot.* 14 ἀναγνωσθέντος δὲ αὐτῷ τοῦ τε *Περὶ ἀρχῶν* Λογγίνου κτλ. in *Harm.* p. 80.22 Düring ἐν μέντοι τῷ πρώτῳ *Περὶ ἀρχῶν* φησιν (sc. Ἀριστοτέλης in his Ἀρμονικῶν στοιχείων). **Proclus** *Theol.Plat.* 1.11, p. 51.4–5 (Porph. 231T, 2T Smith) Πορφύριος ... ἐν τῇ *Περὶ ἀρχῶν* πραγματείᾳ κτλ. **Suda** s.v. Π

2098 Πορφύριος, p. 4.418.19 Adler (2T, 231T Smith). **Augustine C.D.** 11.23.14–15 Dombart–Kalb *in libris enim quos appellat* Περὶ ἀρχῶν, *id est De principiis, hoc sensit, hoc scripsit* (sc. Origen). **Jerome Ep.** 33.2, p. 254.6–18 Hilberg *scripsit igitur Varro ... De principiis numerorum libros viii.* **Damascius de Princ.** title Ἀπορίαι καὶ λύσεις περὶ τῶν πρώτων ἀρχῶν. **Theodoret CAG** title Book 2 Περὶ ἀρχῶν. **Simplicius in Cael.** 226.19–20 καλεῖ δὲ Περὶ ἀρχῶν τὰ τέσσαρα πρώτα βιβλία τῆς Φυσικῆς ἀκροάσεως, ὥσπερ τὰ λοιπὰ τέσσαρα Περὶ κινήσεως ἐκάλει πρὸ ὀλίγου λέγων κτλ. (Arist. *Cael.* 1.5 272a28–32). *in Phys.* 4.11–16 Ἄδραστος δὲ ἐν τῷ Περὶ τῆς τάξεως τῶν Ἀριστοτέλους συγγραμμάτων ἱστορεῖ παρὰ μὲν τινων Περὶ ἀρχῶν ἐπιγεγράφθαι τὴν πραγματείαν, ὑπ’ ἄλλων δὲ Φυσικῆς ἀκροάσεως, τινὰς δὲ πάλιν τὰ μὲν πρώτα πέντε Περὶ ἀρχῶν ἐπιγράφειν φησί, τὰ δὲ λοιπὰ τρία Περὶ κινήσεως. **Photius Bibl.** cod. 8, p. 3b35–36 ἀνεγνώσθη Ὁριγενους τὸ Περὶ ἀρχῶν, λόγοι δ’. Title of **ps.Ammonius** according to the prologue (wrong according to the editor, Rudolph, but in our view perhaps not so wrong) p. 80 ... ‘Ammonios in seinem Buch mit den Titel ‘Die unterschiedlichen Lehrmeinungen über die Prinzipien’ (Rudolph’s title is *Über die Ansichten der Philosophen*).

§§1–3 + §9 **Thales Homer Anaximander Anaximenes Heraclitus Hip-pasus:** **Aristotle Met.** A.3 983b6–13 (Thales 11A12 DK) τῶν δὴ πρώτων φιλοσοφησάντων οἱ πλείστοι τὰς ἐν ὕλης εἶδει μόνας ᾤκηθησαν ἀρχὰς εἶναι πάντων· ἐξ οὗ γὰρ ἔστιν ἅπαντα τὰ ὄντα καὶ ἐξ οὗ γίγνεται πρῶτον καὶ εἰς ὃ φθείρεται τελευταῖον, τῆς μὲν οὐσίας ὑπομενούσης τοῖς δὲ πάθεσι μεταβαλλούσης, τοῦτο στοιχεῖον καὶ ταύτην ἀρχὴν φασιν εἶναι τῶν ὄντων, καὶ διὰ τοῦτο οὕτε γίγνεσθαι οὐθὲν οἴονται οὕτε ἀπόλλυσθαι, ὥς τῆς τοιαύτης φύσεως ἀεὶ σωζομένης.

§1 **Thales Homer:** **Aristotle Met.** A.3 983b18–33 τὸ μέντοι πλῆθος καὶ τὸ εἶδος τῆς τοιαύτης ἀρχῆς οὐ τὸ αὐτὸ πάντες λέγουσιν, ἀλλὰ Θαλῆς (11A12 DK) μὲν ὁ τῆς τοιαύτης ἀρχηγὸς φιλοσοφίας ὕδωρ φησὶν εἶναι ... , λαβῶν ἴσως τὴν ὑπόληψιν ταύτην ἐκ τοῦ πάντων ὄραν τὴν τροφὴν ὑγρὰν οὖσαν καὶ αὐτὸ τὸ θερμὸν ἐκ τούτου γιγνόμενον καὶ τούτῳ ζῶν (τὸ δ’ ἐξ οὗ γίγνεται, τοῦτ’ ἐστὶν ἀρχὴ πάντων)—διὰ τε δὴ τοῦτο τὴν ὑπόληψιν λαβῶν ταύτην καὶ διὰ τὸ πάντων τὰ σπέρματα τὴν φύσιν ὑγρὰν ἔχειν, τὸ δ’ ὕδωρ ἀρχὴν τῆς φύσεως εἶναι τοῖς ὑγροῖς. εἰσὶ δὲ τινες (sc. Hippasius) οἱ καὶ τοὺς παμπαλαίους καὶ πολὺ πρὸ τῆς νῦν γενέσεως καὶ πρῶτους θεολογήσαντας οὕτως οἴονται περὶ τῆς φύσεως ὑπολαβεῖν· Ὡκεανὸν τε γὰρ καὶ Τηθύν (Hom. *Il.* 14.201 + 14.302) ἐποίησαν τῆς γενέσεως πατέρας, καὶ τὸν ὄρκον τῶν θεῶν ὕδωρ, τὴν καλουμένην ὑπ’ αὐτῶν Στύγα (Hom. *Il.* 15.37–38, *Od.* 5.185–186, etc.) {τῶν ποιητῶν}· τιμωτάτον μὲν γὰρ τὸ πρεσβύτατον, ὄρκος δὲ τὸ τιμωτάτον ἐστίν. **Mete.** 2.2 354b33–34 γελοῖοι πάντες ὅσοι τῶν πρότερον ὑπέλαβον τὸν ἥλιον τρέφεσθαι τῷ ὑγρῷ. **Mete.** 2.2 355a11–15 (Heraclitus 22B6 DK). **Artemon** at the Elder Seneca *Suas.* 1.11 (on Oceanus) εἴτε πρεσβύτατον στοιχεῖον, εἴτε γένεσις θεῶν. **ps.Plutarch Hom.** 2.93, 959–962 Kindstrand ἀρξάμεθα τοίνυν ἀπὸ τῆς τοῦ παντὸς ἀρχῆς καὶ γενέσεως, ἣν Θαλῆς ὁ Μιλήσιος (fr. 187 Wöhrlé) εἰς τὴν τοῦ ὕδατος οὐσίαν ἀναφέρει, καὶ θεασάμεθα εἰ πρῶτος Ὁμηρος τοῦθ’ ὑπέλαβεν, εἰπὼν (*Il.* 14.246) ‘Ὡκεανὸς θ’ ὅς περ γένεσις πάντεσσι τέτυκται’. **Simplicius in Phys.** 23.21–30 (**Theophrastus Phys.Op.** fr. 1 Diels, 225 FHS&G) τῶν δὲ μίαν καὶ κινουμένην λεγόντων τὴν ἀρχὴν, οὗς καὶ φυσικοὺς ἰδίως

καλεῖ, οἱ μὲν πεπερασμένην αὐτὴν φασιν, ὥσπερ Θαλῆς μὲν Ἐξαμίου Μιλήσιος (11A13 DK) καὶ Ἴππων (—), ... , ὕδωρ ἔλεγον τὴν ἀρχὴν ἐκ τῶν φαινομένων κατὰ τὴν αἴσθησιν εἰς τοῦτο προαχθέντες. καὶ γὰρ τὸ θερμὸν τῷ ὑγρῷ ζῇ καὶ τὰ νεκρούμενα ξηραίνεται καὶ τὰ σπέρματα πάντων ὑγρά καὶ ἡ τροφὴ πᾶσα χυλώδης· ἐξ οὗ δὲ ἐστὶν ἕκαστα, τούτῳ καὶ τρέφεσθαι πέφυκεν· τὸ δὲ ὕδωρ ἀρχὴ τῆς ὑγρᾶς φύσεώς ἐστι καὶ συνεκτικὸν πάντων. διὸ πάντων ἀρχὴν ὑπέλαβον εἶναι τὸ ὕδωρ καὶ τὴν γῆν ἐφ' ὕδατος ἀπεφώνησαν κείσθαι. Θαλῆς δὲ πρῶτος παραδέδοται τὴν περὶ φύσεως ἱστορίαν τοῖς Ἑλλήσιν ἐκφῆναι κτλ. *Scholia vetera in Iliadem* 14.246 Erbse ἐκ γὰρ ὕδατος πάντα τὰ στοιχεῖα· καὶ τὸ σπέρμα δὲ πνεῦμά ἐστιν ὑγρῷ κραθέν.

§2–3 *Anaximander Anaximenes*: Aristotle *Phys.* 3.4 203b15–26 (Anaximander 11A15 DK) τοῦ δ' εἶναι τι ἄπειρον ἢ πίστις ἐκ πέντε μάλιστα· ἂν συμβαίνοι σκοποῦσιν ...· (3) ἔτι τῷ οὕτως ἂν μόνως μὴ ὑπολείπειν γένεσιν καὶ φθοράν, εἰ ἄπειρον εἴη ὅθεν ἀφαιρεῖται τὸ γινόμενον· ...· (5) μάλιστα δὲ καὶ κυριώτατον, ὃ τὴν κοινὴν ποιεῖ ἀπορίαν πᾶσι· διὰ γὰρ τὸ ἐν τῇ νοήσει μὴ ὑπολείπειν καὶ ὁ ἀριθμὸς δοκεῖ ἄπειρος εἶναι καὶ τὰ μαθηματικά μεγέθη καὶ τὸ ἕξω τοῦ οὐρανοῦ· ἄπειρον δ' ὄντος τοῦ ἔξω, καὶ σῶμα ἄπειρον εἶναι δοκεῖ καὶ κόσμοι. *GC* 2.1 329a8–13 (Anaximander fr. 11 Wöhrlé) ἀλλ' οἱ μὲν ποιοῦντες μίαν ὕλην παρὰ τὰ εἰρημένα, ταύτην δὲ σωματικὴν καὶ χωριστήν, ἀμαρτάνουσιν· ἀδύνατον γὰρ ἄνευ ἐναντιώσεως εἶναι τὸ σῶμα τοῦτο αἰσθητῆς· ἢ γὰρ κοῦφον ἢ βαρὺ, ἢ ψυχρὸν ἢ θερμὸν ἀνάγκη εἶναι τὸ ἄπειρον τοῦτο, ὃ λέγουσιν τινες εἶναι τὴν ἀρχὴν. *Athenagoras Leg.* 18.3–4 Ὁρφέως (1B13 DK) δέ, ὃς καὶ τὰ ὀνόματα αὐτῶν πρῶτος ἐξηῦρεν καὶ τὰς γενέσεις διεξῆλθεν καὶ ὅσα ἑκάστοις πέπρακται εἶπεν καὶ πεπίστευται παρ' αὐτοῖς ἀληθέστερον θεολογεῖν, ᾧ καὶ Ὀμηρὸς τὰ πολλὰ καὶ περὶ θεῶν μάλιστα ἔπεται, καὶ αὐτοῦ τὴν πρώτην γένεσιν αὐτῶν ἐξ ὕδατος συνιστάντος· Ὡκεανός, ὅσπερ γένεσις πάντεσσι τέτυκται' (*Il.* 18.201 = 18.302). *Philoponus in Phys.* 432.14–23 ὁ Ἀναξίμανδρος (fr. 213 Wöhrlé) δεῖν μὲν οἰόμενος ἄπειρον εἶναι τὴν ἀρχὴν διὰ τὴν αἰεγενεσίαν, ἵνα μὴ ἐπιλείπη, μήπως ἐπιστήσας τῇ ἀνακάμψει τῶν πραγμάτων, ὅτι ἐξ οὗ τι γίνεται εἰς τοῦτο καὶ διαλύεται, συνεωρακώς δὲ ὅτι ἐν τοῖς τέτρασι στοιχείοις οὐσης τινὸς ἐναντιώσεως πρὸς τὰ λοιπὰ, εἰ ὑπόβοιτο ἐν αὐτῶν εἶναι τὴν ἀρχὴν, ἐπειδὴ ἀνάγκη ταύτην ἄπειρον εἶναι, ἄπειρος δὲ οὕσα φθείρει τὰ λοιπὰ ἀπείρου οὐσης τῆς ἐν αὐτῇ δυνάμεως, οὐδὲν μέντοῦτων ὑπέθετο εἶναι τὴν ἀρχὴν, ἕτερον δὲ εἶναι παρὰ ταῦτα τὴν ἀρχὴν ἐξ οὗ καὶ τὰ στοιχεῖα καὶ τὰ λοιπὰ τὴν γένεσιν ἔχει. τοῦτο δὲ τὸ μεταξὺ πως εἶναι αὐτῶν ὑπέθετο, ἵνα τῇ πρὸς τὰ ἐναντία κοινωνίᾳ σῶζῃται μάλλον τὰ λοιπὰ ἢ φθείρηται ὑπὸ τῆς ἐν αὐτῷ ἀπείρου δυνάμεως. *Simplicius in Phys.* 24.13–18 (*Theophrastus Phys.Op.* fr. 2 Diels, 226A FHS&G) τῶν δὲ ἐν καὶ κινούμενον καὶ ἄπειρον λεγόντων Ἀναξίμανδρος μὲν Πραξιάδου Μιλήσιος (12A9 DK), Θαλῶ γενόμενος διάδοχος καὶ μαθητῆς, ἀρχὴν τε καὶ στοιχεῖον εἶρηκε τῶν ὄντων τὸ ἄπειρον, πρῶτος τοῦτο τοῦνομα κομίσας τῆς ἀρχῆς. λέγει δ' αὐτὴν μήτε ὕδωρ μήτε ἄλλο τι τῶν καλουμένων εἶναι στοιχείων, ἀλλ' ἐτέραν τινὰ φύσιν ἄπειρον, ἐξ ἧς ἅπαντας γίνεσθαι τοὺς οὐρανούς καὶ τοὺς ἐν αὐτοῖς κόσμους.

§§2–3 *Anaximander Anaximenes (criticism)*: Aristotle *Met.* A.8 988 b22–28 ὅσοι μὲν οὖν ἐν τε τὸ πᾶν καὶ μίαν τινὰ φύσιν ὥς ὕλην τιθέασι, καὶ ταύ-

την σωματικὴν καὶ μέγεθος ἔχουσιν, δῆλον ὅτι πολλαχῶς ἀμαρτάνουσιν. ... καὶ περὶ γενέσεως καὶ φθορᾶς ἐπιχειροῦντες τὰς αἰτίας λέγειν, καὶ περὶ πάντων φυσιολογούν-τες, τὸ τῆς κινήσεως αἴτιον ἀναιροῦσιν.

§3 Anaximenes: Plato *Phdr.* 246b (cited Plot. *Enn.* 4.3.7) ψυχὴ πᾶσα παντὸς ἐπιμελεῖται τοῦ ἀψύχου, πάντα δὲ οὐρανὸν περιπολεῖ. **Aristotle *Met.* A.3 984a5–7** Ἀναξίμενης (13A4 DK) δὲ ἀέρα καὶ Διογένης (—) πρότερον ὕδατος καὶ μάλιστα ἀρχὴν τιθέασι τῶν ἀπλῶν σωμάτων (cf. below §10). *Met.* A.3 984a17–27 ἐκ μὲν οὖν τούτων μόνην τις αἰτίαν νομίσκειν ἂν τὴν ἐν ὕλῃς εἶδει λεγομένην· ... εἰ γὰρ ὅτι μάλιστα πᾶσα γένεσις καὶ φθορὰ ἐκ τινος ἐνός ἢ καὶ πλειόνων ἐστίν, διὰ τί τοῦτο συμβαίνει καὶ τί τὸ αἴτιον; οὐ γὰρ δὴ τό γε ὑποκείμενον αὐτὸ ποιεῖ μεταβάλλειν ἑαυτὸ· λέγω δ' οἷον οὔτε τὸ ξύλον οὔτε ὁ χαλκὸς αἴτιος τοῦ μεταβάλλειν ἑκάτερον αὐτῶν, οὐδὲ ποιεῖ τὸ μὲν ξύλον κλίνην ὁ δὲ χαλκὸς ἀνδριάντα, ἀλλ' ἕτερόν τι τῆς μεταβολῆς αἴτιον. τὸ δὲ τοῦτο ζητεῖν ἐστὶ τὸ τὴν ἐτέραν ἀρχὴν ζητεῖν, ὥς ἂν ἡμεῖς φαίμεν, ὅθεν ἢ ἀρχὴ τῆς κινήσεως. *de An.* 1.5 411b7–9 δοκεῖ γὰρ τοῦναντίον μᾶλλον ἢ ψυχὴ τὸ σῶμα συνέχειν· ἐξελθούσης γοῦν διαπνέεται (sc. ἡ ψυχὴ) καὶ σῆπεται (sc. τὸ σῶμα). **Philodemus *Piet.* (PHerc. 1428) col. 8.14–21** Henrichs Διογένης ὁ Βαβυλωνίος (*SVF* 3 Diog. 33) ἐν τῷ Περὶ | τῆς Ἀθηνᾶς τὸν | κόσμον γράφει τῷ Δ[ι]τ[ὸν] αὐτὸν ὑπάρ[χει]ν ἢ περιέχειν | τ[ὸ]ν Δία καθά[πε]ρ | ἀνθρω[πον] ψ[υχ]ήν. **Achilles c. 13, p. 21.4–6** Ποσειδῶνιος (F 149 E.-K., 400a Theiler) δὲ ἀγνοεῖν τοὺς Ἐπικουρεῖους ἔφη, ὥς οὐ τὰ σώματα τὰς ψυχὰς συνέχει, ἀλλ' αἱ ψυχαὶ τὰ σώματα, ὥσπερ καὶ ἡ κόλλα καὶ ἑαυτὴν καὶ τὰ ἐκτὸς κρατεῖ. **Cornutus *Comp.* c. 2, p. 2.6–10** Torres ὥσπερ δὲ ἡμεῖς ὑπὸ ψυχῆς διοικούμεθα, οὕτω καὶ ὁ κόσμος ψυχὴν ἔχει τὴν συνέχουσαν αὐτὸν, καὶ αὕτη καλεῖται Ζεὺς, πρῶτως καὶ διὰ παντὸς ζῶσα καὶ αἰτία οἷσα τοῖς ζῶσι τοῦ ζῆν· διὰ τοῦτο δὲ καὶ βασιλεύειν ὁ Ζεὺς λέγεται τῶν ὄλων, ὥς ἂν καὶ ἐν ἡμῖν ἡ ψυχὴ καὶ ἡ φύσις ἡμῶν βασιλεύειν ῥηθεῖη. **ps.Galen *Intr.* 14.698.4–13 K.** κατὰ δὲ τὸν Ἀθήναιον (sc. of Attalia) στοιχεῖα ἀνθρώπου οὐ τὰ τέσσαρα πρῶτα σώματα, πῦρ καὶ ἀήρ καὶ ὕδωρ καὶ γῆ, ἀλλ' αἱ ποιότητες αὐτῶν, τὸ θερμὸν καὶ τὸ ψυχρὸν καὶ τὸ ξηρὸν καὶ τὸ ὑγρὸν, ὧν δύο μὲν τὰ ποιητικὰ αἰτία ὑποτίθεται, τὸ θερμὸν καὶ τὸ ψυχρὸν, δύο δὲ τὰ ὑλικά, τὸ ξηρὸν καὶ τὸ ὑγρὸν, καὶ πέμπτον παρεισάγει κατὰ τοὺς Στωϊκοὺς (*SVF* 2.416) τὸ διήκον διὰ πάντων πνεῦμα, ὃ φ' οὐ τὰ πάντα συνέχεσθαι καὶ διοικεῖσθαι. **Galen *Plen.* 7, p. 10–14 K.** οἱ Στωϊκοὶ (*SVF* 2.439) τὸ μὲν συνέχον ἕτερον ποιοῦσι, τὸ συνεχόμενον δὲ ἄλλο· τὴν μὲν γὰρ πνευματικὴν οὐσίαν τὸ συνέχον, τὴν δὲ ὑλικὴν τὸ συνεχόμενον· ὅθεν ἀέρα μὲν καὶ πῦρ συνέχειν φασί, γῆν δὲ καὶ ὕδωρ συνέχεσθαι. *Plen.* 7, p. 13–16 K. οὐδὲ γὰρ οὐδ' οἱ πολλοὶ τῶν Ἡροφίλειων (fr. 280 Von Staden), οὐδ' οἱ νεώτεροι Στωϊκοὶ (*SVF* 2.440) λέγουσιν τινα ἀπόδειξιν τοῦ τὸ μὲν πνεῦμα καὶ τὸ πῦρ συνέχειν ἑαυτὸ τε καὶ τὰ ἄλλα, τὸ δὲ ὕδωρ καὶ τὴν γῆν ἐτέρου δεῖσθαι τοῦ συνέχοντος. **Diogenes Laertius *V.P.* 3.68** (the Platonic World Soul) περιέχειν δὲ ἐκ τοῦ μέσου διὰ παντὸς κύκλῳ τὸ σῶμα. *V.P.* 7.138 τὸν δὲ κόσμον διοικεῖσθαι κατὰ νοῦν καὶ πρόνοιαν, καθά φησι Χρύσιππος (*SVF* 2.634) τ' ἐν τῷ πέμπτῳ Περὶ προνοίας καὶ Ποσειδῶνιος (F 21 E.-K., 345 Theiler) ἐν τῷ τρισκαιδεκάτῳ Περὶ θεῶν, εἰς ἅπαν αὐτοῦ μέρος διήκοντος τοῦ νοῦ, καθάπερ ἐφ' ἡμῶν τῆς ψυχῆς· ἀλλ' ἥδη δι' ὧν μὲν μᾶλλον, δι' ὧν δὲ ἥττον. **Tertullian *Adv.Nat.* 2.2.19** Borleffs *unde et Varro (Rer.Div. fr. 23 Cardauns) ignem mundi animum facit, ut perinde (i)n mundo ignis omnia gubernet sicut animus in nobis* (cited Isid. *Etym.* 8.6.21

unde et Varro ignem mundi animum dicit, proinde quod in mundo ignis omnia gubernet, sicut animus in nobis). **Simplicius in Phys.** 24.26–28 (**Theophrastus Phys.Op.** fr. 2 Diels, 226A FHS&G) Ἀναξιμένης δὲ Εὐρυστράτου Μιλήσιος (13A5 DK), ἑταῖρος γεγωνὺς Ἀναξιμάνδρου, μίαν μὲν καὶ αὐτὸς τὴν ὑποκειμένην φύσιν καὶ ἄπειρόν φησιν ὥσπερ ἐκεῖνος, οὐκ ἀόριστον δὲ ὥσπερ ἐκεῖνος, ἀλλὰ ὠρισμένην, ἀέρα λέγων αὐτήν.

§4 Anaxagoras: Plato Phd. 97b–d. **Aristotle Met.** A.3 984a11–16 Ἀναξαγόρας δὲ ὁ Κλαζομένιος (59A43 DK) τῇ μὲν ἡλικίᾳ πρότερος ὢν τούτου (sc. τοῦ Ἐμπεδοκλέους, 31A6 DK), τοῖς δ' ἔργοις ὕστερος (cf. **Met.** A.8 989b4–6 + b19–21), ἀπείρους εἶναι φησι τὰς ἀρχάς· σχεδὸν γὰρ ἅπαντα τὰ ὁμοιομερῆ καθάπερ ὕδωρ ἢ πῦρ οὕτω γίνεσθαι καὶ ἀπόλλυσθαι φησι, συγκρίσει καὶ διακρίσει μόνον, ἄλλως δ' οὔτε γίνεσθαι οὔτ' ἀπόλλυσθαι ἀλλὰ διαμένειν αἰδία. **Met.** A.3 985a19–20 Ἀναξαγόρας (—) τε γὰρ μηχανῇ χρῆται τῷ νῷ πρὸς τὴν κοσμοποιίαν. **Met.** A.3 984b15–20 νοῦν δὴ τις εἰπὼν ἐνείναι, καθάπερ ἐν τοῖς ζῴοις, καὶ ἐν τῇ φύσει τὸν αἷτιον τοῦ κόσμου καὶ τῆς τάξεως πάσης οἶον νήφων ἐφάνη παρ' εἰκῇ λέγοντας τοὺς πρότερον. φανερώς μὲν οὖν Ἀναξαγόραν (59A58 DK) ἴσμεν ἀψάμενον τούτων τῶν λόγων, αἰτίαν δ' ἔχει πρότερον Ἐρμότιμος ὁ Κλαζομένιος εἰπεῖν. **Phys.** 3.4 203a24–26 (Anaxagoras 59A45) ἐντεῦθεν γὰρ ἔοικε καὶ ὁμοῦ ποτὲ πάντα χρήματα· φάναι εἶναι, οἶον ἢδε ἢ σὰρξ καὶ τόδε τὸ ὁστοῦν, καὶ οὕτως ὅτιοῦν. **Phys.** 1.4 187a19–b8 οἱ δ' ἐκ τοῦ ἐνός ἐνούσας τὰς ἐναντιότητας ἐκκρίνεσθαι ... καὶ ὅσοι δ' ἐν καὶ πολλὰ φασιν εἶναι, ὥσπερ Ἐμπεδοκλῆς (31A36 DK) καὶ Ἀναξαγόρας (59A52 DK)· ἐκ τοῦ μίγματος γὰρ καὶ οὗτοι ἐκκρίνουσι τᾶλλα. διαφέρουσι δὲ ἀλλήλων τῷ τὸν μὲν περιόδον ποιεῖν τούτων, τὸν δ' ἅπαξ, καὶ τὸν μὲν ἅπειρα, τὰ τε ὁμοιομερῆ καὶ τάναντία, τὸν δὲ τὰ καλούμενα στοιχεῖα μόνον. ἔοικε δὲ Ἀναξαγόρας ἅπειρα οὕτως οἰηθῆναι διὰ τὸ ὑπολαμβάνειν τὴν κοινὴν δόξαν τῶν φυσικῶν εἶναι ἀληθῆ, ὥς οὐ γιγνομένου οὐδενὸς ἐκ τοῦ μὴ ὄντος (διὰ τοῦτο γὰρ οὕτω λέγουσιν, ἦν ὁμοῦ πάντα, καὶ τὸ γίνεσθαι τοιόνδε καθέστηκεν ἀλλοιοῦσθαι, οἱ δὲ σύγκρισιν καὶ διάκρισιν)· ἔτι δ' ἐκ τοῦ γίνεσθαι ἐξ ἀλλήλων τάναντία· ἐνυπῆρχεν ἄρα· εἰ γὰρ πᾶν μὲν τὸ γιγνόμενον ἀνάγκη γίνεσθαι ἢ ἐξ ὄντων ἢ ἐκ μὴ ὄντων, τούτων δὲ τὸ μὲν ἐκ μὴ ὄντων γίνεσθαι ἀδύνατον ..., τὸ λοιπὸν ἤδη συμβαίνειν ἐξ ἀνάγκης ἐνόμισαν, ἐξ ὄντων μὲν καὶ ἐνυπαρχόντων γίνεσθαι, διὰ μικρότητα δὲ τῶν ὄγκων ἐξ (187b) ἀναισθήτων ἡμῖν. διό φασι πᾶν ἐν παντὶ μεμῖχθαι, διότι πᾶν ἐκ παντὸς ἐώρων γιγνόμενον· φαίνεσθαι δὲ διαφέροντα καὶ προσαγορεύεσθαι ἕτερα ἀλλήλων ἐκ τοῦ μάλισθ' ὑπερέχοντος διὰ πλῆθος ἐν τῇ μίξει τῶν ἀπειρῶν· εἰλικρινῶς μὲν γὰρ ὅλον λευκὸν ἢ μέλαν ἢ γλυκὺ ἢ σάρκα ἢ ὁστοῦν οὐκ εἶναι, ὅτου δὲ πλεῖστον ἕκαστον ἔχει, τοῦτο δοκεῖν εἶναι τὴν φύσιν τοῦ πράγματος. **GA** 1.18 723a6–11 οὐ αὐτὸς γὰρ λόγος ἔοικεν εἶναι οὗτος τῷ Ἀναξαγόρου (—), τῷ μὲν γίνεσθαι τῶν ὁμοιομερῶν· πλὴν ἐκεῖνος μὲν ἐπὶ πάντων, οὗτοι δ' ἐπὶ τῆς γενέσεως τῶν ζῴων τοῦτο ποιοῦσιν. ἔπειτα τίνα τρόπον αὐξηθήσεται ταῦτα τὰ ἀπελθόντα ἀπὸ παντός; Ἀναξαγόρας μὲν γὰρ εὐλόγως φησὶ σάρκας ἐκ τῆς τροφῆς προσίεναι ταῖς σαρκίν. For a list of ὁμοιομερῆ see **HA** 1.1 487a1–10 ἔστι δὲ τῶν ὁμοιομερῶν τὰ μὲν μαλακὰ καὶ ὑγρά, τὰ δὲ ξηρὰ καὶ στερεὰ, ὑγρά μὲν, ἢ ὄλως ἢ ἕως ἂν ἢ ἐν τῇ φύσει, οἶον αἷμα, ἰχώρ, πιμελή, στέαρ, μυελός, γονή, χολή, γάλα ἐν τοῖς ἔχουσι, σὰρξ τε καὶ τὰ τούτοις ἀνάλογον, ἔτι ἄλλον τρόπον τὰ περιττώματα, οἶον φλέγμα, καὶ τὰ ὑποστήματα τῆς κοιλίας καὶ κύστεως· ξηρὰ δὲ καὶ στερεὰ οἶον νεῦρον,

δέρμα, φλέψ, θρίξ, ὅστων, χόνδρος, ὄνυξ, κέρας (ὁμώνυμον γὰρ τὸ μέρος, ὅταν τῷ σχήματι καὶ τὸ ὅλον λέγῃται κέρας), ἔτι ὅσα ἀνάλογον τούτοις. **Simplicius in Phys.** 27.2–17 (**Theophrastus Phys.Op.** fr. 4 Diels, 228A FHS&G) Ἀναξαγόρας μὲν γὰρ Ἥγησιβούλου Κλαζομένιος (59A41 DK), κοινωνήσας τῆς Ἀναξιμένης φιλοσοφίας, πρῶτος μετέστησε τὰς περὶ τῶν ἀρχῶν δόξας καὶ τὴν ἐλλείπουσαν αἰτίαν ἀνεπλήρωσε, τὰς μὲν σωματικὰς ἀπείρους ποιήσας· πάντα γὰρ τὰ ὁμοιομερῆ, ὅσον ὕδωρ ἢ πῦρ ἢ χρυσόν, ἀγέννητα μὲν εἶναι καὶ ἄφθαρτα, φαίνεσθαι δὲ γινόμενα καὶ ἀπολλύμενα συγκρίσει καὶ διακρίσει μόνον, πάντων μὲν ἐν πᾶσιν ὄντων, ἐκάστου δὲ κατὰ τὸ ἐπικρατοῦν ἐν αὐτῷ χαρακτηριζομένου. χρυσὸς γὰρ φαίνεται ἐκεῖνο, ἐν ᾧ πολὺ χρυσίον ἐστὶ καίτοι πάντων ἐνόντων τῆς δὲ κινήσεως καὶ τῆς γενέσεως αἴτιον ἐπέστησε τὸν Νοῦν ὁ Ἀναξαγόρας, ὅφ' οὐ διακρινόμενα τοὺς τε κόσμους καὶ τὴν τῶν ἄλλων φύσιν ἐγέννησαν.

§5 Archelaus: Aristotle GC 2.3 330b9–12 ὅσοι μὲν οὖν ἐν μόνον λέγουσιν, εἴτα πυκνώσει καὶ μανώσει τὰλλα γεννώσι, τούτοις συμβαίνει δύο ποιεῖν τὰς ἀρχάς, τό τε μανὸν καὶ τὸ πυκνόν ἢ τὸ θερμόν καὶ τὸ ψυχρόν. **GA** 5.3 783a37–b2 τὸ μὲν ψυχρόν οὐ μόνον σκληρύνει ἀλλὰ καὶ πυκνοί, τὸ δὲ θερμόν μανότερον ποιεῖ. **Met.** A.4 985b10–12 καὶ καθάπερ οἱ ἐν ποιοῦντες τὴν ὑποκειμένην οὐσίαν τὰλλα τοῖς πάθεσιν αὐτῆς γεννώσι, τὸ μανὸν καὶ τὸ πυκνόν ἀρχὰς τιθέμενοι τῶν παθημάτων. but cf. **Simp. in Phys.** 149.32–150.2 ἐπὶ γὰρ τούτου (sc. Anaximenes, 13A5 DK) μόνου Θεόφραστος ἐν τῇ Ἱστορίᾳ (**Phys.Op.** fr. 2, 226B FHS&G) τὴν μάνωσιν εἴρηκε καὶ πύκνωσιν (δῆλον δὲ ὡς καὶ οἱ ἄλλοι τῇ μανότητι καὶ πυκνότητι ἐχρῶντο). **Simplicius in Phys.** 27.23–28 (**Theophrastus Phys.Op.** fr. 4 Diels, 228A FHS&G) Ἀρχέλαος ὁ Ἀθηναῖος (60A5), ᾧ καὶ Σωκράτῃ συγγεγονέναι φασιν Ἀναξαγόρου γενομένῳ μαθητῇ, ἐν μὲν τῇ γενέσει τοῦ κόσμου καὶ τοῖς ἄλλοις πειράται τι φέρειν ἴδιον, τὰς ἀρχὰς δὲ τὰς αὐτὰς ἀποδίδωσιν ὥσπερ Ἀναξαγόρας. οὗτοι μὲν οὖν ἀπείρους τῷ πλήθει καὶ ἀνομογενεῖς τὰς ἀρχὰς λέγουσι, τὰς ὁμοιομερείας τιθέντες ἀρχάς.

§6 + §8 Ionic Italic: Aristotle Met. A.5 987a9–14 μέχρι μὲν οὖν τῶν Ἰταλικῶν καὶ χωρὶς ἐκείνων μορυχώτερον εἰρήκασιν οἱ ἄλλοι περὶ αὐτῶν, πλὴν ὥσπερ εἰπομεν δυοῖν τε αἰτίαιν τυγχάνουσι κεχρημένοι, καὶ τούτων τὴν ἑτέραν οἱ μὲν μίαν οἱ δὲ δύο ποιοῦσι, τὴν ὅθεν ἡ κίνησις· οἱ δὲ Πυθαγόρειοι δύο (58B8 DK) μὲν τὰς ἀρχὰς κατὰ τὸν αὐτὸν εἰρήκασιν τρόπον.

§6 Ionic Sicilian: Plato Sph. 242d Ἰάδεις δὲ καὶ Σικελαὶ τινες ὕστερον Μοῦσαι κτλ.

§7[54–55] Pythagoras: Plato Grg. 507e–508a φασι δ' οἱ σοφοί, ᾧ Καλλίκλεις, καὶ οὐρανὸν καὶ (508a) γῆν καὶ θεοὺς καὶ ἀνθρώπους τὴν κοινωνίαν συνέχειν καὶ φιλίαν καὶ κοσμιότητα καὶ σωφροσύνην καὶ δικαιοσύνην, καὶ τὸ ὅλον τοῦτο διὰ ταῦτα 'κόσμον' καλοῦσιν, ᾧ ἐταῖρε, οὐκ ἀκοσμίαν οὐδὲ ἀκολασίαν. **Cicero Tusc.** 5.8 omnes, qui in rerum contemplatione studia ponebant, sapientes et habebantur et nominabantur, idque eorum nomen usque ad Pythagorae manavit aetatem. quem, ut scribit auditor Platonis Ponticus Heraclides (fr. 88 Wehrli, 85 Schütrumpf), vir doctus in primis, Phliuntem ferunt venisse, eumque cum Leonte, principe Phliasiarum, docte et copiose disseruisse quaedam. cuius ingenium et eloquentiam cum admiratus esset Leon, quaesivisse ex eo, qua maxime arte confideret; at illum: artem quidem se scire nullam, sed esse philosophum.

admiratum Leontem novitatem nominis quaesivisse etc. **Diogenes Laertius** V.P. 1. prooem. 12 φιλοσοφίαν δὲ πρῶτος ὠνόμασε Πυθαγόρας καὶ ἑαυτὸν φιλόσοφον, ἐν Σικυῶνι διαλεγόμενος Λέοντι τῷ Σικυωνίων τυράννῳ (ἢ Φλειασίων, καθά φησιν Ἡρακλείδης ὁ Ποντικός (fr. 87 Wehrli, 84 Schütrumpf) ἐν τῇ Περὶ τῆς ἄπνου). 8.1. 8.8. **Diodorus Siculus** 10.10.1 ὅτι Πυθαγόρας φιλοσοφίαν, ἀλλ' οὐ σοφίαν ἐκάλει τὴν ἰδίαν αἴρεσιν.

§7[55–70] **Pythagoras: Anon. Photii** cod. 249, pp. 237.23–238.1 Thesleff καὶ ἐπειδὴ πάντα εἰς τοὺς ἀριθμοὺς ἀνήγον ἕκ τε τῆς μονάδος καὶ τῆς δυάδος, καὶ τὰ ὄντα πάντα ἀριθμοὺς προσηγόρευον, ὁ δὲ ἀριθμὸς συμπληροῦται τοῖς δέκα, ὁ δὲ δέκα σύνθεσις τῶν τεσσάρων κατὰ τὸ ἐξῆς ἀριθμούντων ἡμῶν, καὶ διὰ τοῦτο τὸν ἀριθμὸν πάντα τετρακτὺν ἔλεγον.

§7[55–57] **Pythagoras: Aristotle Met.** A.6 985b23–986a2 ἐν δὲ τούτοις καὶ πρὸ τούτων οἱ καλούμενοι Πυθαγόρειοι (58B4 DK) τῶν μαθημάτων ἀψάμενοι πρῶτοι ταῦτά προήγαγον, καὶ ἐντραφέντες ἐν αὐτοῖς τὰς τούτων ἀρχὰς τῶν ὄντων ἀρχὰς ᾤκησαν εἶναι πάντων. ἐπεὶ δὲ τούτων οἱ ἀριθμοὶ φύσει πρῶτοι, ἐν δὲ τοῖς ἀριθμοῖς ἐδόκουν θεωρεῖν ὁμοιώματα πολλὰ τοῖς οὖσι καὶ γιγνομένοις, μάλλον ἢ ἐν πυρὶ καὶ γῇ καὶ ὕδατι, ... ἔτι δὲ τῶν ἀρμονιῶν ἐν ἀριθμοῖς ὁρῶντες τὰ πάθη καὶ τοὺς λόγους, — ἐπεὶ δὴ τὰ μὲν ἄλλα τοῖς ἀριθμοῖς ἐφαίνετο τὴν φύσιν ἀφωμοιωσθαι πάσαν, οἱ δ' ἀριθμοὶ πάσης τῆς φύσεως πρῶτοι, τὰ τῶν ἀριθμῶν στοιχεῖα τῶν ὄντων στοιχεῖα πάντων εἶναι ὑπέλαβον.

§7[58–80] **Sextus Empiricus M.** 10.261–263 (*Test. Plat.* 32 Gaiser, 12 Krämer, C1–C2 Isnardi Parente) ὁ Πυθαγόρας ἀρχὴν ἔφησεν εἶναι τῶν ὄντων τὴν μονάδα, ἥς κατὰ μετοχὴν ἕκαστον τῶν ὄντων ἐν λέγεται: ... (262) δύο οὖν τῶν ὄντων ἀρχαί, ἡ τε πρώτη μονάς, ἥς κατὰ μετοχὴν πάσαι αἱ ἀριθμῶνται μονάδες νοοῦνται μονάδες, καὶ ἡ ἀόριστος δυάς, ἥς κατὰ μετοχὴν αἱ ὠρισμέναι δυάδες εἰσὶ δυάδες. ... καὶ ὅτι ταῖς ἀληθεαῖς αὐταὶ εἰσι τῶν ὄλων ἀρχαί, (263) ποικίλως οἱ Πυθαγόρειοι διδάσκουσιν. τῶν γὰρ ὄντων, φασί, τὰ μὲν κατὰ διαφορὰν νοεῖται, τὰ δὲ κατ' ἐναντίωσιν, τὰ δὲ πρὸς τι. κατὰ διαφορὰν μὲν οὖν εἶναι τὰ καθ' ἑαυτὰ καὶ κατ' ἰδίαν περιγραφὴν ὑποκείμενα, οἷον ἄνθρωπος ἵππος φυτὸν γῆ ὕδωρ ἀήρ πῦρ.

§7[55–57] + [62–70] **Pythagoras: Simplicius in Phys.** 26.26–29 τινὲς μὲν τοι καὶ μέχρι δεκάδος προήγαγον τὰς ἀρχὰς, εἰ καὶ μὴ τὰς στοιχειώδεις, ὥσπερ οἱ Πυθαγόρειοι (possibly a neglected fragment of Theophr. *Physikai Doxai*) τοὺς ἀπὸ μονάδος ἄχρι δεκάδος ἀριθμοὺς ἀρχὰς ἔλεγον τῶν ἀπάντων (ἢ τὰς δέκα συστοιχίας, ὡς ἄλλοι ἄλλως ἀνέγραψαν).

§7[58–61] **Aristotle Met.** A.6 987b20–27 (on Plato, *Test. Plat.* 22A Gaiser, 9 Krämer, A1 Isnardi Parente) ὡς μὲν οὖν ὕλην τὸ μέγα καὶ τὸ μικρὸν εἶναι ἀρχὰς, ὡς δ' οὐσίαν τὸ ἔν: ἐξ ἐκείνων γὰρ κατὰ μέθεξιν τοῦ ἐνὸς τὰ εἶδη εἶναι τοὺς ἀριθμοὺς. τὸ μέντοι γε ἐν οὐσίαν εἶναι, καὶ μὴ ἕτερόν τι ὃν λέγεσθαι ἐν, παραπλησίως τοῖς Πυθαγόρειοις ἔλεγε, καὶ τὸ τοὺς ἀριθμοὺς αἰτίους εἶναι τοῖς ἄλλοις τῆς οὐσίας ὡσαύτως ἐκείνοις: τὸ δὲ ἀντὶ τοῦ ἀπείρου ὡς ἐνὸς δυάδα ποιῆσαι, τὸ δ' ἄπειρον ἐκ μεγάλου καὶ μικροῦ, τοῦτ' ἴδιον. **Speusippus** at Procl. in *Parm.* 3.501.4–9 Steel et ut *Speusippus* (fr. 62 Isnardi Parente, 48 Tarán) narrans tamquam placencia antiquis audi quid dicit. 'le unum melius ente putantes (sc. the ancients—i.e. the Pythagoreans?) et a quo le ens et ab ea quae secundum principium habitud-

ine ipsum liberaverunt; existimantes autem quod, si quis le unum ipsum seorsum et solum meditatam sine aliis secundum se ipsum suadere, nullum alterum elementum ipsi apponens, nichil utique fiet aliorum, interminabilem dualitatem entium principium inducens. (Steel's retroversion: 'τὸ γὰρ ἐν κρείττον τοῦ ὄντος ἡγούμενοι καὶ ἀφ' οὗ τὸ ὄν, καὶ τῆς κατ' ἀρχὴν σχέσεως αὐτὸ ἀπήλλαξαν· ὑπολαμβάνοντες δὲ ὅτι, εἴ τις τὸ ἐν αὐτὸ χωρὶς καὶ μόνον διανοοῦμενος ἄνευ τῶν ἄλλων καθ' αὐτὸ τιθεῖν, μηδὲν ἕτερον στοιχεῖον αὐτῷ προσθεῖς, οὐδὲν ἂν γένοιτο τῶν ἄλλων, τὴν ἀόριστον дуάδα τῶν ὄντων ἀρχὴν εἰσέγαγον.')

Theophrastus Met. 31 11a27–b7 Πλάτων (p. 494 Gaiser, *Test.Plat.* B3 Isnardi Parente) δὲ καὶ οἱ Πυθαγόρειοι (58B14 DK) μακρὰν τὴν ἀπόστασιν, ἐπιμειψίσθαι τ' ἐθέλειν ἅπαντα· καίτοι καθάπερ ἀντίθεσιν τινα ποιοῦσιν τῆς ἀορίστου дуάδος καὶ τοῦ ἐνός, ἐν ἧ καὶ τὸ ἄπειρον καὶ τὸ ἄτακτον καὶ πᾶσα ὡς εἰπεῖν ἀμορφία καθ' αὐτήν, ὥς δ' οὐχ οἶόν τ' ἄνευ ταύτης τὴν τοῦ ὅλου φύσιν, ἀλλ' οἷον ἰσομοιρεῖν ἢ καὶ ὑπερέχειν τῆς ἐτέρας, ἢ καὶ τὰς ἀρχὰς ἐναντίας. **ps.Plutarch Hom.** 2.145, 1743–1747 Kindstrand ὁ γὰρ Πυθαγόρας τοὺς ἀριθμοὺς μεγίστην δύναμιν ἔχειν ἡγούμενος καὶ πάντα εἰς ἀριθμοὺς ἀναφέρων, ..., δύο τὰς ἀνωτάτω ἀρχὰς ἐλάμβανε, τὴν μὲν ὠρισμένην μονάδα, τὴν δὲ ἀόριστον дуάδα καλῶν, τὴν μὲν ἀγαθῶν, τὴν δὲ κακῶν οὖσαν ἀρχήν. **Galen Di.Dec.** 9.343.12–14 K. καθ' ἕτερον τρόπον ἰδεᾶν μὲν τὴν μονάδα, τὴν дуάδα δὲ ὕλην ἄπειρον. **Alexander of Aphrodisias in Met.** 39.14–15 διὰ τὸ μόνιμον δὲ καὶ τὸ ὅμοιον πάντη καὶ ἀρχικὸν τὸν νοῦν μονάδα τε καὶ ἐν ἔλεγον (sc. the Pythagoreans). **ps.Iamblichus Theol.Ar.** p. 6.4–5 de Falco ὅτι τὴν μονάδα ἐκάλουν οἱ Πυθαγόρειοι νοῦν, εἰκάζοντες τῷ ἐνὶ taken from **Anatolius de Dec.** p. 5.19–21 Heiberg ἐκάλουν δὲ αὐτήν (sc. τὴν μονάδα) οἱ Πυθαγόρειοι νοῦν, εἰκάζοντες τῷ ἐνὶ αὐτήν, τῷ νοητῷ θεῷ, τῷ ἀγεννήτῳ, αὐτοκαλῷ, αὐτοαγαθῷ κτλ.

Differently on the first principles: *Pythagorica Hypomnemata* at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58B1a DK) at D.L. *V.P.* 8.24–25 φησὶ δ' ὁ Ἀλέξανδρος ἐν Ταῖς τῶν φιλοσόφων διαδοχαῖς καὶ ταῦτα εὐρηκέναι ἐν Πυθαγορικοῖς ὑπομνήμασιν· (25) ἀρχὴν μὲν τῶν ἀπάντων μονάδα· ἐκ δὲ τῆς μονάδος ἀόριστον дуάδα ὡς ἂν ὕλην τῇ μονάδι αἰτίῳ ὄντι ὑποστήναι· ἐκ δὲ τῆς μονάδος καὶ τῆς ἀορίστου дуάδος τοὺς ἀριθμοὺς κτλ. **Eudorus frs.** 3–5 Mazzearelli (in part verbatim) at **Simp. in Phys.** 181.7–30 καὶ οἱ Πυθαγόρειοι δὲ οὐ τῶν φυσικῶν μόνων ἀλλὰ καὶ πάντων ἀπλῶς μετὰ τὸ ἐν, ὃ πάντων ἀρχὴν ἔλεγον, ἀρχὰς δευτέρας καὶ στοιχειώδεις τὰ ἐναντία ἐτίθεσαν, αἷς καὶ τὰς δύο συστοιχίας ὑπέταττον οὐκέτι κυρίως ἀρχαῖς οὖσαις. γράφει δὲ περὶ τούτων ὁ Εὐδωρος τάδε· 'κατὰ τὸν ἀνωτάτω λόγον φατέον τοὺς Πυθαγορικοὺς τὸ ἐν ἀρχὴν τῶν πάντων λέγειν, κατὰ δὲ τὸν δεύτερον λόγον δύο ἀρχὰς τῶν ἀποτελουμένων εἶναι, τὸ τε ἐν καὶ τὴν ἐναντίαν τούτῳ φύσιν. ὑποτάσσεσθαι δὲ πάντων τῶν κατὰ ἐναντίωσιν ἐπινοουμένων τὸ μὲν ἀστέιον τῷ ἐνὶ, τὸ δὲ φαῦλον τῇ πρὸς τοῦτο ἐναντιουμένη φύσει. διὸ μηδὲ εἶναι τὸ σύνολον ταύτας ἀρχὰς κατὰ τοὺς ἄνδρας. εἰ γὰρ ἢ μὲν τῶνδε ἢ δὲ τῶνδε ἐστὶν ἀρχή, οὐκ εἰσὶ κοιναὶ πάντων ἀρχαὶ ὥσπερ τὸ ἐν'. (fr. 4) καὶ πάλιν 'διό', φησί, 'καὶ κατ' ἄλλον τρόπον ἀρχὴν ἔφασαν εἶναι τῶν πάντων τὸ ἐν, ὡς ἂν καὶ τῆς ὕλης καὶ τῶν ὄντων πάντων ἐξ αὐτοῦ γεγεννημένων. τοῦτο δὲ εἶναι καὶ τὸν ὑπεράνω θεόν'. (fr. 5) καὶ λοιπὸν ἀκριβολογούμενος ὁ Εὐδωρος ἀρχὴν μὲν τὸ ἐν αὐτοὺς τίθεσθαι λέγει, στοιχεῖα δὲ ἀπὸ τοῦ ἐνός γενέσθαι φησίν, ἃ πολλοὶς αὐτοὺς ὀνόμασιν προσαγορεύειν. λέγει γάρ· 'φημί τοίνυν

τοὺς περὶ τὸν Πυθαγόραν τὸ μὲν ἐν πάντων ἀρχὴν ἀπολιπεῖν, κατ' ἄλλον δὲ τρόπον δύο τὰ ἀνωτάτω στοιχεῖα παρεισάγειν. καλεῖν δὲ τὰ δύο ταῦτα στοιχεῖα πολλαῖς προσηγορίαις· τὸ μὲν γὰρ αὐτῶν ὀνομάζεσθαι τεταγμένον ὠρισμένον γνωστὸν ἄρρεν περιττὸν δεξιὸν φῶς, τὸ δὲ ἐναντίον τούτῳ ἄτακτον ἀόριστον ἄγνωστον θῆλυ ἀριστερὸν ἄρτιον σκότος, ὥστε ὡς μὲν ἀρχὴ τὸ ἐν, ὡς δὲ στοιχεῖα τὸ ἐν καὶ ἡ ἀόριστος дуас, ἀρχαὶ ἄμφω ἐν ὄντα πάλιν. καὶ δῆλον ὅτι ἄλλο μὲν ἐστὶν ἐν ἡ ἀρχὴ τῶν πάντων, ἄλλο δὲ ἐν τῇ δυάδι ἀντικείμενον, ὃ καὶ μονάδα καλοῦσιν'. **Anon. Photii** cod. 249, p. 237.16–23 Thesleff ὅτι διαφέρειν ἔλεγον οἱ ἀπὸ Πυθαγόρου μονάδα καὶ ἐν. μονὰς μὲν γὰρ παρ' αὐτοῖς ἐνομιζέτο ἡ ἐν τοῖς νοητοῖς οὐσα, ἐν δὲ τὸ ἐν τοῖς ἀριθμοῖς· ὁμοίως δὲ καὶ δύο τὸ ἐν τοῖς ἀριθμητοῖς· ἔλεγον δὲ τὴν δυάδα ἀόριστον, ὅτι ἡ μὲν μονὰς κατὰ τὴν ἰσότητά καὶ τὸ μέτρον λαμβάνεται, ἡ δὲ дуас καθ' ὑπερβολὴν καὶ ἔλλειψιν· μεσότης μὲν οὖν καὶ μέτρον οὐ δύναται μάλλον καὶ ἦττον (439a) γενέσθαι· ἡ δὲ ὑπερβολὴ καὶ ἔλλειψις ἐπειδὴ ἐπ' ἀπειρον προχωρεῖ, διὰ τοῦτο ἀόριστον αὐτὴν ἔλεγον δυάδα. **Sextus Empiricus** *M.* 10.261 + 277 (*Test. Plat.* 32 Gaiser, 12 Krämer, C1 + C2 Isnardi Parente) ὁ Πυθαγόρας ἀρχὴν ἔφησεν εἶναι τῶν ὄντων τὴν μονάδα, ἥς κατὰ μετοχὴν ἕκαστον τῶν ὄντων ἐν λέγεται· καὶ ταύτην κατ' αὐτότητα μὲν ἑαυτῆς νοουμένην μονάδα νοεῖσθαι, ἐπισυντεθεῖσαν δ' ἑαυτῇ καθ' ἑτερότητα ἀποτελεῖν τὴν καλουμένην ἀόριστον δυάδα. ... (277) φασὶν ἐν ταῖς ἀρχαῖς ταύταις τὸν μὲν τοῦ δρώντος αἰτίου λόγον ἐπέχειν τὴν μονάδα, τὸν δὲ τῆς πασχούσης ὕλης τὴν δυάδα.

§7[62–70] **Pythagoras** *Aristotle Met.* A.6 986a22–23 (Pythagorei 58B5 DK) ἔτεροι δὲ τῶν αὐτῶν τούτων τὰς ἀρχὰς δέκα λέγουσιν εἶναι τὰς κατὰ συστοιχίαν λεγομένας. **ps.Iamblichus Theol.Ar.** p. 83.5–9 de Falco λέγει δὲ (sc. Σπεύσιππος fr. 4 Lang, 122 Isnardi Parente, 28 Tarán; Philolaus 44A13 DK) τὸν τρόπον τοῦτον περὶ αὐτῆς· 'ἔστι δὲ τὰ δέκα τέλειος (ἀριθμός), καὶ ὀρθῶς τε καὶ κατὰ φύσιν εἰς τοῦτον κατανατῶμεν παντοίως ἀριθμοῦντες "Ἕλληνες τε καὶ πάντες ἄνθρωποι οὐδὲν αὐτοὶ ἐπιτηδεύοντες'. **Theon of Smyrna Exp.** p. 99.17–23 Hiller πάντα μὲν γὰρ τὸν ἀριθμὸν εἰς δεκάδα ἡγαγον, ἐπειδὴ ὑπὲρ δεκάδα οὐδεὶς ἐστὶν ἀριθμός, ἐν τῇ αὐξήσει πάλιν ἡμῶν ὑποστρεφόντων ἐπὶ μονάδα καὶ δυάδα καὶ τοὺς ἐξῆς· τὴν δὲ δεκάδα ἐπὶ τετράδα συνίστασθαι· ἐν γὰρ καὶ β' καὶ γ' καὶ δ' ἐστὶ ι', ὥστε τοὺς δυνατωτάτους ἀριθμοὺς ἐντὸς τῆς τετράδος θεωρεῖσθαι.

§7[62–63] **Pythagoras**: **ps.Aristotle Probl.** 15.3 910b23–35 διὰ τί πάντες ἄνθρωποι, καὶ βάρβαροι καὶ "Ἕλληνες, εἰς τὰ δέκα καταριθμοῦσι, καὶ οὐκ εἰς ἄλλον ἀριθμόν, οἷον β', γ', δ', ε', εἶτα πάλιν ἐπαναδιπλοῦσιν, ἐνπεντε δύοπεντε, ὥσπερ ἑνδεκα δώδεκα; ... πότερον ὅτι τὰ δέκα τέλειος ἀριθμός; ... ἢ ὅτι ἀρχὴ ἡ δεκάς; ἐν γὰρ καὶ δύο καὶ τρία καὶ τέτταρα γίνεται δεκάς. **Philo of Alexandria Opif.** 47 εἰ γοῦν οἱ ἀπὸ μονάδος ἄχρη τετράδος ἐξῆς συντεθεῖεν ἀριθμοί, δεκάδα γενήσουσιν, ἥτις ὁρος τῆς ἀπειρίας τῶν ἀριθμῶν ἐστὶ, περὶ δὲ ὡς καμπτήρα εἰλοῦνται καὶ ἀνακάμπουσι. **Anatolius de Dec.** p. 15.4–9 Heiberg (cf. at **ps.Iamblichus Theol.Ar.** p. 86.1–5 de Falco) δεκάς ... κύκλος ἐστὶ παντὸς ἀριθμοῦ καὶ πέρας· περὶ αὐτὸν γὰρ εἰλούμενοι (καὶ) ἀνακάμπτοντες ὥσπερ καμπτήρα δολιχεύουσιν. ἔτι ὁρος ἐστὶ τῆς ἀπειρίας τῶν ἀριθμῶν· ἀπὸ μονάδος (γὰρ) μέχρι αὐτοῦ ἀριθμήσαντες καὶ στάντες ἑνδεκα καὶ δώδεκα λοιπὸν λέγομεν. **Elias Prol.** 25.20–22 ὃ δὲ δέκα τέλειος, οὐχ ὡς ἴσος τοῖς ἑαυτοῦ μέρεσιν, ἀλλ' ὅτι πᾶς ἀριθμός καμπτήρι αὐτῷ κέχρηται.

§7[70–73] **ps.Pythagoras** *Carm.Aur.* 47–48 (reading ναὶ μὰ τὸν ἀμετέρῃ ψυχῇ). **Theon of Smyrna** *Exp.* p. 94.6–7 Hiller. **ps.Iamblichus** *Theol.Ar.* p. 22.21–22 de Falco. **Sextus Empiricus** *M.* 4.2, 7.94. **Hippolytus** *Ref.* 6.23. **Porphry** *V.P.* 20. **Iamblichus** *V.P.* 28.150, 29.162. etc. **Macrobius** *in Somn.* 1.6.41 *quaternarium quidem Pythagorei, quem τετρακτὺν vocant, adeo quasi ad perfectionem animae pertinentem inter arcana venerantur, ut ex eo et iuris iurandi religionem sibi fecerint*: οὐ μὰ τὸν ἀμετέρῃ ψυχῇ παραδόντα τετρακτὺν / *per qui nostrae animae numerum dedit ipse quaternum.*

§7[74–89] **Pythagoras**: **Aristotle** *de An.* 1.2 404b21–26 (on Plato, *Test.Plat.* 25A Gaiser, A22 Isnardi Parente) ἔτι δὲ καὶ ἄλλως, νοῦν μὲν τὸ ἐν, ἐπιστήμην δὲ τὰ δύο (μοναχῶς γὰρ ἐφ' ἐν), τὸν δὲ τοῦ ἐπιπέδου ἀριθμὸν δόξα, αἴσθησιν δὲ τὸν τοῦ στερεοῦ. οἱ μὲν γὰρ ἀριθμοὶ τὰ εἶδη αὐτὰ καὶ αἱ ἀρχαὶ ἐλέγοντο, εἰσὶ δ' ἐκ τῶν στοιχείων, κρίνεται δὲ τὰ πράγματα τὰ μὲν νῶ, τὰ δ' ἐπιστήμη, τὰ δὲ δόξη, τὰ δ' αἰσθήσει· εἶδη δ' οἱ ἀριθμοὶ οὗτοι τῶν πραγμάτων (see below *Themist.* ad loc.). **ps.Archyta** *de Intell.* pp. 39.18–40.1 Thesleff τυγχάνοντι δὲ καὶ ἐν αὐτῶν αὐτοῖς κατὰ ψυχὰν γνώσεις τέτταρες· νόος, ἐπιστάμα, δόξα, αἴσθασις· ὧν αἱ μὲν δύο τῷ λόγῳ ἀρχαὶ ἐντι, οἷον νόος καὶ αἴσθασις, τὰ δὲ δύο τέλη, οἷον ἐπιστάμα καὶ δόξα. τὸ δ' ὅμοιον αἰεὶ τῷ ὁμοίῳ γνωστικόν. φανερόν ὦν ὅτι ὁ μὲν νόος ἐν αὐτῶν τῶν νοσῶν γνωστικός, ἃ δὲ ἐπιστάμα τῶν ἐπιστατῶν, ἃ δὲ δόξα τῶν δοξαστῶν, ἃ δὲ αἴσθασις τῶν αἰσθατῶν. **Theon of Smyrna** *Exp.* p. 99.5 Hiller ὀγδοῇ (sc. τετρακτὺς) νοῦς ἐπιστήμη δόξα αἴσθησις. *Ut Math.* p. 98.1–3 νοῦς ἐπιστήμη δόξα αἴσθησις. νοῦς μὲν ὡς μονὰς ἐν οὐσίᾳ· ἐπιστήμη δὲ ὡς δυάς, ἐπειδὴ τινός ἐστιν ἐπιστήμη· (δόξα δὲ ὡς τριάς, ἐπειδὴ ...). **Themistius** *in de An.* 12.5–12 ἔτι δὲ καὶ ἄλλως τὸν αὐτὸν τοῦτον λόγον μετήρσαν· ἐπειδὴ γὰρ ἡ ψυχὴ πλείοσι δυνάμεσι χρῆται εἰς κατάληψιν τῶν ὄντων, νῶ καὶ ἐπιστήμη καὶ δόξη καὶ αἰσθήσει, τὸν μὲν νοῦν ἔχειν ἐκ τῆς τοῦ ἐνὸς ιδέας αὐτὴν διωρίζοντο, τὴν δὲ ἐπιστήμην ἐκ τῆς πρώτης δυάδος· ἀφ' ἐνὸς γὰρ ἐφ' ἐν καὶ ἡ ἐπιστήμη, ἀπὸ γὰρ τῶν προτάσεων ἐπὶ τὸ συμπέρασμα· τὴν δόξαν δὲ ἐκ τῆς πρώτης τριάδος, ὅσος ἦν καὶ τοῦ ἐπιπέδου ἀριθμός· τῆς γὰρ δόξης ἤδη καὶ τὸ ἀληθές καὶ τὸ ψεῦδος ἐκ τῶν προτάσεων· αἴσθησιν δὲ ἀπὸ τῆς πρώτης τετράδος κτλ. **Simplicius** *in Phys.* 26.26–29 see above at §7[3–5] + [10–14].

§7[76–82] **Pythagoras**: **Plato** *Phlb.* 15a–b ὁπόταν, ὦ παῖ, τὸ ἐν μὴ τῶν γιγνομένων τε καὶ ἀπολλυμένων τις τίθεται ἐνταυθοὶ μὲν γὰρ καὶ τὸ τοιοῦτον ἐν, ὅπερ εἴπομεν νυνδὴ, συγκεχώρηται τὸ μὴ δεῖν ἐλέγχειν· ὅταν δέ τις ἕνα ἀνθρωπὸν ἐπιχειρήσει τίθεσθαι καὶ βοῦν ἕνα καὶ τὸ καλὸν ἐν καὶ τὸ ἀγαθὸν ἐν, περὶ τούτων τῶν ἐνάδων καὶ τῶν τοιούτων ἡ πολλὴ σπουδὴ μετὰ διαιρέσεως ἀμφισβήτησις γίγνεται.—πῶς;—(b) πρῶτον μὲν εἴ τινας δεῖ τοιαύτας εἶναι μονάδας ὑπολαμβάνειν ἀληθῶς οὐσας· εἴτα πῶς αὖ ταύτας, μίαν ἐκάστην οὐσαν αἰεὶ τὴν αὐτὴν καὶ μῆτε γένεσιν μῆτε ὄλεθρον προσδεχομένην, ὅμως εἶναι βεβαιότατα μίαν ταύτην, μετὰ δὲ τοῦτ' ἐν τοῖς γιγνομένοις αὖ καὶ ἀπείροις εἴτε διεσπασμένην καὶ πολλὰ γεγονυῖαν θετέον, εἴθ' ὅλην αὐτὴν αὐτῆς ἐν ἅμα ἐν ἐνί τε καὶ πολλοῖς γίγνεσθαι. **Aristotle** *Περὶ τάγαθου* fr. 2 Ross = fr. 28 R³ at Alex. *in Met.* 55.20–26.4 ἀρχὰς μὲν τῶν ὄντων τοὺς ἀριθμοὺς Πλάτων (*Test.Plat.* 22B Gaiser, 10 Krämer, C3 Isnardi Parente) τε καὶ οἱ Πυθαγόρειοι (—) ὑπετίθεντο καὶ ἐπεὶ τὰ εἶδη πρῶτά τε καὶ αἱ ιδέαι πρῶται τῶν πρὸς αὐτὰ ὄντων κατ' αὐτὸν καὶ παρ' αὐτῶν τὸ εἶναι ἐχόντων (ἃ ὅτι ἐστὶ, διὰ πλείονων

ἐπειράτο (sc. Πλάτων) δεικνύναι), τὰ εἶδη ἀριθμούς ἔλεγεν. εἰ γὰρ τὸ μονοειδὲς πρῶτον τῶν πρὸς αὐτοῦ ὄντων, μηδὲν δὲ πρῶτον ἀριθμοῦ, τὰ εἶδη ἀριθμοί. *Met.* A.6 987b20–22 (on Plato, Test.Plato. 22A Gaiser, 9 Krämer, A1 Isnardi Parente) ὡς μὲν οὖν ὕλην τὸ μέγα καὶ τὸ μικρὸν εἶναι ἀρχάς, ὡς δ' οὐσίαν τὸ ἐν· ἐξ ἐκείνων γὰρ κατὰ μέθεξιν τοῦ ἐνὸς τὰ εἶδη εἶναι τοὺς ἀριθμούς (cf. above §7[6–9], below §20). *Met.* A.9 991b10–11 (on Xenocrates, F 12 Isnardi Parente²) ἔτι εἶπερ εἰσὶν ἀριθμοὶ τὰ εἶδη, πῶς αἴτιοι ἔσονται; *Met.* Z.2 1028b25–27 ἔνιοι (on Xenocrates, fr. 34 Heinze, F 23 Isnardi Parente²) δὲ τὰ μὲν εἶδη καὶ τοὺς ἀριθμούς τὴν αὐτὴν ἔχειν φασὶ φύσιν, τὰ δὲ ἄλλα ἐχόμενα, γραμμάς καὶ ἐπίπεδα, μέχρι πρὸς τὴν τοῦ οὐρανοῦ οὐσίαν καὶ τὰ αἰσθητά. *Met.* M.1 1076a19–21 ἐπεὶ δὲ οἱ μὲν δύο ταῦτα γένη ποιούσι, τὰς τε ιδέας καὶ τοὺς μαθηματικούς ἀριθμούς, οἱ δὲ (Xenocrates fr. 34 Heinze, F 27 Isnardi Parente²) μίαν φύσιν ἀμφοτέρων. *Met.* M.9 1086a5–11 οἱ δὲ (Xenocrates fr. 34 Heinze, F 30 Isnardi Parente²) τὰ εἶδη βουλόμενοι ἅμα καὶ ἀριθμούς ποιεῖν, οὐχ ὁρῶντες δέ, εἰ τὰς ἀρχάς τις ταύτας θήσεται, πῶς ἔσται ὁ μαθηματικὸς ἀριθμὸς παρὰ τὸν εἰδητικόν, τὸν αὐτὸν εἰδητικόν καὶ μαθηματικὸν ἐποίησαν ἀριθμὸν τῷ λόγῳ, ἐπεὶ ἔργῳ γε ἀνήρηται ὁ μαθηματικὸς (ιδίαις γὰρ καὶ οὐ μαθηματικὰς υποθέσεις λέγουσιν). *ps.Archytas de Intell.* p. 38.9–10 Thesleff ἔτι ὁ μὲν νόος ἀμερῆς καὶ ἀδιαίρετος, καθάπερ μονάς καὶ στιγμή. *Alexander of Aphrodisias in Met.* 123.19–124.9 οἱ τὰς ιδέας θέμενοι τὸ ἐν τὴν κυριωτάτην οὐσίαν ὑπολαμβάνοντες εἶναι, ὥσπερ οὖν καὶ οἱ Πυθαγόρειοι (—), τὴν κατὰ τὸ εἶδος τῶν ὄντων ἀρχὴν τε καὶ αἰτίαν ταύτην ἐπίστευσαν εἶναι, διὰ τὸ ὁρᾶν τοῦ μὲν εἶναι τε καὶ σώζεσθαι ἐκάστω τὴν τοῦ ἐνὸς φύσιν οὔσαν αἰτίαν (ἐν γὰρ τι ἕκαστον τῶν ὄντων καθὼ ἔστι), φθορὰς δὲ αἰτίαν τὴν εἰς πολλὰ διάλυσιν τοῦ ἐνός· ... διὰ τοῦτο ἀρχὴν αὐτὸ (sc. τὸ ἐν) τὴν κυριωτάτην πάντων τῶν ὄντων ὑπέθεντο, καὶ δὴ τὰς ιδέας αἰτίας ἔλεγον τοῖς ἄλλοις τοῦ εἶναι ὥσπερ ἐνάδας τινὰς οὐσας, καὶ κατὰ τοῦτο τοῦ εἶναι τοῖς εἰς αὐτάς ἀναγομένοις τε καὶ ὑπαγομένοις εἰδητικὰς οὐσας αἰτίας. *Plotinus Enn.* 6.6.[34]9.27–34 ἡ γὰρ ἡ οὐσία αὐτοῦ ἡ ἡ ἐνέργεια ὁ ἀριθμὸς ἔσται, καὶ τὸ ζῶον αὐτὸ καὶ ὁ νοῦς ἀριθμὸς. ἄρ' οὖν τὸ μὲν ὄν ἀριθμὸς ἡνωμένος, τὰ δὲ ὄντα ἐξεληλιγμένος ἀριθμὸς, νοῦς δὲ ἀριθμὸς ἐν ἑαυτῷ κινούμενος, τὸ δὲ ζῶον ἀριθμὸς περιέχων; ἐπεὶ καὶ ἀπὸ τοῦ ἐνός γενόμενον τὸ ὄν, ὡς ἦν ἐν ἐκείνῳ, δεῖ αὐτὸ οὕτως ἀριθμὸν εἶναι· διὸ καὶ τὰ εἶδη ἔλεγον καὶ ἐνάδας καὶ ἀριθμούς. *Proclus in Parm.* 2.880.22–28 Steel, ὅθεν καὶ ὁ ἐν τῷ Φιλήβῳ (*Phlb.* 15a–b) Σωκράτης ποτὲ μὲν ‘ἐνάδας’ καλεῖ τὰς ιδέας, ποτὲ δὲ ‘μονάδας’· εἰσὶ γὰρ ὡς μὲν πρὸς αὐτὸ τὸ ἐν μονάδες, διότι καὶ πλήθός ἐστιν ἐκάστη καὶ ὅν τι οὐσα καὶ ζωὴ καὶ εἶδος νοερόν· ὡς δὲ πρὸς τὰ ἀπ’ αὐτῶν παραγόμενα καὶ τὰς σειρὰς ἅς ὑφίστασιν, ἐνάδες· πληθύνεται γὰρ τὰ μετ’ αὐτάς μεριστὰ γινόμενα ἀπὸ ἀμερίστων ἐκείνων. *Damascius in Phlb.* 44 νά· ὅτι ‘μονάδας’ καλεῖ καὶ ‘ἐνάδας’ τὰς τῶν εἰδῶν κορυφὰς· πρὸς μὲν τὰ οἰκεία πλήθη τὰ ἀπ’ αὐτῶν ἐνάδας, πρὸς δὲ τὰ ὑπερουσία μονάδας.

§7[76–80] *Pythagoras: Plato Phd.* 96d–e σκέψαι δὴ καὶ τάδε ἔτι. ὦμην γὰρ ἱκανῶς μοι δοκεῖν, ὅποτε τις φαίνοιτο ἄνθρωπος παραστάς μέγας σμικρῷ (ε) μείζων εἶναι αὐτῇ τῇ κεφαλῇ, καὶ ἵππος ἵππου. *Crat.* 385a. *Th.* 195d ‘οὐκοῦν,’ φησί, ‘λέγεις ὅτι αὐτὸν τὸν ἄνθρωπον ὃν διανοούμεθα μόνον, ὁρῶμεν δ’ οὐ, ἵππον οὐκ ἂν ποτε οἰηθείημεν εἶναι, ὃν αὐτὸ οὔτε ὁρῶμεν οὔτε ἀπτόμεθα, διανοούμεθα δὲ μόνον καὶ ἄλλ’ οὐδὲν αἰσθανόμεθα περὶ αὐτοῦ;’ *Th.* 195d. *Aristotle Cat.* 1b27–28 ἔστι δὲ οὐσία μὲν ὡς τύπῳ εἰπεῖν οἶον ἄνθρωπος, ἵππος. *Met.* N.5 1092b8–11 οὕθεν δὲ διώριται

οὐδὲ ὁποτέρως οἱ ἀριθμοὶ αἴτιοι τῶν οὐσιῶν καὶ τοῦ εἶναι, πότερον ὡς ὄροι (οἶον αἱ στιγμαὶ τῶν μεγεθῶν, καὶ ὡς Εὐρυτος (45A3 DK) ἔταττε τὶς ἀριθμὸς τίνος, οἶον ὁδὶ μὲν ἀνθρώπου ὁδὶ δὲ ἵππου). **Theophrastus Met.** 11 6a19–22 τοῦτο γὰρ τελέου καὶ φρονούντος, ὃ περ Ἀρχύτας (47A13 DK, A13 Text H Huffman) ποτ' ἔφη ποιεῖν Εὐρυτον (45A2 DK) διατιθέντα τινὰς ψήφους· λέγειν γὰρ ὡς ὅδε μὲν ἀνθρώπου ὁ ἀριθμὸς, ὅδε δὲ ἵππου, ὅδε δ' ἄλλου τινὸς τυγχάνει. **Aristotle Met.** Δ.10 1018b5–6 οἶον ἀνθρώπος καὶ ἵππος ἄτομα τῷ γένει οἱ δὲ λόγοι ἕτεροι αὐτῶν. **Varro LL** 8.4.11 *Aristoteles orationis duas partes esse dicit: vocabula et verba, ut homo et equus, et legit et currit.* **Arius Didymus** fr. 1 Diels at Eus. *PE* 11.23.3 and Stob. *Ecl.* 1.12.2a, p. 135.20–136.2 = **Alcinous Did.** c. 12 (where a few more words) p. 166.39–167.5 H. περὶ δὲ τῶν ιδεῶν ὡδὶ διεξήρχετο· τῶν κατὰ φύσιν αἰσθητῶν κατὰ γένος ὠρισμένα τινὰ παραδείγματα φάμενος εἶναι τὰς ιδέας, ὧν τὰς ἐπιστήμας γίγνεσθαι καὶ τοὺς ὄρους· παρὰ πάντας γὰρ ἀνθρώπους ἀνθρωπὸν τινα νοεῖσθαι καὶ παρὰ πάντας ἵππους ἵππον καὶ κοινῶς παρὰ πάντα ζῶα ζῶον ἀγένητον καὶ ἀφθαρτον· ὃν τρόπον δὲ σφραγίδος μιᾶς ἐκμαγεία γίνεσθαι. **Arius Didymus** fr. 40 Diels at Stob. *Ecl.* 1.12.3, pp. 136.23–137.3 (on Stoics, *SVF* 1.65) ταῦτα δὲ ὑπὸ τῶν ἀρχαίων ιδέας προσαγορεύεσθαι. τῶν γὰρ κατὰ τὰ ἐννοήματα ὑποπιπτόντων εἶναι τὰς ιδέας, οἶον ἀνθρώπων, ἵππων, κοινότερον εἰπεῖν πάντων τῶν ζῶων καὶ τῶν ἄλλων ὁπόσων λέγουσιν ιδέας εἶναι. **Sextus Empiricus M.** 3.41 ἐπισυνθετικῶς δὲ (sc. κατὰ δὲ τὴν ἀπὸ τῶν ἐναργῶν μετάβασιν νοεῖται) καθάπερ ἀπὸ ἵππου καὶ ἀνθρώπου ἵπποκένταυρος· ἵππεια γὰρ καὶ βρότεια μίξαντες μέλη ἐφантаσιώθημεν τὸν μήτε ἀνθρωπὸν μήτε ἵππον ἄλλ' ἐξ ἀμφοτέρων σύνθετον ἵπποκένταυρον. *M.* 10.263 (on Plato, *Test. Plat.* 32 Gaiser, 12 Krämer, C2 Isnardi Parente) τῶν γὰρ ὄντων, φασί, τὰ μὲν κατὰ διαφορὰν νοεῖται, τὰ δὲ κατ' ἐναντίωσιν, τὰ δὲ πρὸς τι. κατὰ διαφορὰν μὲν οὖν εἶναι τὰ καθ' ἑαυτὰ καὶ κατ' ἰδίαν περιγραφὴν ὑποκείμενα, οἶον ἀνθρώπος ἵππος φυτὸν γῆ ὕδωρ ἀήρ πῦρ. **Diogenes Laertius VP.** 7.58 ἔστι δὲ προσηγορία μὲν κατὰ τὸν Διογένην (*SVF* 3 Diog. 22) μέρος λόγου σημαῖνον κοινὴν ποιότητα, οἶον ἀνθρώπος, ἵππος. **Dionysius Thrax** p. 1.34.1–2 Uhlig προσηγορικὸν δὲ ἔστι τὸ τὴν κοινὴν οὐσίαν σημαῖνον, οἶον ἀνθρώπος, ἵππος. **Ammonius Hermeiou in Isag.** 40.6–9 ὁ τοίνυν Ἀντισθένης (fr. 50c Declava Caizzi, 149A Prince) ἔλεγε τὰ γένη καὶ τὰ εἶδη ἐν ψιλαῖς ἐπινοαῖς εἶναι λέγων ὅτι ἵππον μὲν ὀρώ, ἵππότητα δὲ οὐχ ὀρώ, καὶ πάλιν ἀνθρωπὸν μὲν ὀρώ, ἀνθρωπότητα δὲ οὐχ ὀρώ.

§7[81–82] **Pythagoras:** Philo of Alexandria *Agr.* 67 χρεμετιστικῶ ζῶφ. **Galen MM** 10.149.11–12 K. ἵππον γὰρ δήπου καλεῖς τι, τὸ ζῶον δηλονότι τὸ χρεμετιστικόν; **Sextus Empiricus P.** 2.211 ὃ ζῶον λογικὸν θνητόν, νοῦ καὶ ἐπιστήμης δεκτικόν, ἀπῆντητό σοι ζῶον γελαστικὸν πλατυώνυχον, ἐπιστήμης πολιτικῆς δεκτικόν, ζῶφ θνητῶ χρεμετιστικῶ τὰ σφαιρώματα ἐφηδρακός'. **ps.Iamblichus Theol.Ar.** p. 30.2–5 de Falco οὐ μόνον δὲ τὸν τοῦ σώματος ἐπέχει λόγον τετράς, ἀλλὰ καὶ τὸν τῆς ψυχῆς· ὡς γὰρ τὸν ὅλον κόσμον φασί κατὰ ἀρμονίαν διοικεῖσθαι, οὕτω καὶ τὸ ζῶον ψυχουῖσθαι.

§7[84–87] **Pythagoras:** **Aristotle Top.** 1.1 100a25–27 ἔστι δὴ συλλογισμὸς λόγος ἐν ᾧ τεθέντων τινῶν ἕτερόν τι τῶν κειμένων ἐξ ἀνάγκης συμβαίνει διὰ τῶν κειμένων. *APr.* 1.1 24b18–20 συλλογισμὸς δὲ ἔστι λόγος ἐν ᾧ τεθέντων τινῶν ἕτε-

ρόν τι τῶν κειμένων ἐξ ἀνάγκης συμβαίνει τῷ ταῦτα εἶναι. *Cael.* 1.1 286a10–19 καθάπερ γάρ φασι καὶ οἱ Πυθαγόρειοι (58B17 DK), τὸ πᾶν καὶ τὰ πάντα τοῖς τρισὶν ὠρίσται· τελευτὴ γάρ καὶ μέσον καὶ ἀρχὴ τὸν ἀριθμὸν ἔχει τὸν τοῦ παντός, ταῦτα δὲ τὸν τῆς τριάδος. ... ἀποδίδομεν δὲ καὶ τὰς προσηγορίας τὸν τρόπον τοῦτον· τὰ γὰρ δύο ἄμφω μὲν λέγομεν καὶ τοὺς δύο ἀμφοτέρους, πάντας δ' οὐ λέγομεν, ἀλλὰ κατὰ τῶν τριῶν ταύτην τὴν κατηγορίαν κατὰφαιμεν πρῶτον. *Alcinous Did.* c. 6, p. 157.5–10 H. ἔστι δὲ ὁ συλλογισμὸς λόγος, ἐν ᾧ τεθέντων τινῶν ἕτερόν τι τῶν κειμένων δι' αὐτῶν τῶν τεθέντων ἐξ ἀνάγκης συμβαίνει. *ps.Galen Def.Med.* 19.354.4–6 K. 18'. συλλογισμὸς ἐστὶ λόγος ἐν ᾧ τεθέντων τινῶν ἕτερόν τι τῶν τεθέντων κατ' ἀνάγκην συνάγεται πρότερον ἀγνωσούμενον. *Apollonius Sophista Lex.Hom.* p. 154.35–155.1 Bekker τὰ γὰρ τρία ἀρχὴν πλήθους σημαίνει, ὅθεν καὶ 'τρὶς μάκαρες Δαναοί' (*Hom. Od.* 5.306). *ps.Iamblichus Theol.Ar.* p. 26.3 de Falco πλήθος ἐν τριάδι πρῶτον ὥφθη. *Sextus Empiricus M.* 7.151 (*SVF* 1.69) τρία γὰρ εἶναι φασὶν ἐκεῖνοι τὰ συζυγοῦντα ἀλλήλοις, ἐπιστήμην καὶ δόξαν καὶ τὴν ἐν μεθορίῳ τούτων τεταγμένην κατάληψιν, ᾧ ἐπιστήμην μὲν εἶναι τὴν ἀσφαλῆ καὶ βεβαίαν καὶ ἀμετάθετον ὑπὸ λόγου κατάληψιν, δόξαν δὲ τὴν ἀσθενῆ καὶ ψευδῇ συγκατάθεσιν, κατάληψιν δὲ τὴν μεταξύ τούτων. *Diogenes Laertius V.P.* 7.47 (*SVF* 1.68) αὐτὴν τε τὴν ἐπιστήμην φασὶν ἢ κατάληψιν ἀσφαλῆ ἢ κτλ. *Themistius in de An.* 12.7–9 τὸν μὲν νοῦν ἔχειν ἐκ τῆς τοῦ ἐνός ιδέας αὐτὴν διωρίζοντο, τὴν δὲ ἐπιστήμην ἐκ τῆς πρώτης δυάδος· ἀφ' ἐνός γὰρ ἐφ' ἐν καὶ ἡ ἐπιστήμη, ἀπὸ γὰρ τῶν προτάσεων ἐπὶ τὸ συμπέρασμα.

§8 *Italic Succession:* *Aristotle Met.* A.6 987a29–31 ... ἡ Πλάτωνος ἐπεγένετο πραγματεία, τὰ μὲν πολλὰ τούτοις (sc. τοῖς Πυθαγορείοις) ἀκολουθοῦσα, δὲ καὶ ἴδια παρὰ τὴν τῶν Ἱταλικῶν ἔχουσα φιλοσοφίαν. *Met.* A.6 988a26 οἱ δ' Ἱταλικοί.

§9 *Heraclitus Hippasus:* *Aristotle Met.* A.3 984a7–8 Ἰππασος δὲ πῦρ ὁ Μεταποντίνος (18A7DK) καὶ Ἡράκλειτος ὁ Ἐφέσιος (cf. 22A5 DK). *Simplicius in Phys.* 23.33–24.12 (*Theophrastus Phys.Op.* fr. 1 Diels, 225 FHS&G) Ἰππασος δὲ ὁ Μεταποντίνος (18A7 DK) καὶ Ἡράκλειτος ὁ Ἐφέσιος (22A5 DK) ἐν καὶ οὗτοι καὶ κινούμενον καὶ πεπερασμένον, ἀλλὰ πῦρ ἐποίησαν τὴν ἀρχὴν καὶ ἐκ πυρὸς ποιοῦσι τὰ ὄντα πυκνῶσει καὶ μανῶσει καὶ διαλύουσι πάλιν εἰς πῦρ, ὡς ταύτης μίξις οὕσης φύσεως τῆς ὑποκειμένης· πυρὸς γὰρ ἀμοιβὴν εἶναι φησιν Ἡράκλειτος πάντα. ποιεῖ δὲ καὶ τάξιν τινὰ καὶ χρόνον ὠρισμένον τῆς τοῦ κόσμου μεταβολῆς κατὰ τινὰ εἰμαρμένην ἀνάγκην. ... ἔτι δὲ εἰ στοιχεῖον μὲν τὸ ἐλάχιστόν ἐστιν ἐξ οὗ γίνεται τὰ ἄλλα καὶ εἰς ὃ ἀναλύεται, λεπτομερέστατον δὲ τῶν ἄλλων τὸ πῦρ, τοῦτο ἂν εἴη μάλιστα στοιχεῖον.

§10 *Diogenes:* *Aristotle Met.* A.3 984a5–7 Ἀναξιμένης (fr. 2 Wöhrle) δὲ ἀέρα καὶ Διογένης (—) πρότερον ὕδατος καὶ μάλιστ' ἀρχὴν τίθεσσι τῶν ἀπλῶν σωμάτων (cf. above §3). *Simplicius in Phys.* 25.1–4 (*Theophrastus Phys.Op.* fr. 2 Diels, 226A FHS&G) Διογένης δὲ ὁ Ἀπολλωνιάτης (64A5 DK, T4 Laks), σχεδὸν νεώτατος γεγινώς τῶν περὶ ταῦτα σχολασάντων ... τὴν δὲ τοῦ παντός φύσιν ἀέρα καὶ οὗτός φησιν ἄπειρον εἶναι καὶ αἰδίον.

§11 *Xenophanes:* *Aristotle Met.* A.5 986b21–22 Ξενοφάνης (21A30 DK) δὲ πρῶτος τούτων ἐνίσας (ὁ γὰρ Παρμενίδης τούτου λέγεται μαθητής). *Simplicius in Phys.* 22.26–29 μίαν δὲ τὴν ἀρχὴν ἦτοι ἐν τὸ ὄν καὶ πᾶν καὶ οὔτε πεπερασμένον

οὔτε ἄπειρον οὔτε κινούμενον οὔτε ἡρεμοῦν Ξενοφάνην τὸν Κολοφώνιον (21A31 DK) τὸν Παρμενίδου διδάσκαλον ὑποτίθεσθαι φησιν ὁ Θεόφραστος (*Phys.Op.* fr. 5 Diels, 224 FHS&G).

§12 *Philolaus*: Philolaus at D.L. 8.85 τοῦτόν (sc. Φιλόλαον, 44B1 DK) φησι Δημήτριος ἐν Ὀμωνύμοις (fr. 26 Mejer) πρῶτον ἐκδοῦναι τῶν Πυθαγορικῶν (τὰ) Περὶ φύσεως, ὧν ἀρχὴ ἦδε· ‘ἅ φύσις δ’ ἐν τῷ κόσμῳ ἀρμόχθη ἐξ ἀπείρων τε καὶ περαινόντων καὶ ὅλος (ὁ) κόσμος καὶ τὰ ἐν αὐτῷ πάντα’. at *Stobaeus Ecl.* 1.21.7a (44B2.6–7 DK) δῆλον τὰρα ὅτι ἐκ περαινόντων τε καὶ ἀπείρων ὁ τε κόσμος καὶ τὰ ἐν αὐτῷ συναρμόχθη. *Aristotle Met.* A.5 986a22–23 ἔτεροι δὲ τῶν αὐτῶν τούτων (sc. τῶν Πυθαγορείων, 58B5 DK) τὰς ἀρχὰς δέκα λέγουσιν εἶναι τὰς κατὰ συστοιχίαν λεγομένας, πέρας {καὶ} ἄπειρον κτλ.

§§13–14 *Leucippus Democritus*: *Simplicius in Phys.* 28.4–19 (*Theophrastus Phys.Op.* fr. 8 Diels, 229 FHS&G) Λεύκιππος δὲ ὁ Ἐλεάτης ἢ Μιλήσιος (67A8 DK) ... ἄπειρα καὶ αἰεὶ κινούμενα ὑπέθετο στοιχεῖα τὰς ἀτόμους ... τὴν γὰρ τῶν ἀτόμων οὐσίαν ναστὴν καὶ πλήρη ὑποτιθέμενος ὃν ἔλεγεν εἶναι καὶ ἐν τῷ κενῷ φέρεσθαι παραπλησίως δὲ καὶ ὁ ἐταῖρος αὐτοῦ Δημόκριτος ὁ Ἀβδηρίτης (68A38 DK) ἀρχὰς ἔθετο τὸ πλήρες καὶ τὸ κενόν.

§13 *Leucippus*: *Aristotle Met.* A 4.985b4–6 Λεύκιππος (67A6 DK) δὲ καὶ ὁ ἐταῖρος αὐτοῦ Δημόκριτος στοιχεῖα μὲν τὸ πλήρες καὶ τὸ κενόν εἶναι φασι. *Simplicius in Phys.* 28.4–16 (*Theophrastus Phys.Op.* fr. 8 Diels, 229 FHS&G) Λεύκιππος δὲ ὁ Ἐλεάτης ἢ Μιλήσιος (67A8 DK) (ἀμφοτέρως γὰρ λέγεται περὶ αὐτοῦ) ... τὴν γὰρ τῶν ἀτόμων οὐσίαν ναστὴν καὶ πλήρη ὑποτιθέμενος ... παραπλησίως δὲ καὶ ὁ ἐταῖρος αὐτοῦ Δημόκριτος ὁ Ἀβδηρίτης ἀρχὰς ἔθετο τὸ πλήρες καὶ τὸ κενόν.

§14 *Democritus*: (cf. above §13) *Aristotle* Περὶ Δημοκρίτου fr. 208 R³ (verbatim) at *Simp. in Cael.* 294.33–295.5 ὀλίγα δὲ ἐκ τῶν Ἀριστοτέλους περὶ Δημοκρίτου παραγραφέντα δηλώσει τὴν τῶν ἀνδρῶν ἐκείνων διάνοιαν· ‘Δημόκριτος (68A37 DK) ἡγείται τὴν τῶν αἰδίων φύσιν εἶναι μικράς οὐσίας πλήθος ἀπείρους, ταῦταις δὲ τόπον ἄλλον ὑποτίθησιν ἄπειρον τῷ μεγέθει· προσαγορεύει δὲ τὸν μὲν τόπον τοῖσδε τοῖς ὀνόμασι τῷ τε κενῷ καὶ τῷ οὐδενὶ καὶ τῷ ἀπείρῳ, τῶν δὲ οὐσιῶν ἐκάστην τῷ τε δὲν καὶ τῷ ναστῷ καὶ τῷ ὄντι.’ (κτλ.)

§16[117–118] *Epicurus Democritus*: *Cicero Fat.* 46 ‘declinat’, inquit (Epicurus fr. 281, p. 200.31–33 Usener), ‘atomus’. *primum cur? aliam enim quandam vim motus habebant a Democrito* (68A47 DK) *impulsionis, quam ‘plagam’ ille appellat, a te, Epicure* (fr. 281, p. 200.30–33 Usener), *gravitatis et ponderis*.

§16[115–117] *Epicurus Democritus*: differently *Aristotle GC* 1.8 326a9–10 βαρύτερόν γε κατὰ τὴν ὑπεροχὴν φησιν εἶναι Δημόκριτος (68A60 DK) ἕκαστον τῶν ἀδιαρέτων. *Theophrastus Sens.* 61–62 (Democritus 68A135 DK) βαρὺ μὲν οὖν καὶ κοῦφον τῷ μεγέθει διαίρει Δημόκριτος. εἰ γὰρ διακριθεὶς καθ’ ἑν ἕκαστον, εἰ καὶ κατὰ σχῆμα διαφέρει {διαφέρει}, σταθμοῦ ἂν ἐπὶ μεγέθει τὴν φύσιν ἔχειν. οὐ μὴν ἄλλ’ ἐν γε τοῖς μικτοῖς κουφότερον μὲν εἶναι τὸ πλέον ἔχον κενόν, βαρύτερον δὲ τὸ ἔλαττον. ἐν ἐνίοις μὲν οὕτως εἴρηκεν. (62) ἐν ἄλλοις δὲ κοῦφον εἶναι φησιν ἀπλῶς τὸ λεπτόν. *Simplicius in Cael.* 569.5–9.

§16[118–119] *Leucippus Democritus*: differently on the early Atomists e.g. *Aristotle GC* 1.1 314a21–23 Δημόκριτος (fr. 240 Luria) δὲ καὶ Λεύκιππος (67A9

DK) ἐκ σωμάτων ἀδιαίρετων τᾶλλα συγκεῖσθαι φασι, ταῦτα δ' ἄπειρα καὶ τὸ πλῆθος εἶναι καὶ τὰς μορφάς.

§16[119–121] *Leucippus Democritus: Aristotle Cael.* 3.4 303a12–14 ποῖον δὲ καὶ τί ἐκάστου τὸ σχῆμα τῶν στοιχείων, οὐθὲν ἐπιδιώρισαν (Leucippus 67A15 DK), ἀλλὰ μόνον τῷ πυρὶ τὴν σφαῖραν ἀπέδωκαν. *Cicero ND* 1.66 *ista enim flagitia Democriti sive etiam ante Leucippi* (67A15), *esse corpuscula quaedam levia alia aspera, rutunda alia, partim autem angulata et hamata, curvata quaedam et quasi adunca* etc.

§16 *Epicurus: Epicurus Ep.Hdt.* at D.L. 10.42 πρὸς τε τούτοις τὰ ἄτομα τῶν σωμάτων καὶ μεστά, ἐξ ὧν καὶ αἱ συγκρίσεις γίνονται καὶ εἰς ἃ διαλύονται, ἀπερίληπτά ἐστι ταῖς διαφοραῖς τῶν σχημάτων· οὐ γὰρ δυνατόν γενέσθαι τὰς τοσαύτας διαφοράς ἐκ τῶν αὐτῶν σχημάτων περιειλημμένων. καὶ καθ' ἐκάστην δὲ σχηματῖσιν ἀπλῶς ἄπειροί εἰσιν αἱ ὁμοιοί, ταῖς δὲ διαφοραῖς οὐχ ἀπλῶς ἄπειροι, ἀλλὰ μόνον ἀπερίληπτοι. *Cicero Fat.* 46 see §16[11–12] *Simplicius in Phys.* 81.34–82.3 τὸ ἀδιαίρετον πολλαχῶς, ἢ τὸ μήπω διηρημένον οἷον τε δὲ διαιρεθῆναι καθάπερ ἕκαστον τῶν συνεχῶν, ἢ τὸ μηδὲ ὅλως πεφυκὸς διαιρεῖσθαι τῷ μὴ ἔχειν μέρη εἰς ἃ (ἀν) διαιρεθῇ, ὥσπερ στιγμή καὶ μονάς, ἢ τῷ μόρια μὲν ἔχειν καὶ μέγεθος, ἀπαθὲς δὲ εἶναι διὰ στερρότητα καὶ ναστότητα, καθάπερ ἐκάστη τῶν Δημοκρίτου (fr. 212 Luria) ἀτόμων.

§19 *Empedocles: Aristotle Met.* A.3 984a8–11 Ἐμπεδοκλῆς (31A28 DK) δὲ τὰ τέτταρα, πρὸς τοῖς εἰρημένοις (sc. ὕδατι ἀέρι πυρὶ) γῆν προστιθείς τέταρτον (ταῦτα γὰρ αἰεὶ διαμένειν καὶ οὐ γίνεσθαι ἀλλ' ἢ πλήθει καὶ ὀλιγότητι, συγκρινόμενα καὶ διακρινόμενα εἰς ἓν τε καὶ ἐξ ἑνός). *Simplicius in Phys.* 25.19–26 (*Theophrastus Phys.Op.* fr. 3 Diels, 227A FHS&G) Ἐμπεδοκλῆς ὁ Ἀκραγαντίνος (31A7 DK), οὐ πολὺ κατόπιν τοῦ Ἀναξαγόρου γεγονώς, Παρμενίδου δὲ ζηλωτῆς καὶ πλησιαστής καὶ ἔτι μάλλον τῶν Πυθαγορείων. οὗτος δὲ τὰ μὲν σωματικά στοιχεῖα ποιεῖ τέτταρα, πῦρ καὶ ἀέρα καὶ ὕδωρ καὶ γῆν, αἰδία μὲν ὄντα πλήθει καὶ ὀλιγότητι, μεταβάλλοντα δὲ κατὰ τὴν σύγκρισιν καὶ διάκρισιν, τὰς δὲ κυρίως ἀρχάς, ὅφ' ὧν κινεῖται ταῦτα, Φιλίαν καὶ Νείκος. δεῖ γὰρ διατελεῖν ἐναλλάξ κινούμενα τὰ στοιχεῖα, ποτὲ μὲν ὑπὸ τῆς Φιλίας συγκρινόμενα, ποτὲ δὲ ὑπὸ τοῦ Νείκου διακρινόμενα· ὥστε καὶ ἐξ εἶναι κατ' αὐτὸν τὰς ἀρχάς.

§§20–21 *Plato Aristotle: Theophrastus Phys.Op.* fr. 21 Diels (fr. 161A FHS&G) at *Taurus* fr. 26B Lakmann at *Philop. Aet.* 520.18–521.2 Θεόφραστος φησιν 'εἰ τὸ ὁρατὸν καὶ τὸ ἀπτόν ἐκ γῆς καὶ πυρὸς ἐστίν, τὰ ἄστρα καὶ ὁ οὐρανὸς ἔσται ἐκ τούτων (Pl. *Tim.* 31B)· οὐκ ἔστιν δέ'. ταῦτα λέγει εἰσάγων τὸ πέμπτον σῶμα τὸ κυκλοφορητικόν. ὅταν οὖν ἐκεῖνο παραστήσῃ, ὅτι ἔστιν, τότε πρὸς ταῦτα ἐνιστάσθω.—σκοπεῖν ἄξιον, πῶς οὐ μόνον ἀληθὲς οἶεταί Πλάτωνα ἐκ τῶν τεσσάρων μόνων στοιχείων συγκεῖσθαι τὸν κόσμον λέγειν ὁ τούτου ἐξηγητῆς Ταῦρος, ἀλλὰ καὶ Θεοφράστῳ μάχεται λέγοντι μὴ εἶναι ἐκ τούτων τὸν οὐρανόν (τῆς γὰρ Ἀριστοτέλους διατριβῆς ὁ Θεόφραστος). *Philo of Alexandria Heres* 283 πέμπτη γάρ, ὡς ὁ τῶν ἀρχαίων λόγος, ἔστω τις οὐσία κυκλοφορητική, τῶν τεττάρων κατὰ τὸ κρεῖττον διαφέρουσα, ἐξ ἧς οἱ τε ἀστέρες καὶ ὁ σύμπας οὐρανὸς ἔδοξε γεγενῆσθαι. *Atticus* fr. 7.1 *Des Places* at *Eus. PE* 15.17.1 ἐλπίσας (sc. Ἀριστοτέλης) περιττότερος φανεῖσθαι τῷ φρονεῖν εἰ τὴ σῶμα ἐκ περιττοῦ προσθείη, προσκατηρίθησε τοῖς φαινομένοις τέτ-

ταρσι σώμασι τὴν πέμπτην οὐσίαν. fr. 8.7 Des Places at Eus. *PE* 15.8.7 ὁ δ' (sc. Ἀριστοτέλης) ἦπερ ἄλλω σώματι ἄλλην, οὕτω δὲ καὶ τὴν ἐν κύκλῳ (sc. κίνησιν), καθάπερ σωματικὴν τινα, τῷ πέμπτῳ προσένειμε σώματι, πάντ' εὐκόλως αὐτὸν ἐξαπατήσας. **Alexander of Aphrodisias** in *Mete.* 5.15–17 λαβὼν (sc. Ἀριστοτέλης) τέσσαρα εἶναι σώματα ἀπλᾶ τε καὶ ἐπ' εὐθείας κινούμενα, εἶναι δὲ καὶ πέμπτον τὸ αἰθέριόν τε καὶ κυκλοφορητικόν, τούτοις χρῆται πρὸς τὴν τῶν προκειμένων θεωρίαν.

§20 Plato: Aristotle *de An.* 3.4 429a27–29 καὶ εὖ δὴ οἱ λέγοντες τὴν ψυχὴν εἶναι τόπον εἰδῶν, πλὴν ὅτι οὔτε ὅλη ἄλλ' ἢ νοητικὴ, οὔτε ἐντελεχεῖα ἀλλὰ δυνάμει τὰ εἶδη. *Met.* A.6 988a7–10 Πλάτων ... φανερόν δ' ἐκ τῶν εἰρημένων ὅτι δυοῖν αἰτίαι μόνον κέχρηται, τῇ τε τοῦ τί ἐστὶ καὶ τῇ κατὰ τὴν ὕλην. *Met.* A.6 987a29–b21 (Test. Plat. 22A Gaiser, 9 Krämer, A1 Isnardi Parente) μετὰ δὲ τὰς εἰρημένας φιλοσοφίας ἡ Πλάτωνος ἐπεγένετο πραγματεία, τὰ μὲν πολλὰ τούτοις ἀκολουθοῦσα, τὰ δὲ καὶ ἴδια παρὰ τὴν τῶν Ἰταλικῶν ἔχουσα φιλοσοφίαν. ... Σωκράτους δὲ περὶ μὲν τὰ ἡθικὰ πραγματευομένου περὶ δὲ τῆς ὅλης φύσεως οὐθέν, ἐν μέντοι τούτοις τὸ καθόλου ζητοῦντος καὶ περὶ ὁρισμῶν ἐπιστήσαντος πρώτου τὴν διάνοιαν, ἐκείνῳ ἀποδεξάμενος διὰ τὸ τοιοῦτον ὑπέλαβεν ὡς περὶ ἐτέρων τοῦτο γιγνόμενον καὶ οὐ τῶν αἰσθητῶν τινος. ... οὕτως οὖν τὰ μὲν τοιαῦτα τῶν ὄντων ιδέας προσηγόρευσε, τὰ δ' αἰσθητὰ παρὰ ταῦτα καὶ κατὰ ταῦτα λέγεσθαι πάντα. ... ἐπεὶ δ' αἰτία τὰ εἶδη τοῖς ἄλλοις, τάκεινων στοιχεῖα πάντων ὥθη τῶν ὄντων εἶναι στοιχεῖα. ὡς μὲν οὖν ὕλην τὸ μέγα καὶ τὸ μικρὸν εἶναι ἀρχάς, ὡς δ' οὐσίαν τὸ ἔν. **Theophrastus** *Phys. Op.* fr. 9 Diels, 230 FHS&G at Simp. in *Phys.* 26.7–15 (verbatim) ὁ μέντοι Θεόφραστος τοὺς ἄλλους προῖστορήσας 'τούτοις, φησὶν, ἐπιγενόμενος Πλάτων, τῇ μὲν δόξῃ καὶ τῇ δυνάμει πρότερος τοῖς δὲ χρόνοις ὕστερος καὶ τὴν πλείστην πραγματείαν περὶ τῆς πρώτης φιλοσοφίας ποιησάμενος, ἐπέδωκεν ἑαυτὸν καὶ τοῖς φαινομένοις ἀψάμενος τῆς περὶ φύσεως ἱστορίας· ἐν ᾗ δύο τὰς ἀρχὰς βούλεται ποιεῖν τὸ μὲν ὑποκείμενον ὡς ὕλην ὃ προσαγορεύει 'πανδεχές' (*Tim.* 51a), τὸ δὲ ὡς αἴτιον καὶ κινεῖν ὃ περιάπτει τῇ τοῦ θεοῦ καὶ τῇ τοῦ ἀγαθοῦ δυνάμει.' ὁ μέντοι Ἀλέξανδρος ὡς τρεῖς λέγοντος τὰς ἀρχὰς ἀπομνημονεύει τὴν ὕλην καὶ τὸ ποιοῦν καὶ τὸ παράδειγμα, καίτοι σαφῶς τὸ τελικὸν αἴτιον τοῦ Πλάτωνος προσθέντος κτλ. **Philo of Alexandria** *Opif.* 20 καθάπερ οὖν ἡ ἐν τῷ ἀρχιτεκτονικῷ προδιατυπωθεῖσα πόλις χώρων ἐκτὸς οὐκ εἶχεν, ἀλλ' ἐνεσφράγιστο τῇ τοῦ τεχνίτου ψυχῇ, τὸν αὐτὸν τρόπον οὐδ' ὁ ἐκ τῶν ιδεῶν κόσμος ἄλλον ἂν ἔχοι τόπον ἢ τὸν θεῖον λόγον τὸν ταῦτα διακοσμήσαντα. **Plutarch** *Is. Osir.* 374F τὸν τε νοῦν ἔνιοι (*Arist. de An.* 3.4 429a27) τόπον εἰδῶν ἀπεφάναντο καὶ τῶν νοητῶν οἶον ἐκμαγεῖον (cf. below ch. 1.9.4). *Quaest. Conv.* 720A–B 'εἴσεσθε ῥαδίως', εἶπον, 'ἀναμνήσαντες αὐτοὺς τῆς ἐν Τιμαίῳ (29e ff.) διαίρεσεως, ἥ διεῖλε τριχῇ τὰ πρῶθ', ὕφ' ὧν τὴν γένεσιν ὁ κόσμος ἔσχεν, ὧν τὸ μὲν θεὸν (B) τῷ δικαιοτάτῳ τῶν ὀνομάτων τὸ δ' ὕλην τὸ δ' ιδέα καλούμεν. ἡ μὲν οὖν ὕλη τῶν ὑποκειμένων ἀτακτότατον ἐστίν, ἡ δ' ιδέα τῶν παραδειγμάτων κάλλιστον, ὁ δὲ θεὸς τῶν αἰτίων ἄριστον. **Alcinous** *Did.* 9 p. 163.11–14 H. ἀρχικὸν δὲ λόγον ἐπεχοῦσης τῆς ὕλης, ἔτι καὶ ἄλλας ἀρχὰς παραλαμβάνει, τὴν τε παραδειγματικὴν, τουτέστι τὴν τῶν ιδεῶν, καὶ τὴν τοῦ πατρός τε καὶ αἰτίου πάντων θεοῦ. **Apuleius** *Plat.* 1.4 p. 91.22–23 *Moreschini initia rerum tria esse arbitrat* *Plato: deum et materiam inabsolutam, informem, nulla specie nec qualitatis significatione distinctam, rerumque formas, quas ιδέας idem vocat.* **Diogenes Laertius** *V.P.* 3.52 περὶ μὲν τῶν

αὐτῷ (sc. τῷ Πλάτῳ) δοκούντων ἀποφαίνεται διὰ τεττάρων προσώπων, Σωκράτους, Τιμαίου, τοῦ Ἀθηναίου ξένου, τοῦ Ἑλεάτου ξένου. **Theodoret** CAG 2.104 (from Eusebius) τῶν γὰρ ἀτοπωτάτων Πλάτωνος μὲν ἀνέχεσθαι καὶ αἴτιον τῆς ὕλης τὸν Θεὸν λέγοντος καὶ ξυναΐδιον τοῦ Θεοῦ τὴν ὕλην ἀποκαλοῦντος καὶ τὰς ἰδέας ἐκ τοῦ Θεοῦ καὶ ξὺν τῷ Θεῷ φάσκοντος εἶναι. **Augustine** C.D. 7.28.15–23 Dombart–Kalb (**Varro** *Ant.Rer.Div.* fr. 206 Cardauns) *hinc etiam Samothracum nobilia mysteria in superiore libro sic interpretatur* (sc. Varro) *eaque se, quae nec suis nota sunt, scribendo expositurum eisque missurum quasi religiosissime pollicetur. dicit enim se ibi multis indiciis collegisse in simulacris aliud significare caelum, aliud terram, aliud exempla rerum, quas Plato appellat ideas; caelum Iovem, terram Iunonem, ideas Minervam vult intellegi; caelum a quo fiat aliquid, terram de qua fiat, exemplum secundum quod fiat.* **Proclus** in *Tim.* 1.357.12–16 καλεῖν δὲ εἰώθασι τὸ μὲν τελικὸν αἴτιον δι' ὃ, τὸ δὲ παραδειγματικὸν πρὸς ὃ, τὸ δὲ δημιουργικὸν ὑφ' οὗ, τὸ δὲ ὀργανικὸν δι' οὗ, τὸ δὲ εἶδος καθ' ὃ, τὴν δὲ ὕλην ἐξ οὗ ἢ ἐν ᾧ, ταῦτα καὶ αὐτῷ τῷ Πλάτῳ δοκούντα τὰ ὀνόματα λαμβάνοντες. **Philoponus** *Aet.* 6.8, p. 147.19–20 Rabe ἔστιν γὰρ ἀρχὴ καὶ ὁ δημιουργὸς καὶ τὸ παράδειγμα καὶ ἡ ὕλη. **Simplicius** in *Phys.* 26.5–7 Πλάτων τρία μὲν τὰ κυρίως αἴτια τίθησι τό τε ποιοῦν καὶ τὸ παράδειγμα καὶ τὸ τέλος, τρία δὲ τὰ συναίτια τὴν τε ὕλην καὶ τὸ εἶδος καὶ τὸ ὄργανον. **Martianus Capella** 7.733 *idem mundana perfectio est* (sc. trias); *nam monadem fabricatori deo, dyadem materiae procreanti, triadem idealibus formis consequenter aptamus.* (cf. below ch. 1.7, Commentary D(d)§22.)

§21 **Aristotle:** *Aristotle Phys.* 1.7 191a15–21 πρῶτον μὲν οὖν ἐλέχθη ὅτι ἀρχαὶ τὰναντία μόνον, ὕστερον δ' ὅτι ἀνάγκη καὶ ἄλλο τι ὑποκεῖσθαι καὶ εἶναι τρία· ἐκ δὲ τῶν νῦν φανερόν τις ἡ διαφορὰ τῶν ἐναντίων, καὶ πῶς ἔχουσιν αἱ ἀρχαὶ πρὸς ἀλλήλας, καὶ τί τὸ ὑποκείμενον. πότερον δὲ οὐσία τὸ εἶδος ἢ τὸ ὑποκείμενον, οὕτω δὴλον. ἀλλ' ὅτι αἱ ἀρχαὶ τρεῖς καὶ πῶς τρεῖς, καὶ τίς ὁ τρόπος αὐτῶν, δὴλον. *Met.* A.1 1069b32–34 τρία δὴ τὰ αἴτια καὶ τρεῖς αἱ ἀρχαί, δύο μὲν ἡ ἐναντίωσις, ἥς τὸ μὲν λόγος καὶ εἶδος τὸ δὲ στέρησις, τὸ δὲ τρίτον ἡ ὕλη. *Cael.* 1.3 270b1–3 διότι μὲν οὖν αἰθῆρον καὶ οὐτ' αὖξησιν ἔχον οὔτε φθίσιν, ἀλλ' ἀγήρατον καὶ ἀναλλοίωτον καὶ ἀπαθές ἐστι τὸ πρῶτον τῶν σωμάτων. *GC* 2.3 330a30–b1 ἐπεὶ δὲ τέτταρα τὰ στοιχεῖα, τῶν δὲ τεττάρων ἔξ αἱ συζεύξεις, τὰ δ' ἐναντία οὐ πέφυκε συνδυάζεσθαι (θερμὸν γὰρ καὶ ψυχρὸν εἶναι τὸ αὐτὸ καὶ πάλιν ξηρὸν καὶ ὑγρὸν ἀδύνατον), φανερόν ὅτι τέτταρες ἔσονται αἱ τῶν στοιχείων συζεύξεις, θερμοῦ καὶ ξηροῦ, καὶ θερμοῦ καὶ ὑγροῦ, καὶ πάλιν ψυχροῦ καὶ ὑγροῦ, καὶ ψυχροῦ καὶ ξηροῦ. *Mete.* 4.1 378b10–13 ἐπεὶ δὲ τέτταρα αἴτια διώρισται τῶν στοιχείων, τούτων δὲ κατὰ συζυγίας καὶ τὰ στοιχεῖα τέτταρα συμβέβηκεν εἶναι, ὧν τὰ μὲν δύο ποιητικά, τὸ θερμὸν καὶ τὸ ψυχρὸν, τὰ δὲ δύο παθητικά, τὸ ξηρὸν καὶ τὸ ὑγρὸν. **ps.Plato** i.e. **Philip of Opus** *Epin.* 981b–c στερεὰ δὲ σώματα λέγεσθαι χρή κατὰ τὸν εἰκότα λόγον πέντε, ἐξ ὧν κάλλιστα καὶ ἀρισταί τις ἂν πλάττοι ... πέντε οὖν ὄντων τῶν σωμάτων, πῦρ χρή φάναι καὶ ὕδωρ εἶναι καὶ τρίτον ἀέρα, τέταρτον δὲ γῆν, πέμπτον δὲ αἰθέρα. **ps.Aristotle** *Mu.* 2 392a7–9 ἀλλὰ διὰ τὸ αἰεθεῖν κυκλοφοροῦμένην, στοιχεῖον οὖσαν ἕτερον τῶν τεττάρων, ἀκῆρατόν τε καὶ θεῖον. *Mu.* 2 392a31–33 τὴν αἰθέριον καὶ θεῖαν φύσιν, ἥντινα τεταγμένην ἀποφαίνομεν, ἔτι δὲ ἄτρεπτον καὶ ἀνετεροίωτον καὶ ἀπαθῆ. **ps.Philolaus** 44B12 DK at Stob. *Ecl.* 1.pr., p. 18.5–7 καὶ τὰ ἐν τῇ σφαίρᾳ σώματα πέντε ἐντὶ· τὰ ἐν τῇ σφαίρᾳ, πῦρ,

ὑδωρ καὶ γὰ καὶ ἄηρ, καὶ (τ)ὸ τῆς σφαίρας ὄλ[κ]ας, πέμπτον [(τ)ὸ scripsimus, δ codd.; ὄλ[κ]ας Zeller]. **Cicero Tusc.** 1.22 (**Aristotle de Phil.** fr. 22 Walzer/Ross) *cum quattuor nota illa genera principiorum esset complexus, e quibus omnia orerentur, quintam quandam naturam censet esse, e qua sit mens.* **Galen MM** 10.772.2–5 Ἀριστοτέλης αὐτὸς οὐκ ἐφύλαξε τὴν ἑαυτοῦ νομοθεσίαν ἐν τοῖς ὀνόμασιν, ἡνίκα τὰς ἀρχὰς τῶν ὑπὸ φύσεως διοικουμένων ὕλην ἔθετο καὶ εἶδος καὶ στέρησιν. **Alexander of Aphrodisias Mixt.** 223.10–11 ἡ τοῦ θεοῦ τε καὶ κυκλοφορητικοῦ καὶ αἰθερίου σώματος φύσις. *in Mete.* 2.16–17 πρῶτον μὲν στοιχεῖον λέγων τῶν σωμάτων τὸ κυκλοφορικόν τε καὶ αἰθέριον σῶμα. **Plotinus Enn.** 2.5[25].3.18–19 οἷον καὶ Ἀριστοτέλης φησὶ τὸ πέμπτον σῶμα ἄυλον εἶναι. **Simplicius in Phys.** 25.18–19 (**Theophrastus Phys.Op.** fr. 3 Diels, 227A FHS&G) οἱ δὲ τρεῖς (sc. τὰς ἀρχὰς), ὡς ὕλην καὶ τὰ ἐναντία Ἀριστοτέλης. *in Phys.* 25.15–18 οἱ μὲν δύο (sc. τὰς ἀρχὰς) ... ὡς οἱ Στωικοὶ (*SVF* 2.312) θεὸν καὶ ὕλην, οὐχ ὡς στοιχεῖον δηλονότι τὸν θεὸν λέγοντες, ἀλλ' ὡς τὸ μὲν ποιοῦν, τὸ δὲ πάσχον.

§23 Zeno Stoicus: Cicero Varr. 24 *de natura autem ... ita dicebant, ut eam dividerent in res duas, ut altera esset efficiens, altera autem quasi huic se prae-bens, eaque efficeretur aliquid.* **Seneca Ep.** 65.2 *dicunt, ut scis, Stoici nostri (SVF 2.303) duo esse in rerum natura ex quibus omnia fiant, causam et materiam. materia iacet iners, res ad omnia parata, cessatura si nemo moveat; causa autem, id est ratio, materiam format et quocumque vult versat, ex illa varia opera producit. esse ergo debet unde fiat aliquid, deinde a quo fiat: hoc causa est, illud materia.* *Ep.* 65.23 *nempe universa ex materia et ex deo constant.* **Plutarch CN** 1085B–C καὶ μὴν οὗτοι (*SVF* 2.313) τὸν θεὸν ἀρχὴν ὄντα σῶμα νοερόν καὶ νοῦν ἐν ὕλῃ ποιοῦντες οὐ καθαρὸν οὐδὲ ἀπλοῦν οὐδ' ἀσύμμετον ἀλλ' ἐξ ἐτέρου καὶ δι' ἕτερον ἀποφαίνουσιν. ἡ δὲ ὕλη καθ' αὐτὴν ἄλογος (C) οὕσα καὶ ἄποιος τὸ ἀπλοῦν ἔχει καὶ τὸ ἀρχοειδές. **Alexander of Aphrodisias Mixt.** 225.3–4 εἰ γὰρ θεὸς κατ' αὐτοῦς (*SVF* 2.310) σῶμα, πνεῦμα ὦν νοερόν τε καὶ αἰθερίον, καὶ ἡ ὕλη δὲ σῶμα κτλ.

Hairesis (school, sect): Clement of Alexandria Strom. 8.16.2 (*SVF* 1.121) αἵρεσις ἐστὶ πρόσκλησις δογμάτων ἥ, ὡς τινες, πρόσκλησις δόγμασι πολλοῖς ἀκολουθίαν πρὸς ἄλληλα καὶ τὰ φαινόμενα περιέχουσι πρὸς τὸ εὖ ζῆν συντείνουσα. καὶ τὸ μὲν δόγμα ἐστὶ κατὰληψις τις λογική, κατὰληψις δὲ ἕξις καὶ συγκατάθεσις τῆς διανοίας. **ps.Galen Def.Med.** 19.352.5–15 K. 1β'. αἵρεσις ἐστὶ πλήθους δογμάτων πρόσκλησις τεχνικῶς συντεταγμένων καὶ ἐφ' ἐν τέλος ἐχόντων τὴν ἀναφοράν. ἡ οὕτως. αἵρεσις ἐστὶ σύστημα δογμάτων ἀκολουθούντων ἀλλήλοις τε καὶ τοῖς φαινομένοις ἢ νομιζομένων ἀκολουθεῖν. δύναται δὲ ἂν τις καὶ οὕτως εἰπεῖν. αἵρεσις ἐστὶ συγκατάθεσις πλειόνων δογμάτων ἀλλήλοις καὶ τοῖς φαινομένοις ἀκολουθούντων ἢ νομιζομένων ἀκολουθεῖν. εὐρίσκεται δὲ καὶ τοιοῦτός τις ὁρος. αἵρεσις ἐστὶ πρόσκλησις πλήθους δογμάτων ἀκολουθίαν ἐχόντων ἑαυτοῖς καὶ τοῖς φαινομένοις. ἡ οὕτως. αἵρεσις ἐστὶ πρόσκλησις ἐπὶ πλήθει δογμάτων ἀκολουθίαν ἐχόντων πρὸς ἄλληλα ἐφ' ἐν τέλος. For sects see also **Celsus Med. prooem.** 6–11 cited below; also **Galen** 19.12.34 K. Περὶ αἱρέσεων τοῖς εἰσαγομένοις (δὲ πρῶτον ἂν εἴη πάντων ἀναγνωστέον), etc.

Succession: For Greek texts see above, section E(a) §6, §8. **Celsus Med. prooem.** 6–11 *primoque medendi scientia sapientiae pars habebatur, ut et morborum curatio, et rerum naturae contemplatio sub iisdem auctoribus nata sit:*

scilicet iis hanc maxime requirentibus, qui corporum suorum robora quieta cogitatione, nocturnaque vigilia minuerant. ideoque multos ex sapientiae professoribus peritos ejus fuisse accepimus; clarissimos vero ex iis Pythagoram (—), et Empedoclem (—), et Democritum (unecht 68B10 DK). hujus autem, ut quidam crediderunt, discipulus Hippocrates Cous, primus quidem ex omnibus memoria dignis, ab studio sapientiae disciplinam hanc separavit, vir et arte et facundia insignis. post quem Diocles Carystius (fr. 2 Van der Eijk), deinde Praxagoras (fr. 3 Steckerl) et Chrysippus (—), tum Herophilus (T2 Von Staden) et Erasistratus (fr. 9 Garofalo) sic artem hanc exercuerunt, ut etiam in diversas curandi vias processerint. ... post quos Serapion, primus omnium, nihil hanc rationalem disciplinam pertinere ad medicinam professus, in usu tantum et experimentis eam posuit. quem Apollonius, et Glaucias, et aliquanto post Heracclides Tarentinus (fr. 4 Deichgräber), et alii quoque non mediocres viri sequuti, ex ipsa professione se ἐμπειρικούς appellaverunt. sic in duas partes ea quoque, quae victu curat, medicina divisa est, aliis rationalem artem, aliis usum tantum sibi vindicantibus: nullo vero quidquam post eos qui supra comprehensi sunt, agitante, nisi quod acceperat, donec Asclepiades (cf. Vallance ANRW 2.37.1, p. 714) medendi rationem ex magna parte mutavit. ex cujus successoribus Themison nuper ipse quoque quaedam in senectute deflexit. **Sextus Pomponius Enchiridion** at Iust. Pand. 1 tit. 2 rubr. 2.35 ff. iuris civilis scientiam plurimi et maximi viri professi sunt: sed qui eorum maximae dignationis apud populum Romanum fuerunt, eorum in praesentia mentio habenda est, ut appareat, a quibus et qualibus haec iura orta et tradita sunt. et quidem ex omnibus, qui scientiam nanci sunt, ante Tiberium Coruncanium publice professum neminem traditur: ceteri autem ad hunc vel in latenti ius civile retinere cogitabant solumque consultatoribus vacare potius quam discere volentibus se praestabant. (36) fuit autem in primis peritus Publius Papirius, qui leges regias in unum contulit. ab hoc Appius Claudius unus ex decemviris, cuius maximum consilium in duodecim tabulis scribendis fuit. ... (37) fuit post eos maximae scientiae Sempronius ... (etc.). *Enchiridion* ap. Iust. Pand. 1 tit. 2 rubr. 2.47 post hunc [sc. Tuberonem] maximae auctoritatis fuerunt Ateius Capito, qui Ofilius secutus est, et Antistius Labeo, qui omnes hos audivit, institutus est autem a Trebatio. ... hi duo primum veluti diversas sectas fecerunt: nam Ateius Capito in his, quae ei tradita fuerant, perseverabat, Labeo ingenii qualitate et fiducia doctrinae, qui et ceteris operis sapientiae operam dederat, plurima innovare instituit

Liber 1 Caput 4

P^B : ps.Plutarchus *Plac.* 878C–F; pp. 289^a5–291^a9 Diels—**P^E**: Eusebius *PE* 15.32, pp. 405.4–406.5 Mras—**P^G** : ps.Galenus *HPh* c. 33; p. 617.8–11 Diels; pp. 109–115 Jas—
P^Q: Qustā ibn Lūqā pp. 106–109 Daiber—**P^{Ps}** : Psellus *Omn.Doctr.* 151, pp. 78–79 Westerink

Titulus δ'. Πῶς συνέστηκεν ὁ κόσμος (P)

§1 ὁ τοίνυν κόσμος συνέστη περιεκεκλασμένῳ σχήματι ἐσχηματισμένος τὸν τρόπον τοῦτον. τῶν ἀτόμων σωμάτων ἀπρονόητον καὶ τυχαίαν ἐχόντων τὴν κίνησιν συνεχῶς τε καὶ τάχιστα κινουμένων εἰς τὸ αὐτό, πολλὰ σώματα συνηθροίσθη διὰ τοῦτο, ποικιλίαν ἔχοντα καὶ σχημάτων καὶ 5
μεγεθῶν. ἀθροιζομένων δ' ἐν ταύτῳ τούτων, τὰ μὲν, ὅσα μείζονα ἦν καὶ βαρύτερα, πάντως ὑπεκάθισεν· ὅσα δὲ μικρὰ καὶ περιφερῆ καὶ λεῖα καὶ εὐόλισθα, ταῦτα καὶ ἐξεθλίβετο κατὰ τὴν σύνοδον τῶν σωμάτων εἰς τε τὸ μετέωρον ἀνεφέρετο. ὥς δ' οὖν ἐξέλιπε μὲν ἡ πληκτικὴ δύναμις μετεωρίζουσα, οὐκέτι δ' ἦγεν ἡ πληγὴ πρὸς τὸ μετέωρον, ἐκωλύετο δὲ 10
ταῦτα κάτω φέρεσθαι, ἐπιέζετο πρὸς τοὺς τόπους τοὺς δυναμένους δέξασθαι· οὗτοι δ' ἦσαν οἱ πέριξ, καὶ πρὸς τούτοις τὸ πλῆθος τῶν σωμάτων περιεκλάτο, περιπλεκόμενα δ' ἀλλήλοις κατὰ τὴν περικλασιν τὸν οὐρανὸν ἐγέννησεν. τῆς δ' αὐτῆς ἐχόμενα φύσεως αἱ ἄτομοι, ποικίλα οὖσαι, καθὼς εἴρηται, πρὸς τὸ μετέωρον ἐξωθούμεναι τὴν τῶν 15
ἀστέρων φύσιν ἀπετέλουν· τὸ δὲ πλῆθος τῶν ἀναθυμιωμένων σωμάτων

§1 67A24 DK (Leucippus), fr. 308 Usener (Epiurus)

caput non hab. S **titulus** συνέστηκεν] συνέστη P^{Ps}, cf. P^{E2}, al. *wie (entstand) die Festigkeit der Welt?* Q §1 [2] συνέστη P^B : om. P^E, συνέστηκε P^G (qui ordinem verborum mutat σ. τοίνυν ὁ κόσμος), al. *die Festigkeit der Welt ... entstand* (om. περιεκεκλασμένῳ) Q || [2] ἐσχηματισμένος P^{BG} : ἐσχημάτισται P^E || σχήματι] om. P^G, rest. Jas [4] πολλὰ] τὰ πολλὰ P^{B(II)} || [5] post συνηθροίσθη hab. P^{BE} καὶ, del. edd. || καὶ P^B : om. P^E || [6] post μεγεθῶν coni. Usener καὶ βαρύν || [7–9] βαρύτερα ... ἀνεφέρετο : al. P^G τῶν μὲν βαρυτάτων σωμάτων (εἰς τὸ) coni. Diels) κάτω, τῶν δὲ κουφοτάτων εἰς τὸ ἄνω φερομένων || [7] βαρύτερα P^{BE^{Ps}}, cf. P^G βαρυτάτων : βαρύτερα coni. Usener Diels : *groß und schwer* Q || πάντως P^B : πάντων P^E || [8] εὐόλισθα P^B : εὐολίσθητα P^E || καὶ P^B : om. P^E || κατὰ ... σωμάτων P^{B(II)} : κατὰ σωμάτων σύνοδον P^{B(II)}, κατὰ σωμάτων τὴν σύνοδον P^{B(III)} || σωμάτων] ἀτόμων coni. Usener Diels VS || τε P^B : δὲ P^E || [9–12] ὥς δ' οὖν ... πέριξ] al. P^G τῶν δὲ πέριξ ἐκ τούτων συνηρμοσμένων || [9] μὲν P^B : om. P^E || [10] οὐκέτι ... μετέωρον] om. Q || [11] ἐπιέζετο P^B : ἐβιάζετο P^E || [12] δ' P^B : om. P^E || [14] αἱ P^E : om. P^B || [15] καθὼς εἴρηται] om. Q || ἐξωθούμεναι] *und wenn sich der eine von ihnen in den anderen einhüllte* Q || [16] ἀστέρων P^B : ἄστρον P^E

ἐπληττε τὸν ἀέρα καὶ τοῦτον ἐξέθλιβε· πνευματούμενος δ' οὗτος κατὰ τὴν κίνησιν καὶ συμπεριλαμβάνων τὰ ἄστρα συμπεριῆγε ταῦτα καὶ τὴν νῦν περιφορὰν αὐτῶν μετέωρον ἐφύλαττε. ἀπείτα ἐκ μὲν τῶν ὑποκαθιζόντων ἐγεννήθη ἡ γῆ, ἐκ δὲ τῶν μετεωριζομένων οὐρανὸς πῦρ ἀήρ. 20 πολλῆς δ' ὕλης ἔτι περιειλημμένης ἐν τῇ γῇ, πυκνουμένης τε ταύτης κατὰ τὰς ἀπὸ τῶν πνευμάτων πληγὰς καὶ τὰς ἀπὸ τῶν ἀστέρων αὐγὰς, προσεθλίβετο πᾶς ὁ μικρομερὴς σχηματισμὸς ταύτης καὶ τὴν ὑγρὰν φύσιν ἐγέννα· ῥευστικῶς δ' αὕτη διακειμένη κατεφέρετο πρὸς τοὺς κοίλους τόπους καὶ δυναμένους χωρῆσαι τε καὶ στέξει, ἢ καθ' αὐτὸ τὸ 25 ὕδωρ ὑποστὰν ἐκοίλανε τοὺς ὑποκειμένους τόπους. (P1)

§2 τὰ μὲν οὖν κυριώτατα μέρη τοῦ κόσμου τὸν τρόπον τοῦτον ἐγεννήθη. (P2)

[18] συμπεριλαμβάνων P^B : περιλαμβάνων P^{EQ} || συμπεριῆγε ταῦτα P^B : συμπεριῆγεν αὐτὰ P^{EQ} || [19] νῦν περιφορὰν P^B : συμπεριφορὰν P^E || [21] ἔτι περιειλημμένης P^{B(II)E} : ἐμπεριειλημμένης P^{B(I)} : περιειλημμένης P^{B(II)Q} (ut vid.) || [22] πνευμάτων P^B : σωμάτων P^E Usener || αὐγὰς P^{EQ} Usener : αὐρὰς P^B Diels Mau Lachenaud || [23] πᾶς] om. Q || [25] τόπους] Orte der Erde Q || [27] τὰ ... ἐγεννήθη non hab. P^E || οὖν P^{(I,II)E} : om. P^{(I,II)A}Q

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 33 (~ tit.) Πῶς συνέστηκεν ὁ κόσμος (text Jas)

33.1 (~ P1) συνέστηκε τοῖνον ὁ κόσμος περικεκλασμένῳ (σχήματι) ἐσχηματισμένος τὸν τρόπον τοῦτον, τῶν μὲν βαρυτάτων σωμάτων (εἰς τὸ) κάτω, τῶν δὲ κουφοτάτων εἰς τὸ ἄνω φερομένων, τῶν δὲ πέριξ ἐκ τούτων συννηροσμένων.

Psellus Omn.Doctr. c. 151 (~ tit.) Πῶς συνέστη ὁ κόσμος (~ tit.)

τὴν σύστασιν ὁ κόσμος ἔλαβεν ἀπὸ τῆς φύσεως καὶ κινήσεως τῶν στοιχείων. ἐπειδὴ γὰρ τούτων τὰ μὲν εἰσὶ κουφότατα, οἷον πῦρ καὶ ἀήρ, τὰ δὲ βαρυτάτα, οἷον ὕδωρ καὶ γῆ, τὰ μὲν ὅσα βαρυτάτα κάτω τοῦ παντὸς ὑπεκάθητο, τὰ δ' ὅσα κουφότατα εἰς τὸ μετέωρον ἐξέθλιβετο, τὰ δ' αὐτὰ ταῦτα καὶ εἰς τὸ πέριξ ἐφέρετο. πᾶν δὲ τὸ ἀπὸ γῆς φερόμενον ἄνω ἐστὶ. διὰ ταύτην οὖν τὴν αἰτίαν οἷον περικεκλασμένος καὶ κυρτὸς ὁ κόσμος ἐστὶ. συνθλιβομένων δὲ τῶν σωμάτων ἀλλήλοις ἡ τοῦ ὕδατος ἐγεννήθη φύσις, ῥευστικῶς δὲ τοῦτο καταφερόμενον ἐκοίλανε τοὺς ὑποκειμένους τόπους καὶ τοὺς καλουμένους κόλπους θαλαττίους ἐποίησεν. ἐκ μὲν οὖν τῶν ὑποκαθιζόντων σωμάτων ἐγεννήθη ἡ γῆ, ἐκ δὲ τῶν μετεωριζομένων οὐρανός, πῦρ, ἀήρ (P1).

Loci Aetiani:

titulus A 3.16 Περί θαλάττης, πῶς συνέστηκεν καὶ πῶς ἐστὶ πικρά.

§1 A 1.3.16 Ἐπικούρου ... ἔφη τὰς ἀρχὰς τῶν ὄντων σώματα, λόγῳ θεωρητά, ἀμέτοχα κενοῦ, ἀγέννητα, ἀδιάφθαρτα, οὔτε θραυσθῆναι δυνάμενα οὔτε διαπλασθῆναι ἐκ τῶν μερῶν λαβεῖν οὐτ' ἀλλοιωθῆναι· εἶναι δ' αὐτὰ λόγῳ θεωρητά· ταῦτα μὲν-

τοι κινεῖσθαι ἐν τῷ κενῷ καὶ διὰ τοῦ κενοῦ· εἶναι δὲ καὶ αὐτὸ τὸ κενὸν ἄπειρον καὶ τὰ σώματα ἄπειρα. συμβεβηκέναι δὲ τοῖς σώμασι τρία ταῦτα, σχῆμα μέγεθος βάρος. ... ὁ δ' Ἐπίκουρος τούτοις καὶ τρίτον, τὸ βάρος, ἐπέθηκεν· ἀνάγκη γάρ, φησί, 'κινεῖσθαι τὰ σώματα τῇ τοῦ βάρους πληγῇ· ἐπεὶ οὐ κινήθησεται'. εἶναι δὲ τὰ σχήματα τῶν ἀτόμων ἀπερίληπτα, οὐκ ἄπειρα. A 1.5.4 ἄφθαρτος δ' οὐκ ἔστιν (sc. ὁ κόσμος) οὐδὲ δύναται εἶναι, γενητὸς ὢν. A 1.12.5 Ἐπίκουρος ἀπερίληπτα εἶναι τὰ σώματα, καὶ τὰ πρῶτα δὲ ἀπλᾶ, τὰ δὲ ἐξ ἐκείνων συγκρίματα πάντα βάρος ἔχειν. κινεῖσθαι δὲ τὰ ἄτομα τότε μὲν κατὰ στάθμην, τότε δὲ κατὰ παρέγκλισιν· τὰ δὲ ἄνω κινούμενα κατὰ πληγὴν καὶ ἀποπαλμόν. A 1.15.4 οἱ ἀπὸ Λευκίππου τὰ ἄτομα πολυσχήμονα. A 1.24.2 Ἐμπεδοκλῆς Ἀναξαγόρας Δημόκριτος Ἐπίκουρος καὶ πάντες, ὅσοι κατὰ συναθροισμὸν τῶν λεπτομερῶν σωμάτων κοσμοποιοῦσι, συγκρίσεις μὲν καὶ διακρίσεις εἰσάγουσι, γενέσεις δὲ καὶ φθοράς οὐ κυρίως· οὐ γὰρ κατὰ τὸ ποιὸν ἐξ ἀλλοιώσεως, κατὰ δὲ τὸ ποσὸν ἐκ συναθροισμοῦ ταύτας γίνεσθαι. A 2.3.2 Λεύκιππος δὲ καὶ Δημόκριτος καὶ Ἐπίκουρος καὶ ὅσοι τὰ ἄτομα εἰσηγοῦνται καὶ τὸ κενὸν οὐτ' ἔμψυχον οὔτε προνοίᾳ διοικεῖσθαι, φύσει δὲ τινι ἀλόγῳ. A 2.4.1 Πυθαγόρας Ἡράκλειτος γενητὸν κατ' ἐπίνοιαν τὸν κόσμον, οὐ κατὰ χρόνον. A 2.4.2 οἱ Στωικοὶ ὑπὸ θεοῦ (sc. γεγενῆσθαι τὸν κόσμον). A 2.4.3 Ἐπίδικος ὑπὸ φύσεως γεγενῆσθαι τὸν κόσμον. A 2.4.4 Ἀρχέλαος ὑπὸ θερμοῦ καὶ ἐμψυχίας συστήναι τὸν κόσμον.

§2 A 4.prooem. Περιωδευμένων δὲ τῶν τοῦ κόσμου μερῶν διαβήσομαι πρὸς τὰ κατὰ μέρος.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The chapter is only preserved in the tradition of P. It is written out fully in P^B and Q, i.e. inclusive of §2, and in E without §2, with E providing numerous interesting textual variants that may go back to the early history of the text. E, writing his own work, has no use for P's (i.e. A's) authorial remarks. G reduces the long account to just three lines and Ps only takes over the main themes of the description, combining them with other material and carefully expunging all references to atomism.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition, apart from brief passages in Hippolytus (who *Ref.* 1.12.2 attributes a version of the cosmogony to Leucippus), is represented by the account of Leucippus' cosmogony in Diogenes Laertius *V.P.* Book 9, and esp. by the cosmogony in Lucretius *DRN* Book 5. The resemblance between our chapter and Diogenes' Leucippean cosmogony has led to

the attribution of ch. 1.4 to Leucippus as 67A24 DK ('Auszug aus dem Μέγας διάκοσμος' DK ad loc.), but to us this ascription seems less likely, though of course the report is in what one may call the Leucippean tradition. The overall structure and numerous details of Lucretius' version are in entire agreement with what is found in our chapter. In fact §1 reads like a series of excerpts from Lucretius or conversely, see Robin on Lucretius and the doctrine of A 1.4 at Ernout–Robin (1928) 3.55: 'On verra avec quelle fidélité L(ucrèce) l'interprète'. Another proximate parallel is provided by Dionysius of Alexandria in Eusebius, who seems to be dependent on the *Placita* tradition (cf. below at ch. 1.14, Commentary D(d)§6). It is to be noted that Epicurus, *Ep. Pyth.* 89–90, sharply criticizes certain aspects of what is in fact the account given by Lucretius and A. But in the context of the present inquiry we cannot attempt to solve the problem of the relation between Lucretius' and Epicurus' diverging versions of the cosmogony, or find a solution for the question of the Epicurean vs. the Leucippean origin of the contents of the chapter. Worthwhile discussion and rich material are to be found at Spoerri (1959) 6–30; see also Bakker (2016) 224–235.

(2) *Sources.* The ultimate sources of §1 will be works of Leucippus and Democritus as well as of Epicurus and his followers. In favour of an Epicurean source is the reference to the weight of the larger atoms (§1[7] βαρύτατα), and the continuity of the principal ideas from Leucippus to his own time is attested by Cicero *ND* 1.66 (cited at section E(a)§1) and others.

C Chapter Heading

(1) A quite precise formula and a fairly common expression, dealing with the sub-question *unde* and the question type of cause, with some variations attested by the sources. In phrases about the generation of the cosmos the form συνέστηκε(ν) is rather more common than συνέστη, which explains Diels' and our preference for the longer form. συνέστη is perhaps more poetical, cf. Euripides fr. 910.6–7 Kannicht (Anaxagoras 59A30 DK) κόσμον ἀγήρων, πῇ τε συνέστη / καὶ ὅπῃ καὶ ὅπως—but see also e.g. Aristotle *Cael.* 1.10 279b25, Philo *Plant.* 7. On the other hand the fact that the text of the lemma itself has κόσμος συνέστη may weigh in favour of the reading of P^{E2} and P^{Ps}. The parallels in the *Placita*, found in the headings of chs. 2.13 and 3.16, have συνέστη not συνέστηκε(ν): 2.13 Τίς οὐσία τῶν πλανητῶν καὶ ἀπλανῶν, καὶ πῶς συνέστη, 3.16 Περί θαλάσσης, πῶς συνέστη καὶ πῶς ἔστι πικρά. *Ad sententiam* there is of course no difference.

(2) Among the *Placita* headings beginning with Πῶς or containing πῶς a little later there are several with the formula πῶς γίνεται (or γίνονται), all revealing a particular interest in the causal elucidations of a problem. See e.g. chs. 2.19 ... πῶς γίνεται χειμῶν καὶ θέρος, 3.17 Πῶς ἀμπώτιδες γίνονται καὶ πλήμμυραι. Πῶς +

γίνονται or γίνονται is found particularly in headings in the last book. On headings see further above at ch. 1.1, Commentary C.

D Analysis

a Context

(1) *Introduction.* The chapter belongs with the introduction of the treatise to the extent that, after ch. 1.3 on the material (and occasionally other) principles, it provides in §1 a compacted history of the generation of the cosmos and its main parts, albeit from an Atomist point of view. For all this one-sidedness it still preludes upon Books 2 and 3 as a whole. Now ch. 1.4, exclusively Atomist, only speaks of a single cosmos, so the reader may wonder why there is no mention of the usual multiplicity of kosmoi according to the Atomists. Presumably this is because this single cosmos very much resembles our world, so in fact serves as the world of the *Placita*. In the next chapter, 1.5, moreover, the single cosmos or All is opposed to the infinitely many kosmoi of the Atomists (an issue that is also part of the problem in ch. 2.1), so the topic is postponed for a little while rather than avoided.

We may add that, though our present chapter (i.e. §1) could very well have found a place at the beginning of Book 2, it fulfils an important role in its present position. Together with ch. 1.3 as its immediate predecessor and ch. 1.5 as its sequel, it demonstrates that the treatise is to an important extent about physics in the sense of cosmogony and cosmology, and not concerned with theoretical and abstract conceptions alone. In fact, as pointed out M–R 2.1.22–24 and 2.1.54, the block consisting of chs. 6–29, dealing with more abstract matters, have so to speak been interpolated in a detailed account of cosmology comprising chs. 1.4–5 plus Book 2. What is more, Ach ch. 3, ‘On the principle of the whole’, is parallel to A 1.3, while Ach ch. 4, ‘On the construction of the whole’, is parallel to A 1.4. This parallel of sequence and contents in A and its proximate source shows that A’s order, or the inclusion in the introductory section of the cosmogonical ch. 1.4, is not *contra morem*, but *pace* Diels *DG* 58 agrees with the broader tradition; see M–R 2.1.127–129. Of some importance is also the fact that in ch. 1.3.2 (Anaximander), 1.3.4 (Anaxagoras), and 1.3.9 (Hippasus Heraclitus), cosmogony, even inclusive of some details, is briefly mentioned after the principles or elements from which things come forth. And this is already the case in Theophrastus in Simplicius on Anaximander (*Phys.Op.* fr. 2 Diels ~ 226A FHS&G) and Anaxagoras (*Phys.Op.* fr. 4 Diels ~ 228A FHS&G); see M–R 2.1.132–133 for the details. For the influence of Platonist and Stoic orderings see above ch. 1.3, Commentary D(a).

(2) *Authorial comment.* The final sentence (§2), summarizing the cosmogony of §1, is an authorial comment understandably omitted by E (inadvertently

incorporated by Diels 67A24 DK *ad finem*). It is comparable to those made at other nodal points of the treatise. The corresponding proem of Book 4 (Greek text cited *loci Aetiani* §2), looking back on Books 2 and 3 and forward to the contents of Books 4 and 5 and thus placed in the *omphalos* position as regards these preceding and following Books, states that ‘The parts of the cosmos having now been treated systematically, I shall continue in the direction of the particular phenomena’. See further M–R 2.1.42–59 and General Introduction 2.7.

b Number–Order of Lemmata

(1) We need not assume that lemmata providing alternative cosmogonies have been abridged away (see above), but cannot of course be certain. What nevertheless causes some surprise is that the view of Aristotle and others that the cosmos is ungenerated and everlasting is lacking. Accordingly the opportunity is missed of presenting a standard diaphonia, for which see e.g. already Plato *Tim.* 28b, then e.g. Diodorus Siculus 1.6.3, with reference to philosophers of nature (φυσιολόγοι) and historians, or the three choices of Philo *Aet.* 9 (see below section E(b)§1). Possibly the omission (if omission it is) is deliberate and economical in view of the presence of this issue in the next chapter, 1.5.4, and esp. of the whole series of alternatives in ch. 2.4 below (with emphasis on the destructibility of the cosmos, as is also clear from its heading); see ch. 2.4, Commentary B.

(2) The authorial remark in §2 follows upon §1 in the same way as the authorial remark in ch. 3.8.2 follows a first lemma of the standard type.

c Rationale–Structure of Chapter

The *skopos* (aim) of the chapter is to provide a short and introductory account of the generation of *the* cosmos and its main parts. At a first glance the choice of an Atomist account of cosmogony causes some surprise in a treatise that in the prologue intimates and in its first chapter declares its preference for Peripatetic thought. The reason why an available Atomist account was chosen seems to be purely pragmatic: it is very systematic, discusses matters in sequence, and still manages to be comparatively brief and quite detailed, so is quite useful from a didactic point of view. The cosmos at issue resembles or rather *is* our cosmos, not one of the oddly shaped kosmoi in found in infinite space according to Epicurus (cf. A 2.2.5). Actually neither infinite space nor the infinitely many other kosmoi found in infinite space according to Epicurus’ master Metrodorus in the next chapter are mentioned here. This emphasis on the origin of a single cosmos just like ours may help explain why the lemma lacks a name-label.

Comparable accounts of Platonist or Stoic origin may have been less informative within a small compass. Cf. M–R 2.1.22–23, 50–51. An option that is cer-

tainly lacking is the widely popular creationist view associated with the cosmogony of Plato's *Timaeus*. A's secularist penchant may be responsible, for which see above, ch. 1.1, Commentary D(c) *ad finem*. Atomist and creationist cosmogonies are often opposed to each other, e.g. Pl. *Phlb.* d–e and Basil *in Hexaem.* 1.2, p. 3.14–4.17 Amand de Mendieta–Rudberg.

d Further Comments

Individual Points

§1[16] A does not appear to distinguish clearly in his terminology between ἄσπερες and ἄστρα. Certainly it is not possible to consistently translate the former as 'planets' and the latter as 'stars'. See further our comments on ch. 2.13 Commentary D(a). In l. 16 there is a discrepancy between P^B and P^E precisely on this point, with P^B reading ἀστέρων and P^E ἄστρον. It is safest in all three cases (l. 16, 18 and 22) to translate 'heavenly bodies'.

§1[23] Is the drying out of the earth caused only by the winds resulting from the revolution of the heavens and the air below it, or also by the heat of the heavenly bodies? By reading αὔρας P^B supports the former view, with αὔγας P^E the latter. Though the former is perhaps the *lectio difficilior*, we have chosen the latter because of the role of solar heat in similar cosmogonies, see ch. 3.16 below.

§2 On the authorial remark see M–R 2.1.50–51.

e Other Evidence

(1) *Atomist cosmogonies*. On Lucretius see at section B above. The song of Silenus in Vergil's *Sixth Eclogue*, which 6.31–40 begins with a briefly sketched Atomist cosmogony presumably inspired by Lucretius, provides an interesting parallel: such secular theories of Atomist provenance may have been acceptable as being representative of cosmogony *per se*. The formation of the four elements from concatenations of atoms mentioned ch. 1.4. §1[20–26]: γῆ, πῦρ, ἀήρ, τὴν ὑγρὰν φύσιν / τὸ ὕδωρ] is paralleled in Silenus' song. Spoerri (1970a) and (1970b) on the song of Silenus and its ancient commentators argues persuasively in favour of an Epicurean (or even Lucretian) narrative that is free of Empedoclean echoes.

(2) *Similar cosmogonies*. Comparable cosmogonies, for instance in Diodorus Siculus, no longer believed to be Democritean, and Ovid (see below section E(b)§1), are more eclectic (assuming the use of this term is still permitted), while that of Apollonius Rhodius *Arg.* 1.496–502 is quite Empedoclean; see Spoerri (1959) 1–30, 38–44, Barchiesi (2005) 145–166.

E Further Related Texts

a Proximate Tradition

Chapter heading: *Capitula Lucretiana* ad DRN 5.419 *Origo mundi et omnium*.

§1 *Atomism*: Lucretius DRN 5.419–430 *nam certe neque consilio primordia rerum / ordine se suo quaeque sagaci mente locarunt / nec quos quaeque dar- ent motus pepigere profecto, / sed quia multa modis multis primordia rerum / ex infinito iam tempore percita plagis / ponderibusque suis consuerunt concita ferri / omnimodisque coire atque omnia pertemptare, / quaecumque inter se pos- sent congressa creare / propterea fit uti magnum volgata per aevom / omnigenus coetus et motus experiundo / tandem convenient ea quae coniecta repente / magnarum rerum fiunt exordia saepe.* DRN 5.449–459 *quippe etenim primum terrai corpora quaeque, / propterea quod erant gravia et perplexa, coibant / in medio atque imas capiebant omnia sedes; / quae quanto magis inter se per- plexa coibant, / tam magis expressere ea quae mare sidera solem / lunamque efficerent et magni moenia mundi; / omnia enim magis haec e levibus atque rutundis / seminibus multoque minoribu' sunt elementis / quam tellus. ideo per rara foramina terrae / partibus erumpens primus se sustulit aether / ignifer et multos secum levis abstulit ignis.* DRN 5.467–477 *sic igitur tum se levis ac dif- fusilis aether / corpore concreto circumdatus undique saepsit / et late diffusus in omnis undique partis / omnia sic avido complexu cetera saepsit. / hunc exor- dia sunt solis lunaeque secuta, / interutrasque globi quorum vertuntur in auris; / quae neque terra sibi adscivit nec maximus aether, / quod neque tam fuerunt gravia ut depressa sederent, / nec levia ut possent per summas labier oras, / et tamen interutrasque ita sunt, ut corpora viva / versent et partes ut mundi totius extent.* DRN 5.480–494 *his igitur rebus retractis terra repente, / maxuma qua nunc se ponti plaga caerulea tendit, / succidit et salso suffudit gurgite fossas. / inque dies quanto circum magis aetheris aestus / et radii solis cogeabant undique terram / verberibus crebris extrema ad limina fartam / in medio ut propulsa suo condensa coiret, / tam magis expressus salsus de corpore sudor / augebat mare manando camposque natantis, / et tanto magis illa foras elapsa volabant / corpora multa vaporis et aëris, altaque caeli / densabant procul a terris fulgen- tia templa. / sidebant campi, crescebant montibus altis / ascensus; neque enim poterant subsidere saxa / nec pariter tantundem omnes succumbere partes.* Cicero ND 1.66 *ista enim flagitia Democriti sive etiam ante Leucippi (67A11 DK), esse corpuscula quaedam levia alia aspera, rutunda alia, partim autem angulata et hamata, curvata quaedam et quasi adunca, ex iis effectum esse cae- lum atque terram nulla cogente natura sed concursu quodam fortuito—hanc tu opinionem C. Vellei usque ad hanc aetatem perduxisti, priusque te quis de omni vitae statu quam de ista auctoritate deiecerit; ante enim iudicasti Epicureum te esse oportere quam ista cognovisti: ita necesse fuit aut haec flagitia concipere animo aut susceptae philosophiae nomen amittere.* Alexander of Aphrodisias *Mixt.* 213.18–23 *ὦν οἱ μὲν ἄτομα σώματα ἄπειρα τῷ πλήθει, κατὰ σχῆμα καὶ μέγε-θος μόνον τὴν πρὸς ἄλληλα διαφορὰν ἔχοντα, τὰς ἀρχὰς καὶ τὰ στοιχεῖα φασιν εἶναι, καὶ τῇ τούτων συνθέσει τε καὶ ποιᾷ περιπλοκῇ ἔτι τε τάξει καὶ θέσει τὰλλα γίνεσθαι·*

ἐφ' ἧς δόξης πρῶτοι μὲν Λεύκιππος (—) τε καὶ Δημόκριτος (—) γενέσθαι δοκοῦσιν, ὕστεροι δὲ Ἐπίκουρος (—) τε καὶ οἱ τὴν αὐτὴν τούτῳ τραπέντες. **Hippolytus Ref.** 1.12.1–2 Λεύκιππος (67A10 DK) δὲ Ζήνωνος ἐταῖρος οὐ τὴν αὐτὴν δόξαν διετήρησεν (sc. as Parmenides), ἀλλὰ φησιν ἄπειρα, (τὰ ὄντα) εἶναι καὶ αἰετινὰ, καὶ γένεσιν καὶ μεταβολὴν συνεχῶς οὖσαν, στοιχεῖα δὲ λέγει τὸ πλήρες καὶ (τὸ) κενόν. κόσμους δὲ (ὡς) γίνεσθαι λέγει· ὅταν εἰς (μέγα κενόν) ἐκ τοῦ περιέχοντος ἀθροισθῇ πολλὰ σώματα καὶ συρρυῇ, προσκρούοντα ἀλλήλοις συμπλέκεσθαι τὰ ὁμοιοσχήμονα καὶ παραπλήσια τὰς μορφάς, καὶ περιπλεχθέντων (αὐτῶν κατ' αὐξήσιν suppl. Marcovich) ἄστρα γίνεσθαι, αὖξιν δὲ καὶ φθίνειν διὰ τὴν ἀνάγκην. τίς δ' ἂν εἴη ἡ ἀνάγκη, οὐ διώρισεν. **Ref.** 1.22.3 (on Epicurus fr. 359 Usener) ὅλως πρόνοιαν μὴ εἶναι μηδὲ εἰμαρμένην, ἀλλὰ πάντα κατὰ αὐτοματισμόν γίνεσθαι. **Dionysius of Alexandria** Περί φύσεως at Eus. *PE* 14.23.1–3 ἡ καὶ πολλὰ καὶ ἄπειρα (sc. ἐστὶ τὸ πᾶν), ὡς τισιν ἄλλοις ἔδοξεν, οἱ πολλαῖς τῆς διανοίας παραφοραῖς καὶ ποικίλαις προφοραῖς ὀνομάτων τὴν τῶν ὅλων ἐπεχείρησαν κατακερματίζειν οὐσίαν ἁπείρον τε καὶ ἀγένητον καὶ ἀπρόνοητον ὑποτίθενται; (2) οἱ μὲν γὰρ ἀτόμους προσειπόντες ἀφθαρτὰ τινα καὶ σμικρότατα σώματα πλήθος ἀνάριθμα καὶ τι χωρίον κενὸν μέγεθος ἀπερίοριστον προβαλόμενοι, ταύτας δὲ φασὶ τὰς ἀτόμους ὡς ἔτυχεν ἐν τῷ κενῷ φερομένας αὐτομάτως τε συμπιπτούσας ἀλλήλαις διὰ ῥύμην ἄτακτον καὶ συμπλεκόμενας διὰ τὸ πολυσχήμενας οὐσας ἀλλήλων ἐπιλαμβάνεσθαι, καὶ οὕτω τὸν τε κόσμον καὶ τὰ ἐν αὐτῷ, μᾶλλον δὲ κόσμους ἀπείρους ἀποτελεῖν. (3) ταύτης δὲ τῆς δόξης Ἐπίκουρος (cf. fr. 301 Usener) γεγόνاسι καὶ Δημόκριτος (68A43 DK). **Diogenes Laertius VP.** 9.31–32 (on Leucippus, 67A1 DK) γίνεσθαι δὲ τοὺς κόσμους οὕτω· φέρεσθαι κατὰ ἀποτομήν ἐκ τῆς ἀπείρου πολλὰ σώματα παντοῖα τοῖς σχήμασιν εἰς μέγα κενόν, ἅπερ ἀθροισθέντα δίνην ἀπεργάζεσθαι μίαν, καθ' ἣν προσκρούοντα καὶ παντοδαπῶς κυκλούμενα διακρίνεσθαι χωρὶς τὰ ὅμοια πρὸς τὰ ὅμοια. ἰσορρόπων δὲ διὰ τὸ πλήθος μηκέτι δυναμένων περιφέρεισθαι, τὰ μὲν λεπτὰ χωρεῖν εἰς τὸ ἔξω κενόν, ὥσπερ διαττώμενα· τὰ δὲ λοιπὰ συμμένειν καὶ περιπλεκόμενα συγκατατρέχειν ἀλλήλοις καὶ ποιεῖν πρῶτον τι σύστημα σφαιροειδές. (32) τοῦτο δ' οἷον ὑμένα ἀφίστασθαι, περιέχοντ' ἐν ἑαυτῷ παντοῖα σώματα· ὧν κατὰ τὴν τοῦ μέσου ἀντέρρυσιν περιδινουμένων λεπτόν γενέσθαι τὸν πέριξ ὑμένα, συρρεόντων αἰετῶν συνεχῶν κατ' ἐπίψαυσιν τῆς δίνης. καὶ οὕτω γενέσθαι τὴν γῆν, συμμενόντων τῶν ἐνεχθέντων ἐπὶ τὸ μέσον. αὐτόν τε πάλιν τὸν περιέχοντα οἷον ὑμένα αὖξεσθαι κατὰ τὴν ἐπέκρυσιν τῶν ἔξωθεν σωμάτων· δίνῃ τε φερόμενον αὐτόν ὧν ἂν ἐπίψαύσῃ, ταῦτα ἐπικτᾶσθαι. τούτων δὲ τινα συμπλεκόμενα ποιεῖν σύστημα, τὸ μὲν πρῶτον κάθυγρον καὶ πηλῶδες, ξηρανθέντα καὶ περιφερόμενα σὺν τῇ τοῦ ὅλου δίνῃ, εἴτ' ἐκπυρωθέντα τὴν τῶν ἀστέρων ἀποτελέσαι φύσιν. *VP.* 9.43–44 δοκεῖ δὲ αὐτῷ (on Democritus, 68A1 DK) τάδε· ἀρχὰς εἶναι τῶν ὅλων ἀτόμους καὶ κενόν καὶ τὰς ἀτόμους δὲ ἀπείρους εἶναι κατὰ μέγεθος καὶ πλήθος, φέρεσθαι δ' ἐν τῷ ὅλῳ δινουμένας, καὶ οὕτω πάντα τὰ συγκρίματα γεννᾶν, πῦρ, ὕδωρ, ἀέρα, γῆν· εἶναι γὰρ καὶ ταῦτα ἐξ ἀτόμων τινῶν συστήματα· ἅπερ εἶναι ἀπαθὴ καὶ ἀναλλοίωτα διὰ τὴν στερρότητα. τὸν τε ἥλιον καὶ τὴν σελήνην ἐκ τοιούτων λείων καὶ περιφερῶν ὄγκων συγκεκρίσθαι. **Epiphanius Haer.** 1.8.1 Ἐπίκουρος (—) ... ἀπρονοήσιαν τῷ κόσμῳ εἰσηγήσατο· ἐξ ἀτόμων δὲ συνεστάναι τὰ πάντα ἢ δ' αὖ πάλιν εἰς ἄτομα χωρεῖν.

b *Testes alii II: Sources and Other Parallel Texts*

Chapter heading: —

§1 **Atomism: Plato** *Tim.* 28b ὁ δὴ πᾶς οὐρανός—ἡ κόσμος ἢ καὶ ἄλλο ὅτι ποτὲ ὀνομαζόμενος μάλιστα· ἂν δέχοιτο, τοῦθ' ἡμῖν ὠνομάσθω—σκεπτέον δ' οὖν περὶ αὐτοῦ πρῶτον, ὅπερ ὑπόκειται περὶ παντός ἐν ἀρχῇ δεῖν σκοπεῖν, πότερον ἦν αἰεὶ γενέσεως ἀρχὴν ἔχων οὐδεμίαν, ἢ γέγονεν, ἀπ' ἀρχῆς τινος ἀρξάμενος. γέγονεν. **Vergil** *Buc.* 6.31–40 *namque canebat uti magnum per inane coacta / semina terrarumque animaeque marisque fuissent / et liquidi simul ignis; ut his ex omnia primis, / omnia et ipse tener mundi concreverit orbis; / tum durare solum et discludere Nerea ponto / coeperit et rerum paulatim sumere formas; / iamque novum terrae stupeant lucescere solem, / altius atque cadant summotis nubibus imbres, / incipiant silvae cum primum surgere cumque / rara per ignaros errent animalia montis* (lines 6.31–38 are cited at *Macrobius Sat.* 6.2.22 and compared with *Lucr. DRN* 5.432–439 + 5.446–448 + 5.455); cf. **Servius** ad loc., p. 69.18 *Thilo Epicurei vero, quos nunc sequitur* (sc. *Vergil*); (more cited above, ch. 1.3 section E(b) General texts). **Diodorus Siculus** 1.6.3–7.1 (on Democritus, 68B5 DK) περὶ τῆς πρώτης τοίνυν γενέσεως τῶν ἀνθρώπων διτταὶ γεγόνασιν ἀποφάσεις παρὰ τοῖς νομιμωτάτοις τῶν τε φυσιολόγων καὶ τῶν ἱστορικῶν· οἱ μὲν γὰρ αὐτῶν ἀγέννητον καὶ ἀφθαρτον ὑποστησάμενοι τὸν κόσμον, ἀπεφήναντο καὶ τὸ γένος τῶν ἀνθρώπων ἐξ αἰῶνος ὑπάρχειν, μηδέποτε τῆς αὐτῶν τεκνώσεως ἀρχὴν ἐσχηκυίας· οἱ δὲ γεννητὸν καὶ φθαρτὸν εἶναι νομίσαντες ἔφησαν ὁμοίως ἐκείνῳ τοὺς ἀνθρώπους τυχεῖν τῆς πρώτης γενέσεως ὠρισμένοις χρόνοις. (7) κατὰ γὰρ τὴν ἐξ ἀρχῆς τῶν ὅλων σύστασιν μίαν ἔχειν ἰδέαν οὐρανόν τε καὶ γῆν, μεμιγμένης αὐτῶν τῆς φύσεως· μετὰ δὲ ταῦτα διασπέντων τῶν σωμάτων ἀπ' ἀλλήλων, τὸν μὲν κόσμον περιλαβεῖν ἄπασαν τὴν ὁρωμένην ἐν αὐτῷ σύνταξιν, τὸν δ' ἀέρα κινήσεως τυχεῖν συνεχοῦς, καὶ τὸ μὲν πυρῶδες αὐτοῦ πρὸς τοὺς μετεωροτάτους τόπους συνδραμεῖν, ἀνωφεροῦς οὐσης τῆς τοιαύτης φύσεως διὰ τὴν κουφότητα· ἀφ' ἧς αἰτίας τὸν μὲν ἥλιον καὶ τὸ λοιπὸν πλῆθος τῶν ἄστρων ἐναποληφθῆναι τῇ πάσῃ δίνῃ τὸ δὲ ἰλυῶδες καὶ θολερὸν μετὰ τῆς τῶν ὑγρῶν συγκρίσεως ἐπὶ ταῦτ' καταστήναι διὰ τὸ βάρος (κτλ.). **Philo of Alexandria** *Aet.* 3–19 ἄξιον οὖν τοὺς ζητοῦντας εἰ ἀφθαρτος ὁ κόσμος ... §7 τριτταὶ δὲ περὶ τοῦ ζητουμένου γεγόνασι δόξαι, τῶν μὲν αἰδίων τὸν κόσμον φαμένων, ἀγέννητόν τε καὶ ἀνώλεθρον, τῶν δὲ ἐξ ἐναντίας γενητόν τε καὶ φθαρτόν· εἰσὶ δ' οἱ παρ' ἐκατέρων ἐκλαβόντες, τὸ μὲν γενητόν παρὰ τῶν ὑστέρων παρὰ δὲ τῶν προτέρων τὸ ἀφθαρτον, μικτὴν δόξαν ἀπέλιπον, γενητόν καὶ ἀφθαρτον οἰηθέντες αὐτὸν εἶναι (κτλ.). **Ovid** *Fast.* 1.103–118 *me Chaos antiqui (nam sum res prisca) vocabant: / aspice quam longi temporis acta canam. / lucidus hic aër et quae tria corpora restant, / ignis, aquae, tellus, unus acervus erat. / ut semel haec rerum secessit lite suarum / inque novas abiit massa soluta domos, / flamma petit altum, propior locus aëra cepit, / sederunt medio terra fretumque solo. / tunc ego, qui fueram globus et sine imagine moles, / in faciem rediī dignaque membra deo. / nunc quoque, confusae quondam nota parva figurae, / ante quod est in me postque videtur idem. / accipe quaesitae quae causa sit altera formae, / hanc simul ut noris officiumque meum. / quicquid ubique vides, caelum, mare, nubila, terras, / omnia sunt nostra clausa patentque manu.* *Ars* 2.467–476. *Met.* 1.5–88. *Met.*

15.237–252. **Plutarch** *Def.Or.* 424E–F δῆλον δὲ τῷ μετακοσμούμενα ταῖς οὐσίαις ἕκαστα καὶ τὰς χώρας ἅμα συμμεταβάλλειν· αἱ μὲν γὰρ διακρίσεις ἀπὸ τοῦ μέσου τὴν ὕλην αἰρομένην ἄνω κύκλῳ διανέμουσιν· αἱ δὲ συγκρίσεις (F) καὶ πυκνώσεις πιέζουσι κάτω πρὸς τὸ μέσον καὶ συνελαύνουσι. differently **Epicurus** *Ep.Pyth.* at D.L. 10.90 οὐ γὰρ ἀθροισμὸν δεῖ μόνον γενέσθαι οὐδὲ δῖνον ἐν ᾧ ἐνδέχεται κόσμον γίνεσθαι κενῷ κατὰ τὸ δοξαζόμενον ἐξ ἀνάγκης, αὕξεσθαι τε ἕως ἂν ἐτέρῳ προσκρούσῃ, καθάπερ τῶν φυσικῶν καλουμένων φησί τις. τοῦτο γὰρ μαχόμενόν ἐστι τοῖς φαινομένοις. ἥλιος τε καὶ σελήνη καὶ τὰ λοιπὰ ἄστρα (οὐ) καθ' ἑαυτὰ γενόμενα ὕστερον ἐμπεριελαμβάνετο ὑπὸ τοῦ κόσμου καὶ ὅσα γε δὴ σῶζει, ἀλλ' εὐθὺς διεπλάττετο καὶ αὕξησιν ἐλάμβανεν (ὁμοίως δὲ καὶ γῆ καὶ θάλαττα *additamentum iud.* Usener prob. Dorandi), κατὰ προσκρίσεις καὶ δινήσεις λεπτομερῶν τινων φύσεων, ἥτοι πνευματικῶν ἢ πυροειδῶν ἢ τὸ συναμφοτέρον· καὶ γὰρ ταῦτα οὕτως ἢ αἰσθησις ὑποβάλλει.

§2 **Authorial remark: Aristotle** *Cael.* 3.1 289a27–29 λέγω δ' οὐσίας μὲν τὰ τε ἀπλὰ σώματα, οἶον πῦρ καὶ γῆν καὶ τὰ σύστοιχα τούτοις, καὶ ὅσα ἐκ τούτων, οἶον τὸν τε σύνολον οὐρανὸν καὶ τὰ μέρη. **Ocellus** ch. 38 πρῶτον μὲν γὰρ αἰεὶ ὄντος τοῦ κόσμου ἀναγκαῖον καὶ τὰ μέρη αὐτοῦ συνυπάρχειν (λέγω δὲ μέρη οὐρανόν, γῆν, τὸ μεταξὺ τούτων ὃ δὴ μετάρσιον καὶ ἀέριον ὀνομάζεται), οὐ γὰρ ἄνευ τούτων ἀλλὰ σὺν τούτοις καὶ ἐκ τούτων ὁ κόσμος. **Simplicius** *in Phys.* 28.15–24 (**Theophrastus** *Phys.Op.* fr. 8 Diels, 229 FHS&G) παραπλησίως δὲ καὶ ὁ ἐταῖρος αὐτοῦ (sc. Λευκίππου) Δημόκριτος ὁ Ἀβδηρίτης (68A38 DK) ἀρχὰς ἔθετο τὸ πλήρες καὶ τὸ κενόν, ὦν τὸ μὲν ὄν, τὸ δὲ μὴ ὄν ἐκάλει· ὥς (γὰρ) ὕλην τοῖς οὐσι ταῖς ἀτόμους ὑποτιθέντες τὰ λοιπὰ γεννώσι ταῖς διαφοραῖς αὐτῶν. τρεῖς δὲ εἰσιν αὗται 'ῤυσμός' 'τροπή' 'διαθιγή', ταῦτόν δὲ εἰπεῖν σχῆμα καὶ θέσις καὶ τάξις. πεφυκέναι γὰρ τὸ ὅμοιον ὑπὸ τοῦ ὁμοίου κινεῖσθαι καὶ φέρεσθαι τὰ συγγενῇ πρὸς ἄλληλα καὶ τῶν σχημάτων ἕκαστον εἰς ἑτέραν ἐγκοσμούμενον σύγκρισιν ἄλλην ποιεῖν διάθεσιν· ὥστε εὐλόγως ἀπείρων οὐσῶν τῶν ἀρχῶν πάντα τὰ πάθη καὶ τὰς οὐσίας ἀποδώσειν ἐπηγγέλλοντο, ὅφ' οὐ τέ τι γίνεται καὶ πῶς. διὸ καὶ φασι μόνοις τοῖς ἅπειρα ποιοῦσι τὰ στοιχεῖα πάντα συμβαίνειν κατὰ λόγον. *in Phys.* 327.24–25 Δημόκριτος (68B167 DK) ἐν οἷς φησι 'δεῖνον ἀπὸ τοῦ παντὸς ἀποκριθῆναι παντοίων εἰδέων'.

Liber 1 Caput 5

P^B : ps.Plutarchus *Plac.* 879A; pp. 291^a10–292^a19 Diels—**P^{Ph}** : Philo *Prov.* 1.22, p. 12.1–5 Aucher, 146.13–15 Hadas-Lebel (interpolatus)—**P^E**: Eusebius *PE* 15.32.8 (capitulatim) + 15.33.1–5 (textus), pp. 406.7–8 + 407.10–408.13 Mras—**P^G** : ps.Galenus *HPh* c. 32; pp. 617.1–7 Diels; pp. 103–109 Jas—**P^Q** : Qustā ibn Lūqā pp. 108–111 Daiber—**P^{Ps}** : Psellus *Omn.Doctr.* 152, p. 79 Westerink (titulus solus)
S : Stobaeus *Ecl.* 1.22.3a, p. 198.18 (~ tit.) + pp. 198.19–199.8 Wachsmuth + 3d, p. 199.23 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b7–8 Henry (titulus solus)
 Cf. Ach: Achilles *Univ.* c. 5, p. 16.8–9 Di Maria; Hermias *Irr.* 18.2–4 Hanson

Titulus ε'. Εἰ ἐν τὸ πᾶν (P,S)

- §1 οἱ μὲν ἀπὸ τῆς Στοᾶς ἕνα κόσμον ἀπεφήναντο, ὃν δὴ καὶ τὸ πᾶν ἔφασαν εἶναι τὸ σωματικόν. (P1,S2)
- §2 Ἐμπεδοκλῆς δὲ κόσμον μὲν ἕνα, οὐ μέντοι τὸ πᾶν εἶναι τὸν κόσμον ἄλλ' ὀλίγον τι τοῦ παντὸς μέρος, τὸ δὲ λοιπὸν ἀργὴν ὕλην. (P2,S1) 5
- §3 Πλάτων δὲ τεκμαίρεται τὸ δοκοῦν, ὅτι εἷς ὁ κόσμος καὶ ἐν τὸ πᾶν, ἐκ τριῶν, ἐκ τοῦ μὴ ἔσεσθαι τέλειον, ἐὰν μὴ πάντα περιέχῃ· ἐκ τοῦ μὴ ἔσεσθαι ὅμοιον τῷ παραδείγματι, ἐὰν μὴ μονογενὴς ᾖ· ἐκ τοῦ μὴ ἔσεσθαι αὐτὸν ἀφθαρτον, ἐὰν ᾗ τι ἐξωτέρω αὐτοῦ. πρὸς δὴ τὸν Πλάτωνα ῥητέον, ὅτι οὐ τέλειος ὁ κόσμος· οὐδὲ γὰρ (εἰ) πάντα περιέχει· 10 καὶ γὰρ ὁ ἀνθρωπὸς ἐστὶ τέλειος, ἀλλ' οὐ πάντα περιέχει· καὶ πολλὰ παραδείγματα ἔστιν, ὥσπερ ἐπ' ἀνδριάντων καὶ οἰκιῶν καὶ ζωγραφιῶν. πῶς δὲ εἶπεν ἔξωθὲν τι αὐτοῦ οὐκ ἔστι, περιδινεῖσθαι γὰρ οὐκ ἐδυνατο. ἀφθαρτος δ' οὐκ ἔστιν οὐδὲ δύναται εἶναι, γενητὸς ὢν. (P3,S4)

§1 Stoici *SVF* 2.530; §2 Empedocles 31A47 DK; §3 Plato cf. *Ti.* 30c–31b, 33a–d

§1 [2] μὲν ^{PBGQ} : μὲν οὖν ^{PE} prob. Diels || ἕνα || τὸν ^{PB(II)Q} || [2–3] ἀπεφήναντο ... τὸ² || al. ^{PG} εἰρήκασι καὶ τούτον || [3] καὶ post εἶναι P prob. edd. Plutarchi ab Arnim : om. S, delevimus || τὸ σωματικόν (τὸ om. ^{PQ(ut vid.)}) ^{PB} : τὸν σωματικόν ^{S^{FP1}} (τὸ ^{S^{P2}}) : τὰ σωματικά ^{PE} §2 hoc lemma ante §1 hab. S || [4] δὲ om. S || [5] ὀλίγον || μικρόν ^{PG} || μέρος || μέρους ^{PB(II)} || ἀργὴν || om. S || ὕλην || εἶναι τὴν ὕλην ^{PB(II)AE} §3 [6–14] Πλάτων ... γενητὸς ὢν P : Πλάτων ἕνα τὸν κόσμον ἀπεφήναντο· λέγει γὰρ ἐν τῷ Τιμαίῳ κτλ. S || [6] τεκμαίρεται ... πᾶν || al. ^{PG} κόσμον ἕνα φησὶ καὶ ἐν τὸ πᾶν εἶναι γενητὸν || τὸ δοκοῦν || τὸδ' οὖν ^{PE} || ὁ ^{PEQ} Diels : om. ^{PBG} || [7] ἔσεσθαι ^{PEQ(ut vid.)} Diels : εἶναι ^{PB} || περιέχῃ ^{PBGQ(ut vid.)} : ἐμπεριέχῃ ^{PE} Diels || [9] αὐτὸν ἀφθαρτον || αἰώνιον ^{PG} || ἐὰν ... αὐτοῦ || εἰ τὸ ἐλλίπες τι ἔχει ^{PG} || post αὐτοῦ hab. ᾗ ^{PE} || ῥητέον ^{PB} : λεκτέον ^{PE} || [10] εἰ con. Mau prob. Lachenaud || [10–11] καὶ ... περιέχει ^{PB(II)D} : desunt in ^{PB(II)EQ} || [11] παραδείγματα || παραδείγμα(τος μιμήμα)τα Reiske || [12] καὶ οἰκιῶν || om. ^{PQ} || [13] πῶς ... ἐδυνατο (ἡδυνατο Diels) ^{PE} Diels : al. ^{PB} (cf. Q) πῶς δὲ τέλειος, εἴπερ ἔξωθὲν τι αὐτοῦ περιδινεῖσθαι δύναται;

§4 Μητρόδωρος ὁ καθηγητῆς Ἐπικούρου φησὶν ἄτοπον εἶναι ἐν μεγάλῳ 15
 πεδίῳ ἓνα στάχυν γεννηθῆναι καὶ ἓνα κόσμον ἐν τῷ ἀπείρῳ. ὅτι δ'
 ἄπειρο(ι) κατὰ τὸ πλῆθος, δῆλον ἐκ τοῦ ἄπειρα τὰ αἷτια εἶναι· εἰ γὰρ
 ὁ μὲν κόσμος πεπερασμένος, τὰ δ' αἷτια πάντα ἄπειρα, ἐξ ὧν ὅδε ὁ
 κόσμος γέγονεν, ἀνάγκη ἀπείρους εἶναι. ὅπου γὰρ ἀπέραντα τὰ αἷτια,
 ἐκεῖ καὶ τὰ ἀποτελέσματα· αἷτια δ' ἦτοι αἱ ἄτομοι ἢ τὰ στοιχεῖα. 20
 (P₄S₃)

§4 Metrodorus 70A6 DK

§4 lemma non hab. P^G || [15] ὁ ... Ἐπικούρου S : δὲ P || [16] γεννηθῆναι P : γεννηθῆναι S || [17] ἄπειρο(ι) corr. Meineke prob. Wachsmuth (in app.) Diels DK Mau Lachenaud Laks–Most : ἄπειρος PS crucif. Diels DG ‘antiquum mendum in trad. Aetii’ || ἐκ ... εἶναι] om. P^Q || ἄπειρα τὰ] ἀπείρατα S^F, ἀπείρατος S^P, corr. Diels Wachsmuth || [18] μὲν P^{BE} : om. S (ὅδε ὁ coni. Usener prob. Wachsmuth) || [19–20] ὅπου ... ἀποτελέσματα] om. P^Q || [19] ὅπου ... αἷτια coni. Usener Wachsmuth Torraca, cf. S sed ἀπέραντα non hab. : ὅπου γὰρ τὰ πάντα γέγονε αἷτια P^B (om. γέγονε P^E), crucif. Mau Lachenaud, ... ἄπειρα τὰ αἷτια Reiske prob. Laks–Most, ... τὰ αἷτια ἄπειρα coni. Diels || [20] τὰ¹ P^B : om. P^E, add. in S Wachsmuth || post §4 add. Diels in apparatu ex T CAG 4.12 lemma Ἰππασσος καὶ Ἡράκλειτος ἐν εἶναι τὸ πᾶν ἀ(ει)κίνητον καὶ πεπερασμένον, vid. comm. infra sub A(3)

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 32 (~ tit.) Εἰ ἐν τὸ πᾶν (text Jas)

32.1 (~ P₁) οἱ μὲν ἀπὸ τῆς Στοᾶς ἓνα κόσμον εἰρήκασι καὶ τοῦτον σωματικόν.

32.2 (~ P₂) Ἐμπεδοκλῆς δὲ κόσμον ἓνα, οὐ μέντοι τὸ πᾶν εἶναι κόσμον, ἀλλὰ μικρόν τι τοῦ παντός μέρος, τὸ δὲ λοιπὸν ἀργὴν ὕλην.

32.3 (~ P₃) Πλάτων δὲ κόσμον ἓνα φησὶ καὶ ἐν τὸ πᾶν εἶναι †γενητόν [...]† ἐὰν μὴ πάντα περιέχῃ, (ἐκ) τοῦ μὴ ἔσεσθαι ὅμοιον τῷ παραδείγματι {τοῦτ' ἔστι τῷ θνητῷ κόσμῳ}, ἐὰν μὴ μονογενὴς ᾖ, (ἐκ) τοῦ μὴ ἔσεσθαι αἰώνιον, εἰ τὸ ἐλλίπεις τι ἔχει.

Philo Alexandrinus (interpolatus) Prov. 1.22 Aucher, cf. Diels DG 1–2 (~ P₂)

Empedocles mundum unum, nec tamen universum illum, sed minorem istius universi partem, reliquum vero vacuum esse materia.

Testes secundi:

Achilles Univ. c. 5, p. 16.8–9 (~ §4) Ἐπίκουρος (fr. 301 Usener) δὲ πολλοὺς κόσμους ὑποτίθεται καὶ ὁ διδάσκαλος αὐτοῦ Μητρόδωρος.

Hermias Irr. 18.2–4 προκύψας δέ μοί φησιν Ἐπίκουρος (fr. 301 Usener)· σὺ μὲν δὴ κόσμον ἓνα μεμέτρηκας, ὦ φιλότης, εἰσὶ δὲ κόσμοι πολλοὶ καὶ ἄπειροι (~ quaestio).

Loci Aetiani:

quaestio A 1.prooem. 3 ζητείται ὁμοίως εἰ ἄπειρος ὁ κόσμος ἐστὶ.

§1 A 2.1.2 Θαλῆς Πυθαγόρας Ἐμπεδοκλῆς Ἐκφαντος Παρμενίδης Μέλισσος Ἡράκλειτος Ἀναξαγόρας Πλάτων Ἀριστοτέλης Ζήνων ἓνα τὸν κόσμον. (al.) A 2.1.9 οἱ Στωικοὶ διαφέρειν τὸ πᾶν καὶ τὸ ὅλον· πᾶν μὲν γὰρ εἶναι σὺν τῷ κενῷ τῷ ἀπείρῳ, ὅλον δὲ χωρὶς τοῦ κενοῦ τὸν κόσμον· ὥστε {οὐ} τὸ αὐτὸ εἶναι τὸ ὅλον καὶ τὸν κόσμον.

§2 A 1.18.2 Ἐμπεδοκλῆς· ‘οὐδὲ τι τοῦ παντὸς κενεὸν πέλει οὐδὲ περιττόν’.

§3 A 2.2a.2 οἱ δὲ τρόχου δίκην περιδινεῖσθαι (sc. τὸν κόσμον). A 2.4.1 Πυθαγόρας Ἡράκλειτος γενητὸν κατ’ ἐπίνοιαν τὸν κόσμον, οὐ κατὰ χρόνον. A 1.22.9 Πλάτων δὲ γενητὸν κατ’ ἐπίνοιαν (sc. τὸν χρόνον). A 2.4.9 Πλάτων φθαρτὸν μὲν τὸν κόσμον, ὅσον ἐπὶ τῇ φύσει, αἰσθητὸν γὰρ εἶναι, διότι καὶ σωματικόν, οὐ μὴν φθαρησόμενόν γε προνοῖα καὶ συνοχή θεοῦ. A 4.19.3 ἔχει δ’ ἄν τις πρὸς τούτους εἰπεῖν· πῶς ... A 5.23.1 Ἡράκλειτος καὶ οἱ Στωικοὶ ἄρχεσθαι τοὺς ἀνθρώπους τῆς τελειότητος περὶ τὴν δευτέραν ἐβδομάδα κτλ.

§4 A 1.11.1 αἰτίον ἐστὶ δι’ ὃ τὸ ἀποτελεσμα κτλ. A 1.18.3 Λεύκιππος Δημόκριτος Δημήτριος Μητρόδωρος Ἐπίκουρος τὰ μὲν ἄτομα ἄπειρα τῷ πλήθει, τὸ δὲ κενὸν ἄπειρον τῷ μεγέθει. A 2.prooem. τετελεκῶς τοῖνον τὸν περὶ ἀρχῶν καὶ στοιχείων καὶ τῶν συνεδρευόντων αὐτοῖς λόγον τρέψομαι πρὸς τὸν ἐπὶ τῶν ἀποτελεσμάτων. A 2.1.4 Ἀναξίμανδρος Ἀναξίμενης Ἀρχέλαος Ξενοφάνης Διογένης Λεύκιππος Δημόκριτος Ἐπίκουρος καὶ ὁ τούτου καθηγητὴς Μητρόδωρος ἀπείρους κόσμους ἐν τῷ ἀπείρῳ κατὰ πάσαν περίστασιν. A 2.1.5 Σέλευκος ὁ Ἐρυθραῖος καὶ Ἡρακλείδης ὁ Ποντικός ἄπειρον τὸν κόσμον. A 2.1.6 Διογένης καὶ Μέλισσος τὸ μὲν πᾶν ἄπειρον, τὸν δὲ κόσμον πεπεράνθαι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The chapter is quite broadly attested.

(1) In addition to the text of P^B and Q, it is also fully written out by E, who in the third doxa preserves a fine reading that is superior to what is found in the later transmission. G cites three doxai, the first two fairly faithfully, the third a longer Platonic lemma in a reduced form. The doxa of Empedocles has been interpolated in the text of Philo *Prov.* 1.22 as part of the interpolation of material from A 1.3. Ps uses only the heading.

(2) S includes the chapter together with ch. 2.7 in his ch. 1.22 ‘On the ordering of the cosmos’. The Platonic doxa is pared down to a five-word summary at 1.22.3d, followed by the quote from *Tim.* 31a–b on which A’s doxa is ultimately based.

(3) Diels *DG* 292 with some hesitation added a final lemma from T, *CAG* 4.12 (see app. crit.), which he placed not in the text but in the apparatus and gave the number §5: ‘Hippasus of Metapontum [18A7 DK] and Heraclitus, son of Blosson, of Ephesus (T 200 Mouraviev) held that the All is one, unmoved [*sic*; ἀκίνητον, after Zeller generally amended to ἀ(ε)κίνητον ‘always in motion’] and limited, and that the principle is fire’ (on this emendation see above ch. 1.3 Commentary A(5)(c)). This may seem justified because of the mention of the singularity of the All, but entails neglecting the part about fire as the principle, which as to theme belongs with the chapter on the principles, A 1.3. The assumption that the Theodorean lemma must be a combination of two lemmata from different Aëtian chapters does not convince, because the two themes are already combined in Theophrastus *Phys.Op.* fr. 1 (= fr. 225 FHSG, ap. Simp. in *Phys.* 23.33–24.2) and Diogenes Laertius *V.P.* 8.84, see Diels *DG* 168 and 221, Journée (2018) at M–R 4, passim, and Mansfeld (2018b) at M–R 4.247–248. Subsequently, at Hippasus 18A1 DK (~ *V.P.* 8.84) we are told by Diels that the phrase is ‘aus Theophrast’, with reference to 18A7 (Theophr. *Phys.Op.* fr. 1). The present lemma is not printed in DK. So we have decided not to follow Diels here. See further ch. 1.3 Commentary A(5)(c).

B Proximate Tradition and Sources

(1) *Proximate tradition.* For the proximate tradition see below on ch. 2.1. This chapter deals with the same theme.

(2) *Sources.* The account of Plato’s view ultimately derives from the *Timaeus*. For the counter-arguments, mostly of Atomist provenance, see below at section D(d)§4.

C Chapter Heading

(1) This heading, formulating a very precise question, is only found in the traditions of S and P up to Psellus and nowhere else. *Pace* Leszl (2002) 175 the question ‘whether one ...’ obviously entails a contrast between one and more than one (: question type of quantity). The relation between ‘one’ (or unique) and ‘all’ adverts us to the various senses in which these terms have been used.

(2) In S it is surprising to find that the material in this chapter is not used in ch. 1.21 on the cosmos etc. which contains some doxai from A 2.1, but rather in ch. 1.22 the heading of which is based on A 2.7 (*Ecl.* p. 195.3). The heading of our ch. 1.5 is then cited as a sub-heading halfway this chapter (p. 198.18). Photius’ index combines chapter heading and sub-heading, both obviously taken from S 1.22. The Laurentianus manuscript has Περὶ κόσμου τάξεως ἐν αὐτῷ καὶ τάδε· εἰ ἐν τὸ πᾶν, which means that the Stobaeon chapter ‘On the ordering of

the cosmos' also contains 'Whether the All (sc. the universe) is unique'. Wachsmuth should not have added the sub-heading between angle brackets to the main one at p. 195.3. Bottler (2014) 124–127 appears to argue in favour of a single chapter *Περὶ τάξεως τοῦ κόσμου· εἰ ἓν τὸ πᾶν* in the source shared by P and S, because Photius is only able to count this heading as no. 22 in his second decad of headings if it is that of a single chapter. But Photius counts headings in S not P. It is, however, quite unlikely that P, the epitomator, would have distributed the lemmata over two different chapters in two different books, whereas S's combination and even coalescence of different chapters from A in one of his own is his standard practice. In S 1.22 there is no coalescence or close combination of lemmata of chs. 1.5 and 2.7. This is not to be wondered at, because the two chapters have very little in common. Chs. 1.5 and 2.1, on the other hand, to a considerable extent deal with the same topic, so lemmata excerpted from them are cited in two successive blocks, 2.1 at *Ecl.* 1.22.3b following 1.5 at 1.22.3a. See also M–R 1.11, 1.22–24 (on chs. 1.5–2.1 and their overlap), 2.2.306–322 (on ch. 2.1).

D Analysis

a Context

Introduction. The chapter is part of the introduction of the treatise. The question of the uniqueness or plurality of kosmoi follows in a natural way upon the (Atomist) account of the generation of a single cosmos in ch. 1.4. It is no less general than ch. 1.4, and equally preliminary to the account of the cosmos as a whole that is to follow in Book 2. Even so, the present chapter together with ch. 1.4 could very well have found a place at the beginning of Book 2. This is also clear from the fact that the issues of plurality vs. uniqueness, and of the infinite according to size or number, are also part of the subject of ch. 2.1, 'On the cosmos'. Coalescing the two chs. 1.5 and 2.1 would have saved space. S of course noticed the overlap; under the sub-heading *Εἰ ἓν τὸ πᾶν* in his ch. 1.22 he has copied out, without interruption, first 3a: A 1.5.2 + 1.5.1 + 1.5.4, then 3b: 2.1.2 + 2.1.3 and 3c: 2.1.4 + 2.1.5, a quite sensible arrangement.

b Number–Order of Lemmata

(1) P has four lemmata, S three. S has omitted P₃, name-label Plato, replacing it in his usual way with an abstract from Plato, viz. *Tim.* 31a–b, preceded by the words (*Ecl.* p. 199.23–24) *Πλάτων ἕνα τὸν κόσμον ἀπεφήνατο· λέγει γὰρ ἐν τῷ Τιμαίῳ οὕτως*, of which the first colon, 'Plato said there is only one cosmos', can be read as terse summary of P₃. But at 1.22.3d this replacement only follows further down, after the excerpts from ch. 2.1 at 1.22.3b–c and so not after those from ch. 1.5 at 1.22.3a.

(2) Two of the three lemmata S shares with P are presented in a different order, viz. $S_1 = P_2$ and $S_2 = P_1$, while $S_3 = P_3$. Which of these two arrangements is to be attributed to A it is hard to say, because from a systematic point of view the difference is irrelevant.

(3) As to the place of the Plato lemma (P_3), no argument against P's order is available because of the fact that S placed the text he substituted for this lemma after his excerpts from A. We therefore have decided to follow Diels in the *DG* who, as usual, followed P.

c Rationale–Structure of Chapter

Diaphoniae. See above, section C ad init. Three lemmata in favour of the uniqueness of the cosmos, §§1–3, are contrasted with a single lemma, §4, in favour of plurality—in fact in favour of an infinite multiplicity of atomist kosmoi, which amounts to a neat and strong diaphonia. §1 and §2 are opposed to each other because according to the Stoics the cosmos constitutes the totality of what is corporeal, while according to Empedocles it is only a small part of the All (: the universe), the remainder being inert matter. There is also a distinction between §§1–2 on the one hand, dogmatically presenting doxai without argumentation, and §§3–4, where the doxai are accompanied by arguments—which, moreover, in §3 are argued against (an explicitly dialectical feature not often found in the *Placita*), but not in §4. The opposition between uniqueness and plurality as first and last is maintained by both P and S, and is not affected by the displacement of §3 in S.

d Further Comments

Individual Points

§1 The lemma as transmitted can be rendered: 'The (philosophers) from the Stoa declared the cosmos to be unique, and also said that it was all that is corporeal'. This awkward phrase compares uneasily with but does not contradict the standard Stoic doctrine concerned with the distinction between 'the All' (the cosmos + the empty space beyond the cosmos) and 'the whole' (the cosmos alone) reported elsewhere, viz. ch. 2.1.7 below; cf. Ach c. 5 p. 15.11–13, Sextus Empiricus *M.* 9.332 (= *SVF* 2.524), and see Long–Sedley (1987) 1.270. In line [2] the καί after εἶναι (in P, not in S) should be omitted, while the first τό in the same line may be a corruption (easily explained as a perseveration of the τό in the τό πᾶν of the heading) that was already present in the text of A. An improved *constitutio* would look like ὃν δὴ καὶ πᾶν ἔφασαν εἶναι τὸ σωματικόν. For the phrase πᾶν τὸ σωματικόν cf. Plu. *Def.Or.* 428D ἡ δὲ τοῦ δωδεκαέδρου φύσις περιληπτικὴ τῶν ἄλλων σχημάτων οὕσα τοῦ ὄντος εἰκὼν πρὸς πᾶν (ἄν) τὸ σωματικὸν γεγονέναι δόξειε, '... a model with reference to all corporeal being' (trans. Babbitt LCL).

§2 The information that the cosmos is ‘but a small part of the All (: the universe), the remainder being unworked matter’ is not confirmed in other accounts of Empedocles, let alone in the fragments quoted verbatim. It is not clear to which phase, or phases, of the cosmic cycle this should refer.

§3 The counter-arguments against Plato are: (1) That man is ‘full-grown’ or ‘perfect’ or ‘complete’ (τέλειος), has reached his τέλος, although he does not (like the Platonic cosmos) contain everything, entails that there will be a multiplicity of men, just as there will be a multiplicity of ‘finished’ statues etc. So being ‘complete’ is not a sufficient condition for being unique. So far we have found no parallels. (It is clear that ‘complete’ here has a different sense than in ch. 1. procem. 3 above). (2) The refutation of the assumption that there is nothing (i.e. no void) beyond the cosmos because otherwise it could not ‘whirl around’ is based on a *reductio ad absurdum* in favour of the sphericity of the cosmos at Arist. *Cael.* 2.4 287a11–22 cited section E(b)§4. Aristotle here argues that if a cosmos were rectilinear or lentil- or egg-shaped it would when turning in a circle not return to the same place, so presuppose the existence of a void or place beyond—*quod non* (note that Alexander at Simp. in *Cael.* 409.32–410.8 argues against). This dialectical argument against Plato presupposes that a cosmos may have a variety of shapes, as is clear from ch. 2.2 below, and as was in fact the outcome of a difference of view among some Presocratics, and the considered view of Epicurus, see *Ep.Hdt.* at Diogenes Laertius *V.P.* 10.74 plus scholion, *Ep.Hdt.* at *V.P.* 10.88, and A ch. 2.2.5, but fails to account for Aristotle’s original point that a spherical cosmos is able to move in a circle although there is nothing beyond. As already noted above, S drastically abridged the lemma; in fact we only have P and his tradition for an argument that may have been set out more fully in A. (3) Arist. *Cael.* 1.10 280a28–32 already directed the ancient argument that what comes into being would necessarily perish against Plato (he refused to accept the way-out devised by Speusippus and Xenocrates, for which see *Cael.* 1.9 279b32–280a2, cited section E(b)§4). A point of view similar to Aristotle’s is at Lucretius *DRN* 5.156–165, also cited section E(b)§4, who argues against unidentified philosophers who combined Plato’s view with the Stoic idea that the world has been created for the benefit of humanity. Note that P at ch. 2.4 in his first lemma ascribes Plato’s view as formulated at ch. 1.5.4 to ‘Pythagoras and Plato and the Stoics’ (Cyril *Juln.* 2.15, using this passage, says ‘Pythagoras and the Stoics’); while S in this later chapter carefully distinguishes the Stoic view from the Platonic, see A 2.4.8–9. So Lucretius’ opponents, if not a mere dialectical ploy, may derive from an epitomizer’s reckless combination of name-labels as in P’s lemma. (4) καὶ πολλὰ παραδείγματα ἔστιν κτλ. Edward Jeremiah has pointed out to us that this line gives a counter-argument against the second of Plato’s justifications for the uniqueness of the world (it would not

be similar to the model, if it were not alone in its sort), i.e. 'And there are many models (for a multiplicity of worlds), just as there are in the case of statues, buildings, and paintings'. This interpretation is supported by four points: (a) It makes the set of counter-arguments complete and gives them the same order as the original arguments. There would then be a corresponding sequential counter-argument for each of Plato's three justifications instead of just the first and third ones. (b) The word *παράδειγμα* has just been used above in precisely this sense. (c) The test cases given (statues, buildings, and paintings) are all things built from models. (d) This interpretation of the Greek actually makes sense as an argument. Plato's second justification relies on the premise that there is only one model, so that what represents it most faithfully should also be one. But if there are plural models, then there are conceivably plural worlds, just as in the case of statues there are many models of statues and many actual statues corresponding to each of these models.

In line 13 there is a significant divergence between P^E and P^B (supported by Q). The former reading is obviously superior because it argues against the premise of Plato's third argument, whereas the latter reading provides an argument that hardly makes sense. Diels was right to base the text on E, who here preserves an earlier reading later corrupted in transmission (unfortunately G and S do not help us). The argument adopts an Atomist point of view (cf. ch. 1.4), as also in the final doxa. It is not accepted by the standard Platonic-Aristotelian cosmological model.

See also ch. 2.4, Commentary D(d)§1

e Other Evidence

The formula $\varepsilon\tilde{\nu}$ τὸ πᾶν is widely paralleled, but as a rule has a different connotation, namely not a numerical sense, as here, but a qualitative sense, pertaining to the rigid one-ness of the One-and-All that is for instance attributed to the Eleatics. For the numerical sense see e.g. Plato *Sph.* 244b τῶν $\varepsilon\tilde{\nu}$ τὸ πᾶν λεγόντων (opposed to τῶν ἄλλων ὅσοι πλεῖον ἐνὸς λέγουσι τὸ πᾶν εἶναι), for both senses Aristotle *Phys.* 1.5 188a19–20 οἳ τε λέγοντες ὅτι $\varepsilon\tilde{\nu}$ τὸ πᾶν, *Met.* A.3 984b1–2 τῶν μὲν οὖν $\varepsilon\tilde{\nu}$ φασκόντων εἶναι τὸ πᾶν, Theophrastus *Phys.Op.* fr. 5 Diels = 224GHS&G ap. Simp. *in Phys.* 22.26 μίαν δὲ τὴν ἀρχὴν ἦτοι $\varepsilon\tilde{\nu}$ τὸ ὄν καὶ πᾶν, *Phys.Op.* fr. 6 Diels = 227C FHS&G at Alexander *in Met.* 31.11–12 κατ' ἀλήθειαν μὲν $\varepsilon\tilde{\nu}$ τὸ πᾶν (Parmenides 28A7 DK), and Hippolytus *Ref.* 1.14.2 λέγει δὲ ... ὅτι $\varepsilon\tilde{\nu}$ τὸ πᾶν ἐστὶν (Xenophanes 21A33 DK). Cf. also below, ch. 1.7.27 Μέλισσος καὶ Ζήνων τὸ $\varepsilon\tilde{\nu}$ καὶ πᾶν (sc. θεὸν εἶναι), καὶ μόνον αἰδῖον καὶ ἄπειρον τὸ $\varepsilon\tilde{\nu}$. There is quite a body of literature on the history of the word κόσμος, but nothing that we know of on the phrase τὸ πᾶν, 'the All', in a cosmological sense. τὸ πᾶν meaning 'the universe' is first found in Empedocles 31B14, B17.32 and B30.3 DK, then frequently

in Plato's *Timaeus*, e.g. 27a4, 28c4, 29c5, 30b5, etc., in Arist. *Met.* A.4 985a25, 5 986b17, 8 988b21. See also Mansfeld (2002b) 277–281 = M–R 3.422–427 and Mansfeld (2018a) 249–251. See further our comments on the parallel chapter ch. 2.1 below.

In relation to §4 Metrodorus' argument at ps.Plut. *Strom.* 11 (before the lacuna in the text of the paragraph; cited below section E(a)§5) that the All (: the universe) is infinite looks like a pastiche of the well-known argument of Melissus 30B1–B4 DK, inclusive of the difficulty inherent in the move from temporal to spatial infinity (for the 'full' and the 'void' see 30B7.7 DK). Zeller–Nestle (1920) 1.2.1186 n. 1 argued that Metrodorus was in a position to follow Melissus (inclusive of the Melissean 'Fehlschluß'), and that *Strom.* 11 and our §4 are in agreement. Bicknell (1982) 197 argued that Μητροδῶρος ὁ Χῖος was substituted for Μέλισσος ὁ Σάμιος. Palmer (2001) 7–9, who cites our §4 as well, again argues in favour of Metrodorus. We may add that at T CAG 2.7 this Melissean tenet is attributed to Democritus as well ('Democritus of Abdera said the All is infinite and ungenerated'), largely paralleled at ps.Plut. *Strom.* 7: 'Democritus of Abdera posited that the All is infinite because it was absolutely not manufactured by anyone [or: 'anything']. ... 'And what sort of All it is he sets out verbatim, (saying) that the causes of things that are taking place now have no beginning'. This attribution has to be accepted as a selective emphasis on an important aspect of his doctrine, facilitated by the fact that Melissus posited Being (in later reports modified to the All, or the cosmos), and the Atomists the void and matter, to be infinite and everlasting. Aristotle reports that 'Democritus shows how impossible it that everything can have been generated, because time was not generated' (Arist. *Phys.* 8.1 251b15–17, Democritus 68A71 DK, fr. 64a Taylor).

E Further Related Texts

a Proximate Tradition (see also below at ch. 2.1)

General texts: Cicero *Ep.* 9.26.3 *ille baro te putabat quaesitum unum caelum esset an innumerabilia.* Div. 2.11 *unusne mundus sit an plures.* Philo of Alexandria *Abr.* 162 πότερον εἷς ἢ πλείονές εἰσι κόσμοι. *Ebr.* 188–189 (skeptical trope) πολλάκις δὲ καὶ ἐναντία οὐ περὶ ἐνὸς τίθεται τοῦ τυχόντος, ἀλλὰ σχεδὸν περὶ πάντων μικρῶν τε καὶ μεγάλων, ἐν οἷς αἱ ζητήσεις συνίστανται· οἱ γὰρ ἄπειρον τὸ πᾶν εἰσηγούμενοι τοῖς πεπερασμένον εἶναι λέγουσιν κτλ. Quintilian *Inst.* 7.2.6 *quaeritur per coniecturam et qualitatem circa modum speciem numerum: ... unus mundus an plures.* Galen *Loc.Aff.* 8.159.5–7 (καὶ τοῦ) ἄπειρόν τε τὸ πᾶν ἢ πεπερασμένον, ἢ πολλοὺς εἶναι κόσμους ἢ ἀπεριλήπτους κατὰ τὸν ἀριθμόν, ἢ ἓνα μόνον, τοῦτον. Alexander of Aphrodisias in *Top.* 171.15–16 ὁ δὲ περὶ τοῦ ἢ ἓνα ἢ πολλοὺς εἶναι τοὺς κόσμους διαλέγοιτο. Sextus Empiricus *M.* 9.331–334 καὶ δὴ οἱ μὲν ἀπὸ τῆς Στοᾶς φιλόσοφοι (*SVF* 2.524) διαφέρειν ὑπολαμβάνουσι τὸ ὅλον καὶ τὸ πᾶν· ὅλον μὲν γὰρ εἶναι λέγουσι τὸν κόσμον, πᾶν δὲ τὸ σὺν τῷ κόσμῳ

ἔξωθεν κενόν, καὶ διὰ τοῦτο τὸ μὲν ὅλον πεπερασμένον εἶναι (πεπέρασται γὰρ ὁ κόσμος), τὸ δὲ πᾶν ἄπειρον (τοιούτον γὰρ τὸ ἐκτὸς τοῦ κόσμου κενόν). ὁ δὲ Ἐπίκουρος (fr. 75 Usener) ἀδιαφόρως τήν τε τῶν σωμάτων καὶ τήν τοῦ κενοῦ φύσιν ὅλον τε καὶ πᾶν προσαγορεύειν εἶωθεν. ... οἱ δὲ φάμενοι μὴδ' ὅλως εἶναι κενόν, ὥς οἱ ἐκ τοῦ Περιπάτου, τὸ ὅλον καὶ τὸ πᾶν τῶν σωμάτων μόνον, οὐχὶ δὲ καὶ τοῦ κενοῦ ἐπικατηγοροῦσιν. **Diogenes Laertius** *V.P.* 8.84 "Ἰππασος Μεταποντίνος (18A1 DK) ... ἔφη δὲ ... πεπερασμένον εἶναι τὸ πᾶν καὶ ἀεικίνητον. **Ambrose of Milan** *Exam.* 1.1.3, p. 4.2–5 Schenkel *Pythagoras* (—) *unum mundum adserit, alii innumerabiles dicunt esse mundos, ut scribit Democritus* (fr. 358 Luria), *cui plurimum de physicis auctoritatis vetustas detulit*. **Galen** *Loc.Aff.* 8.158.11–159.4 K. ὥσπερ δ' ἐνταῦθα φιλονεικίαν αἰσχροῖν ἐπιδείκνυνται προφανῶς, οὕτως ἄνοιαν, ὅταν οἴωνται πάνθ' ἑαυτῶν σαλεύεσθαι τὰ δόγματα, καὶ ἐν ὅτιον ἐλεγχθῇ· τινὰ μὲν γὰρ ἀλλήλοις ἀκολουθεῖ ... καθάπερ ... ἄπειρόν τε τὸ πᾶν ἢ πεπερασμένον, ἢ πολλοὺς εἶναι κόσμους ἢ ἀπεριλήπτους κατὰ τὸν ἀριθμόν, ἢ ἓνα μόνον τοῦτον (cf. also ch. 2.1). **Arnobius of Sicca** *Adv.Nat.* 2.58, p. 133.4–5 *locus ipse ac spatium, in quo situs est ac volutatur, quid sit? infinitus, finitus inanis an solidus?* cf. **Eusebius** *PE* 15.32.8 (listing chapters) εἰ χρή τὸ πᾶν ἐν ἢ πολλὰ ἡγεῖσθαι καὶ εἰ ἓνα τὸν κόσμον ἢ πλείους.

Chapter heading: Εἰ ἐν τὸ πᾶν] εἰ χρή τὸ πᾶν ἐν ἢ πολλὰ ἡγεῖσθαι καὶ εἰ ἓνα τὸν κόσμον ἢ πλείους *PE* p. 406.7–8

§1 Stoics: Arius Didymus fr. 29 Diels at Eus. *PE* 15.15.1 (on Stoics, *SVF* 2.528) ὅλον δὲ τὸν κόσμον σὺν τοῖς ἑαυτοῦ μέρεσι προσαγορεύουσι θεόν· τοῦτον δὲ ἓνα μόνον εἶναι φασι καὶ πεπερασμένον καὶ ζῶον καὶ αἰδῖον καὶ θεόν. **Diogenes Laertius** *V.P.* 7.140 (on Stoics, *SVF* 3 Antip. 43, Posidonius F 8 E.-K., 260 Theiler) ἓνα τὸν κόσμον εἶναι καὶ τοῦτον πεπερασμένον. cf. **Theodoret** *CAG* 4.5 Ξενοφάνης μὲν οὖν ὁ Ὁρθομένους ὁ Κολοφώνιος (21A36DK) ὁ τῆς Ἑλεατικῆς αἰρέσεως ἡγήσάμενος ἐν εἶναι τὸ πᾶν ἔφησε σφαιροειδὲς καὶ πεπερασμένον, οὐ γενητὸν ἀλλ' αἰδῖον καὶ πάμπαν ἀκίνητον.

§3 Plato: Diogenes Laertius *V.P.* 3.71–72 (on Plato) κόσμον τε εἶναι ἓνα γεννητὸν ... ἓνα τε αὐτὸν καὶ οὐκ ἄπειρον κατεσκευάσθαι, ὅτι καὶ τὸ ὑπόδειγμα ἐν ἡν ἄφ' οὗ αὐτὸν ἐδημιούργησε ... ἀλλὰ μὴν καὶ ἄφθαρτον διαμένειν τὸν κόσμον διὰ τὸ μὴ διαλύεσθαι εἰς τὸν θεόν. **Ambrose of Milan** *Exam.* 2.2.5, p. 44.10–15 Schenkel *nam sunt qui unum caelum esse dicant nec alterius caeli faciendi, dum esset una ὕλη, ut ipsi aiunt, potuisse subpetere substantiam, quoniam cum omnis superiori caelo esset expensa, nihil reliqui fuit quod ad aedificationem secundi caeli tertii proficeret alii vero innumeros caelos et mundos esse adserunt*. cf. **Proclus** at Philop. *Aet.Mu.* p. 24.2–16.

§4 Metrodorus: *Capitula Lucretiana* at *DRN* 1.951 (cited from Epic. *Ep.Hdt.* at D.L. 10.41, but without diacritics) το παν απειρον· το γαρ πεπερασμενον ακρον εχει. ad *DRN* 2.1058 *apiros mundos*. **ps.Plutarch** *Strom.* 11 (fr. 179 Sandbach) at Eus. *PE* 1.8.11 Μητρόδωρος ὁ Χίος (70A4 DK) αἰδῖον εἶναι φησι τὸ πᾶν, ὅτι εἰ ἡν γενητὸν, ἐκ τοῦ μὴ ὄντος ἂν ἦν· ἄπειρον δέ, ὅτι αἰδῖον, οὐ γὰρ ἔχειν ἀρχὴν ὅθεν ἡρξατο οὐδὲ πέρας οὐδὲ τελευτήν.

b Sources and Other Parallel Texts (see also below at Ch. 2.1)

General texts: Aristotle *Phys.* 8.1 250b18–22 ἀλλ' ὅσοι μὲν ἀπείρους τε κόσμους εἶναι φασι ... ὅσοι δ' ἓνα. Theophrastus *Phys.Op.* fr. 1 Diels, 225 FHS&G at Simp. in *Phys.* 23.33–24.2 Ἰππασος δὲ ὁ Μεταποντίνος (18A7 DK) καὶ Ἡράκλειτος ὁ Ἐφέσιος (22A5 DK) ἔν καὶ οὗτοι καὶ κινούμενον καὶ πεπερασμένον· ἀλλὰ πῦρ ἐποίησαν τὴν ἀρχὴν. *Divisiones Aristoteleae* 42, p. 56.1–2 φυσικὸν δέ (sc. πρόβλημα), οἷον πότερον εἰς κόσμος ἐστὶν ἢ πλείους. Diogenes Laertius *V.P.* 2.17 (on Archelaus, 60A1 DK) τὸ πᾶν ἄπειρον. Eusebius *PE* 15.62.13 (on Ariston, *SVF* 1.353) τὴν τ' αὐτὴ διαφωνίαν παμπόλλην οὖσαν· τοὺς μὲν γὰρ ἄπειρον ἀποφαίνειν τὸ πᾶν, τοὺς δὲ πεπερασμένον.

Chapter heading: Pliny *Nat.* 1 p. 11.2–3 *an finitus sit mundus et an unus.*

§1 Stoics: Proclus in *Tim.* 3.143.18–20 ὡς γὰρ τὸ πᾶν τὸ σωματικὸν ἐντὸς ἐτεκτῆναι τοῦ ψυχῆς, οὕτω καὶ τὴν γῆν ἐντὸς τοῦ οὐρανοῦ δεδημιουργηκεν.

§2 Empedocles: Empedocles 31B13–14 DK at ps.Arist. *MXG* 2 967b23–27 Ἐμπεδοκλῆς ... λέγων ὡς τοῦ παντός οὐδὲ κενεόν. πόθεν οὖν τί κ' ἐπέλθοι; ὅταν δὲ εἰς μίαν μορφήν συγκριθῇ, ὡς ἐν εἶναι, οὐδὲν φησι τὸ γε 'κενεὸν πέλει οὐδὲ περισσόν'.

§3 Plato: Plato *Tim.* 28b ὁ δὲ πᾶς οὐρανὸς—ἡ κόσμος ἢ καὶ ἄλλο ὅτι ποτὲ ὀνομαζόμενος μάλιστ' ἂν δέχοιτο, τοῦθ' ἡμῖν ὀνομάσθω—σκεπτέον δ' οὖν περὶ αὐτοῦ πρῶτον, ὅπερ ὑπόκειται περὶ παντός ἐν ἀρχῇ δεῖν σκοπεῖν, πότερον ἦν αἰεὶ, γενέσεως ἀρχὴν ἔχων οὐδεμίαν, ἢ γέγονεν, ἀπ' ἀρχῆς τινος ἀρξάμενος. γέγονεν. *Tim.* 30c–31b τῶν μὲν οὖν ἐν μέρους εἶδει πεφυκότων μηδενὶ καταξιώσωμεν—ἀτελεῖ γὰρ εἰσὶ οὐδὲν ποτ' ἂν γένοιτο καλόν—οὐ δ' ἐστὶν ἄλλα ζῶα καθ' ἐν καὶ κατὰ γένη μόρια, τούτῳ πάντων ὁμοιότατον αὐτὸν εἶναι τιθώμεν. τὰ γὰρ δὴ νοητὰ ζῶα πάντα ἐκεῖνον ἐν ἑαυτῷ περιλαβὸν ἔχει, καθάπερ ὁδε ὁ (d) κόσμος ἡμᾶς ὅσα τε ἄλλα θρέμματα συνέστηκεν ὁράτα. τῷ γὰρ τῶν νοουμένων καλλίστῳ καὶ κατὰ πάντα τελέῳ μάλιστα αὐτὸν ὁ θεὸς ὁμοιωσάι βουληθεὶς ζῶον ἐν ὁράτῳ, πάνθ' ὅσα (31a) αὐτοῦ κατὰ φύσιν συγγενῆ ζῶα ἐντὸς ἔχον ἑαυτοῦ, συνέστησε. πότερον οὖν ὁρθῶς ἓνα οὐρανὸν προσεῖρήκαμεν, ἢ πολλοὺς καὶ ἀπείρους λέγειν ἦν ὁρθότερον; ἓνα, εἴπερ κατὰ τὸ παρὰδειγμα δεδημιουργημένος ἔσται. ... ἵνα οὖν (b) τόδε κατὰ τὴν μόνωσιν ὁμοιον ἦ τῷ παντελεῖ ζῶῳ, διὰ ταῦτα οὕτε δύο οὐτ' ἀπείρους ἐποίησεν ὁ ποιῶν κόσμους, ἀλλ' εἰς ὅδε μονογενὴς οὐρανὸς γεγονώς ἐστὶν καὶ ἔτ' ἔσται. *Tim.* 33a πρὸς δὲ τούτοις ἓν, ἅτε οὐχ ὑπολειμμένων ἐξ ὧν ἄλλο τοιοῦτον γένοιτ' ἂν, ἔτι δὲ ἵν' ἀγῆρων καὶ ἄνοσον ἦ (quoted Philo *Aet.* 26). *Tim.* 33c–d ἀπῆλπε γὰρ οὐδὲν οὐδὲ προσήειν αὐτῷ ποθεν—οὐδὲ γὰρ ἦν—αὐτὸ γὰρ ἑαυτῷ τροφήν τὴν ἑαυτοῦ φθίσιν παρέχον καὶ πάντα ἐν ἑαυτῷ καὶ ὑφ' (d) ἑαυτοῦ πάσχον καὶ δρῶν ἐκ τέχνης γέγονεν· ἡγήσατο γὰρ αὐτὸ ὁ συνθεὶς αὐταρκες ὃν ἄμεινον ἔσσεσθαι μάλλον ἢ προσδεῆς ἄλλων. Aristotle fr. 206 R³ at Simp. in *Cael.* 296.16–17 Ἀριστοτέλης ... τοῦ Πλάτωνος Τίμαιον ἐπιτεμνόμενος γράφει· 'φησὶ δὲ γενητὸν εἶναι'. *Cael.* 1.10 279b32–280a2 ἦν δὲ τινες βοήθειαν ἐπιχειροῦσι φέρειν ἑαυτοῖς τῶν λεγόντων ἀφαρτον μὲν εἶναι γενόμενον δέ, οὐκ ἐστὶν ἀληθές· ὁμοίως γὰρ φασι τοῖς τὰ διαγράμματα γράφουσι καὶ σφᾶς εἰρηκέναι περὶ τῆς γενέσεως, οὐχ ὡς γενομένου ποτέ, ἀλλὰ διδασκαλίας χάριν ὡς μάλλον γνωρίζοντων, ὥσπερ τὸ διάγραμμα γιγνόμενον θεασαμένους. *Cael.* 1.10 280a28–32 εἰσὶ γὰρ τινες οἷς ἐνδέχασθαι δοκεῖ καὶ ἀγέννητόν {τι} ὃν φθαρήναι

καὶ γενόμενον ἄφθαρτον διατελεῖν, ὥσπερ ἐν τῷ Τιμαίῳ· ἐκεῖ γάρ φησι τὸν οὐρανὸν γενέσθαι μὲν, οὐ μὴν ἀλλ' ἔσεσθαι γε τὸν λοιπὸν αἰεὶ χρόνον. *Cael.* 1.12 283a4–7 τὸ δὲ φάναι μὴδὲν κωλύειν γινόμενόν τι ἄφθαρτον εἶναι καὶ ἀγέννητον ὃν φθαρῆναι, ἅπαξ ὑπαρχούσης τῷ μὲν τῆς γενέσεως τῷ δὲ τῆς φθοράς, ἀναιρεῖν ἐστὶ τῶν δεδομένων τι. *Cael.* 1.12 283a29–31 ἔστι δὲ καὶ ὧδε θεωρῆσαι ὅτι ἀδύνατον ἢ γενόμενον ποτε ἄφθαρτον διατελεῖν, ἢ ἀγέννητον ὃν καὶ αἰεὶ πρότερον ὃν φθαρῆναι. κτλ. *Cael.* 2.4 287a11–22 ἔτι δὲ ἐπεὶ φαίνεται καὶ ὑπόκειται κύκλῳ περιφέρεσθαι τὸ πᾶν, δέδεικται δ' ὅτι τῆς ἐσχάτης περιφορᾶς οὔτε κενὸν ἐστὶν ἔξωθεν οὔτε τόπος, ἀνάγκη καὶ διὰ ταῦτα σφαιροειδῆ εἶναι αὐτόν. εἰ γὰρ ἔσται εὐθύγραμμος, συμβήσεται καὶ τόπον εἶναι ἔξω καὶ σῶμα καὶ κενόν. κύκλῳ γὰρ στρεφόμενον τὸ εὐθύγραμμον οὐδέποτε τὴν αὐτὴν ἐφέξει χώραν, ἀλλ' ὅπου πρότερον ἦν σῶμα, νῦν οὐκ ἔσται, καὶ οὐ νῦν οὐκ ἔστι, πάλιν ἔσται, διὰ τὴν παράλλαξιν τῶν γωνιῶν. ὁμοίως δὲ καὶ εἴ τι ἄλλο σχῆμα γένοιτο μὴ ἴσας ἔχον τὰς ἐκ τοῦ μέσου γραμμάς, οἷον φακοειδὲς ἢ ὦρειδὲς· ἐν ἅπασι γὰρ συμβήσεται καὶ τόπον ἔξω καὶ κενὸν εἶναι τῆς φορᾶς, διὰ τὸ μὴ τὴν αὐτὴν χώραν κατέχειν τὸ ὅλον. *Ocellus* ch. 13 εἰ δὲ καὶ δοξάζοι τις αὐτὸ (sc. τὸ πᾶν) φθίρεισθαι, ἥτοι ὑπὸ τινος τῶν ἔξω τοῦ παντὸς φθαρῆσεται δυναστευόμενον ἢ ὑπὸ τινος τῶν ἐντός. οὔτε δ' ὑπὸ τινος τῶν ἔξωθεν· ἐκτός γὰρ τοῦ παντὸς οὐδέν, τὰ γὰρ ἄλλα πάντα ἐν τῷ παντί, καὶ τὸ ὅλον καὶ τὸ πᾶν ὁ κόσμος· ... εἰ δὲ οὔτε ὑπὸ τινος τῶν ἔξωθεν οὔτε ὑπὸ τινος τῶν ἐνδοθεν φθαρῆσεται τὸ πᾶν, ἄφθαρτος ἄρα καὶ ἀνώλεθρος ὁ κόσμος· τοῦτον γὰρ ἔφαμεν εἶναι τὸ πᾶν. **Philo of Alexandria** *Aet.* 78 (*SVF* 3 Boeth. 7). **Plutarch** *de E* 389F 'πολλὰ δ' ἄλλα τοιαῦτα, ἔφην ἐγώ, 'παρελθὼν τὸν Πλάτωνα προσάξομαι λέγοντα (*Tim.* 31a) κόσμον ἕνα'. **Lucretius** *DRN* 1.958–959 *omne quod est igitur nulla regione viarum / finitumst; namque extremum debebat habere.* *DRN* 5.156–165 *dicere porro hominum causa voluisse parare / praeclaram mundi naturam proptereaque / adlaudabile opus divom laudare decere / aeternumque putare atque inmortale futurum, / nec fas esse, deum quod sit ratione vetusta / gentibus humanis fundatum perpetuo aevo, / sollicitare suis ulla vi ex sedibus umquam / nec verbis vexare et ab imo evertere summa, / cetera de genere hoc adfingere et addere, Memmi, / desiperest.* **Cicero** *ND* 1.20–23 *sed illa palmaris* (sc. sententia), *quod, qui* (sc. Plato) *non modo natum mundum introduxerit sed etiam manu paene factum, is eum dixerit fore sempiternum. hunc censes primis ut dicitur labris gustasse physiologiam id est naturae rationem, qui quicquam quod ortum sit putet aeternum esse posse?* ... (23) *an haec, ut fere dicitis, hominum causa a deo constituta sunt? sapientiumne? propter paucos igitur tanta est rerum facta molitio. an stultorum?* **Scholium in Aristotelem** *Cael.* 1.9, p. 4.489a9–12 Brandis ὁ Ξενοκράτης (fr. 54 Heinze, 73 Isnardi Parente²) καὶ ὁ Σπεύσιππος (fr. 54a Lang, 94 Isnardi Parente, 61a Tarán) ἐπιχειροῦντες βοηθῆσαι τῷ Πλάτῳ ἐλεγον ὅτι οὐ γενητὸν τὸν κόσμον ὁ Πλάτων ἐδόξαζεν ἀλλὰ ἀγέννητον, χάριν δὲ διδασκαλίας καὶ τοῦ γνωρίσαι καὶ παραστήσαι αὐτὸ ἀκριβέστερον ἔλεγε τοῦτον γενητὸν.

§4 Metrodorus *Epicurus Ep.Hdt.* at D.L. 10.45 ἀλλὰ μὴν καὶ κόσμοι ἄπειροί εἰσιν. *Ep.Pyth.* at D.L. 10.89 ὅτι δὲ καὶ τοιοῦτοι κόσμοι εἰσὶν ἄπειροι τὸ πλῆθος ἔστι καταλαβεῖν. **Cicero** *Luc.* 55 *ais Democritum* (68A81 DK) *dicere innumerabiles esse mundos.* **Valerius Maximus** 8.14.2 *Alexandri pectus insatiabile laudis, qui*

Anaxarcho (72A11 DK) *comiti suo ex auctoritate Democriti* (fr. lxxxiii Luria) *praeceptoris innumerabiles mundos esse referenti 'heu me' inquit 'miserum, quod ne uno quidem adhuc sum potitus!'* **Plutarch** *Tranq.An.* 466D Ἀλέξανδρος Ἀναξάρχου (72A11 DK) περὶ κόσμων ἀπειρίας ἀκούων ἐδάκρυε. **Diogenes Laertius** *V.P.* 9.31 τὸ μὲν πᾶν ἄπειρόν φησιν (on Leucippus, 67A1 DK), ὡς προείρηται (*V.P.* 9.30)· τούτου δὲ τὸ μὲν πλήρες εἶναι, τὸ δὲ κενόν, (ἃ) καὶ στοιχεῖά φησι. κόσμους τε ἐκ τούτων ἀπείρους εἶναι καὶ διαλύεσθαι εἰς ταῦτα.

Liber 1 Caput 6

P^B : ps.Plutarchus *Plac.* 879C–880D; pp. 292^a20–297^a10 Diels—**P^G** : ps.Galenus *HPh* c. 34; pp. 617.13–21 Diels; pp. 116–121 Jas—**P^Q** : Quṣṭā ibn Lūqā pp. 110–115 Daiber—**P^C** : Cyrillus *Juln.* 2.22.7–17 p. 116 Riedweg (pars prima repetita 2.52.21–24, p. 158)—**P^{Ps}** : Psellus *Omn.Doctr.* 19, p. 25 Westerink (titulus solus)

Cf. Ath: Athenagoras *Leg.* 4.2.12–14; 16.1.1–3 Marcovich

Titulus ζ'. Πόθεν ἔννοϊαν ἔσχον θεῶν ἄνθρωποι (P)

§1 ὀρίζονται δὲ τὴν τοῦ θεοῦ οὐσίαν οἱ Στωικοὶ οὕτως· ‘πνεῦμα νοερὸν καὶ πυρῶδες οὐκ ἔχον μὲν μορφήν, μεταβάλλον δ’ εἰς ἃ βούλεται καὶ συνεξομοιούμενον πᾶσιν’.

ἔσχον δ’ ἔννοϊαν τούτου πρῶτον μὲν ἀπὸ τοῦ κάλλους τῶν ἐμφαινόμενων προσλαμβάνοντες· οὐδὲν γὰρ τῶν καλῶν εἰκὴ καὶ ὡς ἔτυχε γίνεται, ἀλλὰ μετὰ τινος τέχνης δημιουργούσης. καλὸς δ’ ὁ κόσμος· δῆλον δ’ ἐκ τοῦ σχήματος καὶ τοῦ χρώματος καὶ τοῦ μεγέθους καὶ τῆς περὶ τὸν κόσμον τῶν ἀστέρων ποικιλίας. σφαιροειδὴς γὰρ ὁ κόσμος, ὁ πάντων σχημάτων πρωτεύει· μόνον γὰρ τοῦτο τοῖς ἑαυτοῦ μέρεσιν ὁμοιοῦται· περιφερὴς δ’ ὧν ἔχει τὰ μέρη περιφερῆ· (διὰ τοῦτο γὰρ κατὰ τὸν Πλάτωνα ἐν τῇ κεφαλῇ τὸ ἱερώτατον συνέστηκε νοῦς). καὶ τὸ χρῶμα δὲ καλόν· κυανῶσει γὰρ κέχρωσται, ὁ πορφύρας μὲν ἐστὶ μελάντερον στίλβουσιν δ’ ἔχει τὴν ποιότητα· καὶ διὰ ταύτην τὴν αἰτίαν τῷ τῆς χροιάς συντόνῳ διακόπτει τῆλικαύτην ἀέρος σύστασιν ἐκ τοσούτων διαστημάτων θεωρεῖται. καὶ ἐκ τοῦ μεγέθους καλός· πάντων γὰρ τῶν ὁμογενῶν τὸ ὑπερέχον καλὸν ὡς ζῶον καὶ δένδρον. ἐπιτελεῖ τὸ

§1 Stoici *SVF* 2.1009 (= Posidonius fr. 364 Theiler (ab l. 5 usque ad l. 37)); [2–4] Posidonius *F* 101 E–K, 349 Theiler (cf. infra 1.7.10); [11–12] cf. Plato *Tim.* 44d

cap. non hab. **ST** **titulus** ἔννοϊαν ἔσχον **P^B**, cf. **Q** : ἔσχομεν ἔννοϊαν **P^G** || θεῶν **P^{B(IIDG)}** : θεοῦ **P^{B(IIDQPs)}** || ἄνθρωποι **P^{B(IIDQPs2)}** : οἱ ἄνθρωποι **P^{B(IIDPs1)}**, om. **P^G** §1 [2] θεοῦ **P^B** (cf. **Q** *das göttliche Wesen*) : θεοῦ **P^C** index libri Diels, cf. **P^G** θεὸν || οὐσίαν **P^{BQ}** : ἔννοϊαν **P^C** || νοερὸν **P^{B(CQ)}** (*vernunftbegabtes Q*) : νοητὸν **P^G** || [3] μεταβάλλον **P^{B(IID)}** : μεταβαλλόμενον **P^{B(IIDG)}** || εἰς ἃ **P^B** : εἰς ὃ **P^{CG}** Diels || [5] ἔσχον **P^{B(CQ)}** : ἔσχομεν **P^G** || [5–6] τῶν ἐμφαινόμενων **P^{B(IIDQ)}** : τὴν ἐμφαινόμενην **P^{B(IID)}** || [6] προσλαμβάνοντες **P^{BQ}** : προσβάλλοντες **P^C** || οὐδὲν γὰρ **P^B** : ὡς οὐδὲν **P^{CG}** || [9] περὶ τὸν κόσμον om. **Q** || γὰρ **P^{B(IIDQ)}** : δὲ **P^{B(IID)}** || [10] post πάντων add. **P^{B(IID)}** τῶν || [12] ἱερώτατον **P^{B(IIDQ)}** : ἱερὸν **P^{B(IID)}** || [12–14] καὶ ... μελάντερον] al. **Q** *ferner ist die Farbe der Welt himmelblau* || [13] γὰρ om. **P^{B(IID)}** || [15] σύστασιν **P^{B(IID)}** Mau Lachenaud : ἀπόστασιν **P^{B(IIDQ)}** Diels || [17] τῶν om. **P^{B(IID)}** || ὑπερέχον **P^{B(IID)}** Mau Lachenaud : περιέχον **P^{B(IIDQ)}** Diels, cf. Ath. *Leg.* 16.1

κάλλος τοῦ κόσμου καὶ ταῦτα τὰ φαινόμενα· ὁ μὲν γὰρ λοξὸς κύκλος ἐν οὐρανῷ διαφόροις εἰδῶλοις πεποίκιλται·

τῷ δ' ἐνὶ Καρκίνος ἐστὶ, Λέων δ' ἐπὶ τῷ, μετὰ δ' αὐτὸν
 Παρθένος, ἥ δ' ἐπὶ οἱ Χηλαὶ καὶ (ἐπ' αὐτῷ) Σκορπίος αὐτὸς
 Τοξευτὴς τε καὶ Αἰγόκερως, ἐπὶ δ' Αἰγοκέρωτι
 Ὑδροχόος· δύο δ' αὐτὸν ἐπ' Ἰχθύες ἀστερόεντες,
 τοὺς δὲ μέτα Κριός, Ταῦρος δ' ἐπὶ τῷ Δίδυμοί τε.
 μυρία δ' ἄλλα καθ' ὁμοίας τοῦ κόσμου περικλάσεις πεποίηκεν· ὅθεν καὶ
 Εὐριπίδης φησί·

τό τ' ἀστερωπὸν οὐρανοῦ σέλας,
 χρόνου καλὸν ποίκιλμα, τέκτονος σοφοῦ.
 ἐλάβομεν δ' ἐκ τούτου ἔννοιαν θεοῦ· αἰεὶ τε γὰρ ἥλιος καὶ σελήνη
 καὶ τὰ λοιπὰ τῶν ἄστρον τὴν ὑπόγειον φορὰν ἐνεχθέντα ὅμοια μὲν
 ἀνατέλλει τοῖς χρώμασιν, ἴσα δὲ τοῖς μεγέθεσι καὶ κατὰ τόπους καὶ
 κατὰ χρόνους τοὺς αὐτοὺς.

διόπερ οἱ τὸν περὶ τῶν θεῶν παραδόντες σεβασμὸν διὰ τριῶν
 ἐξέθηκαν ἡμῖν εἰδῶν, πρῶτον μὲν τοῦ φυσικοῦ, δεύτερον δὲ τοῦ μυθικοῦ,
 τρίτον δὲ τοῦ τὴν μαρτυρίαν ἐκ τῶν νόμων εἰληφότος. διδάσκεται δὲ τὸ
 μὲν φυσικὸν ὑπὸ τῶν φιλοσόφων, τὸ δὲ μυθικὸν ὑπὸ τῶν ποιητῶν, τὸ δὲ
 νομικὸν ὑφ' ἐκάστης αἰεὶ πόλεως συνίσταται.

διαίρεται δ' ἡ πᾶσα διδαχὴ εἰς εἶδη ἑπτὰ· καὶ πρῶτον μὲν τὸ ἐκ
 τῶν φαινομένων καὶ μετεώρων· θεοῦ γὰρ ἔννοιαν ἔσχον ἀπὸ τῶν φαινο-
 μένων ἀστέρων, ὀρώντες τούτους μεγάλῃς συμφωνίας ὄντας αἰτίους καὶ
 τεταγμένους ἡμέραν τε καὶ νύκτα καὶ χειμῶνα καὶ θέρος, ἀνατολάς τε
 καὶ δυσμάς, καὶ τὰ ὑπὸ τῆς γῆς ζωογονούμενα καὶ καρπογονούμενα. διὸ
 πατὴρ μὲν ἔδοξεν αὐτοῖς οὐρανὸς ὑπάρχειν, μήτηρ δὲ γῆ· τούτων δ' ὁ

[20–24] Aratus *Phaen.* 545–549; [27–28] immo Critias *Sisyph.* fr. 1.33–34 Kannicht, 88B25.33–34 DK

[18] τὰ P^{B(II)} : om. P^{B(III)} || [21] post καὶ inserunt P^{BQ} ἐπ' αὐτῷ (interpolatio redactoris) ||
 [22] αἰγοκέρωτι P^{B(III)} : αἰγοκέρω P^{B(II)} : αἰγοκερῆι edd. Aratum secuti || [23] ὕδροχόος P^{B(II)} :
 ὕδρηχός P^{B(III)} || [25] τοῦ κόσμου om. P^{B(II)} || [26] φησί P^{BQ} : εἶπεν P^G || [27] τό τ' : τὸν P^B,
 corr. edd. || οὐρανοῦ οὐρανόν P^Q || [28] χρόνου corr. Beck ex Sexto Empirico : χρόνον P^{BQ} ||
 [29] ἥλιος P^{B(II)} : ὁ ἥλιος P^{B(III)Q}, cf. P^G || [30] ὑπόγειον P^B : οἰκεῖον P^Q || φορὰν om. P^C || [31]
 τοῖς χρώμασιν P^{BQ} : τοῖς χρώμασιν καὶ τοῖς σχήμασι P^G || [31–32] καὶ κατὰ χρόνους om. P^C ||
 [33] τῶν om. P^{B(II)} || [35] τὴν μαρτυρίαν om. P^Q || post εἰληφότος hab. P^B διοικεῖσθαι (sed
 non exhib. P^Q), del. edd. || [38] δ' ἡ Diels : δὴ P^{B(II)} : δὲ P^{B(II)} : μὴν P^{B(III)} || [41] τεταγμένους
 P^{B(II)} : -ως P^{B(II)} : -νας P^{B(III)} || [41–42] ἀνατολάς τε καὶ δυσμάς glossema susp. Diels, non
 hab. P^Q qui legit γιγνώμενα || [43] ante οὐρανός hab. ὁ P^{B(III)Q} || δὲ γῆ P^{B(II)} : δὲ τούτων ἡ γῆ
 P^{B(III)Q} || τούτων δὲ non exhib. P^Q || [43–44] ὁ μὲν πατὴρ P^{B(II)} : ὁ μὲν ἀπὸ πατὴρ P^{B(III)} : ὁ
 μὲν ἀπὸ P^Q

μὲν πατήρ διὰ τὸ τὰς τῶν ὑδάτων ἐκχύσεις σπερμάτων ἔχειν τάξιν, ἡ δὲ
 γῆ μήτηρ διὰ τὸ δέχεσθαι ταῦτα καὶ τίκτειν· βλέποντες δὲ τοὺς ἀστέρας 45
 αἰεὶ θέοντας αἰτίους τε τοῦ θεωρεῖν ἡμᾶς ἥλιον καὶ σελήνην θεοὺς
 προσηγόρευσαν. εἰς δεύτερον δὲ καὶ τρίτον τόπον τοὺς θεοὺς διεῖλλον, εἰς
 τε τὸ βλάπτον καὶ τὸ ὠφελοῦν· καὶ τοὺς μὲν ὠφελοῦντας Δία Ἥραν
 Ἑρμῆν Δήμητραν· τοὺς δὲ βλάπτοντας Ποινὰς Ἑρινύας Ἄρην, τούτους 50
 ἀφοσιούμενοι χαλεποὺς ὄντας καὶ βιαίους. τέταρτον καὶ πέμπτον
 προστεθείκασι τοῖς πράγμασι καὶ τοῖς πάθεσι, καθάπερ Ἑρωτα
 Ἀφροδίτην Πόθον, πραγμάτων δ' Ἑλπίδα Δίκην Εὐνομίαν. ἔκτον δὲ
 τόπον προσέλαβε τὸ ὑπὸ τῶν ποιητῶν πεπλασμένον· Ἡσίοδος γὰρ
 βουλόμενος τοῖς γενητοῖς θεοὺς πατέρας συστήσαι εἰσήγαγε τοιοῦτους 55
 αὐτοῖς γεννήτορας·

Κοῖόν τε Κρεῖόν θ' Ὑπερίονά τ' Ἰαπετόν τε·

διὰ τοῦτο καὶ μυθικὸν κέκληται. ἔβδομον δὲ καὶ ἐπὶ πᾶσι τὸ διὰ τὰς
 εἰς τὸν κοινὸν βίον εὐεργεσίας ἐκτετιμημένον ἀνθρώπινον δὲ γεννηθέν,
 ὡς Ἥρακλέα ὡς Διοσκόρους ὡς Διόνυσον. ἀνθρωποειδεῖς δ' αὐτοὺς 60
 ἔφασαν εἶναι, διότι τῶν μὲν ἀπάντων τὸ θεῖον κυριώτατον, τῶν δὲ ζώων
 ἀνθρωπος κάλλιστον καί, κεκοσμημένον ἀρετῇ διαφόρως κατὰ τὴν τοῦ
 νοῦ σύστασιν, τὸ κράτιστον. τοῖς οὖν ἀριστεύουσι τὸ κράτιστον ὁμοίως
 καὶ (κάλλιστον ἐπιτιθέναι) καλῶς ἔχειν διενεώθησαν. (P1)

[56] Hesiodus *Th.* 134

[45] γῆ hab. ^{PBQ}, secl. Diels || [45–46] τοὺς ... θέοντας ^{PB(I,II)Q} : αἰεὶ ante τοὺς ^{PB(III)} || [46]
 ἡμᾶς ^{PB(I,II)Q} : ἡμῖν ^{PB(III)} || [53] προσέλαβε ^{PB(I,II)} : προσέλαβον ^{PB(II)Q} Diels qui προστεθεί-
 κασι l. 51 respicit || [54] γενητοῖς ^{PB(I,II)} : γεννητοῖς ^{PB(II)} || θεοὺς corr. Diels : θεοῖς ^{PB}, non
 exhib. ^{PQ} || [55] αὐτοῖς corr. Wytttenbach : αὐτὸς ^{PB} || [58] ἀνθρώπινον δὲ γεννηθέν corr. Diels
 sec. Beck : ἀνθρώπινον δὲ γεννηθέντα ^{PB(I)} : ἀνθρώπινα δὲ γεννηθέντα ^{PB(II)} : ἀνθρώπινως δὲ γεν-
 νηθέντας ^{PB(III)} || [61] καὶ κεκοσμημένον Wytttenbach Mau Lachenaud : καὶ κοσμημένον ^{PB(II)} :
 κεκοσμημένον ^{PB(I,II)} Diels || [61–62] κατὰ ... σύστασιν om. ^{PQ} || [62] τὸ κράτιστον ^{PBQ}, secl.
 Diels || [63] κάλλιστον ἐπιτιθέναι suppl. Mau prob. Lachenaud (καὶ καλῶς cruxif. Diels).

Testes primi:

Athenagoras *Leg.* 16.1.1–3 (~ §1[5–19]) καλὸς μὲν γὰρ ὁ κόσμος καὶ τῷ μεγέθει
 περιέχων καὶ τῇ διαθέσει τῶν τε ἐν τῷ λοξῷ κύκλῳ καὶ τῶν περὶ τὴν ἄρκτον καὶ
 τῷ σχήματι σφαιρικῶ ὄντι· ἀλλ' οὐ τοῦτον, ἀλλὰ τὸν τεχνίτην αὐτοῦ προσκυνη-
 τέον. cf. *Leg.* 4.2.12–14 (~ §1[5–9, 39–42] supra cit. ad c. 1.3).

traditio ps.Plutarchi:

ps.Galenus *HPh* c. 34 (~ tit.) Πόθεν ἔσχομεν ἔννοιαν θεῶν (text Jas)

34.1 (~ P1[1–32]) ὀρίζονται τὸν θεὸν οἱ Στωικοὶ πνεῦμα νοητὸν, οὐκ ἔχον μορφήν,
 μεταβαλλόμενον δὲ εἰς ὃ βούλεται. ἔσχομεν δὲ ἔννοιαν τούτου ἐκ τοῦ κάλλους
 καὶ μεγέθους τῶν φαινομένων αὐτοῦ δημιουργημάτων. οὐδὲν γὰρ τῶν καλῶν

εἰκὴ γεγένηται, ἀλλ' ὑπὸ δημιουργοῦ σοφοῦ. ὅθεν Εὐριπίδης εἶπεν· ἄστέρες δ' ἐν οὐρανῷ ποικίλμα τέκτονος σοφοῦ. ἐλάβομεν δὲ ἔννοιαν ἐκ τοῦ τὸν ἥλιον καὶ τὴν σελήνην καὶ τοὺς λοιποὺς τῶν ἀστέρων τὴν ὑπόγειον φορὰν ἐνεχθέντας ὁμοίους ἀνατέλλειν τοῖς σώμασι καὶ τοῖς σχήμασιν, ἴσους δὲ καὶ τοῖς μεγέθεσι καὶ κατὰ τόπους τοὺς αὐτοὺς καὶ χρόνους.

Cyrillus Juln. 2.22 (~ P1[33–37]) ἔφη γάρ που περὶ αὐτῶν ἰσχνὸς ὢν ἄγαν ὁ Πλούταρχος ἐν τῷ πρώτῳ βιβλίῳ Φυσικῶν δογμάτων συναγωγῆς· ἔλαβον δὲ ἐκ τοῦτου ἔννοιαν Θεοῦ· αἰεὶ τε γὰρ ἥλιος καὶ σελήνη καὶ τὰ λοιπὰ τῶν ἀστρων τὴν ὑπόγειον ἐνεχθέντα ὅμοια μὲν ἀνατέλλει τοῖς χρώμασιν, ἴσα δὲ τοῖς μεγέθεσι καὶ κατὰ τόπους τοὺς αὐτοὺς· (~ P1[1–7]) καὶ πάλιν ἐν τῷ αὐτῷ βιβλίῳ· ὀρίζονται δὲ τὴν τοῦ Θεοῦ ἔννοιαν οὕτως· πνεῦμα νοερὸν καὶ πυρῶδες, οὐκ ἔχον μὲν μορφήν, μεταβάλλον δὲ εἰς ὃ βούλεται καὶ συνεξομοιούμενον πᾶσιν· ἔσχον δὲ ἔννοιαν τούτου πρῶτον μὲν ἀπὸ τοῦ κάλλους τῶν ἐμφαινομένων προσβαλόντες ὥς οὐδὲν τῶν καλῶν εἰκὴ καὶ ὡς ἔτυχε γίνεται, ἀλλὰ μετὰ τινος τέχνης δημιουργοῦσης.

Psellus Omn.Doctr. c. 19 (~ tit.) Πόθεν ἔννοιαν ἔσχον θεοῦ ἄνθρωποι

Loci Aetiani:

quaestio A 4.11.1–4 πρῶτος δὲ {ὁ} τῆς ἀναγραφῆς (sc. τῶν ἐννοιῶν) τρόπος ὁ διὰ τῶν αἰσθήσεων· αἰσθανόμενοι γάρ τινος οἶον λευκοῦ, ἀπελθόντος αὐτοῦ μνήμην ἔχουσιν· ὅταν δ' ὁμοειδεῖς πολλαὶ μνήμαι γένωνται, τότε φαμὲν ἔχειν ἐμπειρίαν· ἐμπειρία γάρ ἐστὶ τὸ τῶν ὁμοειδῶν (φαντασιῶν) πλῆθος. τῶν δ' ἐννοιῶν αἱ μὲν φυσικῶς γίνονται κατὰ τοὺς εἰρημένους τρόπους καὶ ἀνεπιτεχῆτως, αἱ δ' ἤδη δι' ἡμετέρας διδασκαλίας καὶ ἐπιμελείας· αὗται μὲν οὖν ἔννοιαι καλοῦνται μόνον, ἐκείναι δὲ καὶ προλήψεις. A 5.23.2 Ἀριστοτέλης δὲ κατὰ τὴν πρώτην ἐβδομάδα (sc. ἄρχεσθαι τοὺς ἀνθρώπους τῆς τελειότητος), καθ' ἣν ἔννοια γίνεται καλῶν τε καὶ αἰσchrῶν καὶ τῆς διδασκαλίας ἀρχή.

§1[2] A 4.8.1 οἱ Στωικοὶ ὀρίζονται οὕτως τὴν αἴσθησιν.

§1[2–4] A 1.7.10 Ποσειδώνιος πνεῦμα νοερὸν καὶ πυρῶδες, οὐκ ἔχον μὲν μορφήν, μεταβάλλον δὲ εἰς ὃ βούλεται καὶ συνεξομοιούμενον πᾶσιν. A 1.7.33 οἱ Στωικοὶ νοερὸν θεὸν ἀποφαίνονται ... πνεῦμα μὲν διήκον δι' ὅλου τοῦ κόσμου, τὰς δὲ προσηγχορίας μεταλαμβάνον δι' ὅλης τῆς ὕλης δι' ἧς κεχωρῆκει παραλλάξεις. A 4.3.3 οἱ Στωικοὶ πνεῦμα νοερὸν θερμόν (sc. τὴν ψυχὴν).

§1[9–11] A 1.7.1 [29–30] ἡ πῶς σφαιροειδῆ τὸν θεόν, ὄντα ταπεινότερον ἀνθρώπου. A 1.7.22 αἰσθητὰ δὲ τοῦ πρώτου θεοῦ ἔγγονα ἥλιος, σελήνη, ἀστέρες, γῆ καὶ ὁ περιέχων πάντα κόσμος. A 1.14.2 οἱ ἀπὸ Πυθαγόρου σφαιρικὰ τὰ σχήματα τῶν τεττάρων στοιχείων, μόνον δὲ τὸ ἀνώτατον πῦρ κωνοειδές (sic). A 2.2.2 οἱ μὲν Στωικοὶ σφαιροειδῆ τὸν κόσμον. A 2.12.4 Λεύκιππος καὶ Δημόκριτος σφαιροειδῆ τὸν κόσμον. A 2.22.3 οἱ Πυθαγόρειοι οἱ Στωικοὶ σφαιροειδῆ, ὡς τὸν κόσμον καὶ τὰ ἄστρα.

§1[11–12] A 4.5.1 Πλάτων Δημόκριτος ἐν ὅλῃ τῇ κεφαλῇ (sc. τὸ τῆς ψυχῆς ἡγεμονικόν). A 4.21.5 (de Stoicis) αὐτὸ δὲ τὸ ἡγεμονικόν ὥσπερ ἐν κόσμῳ (ὁ θεός) κατοικεῖ ἐν τῇ ἡμετέρᾳ σφαιροειδεῖ κεφαλῇ.

§1[17] Ἐπίκουρος πλείστοις τρόποις τὸν κόσμον φθείρεσθαι· καὶ γὰρ ὡς ζῶον καὶ ὡς φυτὸν καὶ πολλαχῶς.

§1[27–28] versus alii eiusdem *Sisyphi* fragmenti laudantur ap. A 1.7 [13–14, 20–21].

§1[58–60] A 1.7.1 [56–58] καὶ ὁ τοῦτου δὲ συγγενῆς Ἡρακλῆς πολλὰ τῶν ἐπιλυμαينوμένων τὸν ἀνθρώπινον βίον καθάρας ὑπὸ Δηιανείρας φαρμακευθεὶς ἐδόλοφονήθη.

§1[59] A 1.3.34 Ἐπίκουρος ἀνθρωποειδεῖς μὲν πάντας τοὺς θεοὺς.

§1[60–62] A 1.7.1 [29–30] ἢ πῶς σφαιροειδῆ τὸν θεόν, ὄντα ταπεινότερον ἀνθρώπου.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The chapter is only recorded in P and his tradition (with only the heading in Ps), so lacking in S just like ch. 1.7.1, and there is no evidence of its use in S or T, but the parallels in the earlier and later proximate tradition for the proximity of the discussion of the *origin* of the concept of god (or gods) and the dispute about their *existence* and nature is certainly in favour of attributing the chapter to A, just as is the case with A ch. 1.7.1 (see the present chapter below, sections D(a) and (e), and ch. 1.7 Commentary A and D(c)). Parallels for this association are to be found at Cicero *ND* 2.4–19 and Sextus Empiricus *M.* 9.13–48 about the origin of the concept, Cicero *ND* 2.20–44 about their existence, *ND* 2.45–72 about their nature, and Sextus Empiricus *M.* 9.49–194 about their existence and nature. Cf. below, section D(a). In the case of Athenagoras we cannot be certain whether he has based his text on A or P; see above General Introduction, section 4.3.

(2) The single doxa that it contains is the longest in the work. It is found in full in P^B and P^Q. P^G drastically reduces the chapter to about a seventh of its original length. The anonymous definition of the essence of the divine with which it begins is that of Posidonius quoted in S (and not in P) at ch. 1.7.10 (wording identical). Brief verbatim quotations (in a different order) are found in Cyril, while Ps utilizes it quite superficially in the theological section of his work.

(3) The brief paraphrase of §1[5–19] at Ath *Leg.* 16.1, καλὸς μὲν γὰρ ὁ κόσμος καὶ τῷ μεγέθει περιέχων καὶ τῇ διαθέσει τῶν τε ἐν τῷ λοξῷ κύκλῳ καὶ τῶν περὶ τὴν ἄρκτον καὶ τῷ σχήματι σφαιρικῶ ὄντι, anticipated *ibid.* 4.2 τοσαῦτα ἔχοντες πρὸς θεοσέβειαν ἐνέχυρα, τὸ εὐτακτον, τὸ διὰ παντὸς σύμφωνον, τὸ μέγεθος, τὴν χροιάν, τὸ σχῆμα, τὴν διάθεσιν τοῦ κόσμου, may derive from either P or A, or may even

go back to the original source of A. It cannot be concluded that the Christian apologist, whose work is to be dated to c. 177 CE, made direct use of P, although he may well have done so. The question has implications for the dating of P; see further M–R 1.75, 124–125, 312–314.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition consists for the most important part in the substantial accounts of Philodemus, Cicero, Sextus Empiricus and Clement of Alexandria; see at section D(e) below.

(2) *Sources.* Although the use of Stoic handbooks (as in Philodemus, Cicero, Sextus and Clement) can hardly be denied, e.g. because of the parallel between the sevenfold *didache* and Cicero *ND* 2.60–71 plus Clement of Alexandria *Protr.* 26, the introductory passage about the beauty of the firmament or sky as apparent from its shape, colour, size and decoration of stars does not bear the stamp of the handbook, but rather impresses one as an abstract from a major work. This in spite of the parallels in Lucretius *DRN* 2.1026–1032 cited below, section E(a)§1[7–9], or in well-known arguments of Aristotle surviving in Cicero and Sextus (cited below section E(b)§1[29–32]). The parallel in A has not been noticed in the Lucretius commentaries we have seen; for that of the Lucretius passage with Aristotle's *On Philosophy* see Clay (1983) 243–244. Only the 'Stoic' definition at the beginning is, as we have seen, ascribed to Posidonius at A 1.7.10 (F 101 E.-K., 364 Theiler). Yet one understands that scholars have thought of Posidonius (though less so today than formerly) and that some among them, e.g. Theiler, have even attributed (almost) the whole chapter to the Apamaean. Cf. further below, section D(d)§1[5–32] and [47–50].

C *Chapter Heading*

A precise and detailed heading. The sources differ as to god/gods in the singular or plural. Obviously the plural is to be preferred, since Q and Ps would automatically opt for a monotheistic formula. This is the first of the six headings beginning with Πόθεν (*unde*), the issue of source or origin, a sub-species of the question type of cause and a sub-sub-species of the theoretical *quaestio*. The others are at chs. 2.5, 2.17, 4.21, 5.11, and 5.28; for this question *unde* cf. Cicero *Top.* 82, *coniecturae ratio in quattuor partes distributa est, quarum ... altera* (sc. est) *unde ortum sit*.

D *Analysis*

a Context

(1) The chapter on the origin of the concept of God is the first of the three chapters dealing with theological matters. It is closely connected with the next

chapter, 1.7, which deals at length with the question types of the existence (or not) and nature, or substance, of the gods. In its turn this chapter is followed by the short ch. 1.8, 'On demons and heroes'. Compare Cicero (in whose announcement at *ND* 2.3 the origin of the conception is encapsulated within the question of existence: *primum docent esse deos, deinde quales sint*): first *ND* 2.4–15 the origin of the conception, then 16–167: questions of existence and nature etc. Also see Sextus Empiricus *M.* 9.13–48 (with section-heading *Περὶ θεῶν* of the umbrella type): origin of the conception; 9.49–194: questions of existence and nature (heading *εἰ εἰσὶ θεοί* announced at the end of 9.48). At *M.* 9.12 Sextus says explicitly (but without doubt too sweepingly) that 'in each investigation the *concept* of the theme of the investigation is placed first' (*κατὰ πᾶσαν ζήτησιν προτάττεται ἡ τοῦ ζητουμένου πράγματος νόησις*), which entails that in the present case we have first to find out how 'the concept of God' (*ἔννοιαν ... θεοῦ*) is acquired. Cf. above, section A. This order, first a discussion of the concept (ch. 1.6), and then of the question of existence and that of substance according to a multiplicity of authorities (ch. 1.7), corresponds with the rule that before setting out differences of (philosophical) opinion concerned with a particular theme it is useful to formulate a (nominal, or conceptual) definition that is generally acceptable, see below, ch. 1.9, Commentary D(c) and D(e)(2). This rule is not followed entirely strictly here, since the chapter that represents this conceptual ingredient starts with a definition of the essence according to a particular school, the Stoics.

The parallels in both the anterior and subsequent proximate tradition therefore strongly support the ascription of our chapter to A, in spite of its omission by S. They do not exist for Bottler (2014), who hops from ch. 1.5 to ch. 1.7.2 (so also excluding 1.7.1). It is to be noted that the natural origin of the conception (see below, section D(c)) may certainly be used as belonging with the proofs of existence, so anticipates the theme of ch. 1.7.1.

(2) According to a complementary perspective ch. 1.6 (plus chs. 1.7–8) links up with ch. 1.9, 'On matter', and ch. 1.10, 'On idea'. This combination God–matter–idea is reminiscent of a Middle Platonist background, viz. the well-known triad of Platonist principles (cf. Gersh 1986, 1.244–246, Lachenaud 1993, 89 n. 9) going back to the *Timaeus*. See also above ch. 1.3, Commentary D(a) and D(d)§20, and below at ch. 1.8, Commentary D(a); also M–R 2.1.51, 2.1.69. The prominence given to theology in Middle Platonism is mostly a Stoic and Epicurean legacy—one only has to think of Cicero's *De natura deorum*. For theology as the culmination of physics and as being an 'initiation' see Cleanthes and Chrysippus *SVF* 1.538, 2.42 and 2.1008.

(3) There is an equally important backwards connection with ch. 1.3 (*Περὶ τῶν ἀρχῶν τί εἰσιν*) plus ch. 1.4 (*Πῶς συνέστηκεν ὁ κόσμος*); compare e.g. Alcibi-

ous *Did.* c. 8, p. 162.24–27 H.: ‘Following on these topics (sc. introductory matters, logic, mathematics), let us turn to a discussion of the principles and of the doctrines of theology [cf. ch. 1.6–8], taking our start from above from first principles [cf. ch. 1.3], and then descending from these to examine, first, the origin of the world [cf. ch. 1.4]’ etc. This sequence of principles and gods coincides with that of the subpart ‘on principles and elements’ and ‘on gods’ of the first section of the Stoic φυσικὸς λόγος, for which see above, Book 1.proœm., Commentary D(a), and M–R 2.1.197–109, esp. 2.1.100, and below at ch. 1.12, Commentary D(a). Also see above, ch. 1.3, Commentary D(a), and below, ch. 1.7, Commentary D(a).

b Number–Order of Lemmata

At a first glance there is only a single very long lemma with the name-label ‘the Stoics’. For the sake of convenience one may carve it up along its natural joints: [2–4] definition with name-label; [5–28] first explanation from design (*ex operibus*, ἀπὸ/ἐκ τῶν ἔργων) beginning with the quasi-name-label ἔσχον (‘they’—i.e., either the Stoics of the definition, or the humans in general of the heading—‘obtained’); [29–32] additional explanation from design beginning with the quasi-name-label ἐλάβομεν (‘we’—i.e. we humans—‘obtained’); [33–37] *theologia tripartita* with an implied quasi-name-label οἱ ... παραδόντες; [38–63] sevenfold teaching with the quasi-name-labels διαιρεῖται and ἔφασαν. See however immediately below, *main diaeresis*.

c Rationale–Structure of Chapter

(1) *Main diaeresis*. The main diaeresis of the chapter is between nature and culture, that is, between [5–32], the origin of the conception in a natural and immediate way and the conclusions to be drawn therefrom, and [33–63], its origin as mediated by teaching and tradition, though teaching and tradition also appealed to perception and drew conclusions from it.

(2) *Definition*. The (Posidonian) definition of the *theion* comes first, just as in several other *Placita* chapters the first lemma contains a conceptual definition (cf. the anonymous definitions at A 1.9, 1.10, 1.11, 1.12, 1.14, and 1.15, and οἱ Στωικοὶ ὀρίζονται at 4.8.1, and see below ch. 1.9, Commentary D(c) and (e)2). As in some of these other cases, so also here the definition hardly contributes to our understanding of what follows. It just is an important definition on offer. Nevertheless it imparts a Stoic colouring to the text as a whole.

(3) *Parts of chapter*. The chapter, as we saw in section D(c)(1) above, divides into two main parts. Its first subpart is again divided into subparts, viz. first [5–28] a Stoic argument, as the presence of the name-label at the definition and the formula ‘they obtained a conception’ in fact seem to claim, although the

chapter heading speaks of ‘human beings’ in general. The second subpart [29–32], which starts afresh with the formula ‘we obtained a conception’, precisely because of this ‘we’ i.e. ‘we humans’ (as in the chapter heading), need not be interpreted as presenting a point of view that is uncontaminatedly Stoic. This is a well-worn argument, see e.g. Plato *Philebus* 28e and Xenophon *Memorabilia* 4.3.13, cited below, E(b)§1[29–32].

The second main part is again divided into two subparts. The origin of the so-called *theologia tripartita* [33–37] in its first subpart is not known, though it may have been formulated by a Stoic who for us has remained hidden (the Stoics, we may note, had a certain fondness of tripartite divisions, though they were not the only ones). To posit a Stoic origin for the *theologia tripartita* on the basis of its presence in the present chapter amounts to begging the question. See further below, section D(d) §1[33–37].

The ‘sevenfold teaching’ [38–63] in the second subpart is a complicated affair. The matter-of-fact reference at [57–63] to the assumption that the gods have a human shape does not agree with the Stoics’ contempt for this widespread belief (for which see e.g. *SVF* 2.1057–1060). The argument for anthropomorphism (on the term see Santoro 2000, 144–145) is soundly Epicurean, see Demetrius Laco *De forma dei* (*PHerc.* 1055) cols. xiv–xvi Santoro on the form of the human body as the only one compatible with the presence of intellect (partially cited section E(b)§1[57–63]), so that also the god must have this form; further Cicero *De natura deorum* 1.46–48 and 1.76, also cited section E(b)§1[57–63]. At ch. 1.7.1[29–30] below the praise of human beauty nullifies that of the sphericity of the heavens, or cosmos: ‘And how (can Plato say) the deity is spherical in shape, humbler in status than man?’ On the other hand it should be noted that the ‘sevenfold teaching’ is point for point paralleled by the exposition of Cicero’s Stoic spokesperson Balbus in *ND* Book 2 (though the order of these points is not always the same), as supplemented by a remark of Cotta the Academic in Book 3.63 quoted at section E(a)§1.38–63. The striking parallels with the second-generation Stoics Cleanthes and Persaeus are discussed at section D(d)§1[5–32] and [47–50].

The only further (weak) contrast—one cannot speak of a diaphonia, as these two accounts supplement rather than contradict each other—is that between *tripartite* theology and *sevenfold* teaching. There is no reference to the various other theories famously listed by Cicero *ND* 1.25–41 and Philodemus *Piet.* 1 cols. i–xv or Sextus Empiricus *M.* 9.13–28 (apart from those ingredients which have been gratefully incorporated by Stoics), and so certainly not to those of Epicurus and his followers. A diaphonia or diaeresis of philosophical views is absent. Note, however, that our almost entirely positive chapter forms a sort of diptych with the negative first section of the next chapter, 1.7, in which the

views of the atheists are listed and argued. Accordingly the diaphonia, desirable as well as *de rigueur*, manifests itself through the combination of these two successive chapters (cf. Lachenaud 1993, 217 n. 3).

Let us look at some of the details. We begin with a variety of so-called natural theology, the familiar (but for most of us today invalid) argument from design or *sensus Dei ex operibus suis* [5–37] (also at [38–47]). This first section of the chapter argues from the beauty of the firmament or sky as well as what appears in it according to *four* aspects: its shape, its colour, its size, and the variety of the heavenly bodies that adorn it. This beauty demonstrates that a craftsman-like technical force is at work (familiar of course from Stoic philosophy, and not from Stoic philosophy alone). The four aspects are demonstrated in strict succession: [9–12] shape, [12–16] colour, [16–17] size, and [17–28] the adorning heavenly bodies all contribute to the beauty of the firmament. For κάλλος and μέγεθος as well as their combination as belonging with the defining characteristics of the gods see Verdenius (1949) 297–298 and Mussies (1988) 4–7.

This way of thinking is not restricted to Greek thought, see e.g. *Septuaginta* Ps. 18.1 οἱ οὐρανοὶ διηγούνται δόξαν θεοῦ, ποιήσιν δὲ χειρῶν αὐτοῦ ἀναγγέλλει τὸ στερέωμα (*King James Version* 19:1 ‘The heavens declare the glory of God; and the firmament sheweth his handywork’). For Philo’s repeated and detailed use of this topos see Runia (1981) 132.

(4) *Colour*. A reference to colour occurs both at [12–16] on the sky, and at [29–31] on the sun, the moon and the other stars. Though elsewhere, too (e.g. Cleanthes at Cicero *ND* 2.15 *solis lunae siderumque omnium distinctionem utilitatem pulchritudinem ordinem*, in general Cicero *ND* 2.98–115), the beauty, *pulchritudo* or *ornatus*, of the sky and the heavenly bodies plays an important part in theological argumentation, we have not been able to find a parallel reference to *colour* in this specific context apart from the brief parallel passage, or rather doublet, at *Ath Leg.* 4.2, cited at *testes secundi*. In a different context, namely a passage in Lucretius (*DRN* 2.77–87) about the surprise that things we are accustomed to would cause us when seen for the first time, there is a reference to the sky, its ‘clear and pure *colour*’, and the planets, sun and moon it contains. He uses a standard description for a different purpose. At *DRN* 5.1183–1210 he returns to this theme in order to explain that it is fear that makes us believe in the gods. The wonderful spectacle of the heavens and its colour, and of the constellations and their movements, is also described *DRN* 2.1023–1104, who however he argues that no divinity can be involved, thus negating the argument *ex operibus dei*. Cf. further below section, D(d)§1[14–16]. Pliny *NH* 19.23 tells us the *vela* (‘awnings’) in the amphitheatre of Nero were *colore caeli, stellata*.

(5) *Natural origin*. According to [29–32] the risings of the sun and its fellow stars that are invariably repeated at the same time and in the same place

demonstrate that they continue to preserve their shape and colour unchanged. Note the emphasis on *repetition* here at [29–32], not present at [5–28], which from an epistemic point of view constitutes a crucial further point. The exceptional focus on *colour* and *visibility* at [12–16] shows that the *conception*, *ἔννοια*, of the divine from beauty as revealed by the shape, colour, size of the firmament and the variety of the (fixed) stars that adorn it comes about ‘*naturally* ... and without technical elaboration’, as formulated further down in ch. 4.11.1. The primary example of such a conception cited in this epistemological chapter is that of a colour term too, ‘white’, originally a datum perceived by the sense of sight and remembered because of repeated occurrences (for which in our present chapter cf. [30–32]). This type of conception is contrasted with conceptions ‘produced by our instruction and diligence’ (cf. the tripartite theology and the sevenfold teaching). ‘The latter’ (the later chapter goes on) ‘are just called conceptions, the former [e.g. this conception of ‘white’] also preconceptions’.

(6) *Argument for existence*. The obtainment of the conception of the divine from the beauty of the sky induces an argument for the existence of the divine. This section is not without its learned asides either (the reference to Plato and the quotation of the poet Aratus are instances of instruction and diligence). Yet it stands in clear contrast to the accounts that follow, viz. that of conceptions organized by the tripartite theology (‘those people who have transmitted reverence for the gods have done so by means of three kinds of exposition’—the first *taught* (*διδάσκεται*) by philosophers, the second by poets), and ‘the teaching’ that ‘is divided into seven kinds’. The latter also include ingredients that pertain to perception: the visible signs that people see ([40] *ὁρώντες* and [45] *βλέποντες*), as well as the inner perception, or self-awareness, which is also *natural* (see below at ch. 4.11, Commentary D(d)): the *πάθη* (‘passions’) instantiated by their subsequent interpretation as the divinities Eros, Aphrodite, and Pothos.

Boys-Stones (2003) 194 n. 4 distinguishes between the origin of the conception as a ‘common concept’ and ‘the very different issue of *who* was responsible for the particular gods described in traditional theology’; the sevenfold teaching ‘deals with the origins, not of our concept of god as such, but of the particular representations of god in traditional theology’. This is all very well, but surely the traditional theology is the source of quite a few (perhaps not always correct) conceptions of the gods. The contrast between direct perception and its consequences on the one hand and tradition and teaching on the other has been noticed by Wildberger (2006) 1.28, who does not however refer to its epistemic background.

d Further Comments

Individual Points

§1[2] The convergence of P^B and P^Q make it quite certain that we should read θεῖου in preference to θεοῦ. Authors such as Eusebius and Cyril often modify texts in favour of Christian monotheism. οὐσία here is a good example of substance in the sense of material or corporeal substance.

§1[2–4] According to ch. 1.7.10 (in S only) this is Posidonius' definition. Wildberger (2006) 512 n. 175 argues that S may have taken it from 1.7 (a chapter S preferred to omit) and inserted it in the next chapter, while P 'simplified' the name-label. This is possible, but perhaps too ingenious.

§1[5–32] & [47–50] Of Cleanthes' four explanations of the origin of our notions of the divine at Cicero *ND* 2.13–15 (*SVF* 1.528) the fourth and second (in that order) are paralleled at [5–32] and [47–49]. The second explanation is shared by Zeno's other pupil Persaeus. The 'division of the teaching into seven parts', as noted, is paralleled in Cicero *ND* 2.60–70, expounded by Balbus, plus 3.63, in Cotta's account, and in Clement of Alexandria (who describes the seven subdivisions in exactly the same order as A). Wildberger, in an excellent note (2006, 512–513 n. 175) argues for Posidonius as source of the greater part of the fragment (minus the *theologia tripartita*), but whether the anonymous definition with which this account begins is his cannot be proved. Wendland (1888) and others a long time ago already argued in favour of Posidonius (cf. above, section B(2)). Something is to be said for attributing most of the text to the influence of 'the' Stoics in general, though doubt lingers as to the tripartite theology, while the eulogy of anthropomorphism is absolutely un-Stoic.

§1[7–25] Torraca renders 'cosmo' and Lachenaud 'monde', but the meaning of κόσμος here is 'sky', 'heaven', or 'firmament' (see examples at LSJ s.v. iv), and the next section, §1.14–16.

§1[14–16] The visibility of the heaven is caused by its 'blue colour, darker than purple but still bright', which is said to traverse the air and to be visible (to us) at a vast distance. Wildberger (2006) 1.28 on this passage speaks of the 'Schönheit des Äthers'.

Compare Lucretius *DRN* 2.1039 *caeli clarum purumque colorem*, and *mundus* at *DRN* 5.772 *agni per caerula mundi*, 'through the blue spaces of the great firmament', which is equivalent to 1.1090, *per caeli caerula*, 'through the blue sky' (transl. Smith, LCL), and Manilius 1.703 on the Milky Way, which 'shines like a glowing path in the dark-blue of the heavens' (*in caeruleo ... mundo*, transl. Goold, LCL; more lines cited below, ch. 3.1 section E(a)§1). With Lucretius compare Epicurus' definition at *Ep.Pyth.* at Diogenes Laertius *V.P.* 10.88, "cosmos is a sort of container of the heavens, containing heavenly bodies and earth and all the phenomena" (κόσμος ἐστὶ περιοχὴ τις οὐρανοῦ, ἄστρα τε καὶ γῆν καὶ πάντα

τὰ φαινόμενα περιέχουσα). See also Verg. *Ecl.* 6.34 on the origin of the ‘celestial vault’, *ipse tener mundi concreverit orbis* (more of this text cited at ch. 1.4 section E(b)§1), Seneca *Thyestes* 834 *picti sidera mundi*, Lucan 2.289 *sidera quis mundumque velit spectare cadentem*.

Note that the theory of visual perception implied at §1[12–16] is that of intro-mission, not the usual Stoic one of visual rays issuing from the eyes (extra-mission; for these two rival theories see below, ch. 4.13, and for Chrysippus’ doctrine ch. 4.15.2). That the heavenly sphere is meant is also clear from the argument that it is the largest representative of its species, i.e. the largest of the nested series of concentric spherical layers (the others being air and water) constituting the world together with the globe of the earth (see below, ch. 1.14.2, Commentary D(d)). In a non-Atomist context it does not make sense to assume other worlds that are smaller than ‘the’ world. The author of the *Epinomis*, discussing the god Ouranos, says ‘whether one pleases to give him the name Cosmos or Olympos or Ouranos—let him call him thus’ (977b εἴτε κόσμον εἴτε ὄλυμπον εἴτε οὐρανὸν ἐν ἡδονῇ τῷ λέγειν, λεγέτω μὲν), and at 978b says that ‘the sphere of the fixed stars might be pre-eminently called κόσμος’ (Cornford 1934, 1); see esp. Tarán (1975) 81–82. This meaning is also attested for Xenocrates in Clement of Alexandria *Protr.* 66.2 (= fr. 15 Heinze, 135 Isnardi Parente²). Philo *Aet.* 3–4, who confirms that the word κόσμος has ‘many meanings’ (τῶν πολλὰχῶς λεγομένων ἐστίν), says the second meaning is ‘the heaven only: it was on heaven that Anaxagoras had been gazing, when in answer to the person who asked why he suffered discomfort by spending the whole night under the open sky, he replied that he did this in order to contemplate the cosmos, meaning by cosmos the choric movements and revolutions of the stars’ (Greek text cited *infra* at section E(b)§1[7–9], trans. Colson LCL). ‘Sphere of the fixed stars’ (κόσμος ἐστὶν ἡ τῶν ἀπλανῶν σφαῖρα) is the fifth of the six senses of the word κόσμος listed by the astronomer Diodorus of Alexandria at Ach c. 5, p. 15.6–7, who appeals to Plato’s *Timaeus*, presumably 28b (not a very good parallel) or 40a (better ps.Plato, i.e. Philip of Opus, *Epin.* 977b or 987b, cited above). Also found at Alcinous *Did.* c. 15, p. 170.19–20 H., see Whittaker’s note ad loc. (parallels in Proclus). It is the second of the three senses of κόσμος cited by Diogenes Laertius *V.P.* 7.137 (*SVF* 2.526) ‘and they also call the orderly arrangement of the heavenly bodies cosmos’ (καὶ αὐτὴν δὲ τὴν διακόσμησιν τῶν ἀστέρων [τῶν ἀστέρων wrongly deleted by Von Arnim, Long–Sedley, and Dorandi] κόσμον εἶναι λέγουσι). Cf. also Diogenes Laertius *V.P.* 8.48, on Pythagoras: τὸν οὐρανὸν πρῶτον ὀνομάσαι κόσμον. This meaning of κόσμος in our chapter is further confirmed in the parallel account of the sevenfold exposition in Clement of Alexandria *Protr.* 26.1, where in the first subdivision we find the ‘contemplation of the ouranos’ (τὴν οὐρανοῦ θέαν). Also cf. the first section of the parallel sevenfold exposition

at Eusebius *PE* 5.3.2, πρῶτον μὲν τὸ ἐκ τῶν φαινομένων κατ' οὐρανὸν φωστήρων. This interpretation is also to be preferred at Ath *Leg.* 16.1 cited above, *Testes secundi*, where περιέχων means 'encompasses', and where we find the same emphasis on the adornment of the outer heaven with stars. Also see Cicero *ND* 2.4 'when we have looked up at the heaven and have contemplated the heavenly things' (cf. section E(a)§1[29–32]). Finally cf. ch. 1.7.31 (a part of lemma only in S) 'the visible descendants of the first God: sun, moon, stars, earth and the all-embracing cosmos (ὁ περιέχων πάντα κόσμος)'. Note that in Book 2 there is a ch. 2.2 on the shape (σχῆμα) of the κόσμος in the sense of 'world', but that among the chapters dealing with the οὐρανός (2.11–2.12) there is no chapter on the shape of the οὐρανός. The only time κόσμος possibly means 'world' in the present chapter is in the phrase 'it alone corresponds to its own parts, since it is round and so are its parts', for these parts may be the nested concentric spheres of which the sky is the largest—but 'sky' or 'heaven' is equally possible, for the stars that are its parts presumably are also spherical.

Conversely, one of the meanings of οὐρανός and *caelum* is 'world' or 'All', see e.g. Arist. *Cael.* 1.9 278b20–21 τὸ γὰρ ὅλον καὶ τὸ πᾶν εἰώθαμεν λέγειν οὐρανόν, Pomponius Mela 1.3 *omne igitur hoc, quidquid est cui mundi caelique nomen indidimus*, Plin. *Nat.* 2.1.1 *mundum et hoc quodcumque nomine alio caelum appellare libuit*, Calc. in *Tim.* c. 98 *caelum quoque usurpantes mundum omnem vocamus*, Macr. in *Somn.* 2.11.12 *mundus proprie caelum vocatur*.

This is not to deny that often enough the spherical κόσμος is the 'world', as is the view of the majority of philosophers (Plato, Aristotle, Stoics) and scientists (Euclid, Ptolemy), see at ch. 2.2.1 and the passages cited above at *loci Aetiani* §1[9–11] and below at section E(b)§[9–11], and of course all of chs. 2.1–10 below. Further, we should not forget either that the word κόσμος also means 'ornament,' i.e., something worth looking at, something beautiful, and that this association is not entirely absent when other senses predominate. Cf. Isidore of Seville *Etym.* 13.1.2 *Graeci vero nomen mundo de ornamento adcommo-daverunt, propter diversitatem elementorum et pulchritudinem siderum. appellatur enim apud eos κόσμος, quod significat ornamentum*. On both meanings see also Psellus *Theol.* 6.52–54 Gautier αὐτίκα δ' ὁ φιλόσοφος Ἀριστοτέλης νῦν μὲν ἰδίᾳ τὸν οὐρανὸν κόσμον ὠνόμασε, νῦν δὲ τὸ ἐκ τῶν στοιχείων σύστημα τε καὶ σύγκριμα.

§1[15] The minority reading σύστασιν makes better sense than the majority reading ἀπόστασιν, so we have followed recent editors in preferring it. The same applies to the reading ὑπερέχον in l. [17]. It should be noted that in this chapter P^{B(II)}, i.e. the ms. Marcianus 521, though the youngest of the main manuscripts, has quite a number of deviant and often superior readings.

§1[18] ταῦτα τὰ φαινόμενα, 'the familiar visible signs': immediately before the quotation from Aratus' *Phaenomena* the word surely alludes to the meaning of

this title. Missed by Torraca, who translates ‘quelle cose che ci appaiono’, and Lachenaud, who has ‘les phénomènes suivants’. See also below, on §1[38–39].

§1[20–24] One should exercise care in regularising a quotation in conformity with the original. Therefore the metrically sound αἰγοκέρωτι in l. 22 should be retained in favour of αἰγοκερῆι, the reading in the Aratus tradition. The non-metrical words ἐπ’ αὐτῷ in [21] have been added by A, or perhaps P. These lines are the earliest extant list of the constellations of the Zodiac (Aratus *Phaen.* 544 Ζωϊδίων δέ ἐ κύκλον ἐπὶ κλησιν καλέουσιν, Cicero *Arat.* 317–319). That Cicero’s spokesperson Balbus at *ND* 2.104–114 quotes numerous lines from the author’s *Aratea* is not a coincidence: the Stoic literature consulted by Cicero and A certainly made use of the famous poem. At ch. 2.19.3 Aratus is cited too (*Phaen.* 10–12), though not in a theological context.

§1[27–28] The lines of Critias are quoted out of context, see below at §1[38–45].

§1[33–37] The argument of Rüpke (2005) that Varro has no Greek predecessors fails to convince because of his Greek terminology (*mythicon*, *physicon*) and for instance the partial parallels already found in Strabo cited below, section E(b)§1[33–37]. A will hardly have been dependent upon an author writing in Latin (the present passage is not mentioned by Rüpke).

The *politikon* is noted as evidence of atheism by Ciceo *ND* 1.118, cited ch. 1.7 section E(a)§1[47–50].

§1[33] διόπερ. According to Dihle (1996) 184–185 this conjunction is ‘völlig unpassend’; ‘der Hinweis auf die Theologia tripertita (bildet) einen durchaus störenden Einschub’. But the fact that the argument that comes before the διόπερ appeals to the *sensus Dei ex operibus*, that is, is an argument from the realm of physics, justifies the associative connection with the first genus of the tripartite theology to be mentioned, the *physikon*.

§1[34–36] For the physical theology taught by the philosophers see below, ch. 1.7.2–25, with Commentary B.

§1[38–63] The third and seventh part of the sevenfold *didache* are noted as evidence of atheism by Cicero *ND* 1.118–119, cited ch. 1.7 section E(a)§1[47–50].

§1[38–59] For the parallels between A and Cicero *ND* 2.60–71 see Wildberger (2006) 1.28–30, with tabular arrangement at 1.29 and further references at 2.512–513 n. 175.

§1[38–45] ‘It is typical for the Stoic position that the adverse aspects of the heavenly phenomena have been suppressed completely’ is what Henrichs (1975) 98 n. 24 notes on this passage. That these aspects, familiar from numerous other accounts, have been left out is of course true, but this stance is by no means typically Stoic. Quite the contrary: it is Platonic rather than Stoic (see e.g. ps.Pl. *Epin.* 976e–977b, cited below at section E(b) General texts), and

it is a characteristic trait of A. One of Seneca's aims in providing lofty scientific explanations for earthquakes and thunder and lightning and so on in the *Naturales quaestiones* is to liberate his readers from fear, which of course allows him to describe these untoward events in striking detail. Cleanthes' third reason for the formation of our conceptions of the divine at Cicero *ND* 2.14 (*SVF* 1.528) pertains to the fears inspired by 'lightning, storms, rain, snow, hail, floods, pestilences, earthquakes and occasionally subterranean rumblings, showers of stones and raindrops the colour of blood, also landslips and chasms suddenly opening in the ground, also unnatural monstrosities human and animal, and what are called by the Greeks 'comets' and by us 'long-haired stars' ... and the doubling of the sun ...' (trans. Rackham, LCL). This long list comprises the subjects of quite a few chapters of A's meteorological Book 3 and of one chapter in Book 5 (5.8, Πῶς τέρατα γίνεταί); nowhere in these chapters do we find any allusion to the divine. In an entirely similar way only the positive lines of the Critias fragment are quoted at [27–28], though they are part of a text that highlights the negative side of the gods on high and of thunder and lightning (88B25.29–39 DK; some of these other lines are then quoted in the next chapter, 1.7.1). This elimination of the fear of the heavenly bodies and other natural phenomena associated with religion is typical for the secular attitude of A, who detheologizes elsewhere and virtually confines treatment and discussion of the divine to the chapters on principles and divinities. See Runia at M–R 3.268 with n. 56, Mansfeld (2013a), and above, ch. 1.1, Commentary D(c) *ad finem*. At ch. 2.19.3 Aratus is cited too (*Phaen.* 10–12), though not in a theological context.

§1[38] διαίρεται δ' ἡ πᾶσα διδασχὴ εἰς εἴδη ἑπτὰ plus [47] εἰς δεῦτερον δὲ καὶ τρίτον τόπον τοὺς θεοὺς διεῖλον: the use of both *topos* and *eidos* in the sense of 'part' ('subdivision') reminds one of the Stoic terminology at Diogenes Laertius *V.P.* 7. 39–40 and 7.132, but may have become common usage.

§1[38–39] ἐκ τῶν φαινομένων καὶ μετεώρων is practically a hendiadys. We translate φαινομένων as 'visible signs' (think of the title of the works of Aratus and others, and cf. above at [18]) and not as 'appearances' in general, because the term (or rather both terms together) is/are resumed with τῶν φαινομένων ἀστέρων in the next line, and the paragraph as a whole is about the contemplation of the heavenly bodies and the realization of what they bring about. See also above at §1[7–25]. Torraca translates 'fenomeni celesti', Lachenaud 'les phénomènes visibles dans le ciel'.

§1[45–46] For this etymology of θεός see the numerous passages beginning with Plato *Crat.* 397c–d cited below, section E(b) §1[39–47].

§1[48–49] *More Stoico* the earlier idea of Prodicus can be interpreted as being consistent with the notion of Providence.

§1[52] ἔλαπις should have been listed among the πάθη (Wendland 1888, 203) as indeed occurs in Clement of Alexandria *Protr.* 26.4. Is this a lapsus of A?

§1[59–63] The coda concerned with anthropomorphism in a way adds an eighth point to the sevenfold teaching, or perhaps rather a fourth species to the *theologia tripertita*. We suggest that it is a veiled reference to the representation in human shape of the gods in painting and sculpture. Compare Dio Chrysostom *Or.* 12.44: ‘now that we have set before us three sources of man’s conception of the divine being, to wit, the implanted, that derived from the poets, and that derived from the lawgiver, let us name as the fourth that derived from the plastic arts and the work of skilled craftsmen who make statues and likenesses of the gods—I mean painters and sculptors’, etc. (trans. Cohoon LCL, slightly modified; see Dihle 1996, 185). The justification for this practice given by A, as noted above, has an Epicurean ring.

e Other Evidence

(1) A in ch. 1.6 and ch. 1.7 deals in succession with the origin of the conception of God and with that of its existence and nature. This sequence is paralleled in Cicero and Sextus Empiricus cf. above, section D(a). For the relation between these issues in the sources see e.g. Schmekel (1892) 85–86, Mansfeld (1999b) 453, 454–462, and 469–474. The order ‘that they exist’ (~ ch. 1.6) on the one hand, and ‘whether they exist’ (~ ch. 1.7.1)—‘what they are’ (~ ch. 1.7.2–25) on the other, is that of the original order of the question types in Aristotle *APo.* 2.1 89b24–25, ζητοῦμεν δὲ τέτταρα, τὸ ὅτι, τὸ διότι, εἰ ἔστι, τί ἔστιν (on this passage see Charles 2000, 69–71). For further parallels see below, section E(b) *ad finem*, and for the later tradition of ‘the four types of inquiry’ in al-Kindī and others Altmann–Stern (1958) 8–23, Hein (1985) 57–62, Rudolph (1989) 120–121, Menn–Wisnowsky (2012), and Adamson–Pormann (2012) 10–11. See also above, Book 1.prooem., Commentary D(e)(3a) and (3b).

(2) Epicurus in Book 12 of his *On Nature* discussed the formation of the conception of divinity by early man (quoted Philodemus *Piet.* 225–231 Obbink = fr. 84 Usener), and in the same Book criticized the atheists Prodicus, Diagoras and Critias (*Piet.* 523–533 Obbink = fr. 87 Usener, cited below, ch. 1.7, section E(b)§1). See Sedley (1998b) 121, with references. Both the present chapter *ad finem* (§1[59–63], see below, section D(c)) and the critical §1 of ch. 1.7, which, as we may note, follows immediately after the final section of ch. 1.6, have a strong Epicurean colouring; cf. below, ch. 1.7 Commentary B. The parallel with the sequence in a Book of Epicurus’ *On Nature* may be a coincidence, and again it may not. It may be used as a further argument in favour of the Aëtian authenticity of chs. 1.6 and 1.7.1, and hardly as one against this assumption.

(3) Apart from the other views on the origin of the conception listed by Philodemus, Cicero, and Sextus one also misses the widespread appeal to what happens in dreams and the occasional references to divination and epiphanies. But this is not due to an accident of transmission or a case of authorial whimsy. Divination is accepted by some and rejected by others according to ch. 5.1, and the natural origin of dreams conflicts with their being divinely inspired in ch. 5.2. The *Placita* are about physics. Accordingly pride of place is given to the 'natural' origin of the conception of the Divinity in a *cosmological* setting. The two theoretical theological tables are not only added for the sake of completeness, but also because both of them deal with physics: the first species of the tripartite theology is the *physikon*, just as the first subdivision of the seven-fold teaching is about the origin of the conception from the contemplation of the stars.

(4) For the distinction between nature and argument (or culture) in the formation of the conception of the divine cf. Cicero, who *Tusc.* 1.36 says 'that the gods exist we believe naturally, what their nature is we get to know by reasoning' (*deos esse natura opinamur, qualesque sint, ratione cognoscimus*). Also compare the distinction between on the one hand the origin of the belief in the deity in the 'ingrown notion *ex operibus*' (τὴν ἔμφυτον ἅπασιν ἀνθρώποις ἐπίνοιαν, ἐξ αὐτῶν γιγνομένην τῶν ἔργων [: *ex operibus*] καὶ ἀληθοῦς), and on the other the notion 'that has been acquired through arguments and myths and customs' (τὴν ἐπίκτητον καὶ δι' ἑτέρων ἐγγιγνομένην ταῖς ψυχαῖς λόγοις τε καὶ μύθοις καὶ ἔθεσι) of Dio Chrysostom *Or.* 12.39. Epicurus and his followers, too, distinguished between the immediate and the derivative acquisition of such conceptions, see *Ep.Men.* at Diogenes Laertius *V.P.* 10.123 and Cicero *ND* 1.47, *sed ne omnia revocentur ad primas notiones, ratio hoc idem ipsa declarat*. For the Stoic distinction between primary concepts, or *ennoiai* also called *prolepseis*, that are formed naturally on the one hand and secondary concepts, just called *ennoiai*, acquired through 'our instruction and diligence' and so are a matter of culture on the other, see below, ch. 4.11[10–12], with Commentary D(e).

(5) In Plato *Tim.* 30a–b the cosmos is beautiful because it is endowed with intellect and soul. In fact Plato has various reasons for regarding the cosmos as καλός.

E Further Related Texts

a Proximate Tradition

General texts: Sextus Empiricus *P.* 3.2–6. *M.* 9.12 ἀλλ' ἐπεὶ κατὰ πάσαν ζητήσιν προτάττεται ἡ τοῦ ζητουμένου πράγματος νόησις, ἴδωμεν πῶς εὐθὺς ἔννοιαν ἐλάβομεν θεοῦ. Diogenes Laertius *V.P.* 7.52 (*SVF* 2.71 and 84) ἡ δὲ κατάληψις

γίνεται κατ' αὐτοὺς αἰσθήσει μὲν λευκῶν καὶ μελάνων καὶ τραχέων καὶ λείων, λόγῳ δὲ τῶν δι' ἀποδείξεως συναγομένων, ὥσπερ τὸ θεοὺς εἶναι, καὶ προνοεῖν τούτους.

Chapter heading: Philo of Alexandria *Det.* 86 μηκέτ' οὖν ἀπορώμεν, πῶς ἔννοιαν ἔλαβεν ἄνθρωπος θεοῦ τοῦ ἀειδοῦς. *Capitula Lucretiana* at DRN 5.1161 *quomodo hominibus innata sit deorum opinio.*

§1[2–4] *Stoics* (i.e. *Posidonius* cf. below on ch. 1.7.10): *Arius Didymus* fr. 20 Diels at Stob. 1.11.5c, p. 133.18–23 ἔφησε δὲ ὁ Ποσειδώνιος (F 92 E.-K., 267 Theiler) τὴν τῶν ὄλων οὐσίαν καὶ ὕλην ἅποιον καὶ ἄμορφον εἶναι, καθ' ὅσον οὐδὲν ἀποτεταγμένον ἴδιον ἔχει σχῆμα οὐδὲ ποιότητα καθ' αὐτήν, αἰεὶ δ' ἐν τινὶ σχήματι καὶ ποιότητι εἶναι.

§1[2–63] *Sextus Empiricus* *M.* 9.60 οἱ τοίνυν θεοὺς ἀξιοῦντες εἶναι πειρῶνται τὸ προκειμένον κατασκευάζειν ἐκ τεσσάρων τρόπων, ... δευτέρου δὲ τῆς κοσμικῆς διατάξεως. *M.* 9.74–76.

§1[8–11] *Calcidius in Tim.* c. 129 *quae porro in locis differentia est, eadem etiam in magnitudinibus invenitur: caelestis maximus, quippe qui omnia intra complexum suum redigat, brevissimus terrae, quia ceteris omnibus corporibus ambitur, iuxtaque rationem continui competentis ceteri medii.*

§1[7–9] + [12–16] + [17–32] *Lucretius* DRN 2.1026–1032 *principio caeli clarum purumque colorem / quaeque in se cohibet, palantia sidera passim, / lunamque et solis praeclara luce nitorem; / omnia quae nunc si primum mortalibus essent / ex improvviso si sint obiecta repente, / quid magis his rebus poterat mirabile dici, / aut minus ante quod auderent fore credere gentes?*

§1[7–9] *Philo of Alexandria* *Aet.* 3–4 'κόσμος' τῶν πολλαχῶς λεγομένων ἐστίν ... (4) λέγεται τοίνυν ὁ κόσμος ... καθ' ἕτερον δὲ μόνος οὐρανός, εἰς δὲ ἄπιδὼν Ἀναξαγόρας (—) πρὸς τὸν πυθόμενον, ἧς ἔνεκα αἰτίας ταλαιπωρεῖται διανυκτερεύων ὑπαιθρος, ἀπεκρίνατο 'τοῦ τὸν κόσμον θεάσασθαι', τὰς χορείας καὶ περιφορὰς τῶν ἀστέρων αἰνιττόμενος. *ps.Aristotle Mu.* 2 391b9–12.

§1[9–10] *Hippolytus Ref.* 1.15 (on Ecphantus, 51.1 DK) τοῦ(του) μὲν οὖν τὸν κόσμον εἶναι ἰδέαν, δι' ὃ καὶ σφαιροειδῆ ὑπὸ θείας δυνάμεως γεγενέναι.

§1[9–11] *Cicero ND* 1. 24 (the Epicurean Velleius speaks) *admirabor eorum tarditatem qui animantem inmortalem et eundem beatum rutundum esse velint* (sc. mundum), *quod ea forma neget ullam esse pulchriorem Plato.*

§1[29–32] *Cicero ND* 2.4–5 (the Stoic Lucilius Balbo speaks) *quid enim potest esse tam apertum tamque perspicuum, cum caelum suspeximus caelestiaque contemplati sumus, quam esse aliquod numen praestantissimae mentis quo haec regantur? ...* (5) *quod nisi cognitum comprehensumque animis haberemus, non tam stabilis opinio permaneret nec confirmaretur diuturnitate temporis nec una cum saeculis aetatibusque hominum inveterare potuisset.*

§1[33–59] *Tertullian ad Nat.* 2.2.14–20 *Borleffs (Varro Rer.Div. fr. 23 Cardauns) de mun(do deos di)dicimus. hinc enim physicum theologiae genus cogunt, (qui elemen)ta deos tradiderunt, ut Dionysius Stoicus (—) trifariam deos d(ividens) unam vult speciem quae in promptu sit, ut solem, lunam, (**); aliam, quae non compareat, ut Neptunum; reliquam, qu(ae de ho)minibus ad divi(ni)tatem transisse dicitur, ut Herculem Amphiarum. aequae Arcesilaus*

[leg. Acusilaus—] *trinam formam divinitatis (in)ducit, Olympios, Astra, Titanios de Caelo et Terra; ex his, Saturno et Ope, Neptunum, Iovem et Orcum, et ceteram successionem. Xenocrates Academicus* (fr. 19 Heinze, 138 Isnardi Parente²) *bifariam facit Olympios et Titanios, qui de Caelo et Terra. Aegyptiorum plerique quattuor deos credunt, Solem et Lunam, Caelum ac Terram. cum reliquo igni superno deos ortos Democritus* (68A74 DK) *suspicitur, cuius instar vult esse naturam Zenon* (SVF 1.171). *unde et Varro* (cited Isid. *Etym.* 8.6.21) *ignem mundi animum facit, ut perinde (i)n mundo ignis omnia gubernet sicut animus in nobis. atqui vanissime. 'qui cum est,' inquit, 'in nobis, ipsi sumus; cum exivit, emorimur'.*

§1[38–63] *Cicero ND 2.60–70* (the Academic Cotta speaks) (1) *ND 2.63 alia quoque ex ratione et quidem physica magna fluxit multitudo deorum, qui induti specie humana fabulas poetis suppeditaverunt, hominum autem vitam superstitione omni referserunt* [cf. *ND 2.63–70*]. (2) *ND 2.60–61 quicquid enim magnam utilitatem generi adferret humano, id non sine divina bonitate erga homines fieri arbitrabantur. itaque tum illud quod erat a deo natum nomine ipsius dei nuncupabant, ut cum fruges Cererem appellamus vinum autem Liberum, ex quo illud Terenti* (*Eun.* 732) *'sine Cerere et Libero friget Venus'.* (3) *ND 3.63 tantus error fuit, ut perniciosius etiam rebus non nomen deorum tribueretur sed etiam sacra constituerentur.* (4) *ND 2.61 tum autem res ipsa, in qua vis inest maior aliqua, sic appellatur ut ea ipsa vis nominetur deus, ut Fides ut Mens.* (5) *ND 2.61 quo ex genere Cupidinis et Voluptatis et Lubentinae Veneris vocabula consecrata sunt, vitiosarum rerum neque naturalium—quamquam Velleius aliter existimat, sed tamen ea ipsa vitia naturam vehementius saepe pulsant.* (6) *ND 2.63 alia quoque ex ratione et quidem physica magna fluxit multitudo deorum, qui induti specie humana fabulas poetis suppeditaverunt, hominum autem vitam superstitione omni referserunt. ... ND 2.64 physica ratio non inelegans inclusa est in impiis fabulas. ... ND 2.70 videtisne igitur ut a physicis rebus bene atque utiliter inventis tracta ratio sit ad commenticios et fictos deos.* (7) *ND 2.62 suscepit autem vita hominum consuetudoque communis ut beneficiis excellentis viros in caelum fama ac voluntate tollerent. hinc Hercules hinc Castor et Pollux hinc Aesculapius hinc Liber etiam. ... quorum cum remanerent animi atque aeternitate fruenter, rite di sunt habiti, cum et optimi essent et aeterni.* *Leg. 2.19* (7) (laws of 12 tables) *'divos et eos, qui caelestes semper habiti, colunt et ollos, quos endo caelo merita locaverint, Herculem, Liberum, Aesculapium, Castorem, Pollucem, Quirinum'.* (for (7) cf. *ND 3.19*). *Leg. 2.28. Clement of Alexandria Protr.* 26.1–7 (1) οἱ μὲν γὰρ εὐθέως ἀμφὶ τὴν οὐρανοῦ θεάν ἀπατῶμενοι καὶ ὅψει μόνῃ πεπιστευκότες τῶν ἀστέρων τὰς κινήσεις ἐπιθεώμενοι ἐθαύμασαν τε καὶ ἐξεθείασαν, θεοὺς ἐκ τοῦ θεῖν ὀνομάσαντες τοὺς ἀστέρας, καὶ προσεκύνησαν ἥλιον (ὡς Ἴνδοί) καὶ σελήνην (ὡς Φρύγες)· (2) οἱ δὲ τῶν ἐκ γῆς φεομένων τοὺς ἡμέρους δρεπόμενοι καρποὺς Δηῶ τὸν σίτον (ὡς Ἀθηναῖοι) καὶ Διόνυσον τὴν ἄμπελον (ὡς Θηβαῖοι) προσηγόρευσαν. (3) ἄλλοι τὰς ἀμοιβὰς τῆς κακίας ἐπισκοπήσαντες θεοποιοῦσι τὰς ἀντιδόσεις προσκυνούντες καὶ τὰς συμφοράς· ἐντεῦθεν τὰς Ἑρινύας καὶ τὰς Εὐμενίδας Παλαμναίους τε καὶ Προστροπαίους, ἔτι δὲ Ἀλάστορας ἀναπεπλάκασιν οἱ ἀμφὶ τὴν σκηνὴν ποιηταί. (4) φιλοσόφων δὲ ἤδη τινὲς καὶ αὐτοὶ μετὰ τοὺς ποιη-

τικούς τῶν ἐν ὑμῖν παθῶν ἀνειδωλοποιοῦσι τύπους τὸν Φόβον καὶ τὸν Ἑρωτα καὶ τὴν Χαράν καὶ τὴν Ἑλπίδα, ὥσπερ ἀμέλει καὶ Ἐπιμενίδης (fr. 3A7 DK) ὁ παλαιὸς Ὑβρεως καὶ Ἀναιδείας Ἀθήνησιν ἀναστήσας βωμούς· (5) οἱ δὲ ἐξ αὐτῶν ὁρμώμενοι τῶν πραγμάτων ἐκθεοῦνται τοῖς ἀνθρώποις καὶ σωματικῶς ἀναπλάττονται, Δίκη τις καὶ Κλωθὴ καὶ Λάχεσις καὶ Ἄτροπος καὶ Εἵμαρμένη, Αὐξὼ τε καὶ Θαλλῶ, αἱ Ἀττικάι. (6) ἔκτος ἐστὶν εἰσηγητικός τρόπος ἀπάτης, θεῶν περιποιητικός, καθ' ὃν ἀριθμοῦσι θεοὺς τοὺς δώδεκα· ὦν καὶ Θεογονίαν Ἡσίοδος ἄδει τὴν αὐτοῦ, καὶ ὅσα θεολογεῖ Ὀμηρος. (7) τελευταῖος δὲ ὑπολείπεται (ἐπτά γὰρ οἱ ἅπαντες οὗτοι τρόποι) ὁ ἀπὸ τῆς θείας εὐεργεσίας τῆς εἰς τοὺς ἀνθρώπους καταγινομένης ὁρμώμενος. τὸν γὰρ εὐεργετοῦντα μὴ συνιέντες θεὸν ἀνέπλασαν τινὰς σωτῆρας Διοσκοῦρους καὶ Ἡρακλέα ἀλεξίκακον καὶ Ἀσκληπιὸν ἰατρὸν. **Arnobius** *Adv.Nat.* 1.38, p. 32.15–22 *Marchesi si enim vos Liberum, quod usum reppererit vini, si quod panis, Cererem, si Aesculapium, quod herbarum, si Minervam, quod oleae, si Triptoleum, quod aratri, si denique Herculem, quod feras, quod fures, quod multiplicium capitum superavit conpescuitque natrices, divorum retulistis in censum: honoribus quantis adficiendus est nobis, qui* (etc.). **Eusebius** *PE* 5.3.1–9. **Servius auctus** in *Aen.* 8.275, p. 236.4–8 **Thilo Varro** (*Rer.Div.* fr. 32* Cardauns) *dicat deos alios esse qui ab initio certi et sempiterni sunt, alios qui immortales ex hominibus facti sunt: et de his ipsis alios esse privatos, alios communes. privatos quos unaquaeque gens colit, ut nos Faunum, Thebani Amphiarum, Lacedaemonii Tyndareum: communes quos universi, ut Castorem Pollucem Liberum Herculem.*

§1[45–46] **Clement of Alexandria** *Protr.* 26.1 θεοὺς ἐκ τοῦ θεῖν ὀνομάσαντες τοὺς ἀστέρας.

§1[49–52] **Philodemus** *Piet.* (*PHerc.* 1428) fr. 13.28–35 Vassallo (*Hyperboreus* 22 (2016) 33, on Parmenides) εἰκο[ε δ]ή τόν | τε πρῶτον [θ]εὸν ἄψυχον ποιεῖν, τ[ρ]οῦς | τε γεννωμένους ὑπὸ τούτου τὰ μέν | αὐτὰ τοῖς πάθεσιν | τοῖς περὶ ἀνθρώ[που]ς **Cicero** *ND* 1.28 (the Epicurean Velleius speaks) (on Parmenides, 28A37 DK) *multaque eiusdem monstra, quippe qui bellum qui discordiam qui cupiditatem ceteraque generis eiusdem ad deum revocet, quae vel morbo vel somno vel oblivione vel vetustate delentur.* **Sextus Empiricus** *M.* 9.186–188 (on Carneades, F3 Mette) εἶγε μὴν τὴν Ἀφροδίτην θεᾶν λέγομεν εἶναι, ἔσται καὶ ὁ Ἑρως υἱὸς ὦν Ἀφροδίτης θεός. (187) ἀλλ' εἰ ὁ Ἑρως θεός ἐστι, καὶ ὁ Ἑλεος ἔσται θεός· ἀμφοτέρω γὰρ ἐστὶ ψυχικὰ πάθη, καὶ ὁμοίως ἀφωσίωται τῷ Ἑρωτι καὶ ὁ Ἑλεος· παρὰ Ἀθηναίους γοῦν Ἑλέου βωμοὶ τινες εἰσίν. (188) εἰ δὲ ὁ Ἑλεος θεός ἐστι, καὶ ὁ Φόβος· ἀμορφότατος {γὰρ} τὴν ὄψιν (εἰμὶ γὰρ φόβος), / πάντων ἐλάχιστον τοῦ καλοῦ μετέχων θεός· (*CAF* fr. 154 Kock = 873 Kassel–Austin)· εἰ δὲ ὁ φόβος, καὶ τὰ λοιπὰ τῆς ψυχῆς πάθη.

b Sources and Other Parallel Texts

General texts: **ps.Plato** (i.e. Philip of Opus) *Epin.* 976e–977b ὃν δὲ θεὸν ἡγοῦμαι, φράζειν χρή, καίπερ ἄτοπον ὄντα, καὶ πως οὐκ ἄτοπον αἰ· πῶς γὰρ τὸ ἀγαθὸν αἴτιον ἡμῖν συμπτάντων οὐ καὶ τοῦ πολὺ μεγίστου, τῆς φρονήσεως, αἴτιον ἡγείσθαι δεῖ γεγονέναι; τίνα δὴ καὶ σεμνύνων ποτὲ λέγω θεόν, ὦ Μέγιστε τε καὶ Κλεινία; σχεδὸν Οὐρανόν, ὃν καὶ δικαιοτάτον, ὥς σύμπαντες ἄλλοι δαίμονες ἅμα καὶ θεοί, τιμᾶν

τε καὶ εὐχεσθαι διαφερόντως αὐτῷ. τὸ δὲ καὶ τῶν ἄλλων αἴτιον ἀγαθῶν πάντων ἡμῖν αὐτὸν γεγονέναι πάντες ἂν ὁμολογοῖμεν· δοῦναι δὲ ἅμα καὶ ἀριθμὸν ἡμεῖς γε ὄντως αὐτὸν φαμεν, ἔτι δὲ καὶ δῶσειν, ἐάν τις θέλῃ συνακολουθεῖν. ἐάν γὰρ ἦ τις ἐπὶ θεωρίαν ὀρθὴν τὴν τοῦδε, εἴτε κόσμον εἴτε Ὀλυμπον εἴτε οὐρανὸν ἐν ἡδονῇ τῷ λέγειν, λεγέτω μὲν, ἀκολουθεῖτω δὲ ὅπῃ ποικίλλων αὐτὸν καὶ τὰ ἐν αὐτῷ στρέφων ἄστρα πάσας διεξόδους ὥρας τε καὶ τροφὴν πᾶσιν παρέχεται. καὶ τὴν ἄλλην δὲ οὖν φρόνησιν, ὡς φαίμεν ἂν, σὺν ἀριθμῷ παντί, καὶ τὰλλ' ἀγαθὰ· τοῦτο δὲ μέγιστον, ἐάν τις τὴν ἀριθμῶν αὐτοῦ δόσιν δεξάμενος ἐπεξέλθῃ πᾶσαν τὴν περίοδον. *Epin.* 987b ἕνα δὲ τὸν ὄγδοον χρὴ λέγειν, ὃν μάλιστα τις ἂν κόσμον προσαγορεύοι. **Plutarch** *SR* 1051E Ἀντίπατρος ὁ Ταρσεύς (*SVF* 3 *Antip.* 33) ἐν τῷ Περὶ θεῶν γράφει ταῦτα κατὰ λέξιν· 'πρὸ δὲ τοῦ σύμπαντος λόγου τὴν ἔννοιαν, ἣν ἔχομεν περὶ θεοῦ, διὰ βραχέων ἐπιλογοῦμεθα· θεὸν τοίνυν νοοῦμεν ζῶον μακάριον καὶ ἀφθαρτον καὶ εὐποιοητικὸν ἀνθρώπων.' **Stobaeus** *Flor.* 4.2.19, pp. 2.123.12–124.6 Hense Ζαλευκού Προοίμια νόμων. τοὺς κατοικοῦντας τὴν πόλιν καὶ τὴν χώραν πάντας πρῶτον πεπεισθαι χρὴ καὶ νομίζειν θεοὺς εἶναι ἀναβλέποντας ἐς οὐρανὸν καὶ τὸν κόσμον καὶ τὴν ἐν αὐτοῖς διακόσμησιν καὶ τάξιν· οὐ γὰρ τύχης οὐδ' ἀνθρώπων εἶναι δημιουργήματα· σέβεσθαι δὲ τούτους καὶ τιμᾶν, ὡς αἰτίους ὄντας ἀπάντων ἡμῖν ἀγαθῶν τῶν κατὰ λόγον γιγνομένων.

Chapter heading: **Dio Chrysostom** *Or.* 12 tit. Ὀλυμπικός ἡ Περὶ τῆς πρώτης τοῦ θεοῦ ἐννοίας.

Question types: **Cicero** *Top.* 81–82. **Clement of Alexandria** *Strom.* 8.6. 17.2–3 ἔπειτα ζητητέον ..., εἰ ἔστι, τί ἔστι, τί αὐτῷ συμβέβηκεν, ἢ καὶ οὕτως, εἰ ἔστι, τί ἔστι, διότι ἔστιν. **Galen** *UP* 6.17, 3.495.18–496.4 K. νυνὶ γὰρ οὐχ ὅτι τόδε γίγνεται κατὰ τὸ σῶμα τοῦ ζῶου, πρόκειται δεικνύνειν, ἀλλὰ διότι· τῷ δ' ἐξ ἀνάγκης προηγεῖσθαι, καθάπερ καὶ Ἀριστοτέλης ἔλεγε, τοῦ διότι τὸ ὅτι. *in lib. vi Epid.* p. 12.16–19 Wenkebach–Pfaff ὁ γὰρ Ἀριστοτέλης ἀξιοῖ προεγνωσμένον βεβαίως τοῦ ὅτι ζητεῖσθαι χρῆναι τὸ διότι. πρὶν δ' ὅτι γίνεται βεβαίως μαθεῖν, εἴ τις ζητοῖ τὸ διότι, φανερός ἐστιν ἄδολεσχεῖν τε καὶ ληρεῖν προηρημένος, οὐ τάλῃθες εὐρεῖν ὀρεγόμενος. **Alexander of Aphrodisias** *in Top.* 92.31–93.3 πρῶτον μὲν τὸ τί ἔστι τάσσοντας, οἷον ὅτι πᾶν ζῶον οὐσία ἐστὶν ἔμψυχος αἰσθητικὴ, ἢ ὅτι οὐσία, εἴπα ποῖόν τι, ὅτι ἔμψυχον, ὅτι αἰσθητικόν, ἢ ὅπως εἴ τι αὐτῷ ὑπάρχει, οἷον ὅτι πᾶν ζῶον ἢ πεζὸν ἢ ἐνυδρον ἢ πτηνόν. **Proclus** *in Alc.* 275.1–5 εἰρηται που καλῶς ὑπὸ τοῦ Ἀριστοτέλους (*APo.* 2 1), ὅτι τέτταρα προβλήματά ἐστι δι' ἃ οἱ λόγοι καὶ αἱ ζητήσεις, τὸ εἰ ἔστι, τὸ τί ἔστι, τὸ ὅποιόν τί ἔστι καὶ τὸ διατί ἔστι, καὶ ὅτι τὸν μέλλοντα γνῶσεσθαι τὸ τί ἐστὶν ἀνάγκη προειδέναι τὸ εἰ ἔστιν. **Trophonius** *Prol.* p. 1.3–5 Rabe ἐπειδὴ τέσσαρές εἰσιν αἱ ἀνωτάτω ζητήσεις, φημὶ δὴ τὸ εἰ ἔστι, τὸ τί ἔστι, τὸ ὅποιόν τί ἔστι καὶ τὸ διὰ τί ἔστιν κτλ. **Elias** *in Isag.* 2.3–6 ἔδει μὲν γὰρ ἡμᾶς ἀρχομένους τῆς φιλοσοφίας ἀπὸ τοῦ εἰ ἔστιν ἄρξασθαι, ἐπομένους νόμῳ διαλεκτικῷ τῷ λέγοντι δεῖν ἐπὶ πάσης τέχνης καὶ ἐπιστήμης τέσσαρα προβλήματα ζητεῖν, εἰ ἔστι, τί ἔστιν, ὅποιόν τί ἔστι καὶ διὰ τί ἔστι. **David** *Prol.* 1.13–15 δοκεῖ δέ μοι μικρὸν ἀναβάλλεσθαι τὴν ἐγκύκλιον ἐξήγησιν Ἀριστοτελικούς πειθομένῳ θεσμοῖς, ὡς δεῖ ἐν ἐκάστῳ σχεδὸν πράγματι τὰ τέσσαρα ταῦτα ζητεῖν κεφάλαια· εἰ ἔστι, τί ἔστι, ὅποιόν τί ἔστι καὶ διὰ τί ἔστι. **Agnellus of Ravenna** *in Galeni De sectis* 3, p. 18.9–12 *dicamus nunc de quattuor titulis quibus utuntur philosophi in arte*

medicina: primo si est, secundo quid est, tertio qualis est, quarto propter quod est.

§1[2–4] **Stoics** i.e. **Posidonius**: cf. *infra* on ch. 1.7.10.

§1[5–32] **Cicero** *ND* 1.100 (the Academic Cotta speaks) *et eos vituperabas, qui ex operibus magnificis atque praeclaris, cum ipsum mundum, cum eius membra caelum terras maria, cumque horum insignia solem lunam stellasque vidissent, cumque temporum maturitates mutationes vicissitudinesque cognovissent, suspicati essent aliquam excellentem esse praestantemque naturam, quae haec effecisset moveret regeret gubernaret.* *ND* 2.15 (on Cleanthes, *SVF* 1.528) *quartam causam* (sc. deorum notionum) *esse eamque vel maximam aequabilitatem motus* (constantissimamque) *conversionem caeli, solis lunae siderumque omnium distinctionem utilitatem pulchritudinem ordinem, quarum rerum aspectus ipse satis indicaret non esse ea fortuita: ut, si quis in domum aliquam aut in gymnasium aut in forum venerit, cum videat omnium rerum rationem modum disciplinam, non possit ea sine causa fieri iudicare, sed esse aliquem intellegat qui praesit et cui pareatur, multo magis in tantis motionibus tantisque vicissitudinibus, tam multarum rerum atque tantarum ordinibus, in quibus nihil umquam immensa et infinita vetustas mentita sit, statuatur necesse est ab aliqua mente tantos naturae motus gubernari. **Philo of Alexandria** *Praem.* 43 ἄλλ’ οὐτοί γε οἱ θεσπέσιοι καὶ τῶν ἄλλων διεννηχοῦτες, ὅπερ ἔφην, κάτωθεν ἄνω προήλθον οἷα διὰ τινος οὐρανοῦ κλίμακος, ἀπὸ τῶν ἔργων εἰκότι λογισμῷ στοχασάμενοι τὸν δημιουργόν. differently **Galen** *Propr.Plac.* 2, pp. 173.1–4 Boudon-Millot–Pietrobelli ὅτι δ’ εἰσὶν (sc. οἱ θεοὶ) ἐκ τῶν ἔργων γινώσκειν (sc. φημι)· ἐκείνων γὰρ εἶναι τὴν τε τῶν ζώων κατασκευὴν ἔργον, ὅσα τε διὰ κληδόνων ἢ συμβόλων ἢ ὀνειράτων προσμαίνουσιν. **Lactantius** *Inst.* 1.2.5 Heck–Wlosok *nemo est enim tam rudis, tam feris moribus, quin oculos suos in caelum tollens, tametsi nesciat cuius dei providentia regatur hoc omne quod cernitur, aliquam tamen esse intellegat ex ipsa rerum magnitudine motu dispositione constantia utilitate pulchritudine temperatione nec posse fieri, quin id quod mirabili ratione constat consilio maiore aliquo sit instructum.* **Theophilus of Antioch** *ad Autol.* 1.6 κατανόησον, ὦ ἄνθρωπε, τὰ ἔργα αὐτοῦ, καιρῶν μὲν κατὰ χρόνους ἀλλαγὴν καὶ ἀέρων τροπὰς, στοιχείων τὸν εὐτακτον δρόμον, ἡμερῶν τε καὶ νυκτῶν καὶ μηνῶν καὶ ἐνιαυτῶν τὴν εὐτακτον πορείαν, σπερμάτων τε καὶ φυτῶν καὶ καρπῶν τὴν διάφορον καλλονήν, τὴν τε πολυποίκιλον γονὴν κτηνῶν τετραπόδων καὶ πετεινῶν καὶ ἑρπετῶν καὶ νηκτῶν, ἐνύδρων τε καὶ ἐναλίων κτλ. **Cicero** *ND* 1.26 *quasi aut aer sine ulla forma deus esse possit, cum praesertim deum non modo aliqua sed pulcherrima specie deceat esse.* **Minucius Felix** *Oct.* 17.5–6.*

§1[5–9] **Xenophon** *Cyr.* 8.7.22 θεοὺς γε τοὺς αἰεὶ ὄντας καὶ πάντ’ ἐφορῶντας καὶ πάντα δυναμένους, οἳ καὶ τήνδε τὴν τῶν ὄλων τάξιν συνέχουσιν ἀτριβὴ καὶ ἀγήρατον καὶ ἀναμάρτητον καὶ ὑπὸ κάλλους καὶ μεγέθους ἀδιήγητον. **Plato** *Tim.* 29a (cited Eus. *PE* 11.31.1 and Theod. *CAG* 4.42) εἰ μὲν δὴ καλὸς ἐστὶν ὅδε ὁ κόσμος ὃ τε δημιουργὸς ἀγαθός ... **Diogenes Laertius** *V.P.* 3.72 (on Plato) σφαιροειδὴ (sc. τὸν κόσμον) δὲ διὰ τὸ καὶ τὸν γεννήσαντα τοιοῦτον ἔχειν σχῆμα. *V.P.* 8.35

(Pythagorei 58C.3 DK) καὶ τῶν σχημάτων τὸ κάλλιστον σφαῖραν εἶναι τῶν στερεῶν, τῶν δ' ἐπιπέδων κύκλον.

§1[9–11] **Parmenides** 28B8.42–49 DK ... τετελεσμένον ἐστὶ / πάντοθεν, εὐκύκλου σφαίρης ἐναλίγκιον ὄγκῳ, / μεσσόθεν ἰσοπαλὲς πάντῃ· τὸ γὰρ οὔτε τι μείζον / οὔτε τι βαιότερον πελάναι χρεόν ἐστι τῇ ἢ τῇ ... / (49) οἱ γὰρ πάντοθεν ἴσον, ὁμῶς ἐν πείρασι κύρει. **Empedocles** 31B28 DK ἀλλ' ὃ γε πάντοθεν ἴσος (ἐοῖ) καὶ πάμπαν ἀπείρων / Σφαῖρος κυκλοτερής. **Plato** *Tim.* 33b (cited Stob. *Ecl.* 1.15.4) σχῆμα δὲ ἔδωκεν αὐτῷ τὸ πρόπον καὶ τὸ συγγενές. τῷ δὲ τὰ πάντα ἐν αὐτῷ ζῶα περιέχειν μέλλοντι ζῶα πρόπον ἂν εἴη σχῆμα τὸ περιειληφὸς ἐν αὐτῷ πάντα ὅποσα σχήματα· διὸ καὶ σφαιροειδές, ἐκ μέσου πάντῃ πρὸς τὰς τελευτὰς ἴσον ἀπέχον, κυκλοτερές αὐτὸ ἐτορνεύσατο, πάντων τελεώτατον ὁμοιότατόν τε αὐτὸ ἑαυτῷ σχημάτων, νομίσας μυρίῳ κάλλιον ὅμοιον ἀνομοίου. **Aristotle** *Cael.* 2.4 286b10–11 σχῆμα δ' ἀνάγκη σφαιροειδὲς ἔχειν τὸν οὐρανόν· τοῦτο γὰρ οἰκειότατόν τε τῇ οὐσίᾳ καὶ τῇ φύσει πρῶτον. *Cael.* 2.4 287b14–15 ὅτι μὲν οὖν σφαιροειδὲς ἐστὶν ὁ κόσμος, δῆλον ἐκ τούτων. **Euclid** *Phaen.* pr. 50–51 διὰ δὴ τὰ προειρημένα πάντα ὁ κόσμος ὑποκείσθω σφαιροειδής. **ps.Aristotle** *Probl.* 16.10 915a33–36 διὰ τί ἐν τοῖς ἐσχάτοις αἰεὶ γίνεται περιφερῆ; ἢ ὅτι ἡ φύσις ἐκ τῶν ἐνδεχομένων πάντα ποιεῖ ὡς δυνατόν ἄριστα καὶ κάλλιστα, τὸ δὲ σχῆμα τοῦτο κάλλιστον, τὸ αὐτὸ αὐτῷ ὁμοιότατον. **Epicurus** *Ep.Pyth.* at D.L. 10.88 'κόσμος' ἐστὶ περιοχὴ τις οὐρανοῦ, ἄστρα τε καὶ γῆν καὶ πάντα τὰ φαινόμενα περιέχουσα, οὗ λυομένου πάντα τὰ ἐν αὐτῷ σύγχυσιν λήψεται, ἀποτομὴν ἔχουσα ἀπὸ τοῦ ἀπείρου καὶ καταλήγουσα ἐν πέρατι ἢ ἀραιῷ ἢ πυκνῷ καὶ οὗ λυομένου πάντα τὰ ἐν αὐτῷ σύγχυσιν λήψεται—καὶ λήγουσα ἢ ἐν περιεγομένῳ ἢ ἐν στάσει ἔχοντι καὶ στρογγύλην ἢ τρίγωνον ἢ οἷαν δήποτε περιγραφῆν· πανταχῶς γὰρ ἐνδέχεται. **Cicero** *ND* 2.37 (the Stoic Balbus speaks) *neque enim est quicquam aliud praeter mundum quod nihil absit quodque undique aptum atque perfectum expletumque sit omnibus suis numeris et partibus.* *ND* 2.47 *quid enim pulchrius ea figura quae sola omnis alias figuras complexa continet, quaeque nihil asperitatis habere nihil offensionis potest, nihil incisum angulis nihil anfractibus, nihil eminens nihil lacunosum; cumque duae formae praestantissimae sint, ex solidis globus (sic enim σφαῖραν interpretari placet), ex planis autem circulus aut orbis, qui κύκλος Graece dicitur, his duabus formis contingit solis ut omnes earum partes sint inter se simillimae a medioque tantum absit extremum, quo nihil fieri potest aptius.* **Seneca** *Ep.* 102.21 *patria est illi (sc. humano animo) quodcumque suprema et universa circuitu suo cingit, hoc omne convexum intra quod iacent maria cum terris, intra quod aër humanis divina secernens etiam coniungit.* **Plutarch** *Sept.Sap.* 153D (on Thales, fr. 121 Wöhrlé) 'τί κάλλιστον;' 'κόσμος· πᾶν γὰρ τὸ κατὰ τάξιν τούτου μέρος ἐστὶ.' **ps.Aristotle** *MXG* 3 977b1–2 (on Xenophanes, 21A28 p. 1.117 DK) πάντῃ δ' ὅμοιον ὄντα σφαιροειδῆ εἶναι· οὐ γὰρ τῇ μὲν τῇ δ' οὐ τοιοῦτον εἶναι, ἀλλὰ πάντῃ. **Ocellus** ch. 38 λέγω δὲ μέρη (sc. τοῦ κόσμου) οὐρανόν, γῆν, τὸ μετὰ τούτων δὲ δὴ μετάρσιον καὶ ἀέριον ὀνομάζεται. **ps.Aristotle** *Mu.* 2 391b19–20 τοῦ δὲ σύμπαντος οὐρανοῦ τε καὶ κόσμου σφαιροειδοῦς ὄντος. **Proclus** *in Parm.* p. 3.1112.27–28 Steel δευτέρον (sc. μέρος καλοῦμεν) τὸ συμπληρωματικόν τινος, ὥσπερ λέγομεν μέρη τοῦ παντός τὰς ἄλλας σφαίρας. [cf. below on ch. 2.2.2]. **Pliny** *Nat.* 2.1.8 *equidem et consensu*

gentium moveor; namque et Graeci nomine ornamenti appellavere eum et nos a perfecta absolutaque elegantia mundum.

§1[11–12] **Plato** *Tim.* 44d τὰς μὲν δὴ θείας περιόδους δύο οὔσας, τὸ τοῦ παντὸς σχῆμα ἀπομιμησάμενοι περιφερὲς ὄν, εἰς σφαιροειδὲς σῶμα ἐνέδησαν, τοῦτο δὲ νῦν κεφαλὴν ἐπονομάζομεν, ὃ θεϊοτάτῳ τέ ἐστίν καὶ τῶν ἐν ἡμῖν πάντων δεσποτοῦν. **Ptolemy** *Iudic.* c. 15.2, p. 22.1–6 ἔάν μὲν γὰρ τὸ βέλτιστον ἀπλῶς καὶ τιμιώτατον καλῶμεν ἡγεμονικόν, ἐν ἐγκεφάλῳ τοῦτο ἔσται. δέδεικται γὰρ ἡμῖν ἱκανῶς, ὅτι τὸ διανοητικόν καὶ δυνάμει καὶ οὐσίᾳ τιμιώτερον καὶ θεϊοτερόν ἐστιν ἔν τε τῷ παντὶ καὶ ἐν ἡμῖν· καὶ ὅτι τόπος αὐτοῦ τὰ ἀνωτάτω, τοῦ κόσμου μὲν ὁ οὐρανός, ἀνθρώπου δὲ ἡ κορυφή. **Corpus Hermeticum** 10.11, p. 118.13–16 Nock–Festugière ἐπεὶ ὁ κόσμος σφαῖρά ἐστι, τουτέστι κεφαλὴ, κεφαλῆς δὲ οὐδὲν ὑπεράνω ὑλικόν, ... νοῦς δὲ κεφαλὴ, αὕτη σφαιρικῶς κινουμένη. **Lactantius** *Op.D.* 8.3–4 Perrin *eius prope divina mens quia non tantum animantium quae sunt in terra, sed etiam sui corporis est sortita dominatum, in summo capite conlocata tamquam in arce sublimi speculatur omnia et contuetur.* (4) *hanc eius aulam deus non obductam porrectamque formavit ut in mutis animalibus, sed orbi et globo similem, quod orbis rotunditas perfectae rationis est ac figurae.* **Calcidius** in *Tim.* c. 231 *rationabili velut arx corporis et regia, ... id est domicilium capitis, in quo habitat animae principale, quod ad similitudinem mundi sit exaedificatum, teres et globosum.* **Macrobius** in *Somn.* 1.14.9 *solisque inest vel in capite sphaerae similitudo, quam formam diximus solam mentis capacem.*

§1[12–17] **Plato** *Tim.* 92c ὅδε ὁ κόσμος οὕτω, ζῶν ὁράτῳ τὰ ὁρατὰ περιέχον ... μέγιστος καὶ ἄριστος κάλλιστός τε καὶ τελεώτατος γέγονεν. **Alexander of Aphrodisias** in *Top.* 76.7–15 διαλεκτικοῦ γὰρ τὸ ἐν τοῖς τοιοῦτοις διὰ τινων ἐνδόξων ῥοπήν τινα καὶ πρόσκλισιν ἐμποιεῖν πρὸς θάτερον τῶν ἀντικειμένων, οἷον ὅτι αἰδίδος ὁ κόσμος ἢ ὅτι σφαιροειδής. ἐπιχειρήσαι γὰρ ἂν τις διαλεκτικῶς εἰς τοῦτο ὅτι τῷ τελειότατῳ τῶν σωμάτων οἰκεῖον τὸ τελειότατον σχῆμα, ὃ δὲ κόσμος τελειότατον τῶν σωμάτων· πάντα γὰρ τὰ ἄλλα ἐν ἑαυτῷ ἔχει· τῷ κόσμῳ ἄρα τὸ τελειότατον τῶν σχημάτων οἰκεῖον· ἀλλὰ μὴν τελειότατον ἢ σφαῖρα τῶν σχημάτων· οὔτε γὰρ προσθήκη οὔτε ἀφαίρεσις δέχεται· οἰκεῖον ἄρα τὸ σφαιρικόν σχῆμα τῷ κόσμῳ.

§1[12–16] **Philostratus** *V.Apoll.* 1.25 φασι δὲ καὶ ἀνδρῶν ἐντυχεῖν, οὐ τὸν ὄροφον ἐς θόλον ἀνήχθαι σχῆμα οὐρανῷ τινι εἰκασμένον, σαπφειρίνην δὲ αὐτὸν κατηρέφθαι λίθῳ—κυανώτατῃ δὲ ἢ λίθος καὶ οὐρανία ἰδεῖν. **Porphyrus** *Περὶ ἀγαλμάτων* at *Eus. PE* 3.11.23 (359F Smith) τοῦ δ' αὖ πυρὸς τὴν δύναμιν προσειπόντες Ἥφαιστον ἀνθρωποειδὲς μὲν αὐτοῦ τὸ ἀγαλμα πεποιήκασιν, πῖλον δὲ περιέθεσαν κυάνεον τῆς οὐρανίου σύμβολον περιφορᾶς ἔνθα τοῦ πυρὸς τὸ ἀρχοειδὲς τε καὶ ἀκραϊφνέστατον. **Didymus Caecus** in *Ps.* 35–39 cod. p. 255.21–22, p. 104 Gronewald φιλεῖ δὲ ὁ ὑάκινθος μιμεῖσθαι τοῦ αἰθέρος τὸ χρῶμα. **Theodoret** in *Oct.* p. 193.18–19 Fernández Marcos–Sáenz-Badillos τῶν τιμιωτέρων ὑάκινθινα μόνα τὰ καλύμματα ἦν. αἰνίττεται δὲ ἡ χροὰ τὸν οὐρανόν. **Olympiodorus** in *Mete.* 243.17–22 ἰδοὺ γούν τὸν οὐρανὸν κυανοῦν χρῶμα δοκοῦμεν ἔχειν καὶ τὴν θάλασσαν πορφυροῦν διὰ τὸ ἐπὶ πλεον ἐκτεινομένην (τὴν ὕψιν) διάστημα ἐξασθενεῖν, καίτοι τοῦ Ἀριστοτέλους βουλομένου ἀχρωμάτιστα εἶναι τὰ οὐράνια σώματα διὰ τὸ εἶναι ταῦτα τῆς πέμπτης οὐσίας, πᾶν δὲ χρῶμα ἐκ τῶν τεσσάρων στοιχείων (cf. *Aristotle Mete.* 1.3 341a31–

36 σημείον δ' ἰκανόν ὅτι ὁ ἄνω τόπος οὐκ ἔστι θερμός οὐδ' ἐκπεπυρωμένος καὶ αἱ διαδρομαὶ τῶν ἀστέρων. ἐκεῖ μὲν γὰρ οὐ γίνονται, κάτω δέ· καίτοι τὰ μάλλον κινούμενα καὶ θάττον, ἐκπυροῦται θάττον. πρὸς δὲ τούτοις ὁ ἥλιος, ὅσπερ μάλιστα εἶναι δοκεῖ θερμός, φαίνεται λευκός ἄλλ' οὐ πυρώδης ὢν, but also **ps.Aristotle Col.** 1 791a1–4 ἀπλὰ τῶν χρωμάτων ἐστὶν ὅσα τοῖς στοιχείοις συνακολουθεῖ, οἷον πυρὶ καὶ ἀέρι καὶ ὕδατι καὶ γῇ. ἀήρ μὲν γὰρ καὶ ὕδωρ καθ' ἑαυτὰ τῇ φύσει λευκά, τὸ δὲ πῦρ καὶ ὁ ἥλιος ξανθά. καὶ ἡ γῆ δ' ἐστὶ φύσει λευκή.) **Hesychius Lex.** K 4348, p. 539 Latte κύανον· εἶδος χρώματος οὐρανοειδές. **Al-Kindi Treatise on the Blue Colour of the Sky**, at Adamson–Pormann eds. (2012) 139–144.

§1[16–17] Aristotle Met. I.4 1055a10–12 ἀλλὰ μὴν τό γε μέγιστον ἐν ἐκάστῳ γένει τέλειον. μέγιστόν τε γὰρ οὐ μὴ ἔστιν ὑπερβολή, καὶ τέλειον οὐ μὴ ἔστιν ἔξω λαβεῖν τι δυνατόν. **ps.Alexander of Aphrodisias in Met.** 619.15–17 τὸ μέγιστον γὰρ, φησὶν, ἐν ἐκάστῳ γένει καὶ ὑποκειμένῳ τέλειον· μέγιστον γὰρ φαμεν, οὐ μὴ ἔστιν ὑπερβολή· μέγιστος γὰρ ὁ κόσμος, ὅτι οὐκ ἔστι τι τὸ ὑπερβάλλον αὐτοῦ. **Plutarch Sept.Sap.** 153A 'τί μέγιστον;' 'κόσμος.'

§1[18–19], [38–40] Epicurus Ep.Pyth. at D.L. 10.87 τὰ ἐν τοῖς μετεώροις φαινόμενα (cf. *ibid.* 10.95). **Achilles V.Ar.** I p. 9.21–10.7 Martin ἐπιτετευγμένως δὲ αὐτῷ (sc. Aratus) ἐγράφη τὰ Φαινόμενα, ὡς παρευδοκιμηθῆναι πάντας ὑπ' Ἀράτου. καὶ γὰρ Εὐδοξὸς ὁ Κνίδιος (F 3a Lasserre), καὶ Λάσος ὁ Μάγνης (οὐχὶ ὁ Ἑρμιονεύς, ἀλλ' ὁ μώνυμος ἄλλος Λάσῳ τῷ Ἑρμιονεῖ) καὶ Ἑρμιππος (fr. 95 Wehrli, T 19a Bollansée) καὶ Ἡγησιάναξ καὶ Ἀριστοφάνης ὁ Βυζάντιος (fr. (dubium) 425 Slater) καὶ ἄλλοι πολλοί. ὦν καὶ Πτολεμαῖος μέμνηται ὁ βασιλεὺς (Ptolemaeus III Euergetes I, *Suppl. Hell.* fr. 712 Lloyd Jones–Parsons) Ἰδιοφύεσιν οὕτως· 'πάνθ' Ἡγησιάναξ τε καὶ Ἑρμιππος (τὰ) κατ' αἰθρην / τείρεα καὶ πολλοὶ ταῦτα τὰ φαινόμενα / βίβλοις ἐγκατέθεντο, † ἀπὸ σκοποῦ δ' ἐφάρμαρτον † / ἄλλ' ὅ γε λεπτολόγος σκηπτρον Ἄρατος ἔχει'.

§1[18–19] Plato Resp. 7.529c τὰ ἐν τῷ οὐρανῷ ποικίλματα. *Tim.* 40a νείμας περὶ πάντα κύκλῳ τὸν οὐρανόν, κόσμον ἀληθινόν αὐτῷ πεποικιλμένον εἶναι καθ' ὅλον.

§1[20–32] Cicero Arat. 320–331 Soubiran *aestifer est pandens ferventia sidera Cancer; / hunc subter fulgens cedit vis torva Leonis, / quem rutilo sequitur conlucens corpore Virgo; / exin proiactae claro cum lumine Chelae, / ipsaque consequitur lucens vis magna Nepai; / inde Sagittipotens dextra flexum tenet arcum; / post hunc ore fero Capricornus vadere pergit; / umidus inde loci conlucet Aquarius orbe[m]; / exim squamiferi serpentes ludere Pisces; / quis comes est Aries, obscuro lumine labens, / inflexoque genu, proiecto corpore, Taurus, / et Gemini clarum iactantes lucibus ignem.* **Quintus T. Cicero at Auson. Ecl.** 25.1–14 Courtney. **Germanicus Arat.** 531–564. **Seneca Thy.** 842–868.

§1[29–32] Diogenes of Apollonia 64B3 DK, fr. 3 Laks at Simp. in *Phys.* 152.11–16 (verbatim) ἐφεξῆς δὲ δεῖξας ὅτι ἐστὶν ἐν τῇ ἀρχῇ ταύτῃ νόησις πολλή· οὐ γὰρ ἄν', φησὶν, 'οἷόν τε ἦν οὕτω δεδᾶσθαι ἄνευ νοήσιος, ὥστε πάντων μέτρα ἔχειν χειμῶνός τε καὶ θέρους καὶ νυκτός καὶ ἡμέρας καὶ ὑετῶν καὶ ἀνέμων καὶ εὐδίων, καὶ τὰ ἄλλα· εἴ τις βούλεται ἐννοεῖσθαι, εὐρίσκοι ἂν οὕτω διακείμενα ὡς ἀνυστόν κάλλιστα' κτλ. **Plato Phlb.** 28e τὸ δὲ νοῦν πάντα διακοσμεῖν αὐτὰ φάναι καὶ τῆς

ὄψεως τοῦ κόσμου καὶ ἡλίου καὶ σελήνης καὶ ἀστέρων καὶ πάσης τῆς περιφορᾶς ἄξιον, καὶ οὐκ ἄλλως ἔγωγ' ἂν ποτε περὶ αὐτῶν εἴποιμι οὐδ' ἂν δοξάσαιμι. **Xenophon Mem.** 4.3.13 ἐξαρκῇ σοι τὰ ἔργα αὐτῶν ὁρῶντι σέβεσθαι καὶ τιμᾶν τοὺς θεοὺς. ἐννοεῖ δὲ ὅτι καὶ αὐτοὶ οἱ θεοὶ οὕτως ὑποδεικνύουσιν· οἳ τε γὰρ ἄλλοι ἡμῖν τάχαθὰ διδόντες οὐδὲν τούτων εἰς τὸ ἐμφανὲς ἰόντες διδῶσι, καὶ ὁ τὸν ὅλον κόσμον συντάττων τε καὶ συνέχων, ἐν ᾧ πάντα καλὰ καὶ ἀγαθὰ ἐστί, καὶ αἰεὶ μὲν χρωμένους ἀτριβῇ τε καὶ ὑγιά καὶ ἀγήρατα παρέχων, θάττον δὲ νοήματος ὑπηρετοῦντα ἀναμαρτήτως, οὗτος τὰ μέγιστα μὲν πράττων ὁράται. **ps.Plato** (i.e. Philip of Opus) *Epin.* 978c–979b. **Lucretius DRN** 5.1183–1193 *praeterea caeli rationes ordine certo / et varia annorum cernebant tempora verti / nec poterant quibus id fieret cognoscere causis. / ergo perfugium sibi habebant omnia divis / tradere et illorum nutu facere omnia flecti. / in caeloque deum sedes et templa locarunt, / per caelum volvi quia nox et luna videtur, / luna dies et nox et noctis signa severa / noctivagaeque faces caeli flammaeque volantes, / nubila sol imbres nix venti fulmina grando / et rapidi fremitus et murmura magna minarum.* **DRN** 5.1204–1210 *nam cum suspicimus magni caelestia mundi / templa super stellisque micantibus aethera fixum, / et venit in mentem solis lunaeque viarum, / tunc aliis oppressa malis in pectora cura / illa quoque expergefactum caput erigere infit, / ne quae forte deum nobis immensa potestas / sit, vario motu quae candida sidera verset.* **Cicero ND** 1.22 (the Epicurean Velleius speaks) *quid autem erat quod concupisceret deus mundum signis et luminibus tamquam aedilis ornare? si ut deus ipse melius habitaret, antea videlicet tempore infinito in tenebris tamquam in gurgustio habitaverat.* **Sextus Empiricus M.** 9.20–22 Ἀριστοτέλης (**Aristotle fr.** 10 R³, *de Phil.* fr. 10 Walzer/Ross) δὲ ἀπὸ δυοῖν ἀρχῶν ἔννοιαν θεῶν ἔλεγε γεγενῆαι ἐν τοῖς ἀνθρώποις, ἀπὸ τε τῶν περὶ ψυχὴν συμβαινόντων καὶ ἀπὸ τῶν μετεώρων ... ἀλλὰ δὴ καὶ ἀπὸ τῶν μετεώρων· θεασάμενοι γὰρ μεθ' ἡμέραν μὲν ἥλιον περιπολοῦντα, νύκτωρ δὲ τὴν εὐτακτον τῶν ἄλλων ἀστέρων κίνησιν, ἐνόμισαν εἶναι τινα θεὸν τὸν τῆς τοιαύτης κινήσεως καὶ εὐταξίας αἴτιον. τοιοῦτος μὲν καὶ ὁ Ἀριστοτέλης. **M.** 9.24 εἰσὶ δὲ οἱ ἀπὸ τῶν γιγνομένων κατὰ τὸν κόσμον παραδόξων ὑπονοήσαντες εἰς ἔννοιαν ἡμᾶς ἐληλυθέναι θεῶν, ἅφ' ἧς φαίνεται εἶναι δόξης καὶ ὁ Δημόκριτος (68A75 DK)· ὁρῶντες γὰρ, φησί, τὰ ἐν τοῖς μετεώροις παθήματα οἱ παλαιοὶ τῶν ἀνθρώπων, καθάπερ βροντὰς καὶ ἀστραπάς, κεραυνούς τε καὶ ἄστρων συνόδους ἡλίου τε καὶ σελήνης ἐκλείψεις, ἐδειματοῦντο, θεοὺς οἰόμενοι τούτων αἰτίους εἶναι. **M.** 9.26–27 (**Aristotle fr.** 11 R³, *de Phil.* fr. 12b Walzer/Ross). **Cicero ND** 2.95 (**Aristotle fr.** 12 R³, *de Phil.* fr. 13 Walzer/Ross). **Philo of Alexandria Leg.** 3.97–99 (**Aristotle fr.** 12 R³, *de Phil.* fr. 13b Walzer/Ross) ἐζήτησαν οἱ πρῶτοι, πῶς ἐνόησαμεν τὸ θεῖον, εἰθ' οἱ δοκοῦντες ἄριστα φιλοσοφεῖν ἔφασαν, ὅτι ἀπὸ τοῦ κόσμου καὶ τῶν μερῶν αὐτοῦ καὶ τῶν ἐνυπαρχουσῶν τούτοις δυνάμεων ἀντίληψιν ἐποιησάμεθα τοῦ αἰτίου. ... εἰσελθὼν τις ὥσπερ εἰς μεγίστην οἰκίαν ἢ πόλιν τόνδε τὸν κόσμον καὶ θεασάμενος οὐρανὸν ἐν κύκλῳ περιπολοῦντα καὶ πάντα ἐντὸς συνειληφότα, πλάνητας δὲ καὶ ἀπλανεῖς ἀστέρας κατὰ ταῦτά καὶ ὡσάυτως κινουμένους ἐμμελῶς τε καὶ ἐναρμονίως καὶ τῷ παντὶ ὡφελίμως (κτλ.) **Spec.** 1.34–35 (**SVF** 2.1010) τὸν οὖν ἀφικόμενον εἰς τὴν ὡς ἀληθῶς μεγαλόπολιν, τόνδε τὸν κόσμον, καὶ θεασάμενον ... εἶτα ἥλιον καὶ σελήνην, τοὺς ἡμέρας καὶ νυκτὸς ἡγεμόνας, καὶ τὰς

τῶν ἄλλων πλανήτων τε καὶ ἀπλανῶν καὶ τοῦ σύμπαντος οὐρανοῦ περιπολήσεις καὶ χορείας, οὐκ εἰκότως, μᾶλλον δὲ ἀναγκαίως, ἔννοιαν λήψεσθαι δεῖ τοῦ ποιητοῦ καὶ πατρὸς καὶ προσέτι ἡγεμόνος; (35) οὐδὲν γὰρ τῶν τεχνικῶν ἔργων ἀπαντοματίζεται· τεχνικώτατον δὲ καὶ ἐπιστημονικώτατον ὅδε ὁ κόσμος, ὡς ὑπὸ τινος τὴν ἐπιστήμην ἀγαθοῦ καὶ τελειοτάτου πάντως δεδημιουργήσθαι. τοῦτον τὸν τρόπον ἔννοιαν ἐλάβομεν ὑπάρξεως θεοῦ. **Ptolemy Synt.** 1.1, p. 10.3–19 γ'. "Οτι σφαιροειδῶς ὁ οὐρανὸς φέρεται. τὰς μὲν οὖν πρώτας ἔννοιās περὶ τούτων ἀπὸ τοιαύτης τινὸς παρατηρήσεως τοῖς παλαιοῖς εὐλογον παραγεγονέναι· ἑώρων γὰρ τὸν τε ἥλιον καὶ τὴν σελήνην καὶ τοὺς ἄλλους ἀστέρας φερομένους ἀπὸ ἀνατολῶν ἐπὶ δυσμᾶς αἰεὶ κατὰ παραλλήλων κύκλων ἀλλήλοις καὶ ἀρχομένους μὲν ἀναφέρεσθαι κάτωθεν ἀπὸ τοῦ ταπεινοῦ καὶ ὥσπερ ἐξ αὐτῆς τῆς γῆς, μετεωριζομένους δὲ κατὰ μικρὸν εἰς ὕψος, ἔπειτα πάλιν κατὰ τὸ ἀνάλογον περιερχομένους τε καὶ ἐν ταπεινώσει γιγνομένους, ἕως ἂν τέλεον ὥσπερ ἐμπεσόντες εἰς τὴν γῆν ἀφανισθῶσιν, εἴτ' αὖ πάλιν χρόνον τινὰ μέινοντας ἐν τῷ ἀφανισμῷ ὥσπερ ἀπ' ἄλλης ἀρχῆς ἀνατέλλοντάς τε καὶ δύνοντας, τοὺς δὲ χρόνους τούτους καὶ ἔτι τοὺς τῶν ἀνατολῶν καὶ δύσεων τόπους τεταγμένους τε καὶ ὁμοίως ὡς ἐπίπαν ἀνταποδιδόμενους. **Theodore Procl.** MPG 83, p. 573.15–18 βλέπε καὶ τῶν ἀστέρων τὴν φύσιν, τὴν θέσιν, τὴν τάξιν, τῶν σχημάτων τὴν ποικιλίαν, τὴν τέρψιν, τὴν χρεῖαν, τὴν χορείαν, τὰς ἐπιτολάς, τὰς δύσεις· τούτους ὁ τῶν ὄλων δημιουργὸς πεποίηκεν. **David Prol.** 6.2–4 περὶ δὲ τοῦ θεολογικοῦ ἔστιν εἰπεῖν ὅτι εἰ καὶ τὸ θεῖον ἄγνωστον, ἄλλ' οὖν θεωροῦντες τὰ δημιουργήματα καὶ τὴν εὐτακτον κίνησιν τοῦ παντὸς εἰς ἔννοιαν ἐρχόμεθα τοῦ δημιουργήσαντος. (cf. also below on [50–54].)

§1[33–37] **Cicero ND** 2.23 (the Stoic Balbus speaks) *id ipsum* (sc. esse deos) *rationibus physicis id est naturalibus confirmari volo*. **Varro Ant.Rer.Div.** frs. 7–10 Cardauns at Aug. *C.D.* 6.5.1–3 Dombart–Kalb *deinde illud quale est, quod tria genera theologiae dicit esse, id est rationis quae de diis explicatur, eorumque unum mythicon appellari, alterum physicon, tertium civile* [i.e. politicon, *C.D.* 6.12.2]? ... 6.5.9–10 *deinde ait: 'mythicon appellant, quo maxime utuntur poetae; physicon, quo philosophi, civile, quo populi'* ... 6.5.23–30 *'secundum genus est', inquit, 'quod demonstravi, de quo multos libros philosophi reliquerunt. ... sic alia, quae facilius intra parietes in schola quam extra in foro ferre possunt aures'. nihil in hoc genere culpavit, quod physicon vocant et ad philosophos pertinet, tantum quod eorum inter se controversias commemoravit, per quos facta est dissidentium multitudo sectarum.* ... 6.5.56–62 *'tertium genus est', inquit, 'quod in urbibus cives, maxime sacerdotes, nosse atque administrare debent. in quo est, quos deos publice † sacra ac sacrificia colere et facere quemque par sit'* ... *'prima, inquit, theologia maxime accommodata est ad theatrum, secunda ad mundum, tertia ad urbem'*. **Strabo** 1.2.8, 19C.1–20C.7 καὶ πρώτον ὅτι τοὺς μύθους ἀπεδέξαντο οὐχ οἱ ποιηταὶ μόνον, ἀλλὰ καὶ αἱ πόλεις πολὺ πρότερον καὶ οἱ νομοθέται τοῦ χρησίου χάριν ... (20C.4) διὰ ποιητικῆς ἱκανῶς σωφρονίζεσθαι πᾶσαν ἡλικίαν ὑπέλαβον· χρόνοις δ' ὕστερον ἢ τῆς ἱστορίας γραφῇ καὶ ἡ νῦν φιλοσοφία παρελήλυθεν εἰς μέσον. αὕτη μὲν οὖν πρὸς ὀλίγους, ἡ δὲ ποιητικὴ δημωφελεστέρα καὶ θέατρα πληροῦν δυναμένη. **Plutarch Amat.** 763C τῆς δ' οὖν περὶ θεῶν δόξης καὶ παντάπασιν ἡγεμόνες καὶ διδάσκαλοι γεγόνασιν ἡμῖν οἱ τε ποιηταὶ καὶ οἱ νομοθέται καὶ τρίτον οἱ φιλόσοφοι. **Dio Chrysostom Or.** 12.44 τριῶν

δὴ προκειμένων γενέσεων τῆς δαιμονίου παρ' ἀνθρώποις ὑπολήψεως, ἐμφύτου (sc. ἐξ αὐτῶν γιγνομένην τῶν ἔργων καὶ τάληθοῦς), ποιητικῆς, νομικῆς. **Tertullian** *ad Nat.* 2.1.9–10 Borleffs *hunc* (sc. Varronem, cf. on *Ant.Rer.Div.* fr. 7 Cardauns) *si interrogem, qui insinua(to)res deorum, aut philosophos designat aut populos aut poetas. triplici enim genere deorum censum distinxit: unum esse physi(cum), quod philosophi retractant, aliud mythicum, quod inter po(etas) volutatur, tertium gentile, quod populi sibi quique adoptave(runt).* **Eusebius** *PE* 4.1.2 ἐπειδὴ γὰρ τὸ πᾶν τῆς θεολογίας αὐτῶν εἶδος εἰς τρία γενικώτερον διαιροῦσιν, εἷς τε τὸ μυθικὸν ὑπὸ τῶν ποιητῶν τετραγῶδημένον καὶ εἷς τὸ φυσικὸν τὸ δὴ πρὸς τῶν φιλοσόφων ἐφευρημένον εἷς τε τὸ πρὸς τῶν νόμων διεκδικούμενον ἐν ἐκάστῃ πόλει καὶ χώρᾳ πεφυλαγμένον **Calcidius** in *Tim.* c. 264 *neque enim quisquam deum quaereret aut ad pietatem aspiraret, quod est theologiae proprium, nec vero id ipsum quod nunc agimus agendum putaret nisi prius caelo sideribusque visis et amore nutrito sciendi rerum causas, eorum etiam, quae ortum habent temporarium, exordia; haec quippe demum ad naturalem pertinent quaestionem. quid quod dierum et noctium vice considerata menses et anni et horarum curricula dinumerata sunt numerique ortus et genitura dimensionis intro data?*

§1[39–47] **Plato** *Crat.* 397c–d (cited Eus. *PE* 1.9.12 and Theod. *CAG* 2.27 and 3.7, cf. 3.23) φαίνονται μοι οἱ πρῶτοι τῶν ἀνθρώπων τῶν περὶ τὴν Ἑλλάδα τούτους (d) μόνους θεοὺς ἡγεῖσθαι οὕσπερ νῦν πολλοὶ τῶν βαρβάρων, ἥλιον καὶ σελήνην καὶ γῆν καὶ ἄστρα καὶ οὐρανόν· ἅτε οὖν αὐτὰ ὀρώντες πάντα αἰεὶ ἰόντα δρόμῳ καὶ θέοντα, ἀπὸ τούτης τῆς φύσεως τῆς τοῦ θεῖν 'θεοὺς' αὐτοὺς ἐπονομάσαι. *Crat.* 410b τὸν δὲ αἰθέρα τῇδε πῃ ὑπολαμβάνω, ὅτι αἰεὶ θεὶ περὶ τὸν ἀέρα ῥέων 'αἰετιήρ' δικαίως ἂν καλοῖτο. **Aristotle** *Mete.* 1.3 339b25–26 τὸ γὰρ αἰεὶ σῶμα θεόν ἅμα καὶ θεῖόν τι τὴν φύσιν εἰκόασιν ὑπολαβεῖν. *GA* 1.2 716a15–17 ἐν τῷ ὅλῳ τὴν τῆς γῆς φύσιν ὡς θῆλυ καὶ μητέρα νομίζουσιν, οὐρανὸν δὲ καὶ ἥλιον ἢ τι τῶν ἄλλων τῶν τοιούτων ὡς γεννῶντας καὶ πατέρας προσαγορεύουσιν. **ps.Onatas** *de Deo* p. 139.15–16 Thesleff at *Stob. Ecl.* 1.1.39, p. 49.3–4 τοὶ δ' ἄλλοι θεοὶ οἱ θεόντές εἰσι κατ' οὐρανὸν σὺν τῇ τῷ παντὸς περιαγῇ. **Cornutus** *Comp.* c. 1, pp. 1.19–2.4 Torres εὐλογον δὲ καὶ τοὺς θεοὺς ἀπὸ τῆς θεύσεως ἐσχηκέναι τὴν προσηγορίαν· πρῶτον γὰρ οἱ ἀρχαῖοι θεοὺς ὑπελάμβανον εἶναι οὓς ἐώρων ἀδιαλείπτως φερομένους, αἰτίους αὐτοὺς νομίσαντες εἶναι τῶν τοῦ ἀέρος μεταβολῶν καὶ τῆς σωτηρίας τῶν ὄλων. **Theophilus of Antioch** *ad Autol.* 1.4 θεὸς δὲ λέγεται διὰ ... τὸ θέειν· τὸ δὲ θέειν ἐστὶν τὸ τρέχειν καὶ κινεῖν καὶ ἐνεργεῖν καὶ τρέφειν καὶ προνοεῖν καὶ κυβερνᾶν καὶ ζωοποιεῖν τὰ πάντα. **Tertullian** *ad Nat.* 2.4.1 Borleffs (Varro *Rer.Div.* fr. 25 Cardauns) *aiunt quidam propterea deos (appella)tos, quod θέειν id est ἵεσθαι pro currere ac motari interpretatio est.* **Dionysius of Alexandria** Περὶ φύσεως at Eus. *PE* 14.27.8 ὡς οἱ τὸν ἥλιον καὶ τὴν σελήνην καὶ τοὺς ἀστέρας θαυμάσαντες διὰ τὸ θέειν ἔφασαν κεκληθῆσθαι θεοὺς. **Macrobius** *Sat.* 1.2.3 θεοὺς *enim dicunt sidera et stellas* ἀπὸ τοῦ θέειν *id est τρέχειν quod semper in cursu sint*, ἢ ἀπὸ τοῦ θεωρεῖσθαι (cf. below, Plot. 5.8[31].3). (cf. above on §1[29–32]) **Simplicius** in *Cael.* 382.35–383.7 εἰπὼν περὶ τοῦ ὅλου οὐρανοῦ ... καὶ τῶν περὶ αὐτοῦ κοινῶν ἐννοιῶν ὡς περὶ θεοῦ μαντευομένων ὑπομνήσας ἡμᾶς· καὶ γὰρ πρῶτον τὸν οὐρανὸν καὶ τὰ ἐν οὐρανῷ παρὰ τὸ θέειν θεοὺς ἐκάλεσαν ἄνθρωποι καὶ ἀπὸ τούτων εἰς ἐπίγνωσιν ἦλθον τοῦ τε δημιουργοῦ

καὶ τῶν ἄλλων θεῶν τάξεων. in *Ench.* p. 95 Dübner = pp. 368.194–369.2 Hadot ἀρχὴ δὲ τῆς σκέψεώς ἐστιν, ἰδεῖν πρῶτον, τί σημαίνει τὸ τοῦ 'θεοῦ' ὄνομα. καὶ ἰστέον, ὅτι οἱ πρῶτον θέντες αὐτό, τοὺς ἐν οὐρανῷ περιπολοῦντας, παρὰ τὸ θέειν, τοῦτ' ἔστι τρέχειν καὶ ὀξέως κινεῖσθαι, οὕτως ὠνόμασαν. differently Plotinus 5.8[31].3.27–28 τῶν δὲ θεῶν οἱ μὲν ἐν οὐρανῷ ὄντες—σχολῇ γὰρ αὐτοῖς—θεώνται ἀεὶ (cf. above, Macrobian *Sat.* 1.23.3).

§1[39–43] Philo of Alexandria *Spec.* 1.34 (on Stoics, *SVF* 2.1010) τὸν οὖν ἀφικόμενον εἰς τὴν ὡς ἀληθῶς μεγαλόπολιν, τόνδε τὸν κόσμον, καὶ θεασάμενον τὴν ὀρεινὴν καὶ πεδιάδα βρίθουσαν ζώων καὶ φυτῶν καὶ ποταμῶν αὐθιγενῶν καὶ χειμάρρων φορᾶς καὶ πελαγῶν ἀναχύσεις καὶ εὐκρασίας ἀέρος καὶ τῶν ἐτησίων ὥρων τροπᾶς, ... ἔνοιαν λήψεσθαι δεῖ τοῦ ποιητοῦ καὶ πατρὸς καὶ προσέτι ἡγεμόνος;

§1[41] Philodemus *Piet.* (*PHerc.* 1428) 5d Gomperz, fr. 16 Schober, Henrichs (1975) 96, col. 329 (formerly fr. 16) Vassallo [τ]ῶν ἀνθρώπων [κα]ταφρονεῖν .. [....(.)] | θέρος ἐν τῇ [γ]ῇ | [καὶ] χε[ι]μῶν καὶ ἔ[αρ καὶ] | με[τ]{θ}όπων [κ]αὶ π[ά]ντα ταῦτα ἄν[οι]{ω}θεν δι[ι]πετῇ γε[ι]νεται· δι[ο] δὴ καὶ τὸ ἐξεργαζόμενον γνόντας | σέβεσθαι. οὐ φαίνεται δ' ἐμοὶ Δημόκριτος (68A75 DK) ὥσπερ ἔνιοι τὸν [θεὸν

§1[41–42] Diogenes of Apollonia 64B3 DK, fr. 6 Laks (verbatim) see above, §1[33–38].

§1[43–47] Philodemus *de Mus.* Δ col. 38.13–16 Delattre (on Diogenes, *SVF* 3 Diog. 64) ὅτι δὲ πρὸς τ[ο] | θε[ῖ]ον καὶ αὐτὰ σημαίνειν | τὰ ὀνόματα, τό τε θεωρεῖν | καὶ τὸ]ν θεατῇν [καὶ τ]ὸ θεάθρον ...

§1[47–50] Philodemus *Piet.* cols. 348.28–349.14 Vassallo (formerly cols. ii.28–iii.13 Henrichs) Περσα[ῖος (*SVF* 1.448) δὲ δ[ὴ]λός ἐστιν [ἔ]να τὸν θ[ε]ῖον τε καὶ γ[νωστον δικά]ζων τὸ δαιμόνιο[ν] | ἢ μὴ ἐν ὑπ[ε]ρ αὐ[τοῦ] γινώσκων, ὅταν | ἐν τῷ Περὶ θεῶν μὴ | ἀπίθανα λέγῃ | φαίνεσθαι τὰ περὶ τοῦ | τὰ τρέφοντα καὶ ὠφελούντα θεοὺς νε[ο]μισθαι καὶ τετε[λ]μῆσθ[αι] | πρῶτ[ο]ν ὑ[πὸ] [Πρ]ο[δ]ί[κου] (84B5 DK, T 71 Mayhew) γεγραμ[μ]ένα, μετὰ δὲ ταῦτα τοῦ[ς] εὐρ[ύ]οντας | ἢ τροφᾶς ἢ [σ]κέπας | ἢ τὰς ἄλλας τέχνας | ὡς Δήμητρα κ[αὶ] Δι[ὸ]νυσον καὶ τοῦ[ς] Δι[ὸ]σκούρου[ς] Cicero *ND* 1.38 (Velleius the Epicurean speaks) at Persaeus (*SVF* 1.448) *eiusdem Zenonis auditor ... ipsasque res utiles et salutare deorum esse vocabulis nuncupatas, ut ne hoc quidem diceret, illa inventa esse deorum, sed ipsa divina; quo quid absurdius quam aut res sordidas atque deformis deorum honore adficere.* Plutarch *Quaest. Conv.* 685B 'ἔστι μὲν δὴ' εἶπον 'οὐδὲ τοῦτ' ἐλάχιστον. οἱ γὰρ ἄνθρωποι τὰ κοινὰ καὶ διήκοντα ταῖς χρεῖαις ἐπὶ τὸ πλεῖστον ἐκθειάζουσιν, ὡς τὸ ὕδωρ, τὸ φῶς, τὰς ὥρας· τὴν δὲ γῆν οὐ μόνον θεῖον, ἀλλὰ καὶ θεὸν ὑπολαμβάνουσιν'. Cicero *ND* 1.118 (the Academic Cotta speaks) *quid Prodicus Cius* (84B5 DK, T 73 Mayhew), *qui ea quae prodesse hominum vitae deorum in numero habitae esse dixit, quam tandem religionem reliquit?* *ND* 2.13 (the Stoic Balbus speaks) (on Cleanthes, *SVF* 1.528) *alteram* (sc. causam deorum notionum posuit) *quam ceperimus ex magnitudine commodorum, quae percipiuntur caeli temperatione fecunditate terrarum aliarumque commoditatum complurium copia.* Pliny *Nat.* 2.14 *innumeros* (sc. deos) *quidem credere atque etiam ex vitiiis hominum, ut Pudicitiam, Concordiam, Mentem, Spem, Honorem, Clementiam,*

Fidem, aut, ut Democrito (68A76 DK) *placuit, duos omnino, Poenam et Beneficium, maiorem ad socordiam accedit.* **Sextus Empiricus** *M.* 9.18 Πρόδικος δὲ ὁ Κεῖος (84B5 DK) 'ἡλίον' φησι 'καὶ σελήνην καὶ ποταμούς καὶ κρήνας καὶ καθόλου πάντα τὰ ὠφελοῦντα τὸν βίον ἡμῶν οἱ παλαιοὶ θεοὺς ἐνόμισαν διὰ τὴν ἀπ' αὐτῶν ὠφέλειαν, καθάπερ Αἰγύπτιοι τὸν Νεῖλον· καὶ διὰ τοῦτο τὸν μὲν ἄρτον Δήμητραν νομισθῆναι, τὸν δὲ οἶνον Διόνυσον, τὸ δὲ ὕδωρ Ποσειδῶνα, τὸ δὲ πῦρ "Ηφαιστον καὶ ἤδη τῶν εὐχρηστούντων ἕκαστον. *M.* 9.52 Πρόδικος (84B5 DK) δὲ τὸ ὠφελοῦν τὸν βίον ὑπειλῆφθαι θεόν, ὡς ἡλίον καὶ σελήνην καὶ ποταμούς καὶ λίμνας καὶ λειμῶνας καὶ καρποὺς καὶ πᾶν τὸ τοιουτῶδες. **Minucius Felix** *Oct.* 21.1–2 *ob merita virtutis aut muneris deos habitos Euhemerus* (fr. 9 Winiarczyk) *exsequitur et eo rum natales patrias sepulcra dinumerat et per provincias monstrat, Dictaei Iovis et Apollinis Delphici et Phariae Isidis et Cereris Eleusinae.* (2) *Prodicus* (cf. on 84B5 DK, T 76 Mayhew) *adsumptos in deos loquitur, qui errando inventis novis frugibus utilitati hominum profuerunt. in eandem sententiam et Persaeus* (cf. at SVF 1.448) *philosophatur et adnectit inventas fruges et frugum ipsarum repertoires isdem nominibus, ut comicus sermo est 'Venerem sine Libero et Cerere frigere'* (Terentius *Eun.* 732). **Calcidius** in *Tim.* c. 128 *priscorum hominum genus omnia quae ad usum hominum vitaeque agenda facultatem divino consilio providentiaque demanant auxiliantibus atque operantibus tam potentiis quam rationibus, haec ipsa quae auxiliantur deos existimasse, propterea quod rudibus animis nondum insedisset veri dei sciscitatio. ... quae poetae postea blandientes humanis passionibus propter cupiditatem lucri versibus suis formata membratimque effigiata amplis et reconditis nominibus exornaverunt usque adeo, ut etiam vitiosas hominum illecebras turpissimosque actus deos cognominarent obnoxios passioni.* **Themistius** *Or.* 29, 349a–b εἰ δὲ καὶ Διόνυσον καλοῖμεν καὶ νύμφας καὶ Δήμητρος κόρην ὑετίον τε Δία καὶ Ποσειδῶνα φυτάλμιον, πλησιάζο(349b)μεν ἤδη ταῖς τελεταῖς καὶ τὴν Προδίκου (84B5 DK) σοφίαν τοῖς λόγοις ἐγκαταμίξομεν, ὅς ἱερουργίαν πᾶσαν ἀνθρώπων καὶ μυστήρια καὶ πανηγύρεις καὶ τελετὰς τῶν γεωργίας καλῶν ἐξάπτει, νομίζων καὶ θεῶν εὐνοίαν ἐντεῦθεν εἰς ἀνθρώπους ἐλθεῖν καὶ πᾶσαν εὐσέβειαν ἐγγυώμενος. **Theodoret** *CAG* 3.5 (~ §1[57–59]) εἰσὶ δὲ οἱ καὶ ἀνέδην τὰ αἰσχίστα πάθη, τὰ παρὰ σφῶν κατηγορούμενα, καὶ ὧν ἐπιμελῶς κρατεῖν τοῖς νέοις παρακελεύονται, θεοὺς τε ὠνόμασαν καὶ ὡς θεοῖς τὸ γέρας ἀπένειμαν. *CAG* 3.48–49 (~ §1[57–59]) ἔστι δὲ γε καὶ τέταρτον (sc. εἶδος θεοποιῆας)· ὁ γὰρ παθητικὸν τε καὶ ἄλογον τῆς ψυχῆς ὀνομάζουσι μόριον, τοῦτο θεοποιοῦσιν, ὅπερ τῷ λογισμῷ δουλεύειν παρεγγυῶσιν. (49) καὶ τὴν μὲν ἐπιθυμίαν Ἀφροδίτην καλοῦσι καὶ Ἑρωτα, Ἄρεα δὲ τὸν θυμὸν ὀνομάζουσι, τὴν δὲ μέθην Διόνυσον· καὶ τὴν μὲν κλοπὴν Ἑρμῆν, τὸν δὲ λογισμὸν Ἀθηνᾶν· καὶ αὖ ἅλιν "Ηφαιστον τὰς τέχνας, ὡς πυρὶ ξυνεργῶ κεχρημένας. cf. also **Empedocles** 31B121–123 DK.

§1[52–56] **Cornutus** *Comp.* c. 17, p. 26.11–15 *Torres* ἀλλὰ τῆς μὲν Ἡσιόδου (γενεαλογίας add. Lang) τελειότερα ποτ' ἂν ἐξήγησίς σοι γένοιτο, τὰ μὲν τινα, ὡς οἶμαι, παρὰ τῶν ἀρχαιοτέρων αὐτοῦ παρειληφότος, τὰ δὲ μυθικώτερον ἀφ' αὐτοῦ προσθέντος, ᾧ τρόπῳ καὶ πλεῖστα τῆς παλαιᾶς θεολογίας διεφθάρη.

§1[57–59] **Philodemus** *Piet.* col. vi.14–16 *Henrichs* (SVF 2.1076) κα[ὶ ἄν]-θρώπους εἰς | θεο[ύ]ς φησι μεταβάλλει[ν] (sc. *Chrysippus*). **Cicero** *ND* 1.38 *at*

Persaeus (SVF 1.448) *eiusdem Zenonis auditor eos esse habitos deos a quibus aliqua magna utilitas ad vitae cultum esset inventa. ... quo quid absurdius ... homines iam morte deletos reponere in deos, quorum omnis cultus esset futurus in luctu.* ND 1.39 (SVF 2.1077) *atque etiam homines eos qui immortalitatem essent consecuti* (sc. ait Chrysippus deos esse). **Diodorus Siculus** 1.13.1 (Hecataeus *FrGrH* 264 F 25) ἄλλους δ' ἐκ τούτων ἐπιγίους γενέσθαι φασίν, ὑπάρξαντας μὲν θνητούς, διὰ δὲ σύνεσιν καὶ κοινὴν ἀνθρώπων εὐεργεσίαν τετευχότας τῆς ἀθανασίας. 2.39.4 καὶ τὸν μὲν Ἡρακλέα τὴν ἐξ ἀνθρώπων μετὰστασιν ποιησάμενον ἀθανάτου τυχεῖν τιμῆς. 3.62.10–63.4 οἱ μὲν οὖν τὴν χρεῖαν καὶ δύναναι τοῦ κατὰ τὸν οἶνον εὐρήματος ἀποφαινόμενοι Διόνυσον ὑπάρχειν τοιαῦτα περὶ αὐτοῦ μυθολογοῦσι. ... (4) ὁμοίως δὲ καὶ τῶν ἄλλων εὐρημάτων μετadόντα πᾶσι τυχεῖν αὐτὸν μετὰ τὴν ἐξ ἀνθρώπων μετὰστασιν ἀθανάτου τιμῆς παρὰ τοῖς εὐ παθοῦσιν. 6 fr. 1.2 at Eus. *PE* 2.2.53 (Euhemerus *FrGrH* 63 F 2, F 25 Winiarczyk) περὶ θεῶν τοίνυν διττὰς οἱ παλαιοὶ τῶν ἀνθρώπων τοῖς μεταγενεστέροις παραδεδώκασιν ἐννοίας· ... ἑτέρους δὲ λέγουσιν ἐπιγίους γενέσθαι θεοὺς, διὰ δὲ τὰς εἰς ἀνθρώπους εὐεργεσίας ἀθανάτου τετευχότας τιμῆς τε καὶ δόξης, οἷον Ἡρακλέα, Διόνυσον, Ἀρισταῖον, καὶ τοὺς ἄλλους τοὺς τούτοις ὁμοίους. **Cornutus** *Comp.* c. 31, pp. 52.17–53.4 Ἡρακλῆς. ... οὐ δεῖ δὲ ὑπὸ τῆς νεωτέρας ἱστορίας ἐπιταράττεσθαι· διὰ γὰρ ἀρετὴν ἡξιώθη τῆς αὐτῆς τῷ θεῷ προσηγορίας Ἀλκμήνης καὶ Ἀμφιτρώωνος υἱός ὢν, ὥστε δυσδιάκριτα γεγονέναι τὰ τοῦ θεοῦ ἴδια ἀπὸ τῶν περὶ τοῦ ἥρωος ἱστορουμένων. **Sextus Empiricus** *M.* 9.35–37 ... ὁ Ἡρακλῆς ὁ ἐξ Ἀλκμήνης καὶ Διός. ἦν μὲν γὰρ ἐξ ἀρχῆς, ὡς φασιν, Ἀλκαῖος τοῦνομα, ὑπέδραμε δὲ τὴν Ἡρακλέους προσηγορίαν νομιζομένου παρὰ τοῖς τότε θεοῦ. ... καὶ τοὺς Τυνδαρίδας δὲ φασὶ τὴν τῶν Διοσκοῦρων δόξαν ὑπελθεῖν πάλιν νομιζομένων εἶναι θεῶν.

§1[57–63] **Scholium in Epicurum** RS 1 at D.L. 10.139 (fr. 355 Usener) ἐν ἄλλοις δὲ φησι τοὺς θεοὺς ... ἀνθρωποειδεῖς. **Demetrius Laco** Περὶ τῆς θεοῦ μορφῆς (*PHerc.* 1055) col. xv.1–10 Santoro ἐπειδὴ γὰρ τὸν λογισμὸν οὐχ εὗρισκο]||μεν ἐν ἄλλῃ μορφῇ | διχα τῆς ἀνθρώπου, φα|νερόν ὡς καὶ τὸν θεὸν |ἀνθρωπόμορφον χρῇ | καταλείπειν, ἵνα καὶ σὺν | λογ[ι]σμῷ τὴν ὑπόστα|σιν ἔχῃ(ι). διόπερ ἀνθρ[ω]πόμο[ρ]φον λέγομέν[γ] | εἶ|ν[αι] τὸν θεὸν ὑπ[...].| εἰς[...].| ἀνάγκης κτλ. **Cicero** ND 1.46–48 (Epicurus fr. 352 Usener) *ac de forma quidem partim natura nos admonet partim ratio docet. nam a natura habemus omnes omnium gentium speciem nullam aliam nisi humanam deorum; ... sed ne omnia revocentur ad primas notiones, ratio hoc idem ipsa declarat. nam cum praestantissimam naturam, vel quia beata est vel quia sempiterna, convenire videatur eandem esse pulcherrimam, quae compositio membrorum, quae conformatio liniamentorum, quae figura, quae species humana potest esse pulchrior? ... (48) quod si omnium animantium formam vincit hominis figura, deus autem animans est, ea figura profecto est quae pulcherrimast omnium. quoniamque deos beatissimos esse constat, beatus autem esse sine virtute nemo potest nec virtus sine ratione constare nec ratio usquam inesse nisi in hominis figura, hominis esse specie deos confitendum est.* ND 1.76 (adn. at p. 233.10 Usener) *non deest hoc loco copia rationum, quibus docere velitis humanas esse formas deorum; primum ... ; deinde cum, quoniam rebus omnibus excellat natura divina, forma quoque esse*

pulcherrima debeat, nec esse humana ullam pulchriorem. **Philo of Alexandria** *Spec.* 4.14 ἄνθρωπος δέ, ὡς ἔοικε, τὸν καλλιστεῦντα κλῆρον ἔλαχεν ἐν ζώοις, ἀγχίσπορος ὢν θεοῦ καὶ συγγενῆς κατὰ τὴν πρὸς λόγον κοινωνίαν. **Ovid** *Met.* 1.76–88. **Porphyry** *Περὶ ἀγαλμάτων* at Eus. *PE* 3.7.3 (352F Smith) ἀνθρωποειδεῖς μὲν ἀπετύπουν τοὺς θεούς, ὅτι λογικὸν τὸ θεῖον, καλοῦς δέ, ὅτι κάλλος ἐν ἐκείνοις ἀκήρατον. **Macarius of Magnesia** *Monog.* 4.21b, p. 312.10–12 Goulet (Porphyry *Contr.Christ.* fr. 76.23–25 Harnack, not certain) ἀνθρωποειδῆ δὲ τῶν ἀγαλμάτων εἰκότως εἶναι τὰ σχήματα, ἐπεὶ τὸ κάλλιστον τῶν ζώων ἄνθρωπος εἶναι νομίζεται καὶ ‘εἰκὼν θεοῦ’ (Gen. 1:27). **Stobaeus** *Ecl.* 2.31.47, p. 209.19–21 Ἀριστοτέλους. οὗτος ἐρωτηθεὶς, τί τῶν ζώων κάλλιστον, ἔφη· ‘τὴν ψυχὴν παιδεῖα κεκοσμημένος’. Differently the Stoics, e.g. **Chrysippus** at Philod. *Piet.* col. 5.28–32 Henrichs (*SVF* 2.1067) 120, κα[ι πα]ιδιωδῶς λέγεσ[θαι] | [κ]α[ι] γράφε[σ]θαι κα[ι] | πλάττ[ε]σθαι [θε]οῦς] ἀνθρω[ποειδεῖς] |.

Liber 1 Caput 7

P^B : ps.Plutarchus *Plac.* 88οD–882A; pp. 297^a11–307^a3 Diels—**P^E**: Eusebius *PE* 7.11.13, p. 385.19–24; 14.16.1, pp. 299.18–302.18 Mras—**P^J**: ps.Iustinus *Coh.* 5.2.13–20, 6.1.8–12, 31.1.7, 36.3.23–25 Marcovich—**P^G** : ps.Galenus *HPh* c. 35; pp. 617.22–619.5 Diels—**P^Q** : Qustā ibn Lūqā pp. 114–121 Daiber—**P^C** : Cyril-lus *Juln.* 1.38–39 Riedweg—**P^{Ps}**: Psellus *Omn.Doctr.* 15, pp. 23–24 Westerink (titulus solus)—cf. **P^{Ath}** : Athenagoras *Leg.* 6.2–3.13–19; 6.4.25–38; 7.13–14; 23.2.11–15; 23.3.30–38 Marcovich
S: Stobaeus *Ecl.* 1.1.29b, pp. 34.8–38.9 Wachsmuth
T: Theodoretus *CAG* 2.112–113, p. 66.6–14; 3.4, pp. 68.20–69.4; 6.6, p. 151.2–4 Raeder (ex P)
 Cf. Nem: Nemesis *NH* 2, p. 28.12–14 Morani; Hermias *Irr.* 11.3 Hanson; G: ps.Galenus *HPh* c. 16, pp. 608.12–609.5 Diels

Titulus ζ'. Τίς ὁ θεός (P,S)

§1 ἔνιοι τῶν φιλοσόφων, καθάπερ Διαγόρας ὁ Μήλιος καὶ Θεόδωρος ὁ Κυρηναῖος καὶ Εὐήμερος ὁ Τεγεάτης, καθόλου φασὶ μὴ εἶναι θεούς· τὸν δ' Εὐήμερον καὶ Καλλιμάχους ὁ Κυρηναῖος αἰνίττεται ἐν τοῖς Ἰάμβοις γράφων·

5

εἰς τὸ πρὸ τείχευς ἱερὸν ἀλέες δεῦτε,
 οὐδὲ τὸν πάλαι χαλκέον ὁ πλάσας Ζᾶνα
 γέρων ἀλαζῶν ἄδικα βιβλία ψήχει,

ταῦτ' ἔστι τὰ περὶ τοῦ μὴ εἶναι θεούς. καὶ Εὐριπίδης δ' ὁ τραγωδοποιὸς ἀποκαλύψασθαι μὲν οὐκ ἠθέλησε, δεδοικώς τὸν Ἄρειον πάγον, ἐνέφηνε δὲ τοῦτον τὸν τρόπον· τὸν γὰρ Σίσυφον εἰσήγαγε προστάτην ταύτης τῆς δόξης καὶ συνηγόρησεν αὐτοῦ ταύτη τῇ γνώμῃ·

10

§1 [2] Diagoras T 47 Winiarczyk; Theodorus Cyrenaeus T 35 Winiarczyk; [3] Euhemerus T 16 Winiarczyk; [4–8] Callimachus fr. 191.9–11 Pfeiffer, Euhemerus T 1a Winiarczyk; [9] Euripides, immo Critias *Sisyph.* fr. 19 Kannicht = fr. 88B25 DK

titulus Τίς ... θεός **P^{B(II,III)QPs}** Mau Lachenaud : ἔστι add. **P^{B(I)}** prob. Diels : τί **P^Q** sec. Browne || Περί θεοῦ **P^G**, cf. **P^E** Δόξα φιλοσόφων περὶ θεῶν : al. S 1.1, p. 23.2–4 Ὅτι θεὸς δημιουργὸς τῶν ὄντων καὶ διέπει τὸ ὅλον τῷ τῆς προνοίας λόγῳ καὶ ποίας οὐσίας ὑπάρχει §1 [2–58] non hab. S || [2] Μήλιος Diels, cf. **P^G** : Μήλσιος **P^{BEQ}**, cf. T ex **P^E** bis || [3] Κυρηναῖος **P^B** T 3.4, cf. **P^G** : Κυρηναῖος **P^E** T 2.112 || [5–9] γράφων ... θεούς om. **P^E** || [6] πρὸς om. **P^{B(II)}** || ἱερὸν om. **P^Q** || [7–8] al. Q und ihr einen alten Greis, den Zeus erschaffen hat, falsche und untaugliche Bücher schreiben seht || [7] χαλκεον **P^B** : Παρχαῖον edd. e Callimacho || [8] ψήχει **P^Q** Bentley Diels, cf. S.E. M. 9.51 ψήγων : ψύχει **P^{B(II,II)}** : ψύχε **P^{B(III)}** || [9] τὰ om. **P^{B(II,II)}** || δ' om. **P^{B(III)}** || [11] τοῦτον τὸν τρόπον **P^{BQ}** : τοῦτο **P^E** || [12] ταύτη **P^B** : om. **P^{EQ}**

'ἦν γάρ χρόνος' φησίν, 'ὅτ' ἦν ἄτακτος ἀνθρώπων βίος
 καὶ θηριώδης ἰσχύος θ' ὑπηρετής'
 ἔπειτα φησὶ τὴν ἀνομίαν λυθῆναι νόμων εἰσαγωγῇ· ἐπεὶ γὰρ ὁ νόμος τὰ 15
 φανερά τῶν ἀδικημάτων εἶργειν ἐδύνατο κρύφα δ' ἡδίκουν πολλοί, τότε
 τις σοφὸς ἀνὴρ ἐπέστησεν, ὥς δεῖ 'ψευδεῖ λόγῳ τυφλῶσαι τὴν
 ἀλήθειαν' καὶ πείσαι τοὺς ἀνθρώπους
 'ὥς ἔστι δαίμων ἀφθίτῳ θάλλων βίῳ,
 ὃς ταῦτ' ἀκούει καὶ βλέπει φρονεῖ τ' ἄγαν'. 20
 ἀναιρεῖσθω γάρ, φησίν, ὁ ποιητικὸς λῆρος σὺν Καλλιμάχῳ τῷ λέγοντι·
 'εἰ θεὸν οἶσθα,
 ἴσθ' ὅτι καὶ ῥέξαι δαίμονι πᾶν δυνατόν.'
 οὐδὲ γὰρ ὁ θεὸς δύναιται πᾶν ποιεῖν· ἐπεὶ τοί γε, εἰ θεὸς ἔστι, ποιεῖτω τὴν
 χιόνα μέλαιναν τὸ δὲ πῦρ ψυχρὸν τὸ δὲ καθήμενον ὀρθὸν καὶ τὸ 25
 ἐναντίον.
 καὶ γὰρ Πλάτων ὁ μεγάλῳ φωνος εἰπὼν 'ὁ θεὸς ἔπλασε τὸν κόσμον
 πρὸς ἑαυτὸν ὑπόδειγμα' ὅζει λήρου βεκκεσελήνου κατὰ γε τοὺς τῆς
 ἀρχαίας κωμωδίας ποιητάς· πῶς γὰρ αὐτῷ ἀτενίζων ἔπλασεν; ἢ πῶς
 σφαιροειδῆ τὸν θεόν, ὄντα ταπεινότερον ἀνθρώπου; ὁ δ' Ἀναξαγόρας 30
 φησὶν ὥς εἰστήκει κατ' ἀρχὰς τὰ σώματα, νοὺς δὲ αὐτὰ διεκόσμησε
 θεοῦ καὶ τὰς γενέσεις τῶν ὄλων ἐποίησεν. ὁ δὲ Πλάτων οὐχ ἐστηκότα
 ὑπέθετο τὰ πρῶτα σώματα, ἀτάκτως δὲ κινούμενα· διὸ καὶ ὁ θεός,
 φησίν, ἐπιστήσας ὥς τάξις ἀταξίας ἐστὶ βελτίων, διεκόσμησε ταῦτα.
 κοινῶς οὖν ἀμαρτάνουσιν ἀμφοτέροι, ὅτι τὸν θεὸν ἐποίησαν ἐπιστρε- 35
 φόμενον τῶν ἀνθρωπίνων ἢ καὶ τούτου χάριν τὸν κόσμον κατασκευ-
 ᾶζοντα· τὸ γὰρ μακάριον καὶ ἄφθαρτον ζῶον συμπεπληρωμένον τε
 πᾶσι τοῖς ἀγαθοῖς καὶ κακοῦ παντὸς ἄδεκτον, ὅλον ὃν περὶ τὴν συνοχὴν
 τῆς ἰδίας εὐδαιμονίας τε καὶ ἀφθαρσίας, ἀνεπιστρεφές ἐστὶ τῶν

[13–14] Critias fr. 19.1–2 *Kannicht*; [17–18] Critias fr. 19.26 *Kannicht*; [19–20] Critias fr. 19.17–18 *Kannicht*; [21–23] Callimachus fr. 586 Pfeiffer; [24–25] cf. Arist. *Cat.* 10 12b40–41; [27–28] cf. Pl. *Tim.* 29e, 30c, D.L. *V.P.* 3.72; [27–28] cf. Aristoph. *Nub.* 398; [30–32] Anaxagoras fr. 59A48, B12 DK; [32–34] cf. Pl. *Tim.* 30a, D.L. *V.P.* 3.70; [35–41] Epicurus fr. 361 Usener, cf. *KD* 1

[13–30] ἦν ... ἀνθρώπου om. P^E || [13] ἦν ἄτακτος P^{B(II)} : inv. ord. P^{B(I,III)} || [14] ἰσχύος ἰσχυρὸς P^{B(II)} || [16] δ' conl. Nauck prob. edd. : τ' P^B || [20] ταῦτ' πάντ' P^{Q(ut vid.)} || [21] σὺν P^{B(I,III)} : ἄν v.l. ἐν P^{B(II)} || [24] πᾶν P^{B(I,III)Q} : περὶ P^{B(I)} || [25] τὸ² P^{B(I)Q(ut vid.)} Diels : τὸν P^{B(I,II)} || [28] ἑαυτὸν P^B : ἑαυτοῦ P^{Q(ut vid.)} Diels || [29] γὰρ P^{B(I,III)} : om. P^{B(II)}, al. *wenn das nicht (so) wäre, wie wäre es möglich, daß er ...* Q || πῶς] om. P^{B(II)} || [30–31] ἐπὶ τούτοις (sc. Diogenes etc.) πάλιν τὸν Ἀναξαγόραν εἰσάγει, πρῶτον φάσκων αὐτὸν ὀρθῶς φρονῆσαι περὶ θεοῦ. λέγει δὲ οὕτως E || [31] δὲ P^E : om. P^B || [33] ὁ P^{B(I)EQ}, cf. P^G : om. P^{B(I,III)} || [34] ταῦτα P^B : αὐτά P^E Diels || [35] κοινῶς οὖν P^B : om. P^E qui post ἀμαρτάνουσιν add. δὲ || [37] συμπεπληρωμένον τε P^B : πεπληρωμένον P^E || [38] τὴν συνοχὴν P^{B(I,III)EQ} : τὰς συνοχὰς P^{B(I)}

ἀνθρωπίνων πραγμάτων· κακοδαίμων δ' ἂν εἴη ἐργάτου δίκην καὶ 40
τέκτονος ἀχθοφορῶν καὶ μεριμνῶν εἰς τὴν τοῦ κόσμου κατασκευήν.

καὶ πάλιν ὁ θεὸς ὃν λέγουσιν ἦτοι τὸν ἔμπροσθεν αἰῶνα οὐκ ἦν, ὅτ'
ἦν ἀκίνητα τὰ σώματα ἢ ἀτάκτως ἐκινεῖτο, ἢ ἐκοιμάτο ἢ ἐγρηγόρει ἢ
οὐδέτερον τούτων. καὶ οὕτε τὸ πρῶτον ἔστι δέξασθαι, ὁ γὰρ θεὸς 45
αἰώνιος· οὕτε τὸ δεύτερον, εἰ γὰρ ἐκοιμάτο ἐξ αἰῶνος ὁ θεός, ἐτεθνήκει·
αἰώνιος γὰρ ὕπνος θάνατός ἐστιν· ἀλλ' οὐδὲ δεκτικὸς ὕπνου θεός, τὸ
γὰρ ἀθάνατον τοῦ θεοῦ καὶ τὸ ἐγγὺς θανάτου πολὺ κεχώρισται. εἰ δ' ἦν
ὁ θεός ἐγρηγορώς, ἦτοι ἐνέλειπεν εἰς εὐδαιμονίαν ἢ πεπλήρωτο ἐν
μακαριότητι· καὶ οὕτε κατὰ τὸ πρῶτον μακάριός ἐστιν ὁ θεός, τὸ γὰρ
ἐλλείπον εἰς εὐδαιμονίαν οὐ μακάριον· οὕτε κατὰ τὸ δεύτερον, μηδὲν 50
γὰρ ἐλλείπων κεναῖς ἔμελλεν ἐπιχειρεῖν πράξεσι.

πῶς δέ, εἴπερ ὁ θεός ἔστι καὶ τῇ τούτου φροντίδι τὰ κατ' ἀνθρώπων
οἰκονομεῖται, τὸ μὲν κίβδηλον εὐτυχεῖ τὸ δ' ἀστεῖον τάναντία πάσχει;

Ἀγαμέμνων τε γάρ,

ἀμφοτέρον βασιλεύς τ' ἀγαθὸς κρατερός τ' αἰχμητής, 55

ὑπὸ μοιχοῦ καὶ μοιχάδος ἠττηθεὶς ἐδολοφονήθη· καὶ ὁ τούτου δὲ συγ-
γενὴς Ἡρακλῆς πολλὰ τῶν ἐπιλυμαιομένων τὸν ἀνθρώπινον βίον καθ-
άρας ὑπὸ Διαιονείρας φαρμακευθεὶς ἐδολοφονήθη. (P1,T frustula ex P)

§2 Θαλῆς νοῦν τοῦ κόσμου τὸν θεόν, τὸ δὲ πᾶν ἔμψυχον ἅμα καὶ δαιμόνων
πλήρες· διήκειν δὲ καὶ διὰ τοῦ στοιχειώδους ὕγρου δύναμιν θείαν κινήτι- 60
κὴν αὐτοῦ. (P2,S1)

§3 Ἀναξίμανδρος τοὺς ἀπείρους οὐρανούς θεούς. (P3,S2)

§4 Ἀναξίμένης τὸν ἀέρα· δεῖ δ' ὑπακούειν ἐπὶ τῶν οὕτως λεγομένων τὰς
ἐνδιηκούσας τοῖς στοιχείοις ἢ τοῖς σώμασι δυνάμεις. (S3)

§5 Ἀρχέλαος ἀέρα καὶ νοῦν τὸν θεόν, οὐ μέντοι κοσμοποιὸν τὸν νοῦν. (S4) 65

[54–55] *Homerus Il.* 3.178–179; §2 *Thales* 11A23 DK; §3 *Anaximander* 12A17 DK; §4 *Anaxi-*
menes 13A10 DK; §5 *Archelaus* 60A12 DK

[43] ἦ¹ P^B : add. ὅτε P^E || [44] οὕτε P^{B(II,III)} : οὐποτε P^{B(I)} : οὐδὲ P^E || ὁ P^B : πῶς P^E || [46] θάνα-
τός P^E Diels : ὁ add. P^{BQ} Mau Lachenaud || ἀλλ' οὐδὲ Bernadakis Mau Lachenaud : ἀλλ' οὐτὲ
P^B : ἀλλὰ γε P^E Diels || δεκτικὸς P^B : ἄδεκτος P^E Diels || [47] τοῦ ... θανάτου P^B : καὶ τοῦ θεοῦ
ἐγγὺς ὕπνου P^E || [48–49] πεπλήρωτο ἐν μακαριότητι P^E Diels (ἐπεπλήρωτο Mau Lachenaud) :
πεπληρώκει μακαριότητα P^B || [49–50] τὸ² ... μακάριον om. P^{B(II)} || [51] γὰρ P^E : δὲ P^B || [52–
53] τὰ ... οἰκονομεῖται P^B : τὰ πάντα οἰκονομεῖται τὰ κατ' ἀνθρώπων P^E || [52] τὰ om. P^{B(II)} ||
[53] τάναντία P^B : τὸ ἐναντίον P^E || [54] τε om. P^{B(II)} || [56] μοιχάδος P^B : μοιχαλίδος P^E Diels
§2 [59–61] τὸ ... αὐτοῦ non exhib. P || [59] νοῦν τοῦ κόσμου τὸν κόσμον εἶναι τὸν θεόν E §3
[62] post Ἀναξίμανδρος add. S ἀπεφῆναι || ἀπείρους P^{GQS} Diels : ἀστέρας P^{BE} || οὐρανούς
P^{BQS} : οὐρανίους P^E : κόσμους P^C : νοὺς P^G, corr. Diels §4 [64] ἐνδιηκούσας S^P : ἐνδιουκούσας
S^F

- §6 Ἀναξαγόρας νοῦν κοσμοποιὸν τὸν θεόν. (S5)
- §7 Δημόκριτος νοῦν τὸν θεὸν ἐν πυρὶ σφαιροειδεῖ. (P4,S6)
- §8 Διογένης καὶ Κλεάνθης καὶ Οἰνοπίδης τὴν τοῦ κόσμου ψυχὴν. (S7)
- §9 Πυθαγόρας τῶν ἀρχῶν τὴν μὲν μονάδα θεὸν καὶ τάγαθόν, ἣτις ἐστὶν ἡ τοῦ ἐνὸς φύσις καὶ αὐτὸς ὁ νοῦς, τὴν δ' ἀόριστον δυάδα δαίμονα καὶ τὸ κακόν, περὶ ἧν ἐστὶ τὸ ὑλικὸν πλήθος, ἐστὶν δὲ καὶ ὁ ὁρατὸς κόσμος. 70
(P5,S8)
- §10 Ποσειδώνιος πνεῦμα νοερὸν καὶ πυρῶδες, οὐκ ἔχον μὲν μορφήν, μεταβάλλον δὲ εἰς ὃ βούλεται καὶ συνεξομοιούμενον πᾶσιν. (S9)
- §11 Σπεύσιππος τὸν νοῦν, οὔτε τῷ ἐνὶ οὔτε τῷ ἀγαθῷ τὸν αὐτόν, ἰδιοφυὴ δέ. 75
(S10)
- §12 Κριτόλαος καὶ Διόδωρος ὁ Τύριος νοῦν ἀπ' αἰθέρος ἀπαθοῦς. (S11)
- §13 Ἡράκλειτος τὸ περιοδικὸν πῦρ αἶδιον, εἰμαρμένην δὲ λόγον ἐκ τῆς ἐναντιοδρομίας δημιουργόν τῶν ὄντων. (S12)
- §14 Ζήνων ὁ Στωικὸς νοῦν κόσμου πύρινον. (S13) 80
- §15 Μνήσαρχος τὸν κόσμον, τὴν πρώτην οὐσίαν ἔχοντα ἀπὸ πνεύματος. (S14)
- §16 Βόηθος τὸν αἰθέρα θεὸν ἀπεφήνατο. (S15)
- §17 Παρμενίδης τὸ ἀκίνητον καὶ πεπερασμένον σφαιροειδές. (S16)
- §18 Μέλισσος καὶ Ζήνων τὸ ἓν καὶ πᾶν καὶ μόνον αἶδιον καὶ ἄπειρον {τὸ ἓν}. 85
(S17)

§6 Anaxagoras 59A48 DK; §7 Democritus 68A74 DK; §8 Diogenes Apolloniates 64A8, Diogenes Babylonius SVF 3 Diog. 31; Cleanthes SVF 1.532; Oenopides 41.6 DK; §9 Pythagoras —; §10 Posidonius F 101 E.-K., 364 Theiler; §11 Speusippus fr. 38 Lang, 89 Isnardi-Parente, 58 Tarán; §12 Critolaus fr. 16 Wehrli; Diodorus Tyrius fr. 2 Wehrli; §13 Heraclitus 22A8 DK; §14 Zeno Stoicus SVF 1.157; §15 Mnesarchus —; §16 Boethus SVF 3 Boeth. 2; §17 Parmenides 28A31 DK; §18 Melissus 30A13 DK; Zeno Eleaticus 29A30 DK

§7 [67] νοῦν om. E || ἐν πυρὶ σφαιροειδεῖ P^{GCS} : ἐμπυροειδῇ P^B || post σφαιροειδεῖ aut ἐμπυροειδῇ add. P^{BEGC} (ex §8) τὴν τοῦ κόσμου ψυχὴν (om. τοῦ P^E) : al. (ut vid.) *die Gottheit der Verstand ist, und daß die Seele der Welt kugelförmiges Feuer ist* Q §8 [68] Διογένης ... Οἰνοπίδης om. P §9 [70] δ' P^{BQ} : om. S || δαίμονα P^{BQ} : om. S || [71] ἐστὶν ... κόσμος P^B prob. Lachenaud, cf. περὶ ἧν ἐστὶν ὁ ὁρατὸς κόσμος P^G : om. P^{ES} damn. Diels Mau, sed cf. supra P.S. ap. 1.3.7[60–61] §11 [75] Σπεύσιππος S^P : Πεύσιππος S^F §14 [80] κόσμου corr. Krische prob. Diels Wachsmuth : κόσμον S §15 [81] ἀπὸ corr. Meineke prob. Diels Wachsmuth : ἐπὶ S §18 [85] {τὸ ἓν} ret. Diels Inwood Viték, pos. post coniecturam in §19 Wachsmuth vid. infra

- §19 Ὑμπεδοκλῆς τὰ στοιχεῖα καὶ τὰς ἀρχὰς καὶ) τὸ ἓν, καὶ τὸ μὲν ἓν τὴν ἀνάγκην, ὕλην δὲ αὐτοῦ τὰ τέσσαρα στοιχεῖα, εἶδη δὲ τὸ Νεῖκος καὶ τὴν Φιλίαν. λέγει δὲ καὶ τὰ στοιχεῖα θεοὺς καὶ τὸ μῖγμα τούτων τὸν {κόσμον} {σφαῖρον}, καὶ πρὸς τ(οῦτο τὸν κόσμον) ἀναλυθῆσθαι τὸ 90 μονοειδές· καὶ θείας μὲν οἶεται τὰς ψυχάς, θεῖους δὲ καὶ τοὺς μετέχοντας αὐτῶν 'καθαροὺς καθαρῶς'. (S18)
- §20 Πολέμων τὸν κόσμον θεὸν ἀπεφῆνατο. (S19)
- §21 Ξενοκράτης Ἀγαθήνορος Καλχηδόνιος τὴν μονάδα καὶ τὴν δυάδα θεοὺς, τὴν μὲν ὡς ἄρρενα πατὴρ ἔχουσιν τάξιν, ἐν οὐρανῷ 95 βασιλεύουσιν, ἡντινα προσαγορεύει καὶ Ζῆνα καὶ περιττὸν καὶ νοῦν, ὅστις ἐστὶν αὐτῷ πρῶτος θεός· τὴν δὲ ὡς θήλειαν μητὴρ θεῶν Δίκην, τῆς ὑπὸ τὸν οὐρανὸν λήξεως ἡγουμένην, ἥτις ἐστὶν αὐτῷ ψυχὴ τοῦ παντός. θεὸν δ' εἶναι καὶ τὸν οὐρανὸν καὶ τοὺς ἀστέρας πυρῶδεις Ὀλυμπίους θεοὺς, καὶ ἐτέροισι ὑποσελήνοισι δαίμονας ἀοράτους. 100 ἀρέσκει δὲ καὶ αὐτῷ (θείας εἶναι δυνάμεις) καὶ ἐνδιήκειν τοῖς ὕλικοις στοιχείοις. τούτων δὲ τὴν μὲν (διὰ τοῦ ἀέρος) ἀειδοῦς ('Αἰδὴν) προσαγορεύει, τὴν δὲ διὰ τοῦ ὕγρου Ποσειδῶνα, τὴν δὲ διὰ τῆς γῆς φυτοσπῶρον Δήμητραν. ταῦτα δὲ χορηγῆσας τοῖς Στωικοῖς τὰ πρότερα παρὰ τοῦ Πλάτωνος μεταπέφρακεν. (S20) 105

§19 Empedocles 31A32 DK; §20 Polemon fr. 121 Gigante; §21 Xenocrates fr. 15 Heinze, 133 Isnardi-Parente²

§19 [87] Ὑμπεδοκλῆς ... καὶ) scripsimus cf. Mansfeld (1992) 263–264: Ὑμπεδοκλῆς τὸν σφαῖρον καὶ conī. Wachsmuth: Ὑμπεδοκλῆς σφαιροειδῆ (σφαιροειδές Baltes) καὶ αἰδῖον καὶ ἀκίνητον τὸ ἓν conī. Diels VS: Ὑμπεδοκλῆς τὰ στοιχεῖα καὶ conī. Donini ap. Mansfeld (1992) 263 n. 67 || [88] αὐτοῦ conī. Wachsmuth prob. Laks–Most (αὐτὰ Heeren) : αὐτῆς S Diels Vitek || [89] φιλίαν corr. SP² : φιλονεικίαν SF : φινεικίαν SP¹ || [90] {σφαῖρον} {κόσμον} Mansfeld (1992) 264 n. 67 || πρὸς ... ἀναλυθῆσθαι Mansfeld (1992) 264 n. 67 : πρὸς ταῦτα ἀναλυθῆσθαι εἰς Krische (ὅς καὶ ποτε ἀναλυθῆσθαι ἐς dub. Wachsmuth) : προσταναλυθῆσθαι SF : προσταναλυθῆσθαι SP : καὶ πρὸς ταῦτα ἀναλυθῆσθαι conī. SCod.Vat. : πρὸς τ(οῦτοις τὸν Σφαῖρον, εἰς δὲ πάντα ταῦτ') ἀναλυθῆσθαι conī. Diels VS prob. Baltes || [92] signa '...' addidimus partem hexametri ad verbum expressam suspicantes §21 [97] post θεῶν lac. pos. Dillon (1977) 26, (1986) 49, (2003) 103 quam (1986) 49 explet μητὴρ θεῶν (τάξιν ἔχουσιν, ἡντινα προσαγορεύει καὶ Ῥέαν καὶ ἄρτιον καὶ ὕλην. ὡς δὲ ἔκγονον τούτων ὑποτίθεται) Δίκην || Δίκην grandi littera scripsit Boyancé (1948) 228 prob. Dillon || [99] θεὸν SF : θεῖον SP || [101] αὐτῷ corr. Krische : αὐτὸς SF^p || post αὐτὸς hab. SF lac. 16 litt., explent Zeller Heinze Isnardi Parente Baltes || [102] post μὲν hab. SF lac. 15 litt. SP 9 punctorum, tum αἰδῖδῃ || διὰ ... Ὑμπεδοκλῆς scripsimus : αἰδῖδῃ SF^p : διὰ τοῦ ἀέρος Ὑμπεδοκλῆς Heinze Isnardi Parente¹, prob. Baltes addendo ὡς post Ὑμπεδοκλῆς, διὰ τοῦ ἀέρος προσγεῖοι Ὑμπεδοκλῆς Wachsmuth, τὴν μὲν αἰδῖδῃ Isnardi Parente²

- §22 Σωκράτης καὶ Πλάτων δὲ τὸ ἓν, τὸ μονοφυές, τὸ μοναδικόν, τὸ ὄντως ὄν, τὰγαθόν· πάντα δὲ τὰ τοιαῦτα τῶν ὀνομάτων εἰς τὸν νοῦν σπεύδει. νοῦς οὖν ὁ θεός, χωριστὸν εἶδος, τὸ δὲ χωριστὸν ἀκούεσθω τὸ ἀμιγές πάσης ὕλης καὶ μηδενὶ τῶν σωματικῶν συμπεπλεγμένον, μηδὲ τῷ παθητῷ τῆς φύσεως συμπαθές. τούτου δὲ πατρός καὶ ποιητοῦ τὰ ἄλλα θεῖα ἔγγονα νοητὰ μὲν (ὃ τε νοητὸς λεγόμενος κόσμος), παραδείγματα δ' ἐστὶ τοῦ ὁρατοῦ κόσμου, πρὸς δὲ τούτοις ἐναιθέριοι τινες δυνάμεις (λόγοι δ' εἰσὶν ἀσώματα), καὶ ἐναέριοι καὶ ἔνυδροι, αἰσθητὰ δὲ τοῦ πρώτου θεοῦ ἔγγονα ἥλιος, σελήνη, ἀστέρες, γῆ καὶ ὁ περιέχων πάντα κόσμος. (P6,S21)
- §23 Ἀριστοτέλης τὸν μὲν ἀνωτάτω θεὸν εἶδος χωριστὸν ὁμοίως Πλάτωνι, ἐπιβεβηκότα τῇ σφαίρᾳ τοῦ παντός, ἥτις ἐστὶν αἰθέριον σῶμα, τὸ πέμπτον ὑπ' αὐτοῦ καλούμενον. διηρημένου δὲ τούτου κατὰ σφαίρας, τῇ μὲν φύσει συναφείς τῷ λόγῳ δὲ κεχωρισμένης, ἐκάστην οἶεται τῶν σφαιρῶν ζῶον εἶναι σύνθετον ἐκ σώματος καὶ ψυχῆς, ὧν τὸ μὲν σῶμα ἐστὶν αἰθέριον κινούμενον κυκλοφορικῶς, ἡ ψυχὴ δὲ λόγος ἀκίνητος αἴτιος τῆς κινήσεως κατ' ἐνέργειαν. (P7,S22)
- §24 οἱ Στωικοὶ νοερὸν θεὸν ἀποφαίνονται, πῦρ τεχνικὸν ὁδῷ βαδίζον ἐπὶ γενέσει κόσμου, ἐμπεριεληφὸς πάντας τοὺς σπερματικούς λόγους, καθ' οὓς ἕκαστα καθ' εἰμαρμένην γίνεται· καὶ πνεῦμα μὲν ἐνδιήκον δι'

§22 Socrates Plato —; §23 Aristoteles —; §24 Stoici SVF 2.1101

§22 [106] Σωκράτης καὶ Πλάτων P^{BEQ}: Πλάτων δὲ S (om. δὲ S^P) cf. P^G, prob. Diels qui ap. P verba delevit, ret. Mau Lachenaud || τὸ ἓν om. τὸ P^E || τὸ μονοφυές P^{EQS}: τὸ μονοφυές καὶ τὸ αὐτοφυές P^{B(11111)}, trp. P^{B(11)} || [106–107] τὸ ὄντως ὄν τὰγαθόν P^{ES} (ἀγαθόν P^E): τὸ ὄντως ἀγαθόν P^B: τὸ ὄντως ὄν P^Q (*und welcher allein in Wahrheit existiert* Q) || [107] τοιαῦτα S: ταῦτα P || [108–110] τὸ ... συμπαθές S: al. P χωριστὸν εἶδος (χωριστὸς εἶδους P^Q), τουτέστι τὸ ἀμιγές πάσης ὕλης καὶ (om. καὶ P^B) μηδενὶ παθητῷ συμπεπλεγμένον || [109] παθητῷ P: πάθει τὸ S || [110–114] τούτου ... κόσμος non hab. P || [111] post κόσμος con. Usener καὶ αἱ ιδέαι, prob. Diels in app., Wachsmuth in text., Runia (2002) 282, Pietsch–Lakmann || [113] post καὶ¹ con. Wachsmuth ἔμπυροι καὶ prob. Pietsch–Lakmann || [113] αἰσθητὰ con. Canter prob. Diels: αἰσθητὸς S^P || [113–114] τοῦ ... ἔγγονα damn. Usener Wachsmuth, ret. Diels §23 [116] χωριστὸν P: ὁμοίως Πλάτωνι S (χωριστὸν) add. Heeren Diels Wachsmuth ap. S) || [117–118] τὸ ... καλούμενον P^{BEQ}: τὸ μέγιστον ὑπ' αὐτοῦ νομιζόμενον P^G, cf. P^Q (*nämlich das fünfte Element, welches er als daß größte bezeichnete* Q) || [118–122] διηρημένου ... ἐνέργειαν om. S || [121] ἀκίνητος ἀκίνητος P^E §24 [123] νοερὸν S^P (νοηρὸν S per errorem Wachsmuth): κοινότερον P^{BQ} || [124] post ἐμπεριεληφὸς add. (τε) Dübner prob. Long–Sedley || [125] ἕκαστα P: ἅπαντα S prob. Long–Sedley || διήκον] ἐνδιήκον S (dittograph. ev) prob. Long–Sedley

όλου τοῦ κόσμου, τὰς δὲ προσηγορίας μεταλαμβάνον διὰ τὰς τῆς ὕλης, δι' ἧς κεχώρηκε, παραλλάξεις, θεοὺς δὲ καὶ τὸν κόσμον καὶ τοὺς ἀστέρας καὶ τὴν γῆν· ἀνωτάτω δὲ πάντων νοῦν ἐναιθέριον εἶναι θεόν. (P8,S23)

§25 Ἐπίκουρος ἀνθρωποειδεῖς μὲν τοὺς θεοὺς, λόγῳ δὲ πάντας θεωρητοὺς 130 διὰ τὴν λεπτομέρειαν τῆς τῶν εἰδώλων φύσεως. ὁ δ' αὐτὸς ἄλλας τέσσαρας φύσεις κατὰ γένος ἀφθάρτους τάσδε· τὰ ἄτομα, τὸ κενόν, τὸ ἄπειρον, τὰς ὁμοιότητας· αὗται δὲ λέγονται ὁμοιομέρειαι καὶ στοιχεῖα. (P9,S24)

§25 [130–131] Epicurus fr. 355 Usener

[126–127] διὰ ... παραλλάξεις Beck prob. Diels, cf. κατὰ τὰς τῆς ὕλης, δι' ἧς κεχώρηκε, παραλλάξεις P^G prob. Lachenaud Long–Sedley, κατὰ τὰς παραλλάξεις τῆς ὕλης, δι' ἧς φασὶ τὸ πνεῦμα χωρεῖν τοῦ θεοῦ P^{Ath} 6.4, τὸ πνεῦμα τοῦ θεοῦ διὰ τῆς ὕλης κεχωρηκὸς κατὰ τὰς παραλλάξεις αὐτῆς P^{Ath} 22.5: δι' ὅλης τῆς ὕλης, δι' ἧς κεχώρηκε, παραλλάξεις P^B quod crucif. Mau: δι' ὅλης τῆς ὕλης, δι' ἧς κεχώρηκε P^E (om. παραλλάξεις): δι' ὅλης τῆς ὕλης, δι' ἧς κεχώρηκε, παραλλάξαν S || [126] διὰ: κατὰ Lachenaud, fort. recte || [127] θεοὺς P^{GS}: θεὸν P^{BE}, cf. Ath || [128] ἀνωτάτω ... θεὸν S, cf. P^G τὸ δὲ ἀνώτατον πάντων τὸν νοῦν εἶναι, τὸν θεόν: τὸν τ' (δὲ P^E prob. Diels Lachenaud) ἀνωτάτω πάντων νοῦν ἐν αἰθέρι P^{BEQ} (ἐναιθέριον P^{B(11)}) §25 [130] τοὺς P^{EGQS}: πάντας τοὺς P^B || πάντας P^{EGS}: πάντας τούτους P^B: om. P^Q || θεωρητοὺς P: διαρητοὺς S^F, διαρήτους S^P, corr. Heeren || [131] ἄλλας P^{B(11)QS}: ἄλλως P^{B(11)DE} prob. Gassendi Usener, Wigodsky (2007) 521, 542 (quia *Verschlimmbesserung*), Montaresse (2012) 95 n. 269

Testes primi:

Athenagoras *Leg.* 6.2.9–3.19 Πλάτων δὲ καὶ Ἀριστοτέλης (καὶ οὐχ ὥς ἐπιδεικνύων τὰ δόγματα τῶν φιλοσόφων ἐπ' ἀκριβές, οὕτως ἃ εἰρήκασιν (~ tit.) περὶ θεοῦ διέξειμι· οἶδα γὰρ ὅτι ὅσον συνέσει καὶ ἰσχύι τῆς βασιλείας πάντων ὑπερέχετε, τοσοῦτον καὶ τῷ πάσαν παιδείαν ἀκριβοῦν πάντων κρατεῖτε, οὕτω καθ' ἕκαστον παιδείας μέρος κατορθοῦντες ὥς οὐδὲ οἱ ἐν αὐτῇς μόριον ἀποτερόμενοι· ἄλλ' ἐπειδὴ ἀδύνατον δεικνύειν ἄνευ παραθέσεως ὀνομάτων ὅτι μὴ μόνοι εἰς μονάδα τὸν θεὸν κατακλείομεν, ἐπὶ τὰς δόξας ἐτραπόμην)· φησὶν οὖν ὁ Πλάτων· (sequitur *Tim.* 28b), (~ §22) ἕνα τὸν ἀγέννητον καὶ αἰδίων νοῶν θεόν. εἰ δ' οἶδεν καὶ ἄλλους οἶον ἥλιον καὶ σελήνην καὶ ἀστέρας, ἄλλ' ὥς γεννητοὺς οἶδεν αὐτούς· (sequitur *Tim.* 41a) ...

Leg. 6.4.25–38 (~ §23) ὁ δὲ Ἀριστοτέλης καὶ οἱ ἄπ' αὐτοῦ ἕνα ἄγοντες, οἶονεὶ ζῶον σύνθετον, ἐκ ψυχῆς καὶ σώματος συνεστηκότα λέγουσι τὸν θεόν, σῶμα μὲν αὐτοῦ τὸ αἰθέριον νομίζοντες τοὺς τε πλανωμένους ἀστέρας καὶ τὴν σφαῖραν τῶν ἀπλανῶν, κινούμενα κυκλοφορητικῶς, ψυχὴν δὲ τὸν ἐπὶ τῇ κινήσει τοῦ σώματος λόγον, αὐτὸν μὲν οὐ κινούμενον, αἴτιον δὲ τῆς τούτου κινήσεως γινόμενον. (~ §24) οἱ δὲ ἀπὸ τῆς Στοᾶς (*SVF* 2.1027), κἂν ταῖς προσηγορίαις κατὰ τὰς παραλλάξεις τῆς ὕλης, δι' ἧς φασὶ τὸ πνεῦμα χωρεῖν τοῦ θεοῦ, πληθύνωσι τὸ θεῖον τοῖς ὀνόμασι, τῷ γοῦν ἔργῳ ἕνα νομίζουσι τὸν θεόν. εἰ γὰρ ὁ μὲν θεὸς πῦρ τεχνικὸν ὀδῶ βαδίζον ἐπὶ γενέσει κόσμου ἐμπεριειληφὸς ἅπαντας τοὺς σπερματικὸς λόγους καθ'

οὓς ἕκαστα καθ' εἰμαρμένην γίγνεται, τὸ δὲ πνεῦμα αὐτοῦ διήκει δι' ὅλου τοῦ κόσμου, ὁ θεὸς εἰς κατ' αὐτούς, Ζεὺς μὲν κατὰ τὸ ζέον τῆς ὕλης ὀνομαζόμενος, Ἥρα δὲ κατὰ τὸν ἀέρα, καὶ τὰ λοιπὰ καθ' ἕκαστον τῆς ὕλης μέρος δι' ἧς κεχώρηκε καλούμενος.

Leg. 7.2.13–14 ἄλλος ἄλλως ἐδογμάτισεν αὐτῶν καὶ περὶ θεοῦ ... (~ *quaestio*).

Leg. 23.2.11–15 (~ ch. 1.8.1). πρῶτος Θαλῆς (fr. 186 Wöhrlé) διαιρεῖ, ὡς οἱ τὰ ἐκείνου {διαιροῦντες} ἀκριβοῦντες μνημονεύουσιν, εἰς θεόν, εἰς δαίμονας, εἰς ἥρωας. (~ §2) ἀλλὰ θεὸν μὲν τὸν νοῦν τοῦ κόσμου ἄγει, δαίμονας δὲ οὐσίας νοεῖ ψυχικάς, καὶ ἥρωας τὰς κεχωρισμένας ψυχὰς τῶν ἀνθρώπων, ἀγαθοὺς μὲν τὰς ἀγαθὰς, κακοὺς δὲ τὰς φαύλους.

Leg. 23.3.30–37 (~ §22) ἄρ' οὖν ὁ (sc. Πλάτων) τὸν αἰθιόν, νῶ καὶ λόγῳ καταλαμβανόμενον, περινοήσας θεὸν καὶ τὰ ἐπισυμβεβηκότα αὐτῷ ἐξειπὼν (τὸ ὄντως ὄν, τὸ μονοφυές, τὸ ἀγαθὸν ἀπ' αὐτοῦ ἀποχεόμενον, ὅπερ ἐστὶν ἀλήθεια), καὶ περὶ πρώτης δυνάμεως ... περὶ τῶν ἐκ τῶν αἰσθητῶν (γῆς τε καὶ οὐρανοῦ) λεγομένων γεγονέναι μεῖζον ἢ καθ' ἑαυτὸν ἀλήθες μαθεῖν ἐνόμισεν;

Traditio ps.Plutarchi:

Eusebius *PE* 7.11.13 (~ *quaestio*, non citatus ap. *DG*) ταῦτα μὲν οὖν ἀπὸ μυρίων ὅσων τῆς Ἑβραίων θεολογίας ἐκκείσθω. ἄρ' οὖν ἄξιον ἐν συγκρίσει παραβάλλειν αὐτοῖς τὰς τῶν σοφῶν Ἑλλήνων θεολογίας, τῶν μὲν μὴδ' ὅλως εἶναι θεὸν ἀποφνημαμένων, τῶν δὲ τοὺς ἀστέρας εἶναι φασκόντων, οὓς καὶ μύδρους τυγχάνειν διαπύρους (deest in *DK* sed cf. *P* ap. *A* 2.20.8 in *PE* 15.23.5) ἤλων καὶ πετάλων δίκην ἐμπεπηγότας τῷ οὐρανῷ (deest in *DK* et Wöhrlé sed cf. *P* ap. *A* 2.14.3–4 in *PE* 15.31.2), τῶν δὲ πῦρ εἶναι τεχνικὸν ὁδῶ βαδίζον (deest in *SVF*, sed cf. *P* ap. *A* §24 in *PE* 14.16.9) ...

ps.Iustinus *Coh.* 5.2.13–20 (~ §22) Πλάτων μὲν γάρ, ὡς ἄνωθεν κατελγλυθὼς καὶ τὰ ἐν οὐρανοῖς ἅπαντα ἀκριβῶς ἑωρακώς, τὸν ἀνωτάτω θεὸν ἐν τῇ πυρώδει οὐσίᾳ εἶναι λέγει. (~ §23) Ἀριστοτέλης δέ, ἐν τῷ πρὸς Ἀλέξανδρον τὸν Μακεδόνά λόγῳ σύντομόν τινα τῆς ἑαυτοῦ φιλοσοφίας ἐκτιθέμενος ὅρον, σαφῶς καὶ φανερώς τὴν Πλάτωνος ἀναρεῖ δόξαν, οὐκ ἐν τῇ πυρώδει οὐσίᾳ τὸν θεὸν εἶναι λέγων· ἀλλὰ, πέμπτον αἰθερίον τι καὶ ἀμετάβλητον ἀναπλάττων σῶμα, ἐν τούτῳ αὐτὸν εἶναι φησιν. γέγραφε γοῦν οὕτως (*Mu.* 2.392a5–9)· 'οὐχ ὡς ἔνιοι τῶν περὶ τὸ θεῖον πλημμελούντων ἐν τῇ πυρώδει οὐσίᾳ τὸν θεὸν εἶναι φασιν'.

Coh. 6.1.8–12 (~ §22) καὶ αὖθις τοῦ Πλάτωνος ἐν τῇ πρώτῃ τοῦ ἀνωτάτω οὐρανοῦ ἀπλανεῖ σφαίρᾳ τὸν τε πρῶτον θεὸν καὶ τὰς εἰδέας εἶναι λέγοντος· (~ §23) Ἀριστοτέλης μετὰ τὸν πρῶτον θεὸν οὐ τὰς εἰδέας ἀλλὰ τινας νοητοὺς θεοὺς εἶναι λέγει οὕτω μὲν οὖν περὶ τῶν ἐν οὐρανοῖς πρὸς ἀλλήλους διαφέρονται πραγμάτων.

Coh. 31.1.7 (~ §1[27]) ὁ μεγάλῳφωνος Πλάτων.

Coh. 36.3.23–25 ὁ γοῦν Ἀριστοτέλης, ὡς ἀκριβέστερον Πλάτωνος τὰ ἐν οὐρανοῖς ἑωρακώς, οὐχ ὥσπερ ὁ Πλάτων ἐν τῇ πυρώδει οὐσίᾳ τὸν θεὸν εἶναι λέγει (οὕτω καὶ αὐτὸς ἔφη), ἀλλ' ἐν τῷ αἰθεριῳδῇ πέμπτῳ στοιχείῳ εἶναι αὐτὸν ἀπεφῆναιτο. (~ §23).

Theodoretus CAG 2.112–113 (~ P1 sive A1) ἀναγνωστέον δὲ οὐ μόνον τὰ τῶν ἱερῶν ἀποστόλων μαθήματα, ἀλλὰ καὶ τὰ τῶν θείων προφητῶν θεσπίσματα· οὕτω γάρ τις καὶ τῆς παλαιᾶς καὶ τῆς καινῆς θεολογίας τὴν ξυμφωνίαν ὁρῶν, θαυμάσεται τὴν ἀλήθειαν καὶ φεύξεται μὲν Διαγόρου τοῦ Μιλήσιου (sic) καὶ τοῦ Κυρηναίου Θεοδώρου καὶ Εὐημέρου τοῦ Τεγεάτου τὸ ἄθεον· τούτους γὰρ ὁ Πλούταρχος ἔφησε μηδὲνα νενομικέναι θεόν.

CAG 3.4 (~ P1 sive A1) οὐκ οὖν μόνοι γε ἄθεοι Διαγόρας ὁ Μιλήσιος (sic) καὶ ὁ Κυρηναῖος Θεόδωρος καὶ Εὐήμερος ὁ Τεγεάτης καὶ οἱ τοῦτοις ἡκολουθηκότες, παντάπασι φάντες μὴ εἶναι θεούς, ὥς ὁ Πλούταρχος ἔφη (~ P1 sive A1), ἀλλὰ καὶ Ὁμηρος καὶ Ἡσίοδος καὶ αἱ τῶν φιλοσόφων ξυμμορίαι ...

CAG 6.6 (~ P1 sive A1) τοὺς μὲν οὖν ἀμφὶ τὸν Διαγόραν φασὶν ἄθεους ἐπὶ κλην ὀνομασθῆναι διὰ τὸ πάμπαν ἀρνηθῆναι τὸ θεῖον ...

Cyrillus Juln. 1.38–39 ὅποιαί τοίνυν αὐτῶν αἱ δόξαι γεγόνασιν, ἐπὶ καιροῦ λελέξε-ται πρὸς ἡμῶν (~ P2) Θάλῃς μὲν οὖν ὁ Μιλήσιος νοῦν τοῦ κόσμου φησὶν εἶναι τὸν θεόν, (~ P7) Δημόκριτος δὲ ὁ Ἀβδηρίτης συμφέρεται κατὰ τι, προσεπάγει δὲ τι καὶ ἕτερον· νοῦν μὲν γὰρ εἶναι τὸν θεόν ἰσχυρίζεται καὶ αὐτός, πλὴν ἐν πυρὶ σφαιροειδεῖ, (~ P8) καὶ αὐτὸν εἶναι τὴν τοῦ κόσμου ψυχὴν. (~ P3) Ἀναξίμανδρος δὲ οἶμον ὥσπερ ὀλοτρόπως ἐτέραν ἰῶν θεὸν διορίζεται εἶναι τοὺς ἀπείρους κόσμους, οὐκ οἶδ' ὅ τι λέγων. (39) (~ P23) ὁ δὲ πλείστην ἔχων καὶ οὐκ ἔξω θαύματος εἰς βασάνους ἐννοιῶν τὴν δείνωσιν, τὸν Ἀριστοτέλη λέγων τὸν Σταγειρίτην, τὸν Πλάτωνος φοιτητὴν, 'εἶδος μὲν χωριστὸν' ὀνομάζει τὸν θεόν, ἐπιβῆναι δὲ διατείνεται τῇ τοῦ παντός σφαίρᾳ. (~ P24) καὶ μὴν καὶ οἱ καλούμενοι Στωϊκοὶ θεὸν εἶναι φασὶ πῦρ τεχνικὸν ὁδῶ βαδίζον ἐπὶ γενέσει κόσμου. γεγράφασι δὲ περὶ τούτων Πλούταρχος τε καὶ ἕτεροι τῶν παρ' αὐτοῖς λογάδων, καὶ ὁ θρασὺς καθ' ἡμῶν Πορφύριος (cf. fr. 425F Smith).

ps.Galenus HPh c. 35 Περί θεοῦ (text Diels)

35.1 (~ P1) ὅσα κατ' ἀρχὰς περὶ θεοῦ λέγοντες (c. 16, DG pp. 608.15–609.10, vid. *Testes secundi ad fin.*) παραλελοίπαμεν, ταῦτα νῦν ἐροῦμεν. τοὺς μὲν τῶν πρότερον πεφίλοσοφκῶτων εὔροιμεν (ἀν) θεοὺς ἡγνοηκότας, ὥσπερ Διαγόραν τὸν Μήλιον καὶ Θεόδωρον τὸν Κυρηναῖον καὶ Εὐήμερον τὸν Τεγεάτην· οὐ γὰρ εἶναι θεοὺς εἰπεῖν τετολμήκασιν. ἔοικε δὲ ταύτην τὴν ὑπόληψιν Εὐριπίδης † ἐπὶ θεοὺς διὰ δέος τῶν Ἀρεοπαγιτῶν ἐκκαλυμένον τοῦτο δι' ἔξιν ὑφίστασθαι. Ἀναξαγόρας δὲ τὸν θεὸν ἐπὶ τὸ διατεταχέναι τὸν κόσμον παρειληφώς ἐστηκότα τὰ σώματα κατ' ἀρχὰς διακεκοσμηκέναι φησί, νοῦν δ' εἶναι τὸν πεποιηκότα ταῦτα ὑπέλαβεν. Πλάτων δὲ οὐχ ἐστηκότα ταῦτα ὑπέθετο, ἀτάκτως δὲ κινούμενα ὑπὸ τοῦ θεοῦ εἰς τάξιν ἦχθαι καὶ τοῦ προσήκοντος μετετληφέναι.

35.2 (~ P2) Θαλῆς δὲ νοῦν τοῦ κόσμου τὸν θεὸν ἡγήσατο.

35.3 (~ P3) Ἀναξίμανδρος δὲ τοὺς ἀπείρους οὐρανούς θεοὺς εἶναι νομίζει.

35.4 (~ P4) Δημόκριτος δὲ νοῦν ἐν πυρὶ σφαιροειδεῖ τὴν τοῦ κόσμου ψυχὴν ὑπολαμβάνει.

35.5 (~ P5) Πυθαγόρας δὲ τῶν ἀρχῶν τὴν μονάδα θεὸν καὶ τὸ ἀγαθὸν ᾤκησεν, ἥτις ἐστὶν ἡ τοῦ ἐνὸς φύσις, αὐτὸς ὁ νοῦς. τὴν δ' ἀόριστον δυάδα μόνην τὸ κακόν, περὶ ἣν ἐστὶν ὁ ὀρατὸς κόσμος.

- 35.6 (~ P6) καὶ Πλάτωνι μὲν τοῦτο δοκεῖ τὸν θεὸν ἀμιγῆ πάσης ὕλης καὶ μηδενὶ παθητῷ συμπεπλεγμένον.
- 35.7 (~ P7) Ἀριστοτέλης δὲ τὸν ἀνωτάτω θεὸν εἶδος χωριστὸν ἐπιβεβηκότα τῇ σφαίρᾳ τοῦ παντός· ὅθεν ἐστὶν αἰθέριον σῶμα τὸ μέγιστον ὑπ' αὐτοῦ νομιζόμενον, διηρημένον κατὰ τὰς σφαίρας {διαίρεσεις} τῇ μὲν φύσει ἡμῶν συναφεῖς, τῷ δὲ λόγῳ κεχωρισμένης· ὥστ' εἶναι ζῶον σύνθετον ἐκ σώματος καὶ θεότητος καὶ τὸ μὲν αἰθέριον, κινούμενον, κυκλοφορητικόν, τὴν δὲ ψυχὴν λόγον ἀκίνητον, αἴτιον τῆς κινήσεως κατ' ἐνέργειαν.
- 35.8 (~ P8) οἱ Στωικοὶ δὲ τὸν θεὸν πῦρ ἔντεχνον ἢ πνεῦμα νομίζουσιν, ὁδῷ βαδίζον ἐπὶ κόσμους γένεσιν, ἐμπειριληφὸς πάντας τοὺς σπερματικούς λόγους, καθ' οὓς ἕκαστα καθ' εἰμαρμένην γίνεσθαι, καὶ διήκειν δι' ὅλου τοῦ κόσμου τὰς προσηγορίας μεταλαμβάνον{τε} κατὰ τὰς τῆς ὕλης δι' ἧς κεχώρηκε παραλλάξεις. θεοὺς δὲ καὶ τὸν κόσμον καὶ τοὺς ἀστέρας καὶ τὴν γῆν εἶναι νομίζουσιν, τὸ δὲ ἀνώτατον πάντων τὸν νοῦν εἶναι, τὸν θεόν.
- 35.9 (~ P9) Ἐπίκουρος δὲ ἀνθρωποειδεῖς εἶναι τοὺς θεοὺς, λόγῳ δὲ πάντας θεωρητοὺς διὰ τὴν λεπτομέρειαν τῆς τῶν εἰδώλων φύσεως· ὁ δὲ αὐτὸς τέτταρας φύσεις κατὰ γένος ἀφθάρτους * * * ὁμοιότηας. αὗται λέγονται καὶ ὁμοιομέρειαι καὶ στοιχεῖα τῷ αὐτῷ.

PPs: Psellus *Omn.Doctr.* c. 15 (~ tit.) Τίς ὁ θεός.

Testes secundi:

Nemesius *NH* 2, p. 28.12–14 Morani ἔπειτὰ φησιν (sc. Ἀριστοτέλης) ἐντελέχειαν οὖσαν τὴν ψυχὴν ἀκίνητον εἶναι καθ' ἑαυτήν, κινεῖσθαι δὲ κατὰ συμβεβηκός (~ §23).

Hermias *Irr.* 11.3 ὁ μεγάλῳ φωνος Πλάτων.

ps.Galenus *HPh* c. 16, *DG* pp. 608.12–609.5 τῶν οὖν πρότερον ἀπὸ τῶν ἀρχῶν τῶν τε δραστικῶν καὶ τῶν ὑλικῶν ἡργμένων τῆς φυσικῆς πραγματείας, ταῦτά ἡμῖν εἰκότως διανοηθέντες ἀρμόττειν, νομίζομεν ἀπὸ τούτων (τὴν) ἀρχὴν ποιεῖσθαι τῶν λόγων. εἰρηκότων τοίνυν ἐκείνων, ὡς τὸ πάντων δραστικώτατον αἴτιον τῶν ὄντων καὶ γινομένων ἐστὶ θεός, καὶ νῦν ὁμοίως ἡμῖν ποιητέον (~ *quaestio*). Πλάτων μὲν οὖν καὶ Ζήνων ὁ Στωικός (*SVF* 1.153) περὶ τῆς οὐσίας τοῦ θεοῦ διεληλυθότες οὐχ ὁμοίως περὶ ταύτης διανοήθησαν, ἀλλ' ὁ μὲν Πλάτων θεὸν ἀσώματον (~ §22[108–109]) Ζήνων δὲ σῶμα, περὶ τῆς μορφῆς μηδὲν εἰρήκοτες (~ §14). (~ §25) Ἐπίκουρος δὲ ἀνθρωπόμορφον τοῦτον ὑπέλαβεν. (~ §10) οἱ Στωικοὶ δὲ ἰδίαν μὲν ἰδέαν οὐκ ἔχειν διηνεκῶς, πνεῦμα δὲ πυρῶδες ὁμοιούμενον πᾶσι ῥαδίως, οἷς ἂν προσρυῇ. τόπον δὲ κρατεῖν ὠρισμένον καὶ κινεῖσθαι μεταβατικῶς μόνον Ἐπίκουρος (—) αὐτὸν εἶπεν ἐπεχείρησεν (~ §24). οἱ δὲ Στωικοὶ (—) ἔμφυτον μὲν ἐπὶ πάντων διήκειν, ὁμοιούμενον δὲ ἐκάστῳ κινούμενον καὶ μεταλλάττον (~ §10).

Loci Aetiani:

- §1[29–30] A 1.6.1[9–10] σφαιροειδής γάρ ὁ κόσμος, δὲ πάντων σχημάτων πρωτεύει. A 1.6.1 [59–61] ἀνθρωποειδής δ' αὐτοῦς (sc. τοὺς θεοὺς) ἔφασαν εἶναι, διότι τῶν μὲν ἀπάντων τὸ θεῖον κυριώτατον, τῶν δὲ ζώων ἀνθρώπος κάλλιστον.
- §1[56–58] A 1.6.1[57–59] ἔβδομον δὲ καὶ ἐπὶ πᾶσι τὸ διὰ τὰς εἰς τὸν κοινὸν βίον εὐεργεσίας ἐκτετιμημένον ἀνθρώπινον δὲ γεννηθέν, ὡς Ἡρακλέα.
- §2 A 1.3.1 Θαλῆς ... ἀρχὴν τῶν ὄντων ἀπεφάνετο τὸ ὕδωρ. A 1.3.20[144] ὁ δὲ θεὸς νοῦς ἐστὶ τοῦ κόσμου. A 1.8.2 Θαλῆς Πυθαγόρας Πλάτων οἱ Στωικοὶ δαίμονας ὑπάρχειν οὐσίας ψυχικάς (εἶναι δὲ καὶ ἥρωας τὰς κεχωρισμένας ψυχὰς τῶν σωματῶν)· καὶ ἀγαθοὺς μὲν τὰς ἀγαθὰς κακοὺς δὲ τὰς φαύλας.
- §3 A 1.3.2 Ἀναξίμανδρος ... γεννᾶσθαι ἀπείρους κόσμους, καὶ πάλιν φθεῖρεσθαι εἰς τὸ ἐξ οὗ γίνονται.
- §4 A 1.3.3 Ἀναξίμενης ... ἀρχὴν τῶν ὄντων ἀέρα ἀπεφάνετο.
- §5 A 1.3.5 Ἀρχέλαος ... ἀέρα ἄπειρον (sc. ἀρχὴν τῶν ὄντων ἀπεφάνετο).
- §6 A 1.3.4 Ἀναξαγόρας ... τὸ δὲ ποιοῦν αἴτιον τὸν νοῦν τὸν τὰ πάντα διαταξάμενον. ἄρχεται δ' οὕτως ὁμοῦ πάντα χρήματα ἦν, νοῦς δ' αὐτὰ διήρει καὶ διεκόσμησε' χρήματα λέγων τὰ πράγματα. ἀποδεκτέος οὖν ἐστίν, ὅτι τῇ ὕλῃ τὸν τεχνίτην προσέξευξεν.
- §7 A 4.3.5 Δημόκριτος πυρῶδες σύγκριμα ἐκ τῶν λόγῳ θεωρητῶν (sc. τὴν ψυχὴν), σφαιρικός μὲν ἔχων τὰς ἰδέας, πυρίνην δὲ τὴν δύναμιν, ὅπερ σῶμα εἶναι.
- §8 A 1.3.10 Διογένης δὲ ὁ Ἀπολλωνιάτης ἀέρα ἄπειρον.
- §9 A 1.3.7 Πυθαγόρας ... τὴν μονάδα καὶ τὴν ἀόριστον δυάδα ἐν ταῖς ἀρχαῖς. σπεύδει δ' αὐτῷ τῶν ἀρχῶν ἢ μὲν ἐπὶ τὸ ποιητικὸν αἴτιον καὶ εἰδικόν, ὅπερ ἐστὶ νοῦς ὁ θεός, ἢ δ' ἐπὶ τὸ παθητικόν τε καὶ ὑλικόν, ὅπερ ἐστὶν ὁ ὁρατὸς κόσμος.
- §10 A 1.6.1[2–4] ὀρίζονται δὲ τὴν τοῦ θεοῦ οὐσίαν οἱ Στωικοὶ οὕτως· 'πνεῦμα νοερὸν καὶ πυρῶδες οὐκ ἔχον μὲν μορφὴν, μεταβάλλον δ' εἰς ἃ βούλεται καὶ συνεξομοιούμενον πᾶσιν'.
- §13 A 1.3.8 Ἡράκλειτος ... ἀρχὴν τῶν πάντων τὸ πῦρ· ... τοῦτου δὲ κατασβεννυμένου κοσμοποιεῖσθαι τὰ πάντα. A 1.27.1 Ἡράκλειτος πάντα καθ' εἰμαρμένην, τὴν δ' αὐτὴν ὑπάρχειν καὶ ἀνάγκην· γράφει γοῦν· 'ἔστι γὰρ εἰμαρμένη πάντως'. A 1.28.1 Ἡράκλειτος οὐσίαν εἰμαρμένης λόγον τὸν διὰ τῆς οὐσίας τοῦ παντὸς διήκοντα· αὕτη δ' ἐστὶ τὸ αἰθέριον σῶμα, σπέρμα τῆς τοῦ παντὸς γενέσεως καὶ περιόδου μέτρον τεταγμένης.
- §14 A 1.3.23 Ζήνων ... ἀρχὰς μὲν τὸν θεὸν καὶ τὴν ὕλην, ὧν ὁ μὲν ἐστὶ τοῦ ποιεῖν αἴτιος.
- §17 A 1.24.1 Παρμενίδης Μέλισσος Ζήνων ἀνήρουν γένεσιν καὶ φθορὰν διὰ τὸ νομίζειν τὸ πᾶν ἀκίνητον.
- §18 A 2.1.3 ... Μέλισσος τὸ μὲν πᾶν ἄπειρον ...
- §19 A 1.3.19 Ἐμπεδοκλῆς ... τέσσαρα μὲν λέγει στοιχεῖα, πῦρ ἀέρα ὕδωρ γῆν, δύο δ' ἀρχικάς δυνάμεις, Φιλίαν τε καὶ Νεῖκος· ὧν ἡ μὲν ἐστὶν ἐνωτική τὸ δὲ διαιρετική. A 1.8.2 Θαλῆς Πυθαγόρας Πλάτων οἱ Στωικοὶ δαίμονας ὑπάρχειν οὐσίας ψυχικάς (εἶναι δὲ καὶ ἥρωας τὰς κεχωρισμένας ψυχὰς τῶν σωματῶν)· καὶ ἀγαθοὺς μὲν τὰς ἀγαθὰς κακοὺς δὲ τὰς φαύλας. A 1.26.1 Ἐμπεδοκλῆς οὐσίαν ἀνάγκης αἰτίαν χρηστικὴν τῶν ἀρχῶν καὶ τῶν στοιχείων.

- §§21–22 aliter A 5.20.1 Πλάτων καὶ Ἀριστοτέλης ... τὸν θεὸν ζῶν λογικὸν ἀθάνατον.
- §21 {{A 1.3.22 Ξενοκράτης συνεστάναι τὸ πᾶν ἐκ τοῦ ἐνὸς καὶ τοῦ ἀένναου, ἀέννανον τὴν ὕλην αἰνιττόμενος διὰ τοῦ πλήθους.}}
- §22 A 1.3.20 Σωκράτης Σωφρονίσκου Ἀθηναῖος καὶ Πλάτων Ἀρίστωνος Ἀθηναῖος (αἱ γὰρ αὐταὶ περὶ παντὸς ἑκατέρου δόξαι) τρεῖς ἀρχάς, τὸν θεὸν τὴν ὕλην τὴν ἰδέαν ... ὁ δὲ θεὸς νοῦς ἐστὶ τοῦ κόσμου. A 1.10.1 ἰδέα ἐστὶν οὐσία ἀσώματος, αἰτία τῶν ὧς ἐστὶν αὐτὴ καὶ παράδειγμα τῆς τῶν κατὰ φύσιν ἐχόντων αἰσθητῶν ὑποστάσεως, αὐτὴ μὲν ὑφειστώσα καθ' ἑαυτήν, εἰκονίζουσα δὲ τὰς ἀμόρφους ὕλας καὶ αἰτία γιγνομένη τῆς τούτων διατάξεως, πατὴρ ἐπέχουσα τοῖς αἰσθητοῖς τάξιν. A 1.10.2 Σωκράτης καὶ Πλάτων χωριστάς τῆς ὕλης οὐσίας τὰς ἰδέας ὑπολαμβάνει, ἐν τοῖς νοήμασι καὶ ταῖς φαντασίαις τοῦ θεοῦ, τουτέστι τοῦ νοῦ, ὑφειστώσας. A 1.11.2 Πλάτων τριχῶς τὸ αἷτιον· φησὶ γὰρ ὅφ' οὐ ἐξ οὐ πρὸς δ'· κυριώτερον δ' ἡγεῖται τὸ ὅφ' οὐ· τοῦτο δ' ἦν τὸ ποιοῦν, ὅ ἐστι νοῦς. A 2.6.4 Πλάτων τὸν ὁρατὸν κόσμον γεγενῆσθαι πρὸς παράδειγμα τοῦ νοητοῦ κόσμου.
- §23 A 1.3.21 Ἀριστοτέλης ... στοιχεῖα δὲ τέσσαρα, πέμπτον δὲ τὴν σῶμα αἰθέριον ἀμετάβλητον. A 1.12.3 Ἀριστοτέλης βαρύτατον μὲν εἶναι τὴν γῆν ἀπλῶς, κουφότατον δὲ τὸ πῦρ· ἀέρα δὲ καὶ ὕδωρ ἄλλοτ' ἄλλως. μὴδὲν δὲ πῦρ κυκλοτερώς φύσει κινεῖσθαι, μόνον δὲ τὸ πέμπτον σῶμα. A 1.28.1 αὕτη δ' ἐστὶ τὸ αἰθέριον σῶμα. A 2.3.4 τὰ μὲν γὰρ οὐράνια τούτων πάντων (sc. ἔμψυχον, αἰσθητικόν, λογικόν, νοερόν, προνοῖα διοικούμενον) κοινωνεῖν, σφαίρας γὰρ περιέχειν ἐμψύχους καὶ ζωτικὰς. A 2.6.5 Πυθαγόρας ... φησὶ γεγενῆσθαι ... ἐκ δὲ τοῦ δωδεκαέδρου τὴν τοῦ παντὸς σφαῖραν. A 2.7.5 Ἀριστοτέλης πρῶτον μὲν αἰθέρα ἀπαθῆ, πέμπτον δὴ τὴν σῶμα ... τοῖς μὲν οὐρανίοις ἀποδεδόσθαι τὴν κυκλικὴν κίνησιν. A 2.11.5 Ἀριστοτέλης ἐκ πέμπτου σώματος (sc. τὸν οὐρανόν). A 2.13.12 Ἀριστοτέλης ἐκ τοῦ πέμπτου σώματος (sc. εἶναι τὰ ἄστρα). A 2.12.1 Θαλῆς Πυθαγόρας οἱ ἅπ' αὐτοῦ μεμερίσθαι τὴν τοῦ παντὸς οὐρανοῦ σφαῖραν εἰς κύκλους πέντε. A 2.20.11 Ἀριστοτέλης σφαῖραν ἐκ τοῦ πέμπτου σώματος (sc. εἶναι τὸν ἥλιον). A 2.16.4 Ἀριστοτέλης ὑπὸ τῶν σφαιρῶν, ἐφ' ὧν ἕκαστος ἐμβέβηκε, φέρεσθαι (sc. τὰ ἄστρα). A 2.30.7 ... τοῦ αἰθέρος, ὃν προσαγορεύει σῶμα πέμπτον. A 3.6.2 Ἀριστοτέλης ἀκίνητον τὴν ψυχὴν πάσης κινήσεως προηγούμενην, τῆς δὲ κατὰ συμβεβηκὸς μετέχειν. A 3.14.1 Πυθαγόρας τὴν γῆν ἀναλόγως τῇ τοῦ παντὸς οὐρανοῦ σφαίρᾳ διηρηθῆσθαι εἰς πέντε ζῶνας. A 4.4.6 οἱ δὲ γε Πυθαγόρου διάδοχοι ἐκ πέντε στοιχείων τὸ σῶμα κραθῆναι φάντες—τοῖς γὰρ τέτταρσι ξυνέταξαν τὸ αἰθέριον.
- §24 A 1.1.2 φύσιν τινὲς εἶναι λέγουσι πνεῦμα ἔντεχον ὁδοποιητικόν. A 2.4.2 οἱ Στωικοὶ (ὑπὸ θεοῦ γεγενῆσθαι τὸν κόσμον). A 1.27.5 Ζήνων ὁ Στωικὸς ἐν τῷ Περὶ φύσεως δύναμιν κινήτικὴν τῆς ὕλης κατὰ ταῦτα καὶ ὡσαύτως (sc. τὴν εἰμαρμένην), ἥντινα μὴ διαφέρειν πρόνοιαν καὶ φύσιν καλεῖν. A 1.27.6 Ἀντίπατρος ὁ Στωικὸς θεὸν ἀπεφαίνετο τὴν εἰμαρμένην.
- §25 A 1.3.16 Ἐπίκουρος ... ἔφη τὰς ἀρχὰς τῶν ὄντων σώματα, λόγῳ θεωρητά, ἀμετοχα κενοῦ, ἀγέννητα, ἀδιάφθαρτα, οὔτε θραυσθῆναι δυνάμενα οὔτε διαπλασθῆναι ἐκ τῶν μερῶν λαβεῖν οὐτ' ἀλλοιωθῆναι· εἶναι δ' αὐτὰ λόγῳ θεωρητά· ταῦτα μὲντοι κινεῖσθαι ἐν τῷ κενῷ καὶ διὰ τοῦ κενοῦ· εἶναι δὲ καὶ αὐτὸ τὸ κενὸν ἄπειρον καὶ τὰ σώματα ἄπειρα.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

Given the interest of its subject it is not surprising that the long chapter on theology is well attested. Indeed with its nine witnesses it is as well attested as, or to some extent even better than ch. 1.3 on first principles.

(1) The Byzantine mss. of P and Q's translation preserve nine doxai, of which the first is of much greater length than the remaining eight. In §8 the three name-labels Diogenes Cleanthes Oenopides preserved by S have fallen out in P, though the doxa is saved and combined with §16 in P₄ (and G). All of P's extant name-labels, namely P₂ Thales, P₃ Anaximander, P₄ Democritus, P₅ Pythagoras, P₆ Plato, P₇ Aristotle, P₈ Stoics, and P₉ Epicurus are paralleled in S, and occur in the same order. The doxai of Thales, Plato, and Aristotle in P have been abridged. P's chapter is written out almost in full by E, with significant changes in §1 (omission of lines 5–8 and 13–29) and §2 and §7 (excision of *νοῦν* for theological reasons, see M–R 1.135–136). It is briefly anticipated at *PE* 7.11.13, which had escaped Diels. All nine doxai are also found in G, although with the long first doxa severely reduced. Cyril paraphrases five of the doxai in a polemical exposé of Greek philosophical theology. Only the heading is found in Ps.

(2) Unlike A and under the influence of later developments in ancient philosophy (and perhaps also Christianity), S treats theology much earlier than the principles (which follow on later at 1.10). In his chapter on positive theology at the beginning of Book 1 of the *Eclogae* (preceded only by a small section of his proœmium, the rest of which is lost) he cites no less than twenty-four doxai in succession without interweaving other material. Only eight of these lemmata are paralleled in P. We saw above that their order is the same in both chief witnesses. This suggests that S wrote out ch. 1.7.2–24 in full, just as he sometimes does elsewhere with entire chapters.

Our text of S does not have the first very long doxa extant in P. Diels *DG* 59–60 first argued that S ch. 1.2, 'On those who believe that providence and the ensuing divine powers relating to the management of the whole do not exist' (Περὶ τῶν νομιζόντων μὴ εἶναι πρόνοιαν καὶ ἐπομένας ταύτῃ θείας ἐπὶ τῇ τοῦ παντός διοικήσει δυνάμεις), a lost chapter, may well have been where S placed the first doxa. But as Elter (1880) 22 pointed out, Diagoras, Theodorus, and Euhemerus are absent from the index of Photius. He concluded against Diels that §1 was absent from Stobaeus. But Diels (1881) 348–349 replied that there are omissions and irregularities in the index, and, more to the point in the present context, that Callimachus, cited by name and patronymic ch. 1.7.1[4] and by name again [21], occurs twice in the index, the second time among the poets but the first

time (cod. 167, p. 114b6–7) among the philosophers, between Cleanthes and Critias. The source for this (fortunate) mistake in his view can only be the section of ch. 1.7 lost in our text of S: ‘Dieser wunderliche Irrtum zeigt deutlich, daß das atheistische Stück von Stobaios ganz oder theilweise berücksichtigt war’, sc. in the lost chapter. See also Winiarczyk (1976) 43 with n. 67. Bottler (2014) 135–136 typically declines to take notice of the force of Diels’ refutation. We may add that the parallels for the discussion of the atheist position over against its opposite in the wider tradition, namely in the earlier (esp. Cicero and Philodemus) as well as in the subsequent proximate tradition (Sextus Empiricus, Clement of Alexandria), also support the presence of this theme in A. See also below at sections A(5) and D(d) for the strikingly parallel arguments concerned with creationism of A 1.7.1[27–58] and Cicero *ND* 1.18–24, the evidence for which in Philodemus (assuming it was there) has been lost. For the connection with the argument on the natural origin of the concept of God, which also testifies in favour of the derivation from A, see ch. 1.6 above, Commentary A, D(a), and D(c). In S’s rich collection of evidence for positive theological ideas there was understandably no place for atheism.

(3) T in contrast only makes use of the first doxa, P 1.7.1, on the atheistic position. His brief and repetitive abstracts occur in three passages: *CAG* 2.112 (Diagoras Theodorus Euhemerus, and ‘Plutarch’ as source), 3.4 (Diagoras Theodorus Euhemerus and ‘Plutarch’ as source, again), and 6.6 (only Diagoras, ‘Plutarch’ absent). All three are cited above at *Testes primi*. Note that *GAG* 3.4 is a paraphrase of *CAG* 2.112: the wording and word-order are somewhat different, and that *GAG* 6.6 is a very short abstract. T in each of these three passages adroitly combines this material with information on atheism and the creation of false gods culled from several Books of the *PE*. At *CAG* 2.113 this information is abstracted from elsewhere in the same Book 14. At *CAG* 3.4–5, where the available editions give no information on the source(s), he anticipates his much enlarged abstracts from *PE* prooemium and Books 4–5 in *CAG* 3.23–59, mentioning the tripartite theology and dealing with parts of the sevenfold *didache* concerned with Greek θεοποιία (cf. ch. 1.6[35–60] with Commentary and at Further related texts (a)). The abstracts that follow on at *CAG* 3.6–7 derive from the same context in E. And what follows on at *CAG* 6.6 also derives from E. For the details see the excellent *apparatus fontium* in Raeder’s edition of T. This suggests that, in accordance with the law of the least effort, one after another these three passages, derived by E from P, were abstracted from E at the same time as, and together with, the other abstracts that follow.

But this is far from certain. Diels *DG* 10 and 297 in the apparatus underneath ch. 1.7 stated that E was T’s source here. His point was that the mistaken ethnonym Μιλήσιος instead of Μήλιος for Diagoras is found in both E and T (twice,

sc. also at *GAG* 3.4), while he believed that the mss. of P read Μήλιος. But as is clear from the editions of Mau and Lachenaud all these mss. read Μιλήσιος, which is confirmed by Q. Schulte (1904) 55 also argued that T excerpted E, and so now does Scholten (2015) 251 n. 104 (cf. also 118–119). At M–R 1.168, however, we argued that it is more likely that he also possessed a copy of P, but elsewhere in his treatise preferred to use A. T *never* refers to ‘Plutarch’ (or, for that matter Aëtius) in the context of the anonymous *Placita* excerpts that, because of extra material shared with S but is lacking in P, *must* derive from A (see Mansfeld at M–R 4.151–168 and above, General Introduction, section 2.5). T elsewhere cites the real Plutarch twenty times by name (though as a rule indirectly from his favourite sources Eusebius and Clement), in one passage even adding ὁ ἐκ Χαίρωνείας τῆς Βοιωτίας; see overview at Scholten (2015) 804–806.

(4) There remain a number of snippets from the doxai of Aristotle (§23), the Stoa (§24), Thales (§2) and Plato (§22) in Athenagoras. Diels argued that these were taken from P and thus provide the earliest witness to that work. However, this cannot be certain, since the texts include possible allusions to material found only in S, i.e. the apologist may have used A rather than P, or even a cousin writing. See further M–R 1.312–314 and General Introduction section 2.5. In the case of ps.Justin, however, given that elsewhere in his work he cited 10 doxai from ch. 1.3 which are all present in P (see section A(2)), it is most likely that he used that source here as well, so we list these above in the tradition of P.

(5) With no less than thirty different name-labels in twenty-four paragraphs (§§2–25) ch. 1.7 is the richest chapter of the *Placita* as to doxai. As we have seen above only eight of S’s name-labels are paralleled in P, so no less than twenty-two are contributed by S alone. This in the context of the *Placita* unequalled richness and variety is surely meant as a counterweight to the atheist positions and arguments in §1, which provides a further argument for attributing §1 to A. Further note that among these thirty there are no less than thirteen name-labels that are not paralleled in the related and also quite rich ch. 1.3 ‘On principles’, namely (in order of appearance) Cleanthes, Oenopides (of Chius), Posidonius, Speusippus, Critolaus, Diodorus of Tyre, Mnesarchus, Boethus, Parmenides, Melissus, Zeno (of Elea), Polemo, and the Stoics. Three of these, i.e. the *recherché* name-labels Diodorus of Tyre, Mnesarchus, and Polemo, are found only here in the *Placita*, so we are in the presence of a real effort.

(6) The Stobaeian text of §§2–25 (only!) has been commented upon by (Dörrie–Baltes)–Pietsch–Lakmann (2006) 237–259, who blandly situate ‘Platon’s Theologie und die seiner Schüler—mit den Augen der antiken Doxographen—im Kontext der Vorgänger und Nachfolger’. They are puzzled by the order of the lemmata and offer no solution.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The Epicurean colouring of §1 has been widely recognized. (For that of the final section of ch. 1.6 see above, 1.6 Commentary D(a)). The Epicurean overviews dealing with the doxai on the gods in Philodemus *De pietate* and Cicero *De natura deorum* Book 1 are of primary importance, not only for the doxographies of §§2–25 (unlike the lemmata in A often with arguments against, esp. in Cicero), but also for the inclusion of the so-called atheists of §1. (For Cicero as a witness for the wider doxographical tradition see also above ch. 1.3, and below chs. 4.2–7, 4.9, and 5.1.) Cicero refers to some of these atheists by name at *ND* 1.2, as constituting the second part of the overarching diaeresis between believers and deniers. In Cotta's speech at *ND* 1.61 this diaeresis is cited again, and followed at *ND* 1.63 by a paragraph on the atheists and a longer section on the same subject at *ND* 1.117–121. For further parallels in the widespread proximate tradition see the texts collected at section E(a)§1 below. Qua structure and contents Sextus Empiricus *P.* 3.217–218 is analogous to *the whole* of ch. 1.7, because he first lists the atheists and next a selection of definitions of the divinity. The longer passage on the atheists at *M.* 9.49–57, under the heading 'Do gods exist?' (one that would be appropriate as part of a heading for A 1.7) is parallel as to its cast of atheists and poetic quotations to 1.7.1, see Diels *DG* 58–59, and Winiarczyk (1976) 43–45, who argues for a collection of arguments of various provenance by Clitomachus as an important intermediary source. Runia (1996) 553–554 = M–R 3.353 points out that the third line of Callimachus fr. 191 Pfeiffer on Euhemerus is found only in 1.7.1 and Sextus Empiricus *M.* 9.51; this 'cannot be a coincidence' (his emphasis). If we were only in possession of these parallels in Sextus and did not have those in Philodemus and Cicero we would speak of a Skeptical tradition, but it is in our view quite clear that the Skeptical and the Epicurean accounts are both part of a more general current. The parallels dealing with the atheists in Cicero and Philodemus show that this information had already entered the wider doxographical tradition by the first cent. BCE. The parallels to views of the atheists in Cicero *ND* 1.118–119 and Sextus *M.* 9.17–19 plus 9.50–58 have been cited below, section E(a) General texts and §1[2–8] and §1[12–14]. Interestingly, the parallels in ps. Galen *HPh* c. 16, unlike those in c. 35 not excerpted from P but from a cousin source, are found under the heading 'On the physical (part)', Περὶ τοῦ φυσικοῦ, which thus not only seems to introduce the physical section of the tract (for the term cf. e.g. Sextus *P.* 3.1), but also to allude to the first species of tripartite theology, the *physikon*, which is taught by the philosophers; see e.g. above, ch. 1.6.1[34–36].

There are important points of agreement between Cicero *ND* 1.18–24 and A 1.7[27–58], see Philippson (1939) 17–21, cited by Pease (1955) 1.187 and followed *ibid.* 188, though there are of course also differences of emphasis. These

arguments against creationism and providence are also largely paralleled (though not in the same order) in Lucretius *DRN* 5.156–234, see the Lucretian commentaries ad loc. and e.g. the double columns of Hirzel (1877) 10–11 n. 1. Lucretius argues against opponents which remain anonymous. It has been doubted that Lucretius has not only Plato but also the Stoics in mind, but in view of the parallel in Cicero *ND* 1.18–21 it seems sensible to believe that they are included. There is moreover no evidence that Plato believed in creation for the sake of humanity, or that others believed he did.

It is also of some interest to note that Clement *Protr.* 64.1 says ‘Let us look briefly at the views (*doxai*) on the gods boastfully pronounced by the philosophers’ (ἐπιδράμωμεν ... τῶν φιλοσόφων τὰς δόξας ὅσας ἀνθρώποι περὶ τῶν θεῶν). One may compare this utterance with Athenagoras’ more neutral phrase at *Leg.* 6.2 ‘I turned to the *doxai*’ (ἐπὶ τὰς δόξας ἐτραπόμεν).

The first Aëtian argument is concerned with providence and creationism *per se*. A 1.7[27–41] argues against Plato’s Demiurge, clearly referring to the *Timaeus*, and against Anaxagoras’ cosmic intellect (*Nous*), paraphrasing the famous opening of the treatise. But how can the god be able to construct a cosmos by looking at (sc. and imitating) himself, or how can a god be spherical, a shape inferior to that of man? Plato and Anaxagoras ‘are both mistaken’ (A 1.7.[35] κοινῶς οὖν ἀμαρτάνουσιν ἀμφοτέροι), since this kind of activity conflicts with the nature of a god qua happy and indestructible anthropomorphic living being without worries. Menial work and bothering about humans to the extent of constructing the cosmos for the sake of man would be detrimental to the divinity’s felicity. Cicero *ND* 1.18–21 argues at some length against Plato’s demiurgic god in the *Timaeus* and the demiurgic Providence of the Stoics. A version of the Aëtian point about God looking at (and imitating) himself is taken up by Cicero’s ‘by what eyes of the intellect was Plato able to contemplate the construction of so mighty a work?’ The phrase ‘to both of you (sc. Plato and the representative of the Stoics) the following question may be put ...’ (*ND* 1.21, *ab utroque autem sciscitor*) corresponds with the κοινῶς ἀμφοτέροι directed at Plato and Anaxagoras. The analogy is structural and based on content, and only in part based on identical name-labels. Similarly Lucretius *DRN* 5.168–170, who wonders what could have motivated the gods to change their way of life, and 5.181–186, where he asks where ‘the gods’ could have found ‘the model for making things’.

The second argument, at A 1.7.1[42–51], is about the more particular question of what the divinity was doing prior to the construction of the cosmos. Was he absent, or asleep? Eternal sleep is equivalent to death, and mortality is irreconcilable with the nature of the divinity. The decision to construct a world moreover must have been motivated by a deficiency in God’s felicity, which also

conflicts with his nature (for this specific point cf. Lucretius *DRN* 5.170–173). In Cicero ‘the question addressed to both’ pertains to precisely this issue: if the builders of the cosmos suddenly became active, they must forever have been asleep before (*ND* 1.21–22). Similarly Lucretius *DRN* 5.168–173 and Diogenes of Oenoanda NF 126/127 IX = NF 127 IV + fr. 20 Smith at Hammerstedt–Smith (2014) 145–146, of which a sentence is quoted below at section A(b)§1[34–50].

These first two points are indebted to Aristotle’s arguments against the demiurge of the *Timaeus* extant at Philo, *Aet.* 39–43 (without name-label) = Aristotle *De phil.* fr. 19 c Ross (also cf. *De phil.* fr. 16 Ross at Simplicius in *Cael.* 288.28 ff.; and *De phil.* fr. 20 Ross at Cicero *Luc.* 119, cited below, section E(b)§1[41–50]). See e.g. Mansfeld (1981) 299–303, with references.

The third argument, at A 1.7.1[52–58], is one of the rare examples of an ethical issue in the *Placita*. We encounter the problem of moral evil in the theodicy, and have to listen to the well-worn complaint that good people suffer and evil people prosper, which shows beneficent providence to be an empty notion. This argument has only a limited and rather sarcastic analogue in *ND* 1.23. If God constructed the world for the sake of humans, the Epicurean Velleius asks, did he do so for the wise, a scarce commodity? Or for the fools? But God had no cause to favour the wicked (sc. as he clearly does when one assumes that he determines what happens in the world).

These striking parallels further support the claim that ch. 1.7.1 is indeed Aëtian, and at the same time help to place the account of Cicero’s Epicurean spokesperson in the context of the wider tradition, where treatment of these further matters will have been obligatory as well.

(2) *Sources*. Of the standard so-called atheists the triad Prodicus (T 70 Mayhew), Diagoras and Critias are already mentioned together in a famous testimonium to Book 12 of Epicurus *On Nature* (see Obbink 1996, 350–358), for which see now also Philod. *PHerc.* 1428, col. 333 Vassallo (*olim* fr. 19). Also to be included among the ultimate inspirations for the diaeresis concerned with the existence or not of the gods is surely Aristotle’s example of the question types of existence and essence at *APo.* 2.1 89b31–35, ‘we investigate some matters in a different manner, e.g. whether a centaur or a god is (the ‘whether it is or not’ is said *simpliciter*, and not in the sense of ‘whether white or not’). When we know that it exists we inquire what it is, e.g. what is god or what is man’. This general reference to the denial of the god’s existence shows that some sort of *Atheistenkatalog* must have been at the back of Aristotle’s mind. Among the ultimate inspirations for several lemmata of our chapter is Aristotle *Met.* N.4 1091a29–b15, a treatment of the relation between First Principle(s) *per se* and the Good according to various authorities. According to (1) the ancient poets and theologians (i.e. the Orphics, Hesiod, and Homer) and some mod-

ern thinkers—Aristotle means Speusippus, and the Pythagoreans according to some of whom the Principle is the One—τὸ ἀγαθὸν καὶ τὸ καλὸν appears only subsequently in the course of the natural development of things, so is not a Principle. But according to (2) the *sophoi*, e.g. ‘Empedocles and Anaxagoras’, to (3) a ‘mixed’ category ‘using myth only part of the time’, viz. Pherecydes and the Magi, and to (4) ‘some of those who posit unchangeable substances’ and argue that the Good and the One are the same, viz. some of the Platonists, it is a Principle and element (and according to Aristotle belongs with first philosophy).

These *theologoi* and semi-*theologoi*, viz. Orphics, Hesiod, Homer, Pherecydes, and Magi are absent from A’s overview, which is restricted to the views of the *sophoi* and of Pythagoras and the Platonists (for this characteristic secularizing trend cf. above at ch. 1.1, Commentary D(c) and ch. 1.6, Commentary D(d)[38–45]). This also holds for the poets and representatives of Oriental religions analysed by Eudemus (fr. 150 Wehrli) as cited by Damascius *Princ.* 3.162.19–166.7 Westerink–Combès, see Mansfeld (2013a). On the other hand such authorities are still present (and are criticized) in Philodemus *De pietate* (e.g. Mimnermus, Musaeus, Homer, Epimenides, see Henrichs 1975, Texts I and II), and in Cicero (the brief paragraph *ND* 1.42 on the poets in general).

Of *sophoi*, on the other hand, we have a more than generous attendance in A. We notice a series of Presocratics as well as one of Hellenistic philosophers, namely Cleanthes, Posidonius, Critolaus, Diodorus of Tyre, Zeno Stoicus, Mnesarchus, the Stoics, and Epicurus. In the third place, we have a group consisting of Pythagoras, Speusippus, Xenocrates, and Plato, and perhaps including Aristotle. The Presocratics will have arrived via the Peripatetic tradition. The ultimate sources of the Hellenistic doxai will be the treatises of the authors that are concerned. Runia (1996) 573–574 = M–R 3.370–371, at the end of his detailed commentary on §1, concludes that ‘there are three main strands of tradition ..., the Sceptical, the Epicurean, and the doxographical’. In ch. 1.6 we found a blend of mainly Stoic and (at the end of 1.6.1) Epicurean points of view.

C Chapter Heading

(1) Formulated according to the question type or category of substance and aiming at a definition, just as in a few other cases: ch. 1.1 Τί ἐστι φύσις, ch. 1.3 Περί ἀρχῶν τί εἰσιν, similarly chs. 2.8, 2.10, 2.11, 2.13, 2.32, 3.8, 4.12, 5.3, and 5.17. See above ch. 1.1 at Commentary C. The present formula is paralleled only in Philo (*Fug.* 164) and some Christian authors. Strictly speaking this heading does not apply to §1, where the question types of existence *simpliciter* and *specialiter* are at issue, but only to §§2–25: as Runia (1996) 550 = M–R 3.351 rightly points out, ‘[t]he use of the article is surely deliberate, i.e. the god identified as principle’.

The final phrase of S's heading of *Ecl.* 1.1, 'of what kind of substance is he' (sc. the god, ποίας οὐσίας ὑπάρχει), further clarifies the issue of §§2–25. See also below section D(a)(2).

(2) The often found title, or heading, under which issues like the ones found here are discussed elsewhere is the umbrella form Περὶ θεῶν (*De natura deorum*). This, in fact, is the heading with which the present chapter is referred to in the next chapter, 1.8.1: παρακειμένως δὲ τῷ περὶ θεῶν λόγῳ τὸν περὶ δαιμόνων καὶ ἡρώων ἱστορητέον.

D Analysis

a Context

(1) Ch. 1.7 is the second of the block of three theological chapters, which in its turn is connected with chs. 1.9, 'On matter' and 1.10, 'On idea'. This relation between (the concepts of) God, matter and idea points at a Middle Platonist background. See below at chs. 1.9–1.10, both times at Commentary D(a), and above at ch. 1.3, Commentary D(a) and D(d)§20; also ch. 1.6, Commentary D(a) for the relation with the Stoic φυσικὸς λόγος and Sextus Empiricus on physics. See further M–R 2.1.51, 2.1.69, 2.197–109, and on the relation with the previous chapter dealing with the origin of the concept of God (and on some of the parallels for this combination) ch. 1.6, Commentary A, D(a), and D(c). For the Epicurean link between the two chapters see ch. 1.6, Commentary D(a).

(2) The chapter consists of two large sections that could easily have figured as separate chapters (elsewhere the questions of (a) the existence and (b) the substance or essence of the divine are indeed sometimes treated at some distance from each other, as at Clement of Alexandria *Protr.* 2.24.2 (atheists) and 5.64.1–2 and 5.66 (philosophers)). Cf. below, section D(c).

(3) The second section (§§2–25), which deals with the nature of the divinity, is a counterpart and sort of mirror reflection of ch. 1.3 on the principles, for the principle can be divine and the divinity be presented as a principle, cf. for instance Sextus Empiricus *P.* 3.1–2, who puts active principles and the divine on a par, or the account of the principles in Augustine *C.D.* 8.2.1–3.4. See also on the chapter heading at section C above, and above ch. 1.3 Commentary D(a).

There are even particular instances of this relationship between ch. 1.3 and 1.7. In ch. 1.3 on the principles there are four mentions of gods: 1.3.7[60] Pythagoras 'Intellect the god' (νοῦς ὁ θεός); 1.3.19[136–138] Empedocles, quotation of fr. 31B6: Zeus, Hera, Aidoneus, and Nestis, followed by a physicist explanation of the divine names; 1.3.20[144] Socrates and Plato, 'the god is the Intellect of the cosmos' (ὁ δὲ θεὸς νοῦς ἐστὶ τοῦ κόσμου); and 1.3.23[154], Zeno Stoicus 'the god' (τὸν θεόν). At 1.3.20 (Plato, cf. §31) and 1.3.23 (Zeno) this divine principle is mentioned next to the principle of matter (Zeno), and next to the principles

of matter and Form (Plato). One of the monistic material principles found in ch. 1.3 appears again as a divinity in ch. 1.7, namely at 1.3.3 ~ 1.7.4 (Anaximenes: air), 1.3.5 ~ 1.7.5 (Archelaus: air, in 1.7.5 now accompanied by νοῦς). In 1.3.3 Anaximenes' cosmic air is moreover made to function as an analogue of the soul (itself air as well) that holds us humans together. Such a dual appearance, as principle and as divinity, also holds for the first of Pythagoras' two principles, the Monad, see ch. 1.3.7[58]. For the relation and affinity between principles and divinities see further Sextus *P.* 3.2–12 (γ' περὶ θεοῦ, on god), 3.30–37 (ζ' περὶ ὑλικῶν ἀρχῶν, material principles), and (in the same order as in A) *M.* 9.4–12 (α' περὶ ἀρχῶν φυσικῶν), 9.13–193 (β' περὶ θεῶν). Ps.Galen *HPH* c. 16 (cited above ad fin. at *Testes secundi*) says that like the men of old he will begin with the 'active and material principles' (ἀρχῶν τῶν τε δραστηκῶν καὶ τῶν ὑλικῶν), and he follows them in holding that 'the most active cause of what is and comes to being is the god'. The account of the material principle follows at ps.Galen *HPH* c. 18, a list from Pherecydes to Strato. This order, again, recalls that of S, and of Sextus at *P.* 3.2–37, who likewise says 'the god is the most active principle' (*P.* 3.2).

b Number–Order of Lemmata

(1) P has nine lemmata, S no less than twenty-five. The long lemma §1 is lost in the text of S as transmitted (see above at section A(2)), and he abridges the Aristotle lemma because he intends to cite *De mundo*. The eight lemmata P and S have in common are found in exactly the same order, so the extra lemmata of S may easily be inserted among those of P. Accordingly there is no reason to deviate from Diels' order in the *DG*.

(2) Given the richness of S' collection of doxai and the fact that he appears to have written out the whole of ch. 1.7.224 it is unlikely that one or two lemmata originally in A are missing (cf. M–R 2.1.86), though it remains odd that there is no Xenophanes lemma; see below, section D(d) General points. But at a first glance the order remains opaque from a systematic point of view (see the next section).

c Rationale–Structure of Chapter

The chapter falls into two large main parts, cf. section D(a)(2) above.

(1) The *first* part (the long §1) is concerned with the question type of existence (for which see ch. 1.6, Commentary D(a)); it collects views and arguments against. As we have already noticed it has been thoroughly commented upon by Runia (1996) = M–R 3.343–373. The first part of this first section (§1[2–26 ἐναντίον]) is concerned with the question type of existence *simpliciter*, and collects views and arguments against by presenting the views of Diagoras and other

atheists. Its second part (§1[27 καὶ γὰρ Πλάτων–58]) is concerned with a subsidiary question of existence, namely that of the existence of the Demiurge, that is, of a particular type of divinity, and as a corollary with the reality of providence, and collects arguments against both. The Epicurean nature of the arguments in §1[26 καὶ γὰρ Πλάτων–68], which emphasize the carefree life of the anthropomorphic gods to destroy the creationist option, has been recognized. For the question of existence in §1 see above, ch. 1.6 Commentary D(a), and Mansfeld (1999c) 454–462.

(2) The *second* part (§§2–25), which is concerned with the question type and category of substance in the sense of physical body or incorporeal entity, is in many ways a listing of a large number of views that affirm the gods' existence by stating 'what it is', with various further structural features. For this question type see again see above, ch. 1.6 Commentary D(a). It deals with the second subdivision of what according to Augustine's Varro are the *tria genera theologiae* (which comes first at ch. 1.6 [35–36]: διδάσκεται δὲ τὸ μὲν φυσικὸν ὑπὸ τῶν φιλοσόφων). The redactor of the chapter clearly found it important to gather the negative and positive aspects in one and the same overview, thus achieving a satisfactory doxographical diaphonia. This is not an original idea, but goes back to an anterior tradition, for the combination, including names of so-called atheists and an anticipatory note about the differences of opinion among those who accept the existence of the gods, is paralleled at Cicero *ND* 1.2 and worked out at considerable length in Cicero's treatise. See also Sextus Empiricus *M.* 9.49–57 arguments contra and *M.* 9.60–136 in favour, and the standard atheists at Clement of Alexandria *Protr.* 24.2 plus the (according to Clement atheist) philosophers from Thales to Empedocles at *Protr.* 64.1–3. See also above, sections C and D(a)(2), and ch. 1.6, Commentary D(a).

(3) *Diaeresis*. It is of undeniable importance (and in fact a most satisfactory piece of evidence in favour of our analysis of doxographical structure) that Philodemus, looking back upon his dialectical-doxographical discussion and at its introduction at the (for us lost) beginning of his account, explicitly calls it a *diaeresis*: *Piet.* col. xv.13–23 Henrichs (Greek text above as first Philodemus text at *Testes secundi*): 'Now this part of the diaeresis that has been formulated at the beginning has been completed as well, it would be opportune to continue with the doctrine of piety according to Epicurus'.

(3) *Successions and order according to contents*. At a first glance no dominating diaeresis or diaphonia is clearly visible in the lemmata order of the second part of our present chapter, §§2–25. This is because systematic criteria have been combined with one belonging with the Successions order, just as in ch. 1.3, where see at Commentary D(c) and D(e), also for later parallels and earlier tradition, and as in ch. 4.3, cf. below at section D(c). The list ends with the four

Hellenistic schools and, significantly, Epicurus. Thus, we meet again with the diaeresis to be discerned in the earlier ch. 1.3, namely a division according to number (monists as distinguished from pluralists)—here *of divinities*, not of the principles of physical theory, although, as we have seen above at D.(b), in several cases the divinities of the later chapter are the same as the principles of the earlier chapter.

In our present chapter we also find arrangements according to a diaeresis (or listing) according to affinity (e.g. of substance), a structural feature found in numerous other *Placita* chapters. See for example §§1.7.5–7 on god as Intellect, §§1.7.11–12 on Intellect, or §§1.7.4–5 on air.

(5) *Monists and pluralists*. Furthermore, just as in ch. 1.3, we have monists and pluralists. The monists are: §2 Thales, §3 Anaximander, §4 Anaximenes, §5 Archelaus, §6 Anaxagoras, §7 Democritus, §8 Diogenes, Cleanthes and Oenopides, §10 Posidonius, §11 Speusippus, §12 Critolaus plus Diodorus of Tyre, §13 Heraclitus (if we may assume that his ‘everlasting fire’ and ‘reason’ are the same), §14 Zeno Stoicus, §15 Mnesarchus, §16 Boethus, §17 Parmenides, §18 Melissus and Zeno Eleaticus, and §20 Polemon. The pluralists are: §9 Pythagoras, §19 Empedocles, §21 Xenocrates, §22 Socrates and Plato, §23 Aristotle, §24 the Stoics in general, and §25 Epicurus. Just as in ch. 1.3 this numerical diaeresis has been modified to a certain extent by a secondary application of the Successions principle. For the continuous series of monists at §§2–20 is interrupted twice, namely by the pluralist doxai of §9 Pythagoras and §19 Empedocles. The continuous series of pluralists at §§19–25 is interrupted once, namely by the monist doxa of §20 Polemon.

(6) *Successions*. Like ch. 1.3, but this time without stating this *disertis verbis*, the second part of our chapter begins with the five lemmata belonging to the early Ionian Succession: §2 Thales, §3 Anaximander, §4 Anaximenes, §5 Archelaus, and §6 Anaxagoras. The same five as in the earlier chapter, but we note that the standard sequence Anaxagoras–Archelaus has been inverted. In a subdiaeresis according to affinity of substance Archelaus’ air in §4 joins up with Anaximenes’ air in §3. Since the chapter deals with theology Anaxagoras, elsewhere a pluralist according to the number of his material principles or because he is presented as having two principles, Intellect and matter, can be made to figure here as a monist with his single divine Intellect.

A few fragments of Successions are also distributed over the chapter. We may first mention a Stoic faction (part of the Ionian Succession) consisting of §14 Zeno, §15 Mnesarchus, and §16 Boethus. This little list also deviates from the standard order, as Boethus is a pupil of Zeno (but perhaps there is a confusion of sorts with another and later Boethus). Other Stoics are found scattered elsewhere: Cleanthes at §8 appears in the company of Diogenes (of Apollonia

rather than the Stoic Diogenes of Babylon, see below section D(d)§8) and the earlier scientist Oenopides, collected in a single doxa because they are made to claim the World Soul is God. Posidonius at §10 appears to be on his own after §9 Pythagoras, but in fact is part of a sequence of doxai also listed according to affinity: §§2–12 are concerned, in various ways, with Intellect (Νοῦς), while §8 on the World Soul is an foreign element that seems less awkward because the next lemma, §9 Pythagoras, interrupts the monistic sequence too, albeit for another reason, namely its pluralism.

Pythagoras, although a pluralist, had to be moved up because he is the archegete of the Italian Succession, just as happened in ch. 1.3, and exactly as in ch. 1.3 so also here the pluralist doxa of the Pythagoras lemma infiltrates a series of monist doxai.

The three Stoics of §§14–16 are followed by a group belonging to the Italian or Eleatic Succession never explicitly mentioned in the *Placita*: §17 Parmenides and §18 Melissus plus Zeno, where (just as at Diogenes Laertius *V.P.* 9.24–25) the later Melissus is placed before Zeno, traditionally Parmenides' immediate pupil—but Zeno is claimed to have the same view as Melissus. The diaphonic contrast between Parmenides and Melissus goes back to the well-known distinction first formulated by Aristotle (*Met.* A.5 986b18–21). The monist Democritus at §7 (monist, like Anaxagoras, in view of his theology not his physics), who according to the standard Italian/Eleatic order of Succession should have followed in the company of other Atomists after §18 Melissus, is placed before the pluralist archegete of the Italian Succession, namely Pythagoras at §7. In §12 the Peripatetic Critolaus is accompanied by his obscure pupil Diodorus of Tyre (Ionian Succession), and these later Peripatetics, qua monists, come before Plato and his followers. Plato at §22 is appropriately followed by §23 Aristotle (archegete of the Peripatetic branch of the Ionian Succession), but the Early Academics Xenocrates at §21 and Speusippus at §11 are placed before §22 Plato, while Speusippus, who in the standard Academic section of the Ionian Succession is found between Plato and Xenocrates, is placed here so far before Xenocrates that the traditional link between master and follower has been severed. This could happen because as a monist he stayed where he was. Polemon at §20, who according to the standard Succession order should have followed somewhere after §21 Xenocrates, is placed before this paragraph, and this happens because he, too, is a monist. That three Stoics are placed before three Eleatics shows that the sequence is not chronological throughout, as was of course already clear from the position of §9 Pythagoras after §7 Democritus and §8 Diogenes Cleanthes Oenopides, a combination of name-labels that is also interesting qua mix of individual elements of Successions. Nevertheless §24 the Stoics plus §25 Epicurus may have been placed after §23 Aristotle for

chronological reasons; the latter perhaps also because his singular and even in part opaque views are (as happens also elsewhere in the *Placita*) at home in the final position. We note moreover that both in Philod. *Piet.* col. xv.23 Henrichs (according to the announcement) and Cicero *ND* 1.43–56 the doxography is followed by an exposition of Epicurus' theology—standard procedure: discussion of one's own view, as in Aristotle, being preceded by a dialectical-doxographical discussion.

(7) *Immanence and transcendence.* The majority of the gods of the philosophers listed here are immanent entities. The doxographer takes some care to show that the monistic principles are not (as in ch. 1.3) mere physical elements, for there is something special about them this time. In the case of Thales (§2) and Anaximenes (§4) the gods inhabit the elements they are connected with in a subtle manner, as special 'powers' or 'qualities' (δυνάμεις). See above, ch. 1.3, Commentary D(c)(5). The presence of the divine in water in the Thales paragraph actually recalls the account of Stoic cosmogony at Diogenes Laertius *V.P.* 7.135–136 (*SVF* 2.580). This device resembles the doctrine attributed to Xenocrates in the second part of §21, where we moreover read that he bequeathed his credo to the Stoics. That the (variously named) divinity inhabits the elements is indeed a well-known and common Stoic view, as is moreover attested at §24[125–127]. The gods may also be *recherché* elements, as with Critolaus and Diodorus of Tyre (§12, 'an Intellect (derived) from impassive ether') and Boethus (§16, 'the ether'), or sophisticated material compounds, as with Zeno (§14, 'the fiery Intellect of the cosmos'), Posidonius (§10, 'an intelligent and fiery Spirit'), and the Atomists (§7 Democritus, 'fire with spherical form', and §25 Epicurus 'the fine particles of which the nature of their images consists'). Or they are linked in subtle ways with the world as a whole qua soul of the cosmos (§8 Diogenes, Cleanthes and Oenopides), or as its Intellect (§2 Thales, §14 Zeno again).

One also encounters entities that are in some sense transcendental, or metaphysical, as one would expect in a general theological context, for in several lemmata, namely §9 Pythagoras (probably), §21 Xenocrates, §22 Socrates and Plato, and §23 Aristotle, we have theological tenets that (at least in some cases) are at home in what Aristotle and Theophrastus called 'first philosophy'.

(8) *Diaphoniae.* There is a striking diaphonia between §5 Archelaus, according to whom 'the Intellect does not make the cosmos', and §6 Anaxagoras, according to whom this 'Intellect makes the cosmos' (thus also §22 Socrates/Plato). The somewhat paradoxical result is also that here denial comes before affirmation, but perhaps the a-chronological suggestion (in agreement with the criticism of creationism in §1) is that the doxa of Anaxagoras corrects the doxa

of Archelaus. There is also a diaphonia between §11 Speusippus and §22 Plato, for according to this *Plato interpretatus*, as we saw, the Good is predicated of the first Principle.

d Further Comments

General Points

A famous theologian who is conspicuously absent and often present elsewhere (and not in the *Placita* alone) is Xenophanes. It is hard to find an explanation, especially given his prominent presence in the Ciceronian account (*ND* 1.28). The name-label occurs 19 times elsewhere in the treatise, 10 of which are found in Book 2.

Individual Points

§1 Throughout this long passage on the atheistic position there are considerable divergences in the text between P^B and P^E. Diels generally follows P^E. In the absence of confirming evidence (P^{GQ}), we have retained P^B. On this paragraph as a whole see the commentary of Runia (1996), Baltes (2000) 93–99 and Sedley (2007) 141–144.

§1[2] P^G, against all the other representatives of P's tradition as sources for the text, including E (for the latter see above section A), has the correct version of the ethnonim for Diagoras: Μῆλιος. *Pace* Frede (1999b) 141–142 and others we maintain that this indicates a superior manuscript tradition represented by G's *exemplar*, as already posited by Diels *DG* 14, just as in other cases where G has preserved a correct reading or even saved an entire lemma lost elsewhere in the Byzantine tradition (sometimes confirmed by the Antinoopolis papyrus, still unknown to Diels because first published by Barns and Zilliacus 1960–1967, cf. M–R 1.150, 126–130). In the majority of cases other parallel texts have Μῆλιος not Μιλήσιος. Fourteen erroneous names in Diogenes Laertius deriving from the 'misinterpretation of the abbreviated word' (e.g. Heraclides for Heraclitus, also found elsewhere) have been collected at Mejer (1978) 25–27. For such misspellings or misreadings compare for instance below ch. 4.2.7, where for P^B's correct Δικαίαρχος T reads Κλέαρχος and Nem pp. 17.5, 17.10, and 22.19 has Δείναρχος. Not too much should be made of this sort of error, although the tradition of the better witnesses should in principle be preferred, even if wrong. But in view of G's reading we have of course not done so here.

§1[7] *P.Oxy.* 1011 confirms that Callimachus' original reading was Παρχαῖον, as earlier conjectured by Bentley. The question here, however, must be what stood in A's text. Unfortunately there is no other evidence than P^B. His reading, which makes reasonable sense in the context, is also found at *Scholia ad*

Iohannis Tzetzae Allegorias Iliadis ad Il. 4.37, p. 609 Matranga (see Pfeiffer *ad loc.*). Against all the editors, we retain the reading in P^B. In the following line, however, there is little doubt that the reading must be ψήχει, as found in P^Q and Sextus Empiricus, against P^B's reading.

§1[21] For φησιν cf. above ch. 1.3, Commentary D(d)§3.

§1[24–26] That the gods, esp. Zeus, are able to make the straight crooked and conversely, and so on, is a wide-spread belief, for which see e.g. Hes. *Op.* 3–7 with West (1978) *ad loc.*, and below at §1[42–51]. What we have here are counter-examples derived from Aristotle's *Categories*.

§1[25] τόν is the *lectio difficilior* here, but in the logical context τό is to be preferred.

§1[27] Πλάτων ὁ μεγαλόφωνος is ironical (cf. Hermias *Irrisio* 11, ps.Justin *Cohortatio* 31 p. 68.7 Marcovich), but a reference to his 'loud and clear voice' can also be complimentary, see the Themistius passage quoted section E(b)§1[27–34], and Eusebius *PE* 13.20.7. The parallels in Hermias and ps.Justin are striking and surely derive from the same tradition, though not necessarily in this case from P or even A; see our comment on ch. 4.2 Commentary A(5).

§1[27–51] See the commentary of Baltes (2000) 94–99, who however over-emphasizes the Epicurean background of this section.

§1[30–33] A similar comparison between Plato and Anaxagoras is also found in Eusebius *PE* 10.14.12 and 14.14.9, where the former's ἐκ τῆς ἀταξίας εἰς τάξιν is attributed to the latter in a garbled quotation of the opening sentence of his book. Conversely, the doxographical Anaxagorean phrase [31] αὐτὰ διεκόσμησε becomes the [34] διεκόσμησε ταῦτα of Plato's Demiurge.

§1[35] κοινῶς οὖν ἀμαρτάνουσιν ἀμφότεροι: for ἀμαρτάνειν and explicit dialectical argument in the *Placita* see above at ch. 1.2, Commentary D(d)(3). The originally Aristotelian term survives in an Epicurean context.

§1[42–51] Zeus may be credited with turning an opposite into its opposite, as for instance in the proem of Hesiod's *Erga*, cf. above at §1[24–26]. The point of the present argument is that this does not hold for all pairs of opposites.

§2 As Pietsch–Lakmann (2006) 240–241 point out, the theology ascribed to Thales contains *in nuce* numerous views attributed to later philosophers.

§3 Here, and also in §17 and §21 it may be suspected that the *verbum dicendi* ἀπεφήνατο has been added by S (cf. M–R 1.232–234). But note §24, where ἀποφαίνονται is read by both P and S. It is safer to leave the text as it stands. There can also be no doubt that S and P^G, supported by P^Q, have the superior reading ἀπείρους.

§4 ἐπὶ τῶν οὕτως λεγομένων can be understood as either neuter or masculine, i.e. statements about the gods or the gods themselves. We have followed Torraca in opting for the former.

§7 The confused *doxa* is to be explained as based on the view that the Democritean soul consists of fiery and spherical particles (Aristotle *de An.* 1.2 403b31–404a3) and that according to *de An.* 1.2 404a27–30 (68A101 DK) and A ch. 4.5a.2 below Democritus held that there is no distinction between ψυχή and νοῦς.

§§7–8 P, or perhaps rather a copyist of an archetypal version, has combined §7 with the second part of §8, in a similar way as at ch. 4.7.1–2. Cf. Diels *DG* 63–64.

§8 Though it may be questioned (Laks 2008, 237) whether Diogenes of Apollonia is meant or the Stoic Diogenes of Babylon, the former is virtually certain in view of the parallel at Cicero *ND* 1.29 (Diogenes of Babylon is mentioned *ND* 1.41) and, presumably, Philodemus *Piet.* 6b Gomperz, fr. 18 Schober. If this is right, his view of air as the conscious first principle has been upgraded. Zeller in Zeller-Wellmann (1909) 50 n. creates a Stoic Oenopides *ex nihilo*, but there is no reason to doubt the presence of Oenopides of Chius here (he is also mentioned at chs. 2.12.2 and 2.32.6), victim of a similar upgrading. The lemma unites individuals with various backgrounds, which is far from unusual in the *Placita*. For Cleanthes see below at §§14–16.

§§9–11 There is a clear diaphonia between §9 Pythagoras and §11 Speusippus: according to the former ‘of the principles the Monad is the deity and the Good, which is the nature of the One and *identical* to the Intellect’, while according to the latter ‘(the deity is) the Intellect which is *not identical* to the One or the Good, but has a nature of its own’ (our emphasis). Clearly, this Neopythagorean Pythagoras is so to speak retroactively included among those authorities who (as formulated at Aristotle *Met.* N.4) declare the Principle and the Good to be the same. But Speusippus, as in Aristotle, fails to make his deity the primary Principle, clearly locating it somewhere else. Dillon (2003) 63 writes that Speusippus ‘highest principle’, namely ‘the One’ from which the Intellect is distinguished, is in §22 ‘inaccurately given also the Platonic title of ‘the Good,’ but this is missing the contrast with the Pythagoras of §9. Tarán (1981) 376–379, in his discussion of 1.3.11 (fr. 58 of his Speusippus), adduced ch. 1.7.22 (Plato) and 1.7.21 (Xenocrates), but likewise forgot to cite 1.7.9 (Pythagoras), and also failed to look at *Met.* N.4. Our suggestion is that Speusippus’ Intellect, or god, is here claimed to be below the One on the one hand but beyond the Good on the other, the Good only being operative on the level of cosmic Soul (in which this Intellect presumably dwells); for similar suggestions see Reydam-Schils (2013) 33–35. This explains why we find Speusippus among the for the most part Presocratic theological immanentist monists in the early part of the chapter, quite far from his Academic colleagues. This position at the beginning copies (or is at least analogous to) that in Aristotle’s diaeresis in *Met.* N.4. See also below at §21[94–97].

§9 This paragraph looks like a rather faithful paraphrase (with appropriate emphasis on the theological and even moral aspect) of ch. 1.3.7[58–61] on the principles, or from its source, cf. Lachenaud (1993) 223. See above ch. 1.3 Commentary D(d)§7. But that the Dyad is evil is not paralleled in the earlier chapter. The two principles as god and daemon, or good and evil, can only be exactly paralleled in accounts of Persian dualism, see section E(b)§9. For partial antecedents of this kind of interpretation in Aristotle, who has good and bad at position nine under respectively limit and unlimited in the Pythagorean *systoichia* at *Met.* A.5 986a26 (cf. *EN* 1.4 1096b5–6 and *EN* 2.5 1106b29–30), see below section E(b)§7, Mansfeld (1992b) 269–270 and Donini (2011) 263–265. Eudorus fr. 3 Mazzarelli on the principles and elements says the second One (the One qua element) is ‘good’ (ἀστειον) and the entity opposed to it ‘bad’ (φᾶνλον), at Simplicius in *Phys.* 181.13–14. Cf. below section E(b)§9.

§9[71] ἐστὶν δὲ καὶ ὁ ὁρατὸς κόσμος: a version of this final phrase is found in both P (that is, in P^B, and P^G, who conflates and alters the meaning—P^E omits it) and S. So it is wrongly bracketed by some editors here because this time extant only in P; Lachenaud rightly keeps it.

§10 Posidonius’ *pneuma* is paralleled in the doxa attributed to the Stoics in general at §24[125–127] below, πνεῦμα μὲν ἐνδιήκον δι’ ὅλου τοῦ κόσμου, τὰς δὲ προσηγορίας μεταλαμβάνον διὰ τὰς τῆς ὕλης, δι’ ἧς κεχώρηκε, παραλλάξεις.

§11 The innovative way Plato is depicted in §22 should make us disinclined of taking §11 Speusippus, §21 Xenocrates and §20 Polemon *au pied de la lettre* and as absolutely reliable information. Too much has been made esp. of the cryptic Polemon doxa, see Reydam-Schils (2013) 40–44.

§13 ἐκ τῆς ἐναντιοδρομίας can be understood from Diogenes Laertius *V.P.* 9.7 διὰ τῆς ἐναντιοτροπῆς and is ultimately derived from fr. 22B51 DK παλίντροπος ἁρμονίη.

§§14–16 + §24 (and §8) The dissimilar doxai of the three Stoics Zeno, Mnesarchus and Boethus at §§14–16 are the result of a forced selection that enables the doxographer to present them as monists. This also holds for Cleanthes at §8. According to Cicero *ND* 1.36 (cited above at section E(b) General texts) Zeno also identified God as the ‘law of nature’, the ‘aether’ (here attributed to Boethus at §14), the ‘reason that pervades all nature’, and he further declared that the stars, the years, the months, the seasons and the elements are divine. For Boethus another view is attested at Diogenes Laertius *V.P.* 7.148 (*SVF* 3 Boeth. 3), namely that the sphere of the fixed stars is God. For Mnesarchus we have no other information, but his view that the cosmos is God is widely paralleled in Stoic sources, and so also here at §24[127] below. Zeno’s νοῦν κόσμου πύρινον is about equivalent with the νοερὸν θεὸν ... πῦρ τεχνικόν of §24[123].

§§17–18 The metaphysical firsts of Parmenides and Melissus (and Zeno) cannot serve as physical principles. Therefore they are absent in ch. 1.3, but they can be made to function as gods. The lemmata T CAG 4.5–9 cited in ch. 1.3 at Commentary E(a) (Ti Xenophanes, Tii Parmenides, Tiii Melissus) were excluded from the reconstruction of that chapter, see above ch. 1.3, Commentary D(b). Ti and Tii list physical principles next to these sterile firsts, telling us explicitly that Xenophanes was inconsistent and ‘forgot about’ his ‘immobile one and all’, and that Parmenides followed in his master’s footsteps.

§19 We have introduced some conjectures *ad probabilem sententiam* in a text that otherwise would be virtually incomprehensible. It is of course certain that the name-label ‘Empedocles’ has fallen out. Wachsmuth’s conjecture <Ἐμπεδοκλῆς τὸν σφαῖρον καὶ> τὸ ἓν perhaps assumes that a single line is missing. It is remarkable that Diels in the *DG* does not include a conjecture in S’s text. His attempt in the first edition of *VS* assumes *saut du même au même*. But the placement of τὸ ἓν at the end of §18 is quite awkward, and Wachsmuth’s conjecture has the advantage of allowing the phrase θεὸν εἶναι to be understood, as in most other doxai. But so does the reading we have adopted. Conjecturally interpolating the Σφαῖρος further down and eliminating the difficult κόσμον makes better sense as well. But perhaps we should have left the text as it is and reserved the emendations for the apparatus, so also have kept πρὸς {τ} ἀναλυθήσεται. Zeno is here included by S, while he omits him at ch. 1.24.1.

The interpretative presentation of Empedocles combines ingredients from *Peri physeos* and *Katharmoi*, just as at ch. 1.26.1 below, q.v. Here at 1.7.19 the One qua Necessity (ἀνάγκη) rules the four Empedoclean elements as its matter, of which Love and Strife are the forms, while at 1.26.1 Necessity (ἀνάγκη) is a cause that is able to use the principles (namely Love and Strife) and the elements. Originally this Necessity is that of the *Katharmoi* fragments 31B115 and B116 DK, which determines the fate of guilty *daimones* (according to the later tradition these are souls, as in our lemma), and is not in the same way involved with the cosmic cycle of the elements directed by Love and Strife of the *Peri physeōs*. The formula [92] καθαροὶ καθαρῶς can only be precisely paralleled in Christian authors (14 times), e.g. Cyril *in Jo.* 1.158.3 Pusey ἵνα λοιπὸν καθαροὶ καθαρῶς τὸ θεῖον ἐπαθρεῖν ἰσχύσωμεν κάλλος, and obviously has a religious ring. The slightly different formula καθαρὸς καθαρῶς, said of humans who lead an ethically responsible life (no doubt in the sense preached by the *Katharmoi*), can be part of a hexameter. The background may be ‘Orphic’ and so even genuinely Empedoclean, as Bignone (1916) 330 n. 7 argued. Cf. *Lamellae aureae* Orph. frs. 489.1 F–490.1 F–491.1 F Bernabé ἔρχομαι ἐκ καθαρῶν καθαρὰ, χθονίων βασιλεια. In our text we have added quotation marks to indicate that the phrase, reminiscent of the title, sounds like a verbatim fragment of the *Katharmoi*.

This interpretation of Empedocles is also found in the main source of fr. B115, Hippolytus *Ref.* 7.29, and in later authors such as Philoponus and Simplicius. See O'Brien (1981a) 14–20, 73–92, and 111–115 (list of sources for 31B115), and Mansfeld (1992b) 208–221, 262–266.

§§20–21 See at section D(d) on §11 above.

§21[94–97] Dillon's hypothesis (2011) 31–34 that the contents of this divine Intellect are the Ideas is hard to substantiate, also in view of the fact that the, or a, divine Intellect (νοῦς) is attributed in no less than 11 paragraphs of the present chapter, namely in §2 even to Thales (as already in Cicero *ND* 1.25), in §5 to Archelaus in the company of §6 Anaxagoras where it does not surprise, in §7 surprisingly to Democritus. Then in §9 to Pythagoras, in §11 to Speusippus, and in §21 to Xenocrates (see above at §§9–11). Next in §12 to our surprise to Critolaus and Diodorus of Tyre and somewhat to our surprise in §14 to Zeno the Stoic (as in §24 to the Stoics in general), and finally in §22 to Plato.

§21[98–99] The identification of the Dyad with the World Soul is difficult to explain. For the generous supplement of Dillon (1986) 49 see the apparatus criticus. Translated by Dillon (2003b) 103: 'the other, as female, (holding the rank of) Mother of the gods, (which he terms 'Rhea' and 'even' (*artios*) and 'matter' (*hyle*); and as offspring of these he postulates) Dike, ruling over the realm below the heavens'.

§21[102] The reading ἀειδοῦς can be retained if it is additional to the reference to Hades rather than having supplanted it.

§21[104–105] For a probable *interpretatio stoica* of a representative of the Old Academy (in the manner of Antiochus) see Reydam's-Schils (2013) 36–37, who somewhat cavalierly attributes this to 'the doxographer'.

§22 The first divinity described here is quite different from the first member of the triad of Timaeus physical principles 'God, matter, and ideas' at ch. 1.3.20 above, for this time the deity is

the One, the single-natured, the monadic, the true Being, the Good. All such names refer to the Intellect. The deity, then, is an Intellect, (that is,) a separate Form; by 'separate' let that be understood which is free of all matter, not entwined with any of the bodily entities, and also not sharing affection with anything in nature that is passible.

We note that matter is still mentioned alongside the One. According to Baltes at Dörrie–Baltes (1996) 441 this metaphysical doxa of §22 recalls Theophrastus' attribution of two principles to Plato. Moreover it 'könnte ja durchaus letztlich auf eine zusammenfassende Darstellung der Lehre Platons durch seinen Hauptinterpreten in der alten Akademie, Xenokrates, zurückgehen'. Theo-

phrastus indeed already combined the Demiurge qua Intellect and good with the Good (of the *Republic*). However, what we have in §22, we believe, is a doctrine based on a combination of ingredients that has gone through a metaphysical filter inspired by Aristotelian theology, ultimately deriving from (1) the *Republic* (the Good of 509b, though no longer ἐπέκεινα τῆς οὐσίας), (2) the *Timaeus* (the Demiurge and the cosmology), and (3) an early metaphysical interpretation of the *Parmenides* (the ‘One that is’ of the first hypothesis), namely a principle of unity transcending all plurality. See Van Riel (2013) 103–117.

That this divinity is in some sense of the word ‘transcendental’ is beyond doubt. Yet it is at the same time said to be ‘Father and Maker’, a formula predicated of the Demiurge at *Tim.* 28c (where he also turns out to be ‘difficult to find and impossible to reveal to all’, so bets are hedged and interpretations invited). This demiurgic god accompanied by matter and what is passible also reminds one of the pair of Stoic first principles, God and matter, just as of the two principles, ‘Soul’ and ‘body’, of *Epin.* 983d, a dialogue today generally attributed to Philip of Opus, but in antiquity in the first place to Plato himself and so included in the *corpus Platonikum*.

According to the not unreasonable view of some later Platonists transcendence and demiurgic activity are incompatible, which entails splitting up the divine, as in Alcinous *Did.* c. 10 and Numenius e.g. frs. 11 and 20 des Places: the transcendental god is distinguished from the Demiurge. Atticus and the sources of Diogenes Laertius *V.P.* 3.69 and 3.76 and Hippolytus *Ref.* 1.19.6–7, however, do not make this distinction. The remainder of the lemma here, where our attention is directed towards the demiurgic activity, is also quite Timaeian, though providing interesting details of later origin. The formula νοητὸς κόσμος, ‘intelligible world’, is first attested in Philo (see Baltes 1972, 105–106, Runia 1999, 154–156), and then in the present passage. In our paragraph it comments on and explains the opaque formula ‘intelligible divine offspring’, θεῖα ἔγγονα νοητά, with which it is equivalent. Hence the explanatory particle τε, misunderstood by editors: we do not need Usener’s supplement (καὶ αἱ ἰδέαι), because νοητὸς κόσμος followed by ‘models of the visible cosmos’, παραδείγματα ... τοῦ ὁρατοῦ κόσμου, is sufficiently clear. It would even seem that the term ἰδέαι is avoided; at least we are not prevented from thinking of numbers as constituting the furniture of the intelligible world. These Ideas or numbers are the intelligible offspring of the Mind qua Father and Maker and no longer something beyond him as in the *Timaeus*, while the sensible offspring of this first god, πρῶτου θεοῦ, are the sun, moon, stars, earth and the ‘the all-embracing cosmos’. For the former we may perhaps think of the Mind and thoughts of a World Soul, while the latter correspond with Plato’s own view of the matter but also with the doctrines of the *Epinomis* and of Xenocrates (see §21), and with the ‘young

gods' of *Tim.* 42d. In between we have incorporeal *logoi* or powers inhabiting aether, air and water, which very much resemble Xenocrates' elemental divinities at §21 and the Stoics' at §21 and §24 (and at ch. 1.3.23). In the first place however, and rather precisely, these recall the aetherial, aerial and aqueous divinities inhabiting precisely aether, air and water of ps.Pl. *Epin.* 984b–985c. These aetherial and aerial beings are invisible to us and fulfil the role of *daimones* as intermediaries between stellar gods and humans, while the aqueous one are visible only intermittently. All in all a quite 'Early Academic' picture of Plato.

This exposition has early Middle Platonic features, but the absence of explicit levels of θεός cause it to differ from second century Platonist theology.

For parallels in Philonic passages (the Good, the Intellect, the Father and Maker, the intelligible world, the powers) see Runia (1999b) and esp. (2002).

§22[106] For Σωκράτης καὶ (deleted by Diels and others) see above ch. 1.3, Commentary D(d)§20[1–3].

§22[110] There is no need to alter ἔχγονα here and in l. 11, since it is often equivalent to ἔγγονα in later Greek (cf. LSJ ad loc.).

§22[113] Wachsmuth's conjecture ἔμπυροι καὶ is unnecessary if a Platonic four-element-universe is assumed.

§22[113–114] It is possible that the words τοῦ πρώτου θεοῦ ἔγγονα are a gloss as determined by Usener and followed by Wachsmuth. In this case αἰσθητὸς ὁ δὲ in the mss. need only be changed to αἰσθητὸς δὲ. But the words make sense in the context, referring back to ll. 6–7, so we follow Canter and Diels in emending to αἰσθητὰ δέ.

§22[114] For κόσμος 'heaven' see above, ch. 1.6 Commentary D(d)§1[7–29], and below, ch. 4.21 Commentary D(d)§1[23–24].

§23 For S's ὁμοίως Πλάτῳ cf. ch. 1.27.3 Πλάτῳ ἐμπερὶ (also the only parallel for a name-label in the dative). The interpretation of Aristotle is that of later sources such as AD cited section E(b)§23. See further Sharples (2002) 14–16.

§23[116] The formula ὁμοίως Πλάτῳ, substituted by S (or an intermediate hand interested in the harmony between Plato and Aristotle) for χωριστόν, is paralleled *Doxography A* at Stob. *Ecl.* 2.7.4a, p. 56.9, and Proclus in *Tim.* 3.124.25. For ὁμοίως in comparisons between doxai + name-labels cf. A 1.30.2, 2.28.6, for the equivalent συμφώνως cf. ch. 2.29.7 Πλάτῳ Ἀριστοτέλης οἱ Στωικοὶ οἱ μαθηματικοὶ συμφώνως and 5.30.6.

§24 Individual ingredients of the general Stoic doxa are paralleled at §10 and §§14–16 above, paragraphs dealing with individual Stoics, but not at §8 (Cleanthes); see our comments above.

§24[126–127] The text is corrupt in both P^{BE} and S, but the readings in P^G and Athenagoras make Beck's emendation at least probable.

§25 Usener fr. 355 rejects and others (e.g. fr. 257 Arrighetti²) omit the opaque sentence [131–133] ὁ δ' αὐτὸς ... καὶ στοιχεῖα. As to the text it may seem difficult to decide between ἄλλας and ἄλλως, but ἄλλας is better attested and the adverb is rare in A (only found elsewhere in ch. 1.12.3), so the former is to be preferred. Another problem is the antecedent of αὐταί, as we must choose between (τέσσαρας) φύσεις and ὁμοιότητας. Though farther away φύσεις will be the better choice, since in what sense the 'similarities' can be called elements is unclear. The first three of the four 'natures' can appositely be called elements, and that 'similarities' may be called by the name of *homoiomereiai* is not entirely unimaginable. If we assume that the opaque sentence pertains to the gods (it is after all part of a paragraph and a chapter dealing with the gods), we may presumably associate these *homoiomere* with the *quasi corpus* and *quasi sanguinem* (or *tamquam corpus* and *tamquam sanguinem*) attributed to the Epicurean gods at Cicero *ND* 1.49 (cited section E(a)§25) and criticized *ibid.* 1.66, 1.71, 1.73, 1.74, and 1.77. (For the meaning of *quasi corpus* cf. also Cicero *Tusc.* 1.20 *Xenocrates animi figuram et quasi corpus negavit esse ullum, numerum dixit esse.*) The gods like all other compounds consist of the 'imperishable' 'atoms and void'; they are moreover located in the 'imperishable' 'infinite'. And according to Cicero *ND* 1.48–49 (but the meaning and *constitutio* of this passage are disputed) they are sustained because 'an infinite likeness of most similar images derives from the innumerable atoms and streams towards the gods'. Cf. *Scholia in Epicurum RS* 1 (also cited section E(a)§25), 'he says that the gods are seen by reason, on the one hand as existing individually, on the other as existing with formal unity (καθ' ὁμοείδεια) from the continuous influx of the similar images (τῶν ὁμοίων εἰδῶλων) to the same place'. We may associate the ὁμοιότητας and ὁμοιομέρειαι and ὁμοείδειαν and ὁμοίων εἰδῶλων with this *simillimarum imaginum species*, the preformed ingredients that are like (Cicero says: 'most like') the parts of the gods themselves.

This entails a *retractatio* of part of the argument of Mansfeld (1993) 207–208 n. 80. Wigodsky (2004) argues convincingly against a common view that 'similarities' just means 'gods', but, apparently taking ὁμοιότητας as the antecedent of αὐταί, argues too philosophically and less convincingly that it means 'natural kinds', and that the atoms, the four elements, and the *homoiomereiai* ('types of compound bodies' according to him) are instances of such natural kinds. He is followed with some hesitation by Montarese (2012) 95–97. Wigodsky (2004) 541 believes that 'Aëtius was wrong to include the list' [sc. the opaque sentence] 'in his entry on Epicurus' theology'. But an interpretation that makes sense of the sentence in the context of a theological chapter is preferable.

e Other Evidence

(1) *Atheists*. Protagoras 80B4 DK famously said that he ‘did not know whether or not the gods exist and what their form (or: type) is’ (περὶ μὲν θεῶν οὐκ οἶδα οὐθ’ ὥς εἰσὶν οὐθ’ ὥς οὐκ εἰσὶν οὐθ’ ὅποιοί τινες ἰδέαν). This often cited fragment anticipates not only the existential question type of existence, but also the distinction between this question and that of the nature, or substance, of the gods. He uses ἰδέα where Aristotle and others use οὐσία. See further above at section B(2),

(2) *Philosophenkritik*. As already said above, the most important parallels for the overview of theological views at A §§2–25 are the remains of the Book 2 of the *Philosophenkritik* of the Epicurean Philodemus’ *De pietate* and Cicero *ND* 1.25–41, in the account of Cicero’s Epicurean spokesperson Velleius, plus, for §1, *ND* 1.117–121, the Academic spokesperson Cotta’s counter-doxography on the atheists including Epicurus. The order of name-labels and doxai in Cicero and (as far as visible and reconstructible) Philodemus is believed to be the same, and divides into three blocks: (1) early Philosophers, (2) from Plato to Strato, and (3) the allegorizing Stoic philosophers, cf. Obbink (2001) 206–207. This tripartition is not paralleled in the *Placita*.

Obbink’s long-awaited edition of *De pietate* Book 2 has not yet been published. We have used the columns of Philodemus next to Cicero’s text in Diels’ edition at *DG* pp. 531–550, the editions of Philodemus by Gomperz (1866), Schober (1923, publ. 1988), Henrichs (1974) and (1975), and Obbink (2001) and (2002), and looked at individual lemmata in fragment editions as well as in the relevant secondary literature. But it is the material based on his recent autopsy of the papyrus put at our disposal by Christian Vassallo that has been crucial.

(3) *Comparison between A, Cicero, and Philodemus*. The following comparison between A, Cicero and Philodemus is based also on Henrichs’ overview comparing Philodemus and Cicero at (1974) 94–95, Schober’s at (1988) 111–112, and Obbink’s at (2002) 196–197 (some name-labels may have gone missing when columns of the *De pietate* were lost):

Cicero and A share 15 name-labels plus doxai, namely, in order of appearance in A: Thales, Anaximander, Anaximenes, Anaxagoras, Democritus, Diogenes of Apollonia (see above at section D(d)§8), Cleanthes, Pythagoras, Speusippus, Zeno Stoicus, Parmenides, Empedocles, Xenocrates, Plato, and Aristotle. The following 12 name-labels plus doxai, again in order of appearance in A, are not in Philodemus and Cicero: Archelaus, Oenopides, Posidonius, Critolaus, Diodorus of Tarsus, Mnesarchus, Boethus, Melissus (though as Vassallo points out a reference may be lost in a lacuna), Zeno of Elea, Polemo, Stoics in general, and Epicurus (the positive account of Epicurus’ theology in another Book of Philodemus *De pietate* and *ND* 1.43–50 is a different matter). Heraclitus, present

in A and Philodemus, is absent in Cicero. The following eleven name-labels plus doxai in order of appearance in Cicero are not in A: Alcmaeon of Croton, Xenophanes, Protagoras, Xenophon, Antisthenes, Theophrastus, Strato, Aristo (Stoicus), Persaeus, and Chrysippus; three of these, namely Alcmaeon, Protagoras, and Aristo are missing in Philodemus. Accordingly the account of Philodemus, as far as legible, contains no name-labels plus doxai that are lacking in Cicero while extant in A, with the exception of a badly legible couple of lines on Heraclitus (but the contents of A 1.7.13 and *PHerc.* 1428 fr. 17 (6a Gomperz) are very different). To be sure, as Christian Vassallo has pointed out to us, the lacunae in Philodemus suggest that name-labels have been lost. But as long as we do not know more, we are unable to go further.

We do not know whether Cicero and Philodemus derive from a shared source, or whether Cicero in the first place followed Philodemus. Diels *DG* 121–128 already discussed the alternatives, and listed some parallels with what he calls the *Vetusta placita*, that is, with the anterior doxographical traditions. He spoke of Cicero's 'conviciandi furor', 'maledicentia', 'convicia', and so on, and of Philodemus' moderation. Cicero's spokesperson is explicit about both sides of the coin, whereas Philodemus sometimes omits to contradict. As McKirahan (1996) argues and is clear from the parallels collected by Diels in the apparatus at *DG* 531–550, Cicero occasionally may also have availed himself of at least one other source. Obbink (2001) again argues in favour of Philodemus as Cicero's source, but not, of course, of his exaggerations; Dyck (2003) 8 endorses. The similarities are indeed striking as well as numerous. One of Obbink's arguments is that when Cicero asked Atticus to lend him Phaedrus' *On gods* (*Att.* 13.39.2), he had already written the Epicurean section of *ND* Book 1 (*Att.* 13.38.1). But it is not certain that the reference is to this work, for *Tusculans* is another option; see Shackleton Bailey (1999) 113 n. 1, who accepts the view of Beaujeu. On the other hand, why, if the reference is to the completion of *ND* Book 1, should he ask for Phaedrus' treatise, if he did not intend to do some more work? Accepting that Cicero used Philodemus *On Piety* does not preclude his consultation of another Epicurean source, or sources, or even of his consultation or recollection of non-Epicurean sources.

We may further note that both Philodemus (at length, *Piet.* cols. 3.12–6.16, 8.14–9.8 Henrichs) and Cicero (briefly, *ND* 1.41) mention Chrysippus' and Digenes of Babylon's allegorical interpretations of the gods, as well as Chrysippus' accommodations of the myths of the poets (cols. vi.16–vii.12 Henrichs); this element is entirely lacking in A 1.7 (cf. above, section B). Velleius in the two paragraphs (*ND* 1.42–43) following his overview of the philosophers strongly criticizes, and totally rejects, the grotesque stories of the poets, the absurd doctrines of the Magi and the Egyptians, and the beliefs of *hoi polloi*. Philodemus

devotes much space to criticizing the views of the early poets and others he cites from the works of his Stoic opponents (*Piet.* pp. 73–110 Schober, coll. 278–306 Vassallo).

A 1.7 §1 with the arguments of the atheists is *de facto* critical both of much of the contents of A 1.6 and of the contents of A 1.7 §§2–25. Philodemus and Cicero's Velleius are critical of the doxai of other philosophers, not, however, in the name of varieties of atheism but in that of refined Epicurean theology. Naturally a parallel version of A's Epicurean doxa is not included in either Philodemus' or Cicero's list of doxai. Even so, we acknowledge the parallelism between the accounts of A on the one hand and those of Philodemus and Cicero on the other, in that all these authors combine exposition with criticism, though in rather different ways.

(4) On the existence–substance diaeresis in sources from Plato to Cicero see also Theiler (1982) 2.255–256.

E Further Related Texts

a Proximate Tradition

General texts: **Philodemus** *Piet.* (*PHerc.* 1428) col. xv.13–23 Henrichs ὥς τε καὶ τοῦ μέρ[ο]υς | τοῦτου τῆς δ[ιαι]ρέ[σεως] τῆς κατ' ἀρχάς | ἐκτ[ε]θείσης ἀπο|χρω-
τω[ς] ἐ[ξ]ε[ι]ργασ|μένου καιρὸς ἂν εἴη{ι} τὸν περὶ τῆς εὐ|σεβείας λόγον τῆς | κατ'
Ἐπίκουρον αὐ|τοῦ παραγράφει[ν]. **Cicero** *ND* 1.1–2 *cum multae res in philo-*
sophia nequaquam satis adhuc explicatae sint, tum perdifficilis, Brute, quod tu
minime ignoras, et perobscura quaestio est de natura deorum. (2) *in hac quaes-*
tione plerique, quod maxime veri simile est et quo omnes {sese} duce natura
venimus, deos esse dixerunt, dubitare se Protagoras (—), nullos esse omnino
Diagoras Melius (T 40 Winiarczyk) *et Theodorus Cyrenaicus* (T 29 Winiarczyk)
putaverunt. qui vero deos esse dixerunt tanta sunt in varietate et dissensione,
ut eorum infinitum sit enumerare sententias. nam et de figuris deorum et de
locis atque sedibus et de actione vitae multa dicuntur, deque is summa philo-
sophorum dissensione certatur; quod vero maxime rem causamque continet,
utrum nihil agant nihil moliantur omni curatione et administratione rerum
vacent, an contra ab iis et a principio omnia facta et constituta sint et ad infin-
itum tempus regantur atque moveantur, in primis {quae} magna dissensio est.
ND 1.61 *quaeritur primum in ea quaestione quae est de natura deorum, sintne dei*
necne sint (~ quaestio). *ND* 1.117–121 *Diagoras* (T 42 Winiarczyk), *Theodorus*
(T 31 Winiarczyk), *Protagoras* (—), *Prodicus* (84B5 DK, T 73 Mayhew), *Euhem-*
erus (T 14 Winiarczyk), *Epicurus* (—). **Philo of Alexandria** *Opif.* 170–171 διὰ δὲ
τῆς λεχθείσης κοσμοποιίας πολλὰ μὲν καὶ ἄλλα ἡμᾶς ἀναδιδάσκει, πέντε δὲ τὰ κάλ-
λιστα καὶ πάντων ἄριστα· πρῶτον μὲν ὅτι ἔστι τὸ θεῖον καὶ ὑπάρχει, διὰ τοὺς ἀθέους,
ὧν οἱ μὲν ἐνεδοίασαν ἐπαμφοτερίσαντες περὶ τῆς ὑπάρξεως αὐτοῦ, οἱ δὲ τολμηρό-
τεροι καὶ κατεθρασύναντο φάμενοι μὴδ' ὅλως εἶναι, λέγεσθαι δ' αὐτὸ μόνον πρὸς
ἀνθρώπων πλάσμασι μυθικοῖς ἐπισκiasάντων τὴν ἀλήθειαν· (171) δεῦτερον δ' ὅτι

θεός εἷς ἐστὶ, διὰ τοὺς εἰσηγητὰς τῆς πολυθέου δόξης, οἱ οὐκ ἐρυθριῶσι τὴν φαυλοτάτην τῶν κακοπολιτειῶν ὀχλοκρατίαν ἀπὸ γῆς εἰς οὐρανὸν μετοικίζοντες. *Spec.* 1.32 (on Stoics, *SVF* 2.1010) δύο δ' ἐν ταῖς περὶ θεοῦ ζητήσεσι τὰ ἀνωτάτω ταῦτ' ἐπαπορεῖ ἡ διάνοια τοῦ φιλοσοφούντος ἀνόθως· ἐν μὲν εἰ ἔστι τὸ θεῖον, ἔνεκα τῶν ἐπιτηδευσάντων ἀθεότητα, κακιῶν τὴν μεγίστην· ἕτερον δὲ τὸ τί ἐστὶ κατὰ τὴν οὐσίαν. τὸ μὲν οὖν πρότερον οὐ πολλὸς πόνος ἰδεῖν, τὸ δὲ δεύτερον οὐ χαλεπὸν μόνον ἀλλὰ καὶ ἴσως ἀδύνατον. **Galen** *Inst.Log.* 2.1 (τῶν δὲ προτάσεων) ἔναι μὲν ὑπὲρ ἀπλῆς ὑπάρξεως ἀποφαίνονται, καθάπερ ὁπόταν εἴπῃς 'πρόνοια ἔστιν' ἵπποκένταυρος οὐκ ἔστιν'. **Aelius Theon** *Prog.* §11, 120.13–18 Patillon–Bolognesi θέσις ἐστὶν ἐπίσκεψις λογικῇ ἀμφισβήτησιν ἐπιδεχομένη ἄνευ προσώπων ὠρισμένων καὶ πάσης περιστάσεως, ὅσον ... εἰ θεοὶ εἰσι. διαφέρει δὲ τοῦ τόπου, ὅτι ὁ μὲν ἐστὶν ὁμολογούμενου πράγματος αὐξήσις, ἡ δὲ θέσις ἀμφισβητούμενου. **Lucian** *Paras.* 11 ὁ γὰρ ζητῶν ... περὶ θεῶν, εἴτε εἰσὶν εἴτε οὐκ εἰσὶ, ... αἰεὶ πολεμῶν καὶ διαφερόμενος πρὸς τινὰς οὐ μόνον ἐν ἀνθρωπίναις, ἀλλὰ καὶ ἐν κοσμικαῖς ἐστὶν ὀχλήσεσιν. **Galen** *Loc.Aff.* 8.158.11–159.3 ὥσπερ δ' ἐνταῦθα φιλονεικίαν αἰσχροῦ ἐπιδείκνυνται προφανῶς, οὕτως ἄνοιαν, ὅταν οἴωνται πάνθ' ἐαυτῶν σαλεύεσθαι τὰ δόγματα, καὶ ἐν ὁτίοις ἐλεγχθῇ· τινὰ μὲν γὰρ ἀλλήλοις ἀκολουθεῖ, καθάπερ γε πάλιν ἕτερα μάχεται, τινὰ δὲ οὐτ' ἀκολουθεῖ οὔτε μάχην ἀναγκαίαν ἔχει, ... δυνατόν ἐστιν αὐτῷ καὶ περὶ τῶν φυσικῶν στοιχείων ἢν ἂν ἐβελήσῃ δόξαν ἐλομένῳ μῆτε μάχεσθαι τοῦτω μῆτ' ἀκολουθεῖν καὶ περὶ ... καὶ περὶ θεῶν. *Inst.Log.* 14.1 ὁ δ' ἐστὶ μέγιστόν τε καὶ πρῶτον ἐφ' ἐκάστου τῶν μὴ φαινομένων αἰσθήσει, τὸ κατὰ τὴν ὑπαρξιν ἥτοι οὐσίαν † γίγνεται μὴ εἶναι ζητήμ' ἐστίν, ἐν ᾧ γε τὰ τοιαῦτα προβάλλεται· ... ἀρὰ γε θεοὶ εἰσὶν; *Propri.Plac.* 2, p. 172.33–173.2 Boudon–Millot–Pietrobelli, text Lami ἔτι δὲ τὰ τοιαῦτα ἀγνοεῖν φημι, δηλονότι καὶ τὸν δημιουργὸν ἀπάντων τῶν κατὰ τὸν κόσμον ὁποῖος τί(ς) ἐστίν, εἴτ' ἀσώματος, εἴτε καὶ σωματοειδῆς, καὶ πολὺ μᾶλλον ἐν τίνι τόπῳ διατρέβων· ἄρ' οὖν καὶ περὶ θεῶν ἀπορεῖν φημι καθάπερ ὁ Πρωταγόρας ἔλεγεν; ἢ καὶ περὶ τούτων, ὁποῖοι μὲν εἰσὶ τὴν οὐσίαν, ἀγνοεῖν, ὅτι δ' εἰσὶν ἐκ τῶν ἔργων γιγνώσκειν. **Sextus Empiricus** *M.* 9.50–51 τῶν οὖν περὶ ὑπάρξεως θεοῦ σκεψαμένων οἱ μὲν εἶναι φασι θεόν, οἱ δὲ μὴ εἶναι, οἱ δὲ μὴ μᾶλλον εἶναι ἢ μὴ εἶναι. καὶ εἶναι μὲν οἱ πλείους τῶν δογματικῶν καὶ ἡ κοινὴ τοῦ βίου πρόληψις, μὴ εἶναι δὲ οἱ ἐπικληθέντες ἄθεοι. *M.* 9.83 πέμπτος (sc. τρόπος, **Aenesidemus** (—)) ... ἐν τούτῳ περιέχεται (καὶ) ... περὶ θεῶν. **Theophilus of Antioch** *ad Autol.* 3.7 θεοὺς γὰρ φήσαντες εἶναι πάλιν εἰς οὐδὲν αὐτοὺς ἡγήσαντο. οἱ μὲν γὰρ ἐξ ἀτόμων αὐτοὺς ἔφασαν συνεστάναι, ἢ δ' αὖ χωρεῖν εἰς ἀτόμους, καὶ μὴδὲν πλεῖον ἀνθρώπων δύνασθαι τοὺς θεοὺς φασιν. Πλάτων δέ, θεοὺς εἰπὼν εἶναι, ὑλικοὺς αὐτοὺς βούλεται συνιστάν. Πυθαγόρας δέ, τοσαῦτα μοχθήσας περὶ θεῶν καὶ τὴν ἄνω κάτω πορείαν ποιησάμενος, ἔσχατον ὀρίζει φύσιν καὶ αὐτοματισμὸν εἶναι φησιν τῶν πάντων· θεοὺς ἀνθρώπων μὴδὲν φροντίζειν. ὅποσα δὲ Κλιτόμαχος ὁ Ἀκαδημαῖκός (—) περὶ ἀθεότητος εἰσηγήσατο. τί δ' οὐχὶ καὶ Κριτίας (—) καὶ Πρωταγόρας ὁ Ἀβδηρίτης (cf. 80B4 DK) λέγων· 'εἴτε γὰρ εἰσὶν θεοί, οὐ δύναμαι περὶ αὐτῶν λέγειν, οὔτε ὅποιοι εἰσὶν δηλῶσαι· πολλὰ γὰρ ἐστὶν τὰ κωλύοντά με'; τὰ γὰρ περὶ Εὐημέρου (fr. 19 Winiarczyk) τοῦ ἀθεωτάτου περισσὸν ἡμῖν καὶ λέγειν. πολλὰ γὰρ περὶ θεῶν τολμήσας φθέγγεσθαι ἔσχατον καὶ τὸ ἐξόλου μὴ εἶναι θεοὺς, ἀλλὰ τὰ πάντα αὐτοματισμῷ διοικεῖσθαι βούλεται. **Alexander of Aphrodisias** *in Top.* 53.2–10 ζητεῖται δὲ καὶ περὶ τῶν τοιοῦτων προβλημάτων ὑπὸ

τί δεῖ τάσσειν αὐτά, εἰ θεοὶ εἰσιν, εἰ ψυχὴ ἐστὶ. καὶ τινὲς μὲν λέγουσι γενικὰ εἶναι πάντα τὰ τοιαῦτα· ζητεῖσθαι γὰρ ἐν αὐτοῖς εἰ τὸ προκείμενον ἐν γένει τῷ ὄντι ἐστίν. ἢ εἴη ἂν ὑπὸ τὸ συμβεβηκὸς καὶ ταῦτα· καὶ γὰρ οἷς οὐ δοκεῖ γένος τὸ ὄν εἶναι, ὅμως ζητοῦσιν οἱ τὰ τοιαῦτα ζητοῦντες εἰ συμβέβηκεν αὐτοῖς εἶναι ἢ τὸ ἐν τοῖς οὖσιν εἶναι. περὶ γὰρ ὑπάρξεως ἀπλῆς ἢ ζήτησις καὶ ἐπὶ τούτων, οὐ περὶ τρόπου ὑπάρξεως· ἢ δὲ περὶ ἀπλῆς ὑπάρξεως ζήτησις διὰ τοῦ συμβεβηκός. καὶ οὐδὲ πρόσκειται τῷ προβλήματι τὸ εἰ ὡς ἐν γένει οἱ θεοὶ τῷ ὄντι. **Clement of Alexandria** *Protr.* 64.1–2 (cited Diels *DG* 129) ἐπιδράμωμεν δέ, εἰ βούλει, καὶ τῶν φιλοσόφων τὰς δόξας, ὅσας αὐχοῦσι περὶ τῶν θεῶν, εἴ πως καὶ φιλοσοφίαν αὐτὴν κενοδοξίας ἔνεκεν ἀνιδωλοποιοῦσαν τὴν ὕλην ἐφεύρωμεν, εἰ καὶ δαιμόνια ἅττα ἐκθειάζουσιν κατὰ παραδρομὴν παραστήσαι δυνηθώμεν ὀνειρώττουσαν τὴν ἀλήθειαν. (2) στοιχεῖα μὲν οὖν ἀρχὰς ἀπέλιπον ἐξυμνήσαντες Θαλῆς ὁ Μιλήσιος (fr. 197 Wöhrle) τὸ ὕδωρ καὶ Ἀναξίμενης ὁ καὶ αὐτὸς Μιλήσιος (fr. 53 Wöhrle) τὸν ἀέρα, ὃ Διογένης ὕστερον ὁ Ἀπολλωνιάτης (—) κατηκολούθησεν. Παρμενίδης δὲ ὁ Ἑλεάτης (28A33 DK) θεοὺς εἰσηγήσατο πῦρ καὶ γῆν, θάτερον δὲ αὐτοῖν μόνον, τὸ πῦρ, θεὸν ὑπειλήφατον Ἰππασὸς τε ὁ Μεταποντινὸς (18.8 DK) καὶ ὁ Ἐφέσιος Ἡράκλειτος (T 61i Mouraviev)· Ἐμπεδοκλῆς γὰρ ὁ Ἀκραγαντίνος (—) εἰς πλῆθος ἐμπεσὼν πρὸς τοῖς τέτταρσι στοιχείοις τούτοις Νεῖκος καὶ Φιλίαν καταριθμεῖται. *Protr.* 66.1–5 (cited Diels *DG* 129–130) τῶν δὲ ἄλλων φιλοσόφων ὅσοι τὰ στοιχεῖα ὑπερβάντες ἐπολυπραγμόνησάν τι ὑψηλότερον καὶ περιττώτερον, οἱ μὲν αὐτῶν τὸ ἄπειρον καθύμνησαν, ὡς Ἀναξίμανδρος (Μιλήσιος ἦν) (fr. 72 Wöhrle) καὶ Ἀναξαγόρας ὁ Κλαζομένιος (60A11 DK) καὶ ὁ Ἀθηναῖος Ἀρχέλαος (cf. 70A3 DK). τούτω μὲν γε ἄμφω τὸν νοῦν ἐπεστησάτην τῇ ἀπειρίᾳ, ὁ δὲ Μιλήσιος Λεύκιππος (cf. 67A12 DK) καὶ ὁ Χίος Μητροδόωρος (—) διττάς, ὡς εἰσιν, καὶ αὐτῷ ἀρχὰς ἀπελιπέτην τὸ πλῆρες καὶ τὸ κενόν· (2) προσέθηκε δὲ λαβῶν τούτοις τοῖν δυεῖν τὰ εἰδῶλα ὁ Ἀβδηρίτης Δημόκριτος (—). ὁ γὰρ τοι Κροτωνιάτης Ἀλκμαίων (—) θεοὺς ᾤετο τοὺς ἀστέρας εἶναι ἐμψύχους ὄντας. οὐ σιωπήσομαι τὴν τούτων ἀναισχυντίαν· Ξενοκράτης (Καλχηδόνιος οὗτος) (fr. 15 Heinze, 135 Isnardi Parente²) ἐπτά μὲν θεοὺς τοὺς πλανήτας, ὄγδοον δὲ τὸν ἐκ πάντων τῶν ἀπλανῶν συνεστῶτα κόσμον αἰνίττεται. (3) οὐδὲ μὴν τοὺς ἀπὸ τῆς Στοᾶς (*SVF* 2.1039) παρελεύσομαι διὰ πάσης ὕλης καὶ διὰ τῆς ἀτιμοτάτης τὸ θεῖον διήκειν λέγοντας, οἱ καταισχύουσιν ἀτεχνῶς τὴν φιλοσοφίαν. (4) οὐδὲν δὲ οἶμαι χαλεπὸν ἐνταῦθα γενόμενος καὶ τῶν ἐκ τοῦ Περιπάτου μνησθῆναι· καὶ ὃ γε τῆς αἰρέσεως πατήρ, τῶν ὄλων οὐ νοήσας τὸν πατέρα, τὸν καλούμενον ὕπατον (*Mu.* 6 397b24–30) ψυχὴν εἶναι τοῦ παντός οἶεται· τουτέστι τοῦ κόσμου τὴν ψυχὴν θεὸν ὑπολαμβάνων αὐτὸς αὐτῷ περιπίρεται. ὁ γὰρ τοι μέχρι τῆς σελήνης αὐτῆς διορίζων τὴν πρόνοιαν, ἔπειτα τὸν κόσμον θεὸν ἡγούμενος περιτρέπεται, τὸν ἄμοιρον τοῦ θεοῦ θεὸν δογματίζων. (5) ὁ δὲ Ἑρέσιος ἐκεῖνος Θεόφραστος (fr. 252B FHS&G) ὁ Ἀριστοτέλους γνώριμος πῇ μὲν οὐρανόν, πῇ δὲ πνεῦμα τὸν θεὸν ὑπονοεῖ. Ἐπικούρου (—) μὲν γὰρ μόνου καὶ ἐκῶν ἐκλήσομαι, ὅς οὐδὲν μέλει οἶεται τῷ θεῷ, διὰ πάντων ἀσεβῶν. τί γὰρ Ἡρακλείδης ὁ Ποντικὸς (fr. 123 Wehrli, 64 Schütrumpf); ἔσθ' ὅπῃ οὐκ ἐπὶ τὰ Δημοκρίτου (—) καὶ αὐτὸς κατασύρεται εἰδῶλα; **Hippolytus** *Ref.* 4.43.1–2 πᾶσι τοῖς κατὰ τὴν οἰκουμένην φιλοσόφοις καὶ θεολόγοις ζητήσασιν οὐ συνεφώνησε περὶ τοῦ θεοῦ, τί ἐστὶν ἢ ποδαπός· οἱ μὲν γὰρ αὐτὸν λέγουσιν εἶναι πῦρ, οἱ δὲ πνεῦμα, οἱ δὲ ὕδωρ, ἕτεροι δὲ γῆν· ἕκαστον δὲ τῶν στοιχείων ἑλαττόν τι ἔχει καὶ ἕτερον ὑπὸ τοῦ ἐτέρου ἡττάται. τοῦτο

δὴ συνέβη τοῖς τοῦ κόσμου σοφοῖς—ὅπερ ἐστὶ τοῖς νοῦν ἔχουσι πρόδηλον. **Tertul-
lian** *Adv.Marc.* 1.13.3 *ut ergo aliquid et de isto huius mundi indigno loquar, cui
et apud Graecos ornamenti et cultus, non sordium, nomen est, indignas videlicet
substantias ipsi illi sapientiae professores, de quorum ingenüs omnis haeresis
animatur, deos pronuntiaverunt, ut Thales (fr. 220 Wöhrle) aquam, ut Herac-
litus (T 648 Mouraviev) ignem, ut Anaximenes (—) aerem, ut Anaximander
(fr. 79 Wöhrle) universa caelestia, ut Strato (—) caelum et terram, ut Zeno (SVF
1.154) aerem et aetherem, ut Plato sidera, quae genus deorum igneum appel-
lat, cum de mundo, considerando scilicet et magnitudinem et vim et potestatem
et honorem et decorum, opem, fidem, legem singulorum elementorum, quae
omnibus gignendis alendis conficiendis reficiendisque conspirant, ut plerique
physicorum, formidaverint initium ac finem mundo constare, ne substantiae
eius, tantae scilicet, minus dei haberentur, quas colunt et Persarum magi et
Aegyptiorum hierophantae et Indorum gymnosophistae. Apol. c. 47 inventum
enim solummodo deum non ut invenerant disputaverunt, ut et de qualitate et de
natura eius et de sede disceptent. alii incorporalem asseverant, alii corporalem,
qua Platonici et Stoici (SVF 2.1034); alii ex atomis, alii ex numeris, qua Epi-
curus (—) et Pythagoras (—); alius ex igni, qua Heraclito (T 647a Mouraviev)
visum; et Platonici quidem curantem rerum factorem et actorem rerum con-
tra Epicurei otiosum et inexercitum, et ut ita dixerim, neminem rebus humanis;
positum vero extra mundum Stoici (SVF 2.1034), qui figuli modo extrinsecus
torqueat molem hanc; intra mundum Platonici (—), qui gubernatoris exemplo
intra id maneat, quod regat. ad Nat. 2.1.1–19 Borleff physico (sc. theologiae
generi) auctoritas philo(so)phorum ut mancipium sapientiae patrocinitur. ...
invento enim solummodo (d)eo, non ut invenerunt, exposuerunt, ut de qualitate
eius et de natura, etiam de sede disceptent: Platonici quidem curantem rerum
et arbitrum et iudicem, Epicurei (—) otiosum et inexercitum, et, ut ita dixerim,
neminem; positum vero extra mundum Stoici (—), intra mundum Platonici. ...
exstant testimonia tam ignoratae quam dubitatae inter phil(o)sophos divini-
tatis. Diogenes (—) consultus, quid in caelis agatur, numqu(am), inquit, ascendi.
item, an dei essent, nescio, inquit, nisi, ut sint, expedire. Thales Milesius (fr. 217
Wöhrle) Croeso sciscitanti, quid de deis arbitraretur, pos(t ali)quot deliberandi
commeatus, nihil renuntiavit. Socrates ips(e) deos istos quasi certus negabat;
idem Aesculapio gallinacium resecari quasi certus iubebat (Plato *Phd.* 118a).
et ideo cum tam incerta et in(—) definiendi de Deo philosophia deprehenditur,
quem potu(it metum habere) eius, quem non liquido tenebat determinare? (from
here = Varro *Rer.Div.* fr. 23 Cardauns, see ch. 1.6, section E(a)§1[37–69]). **Dio-
genes Laertius** *V.P.* 7.132 τὸν δὲ φυσικὸν λόγον διαίρουσιν (sc. οἱ Στωικοί—) ... καὶ
(sc. εἷς τε τὸν τόπον) περὶ ἀρχῶν καὶ στοιχείων καὶ (sc. εἷς τε τὸν τόπον) περὶ θεῶν.
Arnobius of Sicca *Adv.Nat.* 1.38, p. 32.25–33.2 Marchesi *qui, quod frugiferum
primo atque humano generi salutare, deus monstravit quid sit, quis, quantus
et qualis. Adv.Nat.* 2.56, p. 131.7–11 *sic et deos nonnulli esse abnegant prorsus;
dubitare se alii an sint uspiam dicunt; alii vero existere neque humana cur-
are: immo alii perhibent et rebus interesse mortalium et terrenas administrare**

rationes. Lactantius Epit.Inst. 4.3 Heck–Wlosok *longum est recensere quae de summo deo vel Thales* (fr. 258 Wöhrle) *vel Pythagoras* (—) *et Anaximenes* (—) *antea vel postmodum Stoici, Cleanthes et Chrysippus et Zeno* (—), *vel nostrorum Seneca* (fr. 125 Haase, but cf. Lact. *Inst.* 1.5.26) *Stoicos secutus et ipse Tullius* (ND 2.77) *praedicaverint, cum hi omnes et quid sit deus definire temptaverint et ab eo solo regi mundum adfirmaverint nec ulli subiectum esse naturae, cum ab ipso sit omnis natura generata. Ambrose of Milan Exam.* 6.40, p. 231.17–20 Schenkl *quid est deus? caro an spiritus? non caro utique, sed spiritus, cuius similis caro esse non potest, quia ipse incorporeus et invisibilis est, caro autem et comprehenditur et videtur. Isidore of Seville Etym.* 8.6.18–26 *theologi autem idem sunt qui et physici, dicti autem theologi, quoniam in scriptis suis de Deo dixerunt, quorum varia constat opinio, quid Deus esset dum quaererent. quidam enim corporeo sensu hunc mundum visibilem et quattuor elementis Deum esse dixerunt, ut Dionysius Stoicus* (—). *alii vero spiritaliter intellexerunt mentem esse Deum, ut Thales Milesius* (fr. 475 Wöhrle). (19) *quidam animum in omnibus commanentem et lucidum, ut Pythagoras* (cf. Cic. ND 1.27). *quidam Deum sine tempore incommutabilem, ut Plato* (—). *quidam mentem solutam, ut Cicero* (Tusc. 1.66). *quidam et spiritum et mentem, ut Maro* (Aen. 6.726–727). *inventum enim solummodo Deum, non ut invenerunt, exposuerunt, quia evanuerunt in cogitationibus suis. dicentes enim se esse sapientes stulti facti sunt.* (26 quoted from Tertulian Praescr.Haer. 7) *ubi materia cum Deo aequatur, Zenonis* (—) *disciplina est; et ubi quid de igneo Deo legitur, Heraclitus* (—) *intervenit.*

Chapter heading: Cicero *ad Att.* 13.39.2 *libros mihi de quibus ad te antea scripsi velim mittas et maxime Φαίδρου Περὶ θεῶν. Div.* 1.7 *ut fecimus in iis tribus libris, quos De natura deorum scripsimus. Div.* 1.8 *tuum ... tertium De natura deorum. ND* 1.34 *Xenocrates* (fr. 17 Heinze, 181 Isnardi Parente²) *... cuius in libris qui sunt De natura deorum. ND* 1.41 *et haec quidem in primo libro De natura deorum* (sc. scripsit Chrysippus—), *in secundo autem ... ND* 1.123 *illud quod familiaris omnium nostrum Posidonius* (F 22a E.-K., 346 Theiler) *disseruit in libro quinto De natura deorum. Seneca Dial.* 8.4.2 *quae sit dei sedes. Nat.* 1 praef. 13 *quid est deus? Pliny Nat.* p. 11.8 *de deo. Photius Bibl. cod.* 212, p. 170b12–16 (Aenesidemus fr. 8B Polito) *ἐν δὲ τῷ δ' ... περὶ ... καὶ θεῶν. Ioannes Tzetzes Exeg. in Iliad.* prol.1.1.853, p. 51.13–16 Papatomopoulos *ἐτι δὲ Δωρόθεος* (fr. IIIF.1 Pingree) *τε καὶ Ἀννουβίων καὶ Κολόκυνθος καὶ πᾶς μαθηματικός ἀπλῶς εἶπεῖν καὶ φυσικός καὶ πᾶς ἀρχαῖος ποιητὴς τὸν περὶ θεῶν λόγον οὕτως ἐκλαμβάνεται.*

§1 Atheism: Philodemus *Piet.* (PHerc. 1077) 1.520–531 Obbink καὶ πᾶσαν μ[ανίαν] Ε[ἰ]πίκουρος (fr. 87 Usener, *dep. libr.* fr. [27][2] Arrighetti²) ἐμ[έμψα]|το τοῖς τὸ [θεῖον ἐ]|κ τῶν ὄντων [ἀναί]|ροῦσιν, ὡς κα[ν τῷ]| δωδεκάτω[ι Προ]|δίκῳ (T70 Mayhew) καὶ Δια[γόρῃ]| (T 39 Winiarczyk) καὶ Κριταῖ (cf. TrGF 43F19) κα[λ]λοῖς]| μέμφ[εταί] φᾶς πα[ρα]|κόπτειν καὶ μ[αίνεσθαι], καὶ βακχεύουσιν αὐτοὺς [εἰ]κά[ζει, κε]|λεῦσ[ας μ]|ῃ πράγμα ἢ μείν παρέχειν οὐδ' ἐνοχλεῖν. *Piet.* (PHerc. 1428) col. xiv.32–xv.13 Henrichs ἢ το[ῦ]ς ἐναργῶς ἀναισθητοὺς | (col. xv ... ἔφη]σε γὰρ μὴ εἰδέναι εἰ θεοὶ εἰσιν. τοῦτο δ' ἐστὶν | τὸ αὐτὸ τῷ λέγειν εἰδέναι

ὅτι μή εἰσιν.) ἢ τοὺς ἄγνωστον εἶ | τινές εἰσι θε[οί] λέγον[τας] ἢ ποῖοι τινές εἰσιν (Protagoras 80A23 DK) * ἢ τοὺς δι[α]ρρή[θην] ὅτι οὐκ εἰ[σ]ιν ἀποφαινομένους ἢ φα[ν]ερούς ὄντας ὡς ἀν[ή]ιρουν (cf. e.g. Diagoras Melius T 57, Theodorus Cyrenaeus T 41 Winiarczyk). * κατ' ἐνίους | δὲ κἄν ἐπ' αὐτὴν προ[τ]ραπείη τοὺς κἄν τοῖς | θε[ο]ῖς· μετὰ φιλαρχείας | πόλ[ε]μον ἄσπονδον | παρειαύοντα[ς] (cf. Parmenides 28A37 DK (Cicero), Empedocles e.g. 31B17.16–17 DK). *Piet.* (PHerc. 1428) 6c Gomperz, fr. 19 Schober, col. 333 Vassallo κάγ[αθ]ους τοὺς θε[ο]ὺς εἶ[ν]αι | αἰ Πρόδικος (T 72 Mayhew) καὶ | Δ[ι]αγόρας (—) φ[α]σίν· καὶ | Κρ[ι]τία[ς] (—) θ[ε]ὸν φ[η]σιν (vacant ca. tres lineae et duo aut tria verba) Πρό[δ]ιχος (vacant duo verba) καὶ το[ὺς] μὲν ὑπὸ [τ]ῶν | ἀνθρώπων νομιζομένους θεοὺς οὗτ' εἶναι φησιν οὗτ' εἰδέναι (cf. Protagoras 80A3, B4 DK), τοὺς δὲ καρπούς | καὶ πάνθ' ὅλως τὰ χρήσιμα πρ[ὸς] τὸν βίον | τοὺς ἀρχαίους ἀγα- ||. **Cicero** ND 1.117–121 nisi forte Diagoram (T 42 Winiarczyk) aut Theodorum (T31 Winiarczyk), qui omnino deos esse negabant, censes superstitiosos esse potuisse; ego ne Protagoram quidem (—), cui neutrum licuerit, nec esse deos nec non esse. ... (118) quid ii (—, sc. Critias) qui dixerunt totam de dis immortalibus opinionem fictam esse ab hominibus sapientibus rei publicae causa, ut quos ratio non posset eos ad officium religio duceret, nonne omnem religionem funditus sustulerunt? quid Prodicus Cius (84B5 DK, T 73 Mayhew), qui ea quae prodessent hominum vitae deorum in numero habita esse dixit, quam tandem religionem reliquit? (119) quid qui aut fortis aut claros aut potentis viros tradunt post mortem ad deos pervenisse, eosque esse ipsos quos nos colere precari venerarique soleamus, nonne expertes sunt religionum omnium? quae ratio maxime tractata ab Euhemero (T 14 Winiarczyk) est, quem noster et interpretatus est et secutus praeter ceteros Ennius; ab Euhemero autem et mortes et sepulturae demonstrantur deorum; utrum igitur hic confirmasse videtur religionem an penitus totam sustulisse? ... (121) Epicurus (—) vero ex animis hominum extraxit radicibus religionem, cum dis immortalibus et opem et gratiam sustulit. ND 1.23 an haec (sc. caelum et terras), ut fere dicitis, hominum causa a deo constituta sunt. **Diogenes of Oenoanda** fr. 16 I.4–II.12 Smith καὶ δὴ καὶ γενή[σεται] δῆλον ὡς οὐχὶ ἢ | μείς ἀναιροῦμεν τοὺς | θεοὺς, ἀλλ' ἔτ[ε]ροι. vacat | [Διαγόρας μὲ]ν οὖν ὁ | [Μήλιος (T 62 Winiarczyk), ἔχων σ]υνπαρα[χ]ολούθους τῆς | δόξης | [ἄλλους τινάς], ἀντι[κ]ρυς εἶπε μὴ εἶναι θε[ο]ὺς, σφόδρα πᾶσι τοῖς | [νομίζουσιν ἄλλ.] α μα[II.1]χεσάμενος. Πρωταγ[ό]ρας δ' ὁ Ἀβδηρείτης (80A23 DK) | τῇ μὲν δυνάμει τὴν | αὐτὴν ἤνεκε Διαγ[ό]ρα | δόξαν, ταῖς λέξεσιν δὲ | ἐτέραις ἐχρήσατο, ... ἔφη|σε γὰρ μὴ εἰδέναι εἰ θε[ο]ί εἰσιν. τοῦτο δ' ἐστίν | τὸ αὐτὸ τῷ λέγειν εἰδέναι ὅτι μή εἰσιν.

§1[2–8] **Atheists:** Cicero ND 1.117–121 see above §1. **Sextus Empiricus** M. 9.51–55 μὴ εἶναι δὲ οἱ ἐπικληθέντες ἄθεοι, καθάπερ Εὐήμερος (sic—sc. Callim. fr. 191.1 Pfeiffer, Euhem. T1a Winiarczyk) 'γέρων ἀλαζών, ἄδικα βιβλία ψήχων', καὶ Διαγόρας ὁ Μήλιος (T 57 Winiarczyk) καὶ Πρόδικος ὁ Κεῖος (84B5 DK) καὶ Θεόδωρος (T 41 Winiarczyk) καὶ ἄλλοι παμπληθεῖς ὧν Εὐήμερος μὲν ἔλεγε τοὺς νομιζομένους θεοὺς δυνατοὺς τινὰς γεγονέναι ἀνθρώπους καὶ διὰ τοῦτο ὑπὸ τῶν ἄλλων θεοποιηθέντας δόξαι θεοὺς, Πρόδικος δὲ τὸ ὠφελοῦν τὸν βίον ὑπεκλήφθαι θεόν, ὡς ἥλιον καὶ σελήνην καὶ ποταμούς καὶ λίμνας καὶ λειμῶνας καὶ καρπούς καὶ πᾶν τὸ

τοιουτώδες. Διαγόρας δὲ ὁ Μήλιος (T 57 Winiarczyk) ... μεθρημόσατο εἰς τὸ λέγειν μὴ εἶναι θεόν. ... Κριτίας (cf. 88B25 DK) δὲ εἰς τῶν ἐν Ἀθήναις τυραννησάντων δοκεῖ ἐκ τοῦ τάγματος τῶν ἀθέων ὑπάρχειν φάμενος, ὅτι οἱ παλαιοὶ νομοθετοῦν ἐπίσκοπόν τινα τῶν ἀνθρωπίνων κατορθωμάτων καὶ ἀμαρτημάτων ἐπλασαν τὸν θεὸν ὑπὲρ τοῦ μηδένα λάθρα τὸν πλησίον ἀδικεῖν, εὐλαβούμενον τὴν ὑπὸ τῶν θεῶν τιμωρίαν. ἔχει δὲ παρ' αὐτῷ τὸ ῥητὸν οὕτως· 'ἦν χρόνος, ὅτ' ἦν ἄτακτος ἀνθρώπων βίος' κτλ. [the other lines of 88B25 DK follow] ... συμφέρεται δὲ τούτοις τοῖς ἀνδράσι καὶ Θεόδωρος ὁ ἄθεος (T 46 Winiarczyk) καὶ κατὰ τινος Πρωταγόρας ὁ Ἀβδηρίτης (80A12 DK) κτλ. **Clement of Alexandria** *Protr.* 24.2 ὦν δὴ χάριν ... θαυμάζειν ἐπεισὶ μοι, ὅτῳ τρόπῳ Εὐήμερον (T 20 Winiarczyk) τὸν Ἀκραγαντῖνον (*sic*) καὶ Νικάνορα τὸν Κύπριον καὶ Διαγόραν (T 63 Winiarczyk) καὶ Ἰππώνα (38A8 DK) τῷ Μηλίῳ τὸν τε Κυρηναῖον ἐπὶ τούτοις ἐκείνους (ὁ Θεόδωρος (T 43 Winiarczyk) ὄνομα αὐτῷ) καὶ τινας ἄλλους συγχούς, σωφρόνως βεβιωκότας καὶ καθεωρακότας ὀξύτερόν που τῶν λοιπῶν ἀνθρώπων τὴν ἀμφὶ τοὺς θεοὺς τούτους πλάνην, ἀθέους ἐπικεκλήκασιν, εἰ καὶ τὴν ἀλήθειαν αὐτὴν μὴ νευνοήκοτας, ἀλλὰ τὴν πλάνην γε ὑπωπτευκότας, ὅπερ οὐ σμικρὸν φρονήσεως ζώπυρον εἰς ἀλήθειας ἀναφύεται σπέρμα. **Arnobius of Sicca** *Adv.Nat.* 4.29.

§1[12–14] **Euhemerus: Sextus Empiricus** *M.* 9.17 Εὐήμερος (T 27 Winiarczyk) δὲ ὁ ἐπικληθεὶς ἀθεὸς φησιν· 'ὅτ' ἦν ἄτακτος ἀνθρώπων βίος' (Critias 88B25.1 DK) οἱ περιγενόμενοι τῶν ἄλλων ἰσχύι τε καὶ συνέσει ὥστε πρὸς τὰ ὑπ' αὐτῶν κελευόμενα πάντας βιοῦν, σπουδάζοντες μείζονος θαυμασμοῦ καὶ σεμνότητος τυχεῖν, ἀνέπλασαν περὶ αὐτοὺς ὑπερβάλλουσάν τινα καὶ θεῖαν δύναμιν, ἔνθεν καὶ τοῖς πολλοῖς ἐνομίσθησαν θεοί.

§1[24–26] **God's impotence: Irenaeus of Lyon** (cited Diels *DG* 171–172) *Haer.* 2.14.4 Rousseau–Doutreleau (trans. Rufini) *quod autem ex necessitate unumquidque in illa secedit ex quibus et factum esse dicunt, et huius necessitatis servum esse Deum, ita ut non possit mortali immortalitatem addere vel corruptibili incorruptelam donare, sed secedere unumquemque in similem naturae suae substantiam.*

§1[27–30] **Demiurge: Diogenes Laertius** *V.P.* 3.72 (on Plato) ὅτι καὶ τὸ ὑπόδειγμα ἐν ἡν ἄφ' οὗ αὐτὸν (sc. τὸν κόσμον) ἐδημιούργησε· σφαιροειδὴ δὲ διὰ τὸ καὶ τὸν γεννήσαντα τοιοῦτον ἔχειν σχῆμα.

§1[32–34] **Plato: Diogenes Laertius** *V.P.* 3.69 (on Plato) ἀτάκτως δὲ ποτε αὐτὴν (sc. τὴν ὕλην) κινουμένην ὑπὸ τοῦ θεοῦ φησιν εἰς ἓνα συναχθῆναι τόπον τάξιν ἀταξίας κρεῖττον αἰγισμένην.

§1[34–36] **Anaxagoras: Eusebius** *PE* 10.14.8–9 Ἀναξαγόρας ... οὐ γὰρ μόνον περὶ τῆς πάντων οὐσίας ἀπεφῆνατο, ὡς οἱ πρὸ αὐτοῦ, ἀλλὰ καὶ περὶ τοῦ κινουντος αὐτὴν αἰτίου. 'ἦν γὰρ ἀρχὴν', φησί (cf. 59B1 DK), 'τὰ πράγματα ὁμοῦ πεφυρμένα'. Νοὺς δὲ εἰσελθὼν αὐτὰ ἐκ τῆς ἀταξίας εἰς τάξιν ἤγαγεν.

§1[35–41] **Providence?: Cicero** *ND* 1.23 *an haec* (sc. caelum et terras), *ut fere dicitis, hominum causa a deo constituta sunt?*

§§2–25 **Theism: Varro** *Ant.Rer.Div.* fr. 8 Cardauns at Aug. *C.D.* 6.5.23–28 Dombart–Kalb 'secundum genus (sc. theologiae) est', *inquit* (sc. Varro), 'quod demonstravi, de quo multos libros philosophi reliquerunt; in quibus est, dii qui

sint, ubi, quod genus; quale est: a quodam tempore an a sempiterno fuerint dii; ex igni sint, ut credit Heraclitus (T 873 Mouraviev), an ex numeris, ut Pythagoras (—), an ex atomis, ut ait Epicurus (—). sic alia, quae facilius intra parietes in schola quam extra in foro ferre possunt aures'. Cicero ND 1.2 qui vero deos esse dixerunt tanta sunt in varietate et dissensione, ut eorum infinitum sit enumerare sententias. nam et de figuris deorum et de locis atque sedibus et de actione vitae multa dicuntur, deque is summa philosophorum dissensione certatur. Pliny Nat. 2.14 effigiem dei formamque quaerere inbecillitatis humanae reor. quisquis est deus, si modo est alius, et quacumque in parte, totus est sensus, totus visus, totus auditus, totus animae, totus animi, totus sui.

§2 **Thales:** Cicero Leg. 2.26 *Thales* (fr. 76 Wöhrle) *qui sapientissimus in septem fuit, homines existimare oportere omnia, quae cererent, deorum esse plena.* ND 1.25 *Thales enim Milesius* (fr. 72 Wöhrle), *qui primus de talibus rebus quaesivit, aquam dixit esse initium rerum, deum autem eam mentem quae ex aqua cuncta fingeret.* Seneca Nat. 1 praef. 13 *quid est deus? mens universi.* (cf. Minucius Felix Oct. 19.4, *Thales* fr. 229 Wöhrle). **Diogenes Laertius** V.P. 1.27 (on *Thales*, 11A1 DK) ἀρχὴν δὲ τῶν πάντων ὕδωρ ὑπεστήσατο, καὶ τὸν κόσμον ἔμψυχον καὶ δαιμόνων πλήρη. V.P. 7.135–136 (on Stoics, SVF 2.580) ἔν τε εἶναι θεὸν καὶ νοῦν καὶ εἰμαρμένην καὶ Δία· πολλαῖς τε ἐτέραις ὀνομασίαις προσονομάζεσθαι. (136) κατ' ἀρχὰς μὲν οὖν καθ' αὐτὸν ὄντα τρέπειν τὴν πᾶσαν οὐσίαν δι' ἄερος εἰς ὕδωρ· καὶ ὥσπερ ἐν τῇ γονῇ τὸ σπέρμα περιέχεται, οὕτω καὶ τοῦτον σπερματικὸν λόγον ὄντα τοῦ κόσμου τοιόνδε ὑπολιπέσθαι ἐν τῷ ὑγρῷ, εὐεργὸν αὐτῷ ποιοῦντα τὴν ὕλην πρὸς τὴν τῶν ἐξῆς γένεσιν. cf. V.P. 9.7 (on *Heraclitus*, 22A1 DK) ἐδόκει δ' αὐτῷ καθολικῶς μὲν τάδε· ... καὶ πάντα ψυχῶν εἶναι καὶ δαιμόνων πλήρη. **ps.Aristotle** Mu. 6 379b16–20 διὸ καὶ τῶν παλαιῶν εἰπεῖν τινες προήχθησαν ὅτι πάντα ταῦτά ἐστι θεῶν πλέα τὰ καὶ δι' ὀφθαλμῶν ἰδθαλλόμενα ἡμῖν καὶ δι' ἀκοῆς καὶ πάσης αἰσθήσεως, τῇ μὲν θείᾳ δυνάμει πρέποντα καταβαλλόμενοι λόγον, οὐ μὴν τῇ γε οὐσίᾳ. **Lactantius** Inst. 1.5.16 Heck–Wlosok (mostly following Cicero) *Thales Milesius* (fr. 254 Wöhrle) *qui unus e septem sapientium numero fuit ... aquam esse dixit ex qua nata sint omnia, deum autem esse mentem quae ex aqua cuncta formaverit. ita materiam rerum posuit in umore, principium causamque nascendi constituit in deo.* differently **Diogenes Laertius** V.P. 1.36 (on *Thales*, 11A1 DK) τί τὸ θεῖον—‘τὸ μῆτε ἀρχὴν ἔχον μῆτε τελευτήν’, cf. **Clement of Alexandria** Strom. 5.14.96.4 (on *Thales*, fr. 207 Wöhrle). differently **Augustine** C.D. 8.2.12–23 Dombart–Kalb *Thales* (fr. 311 Wöhrle) ... *aquam tamen putavit rerum esse principium et hinc omnia elementa mundi ipsumque mundum et quae in eo gignuntur existere. nihil autem huic operi, quod mundo considerato tam mirabile aspicimus, ex divina mente praeposuit.*

§3 **Anaximander:** Cicero ND 1.25 *Anaximandri* (12A17 DK) *autem opinio est nativos esse deos longis intervallis orientis occidentisque, eosque innumerabilis esse mundos. sed nos deum nisi sempiternum intellegere qui possumus?* **Hippolytus** Ref. 1.6.1 Ἀναξίμανδρος Πραξιάδου Μιλήσιος (12A11, B2 DK). οὗτος ἀρχὴν ἔφη τῶν ὄντων φύσιν τινὰ τοῦ ἀπείρου, ἐξ ἧς γίνεσθαι τοὺς οὐρανούς καὶ τοὺς ἐν αὐτοῖς κόσμους. ταύτην δὲ ‘αἰδίων’ εἶναι καὶ ‘ἀγήρω’, ἣν καὶ πάντας περιέχειν

τοὺς κόσμους. differently **Augustine** C.D. 8.2.23–30 Dombart–Kalb *Anaximander* (fr. 128 Wöhrle) ... *nec ipse aliquid divinae menti in his rerum operibus tribuens.*

§4 **Anaximenes: Philodemus Piet.** (PHerc. 1428) 3d Gomperz, fr. 8 Schober, col. 319 Vassallo καὶ Ἀναξίμ[ένη]ς (cf. at 13A9 DK) φ[ησὶν τὸν ἀέ]ρα τε (***) omittimus illegibilia) ἄ[ππειρο]ν οἷετ' εἶ[ναι λέγ]ων ἀέρα θεο[ν οὐδὲ] καλ[ῶς] θεωρεῖ τ[ὸν θε]όν ὥς ἐστερη[μένον | τῆς αἰσ]θήσεως, [φᾶς δ'] ἅπαντ[α] τὰ γενόμε[να | [καὶ] τὰ γινόμενα καὶ | [..(.) τὰ] ἐσόμεν[α] καὶ ||. **Cicero** ND 1.26 *post Anaximenes* (13A10 DK) *aëra deum statuit, eumque gigni esseque immensum et infinitum et semper in motu: quasi aut aër sine ulla forma deus esse possit, cum praesertim deum non modo aliqua sed pulcherrima specie deceat esse, aut non omne quod ortum sit mortalitas consequatur.* **Minucius Felix** Oct. 19.5 *Anaximenes* (fr. 59 Wöhrle) *deinceps et post Apolloniates Diogenes aëra deum statuunt infinitum et immensum; horum quoque similis de divinitate consensio est.* **Hippolytus** Ref. 1.7.1 Ἀναξίμενης (13A7 DK) ... ἀέρα ἄπειρον ἔφη τὴν ἀρχὴν εἶναι, ἐξ οὗ ... καὶ θεοὺς καὶ θεῖα γίνεσθαι. **Augustine** Conf. 10.6.25–26 *interrogavi auras flabiles, et inquit universus aër cum incolis suis: fallitur Anaximenes* (fr. 101 Wöhrle); *non sum deus.* C.D. 8.2.31–34 Dombart–Kalb *iste Anaximenes* (13A10 DK) *discipulum et successorem reliquit, qui omnes rerum causas aëri infinito dedit, nec deos negavit aut tacuit; non tamen ab ipsis aërem factum, sed ipsos ex aëre ortos credidit.*

§6 **Anaxagoras: Philodemus Piet.** (PHerc. 1428) fr. 9 Schober, col. 31 Vassallo (Anaxagoras 59A48 DK) καὶ κίν[η]σ[ιν τοῦ | ν]οῦ διακο[σμή]σαν|τος ἀ(ε)ῖ {ν} γεγονέναι τε | κ]αὶ εἶναι κα[ὶ] ἔσ[εσ]θ[αι] καὶ πάντ[ων] ἄρ[χ]η καὶ κρατεῖν καὶ | [νο]ῦν ἄπειρα ὄντα | με]μειγμένα τὰ σύμ[παντα] διακοσμή[σαι]. **Cicero** Luc. 118 *Anaxagoras* (59A49 DK) *materiam infinitam, sed ex ea particulas similes inter se minutas, eas primum confusas postea in ordinem adductas mente divina.* ND 1.26–27 *inde Anaxagoras* (59A48 DK), *qui accepit ab Anaximene disciplinam, primus omnium rerum discriptionem et modum mentis infinitae vi ac ratione dissignari et confici voluit. in quo non vidit neque motum sensu iunctum et {in} continentem infinito ullum esse posse, neque sensum omnino quo non ipsa natura pulsa sentiret. deinde si mentem istam quasi animal aliquod voluit esse, erit aliquid interius ex quo illud animal nominetur; quid autem interius mente: cingatur igitur corpore externo; (27) quod quoniam non placet, aperta simplexque mens nulla re adiuncta, quae sentire possit, fugere intellegentiae nostrae vim et notionem videtur.*

§7 **Democritus: Philodemus Piet.** (PHerc. 1428) 5d Gomperz, fr. 16 Schober, Henrichs (1975) 96, col. 32 Vassallo [τ]ῶν ἀνθρώπων κα[ὶ] ταφρονεῖν .. [...(.)] | θέρος ἐν τῇ [γ]ῇ | [καὶ] χε[ι]μῶν καὶ ἔ[αρ] καὶ | με[τ]{θ}όπων [κ]αὶ πᾶ[ν]τα ταῦτα ἄν[οι] (ω)θεν διειπετῇ γε(ίν)εται· διὸ δὴ καὶ τὸ ἐξεργαζόμενον γόνοντας | σέβεσθαι. οὐ φαίνεται δ' ἔμοι Δημόκριτος (68A75 DK) ὥσπερ ἐνιοι τὸν [θεόν] ||. **Cicero** ND 1.29 *quid? Democritus* (68A74 DK), *qui tum imagines eorumque circumitus in deorum numero refert, tum illam naturam quae imagines fundat ac mittat, tum sententiam intellegentiamque nostram, nonne in maximo*

errore versatur? cum idem omnino, quia nihil semper suo statu maneat, neget esse quicquam sempiternum, nonne deum omnino ita tollit, ut nullam opinionem eius reliquam faciat? Tertullian ad Nat. 2.2.18 Borleffs cum reliquo igni superno deos ortos Democritus (68A74 DK) suspicatur, cuius instar vult esse naturam Zenon (SVF 1.171).

§8 Diogenes: Cicero ND 1.29 *quid aër, quo Diogenes Apolloniates (64A8 DK, T7a Laks) utitur deo, quem sensum habere potest aut quam formam dei? ND 1.37 Cleanthes (SVF 1.530) autem ... tum ipsum mundum deum dicit esse, tum totius naturae menti atque animo tribuit hoc nomen, etc. Augustine C.D. 8.2.39–42 Dombart–Kalb Diogenes (64A8 DK) quoque Anaximenis alter auditor, aërem quidem dixit rerum esse materiam, de qua omnia fierent; sed eum esse compotem divinae rationis, sine qua nihil ex eo fieri posset. Cicero ND 1.37 (Cleanthes SVF 1.530). Differently Philodemus Piet. (PHerc. 1428) 6b Gomperz, fr. 18 Schober Διογένης (64A8 DK, T 6 Laks) Διογένης (64A8 DK) ἐπαι[νεῖ] τὸν “Ο[μ]ηρον ὡς ο[ὐ] μυθικ[ῶς] | ἄλλ’ ἀληθῶς ὑπὲρ το[ῦ] | θεοῦ διελεγμένον. | τὸν ἀέρα γὰρ αὐτὸν | Δία νομίζειν φησιν | ἐπειδὴ πᾶν εἶδ[ε]ναι τὸν Δία λέγει καὶ || and Cicero ND 1.29–30 *quid aer, quo Diogenes Apolloniates (64A8 DK) utitur deo, quem sensum habere potest aut quam formam dei? Philodemus Piet. (PHerc. 1428) col. ii.8–9 Henrichs γ[ρ]άψας Κλεάν[θη]ς (—).**

§9 Pythagoras: Philodemus Piet. (PHerc. 1428) 4b Gomperz, fr. 10 Schober, col. 31 Vassallo Πυ[θ]αγόρου (14.17 DK) δ’ αὐτοῦ γ’ | οὐδὲν φασί τινε[ς] | εἶναι τῶν ἀναφ[ε]ρ[ο]μένων παρὰ (?τὰ τρία ἐκείνα βιβλία?) [suppl. Diels]). Cicero ND 1.27 *nam Pythagoras (—), qui censuit animum esse per naturam rerum omnem intentum et commeantem, ex quo nostri animi carperentur, non vidit distractione humanorum animorum discerpi et lacerari deum, et cum miseri animi essent, quod plerisque contingeret, tum dei partem esse miseram, quod fieri non potest. cur autem quicquam ignoraret animus hominis, si esset deus? quo modo porro deus iste, si nihil esset nisi animus, aut infixus aut infusus esset in mundo? Pythagorica Hypomnemata at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58B1a DK) at D.L. V.P. 8.25 ἀρχὴν μὲν τῶν ἀπάντων μονάδα· ἐκ δὲ τῆς μονάδος ὁρίστων δυάδα ὡς ἂν ὕλην τῇ μονάδι αἰτίῳ ὂντι ὑποστέχειν. Hippolytus Ref. 1.2.2 καὶ οὕτως μονάδα μὲν εἶναι ἀπεφήνατο (sc. Πυθαγόρας) τὸν θεόν (cf. Ref. 4.43.4, Ref. 5.15.4).*

§10 Posidonius: Diogenes Laertius V.P. 7.148 οὐσίαν δὲ θεοῦ Ζήνων (SVF 1.163) μὲν φησι τὸν ὅλον κόσμον καὶ τὸν οὐρανόν, ὁμοίως ... Ποσειδώνιος (F 20 E.-K. 344 Theiler) ἐν πρώτῳ Περὶ θεῶν. V.P. 7.138 τὸν δὴ κόσμον διοικεῖσθαι κατὰ νοῦν καὶ πρόνοιαν, καθά φησι ... Ποσειδώνιος (F 21 E.-K., 345 Theiler) ἐν τῷ τρισκαίδεκάτῳ Περὶ θεῶν, εἰς ἅπαν αὐτοῦ μέρος διήκοντος τοῦ νοῦ, καθάπερ ἐφ’ ἡμῶν τῆς ψυχῆς· ἄλλ’ ἢ δι’ ὧν μὲν μάλλον, δι’ ὧν δὲ ἥττον.

§11 Speusippus: Philodemus Piet. (PHerc. 1428) 6a Gomperz, fr. 17 Schober, col. 336 Vassallo (DK 1.165 app. ad Heracl. 22B67, cf. frs. 77(c), 79(b) Marcovich) καὶ | τὸ πῦρ θ[ε]όν, ἐν οἷς φη[σιν] ὅτι Ζεὺς Κεραυνὸς | π[α]ντ[α] οἶα | κίξει, κἀ(ε)ί[ζ]ων· σημ[αίνει] δὲ κα[ὶ] πόλλ’ ἐ[ν]αντία | θε[ο]ν[τ]ίαν εἶ[ναι], νύκτα || (ἡμεραν). Cicero ND 1.32 *nec multo secus Speusippus* (fr. 39a Lang, 89 Isnardi

Parente, 56a Tarán) *Platonem avunculum subsequens et vim quandam dicens, qua omnia regantur, eamque animalem, evellere ex animis conatur cognitionem deorum.*

§13 **Heraclitus: Diogenes Laertius V.P.** 9.7 (Heraclitus 22A1 DK) ἐκ πυρὸς τὰ πάντα συνεστάναι καὶ εἰς τοῦτο ἀναλύεσθαι· πάντα δὲ γίνεσθαι καθ' εἰμαρμένην καὶ διὰ τῆς ἐναντιοτροπῆς [prob. Dorandi, ἐναντιοδρομίας coni. Diels] ἡρμόσθαι τὰ ὄντα.

§14 **Zeno Stoicus: Cicero ND** 1.36 (scattered by von Arnim: SVF 1.162, 1.154, 1.161, 1.165, 1.167) (Velleius the Epicurean speaks) *Zeno autem, ut iam ad vestros Balbe veniam, naturalem legem divinam esse censet, eamque vim obtinere recta imperantem prohibentemque contraria. quam legem quo modo efficiat animantem intellegere non possumus; deum autem animantem certe volumus esse. atque hic idem alio loco aethera deum dicit: si intellegi potest nihil sentiens deus, qui numquam nobis occurrit neque in precibus neque in optatis neque in votis. aliis autem libris rationem quandam per omnium naturam rerum pertinentem vi divina esse adfectam putat. idem astris hoc idem tribuit, tum annis mensibus annorumque mutationibus. cum vero Hesiodi Theogoniam id est originem deorum interpretatur, tollit omnino usitatas perceptasque cognitiones deorum; neque enim Iovem neque Iunonem neque Vestam neque quemquam qui ita appelletur in deorum habet numero, sed rebus inanimis atque mutis per quandam significationem haec docet tributa nomina.*

§16 **Boethius: Diogenes Laertius V.P.** 7.148 Βόηθος (SVF 3 Boeth. 3) δὲ ἐν τῇ Περὶ φύσεως οὐσίαν θεοῦ τὴν τῶν ἀπλανῶν σφαῖραν.

§17 **Parmenides: Philodemus Piet.** (PHerc. 1428) 4d–5a Gomperz, frs. 12.8–13 Schober, coll. 323.31–324 Vassallo Παρμενείδης (T4 Coxon) δὲ | *** ἔοικ[ε δ]ὴ τόν | τε πρ[ώ]τον [θ]εὸν ἄ|ψυχον ποι[ε]ῖν, τ[ο]ύς | τε γεννωμένους ὑ|πὸ τ{α}<ο>ύτου τὰ μὲν | αὐτὰ τοῖς πάθεσιν | τοῖς περὶ ἀνθρώ|πους πάσχοντας. **Cicero ND** 1.28 *Parmenides* (28A37 DK) *quidem commenticium quiddam: coronae similem efficit* (στεφάνην appellat) *continentem ardorem lucis orbem, qui cingit caelum, quem appellat deum; in quo neque figuram divinam neque sensum quisquam suspicari potest. multaque eiusdem monstra, quippe qui bellum qui discordiam qui cupiditatem ceteraque generis eiusdem ad deum revocet, quae vel morbo vel somno vel oblivione vel vetustate delentur; eademque de sideribus, quae reprehensa in alio iam in hoc omittantur.* **Hippolytus Ref.** 1.11.1 Παρμενείδης (28A23 DK) ἐν μὲν τὸ πᾶν ὑποτίθεται αἰδιόν τε καὶ ἀγέννητον καὶ σφαιροειδές.

§18 **Melissus: differently Diogenes Laertius V.P.** 9.24 Μέλισσος Ἰθαγένους Σάμιος (30A1 DK). οὗτος ἤκουσε Παρμενίδου· ... ἐδόκει δ' αὐτῷ τὸ πᾶν ἄπειρον εἶναι καὶ ἀναλλοίωτον καὶ ἀκίνητον καὶ ἐν ὅμοιον ἑαυτῷ καὶ πλήρες· κίνησιν τε μὴ εἶναι, δοκεῖν δ' εἶναι. ἀλλὰ καὶ περὶ θεῶν ἔλεγε μὴ δεῖν ἀποφαίνεσθαι· μὴ γὰρ εἶναι γινώσιν αὐτῶν.

§19 **Empedocles: Cicero ND** 1.29 *Empedocles* (—) *autem multa alia peccans in deorum opinione turpissime labitur. quattuor enim naturas, ex quibus omnia constare censet, divinas esse vult; quas et nasci et extinguī perspicuum est et sensu omni carere.* **Clement of Alexandria Strom.** 4.23.150.1 φησὶ δὲ καὶ

ὁ Ἐμπεδοκλῆς τῶν σοφῶν τὰς ψυχὰς θεοὺς γίνεσθαι ὥδέ πως γράφων (31B146 DK follows). **Hippolytus** *Ref.* 1.3.1 οὗτος (sc. Empedocles, 31A31 DK) τὴν τοῦ παντός ἀρχὴν νεῖκος καὶ φιλίαν ἔφη, καὶ τὸ τῆς μονάδος νοερὸν πῦρ τὸν θεόν, καὶ συνεστάναι ἐκ πυρὸς τὰ πάντα καὶ εἰς πῦρ ἀναλυθῆσεσθαι. *Ref.* 7.29.14 ὁ Ἐμπεδοκλῆς (on 31B115 DK) ... θεὸν καλῶν τὸ ἐν καὶ τὴν ἐκείνου ἐνότητά ... *Ref.* 7.29.16 'δαίμονες οἷτε μακραίωνος λελάχασι βίοιο' (31B115.5 DK)—δαίμονας τὰς ψυχὰς λέγων, μακραίωνας ὅτι εἰσὶν ἀθάνατοι καὶ μακροὺς ζῶσιν αἰώνας.

§21 **Xenocrates**: **Cicero** *ND* 1.34 *nec vero eius* (sc. Aristotle's) *condiscipulus Xenocrates* (fr. 17 Heinze, 181 Isnardi Parente²) *in hoc genere prudentior est, cuius in libris qui sunt De natura deorum nulla species divina describitur; deos enim octo esse dicit, quinque eos qui in stellis vagis nominantur, unum qui ex omnibus sideribus quae infixae caelo sint ex dispersis quasi membris simplex sit putandus deus, septimum solem adiungit octavamque lunam; qui quo sensu beati esse possint intellegi non potest.* **Hippolytus** *Ref.* 1.2.6 = 4.51.4 (on Pythagoras) τῶν δὲ ἀριθμῶν ἀρχὴ γέγονε καθ' ὑπόστασιν ἢ πρώτη μονάς, ἥτις ἐστὶ μονάς ἄρσην, γεννώσα πατρικῶς πάντας τοὺς ἄλλους ἀριθμούς. δεύτερον ἢ δυάς, θῆλυς ἀριθμός.

§22 **Plato**: **Cicero** *ND* 1.30 (Velleius the Epicurean speaks) *iam de Platonis inconstantia longum est dicere, qui in Timaeo* (28c) *patrem huius mundi nominari neget posse, in Legum autem libris* (7.821a) *quid sit omnino deus anquiri oportere non censeat. quod vero sine corpore ullo deum vult esse (ut Graeci dicunt ἀσώματον), id quale esse possit intellegi non potest: careat enim sensu necesse est, careat etiam prudentia, careat voluptate; quae omnia una cum deorum notione comprehendimus. idem et in Timaeo* (34b, 40a) *dicit et in Legibus* (7.821b–c, 10.866d) *et mundum deum esse et caelum et astra et terram et animos et eos quos maiorum institutis accepimus. quae et per se sunt falsa perspicue et inter se vehementer repugnanti.* **Diogenes Laertius** *V.P.* 3.77 δοκεῖ δ' αὐτῷ (sc. τῷ Πλάτῳ) τὸν θεὸν ὡς καὶ τὴν ψυχὴν ἀσώματον εἶναι. **Hippolytus** *Ref.* 1.19.3 τὸν μὲν θεὸν φησὶν ἀσώματόν τε καὶ ἀνείδεον καὶ μόνοις σοφοῖς ἀνδράσι καταληπτὸν εἶναι. *Ref.* 1.19.6–7 τὸν δὲ θεὸν οἱ μὲν ἕνα φασὶν αὐτὸν εἰπεῖν, ἀγέννητον καὶ ἄφθαρτον, ὡς λέγει ἐν τοῖς Νόμοις (*Leg.* 4.715e)· 'ὁ μὲν δὴ θεός, ὥσπερ καὶ ὁ παλαιὸς λόγος, ἀρχὴν τε καὶ τελευτὴν καὶ μέσα τῶν ὄντων ἀπάντων ἔχων' (1B6 DK)—οὕτως (γάρ) ἕνα αὐτὸν τὸν διὰ πάντων κεχωρηκότα ἀποφαίνεσθαι—οἱ δὲ καὶ πολλοὺς ἀορίστους, ὅταν λέγῃ (*Tim.* 41a)· 'θεοὶ θεῶν, (ὧν) ἐγὼ δημιουργός τε καὶ πατήρ'.

§22[112–113] **Plato**: **Epiphanius** *Haer.* 1.185.18–22 **Holl** εἶναι δὲ πρῶτον αἴτιον καὶ δεύτερον καὶ τρίτον· καὶ τὸ μὲν πρῶτον αἴτιον θεόν, τὸ δὲ δεύτερον αἴτιον ἐκ θεοῦ γεγενῆσθαι τινὰς δυνάμεις, δι' αὐτοῦ δὲ καὶ τῶν δυνάμεων γεγενῆσθαι τὴν ὕλην.

§23 **Aristotle**: **Philodemus** *Piet.* (*PHerc.* 1428) 7b Gomperz, fr. 22.10–13 Schober παρ' Ἀριστοτέλει (fr. 26 R³, 25.2 Gigon, p. 73 Ross) δ' ἐν τῷ τρίτῳ Περὶ φιλοσοφίας **Cicero** *ND* 1.33 *Aristotelesque in tertio De philosophia libro* (fr. 26 R³, 25.1 Gigon) *multa turbat a magistro suo Platone dissentiens; modo enim menti tribuit omnem divinitatem, modo mundum ipsum deum dicit esse, modo alium quendam praeficit mundo eique eas partis tribuit ut replicatione*

quadam mundi motum regat atque tueatur, tum caeli ardorem deum dicit esse non intellegens caelum mundi esse partem, quem alio loco ipse designarit deum. quo modo autem caeli divinus ille sensus in celeritate tanta conservari potest? ubi deinde illi tot dii, si numeramus etiam caelum deum? cum autem sine corpore idem vult esse deum, omni illum sensu privat, etiam prudentia. quo porro modo mundus moveri carens corpore aut quo modo semper se movens esse quietus et beatus potest? **Philo of Alexandria** *Her.* 283 πέμπτη γάρ, ὡς ὁ τῶν ἀρχαίων λόγος, ἔστω τις οὐσία κυκλοφορητική. **Arius Didymus** fr. 9 Diels at Stob. *Ecl.* 1.22.1c, p. 196.5–16 (on Aristotle) περιέχεσθαι δὲ ταῦτα ὑπὸ τοῦ αἰθέρος, ἔνθα τὰ θεῖα διανενημεμένα κατὰ σφαίρας ἴδρυται τῶν λεγομένων ἀπλανῶν τε καὶ πλανωμένων ἀστέρων. ὅσας δὲ εἶναι τὰς σφαίρας, τοσούτους ὑπάρχειν καὶ τοὺς κινούντας θεοὺς ταύτας, ὧν μέγιστον τὸν πάσας περιέχοντα, ζῶον ὄντα λογικὸν καὶ μακάριον, συνεκτικὸν καὶ προνοητικὸν τῶν οὐρανίων. συνεστάναι δὲ τὰ ἄστρα καὶ τὸν οὐρανὸν ἐκ τοῦ αἰθέρος, τοῦτον δὲ οὔτε βαρὺν οὔτε κοῦφον, οὔτε γενητὸν οὔτε φθαρτὸν, οὔτε αὐξήμενον οὔτε μειούμενον ἐς αἰεὶ διαμένειν ἄτρεπτον καὶ ἀναλλοίωτον πεπερασμένον καὶ σφαιροειδῆ καὶ ἔμψυχον κινούμενον περὶ τὸ μέσον ἐγκυκλίως. fr. 17 Diels at Stob. *Ecl.* 1.56, p. 496.20–23 τοῦ δὲ κινητικοῦ κατὰ τόπον ὃ δὴ προσείπομεν ὀρμητικόν, τὸ πρῶτον κινοῦν, καὶ ἐν ἡμῖν καὶ ἐν τοῖς ἄλλοις ζώοις ἀκίνητον εἶναι. **ps.Aristotle** *Mu.* 6 397b24–30 τὴν μὲν οὖν ἀνωτάτῳ καὶ πρώτῳ ἔδραν αὐτὸς ἔλαχεν, ὑπατός τε διὰ τοῦτο ὠνόμασται, κατὰ τὸν ποιητὴν (e.g. *Il.* A 349) ‘ἄκροτάτῃ κορυφῇ’ τοῦ σύμπαντος ἐγκαθιδρυμένος οὐρανοῦ· μάλιστα δὲ πῶς αὐτοῦ τῆς δυνάμεως ἀπολαύει τὸ πλησίον αὐτοῦ σῶμα, καὶ ἔπειτα τὸ μετ’ ἐκείνου, καὶ ἐφεξῆς οὕτως ἄχρι τῶν καθ’ ἡμᾶς τόπων. **Clement of Alexandria** *Protr.* 66.4 οὐδὲν δὲ οἶμαι χαλεπὸν ἐνταῦθα γενόμενος καὶ τῶν ἐκ τοῦ Περιπάτου μνησθῆναι· καὶ ὃ γε τῆς αἰρέσεως πατήρ, τῶν ὄλων οὐ νοήσας τὸν πατέρα, τὸν καλούμενον ‘ὑπατον’ (cf. ps.Arist. *Mu.* 6 397b24–27) ψυχὴν εἶναι τοῦ παντός οἶται· τουτέστι τοῦ κόσμου τὴν ψυχὴν θεὸν ὑπολαμβάνων αὐτὸς αὐτῷ περιπίρεται. ὁ γὰρ τοι μέχρι τῆς σελήνης αὐτῆς διορίζων τὴν πρόνοιαν (cf. ps.Arist. *Mu.* 6 397b30–398a1), ἔπειτα τὸν κόσμον θεὸν ἡγούμενος περιτρέπεται, τὸν ἄμοιρον τοῦ θεοῦ θεὸν δογματίζων. **ps.Clemens Romanus** *Recogn.* 8.15.4 (trans. Rufini) *Aristoteles* (*de Phil.* fr. 27 Walzer/Ross) *etiam quintum introducit elementum, quod acatonomaston* (sc. ἀκατονόμαστον), *id est inconpellabile nominavit, sine dubio illum indicans, qui in unum quattuor elementa coniungens mundum fecerit.* **Hippolytus** *Ref.* 7.19.3 ἢ δ’ ἐπιφάνεια (sc. τοῦ οὐρανοῦ), πέμπτη τις οὐσα οὐσία, φυσικῶν (ἐστὶν add. Marcovich) ἀπηλλαγμένη στοιχείων πάντων, ἀφ’ ὧν ὁ κόσμος τὴν σύστασιν ἔχει, καὶ ἔστιν αὕτη {τις secl. Marcovich} ἢ πέμπτη κατὰ τὸν Ἀριστοτέλην οὐσία οἰοεὶ οὐσία τις ὑπερκόσμιος. *Ref.* 7.19.4 γέγονε δὲ αὐτῷ περὶ πέμπτης οὐσίας ἴδιος λόγος, ὃς ἐστὶν αὐτῷ θεολογούμενος. **Diogenes Laertius** *V.P.* 5.32 τὸν δὲ θεὸν ἀσώματον ἀπέφαινε (sc. Aristotle), καθὰ καὶ ὁ Πλάτων· διατείνειν δὲ αὐτοῦ τὴν πρόνοιαν μέχρι τῶν οὐρανίων καὶ εἶναι ἀκίνητον αὐτόν· τὰ δ’ ἐπίγεια κατὰ τὴν πρὸς ταῦτα συμπάθειαν οἰκονομεῖσθαι. εἶναι δὲ παρὰ τὰ τέτταρα στοιχεῖα καὶ ἄλλο πέμπτον, ἐξ οὗ τὰ αἰθέρια συνεστάναι. **Calcidius** in *Tim.* c. 223 (on the Peripatetics) *animam ... quae tamen recipiatur a corpore, quippe corpori perfectionem det ipsa sitque eius entelechia, res per semet ipsam immobilis, sicut sunt artes et disciplinae, ex*

accidenti vero aliquo mobilis propterea quod sit in animalibus quae, dum vivunt, moventur. **Vita Aristotelis Marciana** 39 Düring τῇ δὲ θεολογίᾳ (sc. προσέθηκε) τὸ μὴ τὰ πάντα ἐγκόσμια εἶναι, ὡς τὸ εἰκός, ἀλλ' εἶναι τι καὶ ὑπερκόσμιον· ἐν γὰρ τῷ πέμπτῳ τῆς φυσιολογικῆς τὸ πρῶτον (*Phys.* 5.1 224a26–29) μηδὲ κατὰ συμβεβηκός φησι κινεῖσθαι, τοῦ ἐγκοσμίου διὰ τὸ ᾧ συντέτακται κατὰ συμβεβηκός κινουμένου· καὶ ἐν τῷ ὀγδόῳ τῆς Φυσικῆς (*Phys.* 8.5) τὸ πρῶτως κινουὺν ἀκίνητον εἶναι βούλεται. **Vita Aristotelis vulgata** 27–29 Düring τῇ δὲ γε φυσικῇ προσέθηκε τὴν πέμπτην οὐσίαν· (28) τῇ δὲ θεολογίᾳ εἰ καὶ μηδὲν προσέθηκεν, ἀλλ' οὖν οὐδὲν περὶ αὐτῆς ἐλλίπες ἐπραγματεύσατο· (29) οὐ γὰρ τὰ ἐγκόσμια μόνα ἦδει, ὥς τινες ὑπολαμβάνουσιν, ἀλλὰ καὶ τὰ ὑπερκόσμια, ὡς δηλοῖ καὶ ἐν τῷ ὀγδόῳ λόγῳ τῆς Φυσικῆς ἀκροάσεως (*Phys.* 8.8–10), λέγων ὅτι τὸ πρῶτον αἴτιον οὐδὲ καθ' ἑαυτὸ κινήτὸν ἐστὶν οὐδὲ κατὰ συμβεβηκός, ἐκ τούτου ἐνδεικνύμενος ὅτι οὐδὲ σῶμά ἐστι τὸ θεῖον οὐδὲ παθητόν. cf. **Minucius Felix Oct.** c. 19.3–14.

§24 **Stoics: Cicero ND** 1.36 see above §14. **ND** 1.40 (*SVF* 2.1077) *idem-que* (sc. Chrysippus) *disputat aethera esse eum quem homines Iovem appellarent, quique aër per maria manaret eum esse Neptunum, terramque eam esse quae Ceres diceretur, similique ratione persequitur vocabula reliquorum deorum.* **ND** 2.57 Zeno (*SVF* 1.171) *igitur naturam ita definit ut eam dicat ignem esse artificiosum ad gignendum progredientem via.* **ND** 3.27 *naturae ... artificiose ambulantis ut ait Zeno* (*SVF* 1.171). **Diogenes Laertius V.P.** 7.134–136 (on Stoics, *SVF* 1.85, 2.300) τοῦτον (sc. τὸν θεόν) γὰρ αἰῖδιον ὄντα διὰ πάσης αὐτῆς (sc. τῆς ὕλης) δημιουργεῖν ἔκαστα. ... (135) (*SVF* 1.102, 2.580) ἔν τε εἶναι θεὸν καὶ νοῦν καὶ εἰμαρμένην καὶ Δία· πολλαῖς τε ἐτέραις ὀνομασίαις προσονομάζεσθαι. ... (136) καὶ ὥσπερ ἐν τῇ γονῇ τὸ σπέρμα περιέχεται, οὕτω καὶ τοῦτον, σπερματικὸν λόγον ὄντα τοῦ κόσμου, τοιόνδε ὑπολείπεσθαι ἐν τῷ ὑγρῷ, εὐεργὸν αὐτῷ ποιοῦντα τὴν ὕλην πρὸς τὴν τῶν ἐξῆς γένεσιν. **V.P.** 7.147 (*SVF* 2.1021) θεὸν δὲ εἶναι ζῶον ἀθάνατον λογικὸν τέλειον {ἡ νοερὸν} ἐν εὐδαιμονίᾳ, κακοῦ παντὸς ἀνεπίδεκτον, προνοητικὸν κόσμου τε καὶ τῶν ἐν κόσμῳ· μὴ εἶναι μέντοι ἀνθρωπόμορφον. εἶναι δὲ (αὐ)τὸν μὲν δημιουργὸν τῶν ὄλων καὶ ὥσπερ πατέρα πάντων, κοινῶς τε καὶ τὸ μέρος αὐτοῦ τὸ διήκον διὰ πάντων, ὃ πολλαῖς προσηγορίαις προσονομάζεται κατὰ τὰς δυνάμεις· Δία μὲν γὰρ φασι δι' ὃν τὰ πάντα, καὶ Ζῆνα δὲ καλοῦσι παρ' ὅσον τοῦ ζῆν αἰτίος ἐστὶν ἢ διὰ τοῦ ζῆν κεχώρηκεν, Ἀθηνᾶν δὲ κατὰ τὴν εἰς αἰθέρα διάτασιν τοῦ ἡγεμονικοῦ αὐτοῦ, Ἥραν δὲ κατὰ τὴν εἰς ἀέρα, καὶ Ἥφαιστον κατὰ τὴν εἰς τὸ τεχνικὸν πῦρ, καὶ Ποσειδῶνα κατὰ τὴν εἰς τὸ ὑγρόν, καὶ Δήμητραν κατὰ τὴν εἰς γῆν· ὁμοίως δὲ καὶ τὰς ἄλλας προσηγορίας ἐχόμενοι τινος οἰκειότητος ἀπέδωσαν.

§25 **Epicurus: Cicero ND** 1.48–49 *hominis esse specie deos confitendum est.* (49) *nec tamen ea species corpus est sed quasi corpus, nec habet sanguinem sed quasi sanguinem.* ... **Epicurus** (fr. 352 Usener) ... *docet eam esse vim et naturam deorum, ut primum non sensu sed mente cernatur, nec soliditate quadam nec ad numerum, ut ea quae ille propter firmitatem στερέμνια appellat, sed imaginibus similitudine et transitione perceptis, cum infinita similiumarum imaginum species ex innumerabilibus individuis existat et ad eos [adeos or ad deos mss.: ad deos prob. Pease, Long–Sedley : a deis Davies prob. Dyck, ad nos Lambinus Usener alii] adfluat* (etc.). **Scholia in Epicurum RS** 1 at D.L. 10.139 ἐν ἄλλοις

δέ φησι (Epicurus fr. 355 Usener) τοὺς θεοὺς λόγῳ θεωρητοὺς, οὓς μὲν κατ' ἀριθμόν ὕφεστώτας, οὓς δὲ κατὰ ὁμοειδεῖαν, ἐκ τῆς συνεχοῦς ἐπιρρύσεως τῶν ὁμοίων εἰδῶλων ἐπὶ τὸ αὐτὸ ἀποτετελεσμένων, ἀνθρωποειδεῖς. **Hippolytus Ref.** 1.22.2–3 (Epicurus—) ἐκ δὲ τῶν ἀτόμων συνελθουσῶν γενέσθαι καὶ τὸν θεόν ... (3) τὸν δὲ θεὸν ὁμολογῶν εἶναι αἰδῖον καὶ ἀφθαρτόν φησι μηδενὸς προνοεῖν, καὶ ὅλως πρόνοιαν μὴ εἶναι μηδὲ εἰμαρμένην, ἀλλὰ πάντα κατὰ αὐτοματισμὸν γίνεσθαι. καθῆσθαι γὰρ τὸν θεὸν ἐν τοῖς μετακοσμοῖς οὕτω καλουμένοις ὑπ' αὐτοῦ—ἔξω γάρ τι τοῦ κόσμου οἰκητήριον τοῦ θεοῦ ἔθετο εἶναι, λεγόμενον τὰ μετακόσμια—, ἥδεσθαι τε καὶ ἡσυχάζειν ἐν τῇ ἀκροτάτῃ εὐφροσύνῃ, καὶ (Epicurus RS 1) 'οὔτε αὐτὸν [αὐτὸ Epic. at D.L. V.P. 10.139] πράγματα ἔχειν οὔτε ἄλλω παρέχειν'.

b Sources and Other Parallel Texts

General texts: **Aristotle** *APo.* 2.1 89b31–35 ἔνια δ' ἄλλον τρόπον ζητοῦμεν, οἷον εἰ ἔστιν ἢ μὴ ἔστι κένταυρος ἢ θεός· τὸ δ' εἰ ἔστιν ἢ μὴ ἀπλῶς λέγω, ἀλλ' οὐκ εἰ λευκὸς ἢ μῆ. γνόντες δὲ ὅτι ἔστι, τί ἔστι ζητοῦμεν, οἷον τί οὖν ἔστι θεός, ἢ τί ἔστιν ἄνθρωπος; **Chrysippus** (verbatim) ap. *Plu. SR* 1035a τὰ ἐν τῷ τετάρτῳ περὶ Βίων ἔχοντα κατὰ λέξιν οὕτω (*SVF* 2.1035)· 'πρῶτον μὲν οὖν δοκεῖ μοι, κατὰ τὰ ὀρθῶς ὑπὸ τῶν ἀρχαίων εἰρημένα, τρία γένη τῶν τοῦ φιλοσόφου θεωρημάτων εἶναι· τὰ μὲν λογικά, τὰ δὲ ἠθικά, τὰ δὲ φυσικά· εἴτα τούτων δεῖν τάττεσθαι πρῶτα μὲν τὰ λογικά, δευτέρα δὲ τὰ ἠθικά, τρίτα δὲ τὰ φυσικά· τῶν δὲ φυσικῶν ἔσχατος εἶναι ὁ περὶ τῶν θεῶν λόγος, διὸ καὶ τελετὰς ἡγόρευσαν τὰς τούτου παραδόσεις'. **Maximus of Tyre** *Diss.* 11.5.85–90 ἴσασι γὰρ οὐχ ἔκόντες, καὶ λέγουσιν ἄκοντες (sc. τὸ θεῖον), καὶ ἀφέλῃς αὐτοῦ τὸ ἀγαθόν, ὡς Λεύκιππος (—)· καὶ προσθῆς τὸ ὁμοπαθές, ὡς Δημόκριτος (—)· καὶ ὑπαλλάξῃς τὴν φύσιν, ὡς Στράτων (fr. 36 Wehrli, 21 Sharples)· καὶ δῶς τὴν ἡδονήν, ὡς Ἐπίκουρος (—)· καὶ μὴ εἶναι φῆς, ὡς Διαγόρας (T 55 Winiarczyk)· καὶ ἀγνοεῖν τι φῆς, ὡς Πρωταγόρας (—). **Clement of Alexandria** *Q.D.S.* 26.8 ἐν τῇ περὶ ἀρχῶν καὶ θεολογίας ἐξηγήσει. **Eusebius** *PE* 7.11.13 ταῦτα μὲν οὖν ἀπὸ μυρίων ὄσων τῆς Ἑβραίων θεολογίας ἐκκείσθω. ἄρ' οὖν ἄξιον ἐν συγκρίσει παραβάλλειν αὐτοῖς τὰς τῶν σοφῶν Ἑλλήνων θεολογίας, τῶν μὲν μὴδ' ὅλως εἶναι θεὸν ἀποφνημαμένων, τῶν δὲ τοὺς ἀστέρας εἶναι φασκόντων, οὓς καὶ μύδρους τυγχάνειν διαπύρους (not in DK but cf. P at A 2.20.8 at *PE* 15.23.5) ἢ λῶν καὶ πετάλων δίκην ἐμπεπηγότας τῷ οὐρανῷ (not in DK or Wöhrle but cf. P at A 2.14.3–4 at *PE* 15.31.2), τῶν δὲ πῦρ εἶναι τεχνικὸν ὁδῷ βαδίζον (not in *SVF*, but cf. P at A §24 at *PE* 14.16.9) ... **Marius Victorinus** in *Epist. Paul.* 2 4.9, p. 47.4–15 *Locher sed cum adiunxit 'egena elementa huius mundi; magis quasi paganos tangit qui etiam de elementis huius mundi operantur sibi deos, vel ipsa illa elementa, ut ignem colant, colant aquam, colant terram, colant aërem. nulla enim dubitatio, quin singula haec deos dicant, de quibus longa est disputatio, dummodo certum sit et ex elementis singula quaeque paganos deos dicere vel ipsorum elementorum repertores deos dicere vel ex elementis deos sibi facere, ut et de terra deos faciant, sed per ignem deos faciant, deinde etiam quosdam daemones aërios vocent, rursus alii empyrios, alii enhydros, alii geinos, id est terrenos, aquaticos, ignitos, aërios.* **Aelian** *V.H.* 2.31 καὶ τίς οὐκ ἂν ἐπῆνεσε τὴν τῶν βαρβάρων σοφίαν; εἴ γε μῆδεῖς αὐτῶν ἐς ἀθεότητα ἐξέπεσε, μὴδὲ ἀμφιβάλλουσι περὶ θεῶν ἄρα γέ εἰσιν ἢ

οὐκ εἰσιν, καὶ ἄρα γε ἡμῶν φροντίζουσιν ἢ οὐ. οὐδεὶς γοῦν ἔννοιαν ἔλαβε τοιαύτην, οἷαν Εὐήμερος ὁ Μεσσήνιος (T 22A Winiarczyk) ἢ Διογένης ὁ Φρύξ (—) ἢ Ἴππων (—) ἢ Διαγόρας (T 6ο Winiarczyk) ἢ Σωσίας (—) ἢ Ἐπίκουρος (—) οὔτε Ἰνδὸς οὔτε Κελτὸς οὔτε Αἰγύπτιος. **Lactantius** *Inst.* 1.2.2 Heck–Wlosok (mostly from Cicero) *sed et antea Protagoras* (—), *qui deos in dubium vocavit, et postea Diagoras* (T 44 Winiarczyk), *qui exclusit, et alii nonnulli, qui non putaverunt deos esse, quid aliud effecerunt nisi ut nulla esse providentia putaretur? quos tamen ceteri philosophi ac maxime Stoici* (SVF 2.1109) *acerrime rettulerunt docentes nec fieri mundum sine divina ratione potuisse nec constare, nisi summa ratione regeretur.* **Origen(?)** *Sel. in Psalm.* (fr. ex catenis) MPG 12.1053.25–1056.2 εἰ δὲ καὶ οἱ περὶ Θεοῦ ὄροι, καὶ ὅσα σημαίνεται ἐκ τῆς Θεοῦ προσηγορίας, χρησίμῳ τι ἡμῖν παρέξουσιν, ἐκλεξαμένοις ἀπ' αὐτῶν τοὺς διαφέροντας τῇ Γραφῇ, καὶ αὐτὸς ἐπιστήσεις. φησὶν οὖν ὁ αὐτὸς Ἡρόφιλος (Stoic author of a lexicon)· θεὸν μὲν γενικώτατα λέγουσι ζῶον ἀθάνατον, λογικόν, καθὼς πᾶσα λογικὴ ψυχὴ θεὸς ἐστίν. ἄλλως δὲ, ζῶον ἀθάνατον, λογικόν, καθ' αὐτὸ ὄν· ὡς τὰς ἐν ἡμῖν περιεχομένας ψυχὰς μὴ εἶναι θεοῦ· ἀπαλλαγείσας δὲ τῶν σωμάτων ἔσεσθαι. κατ' ἄλλον δὲ τρόπον θεὸν λέγεσθαι ζῶον ἀθάνατον, λογικόν, σπουδαῖον· ὥστε πᾶσαν ἀστείαν ψυχὴν θεὸν ὑπάρχειν, καὶ ἐν ἀνθρώπῳ περιέχεται· ἄλλως δὲ λέγεσθαι θεὸν τὸ καθ' αὐτὸ ὄν ζῶον ἀθάνατον, σπουδαῖον, ὡς τὰς ἐν ἀνθρώποις σοφοῖς περιεχομένας ψυχὰς μὴ ὑπάρχειν θεοῦ. καὶ ἔτι ἄλλως λέγουσι θεὸν· ζῶον ἀθάνατον, σπουδαῖον, ἔχον τινὰ ἐπιστασίαν ἐν τῷ κόσμῳ κατὰ τὴν διοίκησιν, ὃν τρόπον ὁ ἥλιος καὶ ἡ σελήνη. ἄλλως δὲ λέγει θεὸν τὸν πρῶτον διοικητικὸν τοῦ κόσμου. ἐπὶ πᾶσι δὲ θεὸν λέγουσι· ζῶον ἄφθαρτον καὶ ἀγέννητον, καὶ πρῶτον βασιλέα, ἣν ἔχει χώραν ὁ σύμπας κόσμος. **Eusebius** *PE* 15.62.12 (Ariston *SVF* 1.353) καὶ ἄλλως δὲ εἶναι τοὺς φυσικοὺς λόγους οὐ χαλεποὺς οὐδὲ ἀδυνάτους μόνον, ἀλλὰ καὶ ἀσεβεῖς καὶ τοῖς νόμοις ὑπεναντίους. τοὺς μὲν γὰρ ἀξιῶν μὴδ' εἶναι θεοῦ τὸ παράπαν, τοὺς δὲ τὸ ἀπειρον ἢ τὸ ὄν ἢ τὸ ἐν, καὶ πάντα μᾶλλον ἢ τοὺς νομιζομένους. **Proclus** *in Eucl.* prol. 2, p. 80.10–19 οἱ δὲ περὶ Ζηνόδοτον τὸν προσήκοντα μὲν τῇ Οἰνοπίδου (fr. 12 Bodnár) διαδοχῇ, τῶν μαθητῶν δὲ Ἀνδρωνος, διώριζον τὸ θεώρημα τοῦ προβλήματος, ἧ τὸ μὲν θεώρημα ζητεῖ, τί ἐστὶ τὸ σύμπτωμα τὸ κατηγορούμενον τῆς ἐν αὐτῷ ὕλης, τὸ δὲ πρόβλημα, τίνος ὄντος τί ἐστίν. ὅθεν καὶ οἱ περὶ τὸν Ποσειδώνιον (F 195 E.-K., 464 Theiler) τὸ μὲν ἀφωρίζοντο πρότασιν, καθ' ἣν ζητεῖται τὸ εἶ ἔστιν ἢ μὴ, τὸ δὲ {πρόβλημα πρότασιν secl. Kidd}, ἐν ἣ ζητεῖται τί ἐστίν ἢ ποῖόν τι, καὶ τὴν μὲν θεωρητικὴν πρότασιν ἔλεγον δεῖν ἀποφαντικῶς σχηματίζειν, οἷον πᾶν τρίγωνον μείζους ἔχει τὰς δύο τῆς λοιπῆς, καὶ παντὸς ἰσοσκελοῦς αἰ πρὸς τῇ βάσει ἴσαι, τὴν δὲ προβληματικὴν, ὥσπερ ζητούντας, εἰ ἐστὶν ἐπὶ τῇδε τῆς εὐθείας συστήσασθαι τρίγωνον κτλ.

Chapter heading: Protagoras at Diogenes Laertius *V.P.* 9.54 (80A1 DK) πρῶτον δὲ τῶν λόγων ἑαυτοῦ ἀνέγνω τὸν Περί θεῶν. **Xenocrates** at D.L. *V.P.* 4.13 (p. 158.42 Heinze, test. 2 Isnardi Parente²) Περί θεῶν α'β'. **Theodorus of Cyrene** at D.L. *V.P.* 2.97 (T 45 Winiarczyk) αὐτοῦ περιετύχον βιβλίῳ ἐπιγεγραμμένῳ Περί θεῶν, οὐκ εὐκαταφρονήτῳ, ἐξ οὗ φασιν Ἐπίκουρον λαβόντα τὰ πλεῖστα εἰπεῖν. **Epicurus** at Philod. *Piet.* (*PHerc.* 1077) 1.189–190 Obbink (*dep. libr.* fr. [17][2] Arrighetti²) Ἐπικούρῳ ἐν [τῷ Περί θ]εῶν. **Chamaeleon** at Clem.Alex. *Strom.* 1.14.60.3 Χαμαιλέων (fr. 2a Wehrli) δὲ ἐν τῷ Περί θεῶν. **Strato** at D.L.

V.P. 5-59 (fr. 18 Wehrli, 1 Sharples) 4. Περὶ θεῶν γ'. **Persaeus** at Philod. *Piet.* (*PHerc.* 1428) col. ii.28–34 Henrichs Περσαῖος (*SVF* 1.448) ... ἐν τῷ Περὶ θεῶν. **Cleanthes** at D.L. V.P. 7.175 (*SVF* 1.481) Περὶ θεῶν. **Chrysippus** at D.L. V.P. 7.148 Χρύσιππος (*SVF* 2.1022) ἐν τῷ α' Περὶ θεῶν (cf. *SVF* 3 p. 197 xxiii). **Antipater** at Plu. *S.R.* 1051E (*SVF* 3 Ant. 33) Ἀντίπατρος ὁ Ταρσεὺς ἐν τῷ Περὶ θεῶν. **Apolodorus of Athens** at Hellanicus *FGrH* 323 F 27 Ἀπολλόδωρος (*FGrH* 244 F 106) ἐν τοῖς Περὶ θεῶν. **Posidonius** at D.L. V.P. 7.148 Ποσειδώνιος (F 20 E.-K., 344 Theiler) ἐν α' Περὶ θεῶν. **Antiochus** at Plu. *Luc.* 28.8 Ἀντίοχος (fr. 31 Luck) ὁ φιλόσοφος ἐν τῇ Περὶ θεῶν γραφῇ. **Philo of Alexandria** *Fug.* 164 εὐχεται παρ' αὐτοῦ μαθεῖν τοῦ θεοῦ, τίς ἐστὶν ὁ θεός. **Pliny** *Nat.* 1 p. 11.8 *De deo*. **Maximus of Tyre** *Diss.* 11 (in mrg.) Τίς ὁ θεός κατὰ Πλάτωνα, cf. 11.2c ξυνηπιλαβέσθαι ἡμῖν τοῦ παρόντος λόγου, τί ποτέ ἐστι τὸ θεῖον κατὰ Πλάτωνα σκοποῦμενοις. **Iamblichus** V.P. 146 Πυθαγόραν (fr. Thesleff p. 164.4) συντάξαι τὸν Περὶ θεῶν λόγον. **Simplicius in Phys.** 23.15–16 (Xenophanes 21A31 DK, Theophrastus *Phys.Op.* fr. 5 Diels, 224 FHS&G) Νικόλαος δὲ ὁ Δαμασκηνὸς ... ἐν τῇ Περὶ θεῶν. **Suda** s.v. Φ 418 φιλόσοφος (i.e. Philip of Opus fr. i Tarán, F 2 Lasserre), p. 4.733.28 Adler Περὶ θεῶν β'.

§1 **Atheism, question of existence:** Protagoras fr. 80B4 DK περὶ μὲν θεῶν οὐκ ἔχω εἰδέναι οὐθ' ὥς εἰσὶν, οὐθ' ὥς οὐκ εἰσὶν· πολλὰ γὰρ τὰ καλῶντα εἰδέναι, ἢ τ' ἀδηλότης καὶ βραχὺς ὢν ὁ βίος τοῦ ἀνθρώπου. **Euripides** *Belleroph.* fr. 286 Kannicht at ps.**Justin** *Mon.* 6, p. 98 Marcovich φησὶν τις εἶναι δῆτ' ἐν οὐρανῷ θεούς; / οὐκ εἰσὶν, οὐκ εἴσ'· εἴ τις ἀνθρώπων λέγει, / μὴ τῷ παλαιῷ μῶρος ὢν χρησθῶ λόγῳ κτλ. **Epicurus** Περὶ φύσεως (Book 12, fr. 87 Usener, *dep. libr.* fr. [27][2] Arrighetti) at Philod. *Piet.* (*PHerc.* 1077) 1.518–533 Obbink αὐτ[ο]ῖς δὲ [καὶ] πᾶσαν μ[ανίαν] Ἐ[π]ίκουρος ἐμ[έ]ψα[το] τοῖς τὸ [θεῖον ἐ]κ τῶν ὄντων [ἀναι]ρ[ο]σιν, ὥς κά[ν] τῷ | δωδεκάτω[ι] Προ[κ]ρίτω (—) καὶ Δια[γ]όρ[αι] (T 39 Winiarczyk) | καὶ Κρι[τ]ία (—) κα[ὶ] [λ]οῖς | μέμφ[ε]ται φάς πα[ρ]α[κ]όπτειν καὶ [μ]αν[ε]σ[θ]αι, καὶ βακχεύου[σιν] αὐτοὺς [εἰ]κά[ζει], κε[]λεύσ[ας] μ[ὴ] πράγμα ἡμεῖν παρέχειν οὐδ' ἐνοχλεῖν. **Plutarch** CN 1075A οἱ γοῦν ἄθεοι προσαγορευθέντες οὕτοι, Θεόδωροι (T 53 Winiarczyk) καὶ Διαγόροι (T 39 Winiarczyk) καὶ Ἰπώνες (cf. 38A8 DK), οὐκ ἐτόλμησαν εἰπεῖν τὸ θεῖον ὅτι φθαρτὸν ἐστίν, ἀλλ' οὐκ ἐπίστευσαν ὥς ἐστι τι ἄφθαρτον, τοῦ μὲν ἀφθάρτου τὴν ὑπαρξιν μὴ ἀπολείποντες τοῦ δὲ θεοῦ τὴν πρόληψιν φυλάττοντες. **Diogenes Laertius** V.P. 4.55 (epigram) Βίωνα (T 6A–B Kindstrand), τὸν Βορυσθένης ἔφυσε γῇ Σκύθισσα, / λέγειν ἀκούομεν θεοὺς ὥς οὐδὲν εἰσιν ὄντως κτλ. **Lactantius** *Ir.D.* 9.7 Ingremeau *verum his postea temporibus quibus iam philosophia defloruerat, extitit Melius quidam Diagoras* (T 45 Winiarczyk), *qui nullum esse omnino deum diceret ob eamque sententiam nominatus est atheus, item Cyrenaeus Theodorus* (T 33 Winiarczyk); *et ambo, quia nihil novi poterant reperire omnibus iam dictis et inventis, maluerunt contra veritatem id negare in quo priores universi sine ambiguitate consenserant.*

§1[24–26] **God's impotence:** Plato *Phd.* 103d καὶ τὸ πῦρ γε αὖ προσίοντος τοῦ ψυχροῦ αὐτῷ ἢ ὑπεξίναται ἢ ἀπολείσθαι, οὐ μέντοι ποτὲ τολμήσειν δεξάμενον τὴν ψυχρότητα ἔτι εἶναι ὅπερ ἦν, πῦρ καὶ ψυχρόν. **Aristotle** *Cat.* 10 12b40–41 οὐ γὰρ ἐνδέχεται τὸ πῦρ ψυχρόν εἶναι οὐδὲ τὴν χιόνα μέλαιναν. *Cat.* 10 12b12–15 ὥς

γάρ ποτε ἢ κατάφασις πρὸς τὴν ἀπόφασιν ἀντίκειται, οἷον τὸ κάθηται—οὐ κάθηται, οὕτω καὶ τὸ ὑφ' ἐκάτερον πρᾶγμα ἀντίκειται, τὸ καθῆσθαι—μὴ καθῆσθαι. **Cicero Luc.** 50 *quis enim tibi dederit aut omnia deum posse aut ita facturum esse si possit?* **ND** 3.92 (Cotta the Academic speaks) *vos enim ipsi dicere soletis nihil esse quod deus efficere non possit, et quidem sine labore ullo; ut enim hominum membra nulla contentione mente ipsa ac voluntate moveantur, sic numine deorum omnia fingi moveri mutarique posse.* **Pliny Nat.** 2.27 *imperfectae vero in homine naturae praecipua solatia, ne deum quidem posse omnia—namque nec sibi potest mortem consciscere, si velit, quod homini dedit optimum in tantis vitae poenis, nec mortales aeternitate donare aut revocare defunctos nec facere ut qui vixit non vixerit, qui honores gessit non gesserit—nullumque habere in praeterita ius praeterquam oblivionis atque (ut facetis quoque argumentis societas haec cum deo copuletur) ut bis dena viginti non sint aut multa similiter efficere non posse.* **ps.Plutarch Cons.Ap.** 115A τὸ μὲν γὰρ γεγενημένον οὐδὲ θεῶν δυνατόν ἐστι ποιῆσαι ἀγέννητον. **Alexander of Aphrodisias Fat.** 200.19–22 τὰ γὰρ ἀδύνατα τῇ αὐτῶν φύσει καὶ παρὰ τοῖς θεοῖς τὴν αὐτὴν φυλάττει φύσιν. ἀδύνατον γὰρ καὶ τοῖς θεοῖς ἢ τὸ τὴν διάμετρον ποιῆσαι τῇ πλευρᾷ σύμμετρον ἢ τὰ δις δύο πέντε εἶναι ἢ τῶν γεγονότων τι μὴ γεγονέναι. **Galen UP** 11.14, 3.905.1–906.9 K. ἄρ' οὖν προσέταξε ταύταις μόναις ταῖς θριξίν ὁ δημιουργὸς ἡμῶν ἴσον αἰε φυλάττειν τὸ μέγεθος, αἱ δ' ἦτοι δεδοικυῖαι τὴν ἐπίταξιν τοῦ δεσπότης ἢ αἰδούμεναι τὸν προστάξαντα θεὸν ἢ αὐταὶ πεπεισμένοι βέλτιον εἶναι δρᾶν τοῦτο διαφυλάττουσιν, ὥς ἐκελεύσθησαν; ἢ Μω(ϋ)σῆς μὲν οὕτως ἐφυσιολόγει, καὶ βέλτιον οὕτως ἢ ὡς Ἐπίκουρος (—); ... καὶ τοῦτ' ἔστι, καθ' ὃ τῆς Μω(ϋ)σοῦ δόξης ἢ θ' ἡμετέρα καὶ ἡ Πλάτωνος καὶ ἡ τῶν ἄλλων τῶν παρ' Ἑλλήσιν ὁρθῶς μεταχειρισσαμένων τοὺς περὶ φύσεως λόγους διαφέρει. τῷ μὲν γὰρ ἀρκεῖ τὸ βουληθῆναι τὸν θεὸν κοσμήσαι τὴν ὕλην, ἡ δ' εὐθὺς κεκόσμηται· πάντα γὰρ εἶναι νομίζει τῷ θεῷ δυνατόν, καὶ εἰ τὴν τέφραν ἵππον ἢ βοῦν ἐθέλοι ποιεῖν. ἡμεῖς δ' οὐχ οὕτω γινώσκουμεν, ἀλλ' εἶναι γὰρ τινα λέγομεν ἀδύνατα φύσει καὶ τούτοις μὴδ' ἐπιχειρεῖν ὅλως τὸν θεόν, ἀλλ' ἐκ τῶν δυνατῶν γενέσθαι τὸ βέλτιστον αἰρεῖσθαι. **Irenaeus of Lyon Haer.** (trans. Rufini) 2.28.4 *ut puta, si quis (sc. Gnosticus) interroget: antequam mundum faceret Deus, quid agebat? dicemus quoniam ista responsio subiacet Deo. quoniam autem mundus hic factus est ἀποτελεστικῶς a Deo, temporale initium accipiens, Scripturae nos docent; quid autem ante hoc Deus sit operatus, nulla Scriptura manifestat.* **Sextus Empiricus P.** 1.33 ὁ Ἀναξαγόρας (59A97 DK) τῷ λευκῇ εἶναι τὴν χιόνα ἀντετίθει ὅτι ἡ χιῶν ὕδωρ ἐστὶ πεπηγός, τὸ δὲ ὕδωρ ἐστὶ μέλαν, καὶ ἡ χιῶν ἄρα μέλαινα ἐστίν.

§1[27–41] **Against Plato and Anaxagoras: Plato Tim.** 30a βουληθεὶς γὰρ ὁ θεὸς ἀγαθὰ μὲν πάντα, φλαύρον δὲ μηδὲν εἶναι κατὰ δύναμιν, οὕτω δὴ πᾶν ὅσον ἦν ὁρατὸν παραλαβὼν οὐχ ἡσυχίαν ἄγον ἀλλὰ κινούμενον πλημμελῶς καὶ ἀτάκτως, εἰς τάξιν αὐτὸ ἡγάγεν ἐκ τῆς ἀταξίας, ἡγησάμενος ἐκεῖνο τούτου πάντως ἄμεινον. **Philo of Alexandria Plant.** 3 ἐπειδὴ γὰρ τὴν οὐσίαν ἄτακτον καὶ συγκεχυμένην οὖσαν ἐξ αὐτῆς εἰς τάξιν ἐξ ἀταξίας καὶ ἐκ συγχύσεως εἰς διάκρισιν ἄγων ὁ κοσμοπλάστης μορφοῦν ἤρξατο. **Alcinous Did.** c. 12, p. 167.15–19 H. ἐκ τῆς πάσης οὖν ὕλης αὐτὸν (sc. τὸν κόσμον) ἐδημιούργει· ἦν ἀτάκτως καὶ πλημμελῶς κινουμένην πρὸ τῆς οὐρανοῦ γενέσεως ἐκ τῆς ἀταξίας παραλαβὼν πρὸς τὴν ἀρίστην ἡγάγε τάξιν.

Themistius *Or.* 2, p. 39.8–16 Dindorf τούντεῦθεν ἔποιτ' ἂν ἡμῖν ἐπισκοπεῖσθαι τε καὶ ἐξετάζειν τί πράττων ὁ θεὸς θεός ἐστι· πότερον ὑπὲρ προτάσεων ἐξηγούμενος καὶ τρόπων περαντικῶν τε καὶ ἀπεράντων, ἢ ἄλλου του χρῆ ἐποριγνᾶσθαι τὸν μέλλοντα αὐτῷ κατὰ σμικρὸν τι ἀπεικασθῆσεσθαι. οὐδὲν δὲ ἴσως ἡμᾶς ἂν δέοι πράγματα ἔχειν ζητοῦντας καὶ ἐρευνῶντας, ἀλλ' αὐτὸς ὁ Πλάτων ἐρεῖ τὸ ἔργον τοῦ θεοῦ τῇ λαμπρᾷ καὶ μεγάλῃ φωνῇ. βουλευθεὶς γάρ, φησὶν, ὁ θεός κτλ. (quoting *Tim.* 30a).

§1[28] **Aristophanes** *Nub.* 398–400; see also below §1[52–58].

§1[35–36] **Providence?** **Dio Chrysostom** *Or.* 33.47 τί δὴ οἴεσθε, εἰ καθάπερ εἰκός ἐστι καὶ φασὶ τοὺς οἰκιστὰς ἡρώας ἢ θεοὺς πολλάκις ἐπιστρέφεσθαι τὰς αὐτῶν πόλεις τοῖς ἄλλοις ὄντας ἀφανεῖς ἐν τε θυσίαις καὶ τισιν ἑορταῖς δημοτελέσιν; **Epic-tetus** *Diss.* 1.27.13–14 κάθημαι καὶ στένω καὶ δν δύναιμι λοιδορῶ, τὸν Δία καὶ τοὺς θεοὺς τοὺς ἄλλους· εἰ γάρ (14) μὴ ἐπιστρέφονται μοι, τί ἐμοὶ καὶ αὐτοῖς;

§1[35–40] **Epicurean view:** **Epicurus** *Ep.Men.* at D.L. 10.123 πρῶτον μὲν τὸν θεὸν ζῶον ἄφθαρτον καὶ μακάριον νομίζων, ὡς ἡ κοινὴ τοῦ θεοῦ νόησις ὑπεγράφη, μὴθὲν μῆτε τῆς ἀφθαρσίας ἀλλότριον μῆτε τῆς μακαριότητος ἀνοίκειον αὐτῷ πρόσαπτε· πᾶν δὲ τὸ φυλάττειν αὐτοῦ δυνάμενον τὴν μετὰ ἀφθαρσίας μακαριότητα περὶ αὐτὸν δόξαζε. *Ep.Hdt.* at D.L. 10.78. *R.S.* 1 at D.L. 10.139 τὸ μακάριον καὶ ἄφθαρτον οὕτε αὐτὸ πράγματα ἔχει οὕτε ἄλλω παρέχει, ὥστε οὕτε ὀργαῖς οὕτε χάρισι συνέχεται· ἐν ἀσθενεῖ γάρ πᾶν τὸ τοιοῦτον. differently **Antipater of Tarsus** at *Plu.* *SR* 1051E–F Ἀντίπατρος ὁ Ταρσεὺς (*SVF* 3 *Ant.* 33) ἐν τῷ Περὶ θεῶν γράφει ταῦτα κατὰ λέξιν· ‘Πρὸ δὲ τοῦ σύμπαντος λόγου τὴν ἐνάργειαν, ἣν ἔχομεν περὶ θεοῦ, διὰ βρα[F]χέων ἐπιλογισμέθα· θεὸν τοίνυν νοοῦμεν ζῶον μακάριον καὶ ἄφθαρτον καὶ εὐποητικὸν ἀνθρώπων’. **Lucretius** *DRN* 5.156–167 *dicere porro hominum causa voluisse parare / praeclaram mundi naturam ... / (164) cetera de genere hoc adfingere et addere, Memmi, / desipere. quid enim immortalibus atque beatis / gratia nostra queat largiri emolumenti, / ut nostra quicquam causa gerere adgrediantur?* **Cicero** *ND* 1.45 (= *Epic. R.S.* 1) *quod beatum aeternumque sit id nec habere ipsum negotii quicquam nec exhibere alteri, itaque neque ira neque gratia teneri, quod quae talia essent inbecilla essent omnia.* *ND* 2.133–162 (**Balbus** the Stoic speaks). **Tacitus** *Ann.* 6.22 *quippe sapientissimos veterum quique sectam eorum aemulantur diversos reperies, ac multis insitam opinionem non initia nostri, non finem, non denique homines dis curae; ideo creberrime tristitia in bonos, laeta apud deteriores esse.*

§1[42–51] **Arguments against demiurge:** **Lucretius** *DRN* 5.168–173 *quidve novi potuit tanto post ante quietos / inlicere ut cuperent vitam mutare priorem? nam gaudere novis rebus debere videtur / cui veteres obsunt; sed cui nihil accidit aegri / tempore in ante acto, cum pulchre degeret aevom, / quid potuit novitatis amorem accendere tali?* **Cicero** *ND* 1.21–22 (**Velleius** the Epicurean speaks) *sciscitor cur mundi aedificatores repente exstiterint, innumerabilia saecula dormierint; non enim si mundus nullus erat saecula non erant. ... (22) isto igitur tam inmenso spatio quaero, Balbe, cur Pronoea vestra cessaverit. laboremne fugiebat? at iste nec attingit deum nec erat ullus, cum omnes naturae numini divino, caelum ignes terrae maria, parerent. ... si ut deus ipse melius habitaret, antea videlicet tempore infinito in tenebris tamquam in gurgustio hab-*

itaverat. Philo of Alexandria Aet. 39–43 (Arist. fr. 21 Rose³, *de Phil.* fr. 19c Walzer/Ross). *Aet.* 83–84 (on Boethus, SVF 3 Boeth. 7) ἔτι πρὸς τούτοις, ἐὰν ἐκπυρωθῇ, φασί, τὰ πάντα, τί κατ' ἐκείνον ὁ θεὸς πράξει τὸν χρόνον; ἢ τὸ παράπαν οὐδέν; καὶ μήποτ' εἰκότως· νυνὶ μὲν γὰρ ἕκαστα ἐφορᾷ καὶ πάντων οἷα γνήσιος πατήρ ἐπιτροπεύει καί, εἰ δεῖ τάληθές εἰπεῖν, ἡνιόχου καὶ κυβερνήτου τρόπον ἡνιοχεί καὶ πηδاليουχεί τὰ σύμπαντα, ἡλίω τε καὶ σελήνῃ καὶ τοῖς ἄλλοις πλάνησι καὶ ἀπλανέσιν ἔτι δ' ἄερί καὶ τοῖς (ἄλλοις) μέρεσι τοῦ κόσμου παριστάμενος καὶ συνδρῶν ὅσα πρὸς τὴν τοῦ ὅλου διαμονήν καὶ τὴν κατ' ὀρθὸν λόγον ἀνυπαίτιον διοίκησιν. (84) πάντων δ' ἀναιρεθέντων, ὑπ' ἀργίας καὶ ἀπραξίας δεινῆς ἀβιώτῳ βίῳ χρήσεται· οὐ τί γένοιτο· ἂν ἀτοπώτερον; ὁκνῶ λέγειν, ὃ μὴδὲ θέμις ὑπονοεῖν, ὅτι ἀκολουθήσει θεῷ θάνατος, εἴ γε καὶ ἡρεμία· τὸ γὰρ ἀεικίνητον ἐὰν ἀνέλῃς ψυχῆς, καὶ αὐτὴν πάντως συνανελεῖς· ψυχὴ δὲ τοῦ κόσμου κατὰ τοὺς ἀντιδοξοῦντας ὁ θεός. **Oenomaus of Gadara** at Eus. *PE* 5.19.2. **Diogenes of Oenoanda** NF 126/127 IX = NF 127 IV.2–4 τί ἥρρει] / τὸν πρὸ τοῦ κ[όσμου χρό]/νον ἄπειρο[ν; **Celsus** at Orig. *Cels.* 6.78.12–14 Marcovich. **Origen** *Princ.* 3.5.3 (trans. Rufini) *sed solent* (sc. Gnostici) *nobis obicere dicentes: si coepit mundus ex tempore, quid ante faciebat deus quam mundus inciperet? otiosam enim et immobilem dicere naturam dei impium est simul et absurdum vel putare quod bonitas aliquando bene non fecerit et omnipotentia aliquando non egerit potentatum. haec nobis obicere solent dicentibus mundum hunc ex certo tempore coepisse et secundum scripturae fidem annos quoque aetatis ipsius numerantibus. ad quas propositiones non arbitror aliquem haereticorum secundum rationem dogmatis sui posse facile respondere. nos vero consequenter respondebimus observantes regulam pietatis et dicentes quoniam non tunc primum, cum visibilem istum mundum fecit deus, coepit operari, sed sicut post corruptionem huius erit alius mundus, ita et antequam hic esset, fuisse alios credimus. **Augustine** *Conf.* 11.10.1–6 *nonne ecce pleni sunt vetustatis suae qui nobis dicunt: 'quid faciebat Deus, antequam faceret caelum et terram? si enim vacabat, inquit, et non operabatur aliquid, cur non sic semper et deinceps, quemadmodum retro semper cessavit ab opere? si enim ullus motus in Deo novus extitit et voluntas nova, ut creaturam conderet, quam numquam ante condiderat, quomodo iam vera aeternitas, ubi oritur voluntas, quae non erat?'* *de Gen. c. Man.* 1.2.3 *primum ergo librum Veteris Testamenti, qui inscribitur Genesis, sic solent Manichaei reprehendere. 'quod scriptum est, in principio fecit Deus coelum et terram' (Gen. 1:1), quaerunt, 'in quo principio'; et dicunt: 'si in principio aliquo temporis fecit Deus coelum et terram, quid agebat antequam faceret coelum et terram? et quid ei subito placuit facere, quod nunquam antea fecerat per tempora aeterna?'* **Ioannes Cassianus** *Conl.* 8.7.2, pp. 222.26–223.4 *Petschenig nec enim existimare debemus creationis et opificii sui principia ab huius mundi constitutione Deum primitus inchoasse, quasi in illis anterioribus atque innumeris saeculis ab omni providentia et dispensatione divina fuerit otiosus, ac tamquam non habens in quos bonitatis suae exerceret beneficia solitarius atque ab omni munificentia alienus fuisse credatur. **Isidore of Seville** *Sent.* 1.8.5 *dicunt quidam quia subito voluit Deus facere mundum, quod ante non fecit, voluntatem Dei inmutari arbitrantes, qui aliquando voluit quod aliquando non voluit. quibus***

respondendum est: 'voluntas Dei Deus est, quia non ipse aliud est, aliud voluntas eius, sed hoc est illi velle quod ipse est, et quod ipse est utique aeternus et immutabilis est'.

§1[46] *Demiurge asleep: Sententiae Secundi* 20 τί ἐστι θάνατος; αἰώνιος ὕπνος.

§1[52–58] *Omnipotence? Theodicy: Hesiod Op.* 5–8 ῥέα μὲν γὰρ βριάει, ῥέα δὲ βριάοντα χαλέπτει, / ῥεία δ' ἀρίζηλον μινύθει καὶ ἄδηλον ἀέξει, / ῥεία δὲ τ' ἰθύνει σκολιὸν καὶ ἀγήνορα κάρφει / Ζεὺς ὑψιβρεμέτης. *Aristophanes Nub.* 398–400 καὶ πῶς, ὦ μῶρε σὺ καὶ Κρονίων ὄζων καὶ βεκκεσέληνε, / εἶπερ βάλλει τοὺς ἐπιόρκους, δῆτ' οὐχὶ Σίμων' ἐνέπρησεν / οὐδὲ Κλεώνυμον οὐδὲ Θέωρον; καί-τοι σφόδρα γ' εἶς' ἐπιόρκοι. *Plut.* 489–491 φανερόν μὲν ἔγωγ' οἶμαι γινῶναι τοῦτ' εἶναι πᾶσιν ὁμοίως, / ὅτι τοὺς χρηστοὺς τῶν ἀνθρώπων εἰ πράττειν ἐστὶ δίκαιον, / τοὺς δὲ πονηροὺς καὶ τοὺς ἀθέους τούτων τάναντία δῆπου. *Lucretius DRN* 2.1103–1104 ... *telum, quod saepe nocentes / praeterit exanimatque indignos inque merentes.* *DRN* 6.387–396 *quod si Iuppiter atque alii fulgentia divi / terrifico quatunt sonitu caelestia templa / et iaciunt ignem quo cuiquest cumque voluntas, / cur quibus incautum scelus aversabile cumquest / non faciunt icti flammis ut fulguris halent / pectore perfixo, documen mortalibus acre, / et potius nulla sibi turpi conscius in re / volvitur in flammis innoxius inque peditur / turbine caelesti subito correptus et igni? / cur etiam loca sola petunt frustra laborant?* *Cicero ND* 3.81–82 (the Academic Cotta speaks) *duodequadragesima Dionysius tyrannus annos fuit opulentissimae et beatissimae civitatis; (82) quam multos ante hunc in ipso Graeciae flore Pisistratus. ... praedones multi saepe poenas dant, nec tamen possumus dicere non pluris captivos acerbè quam praedones necatos.* *Anaxarchum Democriteum* (—) *a Cyprio tyranno excarnificatum accepimus, Zenonem Eleatem* (—) *in tormentis necatum; quid dicam de Socrate, cuius morti inlacrimare soleo Platonem legens?* *Seneca Nat.* 2.46.1 'at quare Iuppiter aut ferienda transit aut innoxia ferit?' 'in maiorem me quaestionem vocas, cui suus dies, suus locus dandus est'. *Gellius N.A.* 7.1.pr.–3 *quem in modum responderit Chrysippus* (SVF 2.1169) *adversum eos, qui providentiam consistere negaverunt. quibus non videtur mundus dei et hominum causa institutus neque res humanae providentia gubernari, gravi se argumento uti putant, cum ita dicunt: 'si esset providentia, nulla essent mala.' nihil enim minus aiunt providentiae congruere, quam in eo mundo, quem propter homines fecisse dicatur, tantam vim esse aerumnarum et malorum. adversus ea Chrysippus cum in libro Περί προνοίας quarto dissereret: 'nihil est prorsus istis' inquit 'insubidius, qui opinantur bona esse potuisse, si non essent ibidem mala' etc.* *Lactantius Ira D.* 13.20–22 *Ingremeau argumentum Epicuri* (fr. 374 Usener): *deus, inquit, aut vult tollere mala et non potest, aut potest et non vult, aut neque vult neque potest, aut et vult et potest. (21) si vult et non potest, inbecillus est, quod in deum non cadit; si potest et non vult, invidus, quod aequè alienum est a deo; si neque vult neque potest, et invidus et inbecillus est ideoque nec deus; si et vult et potest, quod solum deo convenit, unde ergo sunt mala aut cur illa non tollit? (22) scio plerosque philosophorum qui providentiam defendunt hoc argu-*

mento perturbari solere et invitos paene adigi ut deum nihil curare fateantur, quod maxime quaerit Epicurus. *Suda* s.v. K 1575, p. 3.114-7-8 Adler *κίβδηλον* μέν ἐστιν ὅταν ἔχῃ ἐπιφάνειαν ὡς ἀστειόν, ἥ δὲ μοχθηρόν τῷ τρόπῳ, also found at Phot. Lex. K 693.3-4.

§§2-25 *Theism: Fragmenta tragica adespota* fr. 622.1 Snell-Kannicht θεὸν δὲ ποῖον, εἰπέ μοι, νοητέον; *Flavius Josephus Ap.* 2.167-169 ἓνα αὐτὸν (sc. τὸν θεόν) ἀπέφηνε (sc. ὁ δ' ἡμέτερος νομοθέτης) καὶ ἀγέννητον καὶ πρὸς τὸν αἰδίων χρόνον ἀναλλοίωτον πάσης ιδέας θνητῆς ἀλλεὶ διαφέροντα καὶ δυνάμει μὲν ἡμῖν γινώριμον, ὁποῖος δὲ κατ' οὐσίαν {ἐστίν} ἄγνωστον. ταῦτα περὶ θεοῦ φρονεῖν οἱ σοφώτατοι παρ' Ἑλλήσιν ὅτι μὲν ἐδιδάχθησαν ἐκείνου τὰς ἀρχὰς παρασχόντος, ἐὼ νῦν λέγειν, ὅτι δ' ἐστὶ καλὰ καὶ πρέποντα τῇ τοῦ θεοῦ φύσει καὶ μεγαλειότητι, σφόδρα μεμαρτυρήκασιν· καὶ γὰρ Πυθαγόρας (—) καὶ Ἀναξαγόρας (—) καὶ Πλάτων οἱ τε μετ' ἐκείνων ἀπὸ τῆς Στοᾶς (—) φιλόσοφοι καὶ μικροῦ δεῖν ἅπαντες οὕτως φαίνονται περὶ τῆς τοῦ θεοῦ φύσεως πεφρονηκότες. *Plutarch Amat.* 763C τῆς δ' οὖν περὶ θεῶν δόξης καὶ παντάπασιν ἡγεμόνες καὶ διδάσκαλοι ἡμῖν οἱ τε ποιηταὶ καὶ οἱ νομοθέται καὶ τρίτον οἱ φιλόσοφοι, τὸ μὲν {οὖν} εἶναι θεοὺς ὁμοίως τιθέμενοι, πλήθους δὲ πέρι καὶ τάξεως αὐτῶν οὐσίας τε καὶ δυνάμεως μεγάλα διαφερόμενοι πρὸς ἀλλήλους κτλ. *Diogenes Laertius VP.* proem. 6 (Sotion fr. 36 Wehrli) τοὺς δὲ Μάγους ... ἀποφαίνεσθαι τε περὶ οὐσίας θεῶν καὶ γενέσεως, οὓς καὶ πῦρ εἶναι καὶ γῆν καὶ ὕδωρ.

§2 *Thales: Plato Leg.* 10 899b ἔσθ' ὅστις ταῦτα ὁμολογῶν ὑπομενεῖ μὴ θεῶν εἶναι πλήρη πάντα; *ps.Plato* (i.e. Philip of Opus) *Epin.* 991d ἡγήσασιν' ἂν παγκάλλως τε καὶ ἱκανῶς εἰρήσθαι τὸ θεῶν εἶναι πάντα πλέα. *Aristotle de An.* 1.5 411a7 καὶ ἐν τῷ ὅλῳ δὲ τινες αὐτὴν (sc. τὴν ψυχὴν) μεμεῖχθαι φασιν, ὅθεν ἴσως καὶ Θαλῆς (11A22 DK) ᾤθη πάντα πλήρη θεῶν εἶναι. *Diogenes Laertius VP.* 9.7 (on Herac- litus, 22A1 DK) καὶ πάντα ψυχῶν εἶναι καὶ δαιμόνων πλήρη. *Hippolytus Ref.* 1.1.3 (on Thales, fr. 210 Wöhrlé) θεὸν δὲ τοῦτ' εἶναι, τὸ μήτε ἀρχὴν μήτε τελευτὴν ἔχον. *Julian Or.* 8 18b πάντα γὰρ ἐστὶν ἐν τοῖς θεοῖς καὶ πάντα περὶ αὐτοὺς ὑφέστηκε καὶ 'πάντα τῶν θεῶν ἐστὶ πλήρη'. *Calcidius in Tim.* c. 269 *penetratam siquidem eam* (sc. silvam) *usque quaque divina mens format plene, ... perinde ut natura atque anima solida corpora permeantes universa vivificant.*

§3 *Anaximander: Aristotle Phys.* 3.4 203b10-15 διό, καθάπερ λέγομεν, οὐ ταύτης ἀρχῆς, ἀλλ' αὕτη τῶν ἄλλων εἶναι δοκεῖ καὶ περιέχειν ἅπαντα καὶ πάντα κυβερνᾶν, ὥς φασιν ὅσοι μὴ ποιούσι παρὰ τὸ ἄπειρον ἄλλας αἰτίας, οἷον Νοῦν ἢ Φιλίαν· καὶ τοῦτ' εἶναι τὸ θεῖον· ἀθάνατον· γὰρ καὶ ἀνώλεθρον, ὥσπερ φησὶν Ἀναξίμανδρος (12A15, B3 DK) καὶ οἱ πλείστοι τῶν φυσιολόγων.

§7 *Democritus: Clement of Alexandria Protr.* 66.2 προσέθηκε δὲ λαβὼν τούτοις τοῖς δυεῖν (sc. τῷ πλήρει καὶ τῷ κενῷ) τὰ εἶδωλα ὁ Ἀβδηρίτης Δημόκριτος (—).

§9 *Pythagoras: Aristotle EN* 2.5 1106b29-30 τὸ γὰρ κακὸν τοῦ ἀπείρου, ὡς οἱ Πυθαγόρειοι (58B7 DK) εἰκάζον, τὸ δ' ἀγαθὸν τοῦ πεπερασμένου. *EN* 1.4 1096b5-6 πιθανώτερον δ' εἰκόασιν οἱ Πυθαγόρειοι (58B6 DK) λέγειν περὶ αὐτοῦ, τιθέντες ἐν τῇ τῶν ἀγαθῶν συστοιχίᾳ τὸ ἓν (see *Met.* A.5 986a26). *Theophrastus Met.* 33 11a25-b7 Πλάτων (fr. B3 Isnardi Parente) δὲ καὶ οἱ Πυθαγόρειοι (—)

μακράν τὴν ἀπόστασιν, ἐπιμιμῆσθαι δ' ἐθέλῃν ἅπαντα· καίτοι καθά περ ἀντίθε-
σιν τινα ποιοῦσιν τῆς ἀορίστου δυάδος καὶ τοῦ ενός, ἐν ᾗ καὶ τὸ ἄπειρον καὶ τὸ
ἄτακτον καὶ πᾶσα ὡς εἰπεῖν ἀμορφία καθ' αὐτήν, ὅλως οὐχ οἶόν τε ἄνευ ταύτης
τὴν τοῦ ὅλου φύσιν, ἀλλ' οἶον ἰσομοιεῖν ἢ καὶ ὑπερέχειν τῆς ἐτέρας· ἢ καὶ τὰς
ἀρχὰς ἐναντίας. **Plutarch** *Is.Os.* 369D οἱ δὲ τὸν μὲν {γὰρ} ἀμείνονα θεόν, τὸν δ'
ἕτερον δαίμονα καλοῦσιν, ὥσπερ Ζωροάστρης ὁ μάγος. **An.Procr.** 1026B Ζωροά-
στρης δὲ θεὸν καὶ δαίμονα, τὸν μὲν Ὡρομάσθην καλῶν τὸν δ' Ἀρειμάνιον. **Sim-
plicius in Phys.** 181.10–30 γράφει δὲ περὶ τούτων ὁ Εὐδωρος (frs. 3–5 Mazzarelli)
τάδε· 'κατὰ τὸν ἀνωτάτω λόγον φατέον τοὺς Πυθαγορικοὺς τὸ ἐν ἀρχῇ τῶν πάν-
των λέγειν, κατὰ δὲ τὸν δευτέρου λόγον δύο ἀρχὰς τῶν ἀποτελουμένων εἶναι, τό-
τε ἐν καὶ τὴν ἐναντίαν τούτῳ φύσιν. ὑποτάσσεσθαι δὲ πάντων τῶν κατὰ ἐναντί-
ωσιν ἐπινοουμένων τὸ μὲν ἀστεῖον τῷ ἐνί, τὸ δὲ φαῦλον τῇ πρὸς τοῦτο ἐναντιου-
μένη φύσει.' ... (fr. 4) καὶ πάλιν 'διό, φησί, καὶ κατ' ἄλλον τρόπον ἀρχὴν ἔφασαν
εἶναι τῶν πάντων τὸ ἐν, ὡς ἂν καὶ τῆς ὕλης καὶ τῶν ὄντων πάντων ἐξ αὐτοῦ γεγε-
νημένων. τοῦτο δὲ εἶναι καὶ τὸν ὑπεράνω θεόν.' ... (fr. 5) 'καὶ δηλὸν ὅτι ἄλλο μὲν
ἐστὶν ἐν ἢ ἀρχὴ τῶν πάντων, ἄλλο δὲ ἐν τὸ τῇ δυάδι ἀντικείμενον, ὃ καὶ μονάδα
καλοῦσιν'. **Philo of Alexandria** *Leg.* 2.3 τέτακται οὖν ὁ θεὸς κατὰ τὸ ἐν καὶ τὴν
μονάδα, μάλλον δὲ ἢ μονὰς κατὰ τὸν ἓνα θεόν. **Diogenes Laertius** *VP.* 1.8 Ἀρι-
στοτέλης δ' ἐν πρώτῳ Περὶ φιλοσοφίας (fr. 6 R³) ... δύο κατ' αὐτοὺς (sc. τοὺς
Μάγους) εἶναι ἀρχὰς, ἀγαθὸν δαίμονα καὶ κακὸν δαίμονα· καὶ τῷ μὲν ὄνομα εἶναι
Ζεὺς καὶ Ὡρομάσθης, τῷ δὲ Ἄιδης καὶ Ἀρειμάνιος. φησὶ δὲ τοῦτο καὶ Ἑρμῖππος
ἐν τῷ πρώτῳ Περὶ Μάγων (F56 Bollansée) καὶ Εὐδόξος ἐν τῇ Περιόδῳ (F 341
Lasserre) καὶ Θεόπομπος ἐν τῇ ὀγδόῃ τῶν Φιλιππικῶν (*FGrH* 115.64a). **Anatolius**
de Dec. p. 5.19–21 Heiberg ἐκάλουν δὲ αὐτήν (sc. τὴν μονάδα) οἱ Πυθαγόρειοι νοῦν,
εἰκάζοντες τῷ ἐνί αὐτήν, τῷ νοητῷ θεῷ, τῷ ἀγεννήτῳ, αὐτοκαλῷ, αὐτοαγαθῷ κτλ.
Macrobius in Somn. 1.6.5 *haec monas initium finisque omnium ... ad summum
refertur deum.* **Damascius de Princ.** p. 1.165.17–20 Westerink–Combès Μάγοι
δὲ καὶ πᾶν τὸ ἄριον γένος, ὡς καὶ τοῦτο γράφει ὁ Εὐδήμος (fr. 150 Wehrli), οἱ
μὲν Τόπον, οἱ δὲ Χρόνον καλοῦσι τὸ νοητὸν ἅπαν καὶ τὸ ἡνωμένον, ἐξ οὗ διακρι-
θῆναι ἢ θεὸν ἀγαθὸν καὶ δαίμονα κακόν, ἢ φῶς καὶ σκότος πρὸ τούτων, ὡς ἐνίους
λέγειν.

§10 **Posidonius: Seneca** *Dial.* 12.8.3 *sive ille deus ..., sive divinus spiritus per
omnia maxima ac minima aequali intentione diffusus.* **Commenta Bernensia
in Lucanum** p. 305.24–26 Usener (at *Phars.* 9.578) *ait enim Posidonius Stoicus*
(F 100 E.-K., 350 Theiler) θεὸς ἐστὶ πνεῦμα νοερὸν διήκον δι' ἀπάσης οὐσίας,
'*deus est spiritus rationalis per omnem diffusus materiam*' *hoc est terram aquam
aerem caelum.*

§11 **Speusippus: Aristotle** *Met.* N.4 1091b22–35 (Speusippus frs. 42g + 35a
Lang, 79 + 64 Isnardi Parente, 45a Tarán) συμβαίνει γὰρ πολλὴ δυσχέρεια, ἣν ἐνιοὶ
φεύγοντες ἀπειρήκασιν, οἱ τὸ ἐν μὲν ὁμολογοῦντες ἀρχὴν εἶναι πρῶτην καὶ στοιχεῖον,
... ταῦτά τε δὴ συμβαίνει ἄτοπα, καὶ τὸ ἐναντίον στοιχεῖον, εἴτε πλήθος ὃν εἴτε τὸ ἄνι-
σον καὶ μέγα καὶ μικρόν, τὸ κακὸν αὐτό (διόπερ ὁ μὲν ἔφευγε τὸ ἀγαθὸν προσάπτειν
τῷ ἐνί ὡς ἀναγκαῖον ὄν, ἐπειδὴ ἐξ ἐναντίων ἢ γένεσις, τὸ κακὸν τὴν τοῦ πλήθους
φύσιν εἶναι).

§13 Heraclitus: Diogenes Laertius V.P. 1.35 (on Thales, 11A1 DK) πρεσβύτατον τῶν ὄντων θεός· ἀγέννητον γάρ. **Tertullian Praescr.Haer.** 7.10 *ubi aliquid de igneo deo adlegatur, Heraclitus* (T 649(c) Mouraviev) *intervenit*.

§14 Zeno Stoicus: Diogenes Laertius V.P. 7.148 οὐσίαν δὲ θεοῦ Ζήνων (SVF 1.163) μέν φησι τὸν ὅλον κόσμον καὶ τὸν οὐρανόν.

§16 Boethus: Diogenes Laertius V.P. 7.148 Βόηθος (SVF 3 Boeth. 3) δὲ ἐν τῇ Περὶ φύσεως οὐσίαν θεοῦ τὴν τῶν ἀπλανῶν σφαῖραν.

§§17–18 Eleatics: Aristotle Phys. 3.6 207a15–17 βέλτιον οἰητέον Παρμενίδην (DK 1.234.16–18 ad 28B8) Μελίσσου εἰρηκέναι· ὁ μὲν γάρ τὸ ἄπειρον ὅλον φησίν, ὁ δὲ τὸ ὅλον πεπεράνθαι, ‘μεσσόθεν ἰσοπαλές’ (28B8.44 DK). **Met.** A.5 986b17–21 οὗτοι δὲ ἀκίνητον εἶναι φασιν· οὐ μὴν ἀλλὰ τοσοῦτόν γε οἰκεῖόν ἐστι τῇ νῦν σκέψει· Παρμενίδης (28A24 DK) μὲν γάρ ἔοικε τοῦ κατὰ τὸν λόγον ἐνὸς ἅπτεσθαι, Μελίσσος (—) δὲ τοῦ κατὰ τὴν ὕλην (διὸ καὶ ὁ μὲν πεπερασμένον ὁ δ’ ἄπειρόν φησιν εἶναι αὐτό). **Plato Tht.** 180e οἷον [edd. OCT, οἷον mss.] ἀκίνητον τελέθει τῷ παντὶ ὄνομ’ εἶναι (garbled hexameter, cf. 28B8.38 DK) καὶ ἄλλα ὅσα Μελισσοί (—) τε καὶ Παρμενίδαι (t. 6 Coxon) ἐναντιούμενοι πᾶσι τούτοις διισχυρίζονται, ὥς ἐν τε πάντα ἐστὶ καὶ ἔστηκεν αὐτὸ ἐν αὐτῷ οὐκ ἔχον χώραν ἐν ᾗ κινεῖται. **Olympiodorus the Alchemist Art.Sacr.** 20, p. 81.9–13 μίαν δὲ ἀκίνητον πεπερασμένην δύναμιν ἔλεγεν ὁ Παρμενίδης (—) τὸ θεῖον, καὶ αὐτὸς λέγων ἀρχήν· τοῦτο γάρ ὡς εἴρηται καὶ ἐν ἐστίν, καὶ ἀκίνητον . . . καὶ σκόπει ὅτι ὁ Μιλήσιος Θαλῆς (fr. 458 Wöhrlé, but think of Μελίσσος, cf. 30A13 DK) πρὸς τὴν οὐσίαν τοῦ Θεοῦ ἀποβλέπων ἔλεγεν αὐτὸν ἄπειρον.

§17 Parmenides: Theophrastus Phys.Op. fr. 6 Diels, FHS&G (verbatim) at Alex. Aphr. in **Met.** 31.11–12 Παρμενίδης (28A7 DK) ... κατ’ ἀλήθειαν μὲν ἐν τὸ πᾶν καὶ ἀγέννητον καὶ σφαιροειδὲς ὑπολαμβάνων. **Philodemus Piet.** (PHerc. 1428) 4d–5a Gomperz, frs. 12.8–13 Schober, coll. 323.31–324 Vassallo Παρμενίδης (T4 Coxon) δὲ | *** ἔοικ[ε] δὴ τὸν | τε πρ[ώ]τον [θ]εὸν ἄψυχον ποι[ε]ῖν, τ[οὺς] | τε γεννωμένους ὑπὸ τ[α](>)οὔτου τὰ μὲν | αὐτὰ τοῖς πάθεσιν | τοῖς περὶ ἄνθρω[πους] πάσχοντας (~ §17).

§18 Melissus: Aristotle Sph.El. 5 167b13–14 οἷον ὁ Μελίσσου λόγος (30A10 DK) ὅτι ἄπειρον τὸ ἅπαν, λαβὼν τὸ μὲν ἅπαν ἀγέννητον. **Diogenes Laertius V.P.** 1.35 (Thales 11A1 DK) πρεσβύτατον τῶν ὄντων θεός· ἀγέννητον γάρ.

§19 Empedocles: Empedocles 31B6 DK τέσσαρα γὰρ πάντων ριζώματα πρῶτον ἄκουε· / Ζεὺς ἀργῆς Ἥρη τε φερέσβιος ἡδ’ Ἀιδωνεύς / Νῆστis θ’, ἡ δακρυοῖς τέγγει κρούνωμα βρότειον. 31B28.2 DK Σφαῖρος κυκλοτερὴς μονή περιηγεί γαίων. 31B31 DK πάντα γὰρ ἐξείης πελεμίζετο γυῖα θεοῖο. **Aristotle GC** 2.6 333b20–22 τὰ γε στοιχεῖα διακρίνει οὐ τὸ Νεῖκος, ἀλλ’ ἡ Φιλία τὰ φύσει πρότερα τοῦ θεοῦ· θεοὶ δὲ καὶ ταῦτα. **GC** 2.7 334a26–30 τοῖς λέγουσιν ὡς Ἐμπεδοκλῆς (31A43 DK) τίς ἔσται τρόπος; ἀνάγκη γὰρ σύνθεσιν εἶναι καθάπερ ἐξ πλίνθων καὶ λίθων τοίχος· καὶ τὸ μίγμα δὲ τοῦτο ἐκ σωζομένων μὲν ἔσται τῶν στοιχείων, κατὰ μικρὰ δὲ παρ’ ἄλληλα συγχειμένων. **Plotinus Enn.** 2.4.[12]7.1–2 Ἐμπεδοκλῆς (—) δὲ τὰ στοιχεῖα ἐν ὕλῃ θέμενος ἀντιμαρτυροῦσαν ἔχει τὴν φθοράν αὐτῶν. **Themistius in Phys.** 42.12–14 ἐπὶ μικρόν γάρ τι μέρος Ἐμπεδοκλῆς (—) καὶ Δημόκριτος (fr. 99 Luria) τὸ εἶδος ὠνειροπόλησαν, ὁ μὲν τὸ Νεῖκος καὶ τὴν Φιλίαν ἀρχὰς θέμενος εἰδοποιούς, Δημόκρι-

τος δὲ κτλ. **Simplicius in Phys.** 1124.1–2 τὴν Φιλίαν διὰ τῆς ἐνώσεως τὸν Σφαῖρον ποιοῦσαν, ὃν καὶ θεὸν ὀνομάζει, καὶ οὐδετέρως ποτὲ καλεῖ (? 31B29.5 DK) ‘Σφαῖρον ἔην’.

§21 **Xenocrates: Plato Phdr.** 246e ὁ μὲν δὴ μέγας ἡγεμὼν ἐν οὐρανῷ Ζεὺς. **Tim.** 40d–41a. **ps.Plato** (i.e. Philip of Opus) **Epin.** 984d θεοὺς μὲν δὴ, Δία τε καὶ Ἥραν καὶ τοὺς ἄλλους πάντας, ὅπη τις ἐθέλει, ταύτη κατὰ τὸν αὐτὸν τιθέσθω νόμον καὶ πάγιον ἐχέτω τοῦτον τὸν λόγον. **Plutarch Quaest. Plat.** 1007F–1008A τὸ γὰρ ἄνω καὶ πρῶτον ὕπατον οἱ παλαιοὶ προσηγόρευον· ἢ καὶ Ξενοκράτης (fr. 18 Heinze, 136 Isnardi Parente²) Δία τὸν μὲν ἐν τοῖς κατὰ τὰ αὐτὰ καὶ ὡσαύτως ἔχουσιν ὕπατον καλεῖ, νέατον δὲ τὸν ὑπὸ σελήνην· πρότερος δ’ Ὁμηρος (e.g. *Il.* 8.31) τὸν τῶν ἀρχόντων ἀρχοντα θεὸν ὕπατον κρειόντων προσείπε. **An.Procr.** 1012D–E (Xenocrates fr. 68 Heinze, 108 Isnardi Parente²) οἱ μὲν γὰρ οὐδὲν ἢ γένεσιν ἀριθμοῦ δηλοῦσθαι νομίζουσι τῇ μίξει τῆς ἀμερίστου καὶ μεριστῆς οὐσίας· ἀμερίστον μὲν γὰρ εἶναι τὸ ἐν μεριστῶν δὲ τὸ πλήθος, ἐκ δὲ τούτων γίγνεσθαι τὸν ἀριθμὸν τοῦ ἐνός ὀρίζοντος τὸ πλήθος καὶ τῇ ἀπειρίᾳ πέρας ἐντιθέντος, ἣν καὶ δυάδα καλοῦσιν ἀόριστον. **Clement of Alexandria Protr.** 66.2 Ξενοκράτης—Καρχηδόνιος [*sic*] οὗτος (fr. 15 Heinze, 135 Isnardi Parente²)—ἐπὶ τὰ μὲν θεοὺς τοὺς πλανήτας, ὄγδοον δὲ τὸν ἐκ πάντων τῶν ἀπλανῶν συνεστῶτα κόσμον αἰνίττεται. **Sextus Empiricus M.** 5.8 (cited **Hipp. Ref.** 5.13.6) οἱ Πυθαγορικοὶ κινηθέντες τὴν μὲν μονάδα ἄρρεν προσαγορεύουσι, τὴν δὲ δυάδα θήλυ. **Favonius Eulogius in Somn.** 5.6–6.2, p. 17.18–19.1 Van Weddingen *estque numerus, ut Xenocrates* (fr. 15 Heinze, 134 Isnardi Parente²) *censuit, animus, ac deus: non enim aliud est, quam quod ei subest ... dyas vero, ut theologi asserunt, secundus est motus. primus enim motus in monade stabilis et consistens, in dyadem velut foras egreditur: primumque conubium poetae fabulose dixerunt sororis et coniugis, quod videlicet unius generis numero coeunte copuletur: et Iunonem vocant, uni scilicet Iovi accessio(ne) alterius inhaerentem.* cf. **Empedocles** 31B6 DK (divine names of the four elements).

§22[106–110] **Plato: Plato Resp.** 506d αὐτὸ μὲν τί ποτ’ ἐστὶ τὰγαθὸν ἐάσωμεν τὸ νῦν εἶναι. **Resp.** 508e–509b, esp. (b) οὐκ οὐσίας ὄντος τοῦ ἀγαθοῦ, ἀλλ’ ἔτι ἐπέκεινα τῆς οὐσίας πρεσβεία καὶ δυνάμει ὑπερέχοντος. **Tim.** 28c τὸν μὲν οὖν ποιητὴν καὶ πατέρα τοῦδε τοῦ παντὸς εὐρεῖν τε ἔργον καὶ εὐρόντα εἰς πάντας ἀδύνατον λέγειν. **Tim.** 29e ἀγαθὸς ἦν (sc. ὁ δημιουργός). **Tim.** 39e ἡπερ οὖν νοῦς ἐνούσας ἰδέας τῷ ὃ ἔστιν ζῶον, οἶαί τε ἐνεῖσι καὶ ὄσαι, καθαροῖ (sc. ὁ δημιουργός). **Parm.** 137c εἰ ἐν ἐστίν, ἄλλο τι οὐκ ἂν εἶη πολλὰ τὸ ἐν; **Parm.** 142b ἐν εἰ ἔστιν, ἀρα οἶόν τε αὐτὸ εἶναι μὲν, οὐσίας δὲ μὴ μετέχειν;—οὐχ οἶόν τε. **ps.Plato** (i.e. Philip of Opus) **Epin.** 983d πρῶτον μὲν τὰ ὄντα εἶναι δύο, τὸ μὲν ψυχὴν, τὸ δὲ σῶμα, καὶ πολλὰ ἐκατέρου, πάντα δὲ ἀλλήλων ἄλλα καὶ ἐκάτερα ἐκατέρων, καὶ τρίτον ἄλλο οὐδὲν κοινὸν οὐδενί, διαφέρειν δὲ ψυχὴν σώματος.

§22[106–109] **Plato: Apuleius Plat. lib.** 3(?) sive **Anonymus Compendiosa expositio** 5.1–2 Stover *in septimo* [sc. of the *Republic*] *aeque placet illi deum incorporealem esse et eundem naturae boni.*

§22[107–112] **Plato: Apuleius Plat. lib.** 3(?) sive **Anonymus Compendiosa expositio** 30.9–10 Stover *post hoc incorpoream rem placet esse primam substan-*

tiam rerum et incorporalibus originem fieri. (Stover reads [in]cor[poralibus, which does not look right).

§22[112–114] **Plato: ps.Plato** (i.e. Philip of Opus) *Epin.* 984b–985c νῦν οὖν δὴ περὶ θεῶν ἐγχειρώμεν τό γε τοσοῦτον, τὰ δύο κατιδόντες ζῶα ὁρατὰ ἡμῖν, ἃ φαμεν ἀθάνατον, τὸ δὲ γήινον ἅπαν θνητὸν γεγονέναι, τὰ τρία τὰ μέσα τῶν πέντε τὰ μεταξὺ τούτων σαφέστατα κατὰ δόξαν τὴν ἐπεικὴ γεγονότα πειραθῆναι λέγειν. αἰθέρα μὲν γὰρ μετὰ τὸ πῦρ θῶμεν, ψυχὴν δ' ἐξ αὐτοῦ τιθώμεν πλάττειν ζῶα δύναμιν ἔχοντα, ὥσπερ (c) τῶν ἄλλων γενῶν, τὸ πολὺ μὲν τῆς αὐτοῦ φύσεως, τὰ δὲ σμικρότερα συνδέσμου χάριν ἐκ τῶν ἄλλων γενῶν· μετὰ δὲ τὸν αἰθέρα ἐξ ἀέρος πλάττειν τὴν ψυχὴν γένος ἕτερον ζῶων, καὶ τὸ τρίτον ἐξ ὕδατος. ... (d) ... μετὰ δὲ τούτους καὶ ὑπὸ τούτοις (sc. μετὰ τὰ ζῶα τὰ ἐκ πυρός) ἐξῆς δαίμονας, ἀέριον δὲ γένος, ἔχον ἔδραν τρίτην καὶ μέσην. ... (e) ... τῶν δὲ δύο τούτων ζῶων, τοῦ τ' ἐξ αἰθέρος ἐφεξῆς τὸ ἀέρος, οὐ [οὐ ms. K^c prob. Tarán : ὅν Burnet] διορώμενον ὅλον αὐτῶν ἑκάτερον εἶναι—παρὸν δὴ πλησίον οὐ κατὰδῆλον ἡμῖν γίγνεσθαι. ... τὸ δὲ ὕδατος πέμπτον [sic] ὃν ἡμίθεον μὲν ἀπεικάσειεν ἂν τις ὁρθῶς ἀπεικάζων ἐξ αὐτοῦ γεγονέναι, καὶ τοῦτ' εἶναι τοτὲ μὲν ὀρώμενον, ἄλλοτε δὲ ἀποκρυφθὲν ἀδῆλον γιγνόμενον, θαῦμα κατ' ἀμυδράν ὄψιν παρεχόμενον. **ps.Plato Def.** 411a θεὸς ζῶον ἀθάνατον, αὐταρκες πρὸς εὐδαιμονίαν· οὐσία ἀίδιος, τῆς τάγαθού φύσεως αἰτία. **Theophrastus Phys.Op.** fr. 9 Diels, 230 FHS&G (verbatim) at Simp. in *Phys.* 26.8–13 Πλάτων ... ἐπέδωκεν ἑαυτὸν καὶ τοῖς φαινόμενοις ἀψάμενος τῆς περὶ φύσεως ἱστορίας· ἐν ἧ δύο τὰς ἀρχὰς βούλεται ποιεῖν τὸ μὲν ὑποκείμενον ὡς ὕλην δὲ προσαγορεύει πανδεχέξ (*Tim.* 51a), τὸ δὲ ὡς αἴτιον καὶ κινῶν δὲ περιάπτει τῇ τοῦ θεοῦ καὶ τῇ τοῦ ἀγαθοῦ δυνάμει. **Aristoxenus Elem.Harm.** pp. 39.9–40.2 da Rios (Πλάτωνος ἀκρόασις Περὶ τάγαθού, Test.Plato. 7 Gaiser, 1 Krämer, B1 Isnardi Parente) καὶ τὸ πέρας ὅτι ἀγαθὸν [(τ)ἀγαθὸν coni. Krämer prob. Gaiser Burkert] ἐστὶν ἔν. **Philo of Alexandria Opif.** 16 βουλευθείς τὸν ὁρατὸν κόσμον τουτοῖ δημιουργῆσαι προεξετύπου τὸν νοητόν. **Heres** 111 νῶ γὰρ ὁ θεὸς καταλαμβάνει τὸν μὲν νοητὸν κόσμον δι' ἑαυτοῦ, τὸν δὲ ὁρατὸν δι' αἰσθήσεως ἐφήκεν. **Hermogenes Id.** 1.6.14.1–7 Patillon καὶ μὴν καὶ τὸ δι' ἐμφάσεων μυστικῶς τι καὶ τελεστικῶς ἐν ταῖς σεμναῖς τῶν ἐννοιῶν ὑποσημαίνειν μεθόδου σεμνῆς· ὡς γὰρ αὐτοὶ μὲν εἰδότες, οὐκ ὄντες δὲ οἰοῖ τε λέγειν εἰς τοῦμφανὲς αὐτὰ, ἐνδεικνύμεθα διὰ τῆς μεθόδου ταύτης μέγεθός τι καὶ σεμνότητα ἐννοίας, ὥσπερ ὁ Πλάτων ὅταν λέγῃ (e.g. *Sph.* 240b) 'τὸ ὄντως ὄν' καὶ 'ἀγαθὸς ἦν' (*Tim.* 29e) καὶ τὰ τοιαῦτα. **Alcinous Did.** c. 4, p. 156.11–14 H. τοῦ νοητοῦ δὲ κόσμου πρῶτου ὄντος νοητοῦ, τοῦ δ' αἰσθητοῦ ἀθροίσματος, τὸν μὲν νοητὸν κόσμον κρίνει νόησις μετὰ λόγου, τουτέστιν οὐκ ἄνευ λόγου, τὸν δὲ αἰσθητὸν ὁ δοξαστικὸς λόγος οὐκ ἄνευ αἰσθήσεως.

§22[113–114] **Plato: Plato Resp.** 508a τίνα οὖν ἔχεις αἰτίασασθαι τῶν ἐν οὐρανῷ θεῶν τούτου κύριον, οὗ ἡμῖν τὸ φῶς ὅψιν τε ποιεῖ ὁρᾶν ὅτι κάλλιστα καὶ τὰ ὀρώμενα ὁρᾶσθαι;—ὅνπερ καὶ σύ, ἔφη, καὶ οἱ ἄλλοι· τὸν ἥλιον γὰρ δῆλον ὅτι ἐρωτᾷς. *Tim.* 39e–40b. *Leg.* 10 899b ἄστρον δὴ πέρι πάντων καὶ σελήνης, ἐνιαυτῶν τε καὶ μηνῶν καὶ πασῶν ὥρων πέρι, τίνα ἄλλον λόγον ἐροῦμεν ἢ τὸν αὐτὸν τοῦτον, ὡς ἐπειδὴ ψυχὴ μὲν ἢ ψυχαὶ πάντων τούτων αἰτία ἐφάνησαν, ἀγαθαὶ δὲ πάσαν ἀρετὴν, θεοὺς αὐτὰς εἶναι φήσομεν, εἴτε ἐν σώμασιν ἐνοῦσαι, ζῶα ὄντα, κοσμοῦσιν πάντα οὐρανόν, εἴτε ὅπη τε καὶ ὅπως; *Tim.* 92c ὅδε ὁ κόσμος οὕτω, ζῶον ὁρατὸν τὰ ὁρατὰ περιέχον, εἰκὼν τοῦ νοητοῦ θεοῦ αἰσθητός, μέγιστος καὶ ἄριστος κάλλιστός τε καὶ

τελεώτατος γέγονεν εἰς οὐρανὸς ὅδε μονογενὴς ὢν. **ps.Plato** (i.e. Philip of Opus) *Epin.* 981e θεῖον γένος ἄστρον. *Epin.* 984d θεοὺς δὲ δὴ τοὺς ὁρατοὺς, μεγίστους καὶ τιμιωτάτους καὶ ὀξύτατον ὀρώντας πάντη, τοὺς πρῶτους τὴν τῶν ἄστρον φύσιν λεκτέον.

§23 Aristotle: *Strabo* 15.1.59, 713C.13–14 (Megasthenes *FGrH* 715 fr. 33 τοὺς Βραχμᾶνας ... περὶ πολλῶν δὲ τοῖς Ἑλλήσιν ὁμοδοξεῖν ...) πρὸς δὲ τοῖς τέτταρσι στοιχείοις πέμπτη τις ἐστὶ φύσις, ἐξ ἧς ὁ οὐρανὸς καὶ τὰ ἄστρα. **Diogenes Laertius** *V.P.* 5.32 τὸν δὲ θεὸν ἀσώματον ἀπέφαινε, καθὰ καὶ ὁ Πλάτων.

§24 Stoics: *Aristotle de An.* 1.3 406a17–20 κατὰ συμβεβηκὸς αὐτῇ (sc. τῇ ψυχῇ) τὸ κινεῖσθαι ὑπάρξει, ὥσπερ τῷ λευκῷ ἢ τῷ τριπλήχει. **Strabo** 15.1.59, 713C.11–12 (Megasthenes *FGrH* 715 fr. 33 τοὺς Βραχμᾶνας ... περὶ πολλῶν δὲ τοῖς Ἑλλήσιν ὁμοδοξεῖν ...) ὅτι σφαιροειδὴς ὁ τε διοικῶν αὐτὸν (sc. τὸν κόσμον) καὶ ποιῶν θεὸς δι' ὅλου διαπεφοίτηκεν αὐτοῦ. **Philo of Alexandria** *Deo* 6.82 Siegert (cf. *SVF* 2.422) πῦρ τεχνικόν, ὁδῶ βαδίζον. **Alexander of Aphrodisias** *de An.* 22.7–12 ὡς γὰρ ἡ βαρύτης αἰτία μὲν γίνεται τῇ γῇ τῆς εἰς τὸ κάτω φορᾶς καὶ κατὰ τοῦτ' αὐτῆς ἐστὶ κινητικὴ, οὐ μὴν κινουμένη καθ' αὐτήν ..., οὕτως καὶ ἡ ψυχὴ τῶν ζώων πασῶν τῶν ὡς ζῶου κινήσεων ἔχουσα τὴν αἰτίαν, ἐπεὶ κατὰ ταύτην αὐτῷ ἡ τοῦ κινεῖσθαι τοῦτον τὸν τρόπον ἐξουσία, οὐκ αὐτὴ κινουμένη καθ' αὐτήν οὕτως κινεῖ τὸ σῶμα. **Diogenes Laertius** *V.P.* 7.156 δοκεῖ δ' αὐτοῖς (*SVF* 1.171, 2.774) τὴν μὲν φύσιν εἶναι πῦρ τεχνικόν, ὁδῶ βαδίζον εἰς γένεσιν, ὅπερ ἐστὶ πνεῦμα πυροειδὲς καὶ τεχνοειδές. *V.P.* 7.134 (*SVF* 2.300) τὸ δὲ ποιοῦν τὸν ἐν αὐτῇ (sc. ἐν τῇ ὕλῃ) λόγον, τὸν θεόν· τοῦτον γὰρ αἶδιον ὄντα διὰ πάσης αὐτῆς δημιουργεῖν ἕκαστα.

Liber 1 Caput 8

P^B: ps.Plutarchus *Plac.* 882B; pp. 307^a4–16 Diels—**P^E**: Eusebius *PE* 15.43, pp. 412.6–12 Mras (et titulus 15.32.8, p. 406.13–14)—**P^G**: ps.Galenus *HPh* c. 36; pp. 619.6–11 Diels; pp. 122–125 Jas—**P^Q**: Qustā ibn Lūqā pp. 120–121 Daiber—**P^s**: Psellus *Omn.Doctr.* 85, p. 51 Westerink (titulus solus)—**P^{Tz}**: Ioannes Tzetzes *Exeg. in Iliad.* 1.4.1, p. 98.3–6 Papathomopoulos
Cf. Ath: Athenagoras *Leg.* 23.2.11–15 Marcovich

Titulus η'. Περί δαιμόνων καὶ ἡρώων (P)

- §1 Παρακειμένως δὲ τῷ Περι θεῶν λόγῳ τὸν περὶ δαιμόνων καὶ ἡρώων ἱστορητέον. (P₁)
- §2 Θαλῆς Πυθαγόρας Πλάτων οἱ Στωικοὶ δαίμονας ὑπάρχειν οὐσίας ψυχικάς (εἶναι δὲ καὶ ἥρωας τὰς κεχωρισμένας ψυχὰς τῶν σωμάτων)· καὶ ἀγαθοὺς μὲν τὰς ἀγαθὰς κακοὺς δὲ τὰς φαύλας. (P₂) 5
- §3 Ἐπίκουρος δ' οὐδὲν τούτων ἐγκρίνει. (P₃)

§2 Thales fr. 150 Wöhrle; Pythagoras cf. D.L. *VP.* 8.32; Plato —; Stoici *SVF* 2.1101; §3 Epicurus fr. 393 Usener

lemmata non hab. S **titulus** δαιμόνων καὶ ἡρώων **P^{BEPs}**, cf. P^Q: inv. P^G *Über die hohen Kräfte welche die Griechen 'Daimones' und 'Heroes' nennen* Q §2 [4] Πυθαγόρας Πλάτων] μὲν καὶ Πλάτων καὶ Πυθαγόρας P^G || ante οἱ Στωικοὶ add. P^G καὶ πρὸς τούτοις || [5] σωμάτων **P^{BEPQG}** Tzetzes: ἀνθρώπων Ath σπουδαίων prop. Wildberger (2006) 2.502 conl. D.L. *VP.* 7.151 || [6] ἀγαθοὺς ... ἀγαθὰς] al. P^G τὰς μὲν ἀγαθὰς τῶν τὸν βίον διαγαγόντων ἄριστα ἀνθρώπων, κακὰς δὲ τῶν πονηρῶν §3 [7] ἐγκρίνει] εἶναι συγκεχώρηκεν P^G

Testes primi:

Athenagoras *Leg.* 23.2.11–15 (~ §2) πρῶτος Θαλῆς (fr. 186 Wöhrle) διαιρεῖ ..., εἰς θεόν, εἰς δαίμονα, εἰς ἥρωα. ἀλλὰ 'θεὸν' μὲν τὸν 'νοῦν τοῦ κόσμου' ἄγει, 'δαίμονα' δὲ 'οὐσίας' νοεῖ 'ψυχικάς καὶ ἥρωας τὰς κεχωρισμένας ψυχὰς' τῶν ἀνθρώπων, 'ἀγαθοὺς μὲν τὰς ἀγαθὰς, κακοὺς δὲ τὰς φαύλους'.

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 36 (~ tit.) Περί ἡρώων καὶ δαιμόνων (text Jas)

36.1 (~ P₂) Θαλῆς μὲν καὶ Πλάτων καὶ Πυθαγόρας καὶ πρὸς τούτοις οἱ Στωικοὶ γιγνώσκουσιν ὁμοίους δαίμονας εἶναι καὶ οὐσίας ψυχικάς. τοὺς δ' ἥρωας ψυχὰς κεχωρισμένας τῶν σωμάτων, τὰς μὲν ἀγαθὰς τῶν τὸν βίον διαγαγόντων ἄριστα ἀνθρώπων, κακὰς δὲ τῶν πονηρῶν.

36.2 (~ P₃) Ἐπίκουρος δὲ οὐδὲν τούτων εἶναι συγκεχώρηκεν.

Ioannes Tzetzes *Exeg. in Iliad.* 1.4.1, p. 98.3–6 Papathomopoulos (~ P₂) Θαλῆς Πυθαγόρας Πλάτων τε καὶ οἱ Στωικοὶ διαφορὰν ἴσασι δαιμόνων τε καὶ ἡρώων·

δαίμονας γὰρ φάσκουσιν ἀσώματους εἶναι οὐσίας, ἥρωας δὲ ψυχὰς σωμάτων δια-
ζυγείσας.

PPs: Psellus *Omn.Doctr.* c. 85 (~ tit.) Περὶ δαιμόνων καὶ ἡρώων

Loci Aetiani:

§1 A 2.prooem. τετελεκῶς τοίνυν τὸν περὶ ἀρχῶν καὶ στοιχείων καὶ τῶν συνεδρευ-
όντων αὐτοῖς λόγον κτλ.

§2 A 1.7.2 Θαλῆς ... τὸ δὲ πᾶν ἔμψυχον ἅμα καὶ δαιμόνων πλήρες. A 1.7.19 [91–92]
(Ἐμπεδοκλῆς) ... καὶ θείας μὲν οἶεται τὰς ψυχὰς, θείους δὲ καὶ τοὺς μετέχοντας
αὐτῶν ‘καθαροὺς καθαρῶς’. A 1.7.21 [100] Ξενοκράτης ... καὶ ἑτέρους ὑποσε-
λήνους δαίμονας ἀοράτους. A 4.7.3 οἱ Στωικοὶ ἐξιοῦσαν ἐκ τῶν σωμάτων οὐπω
φθειρῆσθαι (sc. τὴν ψυχὴν)· τὴν μὲν ἀσθενεστέραν ἅμα τοῖς συγκρίμασι {γίνε-
σθαι}, ταύτην δ’ εἶναι τῶν ἀπαιδεύτων· τὴν δ’ ἰσχυροτέραν, οἷα ἐστὶ περὶ τοὺς
σοφούς, καὶ μέχρι τῆς τοῦ παντός ἐκπυρώσεως (διαμένειν).

§3 A 4.7.4 ... Ἐπίκουρος ... φθαρτὴν (sc. τὴν ψυχὴν) τῷ σώματι συνδιαφθειρομένην.
A 5.1.2 Ξενοφάνης καὶ Ἐπίκουρος ἀναιροῦσι τὴν μαντικὴν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) This chapter is only recorded in the tradition of P (but see below on Athenagoras). P^B, E and Q record it in full. P^G omits the first paragraph, which connects the chapter to 1.7, and in the next (his first) adds the words γινώσκουσιν ὁμοίως δαίμονας εἶναι καὶ οὐσίας ψυχικὰς, ‘they know that the demons are similarly psychic beings’. Tzetzes’ name-labels are the same, and with P and against Athenagoras he reads σωμάτων, but he actually modifies the doxa so that it means something quite different.

(2) Athenagoras clearly cites the text as found in P 1.8.2, using only the name-label Thales and applying the πρῶτος εὐρέτης motif. The text closely resembles what we find in P, but in the absence of S, it remains unclear whether his source was P or A. See further the comment at ch. 1.7 Commentary A(4).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The modest proximate tradition is limited to a few sentences in Varro (in Augustine), Porphyry and Calcidius.

(2) *Sources.* Among the sources of part of the tradition we may presumably think of the *Epinomis* and of Xenocrates, whose name is not mentioned

although he played an important part in the development of philosophical demonology, going much further than the passage on Eros in Plato's *Symp.* 202d–e. The exegesis of Hesiod's lines on the daemons also played its part. A debate between Stoics and Epicureans will be involved as well. Posidonius' treatise *On heroes and daemons* may have contributed, but we know next to nothing of its contents.

C Chapter Heading

(1) Representative of the umbrella type (περί τοῦ δεινᾶ) that dominates in the *Placita* (see above, ch. 1.1, Commentary C). Here it comprises existence (affirmed and denied) and substance (psychic). It is attested in all our primary witnesses, but not in Ath. Q writes *Über die hohen Kräfte, welche die Griechen 'Daimones' und 'Heroes' nennen*. Equivalents of the Greek terms are not found in Arabic, so Q has to transliterate and explain them. Cf. chs. 2.1[2–3], 3.7[6], 4.11.1[17], 4.12[9], and 4.19[7].

(2) G's inversion of the two terms is interestingly paralleled in the book title of Posidonius cited at section B(2).

D Analysis

a Context

The chapter follows on after 1.7 as an appendix, as stated *disertis verbis* in the authorial comment at §1. Perhaps A's phrase expresses a certain reluctance, understandably in view of his secular preferences. The chapter order 1.7–1.8 itself reflects the often-found hierarchical and sequential series gods–demons–heroes, examples of which are cited at section E(b)§1.

b Number–Order of Lemmata

(1) P^{BEQ} have all three lemmata, while P^G lacks §1 but has §§2–3 in the same order as P^{BEQ}.

(2) The order of §2 and §3 could have been inverted, but this time, in contrast to 1.7, we have the positive view first. There is no need to differ from Diels' order.

c Rationale–Structure of Chapter

Very simple: §1 announces the theme, while §2, attesting a belief in the existence of demons and heroes is diaphonically opposed to §3, which rejects this belief.

d Further Comments

Individual Points

§1 λόγος, ‘account’, here *de facto* means ‘chapter’. On the authorial remark see M–R 2.1.51–52.

§2 Wildberger (2006) 2.502 n. 151 argues that P confused daemons and heroes, since it is odd that the text should speak of evil heroes. Ath, she adds, was not happy with this either so he read ἀνθρώπων. She therefore proposes to emend σωματών to σπουδαίων, but this is not required when the Greek is constructed and translated as we have done.

e Other Evidence

(1) The Plutarchean passages cited section E(b)§2 show that the cluster of name-labels in A (viz., both the authorities in favour of demons and heroes and the Epicureans who are against) is shared with a substantial wider tradition.

(2) The accounts of demonology by Porphyry and Calcidius (references at section E(b) General texts) are among the most extensive ancient sources of information available. On the various issues see Boys-Stones (2018) 296–298.

E Further Related Texts

a Proximate Tradition

§2 *Thales Pythagoras Plato Stoics: Calcidius in Tim.* c. 136 *plerique tamen ex Platonis magisterio daemones putant animas corporeo munere liberatas, laudabilium quoque virorum aethereos daemones, improborum vero nocentes.*

b Sources and Other Parallel Texts

General texts: Hesiod *Op.* 121–126 αὐτὰρ ἐπεὶ δὴ τοῦτο γένος κατὰ γαῖα ἀλύψε, / τοὶ μὲν δαίμονες ἄγνοι· ἐπιχθόνιοι τελέθουσιν / ἐσθλοὶ, ἀλεξικάκοι, φύλακες θνητῶν ἀνθρώπων, {οἳ ῥα φυλάσσουσιν τε δίκας καὶ σχέτλια ἔργα / ἡέρα ἐσάμενοι πάντη φοιτῶντες ἐπ’ αἶαν,} / πλουτοδόται· καὶ τοῦτο γέρας βασιλῆιον ἔσχον. *Op.* 252–255 τρεῖς γὰρ μύριοι εἰσιν ἐπὶ χθονὶ πουλυβοτείρῃ / ἀθάνατοι Ζηνὸς φύλακες θνητῶν ἀνθρώπων, / οἳ ῥα φυλάσσουσιν τε δίκας καὶ σχέτλια ἔργα / ἡέρα ἐσάμενοι, πάντη φοιτῶντες ἐπ’ αἶαν. **Heraclitus** 22B63 DK at Hipp. *Ref.* 9.10.6 † ἔνθα δ’ ἐόντι † ἐπανίστασθαι καὶ φύλακας γίνεσθαι ἐγερτὶ ζώντων καὶ νεκρῶν. cf. **ps.Heraclitus** *Ep.* 9.3 πολλὰ δίκης Ἑρινύες; ἀμαρτημάτων φύλακες. Ἡσίοδος ἐψεύσατο τρεῖς μυριάδας εἰπὼν (*Op.* 252)· ὀλίγα εἰσὶν, οὐκ ἀρκοῦσι κακίᾳ κόσμου· πολὺ ἐστὶ πονηρία. **Diogenes Laertius** *V.P.* 9.7 (on Heraclitus, 22A1 DK) καὶ πάντα ψυχῶν εἶναι καὶ δαιμόνων πλήρη. **ps.Plato** (i.e. Philip of Opus) *Epin.* 984d–985d. **Alcinous** *Did.* c. 15, p. 171.15–20 H. **Apuleius** *De deo Socratis.* **Maximus of Tyre** *Or.* 8–9. *Or.* 11.1a περὶ μὲν δαιμόνων † ἀμφισβητῶν λόγον λόγῳ φέρω, καὶ ἀνέχομαι τὴν στάσιν, καὶ οὐδὲν δεινὸν οὐδὲ πλημμελὲς οὐδὲ ἕξω τρόπου ἡγοῦμαι δρᾶν τὸν ἀμφισβητοῦντα πρὸς ἑαυτὸν καὶ πρὸς ἄλλον εἰ ἐστὶν τὸ δαιμόνιον, καὶ τί, καὶ ὅποσον· καὶ

γάρ ἦν ἐνταῦθα τὸ μὲν ὄνομα δῆλον [(τά)δῆλον prop. Markland], ἡ δὲ οὐσία ἀφανής, ἡ δὲ δύναμις ἀμφισβητήσιμον. **Porphyry** *Abst.* 2.36–43. **Calcidius** in *Tim.* cc. 127–136.

Chapter heading: **Macrobius** *Sat.* 1.23.7 ut *Posidonius* (F 24 E.-K., 387 Theiler) *scribit in libris quibus titulus est* Περὶ ἡρώων καὶ δαιμόνων. **Porphyry** *Plot.* 3 ἔγραψε δὲ (sc. Origen the pagan) ... τὸ Περὶ τῶν δαιμόνων σύγγραμμα. **Origen** *CC.* 7.67, p. 516.31–32 Marcovich τὸν περὶ δαιμόνων λόγον.

§1 Authorial comment: **Plato** *Crat.* 397d–e τί οὖν ἂν μετὰ τοῦτο σκοποῖμεν;—δῆλον δὴ ὅτι δαίμονας τε καὶ ἥρωας καὶ ἀνθρώπους {δαίμονας} (cf. below §2). *Resp.* 392a περὶ γὰρ θεῶν ὡς δεῖ λέγεσθαι εἴρηται, καὶ περὶ δαιμόνων τε καὶ ἡρώων καὶ τῶν ἐν Ἄιδου. **Plutarch** *de E* 390E εἰσι γὰρ θεοὶ δῆπου καὶ δαίμονες καὶ ἥρωες, εἴτα μετὰ τούτους τὸ τέταρτον ἀνθρωποὶ γένος, ἔσχατον δὲ καὶ πέμπτον τὸ ἄλογον καὶ θηριῶδες. *Def.Or.* 415B Ἡσίოდος δὲ καθαρώς καὶ διωρισμένως πρῶτος ἐξέθηκε τῶν λογικῶν τέσσαρα γένη, θεοὺς εἴτα δαίμονας εἶθ' ἥρωας τὸ δ' ἐπὶ πᾶσιν ἀνθρώπους, ἐξ ὧν ἔοικε ποιεῖν τὴν μεταβολήν, τοῦ μὲν χρυσοῦ γένους εἰς δαίμονας πολλοὺς κάγαθούς τῶν δ' ἡμιθέων εἰς ἥρωας ἀποκριθέντων. *SR* 1035A ὁ Χρῦσιππος (*SVF* 2.1035) οἶεται δεῖν τῶν λογικῶν πρῶτον ἀκροᾶσθαι τοὺς νέους δεύτερον δὲ τῶν ἡθικῶν μετὰ δὲ ταῦτα τῶν φυσικῶν ὡς ἂν τέλος δὲ τούτοις τὸν περὶ θεῶν λόγον ἔσχατον παραλαμβάνειν. **Eusebius** *PE* 4.5.1 οἱ μὲν δὴ τὴν Ἑλληνικὴν θεολογίαν ἐξηκριβωκότες ... εἰς γένη τέτταρα πάντα τὸν λόγον διαιροῦντες, πρῶτιστα πάντων τὸν πρῶτον ἀφορίσαντες θεὸν εἰδέναι φασὶ τοῦτον εἶναι τὸν ἐπὶ πᾶσι πρῶτόν τε ὄντα καὶ πάντων θεῶν πατέρα τε καὶ βασιλέα, μεθ' ὃν γένος τὸ θεῶν ὑπάρχειν δεύτερον, ἐπόμενον δὲ τὸ δαιμόνων, τὸ δὲ ἡρώων τέταρτον. **Porphyry** *VP.* 38 παρῆναι δὲ περὶ μὲν τοῦ θείου καὶ δαιμονίου καὶ ἡρώου γένους εὐφημον εἶναι. **Iamblichus** *VP.* 146 τὸν περὶ θεῶν λόγον. **Hermias** in *Phdr.* 206.10 τὰ κρεῖττονα γένη, θεοὶ, δαίμονες, ἥρωες.

§2 Thales Pythagoras Plato Stoics: **Pap. Derveni** col. vi. **Plato** *Crat.* 398b–c τοῦτο τοῖνυν παντὸς μᾶλλον λέγει (sc. Hes. *Op.* 122–126, 252–255), ὡς ἐμοὶ δοκεῖ, τοὺς δαίμονας· ὅτι φρόνιμοι καὶ δαήμονες ἦσαν, 'δαίμονας' αὐτοὺς ὠνόμασεν· καὶ ἔν γε τῇ ἀρχαίᾳ τῇ ἡμετέρᾳ φωνῇ αὐτὸ συμβαίνει τὸ ὄνομα. λέγει οὖν καλῶς καὶ οὗτος καὶ ἄλλοι ποιηταὶ πολλοὶ ὅσοι λέγουσιν ὡς, ἐπειδὴν τις ἀγαθὸς ὢν τελευτήσῃ, μεγάλην μοῖραν καὶ τιμὴν ἔχει καὶ (c) γίγνεται δαίμων κατὰ τὴν τῆς φρονήσεως ἐπωνυμίαν. ταύτῃ οὖν τίθεμαι καὶ ἐγὼ {τὸν δαήμονα} πάντ' ἄνδρα ὃς ἂν ἀγαθὸς ᾖ, δαιμόνιον εἶναι καὶ ζῶντα καὶ τελευτήσαντα, καὶ ὁρθῶς 'δαίμονα' καλεῖσθαι. cf. quotation at **Theodoret** *CAG* 7.47 κὰν τῷ Κρατύλῳ (398b–c) δὲ τόνδε τὸν λόγον διεύρυνεν· ἐπαινεῖ γὰρ τὸν Ἡσίοδον καὶ τοὺς ἄλλους γε ποιητάς εἰρηκότας· ὡς ἐπειδὴν τις ἀγαθὸς ὢν τελευτήσῃ, μεγάλην μοῖραν καὶ τιμὴν ἐκεῖ ἔχει, καὶ γίγνεται δαίμων κατὰ τὴν τῆς φρονήσεως ἐπωνυμίαν· ταύτῃ οὖν τίθεμαι καὶ ἐγὼ τὸν δαήμονα ἄνδρα'. **Cicero** *Tim.* 38 *reliquorum autem, quos Graeci δαίμονας appellant, nostri opinor Lares, si modo hoc recte conversum videri potest, et nosse et nuntiare ortum eorum maius est quam ut profiteri nos scire audeamus.* **Plutarch** *Quaest.Rom.* 276E–277A καθάπερ οἱ περὶ Χρῦσιππον (—) (277A) οἶνται φιλόσοφοι φαῦλα δαιμόνια περινοστεῖν, οἷς οἱ θεοὶ δημίους χρώνται (καὶ) κολασταῖς ἐπὶ τοὺς ἀνοσίους καὶ ἀδίκους ἀνθρώπους. *Is.Os.* 360D–E (cited *Eus. PE* 5.5.1) βέλτιον οὖν οἱ τὰ περὶ

τὸν Τυφῶνα καὶ Ὅσιριν καὶ Ἴσιν ἱστορούμενα μήτε θεῶν παθήματα μήτ' ἀνθρώπων, ἀλλὰ δαιμόνων μεγάλων εἶναι (E) νομίζοντες, οὓς καὶ Πλάτων καὶ Πυθαγόρας (—) καὶ Ξενοκράτης (fr. 24 Heinze, 145 Isnardi Parente²) καὶ Χρῦσιππος (SVF 2.1103), ἐπόμενοι τοῖς πάλαι θεολόγοις, ἐρρωμενεστέρους μὲν ἀνθρώπων γεγονέναι λέγουσι καὶ πολὺ τῇ δυνάμει τὴν φύσιν ὑπερφέροντας ἡμῶν, τὸ δὲ θεῖον οὐκ ἀμιγές οὐδ' ἄκρατον ἔχοντας, ἀλλὰ καὶ ψυχῆς φύσει καὶ σώματος αἰσθήσει {ἐν} συνειληχός, ἡδονὴν δεχόμενον καὶ πόνον, καὶ ὅσα ταύταις ἐπιγενόμενα ταῖς μεταβολαῖς πάθη τοὺς μὲν μᾶλλον τοὺς δ' ἦττον ἐπιταράττει. γίνονται γάρ, ὥς ἐν ἀνθρώποις, κὰν δαίμοσιν ἀρετῆς διαφοραὶ καὶ κακίας. Is.Os. 361B–C (also cited Eus. PE 5.5.1) ὁ δὲ Ξενοκράτης (fr. 25 Heinze, 146 Isnardi Parente²) ... εἶναι φύσεις ἐν τῷ περιέχοντι μεγάλας μὲν καὶ ἰσχυράς, δυστρόπους δὲ καὶ σκυθρωπάς, αἱ χαίρουσι τοῖς τοιοῦτοις, καὶ τυγχάνουσαι πρὸς οὐθὲν ἄλλο χεῖρον τρέπονται. τοὺς δὲ χρηστοὺς πάλιν καὶ ἀγαθοὺς ὁ θ' Ἡσίοδος 'ἀγνοὺς δαίμονας' (Op. 122) καὶ 'φύλακας ἀνθρώπων' (Op. 123, 253) προσαγορεύει, 'πλουτοδότας καὶ τοῦτο γέρας βασιλῆον ἔχοντας' (Op. 126). (C) ὁ τε Πλάτων (Symp. 202d–203a) ἐρμηνευτικὸν τὸ τοιοῦτον ὀνομάζει γένος καὶ διακονικὸν ἐν μέσῳ θεῶν καὶ ἀνθρώπων, εὐχὰς μὲν ἐκεῖ καὶ δεήσεις ἀνθρώπων ἀναπέμποντας, ἐκείθεν δὲ μαντεῖα δεῦρο καὶ δόσεις ἀγαθῶν φέροντας. (cited Eus. PE 5.5.2) Ἐμπεδοκλῆς δὲ καὶ δίκας φησὶ διδόναι τοὺς δαίμονας ὧν {ἐν} ἑξάμαρτῳσι καὶ πλημμελήσωσιν (31B15.9–12 DK follow). Def.Or. 431B ὑπολαβὼν δ' ὁ Ἀμμόνιος 'οἶε γὰρ ἑτερόν τι τοὺς 'δαίμονας' (Op. 122) εἶπεν 'ἢ ψυχὰς ὄντας περιπολεῖν καθ' Ἡσίοδον 'ἡέρα ἐσσαμένους' (Op. 125);' Def.Or. 419A (cited Eus. PE 5.17.4) 'ἀλλὰ φαύλους μὲν, ἔφη, 'δαίμονας οὐκ Ἐμπεδοκλῆς (cf. 31B126, B139 DK) μόνον, ὧ Ἡρακλέων, ἀπέλιπεν, ἀλλὰ καὶ Πλάτων καὶ Ξενοκράτης (fr. 24 Heinze, 148 Isnardi Parente²) καὶ Χρῦσιππος (SVF 2.1104), ἔτι δὲ Δημόκριτος (cf. 68B166 DK) εὐχόμενος 'εὐλόγῳ ἐιδώλῳ' τυγχάνειν, ἢ δῆλος ἦν ἕτερα δυστράπελα καὶ μοχθηρὰς γιγνώσκων ἔχοντα προαιρέσεις τινὰς καὶ ὁρμάς'. **Diogenes Laertius** VP. 7.151 (on Stoics, SVF 2.1102) φασὶ δ' εἶναι καὶ τινὰς δαίμονας ἀνθρώπων συμπάθειαν ἔχοντας, ἐπόπτας τῶν ἀνθρωπείων πραγμάτων· καὶ ἥρωας τὰς ὑπολελειμμένας τῶν σπουδαίων ψυχὰς. *Pythagorica Hypomnemata* at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58B1a DK, cf. Anon. Alexandri p. 236.15–16 Thesleff) at D.L. VP. 8.32 εἶναι τε πάντα τὸν ἄερα ψυχῶν ἔμπλεων· καὶ ταύτας δαίμονάς τε καὶ ἥρωας ὀνομάζεσθαι· καὶ ὑπὸ τούτων πέμπεσθαι ἀνθρώποις τοὺς τ' ὀνειρούς καὶ τὰ σημεῖα νόσους τε, καὶ οὐ μόνον ἀνθρώποις ἀλλὰ καὶ προβάτοις καὶ τοῖς ἄλλοις κτήνεσιν· εἷς τε τούτους γίνεσθαι τοὺς τε καθαρμούς καὶ ἀποτροπιασμούς μαντικὴν τε πᾶσαν καὶ κληδόνας καὶ τὰ ὅμοια. **Apuleius D.Socr.** 148 *daemones sunt genere animalia, ingenio rationabilia, animo passiva, corpore aëria, tempore aeterna*. [cited by Augustine e.g. C.D. 8.16.7–10 Dombart–Kalb; Augustine cited by Thomas Aquinas e.g. in *ii Sent.* dist. 8, qu. 1, art. 1, arg. 1]. *D.Socr.* 152–153 *est et secundo significatu species daemonum animus humanus emeritis stipendiis vitae corpori suo abiurans: hunc vetere Latina lingua reperio Lemurem dictitatum. ex hisce ergo Lemuribus qui posterorum suorum curam sortitus placato et quieto numine domum possidet, Lar dicitur familiaris; qui vero ob adversa vitae merita nullis {bonis} sedibus incerta vagatione ceu quodam exilio punitur, inane tericulamentum bonis hominibus, ceterum malis noxium, id*

genus plerique Larvas perhibent. Plat. 1.206 daemones vero, quos Genios et Lares possumus nuncupare, ministros deorum arbitratur custodesque hominum et interpretes, si quid a diis velint. Sextus Empiricus 9.74 (on Stoics, SVF 2.1105) εἰ οὖν διαμένουσιν αἱ ψυχαί, δαίμοσιν αἱ αὐταὶ γίνονται. Diogenes Laertius V.P. 1.27 (on Thales, 11A1 DK) ἀρχὴν δὲ τῶν πάντων ὕδωρ ὑπεστήσατο, καὶ τὸν κόσμον ἐμψυχον καὶ δαιμόνων πλήρη. 7.151 (on Stoics, SVF 2.1102) φασὶ δ' εἶναι καὶ τινες δαίμονας ἀνθρώπων συμπάθειαν ἔχοντας, ἐπόπτας τῶν ἀνθρωπείων πραγμάτων· καὶ ἥρωας τὰς ὑπολειμμένας τῶν σπουδαίων ψυχάς. Hippolytus Ref. 1.3.1 Ἐμπεδοκλῆς (31A31 DK) μετὰ τούτους γενόμενος καὶ περὶ δαιμόνων φύσεως εἶπε πολλά, ὥς ἀναστρέφονται διοικοῦντες τὰ κατὰ τὴν γῆν, ὄντες πλείστοι. Arnobius of Sicca Adv.Nat. 3.41 Varro (Ant. fr. 209† Cardauns) similiter haesitans (sc. ac Nigidius Figulus) nunc esse illos Manes et ideo Maniam matrem esse cognominatam Larum, nunc aërios rursus deos et heroas (pronuntiat) appellari, nunc

antiquorum sententias sequens Larvas esse (dicit) Lares, quasi quosdam genios et functorum animas mortuorum. Porphyry Abst. 38–39 αὐτὰ δ' αἱ ψυχαὶ δαίμονες μὲν καὶ αὐταί, καχοεργοὶ δ' ἂν εἰκότως λέγοντο. Augustine C.D. 7.6.15–18 Dombart–Kalb (Varro Ant. fr. 226 Cardauns) inter lunae vero gyrum et nimborum ac ventorum cacumina aërias esse animas, sed eas animo, non oculis videri et vocari heroas et lares et genios. Calcidius in Tim. cc. 135–136 erit ergo definitio daemonis talis: daemon est animal rationabile immortale patibile aethereum diligentiam hominibus impertiens [cf. above, Apul. D.Socr. 148; Calc. cited at Thomas Aquinas Quaest. de malo qu. 16, art. 1, arg. 8]. ... reliqui daemones neque ita probabiles neque ita commodi nec invisibiles semper, sed interdum contemplabiles, cum in diversas convertuntur figuras. exsanguium quoque simulacrorum umbraticas formas induuntur obesi corporis illuviem trahentes, saepe etiam scelerum et impietatis ultores iuxta iustitiae divinae sanctionem (sc. sunt daemones). ultro etiam plerumque laedunt; tanguntur enim ex vicinia terrae terrena libidine habentque nimiam cum silva communionem, quam malignam animam veteres vocabant. ... (136) plerique tamen ex Platonis magisterio daemones putant animas corporeo munere liberatas, laudabilium quoque virorum aethereos daemones, improborum vero nocentes, easdemque animas anno demum millesimo terrenum corpus resumere, Empedoclesque non aliter longaevos daemones fieri has animas putat (sc. 31B15.5 δαίμονες οἷτε μακράϊωνος λελάχασι βίοιο), Pythagoras etiam in suis Aureis versibus: 'corpore deposito cum liber ad aethera perges, evades hominem factus deus aetheris almi' (sc. Vers.Aur. 70–71 ἦν δ' ἀπολείψας σῶμα ἐς αἰθέρ' ἐλεύθερον ἔλθης, / ἔσσεαι ἀθάνατος θεὸς ἄμβροτος, οὐκέτι θνητός). Augustine Haeres. c. 86.24–25 Vander Plaetse–Beukers dicit sane ipse (sc. Tertullian) animas hominum pessimas post mortem in daemones verti. C.D. 9.11.1–3 Dombart–Kalb (~ tit.) De opinione Platoniorum, qua putant animas hominum daemones esse post corpora. dicit quidem (see above, Apul. D.Socr. 152–153) et animas hominum daemones esse et ex hominibus fieri lares, si boni meriti sunt; lemures, si mali, seu larvas; manes autem deos dici, si incertum est bonorum eos seu malorum esse meritorum. C.D.

10.9.37–45 Dombart–Kalb (Porphyry 293F Smith). **Proclus** in *Tim.* 1.76.30–77.23 (Numenius fr. 37 Des Places). **Hermias** in *Phaedr.* p. 213.14–16 ‘εἰ οὖν, φησὶν (cf. *Phdr.* 258e), ἴδοιεν οἱ τέττιγες οἱ ὑπὲρ κεφαλῆς ἡμῶν’ ὄντες, τουτέστιν αἱ θεαῖαι ψυχαὶ ἦτοι δαίμονες ἢ ἥρωες ἢ θεοὶ οἱ ὑπὲρ κεφαλῆς ἡμῶν ὄντες καὶ ὑπὲρ ἡμᾶς. *SVF* 2.1101–1105. **Plutarch** *Def.Or.* 420D (Epicurus fr. 394* Usener, *Hermarchus* fr. 50 (dubium) Longo Auricchio) λεγόντων πρὸς τοὺς εἰσαγομένους ὑπ’ Ἐμπεδοκλέους (—) δαίμονας, ὥς οὐ δυνατόν εἶναι φαύλους καὶ ἀμαρτητικοὺς ὄντας μακαρίους καὶ μακραίωνας εἶναι, πολλὴν τυφλότητα τῆς κακίας ἐχούσης καὶ τὸ περιπτωτικὸν τοῖς ἀναιρετικοῖς, εὐηθές ἐστιν.

Liber 1 Caput 9

P^B: ps.Plutarchus *Plac.* 882B–C; pp. 307^a17–308^a15 Diels—**P^E**: Eusebius *PE* 15.44, p. 412.13–22 Mras (et titulus 15.32.8, p. 406.114)—**P^Q**: Qustā ibn Lūqā pp. 122–123 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 86, p. 51 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 4.56, p. 59.13 Delatte (titulus solus)—cf. **P^{Ath}**: Athenagoras *Leg.* 7.2.13–14 Marcovich
S: Stobaeus *Ecl.* 1.11.1, p. 130.22–25 + 1.11.3, p. 131.10–19 + 1.11.5b, p. 133.13–16 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b1 Henry (titulus solus)
T: Theodoretus *CAG* 1.63, p. 21.3–5, 4.23, p. 103.16–25 Raeder
 Cf. Nem: Nemesius *NH* c. 2, p. 26.11–16 Morani

Titulus θ'. Περὶ ὕλης (P,S)

- §1 ὕλη ἐστὶ τὸ ὑποκείμενον πάσῃ γενέσει καὶ φθορᾷ καὶ ταῖς ἄλλαις μεταβολαῖς. (P1,S1)
- §2 οἱ ἀπὸ Θάλεω καὶ Πυθαγόρου, λέγω δὲ τοὺς μέχρι τῶν Στωϊκῶν καταβεβηκότας σὺν Ἡρακλείτῳ, τρεπτὴν καὶ ἀλλοιωτὴν καὶ μεταβλητὴν καὶ 5
 ῥευστὴν ὅλην δι' ὅλης τὴν ὕλην. (P2,S2,T1)
- §3 οἱ ἀπὸ Δημοκρίτου ἀπαθῇ τὰ πρῶτα, τὴν ἄτομον καὶ τὸ κενὸν τὸ ἀσώματον. (P3,S3,T2)
- §4 Πλάτων τὴν ὕλην σωματοειδῇ ἄμορφον ἀνείδειον ἀσχημάτιστον ἄποιον 10
 μὲν ὅσον ἐπὶ τῇ ἰδίᾳ φύσει, δεξαμενὴν δὲ τῶν εἰδῶν οἷον τιθῆναι καὶ ἐκμαγεῖον καὶ μητέρα γενέσθαι. (P4,S4,T3)
- §5 Ἀριστοτέλης δὲ σωματικὴν. (P4,T4)

§1 cf. Arist. *GC* 1.4 320a2–4; §2 Thales fr. 151 Wöhrle; Pythagoras —; Stoici *SVF* 2.324; Heraclitus T 410–411 Mouraviev; §3 Democritus frs. 193, 214 Luria; §4 Plato cf. *Ti.* 49a, 50b–d, 52d; §5 Aristoteles cf. *GC* 1.5 320b23, 2.1 329a9–10

§1 [2] πάσῃ S : πρώτη P^{B(111)Q1} Diels (textus P), πρώτων P^{B(1)Q2} Mau Lachenaud, om. P^E || [2–3] καὶ ... μεταβολαῖς om. Q §2 [4] οἱ ἀπὸ Θάλεω καὶ Πυθαγόρου P^{BQS} : Θαλῆς μὲν καὶ Πυθαγόρας κτλ. T || Πυθαγόρου P^{BS} : Πυθαγόρα P^E || [4–5] λέγω ... Ἡρακλείτῳ S : καὶ οἱ Στωϊκοὶ P^{BEQ} : καὶ Ἀναξαγόρας καὶ Ἡράκλειτος καὶ ὁ τῶν Στωϊκῶν ὁρμαθὸς T, nomen Anaxagorae add. fort. recte || [5] καὶ μεταβλητὴν P^{BQS} : om. P^{ET} || [6] δι' ὅλης P^{B(1)DS} : δι' ὅλων P^{B(1)E}, δι' ὅλου P^{B(111)} || post ὕλην add. S ἀπεφῆναντο §3 [7] οἱ ἀπὸ Δημοκρίτου P^{BEQS} : Δημόκριτος δὲ καὶ Μητροδωρος καὶ Ἐπικούροιοι T, nomina Metrodori Epicuri add. fort. recte || τὰ πρῶτα] *die erste Materie* Q || [7–8] τὸ κενὸν τὸ ἀσώματον : P^E || καὶ post κενὸν add. P^{BQ} (τοῦ del. Usener Diels) || τὸ ἀσώματον om. ST §4 [9] Πλάτων S, cf. T : Ἀριστοτέλης καὶ Πλάτων P^{BEQ} || ἀνείδειον] ἀνείδωλον P^{B(1)} || ἄποιον] ἄπιον P^{B(1)} || [10] post εἰδῶν add. καὶ S || [11] γενέσθαι P^{BE} : γίνεσθαι S, cf. *ist sie ... für die Dinge* Q §5 [12] Ἀριστοτέλης ... σωματικὴν T, abest ab S (vid. nomen in P §4 et S 1.11.4 ubi AD fr. 2 Diels)

- §6 οἱ δ' ὕδωρ λέγοντες ἢ πῦρ ἢ ἀέρα ἢ γῆν τὴν ὕλην οὐκέτι ἄμορφον αὐτὴν
λέγουσιν ἀλλὰ σῶμα· (P5,S5)
- §7 οἱ δὲ τὰ ἀμερῇ καὶ τὰς ἀτόμους ἄμορφον. (P6,S6)
- §8 οἱ Στωικοὶ σῶμα τὴν ὕλην ἀποφαίνονται. (S7,T5)

15

§6 anonymi —; §7 anonymi —; §8 Stoici cf. *SVF* 2.324

§6 [13] ἢ πῦρ ἢ ἀέρα ἢ γῆν P^{QS} : ἢ γῆν ἢ πῦρ ἢ ἀέρα P^B, ἢ πῦρ ἢ ἀέρα ἢ γῆν P^E §7 [15] τὰς] om. P^{B(II)} §8 [16] post οἱ Στωικοὶ add. δὲ T

Testes primi:

Theodoreus

CAG 1.63 (~ quaestio) (οἱ μὲν ἐκ γῆς), οἱ δὲ ἐξ ὕλης, οἱ δὲ ἐξ ἀτόμων ξυστῆναι (sc. τὰ ὁρώμενα).

CAG 4.13

(13.1 ~ §2) καὶ τὴν ὕλην δὲ γε Θαλῆς μὲν καὶ Πυθαγόρας καὶ Ἀναξαγόρας καὶ Ἡράκλειτος καὶ ὁ τῶν Στωϊκῶν ὁρμαθὸς τρεπτήν καὶ ἀλλοιωτήν καὶ ῥευστὴν ἔφασαν εἶναι·

(13.2 ~ §3) Δημόκριτος δὲ καὶ Μητρόδωρος καὶ Ἐπίκουρος ἀπαθὴ τὰ ἄτομα καὶ τὸ κενὸν προσηγόρευσαν.

(13.3 ~ §4) ὁ δὲ γε Πλάτων σωματοειδῆ τὴν ὕλην ἔφησεν εἶναι καὶ ἄμορφον καὶ ἀνείδεον καὶ ἀσχημάτιστον καὶ ἄποιον παντελῶς. ταῦτα γὰρ πάντα, φησὶν, ὕστερον παρὰ τοῦ πεποιηκότος ἐδέξατο.

(13.4 ~ §5) Ἀριστοτέλης δὲ αὐτὴν σωματικὴν κέκληκεν,

(13.5 ~ §8) οἱ Στωϊκοὶ δὲ σῶμα.

Athenagoras *Leg.* 7.2.13–14 (~ tit.) ἄλλος ἄλλως ἐδογματίσεν αὐτῶν ... καὶ περὶ ὕλης

traditio ps.Plutarchi:

Psellus *Omn.Doctr.* c. 86 (~ tit.) Περὶ ὕλης

Symeon Seth *CRN* 4.56 (~ tit.) Περὶ ὕλης

Testes secundi:

al. **Nemesius** *NH* c. 2, p. 26.12–16 τὴν οὐσίαν τριχῶς λέγει (sc. Arist. *de An.* 2.1 412a6–10, 2.2 414a14–18)· τὸ μὲν ὡς ὕλην ὑποκείμενον, ὃ καθ' ἑαυτὸ μὲν οὐδὲν ἐστὶ, δύνανται δὲ ἔχει πρὸς γένεσιν· ἕτερον δὲ μορφήν καὶ εἶδος, καθ' ἣν εἰδοποιεῖται ἡ ὕλη· τρίτον δὲ τὸ συναμφοτέρον τὸ ἐκ τῆς ὕλης καὶ τοῦ εἶδους γεγεννημένον ἔστιν οὖν ἡ μὲν ὕλη δύνανται, τὸ δὲ εἶδος ἐντελέχεια (~ quaestio). *NH* c. 2, p. 27.17–18 οὐ δύνανται δὲ ἐνεργεῖν εἶναι σῶμα πρὸ τοῦ δέξασθαι τὸ εἶδος· ὕλη γὰρ ἐστὶν ἄποιος καὶ οὐ σῶμα (~ §5).

Loci Aetiani:

quaestio A 1.2.2 τῆς δὲ γῆς καὶ τοῦ ὕδατος ἔστι τινὰ πρότερα ἐξ ὧν γέγονεν, ἡ ὕλη ἄμορφος οὕσα καὶ ἀειδής, καὶ τὸ εἶδος ὃ καλοῦμεν ἐντελέχειαν, καὶ ἡ στέρησις. A 1.3.20 (de Socrate et Platone) ὕλη δὲ τὸ ὑποκείμενον πρῶτον γενέσει καὶ φθορᾷ.

§1 A 1.5.2 Ἐμπεδοκλῆς ... οὐ μέντοι τὸ πᾶν εἶναι τὸν κόσμον ἀλλ' ὀλίγον τι τοῦ παντὸς μέρος, τὸ δὲ λοιπὸν ἀργὴν ὕλην. A 1.10.1 ἰδέα ἐστίν ... A 1.11.1 αἰτιὸν ἐστὶ ... ἀρκεῖ γὰρ ὑπογραφικῶς. A 1.12.1 σῶμά ἐστι ... ἡ ... ἡ ... A 1.14.1 σχῆμά ἐστιν ... A 1.15.1 χρῶμα ἐστὶ ... A 1.23.1 ... κίνησίς ἐστι διαφορά τις ἡ ἑτερότης ἐν ὕλῃ, ἥ ἔστιν ὕλη. οὗτος πάσης κινήσεως κοινὸς ὅρος. A 2.32.1 ἐνιαυτὸς ἐστὶ ... A 3.1.1 (γαλαξίος) κύκλος ἐστὶ ... A 1.24.3 Πυθαγόρας καὶ πάντες ὅσοι παθητὴν τὴν ὕλην ὑποτίθενται, κυρίως γενέσεις καὶ φθοράς γίνεσθαι.

§2 A 1.3.22 Ξενοκράτης ... 'ἀέναν' τὴν ὕλην αἰνιττόμενος διὰ τοῦ πλήθους. A 1.8.2 Θαλῆς Πυθαγόρας Πλάτων οἱ Στωικοὶ. A 1.16.1 οἱ ἀπὸ Θάλῃ καὶ Πυθαγόρου παθητὰ (τὰ) σῶματα καὶ τμητὰ εἰς ἄπειρον, καὶ πάντα τὰ συνεχῇ, γραμμὴν ἐπιφάνειαν στερεὸν σῶμα τόπον χρόνον. A 1.17.4 Πλάτων τὰ μὲν τρία σῶματα ... τρεπτὰ εἰς ἄλληλα, πῦρ ἀέρα ὕδωρ κτλ. A 1.24.3 Πυθαγόρας καὶ πάντες, ὅσοι παθητὴν τὴν ὕλην ὑποτίθενται, κυρίως γένεσιν καὶ φθορὰν γίνεσθαι· ἐκ γὰρ ἀλλοιώσεως τῶν στοιχείων καὶ τροπῆς καὶ ἀναλύσεως γένεσ(ιν) καὶ φθορ(άν), παράθεσιν καὶ μίξιν, κρᾶσίν τε καὶ σύγχυσιν γίνεσθαι. A 2.12.1 Θαλῆς Πυθαγόρας οἱ ἀπ' αὐτοῦ. A 2.17a.1 Ἡράκλειτος καὶ οἱ Στωικοὶ. A 5.4.2 Πυθαγόρας Πλάτων Ἀριστοτέλης ἀσώματον μὲν εἶναι τὴν δύναμιν τοῦ σπέρματος ὥσπερ νοῦν τὸν κινουντα, σωματικὴν δὲ τὴν ὕλην τὴν προχομένην. A 5.23.1 Ἡράκλειτος καὶ οἱ Στωικοὶ.

§3 A 1.3.16 Ἐπίκουρος ... αἱ δ' ἄτομοι ἀπαθείς ἄθραυστοι ... εἴρηται ἄτομος, οὐχ ὅτι ἐστὶν ἐλαχίστη ἀλλ' ὅτι οὐ δύναται τμηθῆναι, ἀπαθὴς οὕσα καὶ ἀμέτοχος κενοῦ. A 1.7.25 Ἐπίκουρος ... ἄλλας τέσσαρας φύσεις κατὰ γένος ἀφάρτους τάσδε· τὰ ἄτομα, τὸ κενόν, τὸ ἄπειρον, τὰς ὁμοιότητας. A 1.15.8 Δημόκριτος φύσει μὲν μηδὲν εἶναι χρῶμα, τὰ μὲν γὰρ στοιχεῖα ἄποια, τὰ τε ναστὰ καὶ τὸ κενόν. A 1.18.3 Λεύκιππος Δημόκριτος Δημήτριος Μητρόδωρος Ἐπίκουρος τὰ μὲν ἄτομα ἄπειρα τῷ πλήθει, τὸ δὲ κενὸν ἄπειρον τῷ μεγέθει. A 2.3.2 Λεύκιππος δὲ καὶ Δημόκριτος καὶ Ἐπίκουρος καὶ ὅσοι τὰ ἄτομα εἰσηγούνται καὶ τὸ κενόν κτλ. A 4.9.9 Λεύκιππος δὲ Δημόκριτος Διογένης ... μηδὲν δ' εἶναι ἀληθὲς μηδὲ καταληπτὸν ἐκτὸς τῶν πρῶτων στοιχείων, ἀτόμων καὶ κενοῦ.

§4 A 1.2.2 ἡ ὕλη ἄμορφος οὕσα καὶ ἀειδής. A 1.3.20 Σωκράτης ... καὶ Πλάτων ... ὕλη δὲ τὸ ὑποκείμενον πρῶτον γενέσει καὶ φθορᾷ. A 1.10.1 ἰδέα ... εἰκονίζουσα δὲ τὰς ἀμόρφους ὕλας. A 1.10.4 Σωκράτης καὶ Πλάτων χωριστὰς τῆς ὕλης οὐσίας τὰς ἰδέας ὑπολαμβάνει. A 1.19.1 Πλάτων (sc. τόπον εἶναι) τὸ μεταληπτικὸν τῶν εἰδῶν, ὅπερ εἴρηκε μεταφορικῶς τὴν ὕλην, καθάπερ τινὰ τιθήνην καὶ δεξαμενὴν. A 1.26.3 (Περὶ οὐσίας ἀνάγκης) Πλάτων ὅτε μὲν τὴν ὕλην ὅτε δὲ τὴν τοῦ ποιοῦντος πρὸς τὴν ὕλην σχέσιν.

§5 A 1.13.22 Ἀριστοτέλης ... εἶδος καὶ ὕλην καὶ στέρησιν.

§6 A 1.2.2 ἀμαρτάνει οὖν ὁ Θαλῆς στοιχεῖον καὶ ἀρχὴν λέγων τὸ ὕδωρ. A 1.3.1 Θαλῆς ὁ Μιλήσιος ἀρχὴν τῶν ὄντων ἀπεφῆνατο τὸ ὕδωρ. A 1.3.2 ἀμαρτάνει δὲ οὗτος μὴ λέγων τί ἐστὶ τὸ ἄπειρον, πότερον ἀήρ ἐστὶν ἢ ὕδωρ ἢ γῆ ἢ ἄλλα τινὰ σῶματα.

ἀμαρτάνει οὖν τὴν μὲν ὕλην ἀποφαινόμενος. ... τὸ γὰρ ἄπειρον οὐδὲν ἄλλο ἢ ὕλη ἐστίν. A 1.3.9 Ἡράκλειτος καὶ Ἰππασος ὁ Μεταποντίνος ἀρχὴν τῶν ὄλων τὸ πῦρ. A 1.3.3 Ἀναξίμενης δ' ὁ Μιλήσιος ἀρχὴν τῶν ὄντων ἀέρα ἀπεφήνατο. ... ἀμαρτάνει δὲ καὶ οὗτος ἐξ ἀπλοῦ καὶ μονοειδοῦς ἀέρος καὶ πνεύματος δοκῶν συνεστάναι τὰ ζῶα· ἀδύνατον γὰρ ἀρχὴν μίαν τὴν ὕλην τῶν ὄντων ὑποστήναι. A 1.3.5 Ἀρχέλαος Ἀπολλοδώρου Ἀθηναῖος ἀέρα ἄπειρον. A 1.3.10 Διογένης δὲ ὁ Ἀπολλωνιάτης ἀέρα ἄπειρον. A 1.3.11 Ξενοφάνης ἀρχὴν τῶν πάντων εἶναι τὴν γῆν. A 1.3.19 Ἐμπεδοκλῆς Μέτωνα Ἀκραγαντίνος τέτταρα μὲν λέγει στοιχεῖα, πῦρ ἀέρα ὕδωρ γῆν. §7 A 1.3.18 Διόδωρος ἐπὶ κλην Κρόνος τὰ ἀμερῇ σώματα ἄπειρα, τὰ δ' αὐτὰ λεγόμενα καὶ ἐλάχιστα. A 1.13.2 Ἡράκλειτος ψηγμάτια τινα ἐλάχιστα καὶ ἀμερῇ εἰσάγει. A 1.13.3 Ξενοκράτης καὶ Διόδωρος ἀμερῇ τὰ ἐλάχιστα ὠρίζοντο. A 1.16.2 οἱ τὰς ἀτόμους (εἰσάγοντες) περὶ τὰ ἀμερῇ ἴστασθαι καὶ μὴ εἰς ἄπειρον εἶναι τὴν τομήν. A 4.9.10 οἱ τὰ ἄτομα καὶ οἱ τὰ ὁμοιομερῇ καὶ οἱ τὰ ἀμερῇ καὶ τὰ ἐλάχιστα κτλ. §8 A 4.20.2 οἱ δὲ Στωικοὶ σώμα τὴν φωνήν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The chapter is well attested in all three major witnesses.

(1) P^B, E and Q all record the same six doxai. G, however, does not include this chapter in the early part of his compendium (he uses other material in ch. 18 on the δραστική αἰτία). Ps uses only the heading.

(2) S devotes a separate chapter to the subject of matter, interweaving all of P's doxai with other material from AD and elsewhere.

(a) He commences the chapter with the definition also found as the first doxa in P, followed by a quote from Hermes Trismegistus.

(b) Next he records three doxai from A, which correspond to the next three lemmata in P. But for the third he has only the name-label Πλάτων, not Ἀριστοτέλης καὶ Πλάτων as in P, cf. *DG* 46, 64; S undoubtedly omits the name-label Aristotle because as a replacement he cites (as so often) a passage from AD, i.e. fr. 2 Diels, which p. 132.13–14 contains a phrase analogous to the *Placita* lemma, namely καὶ ἡ μὲν οὐ σῶμα, σωματική δέ. So here we have a case of P and T (for the latter see immediately below at section A(3)) in agreement against S, who has preserved the name-label but swapped the Aëtian doxa for an abstract from another source (cf. above, *General Introduction*, section 2.4), and below, ch. 1.28 Commentary A(1), ch. 2.20 Commentary A(2), and ch. 4.2 Commentary A(2)). The Platonic doxa is followed by a relevant quote from the *Timaeus* (50b–d).

(c) There follow three texts attributed to Aristotle, Zeno and Chrysippus that Diels persuasively identified as derived from AD. All three commence with the name in the genitive and not as part of the opening sentence, i.e. contrary to the style of the *Placita*.

(d) S then records the final two anonymous doxai in P, adding a further doxa attributed to the Stoics that is not found in P.

(e) The chapter concludes with another excerpt from AD with views of the Stoic Posidonius and a final quote from Plato's *Parmenides* (144b).

Though S has made some changes and interpolated other material his six doxai are basically the same as those of P, and they occur in the same order. This suggests that S preserved the microstructure of the chapter he copied out, and P refrained from abridging it.

(3) The main issue of the chapter, namely the opposition between a view of matter as continuous and one of matter as discrete, is anticipated in the cluster of anticipations in CAG 1.63, see ch. 1.3 Commentary A(5)(a). At M–R 1.274 this announcement is taken to pertain to ch. 1.3, but a hint at the excerpts from the chapter at CAG 4.13 is more likely. The reference to the earth as matter (οἱ μὲν ἐκ γῆς) anticipates Xenophanes at CAG 4.5 rather than his presence at ch. 1.3.1. T may have seen this view as particularly absurd, so worthy of being singled out. The fuller excerpts from the chapter are found in the cosmological Book 4, bearing the title ‘On matter and cosmos’ (T continues with excerpts from A 1.18 and a series of chapters of A Book 2). He paraphrases it at some length, adding three name-labels not found in P and S: Anaxagoras, Metrodorus, and Epicurus. In view of the agreement between P and S he may have added these himself (cf. M–R 1.287), though it is equally likely that he excerpted them from A (cf. below section D(d) §§2–3, and ch. 1.25, Commentary A). The other doxai he records can all be found in P and S, with one exception. He has a separate doxa for Aristotle (not exactly paralleled in E), no doubt based on the lemma of which P has epitomised the doxa away, keeping only the name-label and moving it to §4. This is one of the five significant cases of P and T in agreement against S (see General Introduction, section 2.5 with n. 42). S has replaced this Aristotelian lemma with an excerpt from AD (fr. 2 Diels). What is more, §8 (Stoics), not in P, is in both S and T, which proves again that T excerpted the source shared with S, namely A. Cf. Diels *DG* 46, and below ch. 1.18, Commentary A(3), ch. 1.27, Commentary A(2), and ch. 4.3 Commentary A(5).

B *Proximate Tradition and Sources*

(1) *Proximate tradition*. Parallels are found, as is quite often the case, in AD and Diogenes Laertius. For the wider doxographical tradition we may cite Aristotle, while Calcidius' lengthy discussion of matter is of particular importance.

(2) *Sources*. Among the ultimate sources we recognize the *Timaeus* and, for certain phrases, Aristotle's *De generatione et corruptione*. At DG 215 Diels includes A 1.9.1 among his sparse examples of a close reading—according to him by A—of the text of Aristotle's *pragmateiai* ([i]psius Aristotelis doctrina ... ex accurata eius lectione hausta'; cf. chs. 1.23.2, 1.29.2, 4.8.6, 4.9.3, and 5.3.1 at Commentary B). He saw that the anonymous definition ὕλη ἐστὶ τὸ ὑποκείμενον πάσῃ γενέσει καὶ φθορᾷ καὶ ταῖς ἄλλαις μεταβολαῖς has been abstracted from Arist. GC 1.4 320a2–4 ἐστὶ δὲ ὕλη μάλιστα μὲν καὶ κυρίως τὸ ὑποκείμενον γενέσεως καὶ φθορᾶς δεκτικόν, τρόπον δέ τινα καὶ τὸ ταῖς ἄλλαις μεταβολαῖς. At ch. 1.3.20 its first part (but without πάσῃ), ὕλη δὲ τὸ ὑποκείμενον πρῶτον γενέσει καὶ φθορᾷ, is attributed to Socrates and Plato. This parallel underlines its generality. The doxa of §3 (perhaps somewhat surprisingly) derives from an important passage in *Met.* A, see section E(b)§3.

C Chapter Heading

Of the standard umbrella type 'about x', περὶ τοῦ δεῖνα. The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. This in principle covers more than one category and/or question-type; see above, ch. 1.3 Commentary C. Here it comprises substance, quality and relation. It is attested in both P and S, and paralleled as an embedded heading in Alcinous, as a heading in Calcidius, and as part of the title of treatises on *materia medica* by doctors.

D Analysis

a Context

This is the first of the long series of chapters (1.9–29) in Book 1 concerned with the foundational concepts of theoretical physics. They follow on after the introductory chapters (which include those dealing with the principles and elements, the generation of the cosmos and the number of kosmoi, and the divine). Solmsen (1960) 51 points out that already before Plato 'a set of physical questions had become *detached* from the body of cosmological subjects: ... Aristotle has a goodly number of subjects that find a more suitable place in physics than in cosmology' (our italics). The Stoics had such subjects too; see above, General Introduction 2.8.

(1) *Hinge function*. More particularly it is connected to the next, 1.10 'On idea', the link between matter and transcendental Form (plus form-in-matter) revealing a Middle Platonist background. A backward glance at chs. 1.6–7 adds the divinity, thus completing the Middle Platonist triad of principles (cf. Lachaud 1993, 89 n. 9; see above, ch. 1.3 Commentary D(a) and (d)§20, and also M–R 2.1.51, 2.1.69). In A we thus have God and then, at some distance, matter

followed by idea. This hinge function of ch. 1.9 nicely links the series of introductory chapters with the more theoretical series. In Apuleius (*Plat.* 190–193) the order is the same as in A, but in Alcinous it is the ascending series matter (*Did.* c. 8)—idea (c. 9)—God (c. 10). Philoponus in *Phys.* 3.1–8 points out that Aristotle in *Physics* Book 1 treats matter and form but matter more than form, and in Book 2 form more than matter. We may add that the divinity is at issue only much later in the *Physics*.

(2) *Compartmentalization*. Actually the rather meticulous division of themes over chs. 1.9 and 1.10 is another instance of the didactic compartmentalization so often found in A (think e.g. of the series of six rather short chs. on the earth, 3.9–14, where themes are separated that were treated together by Aristotle). Even so, in ch. 1.9 the εἶδη are already mentioned in §5 because after all matter receives them, while in ch. 1.10 ὕλαι are recalled in 1.10.1 because they are moulded by the idea, and ὕλη in 1.10.2 and 1.10.4 as what ideas and forms are either separate from, or not. Such didactic disassembling holds a fortiori for the dispersed treatment, several chapters down, of bodies in ch. 1.12, minimal parts in ch. 1.13 and the division (infinite or not) of bodies in ch. 1.16, subjects included for instance by Calcidius as ingredients of the part of his discussion of matter that is parallel to ch. 1.9.

b Number–Order of Lemmata

(1) There must be a separate Aristotelian lemma, as attested in T §5 and confirmed by the residual name-label in P §4. The order in S makes it likely that this lemma followed the Plato lemma and that P coalesced the two.

(2) We have split up §§6–7 in accordance with our usual practice. P has six, S seven and T five lemmata. §§3–5 are shared by all three sources, S, P and T; §1, §6 and §7 are shared by P and S, §5 by P and T, and §8 by S and T. The relative order is the same throughout, so should not be changed. The Stoics are mentioned in two lemmata, a feature occasionally also encountered elsewhere (e.g. Stoics at ch. 1.11.5 and 1.11.6, cf. Xenophanes at chs. 2.20.2 and 2.20.5, Parmenides at chs. 2.20.3 and 2.20.15).

c Rationale–Structure of Chapter

(1) *Definition*. Like seven other chapters that follow in Books 1, 2 and 3 our chapter begins with an anonymous definition of the technical meaning of a word or concept, in this way providing a preliminary explanation of the word or concept that is generally acceptable (see below at sections D(d)§1, D(e)2 and E(b)§1). These other chapters are 1.10 ‘On idea’, 1.11 ‘On causes’, 1.12 ‘On bodies’, 1.14 ‘On shapes’, 1.15 ‘On colours’, 2.32, ‘On the year, how great the time of (the revolution of) each of the planets is, and what the Great year is’, and ch. 3.1,

‘On the circle of the Milky Way’. In ch. 1.23 the technical definition of κίνησις, which in everyday language is not connected with ‘matter’, is attributed to Pythagoras and Plato. In ch. 2.1 the technical definition of κόσμος, which in common parlance means ‘order’, or ‘ornament’, is attributed to Pythagoras. These definitions, though signed, serve the same introductory purpose. Note that the anonymous definition of the present chapter derives straight from Aristotle, whose name-label is purposely omitted.

A definition which explains the meaning of a term is called *nominal*. This is already and also first so in Aristotle, who introduces the designation ὀνοματώδης, varieties of which became common usage. It can also be designated as a ὑπογραφή or ‘delineation’; in this sense this term, which came to be widely used as well, may be of Stoic descent (once Aristotle already uses the verb in this context, *de An.* 2.1 413a9–10). Another designation, presumably also of Stoic descent but also widely used, is ‘conceptual’ (ἐννοηματικός) definition. For Neoplatonist terminology see e.g. Elias in *Isag.* 8.12–13 ἔκτος (sc. definition of ‘philosophy’) ὁ ἐκ τῆς ἐτυμολογίας ὁ λέγων φίλῃα σοφίας, or David *Prolog.* 21.21 ἐκ τοῦ ὀνόματος ὅρον. The nominal sort has to be distinguished from the kind that states the ‘essence’ (οὐσιώδης, as in Aristotle), or the ‘particular individuality of something’ (as according to Chrysippus). In later literature such a proper definition is called a ὅρος τέλειος. Today this kind of definition is called *real*.

The *technical* meaning of the ‘name’ ὕλη in philosophical prose has to be explained, because in ordinary language it just means ‘wood’. It is assumed that a nominal or conceptual definition is generally acceptable, while conflict ensues when schools or particular individuals formulate their various definitions of the essence. The definitions proposed by the various authorities and schools that follow in the present chapter differ from each other, yet to some extent still agree with the definition at the beginning.

In the *Placita* there is an explicit reminder of the role of the preliminary definition in an added note in ch. 1.11.1: ‘it is sufficient (to do this) in the manner of a *hypographe*’, or ‘sketch’ (ἀρκεῖ γὰρ ὑπογραφικῶς). This is the only case where this clarification survives, and it does so in S’s fuller version not in P’s *Epitome*. Another definition found at the beginning of a chapter, also extant only in S, is likewise characterized as preliminary, this time by means of the word προηγούμενως (A 1.15.1, ‘Colour is the primarily visible quality of a body.’). A similar though not anonymous definition is found at the beginning of ch. 1.23 ‘On motion’. This definition too is elucidated by a comment, again extant only in S, namely: ‘this is the shared’ (or ‘common’) ‘definition of every (form of) motion’.

One may well wonder why so few *Placita* chapters begin with a preliminary definition. Presumably the reason is that chs. 1.9–14 are concerned with

abstract or second-order concepts that are rather far from ordinary language and experience, so actually need some sort of introductory presentation. The meaning of terms like ‘mixture’ (as used in ch. 1.17), or ‘sun’ (in ch. 2.20) and ‘moon’ (in ch. 2.25), to cite but a few examples, is not in need of elucidation, but as we have noticed in everyday parlance ὕλη means ‘wood’ not ‘matter’, so its nominal meaning in the specific context of ch. 1.9 has to be cited *disertis verbis*.

For species of definition see further below, section (e)(2) and section E(b).

(1) For preliminary accounts of definition in the *Placita* see M–R 2.1.32–33 and 246, index s.v. definition.

Lebedev (2016) 600–601 claims that each of the more than one hundred and thirty chapters in the source excerpted by P and S began with an ‘apodictic authorial definition’, as he calls it, of which only eight are now extant in P and S, plus perhaps two more found only in S alone (ibid., 604). But the extant instances are not ‘apodictic’ but nominal. What is more, given that P and S excerpted their common source independently, the possibility that out of much more than one hundred definitions they would select exactly the same eight examples is almost nil, as Edward Jeremiah elegantly proves in his paper ‘Statistical Explorations of the *Placita* of Aëtius’ at M–R 4. 295–297.

(2) *Diaphoniae*. The main diaphonia of the chapter’s contents, paralleled elsewhere, seems to be between those who posit a flexible and undetermined but determinable matter and those who posit an impassible matter, as in §2 and §3. More particularly, the *majority tradition* comprising the two main Successions (from Thales and Pythagoras) in §1 is opposed to the Atomist line in §2 (and by implication to §7 too), just as is explicitly the case in ch. 1.16.1–2. In ch. 16 the Stoics are not mentioned, but the entities line, surface, threedimensional, body, place, and time, listed ch. 1.16.1 as infinitely divisible, are Stoic incorporeals. We note that the atomism of the Pythagorean Ecphantus (chs. 1.3.17 and 2.3.3, see Commentary D(d)§17) is not taken into account, just as at ch. 1.16.1.

The opposition between corporeal and incorporeal provides a supplementary contrast, which however seems to be more a formal matter, or one of words, than of content. The ἀσώματον void next to matter (the atom) in §3 cannot itself count as matter, but is still opposed to (on a gliding scale) the σωματοειδῆ matter of §4, the σωματικὴ matter of §5, and the σῶμα of §6 and §8. Within the second horn of this opposition the more reserved or restricted terms σωματοειδῆ of §4 and σωματικὴν of §5 are distinguished from the more resolute σῶμα of §6 and §8. A third distinction, interesting but difficult, between the monists of §6 and the pluralists of §7 is that matter according to the former is ‘no longer without figure’ (οὐκέτι ἄμορφον), whereas that of the latter is ‘without figure’ (ἄμορφον).

Presumably a fine distinction is at issue between ‘figure’ (μορφή) in the sense of ‘quality’ (fire being hot, white; earth cold, black etc.) on the one hand and σχῆμα in the sense of ‘a surface or outline or a limit of a body’ on the other, as at 1.14.1. For atoms—and presumably also ‘partless’ particles—do have such shapes, as is confirmed within the *Placita* universe at ch. 1.14.4, οἱ ἀπὸ Λευκίππου τὰ ἄτομα πολυσχήμονα. Thus it is ἄμορφον and ἄποιον, but not ἀσχημάτιστον, to use the terminology of §3.

On the structure and paragraphs of this chapter see also the comments of White (2007) 41–49 (who discusses the entire chapter in S) and Gourinat (2011) 160–161.

d Further Comments

Individual Points

§1 That the anonymous definition is in fact one of Aristotle’s is understandable, because it was Aristotle who first gave the technical meaning of ‘matter’ to the word ὕλη which has the basic meaning ‘wood’. As to contents it agrees rather well with that of ‘idea’ at ch. 1.10.1 and the Plato lemma (ch. 1.10.2) of the next chapter.

§2 ‘Thales and Pythagoras and their followers, I mean those (philosophers) going down to the Stoics together with Heraclitus’: a brief reference to the Ionian and Italic Successions (see at ch. 1.3 above, Commentary B, D(a), (c), (d)§6 and d§20[142–143]), highlighting the opposition to atomism of these two main lines, cf. above, section D(d)(2). We have noticed that S considerably abridges this chapter, also as to its information about the Successions, so it is quite unlikely he added extra information this time. The Stoics belong with the Ionic line, and Heraclitus, as is so often the case, has been coupled with them (as in A at chs. 2.17.4 and 5.23.1 Ἡράκλειτος καὶ οἱ Στωικοί). The name-label ‘Heraclitus’ is confirmed for A by T and S against P, where it is absent: further confirmation of the importance of the T,S source for a lemma cited in all three witnesses. Possibly T’s extra name-label ‘Anaxagoras’ should also be included, because the infinite divisibility of his material principles distinguishes him from the Atomists. Diels, in the index nominum s.v. Anaxagoras, *DG* 661, refers to this passage as ‘de materia A I 9 2 (307 t^b 3)’, so accepts the name-label for A.

The Stoic material cited at section E(a)§2 has caused difficulties, esp. the Posidonius text which however should be read in the light of Calcidius in *Tim.* c. 290 (*SVF* 1.86); see Kidd (1988) 369–371. In our view there is no need to interfere with AD’s text; translate ‘the substance that exists according to subsistence differs from matter only conceptually’. There is no trace of this subtle rider in A.

§3 T's extra name-labels Metrodorus and Epicurus would make excellent company for P's and S's Democritus. In the index nominum s.v. Metrodorus, *DG* 687, and s.v. Epicurus, *DG* 679, Diels each time refers to this passage as 'τὰ πρῶτα ἀπαθῆ A I 9 2 (308 t^b 2)', so accepts the name-labels for A.

§4 This lemma, though ultimately based on the *Timaeus*, shows the clear influence of early Middle Platonism. Of the four α-privative terms used of matter only one is found in *Tim.* 48–52, i.e. ἄμορφος at 50d7. For the other three terms see the parallels cited in section E(a)§4 and section E(b)§4 (originally ἄποιος seems to be Stoic). All four terms are found at Alcinous *Did.* 8, p. 162.29–36 H. The qualifications *ad finem*, also paralleled at Alcinous, loc. cit., derive from the *Timaeus*: δεξαμενήν (53a, cf. 51a πανδεχές), τιθήνην (49a), ἐκμαγεῖον (50c), and μητέρα (50d). Like §1 this lemma pertains to both matter in itself (explicitly: ὅσον ἐπὶ τῇ ἰδίᾳ φύσει) and matter in relation to something else. For the distinction cf. Alcinous *Did.* c. 8, p. 162.29–36 H., cited section E(b)§4, who mentions the relation to something else first, and what matter is in itself (αὐτὴν δὲ καθ' αὐτήν) next.

§5 *Pace AD* the doctrine is not Aristotelian. The question, much discussed today, of the content and status of Aristotle's doctrine of (prime?) matter is not explicitly at issue in our chapter

The verb κέκληκεν is almost certainly an addition by T. It is only found in A at 2.7.1 (κεκλήκαμεν). But in T it is very common, e.g. at 3.104, 4.35, 5.13, 5.17–18, 5.24, 6.13–15 etc.

e Other Evidence

(1) Although A, as usual, endeavours to highlight the differences, the doxographical parallels as well as his own lemmata show that some of these doxai (§1, §2, §4) are quite similar and in reality differ only in minor respects. The background seems to be a Stoic-Aristotelian-Platonic κοινή, as is clear from the parallels cited at section E(b). Of indubitable interest in our context is the parallel account, three to four centuries later, of Calcidius in *Tim.* cc. 275–282 (not counting ch. 276 on the *Hebraei* and the extensive discussion of Aristotle, Pythagoras and Plato chs. 283 ff.). Calcidius treats the same contrast between the partisans of undetermined and those of (more) determined matter (name-labels included). This account comprises a detailed overview of the materialist monists of ch. 1.9.6 and some others, not all of which are relevant. This has been achieved by the incorporation of material paralleled in A's chapter on the principles, 1.3, enriched with evidence from a tradition close to Aristotle's account in *Metaphysics* A (see Waszink's edition of Calcidius in app. ad loc., and esp. Van Winden 1959, 71–74): it was often rewarding to leave the *rivuli* and to return to (intermediary sources closer to) the *fontes*. The inclusion of the monists in A

and Calcidius was perhaps originally inspired by Plato's remark on the στοιχεῖα at *Tim.* 48b, cited section E(b)§6. What we have here is a good example of the close relationship that occasionally obtains between doxography and Commentary literature, in this case the *Placita* and Calcidius in *Timaem*.

(2) *Definition: species and uses.* A passage in Sextus Empiricus and a quotation of Porphyry (F 70 Smith at Simp. in *Cat.* 213.10–28, cf. Barnes 2003, 57–60) that does not depend on Sextus (both cited below at *Textus alii II*, §1) deal with the distinction between conceptual, or nominal, and strict or essential definitions. Porphyry tells us that 'the conceptual definitions are agreed upon in common (κοινῇ—cf. ch. 1.21.1 πάσης κινήσεως κοινὸς ὅρος) by all, and are the same', and that 'the essential definitions differ from each other according to the school that propounds them, and are contradicted by those who hold a different opinion'. The latter is confirmed in the passage of Sextus, according to whom people become involved in 'endless diaphonia' as soon as they try to establish the definition of the essence.

Most likely this distinction goes back to Aristotle's recommendations at esp. *APo.* 2.10, according to which research may commence with a definition that provides a first impression of the meaning of a word, or 'name' or 'name-like expression', before one tries to find out whether the thing meant exists, and before one tries to determine what the definition of its essence (τὸ τί ἐστι, or οὐσία) should be: nominal definition as distinguished from essential definition. A clear explanation is provided by Themistius ad loc., in *APo.* 51.3–13. Aristotle expresses this distinction more colloquially (paralleled in other authors) as one between presenting something 'in outline' (τύπῳ) rather than—or eventually before—stating 'the exact account', or 'definition' (τὸν ἀκριβῆ λόγον), e.g. *Top.* 1.1 101a18–24: 'Let the above be a description in outline of the different kinds of reasoning, ... since we do not propose to give the exact definition of any of them but merely wish to describe them in outline (τύπῳ), considering it quite enough, in accordance with the method we have set before us, to be able to recognize each of them in some way or other' (trans. Forster, LCL). For common doxai or doxai shared by most people or by members of a group see e.g. *Arist. Phys.* 1.4 187a26–29, *Met.* B.2 996b27–29, or Theophrastus *Sens.* 37.

For the difference between ὅρος and ὑπογραφή in Stoicism see Antipater fr. *SVF* 3.23 at Diogenes Laertius *V.P.* 7.60, where the latter is *inter alia* described as 'a statement that introduces one in a rough way (τυπωδῶς) to the states of affairs'; cf. ps.Galen *Def.Med.* 19.349.6–350.2 K. (*SVF* 2.227). The Stoic distinction between the study 'of what each existing thing is, and what it is called' (Diogenes Laertius *V.P.* 7.83) is also pertinent. Clement of Alexandria *Strom.* 8.2.3.3–4 recommends starting from the meaning 'of a term' that is agreed (ἐκ τῆς προσηγορίας) among all those speaking the same language. The next

step is 'to inquire precisely about its nature, what this is' (ζητητέον τούτου τὴν φύσιν ἀκριβῶς, ὅποια τίς ἐστίν). Here 'nature', φύσις, is clearly equivalent to οὐσία, 'essence'. Plotinus *Enn.* 3.7.[45].1 provides an illuminating example of this approach by first providing preliminary definitions of time and eternity (the theme of the treatise), and next listing the plurality of views of the ancients to be scrutinized.

Discussing the meaning and reference of the term κρίσις, Gal. *Di.Dec.* 9.773.14–16 K. argues that one should begin with what can be understood 'from the word's meaning' (ἐκ τῆς προσηγορίας) before giving an account of 'the matter itself' (περὶ πράγματος αὐτοῦ). See also *Ars Med.* 1.4, p. 275.8–15 Boudon, 1.306.9–15 K. On the first page of the *De difficultate respirationis* (7.753.1–7 K.) he advises us that the 'name' (τοῦνομα) of the phenomenon to be discussed, δύσπνοια, shows that it applies to damaged respiration, but that its many varieties, their causes, or how one is to diagnose these cannot be learned 'from the name' (ἐκ τῆς προσηγορίας), but will be only become clear from 'the nature of respiration itself' (ἡ φύσις αὐτῇ τῆς ἀναπνοῆς). He is in fact very much aware of the doctrinaire differences between essential definitions upheld by various schools of thought whenever there is no agreement about the essence, or substance. See for instance his account at *Diff.Puls.* 8.703.18–704.14 K. of the particular definitions of the essence of the pulse of the Erasistrateans and Herophileans and all the other sects with the conceptual definition accepted by everyone (also cited below at section E(b, §1)). For his part, he argues that an essential definition (to be established or accepted) should agree with the conceptual definition, *Diff.Puls.* 8.708.8–14 K.

The distinction is also attested by Alexander of Aphrodisias *de Fat.* 165.15–19, though his approach is different. Instead of mentioning 'a common definition agreed by all', contrasting with 'definitions upheld by various schools', Alexander speaks of 'the preconception of men' (ἡ τῶν ἀνθρώπων ... πρόληψις) and 'the *common* nature of men, in accordance with which they hold the same opinions on certain subjects' (ἡ κοινή τῶν ἀνθρώπων φύσις, καθ' ἣν περὶ τινων ὁμοδοξοῦσιν ἀλλήλοις), as contrasting with 'being compelled to different positions according to certain opinions already laid down, through their desire to preserve consistency as to these doxai' (διὰ τινας προκαταβεβλημένας δόξας ὑφ' αὐτῶν διὰ τὸ σῶζειν βούλεσθαι τὴν πρὸς αὐτάς ἀκολουθεῖν ἄλλως ἀναγκάζονται λέγειν). This common and natural preconception tells us that fate 'is something and is the cause of some things', i.e. is relevant for the question types of existence and essence, and for the meaning of the word (i.e. for its conceptual or preliminary or nominal definition). For the latter cf. *in Met.* 5.25–27: 'Aristotle says that experts and wise men differ from practitioners in respect of knowledge, and establishes this on the basis of the *common* preconception, for according

to common parlance we call wise those who know' (τοῦτο συστήσας ἐκ τῆς κοινῆς προλήψεως, σοφοὺς γὰρ τοὺς εἰδότας καλεῖν πᾶσιν ἐν χρήσει). 'But as to *what* fate is and where it is located, the common preconception of men is no longer sufficient.' An inventory of conflicting views follows. Alexander concludes that 'On account of this *diaphonia* it is necessary for philosophers to enquire concerning fate, not whether it exists, but what it is' etc. (*de Fato* c. 2, p. 165.15–166.15 tr. Sharples, slightly modified; full text below at ch. 1.27, section E(a) General texts).

The Neoplatonist *Prolegomena* to Porphyry's *Isagoge* and the so-called *Commentaria in Dionysium Thracem* provide ample information on the definitions of 'definition'. So does Marius Victorinus *De definitionibus* 16.14–29.2 (cited below, section E(b)§1 Species of definition), who lists and describes no less than fifteen different species, though species two to fourteen are in fact conceptual definitions, see Pronay (1997) 228. Victorinus is excerpted by Cassiodorus *Inst.* 2.14 (partly cited *ibid.*), who in his turn is excerpted by Isidore of Seville *Etym.* 2.29.1–16, cf. Stangl (1888) 33, appar. testim. On lost Greek treatises as Victorinus' sources for these fifteen species see the discussion at Pronay (1997) 21–22.

Galen's Aristotelian distinction between 'Wort- und Sach-Definition' is already mentioned by Prantl (1855) 575; see now also Chiaradonna (2009) 62–66 and Hood (2010). On the 'signification of names' in this context see Charles (2000) 78–95, as well as Demoss–Devereux (1988) and Deslauriers (2007) 68–78 on 'nominal definition' (λόγος ὀνοματώδης) in Aristotle. On Stoic doctrines of definition see Rieth (1933) 36–54, 276–180, Long–Sedley (1987) 1.190–194, Brittain (2005), who also collects examples of actual Stoic definitions of various types, but works out a perhaps too intricate classification, Chiaradonna (2007) 215–225, and Crivelli (2010). On conceptual and substantial definition see Kotzia-Panteli (2000), who fails to mention the Stoic ὑπογραφή. For later Platonism and the Arabs see Hein (1985) 72–87. On definition in the *Placita* see also M–R 2.1.246, index nominum et rerum s.v. definition(s), and below, chs. 1.11, 1.15, and 1.23, all at Commentary D(d).

E Further Related Texts

a Proximate Tradition

General texts: Seneca *Ep.* 65.4 *Aristoteles putat causam tribus modis dici: 'prima' inquit 'causa est ipsa materia, sine qua nihil potest effici'.* Galen *QAM* c. 5, p. 29.812 Bazou ὡς δυοῖν οὐσῶν αἰρέσεων ἐν φιλοσοφίᾳ κατὰ τὴν πρώτην τομήν—ἐνιοὶ μὲν γὰρ ἠγνώσθαι τὴν κατὰ τὸν κόσμον οὐσίαν ἄπασαν, ἐνιοὶ δὲ διηρῆσθαι φασὶ κενοῦ περιπλοκῇ—. Sextus Empiricus *M.* 9.75 ἢ τοίνυν τῶν ὄντων οὐσία, φασὶν (Stoics, *SVF* 2.311), ἀκίνητος οὐσα ἐξ αὐτῆς καὶ ἀσχημάτιστος ὑπὸ τινος αἰτίας ὀφείλει κινεῖσθαι τε καὶ σχηματίζεσθαι καὶ διὰ τοῦτο, ὡς χαλκούρ-

γῆμα περικαλλές θεασάμενοι ποθοῦμεν μαθεῖν τὸν τεχνίτην, ἅτε καθ' αὐτὴν τῆς ὕλης ἀκινήτου καθεστῶσης, οὕτω καὶ τὴν τῶν ὅλων ὕλην θεωροῦντες κινουμένην καὶ ἐν μορφῇ τε καὶ διακοσμήσει τυγχάνουσιν εὐλόγως ἂν σκεπτοίμεθα τὸ κινοῦν αὐτὴν καὶ πολυειδῶς μορφοῦν αἵτιον. **Clement of Alexandria** *Strom.* 5.14.89.5–6 (cited *Eus. PE* 13.13.2) ὕλην ὑποτίθενται οἱ φιλόσοφοι ἐν ταῖς ἀρχαῖς, οἳ τε Στωϊκοὶ (—) καὶ Πλάτων καὶ Πυθαγόρας, ἀλλὰ καὶ Ἀριστοτέλης ὁ Περιπατητικός, οὐχὶ δὲ μίαν ἀρχήν. (6) ἴστωσαν οὖν τὴν καλουμένην ὕλην ἄποιον καὶ ἀσχημάτιστον λεγομένην πρὸς αὐτῶν. **Servius auctus in Aen.** 8.601, p. 282.23–26 Thilo *ὕλη autem est faex omnium elementorum, id est ignis sordidior et aër, item aqua et terra sordidior; unde cuncta procreantur: quam ὕλην Latini materiam appellaverunt; nec incongrue, cum materiae silvarum sint.* **ps.Galen** *HPH* c. 17, *DG* p. 610.4–6 εἰσάγουσι (sc. Stoici ?) δὲ καὶ τὴν ἄποιον ὕλην, ὅσοι οὐκ ἂν ἴσα τὰ καθ' ἕκαστα συντελεῖσθαι διδῶσιν (sc. in the manner of Plato), ἀλλὰ † ταύτης τε ὑπ' αὐτῆς τὰ ἀποτελέσματα γίνεσθαι. *HPH* c. 21, *DG* p. 612.4–6 συμβέβηκεν δὲ στοιχείων προτέραν εἶναι τιν' αἰδιῇ καὶ ἄμορφον οὐσίαν, ἣν οἱ μὲν ἄποιον ὕλην, οἱ δὲ ἐντελέχειαν καὶ στέρησιν [sic] ὀνομάζουσιν. **Philoponus in de An.** 55.26–27 τριῶν οὖν τούτων ὄντων ἐν τοῖς φυσικοῖς πράγμασιν, ὕλης, εἶδους καὶ τῆς αἰτίας, καθ' ἣν ἐστὶ τὸ εἶδος ἐν τῇ ὕλῃ. **Isidore of Seville** *Etym.* 13.3.1 ὕλην *Graeci rerum quandam primam materiam dicunt, nullo prorsus modo formatam, sed omnium corporalium formarum capacem, ex qua visibilia haec elementa formata sunt; unde et ex eius derivatione vocabulum acceperunt. hanc ὕλην Latini materiam appellaverunt, ideo quia omne informe, unde aliquid faciendum est, semper materia nuncupatur.* **Suda** s.v. Φ 862, p. 4.775.28–776.1 Adler φυσικὸς λόγος παρὰ φιλοσόφοις. ... ὅτι τρία εἰσὶν ἐν τοῖς φυσικοῖς πράγμασιν, εἶδος, ὕλη καὶ ἡ αἰτία, καθ' ἣν ἐστὶ τὸ εἶδος ἐν τῇ ὕλῃ [citing *Philop. in de An.* 55.26–27, cf. above]. s.v. Φ 862, p. 776.6–7 Adler ἔστι δὲ φυσικοῦ ... διαλεχθῆναι καὶ ... (περὶ) τῆς ὕλης.

Chapter heading: **Calcidius in Tim.** c. 7, p. 60.19 Waszink *de silva.* in *Tim.* c. 269 *ex quo de natura silvae necessarius esse tractatus ostenditur.*

§1 Definition: **Ambrose of Milan** *Exam.* 1.1.1 ... *materia, quam vocant ὕλην, quae gignendi causas rebus omnibus dedisse adseratur ...* **Calcidius in Tim.** c. 268 ὕλην, *quam nos Latine silvam possumus nominare, ex qua est rerum universitas eademque patibilis natura, quippe subiecta corpori principaliter, in qua qualitates et quantitates et omnia quae accidunt proveniunt.*

§2 + §§4–5 Successors of Thales and Pythagoras, Plato Aristotle: **Calcidius in Tim.** c. 272 *primum elementum universae rei silva est informis ac sine qualitate quam, ut sit mundus, format intellegibilis species.* in *Tim.* c. 280 (on Stoics, *SVF* 2.321) *censent eam* (sc. silvam) *una quadam ab exordio usque ad finem continuatione porrectam, nec tamen omnes eodem modo; aliter enim Pythagoras et item aliter Plato diversoque Aristoteles modo et cum aliquanta differentia Stoici (—). sed hi quidem omnes informem eam et sine ulla qualitate constituunt.* (For what follows see below on §6.)

§2 Successors of Thales and Pythagoras: **Cicero** *ND* 3.92 (on Stoics, *SVF* 2.1107) *materiam enim rerum, ex qua et in qua omnia sint, totam esse flexibilem et commutabilem, ut nihil sit quod non ex ea quamvis subito fingi convertique*

possit. Seneca Ep. 65.2 dicunt ... Stoici nostri (SVF 2.303) duo esse in rerum natura ex quibus omnia fiant, causam et materiam. materia iacet iners, res ad omnia parata, cessatura si nemo moveat. Arius Didymus fr. 20 Diels at Stob. Ecl. 1.11.5c, p. 133.18–23 ἔφησε δὲ ὁ Ποσειδώνιος (F 92 E-K, 267 Theiler) τὴν τῶν ὄλων οὐσίαν καὶ ὕλην ἄποιον καὶ ἄμορφον εἶναι, καθ' ὅσον οὐδὲν ἀποτεταγμένον ἴδιον ἔχει σχῆμα οὐδὲ ποιότητα καθ' αὐτήν, αἰεὶ δ' ἐν τινι σχήματι καὶ ποιότητι εἶναι. διαφέρειν δὲ τὴν οὐσίαν τῆς ὕλης τὴν οὖσαν κατὰ τὴν ὑπόστασιν ἐπινοίᾳ μόνον. **Hippolytus Ref. 1.23.1** (on Pyrrho, T 82 Decleva Caizzi) ῥευστὴν γὰρ εἶναι τὴν οὐσίαν πᾶσαν καὶ μεταβλητὴν καὶ μηδέποτε ἐν τῷ αὐτῷ μένειν. **Calcidius in Tim. c. 292 Zeno (SVF 1.88)** *hanc ipsam essentiam finitam esse dicit unamque eam communem omnium quae sunt esse substantiam, dividuam quoque et usque quaque mutabilem.* in Tim. c. 290 *plerique tamen silvam separant ab essentia, ut Zeno (SVF 1.86) et Chrysippus (SVF 2.316). silvam quippe dicunt esse id quod est sub his omnibus quae habent qualitates, essentiam vero primam rerum omnium silvam vel antiquissimum fundamentum earum, suapte natura sine vultu et informem.* in Tim. c. 297 *silvam igitur informem et carentem qualitate tam Stoici (—) quam Pythagoras (—) consentiunt.*

§3 **Successors of Democritus: Diogenes Laertius V.P. 9.43–44** (on Democritus, 68A1 DK) δοκεῖ δὲ αὐτῷ τάδε· ἀρχάς εἶναι τῶν ὄλων ἀτόμους καὶ κενόν. ... ἅπερ (sc. τὰ ἄτομα) εἶναι ἀπαθῆ καὶ ἀναλλοίωτα διὰ τὴν στερρότητα. V.P. 10.27 (*Epic. p. 85.14 Usener*) Περὶ ἀτόμων καὶ κενοῦ. **Hippolytus Ref. 1.22.1–2** Ἐπικούρου (—) δὲ σχεδὸν ἐναντίαν πᾶσι δόξαν ἔθετο. ἀρχάς μὲν τῶν ὄλων ὑπέθετο ἀτόμους καὶ κενόν—κενὸν μὲν οἷον τόπον τῶν ἐσομένων, ἀτόμους δὲ τὴν ὕλην, ἐξ ἧς τὰ πάντα. **Simplicius in Phys. 28.17–18 (Theophrastus Phys.Op. fr. 8 Diels, fr. 229 FHS&G, Democritus 68A38 DK)** ὡς (γὰρ) ὕλην τοῖς οὖσι τὰς ἀτόμους ὑποτιθέντες τὰ λοιπὰ γεννῶσι ταῖς διαφοραῖς αὐτῶν.

§4 **Plato: Cicero Varr. 27 sed subiectam** (cf. ὑποκείμενον) *putant omnibus sine ulla specie* (cf. ἀνείδεον) *atque carentem omni illa qualitate* (cf. ἄμορφον / ἀσχημάτιστον ἄποιον) ... *materiam* (cf. ὕλην) *quandam, e qua omnia expressa atque effecta sint* (cf. ἐκμαγείον καὶ μητέρα), *quae tota omnia accipere* (cf. δεξαμενὴν) *possit, etc.* **Luc. 118 Plato ex materia in se omnia recipiente mundum factum esse censet a deo sempiternum.** **Diogenes Laertius V.P. 3.69** (on Plato) εἶναι δὲ τὴν ὕλην ἀσχημάτιστον καὶ ἄπειρον, ἐξ ἧς γίνεσθαι τὰ συγκρίματα. V.P. 3.76 (also on Plato) ἀρχάς μὲν οὖν εἶναι καὶ αἵτια τὰ λεχθέντα δύο † μὲν ὦν παράδειγμα τὸν θεὸν καὶ τὴν ὕλην· ὅπερ ἀνάγκη ἄμορφον εἶναι, ὥσπερ καὶ ἐπὶ τῶν ἄλλων δεκτικῶν. αἵτιον δὲ τούτων ἐξ ἀνάγκης εἶναι· δεχόμενον γὰρ πῶς τὰς ιδέας γεννᾶν τὰς οὐσίας. **Sextus Empiricus P. 3.31** περὶ γὰρ τῆς τερατολογουμένης ἀποίου παρά τισιν ὕλης, ἣν οὐδὲ αὐτοὶ καταλαμβάνειν διαβεβαιούνται, τί δεῖ καὶ λέγειν; **Galen Propr.Plac. 7 pp. 178.35–179.2 Boudon-Millot–Pietrobelli** (text Garofalo–Lami) ἄκουε δὲ μου λέγοντος εἶδος ὡς πρὸς τὴν ὕλην ἀντίθεσιν, ἣν ἄ(ποιον) εἶναι νοοῦμεν ὅσον τὸ ἐφ' ἑαυτῇ. **Hippolytus Ref. 1.19.1–3** (on Plato) ὕλην δὲ τὴν πᾶσιν ὑποκειμένην, ἣν καὶ 'δεξαμενὴν' (*Tim. 53a*) καὶ 'τιθήνην' (e.g. *Tim. 49a*) καλεῖ. ... (3) τὴν δὲ ὕλην δυνάμει μὲν σῶμα, ἐνεργείᾳ δὲ οὐδέπω· ἀσχημάτιστον γὰρ αὐτὴν οὖσαν καὶ ἄποιον, προσλαβοῦσαν σχήματα καὶ ποιότητας γενέσθαι σῶμα. **Calcidius in**

Tim. c. 273 quam modo 'matrem' (Tim. 51b), alias 'nutriculam' (e.g. Tim. 49a), interdum 'totius generationis gremium' (Tim. 49a), nonnumquam 'locum' (Tim. 52a) appellat quamque iuniores 'hylan', nos 'silvam' vocamus. in Tim. c. 308 nomen vero ei (sc. silvae) dederunt auditores Platonis; ipse enim nusquam silvae nomen ascripsit sed aliis multis ad declarationem naturae eius convenientibus nuncupamentis usus est, cum animis nostris intimare vellet intellectum eius utcumque, vel ex natura propria rei vel ex passionibus commotionibusque animorum nostrorum, ex natura quidem propria 'primam materiam' ('non Platonium sed Aristotelicum' Waszink) nuncupans et item simile quiddam 'mollis cedentisque' materiae in quam imprimuntur 'signacula' (Tim. 50c) et rerum 'receptaculum' (e.g. Tim. 49a) et interdum 'matrem' (Tim. 51b) atque 'nutriculam totius generationis' (e.g. Tim. 49a).

§5 Aristotle: Arius Didymus fr. 2 Diels at Stob. *Ecl.* 1.11.4, p. 132.13–22 Ἀριστοτέλους. ... ἡ μὲν (sc. ἡ ὕλη) οὐ σῶμα, σωματικὴ δέ· ... οὐ σῶμα δὲ τὴν ὕλην φασίν, {οὐχ} οὐ μόνον ὅτι ἐστερησθαι δοκεῖ τῶν περὶ σῶμα διαστάσεων, ἀλλ' ὅτι καὶ πολλῶν ἄλλων ἀπλείπεται κατὰ τὸν ἴδιον λόγον, ἃ τοῖς σώμασιν ὑπάρχει, σχήματος χρώματος βαρύτητος κουφότητος, ὅλως πάσης ποιότητος καὶ ποσότητος. εἰ γὰρ τούτων μετεῖχε, τῶν ποιῶν (ἀν) ἦν καὶ ποσῶν· οὐ μετείληφθαί δέ, κατὰ λόγον σῶμα μὲν οὐκ ἀν εἶη, σωματικὴ δὲ διὰ τὸ πάσαις ὥσπερ ἐκμαγεῖον ὑποκεῖσθαι ταῖς ποιότησιν.

§6 Anonymi: Calcidius in Tim. cc. 280 + 281–282 *alii formam dederunt, ut Thales* (fr. 287 Wöhrl), *quem ferunt ante omnes naturalia esse secreta rimatum, cum initium rerum aquam esse dicat. ... at vero Anaximenes* (fr. 94 Wöhrl) *aëra iudicans initium rerum, initium quoque corporum ceterorum et ipsius aquae, non consentit Heraclito* (—) *caput rerum ignem putanti. ...* (281) *Empedocles* (—) *varium et multiforme quiddam esse silvam docet quattuor diversis sustentatum radicibus ignis aquae aëris terrae atque ex his fieri corporum modo concretionem, modo discretionem* (282) *hi sunt, opinor, qui formatam descriptamque qualitatibus et corpus silvam esse pronuntiant.*

§8 Stoics: Eusebius PE 15.14.1 (Aristocles fr. 3 Chiesara, SVF 1.98) στοιχείον εἶναι φασὶ τῶν ὄντων τὸ πῦρ ... τοῦτου δ' ἀρχὰς ὕλην καὶ θεόν, ὡς Πλάτων. ἀλλ' οὗτος (sc. Zeno, SVF 1.98) ἄμφω σώματ' αἰσθάνονται εἶναι, καὶ τὸ ποιοῦν καὶ τὸ πάσχον. **Dio- genes Laertius VP.** 7.134 (SVF 1.85, 1.493, 2.300, 3 Arch. 12) δοκεῖ δ' αὐτοῖς ἀρχὰς εἶναι τῶν ὄλων δύο, τὸ ποιοῦν καὶ τὸ πάσχον. τὸ μὲν οὖν πάσχον εἶναι τὴν ἄπειρον οὐσίαν τὴν ὕλην, ... ἀλλὰ καὶ σώματα [ἁσώματα Φ, ἁσώματους Suda, perperam uterque] εἶναι τὰς ἀρχὰς καὶ ἀμόρφους. VP. 7.150 (SVF 2.316) καλεῖται δὲ διχῶς, οὐσία τε καὶ ὕλη. ... σῶμα δὲ ἐστὶ κατ' αὐτοὺς ἡ οὐσία. **Calcidius in Tim.** c. 289 *Stoici* (—) *quoque ortum silvae reiciunt, quin potius ipsam et deum duo totius rei sumunt initia, deum ut opificem, silvam ut quae operationi subiciatur; una quidem essentia praeditos, facientem et quod fit ac patitur, corpus esse, diversa vero virtute, quia faciat, deum, quia fiat, silvam fore.*

b Sources and Other Parallel Texts

General texts: **Ocellus** c. 24 πρῶτως δὲ ὕλη τὸ πανδεχές, κοινὸν γὰρ ὑπόκειται πᾶσιν· ὥστε πρῶτον μὲν τὸ δυνάμει σῶμα αἰσθητὸν ἀρχή. **Galen Hipp.Elem.** 9.22,

1.486.13–487.2 K. ὅσα γὰρ ἄλλα ταῖς ἀπαθῇ μὲν τὴν οὐσίαν ὑποτιθεμέναις αἰρέσεσι, παραπλεκούσαις δὲ τὸ κενὸν ἐναντιοῦται, τὰ μὲν ὑπ' Ἀριστοτέλους τε καὶ Θεοφράστου (fr. 239 FHS&G) λέλεκται, τὰ δ' ἂν καὶ ἡμεῖς εἴπομεν ἰδίᾳ πρὸς ἐκάστην τῶν αἱρέσεων ἀντειπόντες. *Nat.Fac.* 1.12, 2.27.2–16 K. (SVF 2.1138) καὶ δύο αὐταὶ γεγόνασιν αἱρέσεις κατὰ γένος ἐν ἱατρικῇ τε καὶ φιλοσοφίᾳ ... τίνες οὖν αἱ δύο αἱρέσεις αὗται καὶ τίς ἡ τῶν ἐν αὐταῖς ὑποθέσεων ἀκολουθία; τὴν ὑποβεβλημένην οὐσίαν γενέσει καὶ φθορᾷ πᾶσαν ἡνωμένην τε ἅμα καὶ ἀλλοιοῦσθαι δυναμένην ὑπέθετο θάτερον γένος τῆς αἱρέσεως, ἀμετάβλητον δὲ καὶ ἀναλλοίωτον καὶ κατατετμημένην εἰς λεπτὰ καὶ κεναῖς ταῖς μεταξὺ χώραις διειλημμένην ἢ λοιπῇ. **Heraclitus** *All.Hom.* 66.7 εὐλογον τὴν μὲν ἄμορφον ὕλην Πρωτέα καλεῖσθαι, τὴν δ' εἰδωλοπλαστήσασαν ἕκαστα πρόνοιαν Εἰδοθέαν (differently **Sextus Empiricus** *M.* 9.5 ὁ μὲν γὰρ ποιητῆς περὶ τούτων ἀποδιδούς φασιν ἐν οἷς περὶ Πρωτέως καὶ Εἰδοθέας ἀλληγορεῖ (*Od.* 4.365–366), τὸ μὲν πρῶτον καὶ ἀρχικώτατον αἴτιον Πρωτέα καλῶν, τὴν δὲ εἰς εἶδη τρεπομένην οὐσίαν Εἰδοθέαν). **Alexander of Lycopolis** *c.Manich.* 2.18–22 τὴν δὲ ὕλην λέγει οὐχ ἣν Πλάτων, τὴν πάντα γινομένην ὅταν λάβῃ ποιότητα καὶ σχῆμα—διὸ πανδεχῇ (*Tim.* 51a) καὶ μητέρα (*Tim.* 51b) καὶ τιθῇ(ν) (e.g. *Tim.* 51b) καλεῖ—καὶ Ἀριστοτέλης, τὸ στοιχεῖον περὶ ὃ τὸ εἶδος καὶ ἡ στέρησις. **Themistius** *in Phys.* 138.14–18 τούτῳ γὰρ μάλιστα τῶν συγκρίσει καὶ διακρίσει ποιοῦντων τὰς γενέσεις διενηγόχαμεν, ὅτι οἱ μὲν προσθέσει καὶ ἀφαιρέσει τὰς γενέσεις καὶ τὰς φθορὰς μηχανῶνται καὶ οὐ ποιοῦσι τὸ αὐτὸ ὑποκείμενον πᾶσι τοῖς στοιχείοις; ἡμεῖς δὲ μίαν εἶναι τὴν ὕλην ὅλην δι' ὅλης ἀλλοιουμένην καὶ τρεπομένην. **Augustine** *C.Faust.* 20.14, p. 554.1–5 *Zycha hylen namque Graeci cum de natura disserunt, materiem quandam rerum definiunt nullo prorsus modo formatam, sed omnium corporalium formarum capacem, quae quidem in corporum mutabilitate utcumque cognoscitur; nam per se ipsam nec sentiiri nec intellegi potest.*

Chapter heading: **Alcinous** *Did.* 8, p. 162.29 H. καὶ πρῶτόν γε περὶ ὕλης λέγωμεν. **Galen** *Gloss.* 19.123.12 K. Ἀναζαρβεὺς ἐν τῷ πρώτῳ Περὶ ὕλης. *Alim.Fac.* 1.13, 6.516.16 K. Διοσκουρίδης δ' ἐν τῷ δευτέρῳ Περὶ ὕλης ταυτὶ γράφει. **Athenaeus** 3.87.1 Ἰκέσιος δ' ἐν δευτέρῳ Περὶ ὕλης. **Theodoret** *CAG* title Book 4 Περὶ ὕλης καὶ κόσμου. **Simplicius** *in Phys.* 231.6 ὁ Πορφύριος (236F Smith) ἐν τῷ δευτέρῳ Περὶ ὕλης. *in Phys.* 247.31–33 (Hermodorus F 5 Isnardi Parente²) ὁ Πορφύριος (*in Tim.* 146F Smith) ἱστορεῖ τὸν Δερκυλλίδην ἐν τῷ 1α τῆς Πλάτωνος φιλοσοφίας, ἐνθα Περὶ ὕλης ποιεῖται τὸν λόγον κτλ. For materia medica, i.e. medical subjects: **Erotianus** *Voc.Hip.* 94.3 Klein Νίγρος (Sextius Niger fr. 16 Wellmann) ἐν τῷ Περὶ ὕλης φησὶ κτλ. **Dioscurides** **Pedianus** *Mat.Med.* 2.1 ἐν μὲν τῷ πρὸ τούτου βιβλίῳ, φίλτατε Ἄρειε, ὄντι πρῶτῳ τῶν περὶ ὕλης (ἱατρικῆς) ἡμῖν συντεταγμένων κτλ.

§1 Species of definition: **Aristotle** *APo.* 2.10 93b29–94.2 ὁρισμὸς δ' ἐπειδὴ λέγεται εἶναι λόγος τοῦ τί ἐστίν, φανερόν ὅτι ὁ μὲν τις ἔσται λόγος τοῦ τί σημαίνει τὸ ὄνομα ἢ λόγος ἕτερος ὀνοματώδης, οἷον τί σημαίνει {τί ἐστίν} τρίγωνον. ὅπερ ἔχοντες ὅτι ἐστίν, ζητοῦμεν διὰ τί ἐστίν· χαλεπὸν δ' οὕτως ἐστὶ λαβεῖν ἢ μὴ ἴσμεν ὅτι ἐστίν. ... εἰς μὲν δὴ ὅρος ἐστὶν ὅρου ὁ εἰρημένος, ἄλλος δ' ἐστὶν ὅρος λόγος ὁ δηλῶν διὰ τί ἐστίν. ὥστε ὁ μὲν πρότερος σημαίνει μὲν, δείκνυσι δ' οὐ, ὁ δ' ὕστερος φανερόν ὅτι ἐστίν οἷον ἀποδείξις τοῦ τί ἐστίν, τῇ θέσει διαφέρων τῆς ἀποδείξεως. *de An.* 2.1 413a9–

10 τύπῳ μὲν οὖν ταύτῃ διωρίσθω καὶ ὑπογεγράφθω περὶ ψυχῆς. (cf. **Simplicius** (Priscianus?) ad loc., in *de An.* 96.17–20 τύπον καλεῖ καὶ ὑπογραφὴν τὸν ἀποδοθέντα τῆς ψυχῆς λόγον, ἐπειδὴ μόνον ἀπεδίδου τὸ κοινῇ πάσῃ ὑπάρχον, ὃ δὲ ἀκριβῆς λόγος κατὰ τὴν ἐκάστου ἴδιον ἀποδίδεται οὐσίαν. ἴδιος δὲ ἢ καὶ τὸ κοινὸν ἰδιοτρόπως ὀρίζουσα.) *EN* 2.2 1103b34–1104a3 ἐκεῖνο δὲ προδιομολογείσθω, ὅτι πᾶς ὁ περὶ τῶν πρακτῶν λόγος τύπῳ καὶ οὐκ ἀκριβῶς ὀφείλει λέγεσθαι, ὥσπερ καὶ κατ’ ἀρχὰς εἵπομεν ὅτι κατὰ τὴν ὕλην οἱ λόγοι ἀπαιτητέοι. **Cicero** *Top.* 26 *definitio est oratio, quae id quod definitur explicat quid sit.* *Fin.* 2.5 *atqui haec patefactio quasi rerum operatarum, cum quid quidque sit aperitur, definitio est.* **Aspasius** in *EN* 75.16–17 ἡ μὲν οὖν προαίρεσις τύπῳ εἴρηται· οὐ γὰρ ἀκριβῆς ἐστὶν ὁ ὀρισμός, ὡς ἐδείχθη, ἀλλ’ ὑπογραφῇ ἔοικε μάλλον. **ps.Galen** *Def.Med.* 19.348.16–349.5 K. α’. ὅρος τοίνυν κατ’ ἐνίους ἐστὶ λόγος δηλῶν ποῖον ἐστὶν ἐκεῖνο καθ’ οὗ ἐστὶν ὁ λόγος. δυνατὸν δὲ καὶ οὕτως ὀρίσασθαι· ὅρος ἐστὶ λόγος ἐννοίας. τινὲς δὲ καὶ οὕτως ὠρίσαντο· ὅρος ἐστὶ λόγος κατ’ ἀνάλυσιν ἀπαρτιζόντων ἐκφερόμενος, ἢ ὅρος ἐστὶ διὰ βραχείας ὑπομνήσεως εἰς ἐννοίαν ἡμᾶς ἄγων τῶν ὑποτεταγμένων ταῖς φωναῖς πραγμάτων, ἢ ὅρος ἐστὶ λόγος τὸ εἶναι δηλῶν, ἢ λόγος ἐστὶν ἐννοίαν ἡμῖν τοῦ πράγματος δεικνύς τε καὶ σαφηνίζων. *Def.Med.* 19.349.18–350.2 K. στ. ὑπογραφὴ ἐστὶ λόγος τυπωδῶς εἰσάγων εἰς τὴν δηλουμένην τοῦ πράγματος γνῶσιν· οἱ δὲ οὕτως ὑπογραφὴ ἐστὶ λόγος τυπωδῶς ἐμφανίζων τὰ πράγματα. **ps.Galen** *ArsMed.* 1.306.9–14 K. εὐμνημόνευτα γὰρ ἱκανῶς ἐστὶ τὰ ἐκ τῆς τοῦ ὅρου διαλύσεως ἅπαντα, διὰ τὸ περιέχειν ὅλης τῆς τέχνης ἐν ἑαυτῷ τὰ κεφάλαια τὸν ἄριστον ὅρον, ὃν πέρ τινες καὶ οὐσιώδη ὀνομάζουσιν, ἀντιδιαιρούμενοι τοῖς ἐννοηματικοῖς προσαγορευομένοις. **Alexander of Aphrodisias** in *Top.* 25.15 ὡς ὑπογραφὴ τινὶ καὶ οὐκ ἀκριβῶς. in *Top.* 421.27–32 μὴ κυρίως ἀπέδωκεν ὀρισμὸν ἀλλ’ ὑπογραφὴν, μὴδ’ εἴρηκε τί τί ἦν εἶναι, ἡγουν ἐδήλωσε τὴν φύσιν τοῦ ὀριστοῦ (ὁ γὰρ εἰπὼν ζῶον ὀρθοπεριπατητικὸν πλατυώνυχον φαλακρὸν προγαστρικὸν τὸν Σωκράτην πάντα μὲν ἐφύλαξεν ἃ εἵπομεν, ὀρισμὸν δὲ οὐκ ἐποίησεν ἀλλ’ ὑπογραφὴν, λαβὼν τὰ συμβεβηκότα· διὸ οὐκ ἐδήλωσε τὴν φύσιν τοῦ ὀριστοῦ). in *Met.* 5.25–6.3 εἰπὼν δὲ ὅτι οἱ τεχνῖται καὶ οἱ σοφοὶ τῶν ἐμπείρων κατὰ τὴν γνῶσιν διαφέρουσι, καὶ τοῦτο συστήσας ἐκ τῆς κοινῆς προλήψεως (σοφοὺς γὰρ τοὺς εἰδότες καλεῖν πᾶσιν ἐν χρήσει), τί μάλιστα ἐστὶν ἴδιον τοῦ εἰδότες προστίθῃσιν, ὅτι γὰρ ἡ γνῶσις τῆς αἰτίας, συνιστᾶς καὶ δεικνύς ὅτι μάλιστα τῆς σοφίας ἐστὶν ἴδιον τὸ τὰς αἰτίας γιγνώσκειν. in *Met.* 9.19–23 ἐν πᾶσιν ἔθος αἰεὶ Ἀριστοτέλει ταῖς κοιναῖς καὶ φυσικαῖς τῶν ἀνθρώπων προλήψεσιν ἀρχαῖς εἰς τὰ δεικνύμενα πρὸς αὐτοῦ χρῆσθαι, ... αὐταὶ γὰρ εἰσιν αἱ κοιναὶ ἐννοιαί. **Galen** *PHP* 2.3.2–3 ἦν δὲ τὸ κεφάλαιον ὡς ἀπ’ αὐτῆς χρῆς τῆς οὐσίας τοῦ ζητουμένου πράγματος ἐξευρίσκειν τὰ προσήκοντά τε καὶ οἰκεία λήμματα, καθάπερ ἐν τούτοις ἐν οἷς Χρῦσιππος (—) {τε} ἐπισκοπεῖται περὶ τοῦ τῆς ψυχῆς ἡγεμονικοῦ τὸν τῆς οὐσίας λόγον εἰπόντας ὑπὲρ οὗ ζητούμεν πράγματος ἐκεῖνῳ χρῆσθαι κανόνι τε καὶ σκοπῷ τῶν κατὰ μέρος ἀπάντων. *Thras.* c. 1, 5.806.7–807.6 K. ἀρχὴ τοίνυν εὐρέσεως οὐ τούτῳ μόνῳ τῷ νῦν προκειμένων σκέμματι τὸ γνῶναι, τί ποτ’ ἐστὶ τὸ ζητούμενον, ἀλλὰ καὶ τοῖς ἄλλοις ἅπανσιν. αὐτὸ δὲ δὴ τοῦτο τὸ γνῶναι διττόν ἐστιν· ἢ γὰρ τὴν ἐννοίαν μόνην τοῦ πράγματος ἢ καὶ τὴν οὐσίαν γιγνώσκομεν. ὅτῳ δ’ ἀλλήλων ταῦτα διαφέρει, γέγραπται μὲν ἐπὶ πλεόν ἐν τοῖς Περὶ ἀποδείξεως. *Diff.Resp.* 7.753.1–7 K. ὅτι μὲν ἡ δύσπνοια βλάβη τις τῆς ἀναπνοῆς ἐστὶν, ὥσπερ ἡ δυσαισθησία τῆς αἰσθήσεως, καὶ ἡ δυσκινησία τῆς

κινήσεως, ἱκανὸν ἐνδείξασθαι τοῦνομα· πόσαι δὲ τῆς βλάβης διαφοραὶ, καὶ διὰ τίνας αἰτίαις γιγνόμεναι, καὶ πῶς ἐκάστην αὐτῶν χρή διαγινώσκειν, οὐκ ἐκ τῆς προσηγορίας διδαχθῆναι νῦν ἔστιν, ἀλλ' ἡ φύσις αὐτῇ τῆς ἀναπνοῆς ἐνδείζεται. *Diff.Puls.* 8.705.11–13 K. λόγον αὐτὸν ὀνοματῶδη κέκληκεν ὁ Ἀριστοτέλης, ὡς εἰ καὶ λόγον ὀνόματος ἐρμηνευτικὸν εἰρήκει. *Diff.Puls.* 8.703.16–706.3 K. τὸν ὀρισμὸν οὖν εἴπερ ὅλην τὴν οὐσίαν ἀκριβῶς τοῦ πράγματος μέλλει δηλῶσειν, οὐδὲν αὐτῆς τῶν κυριωτάτων παραλείπειν προσήκει· ... (703.18–704.14) τῆς δ' οὐσίας ἀμφισβητουμένης, ἀναγκαῖον ἔσται καθ' ἐκάστην αἴρεσιν ἴδιον (704.1) ὀρισμὸν γίνεσθαι ὥστε τοῖς Ἑρασιστρατείοις οὕτως ὀριστέον ἔστιν, ὡς ἐνδείκνυσθαι τὸ ἴδιον ἐξ Ἑρασιστράτου (—) δόγμα περὶ τῆς τῶν σφυγμῶν οὐσίας, τοῖς δ' Ἡροφιλείοις, ὡς τὸ ἴδιον Ἡροφίλῳ (fr. 277 Von Staden), καὶ τοῖς ἄλλοις ἅπασιν ὡσαύτως οἰκεῖον ἐκάστοις ἔστιν ὅρον ποιητέον τῷ σφετέρῳ δόγματι. τοῦτο δὲ εὐθέως αὐτὸ οὐδεὶς σχεδὸν αὐτῶν ἐπίσταται, καὶ τούτου γ' ἔτι μᾶλλον ἀναγκαῖον ἐγνώσθαι δύο γένη τὰ πρῶτα τῶν ὀρισμῶν εἶναι, τὸ μὲν ἕτερον ἐξηγούμενον σαφῶς τὴν τοῦ πράγματος ἔννοιαν, ἣν ἔχουσιν οἱ ὀνομάζοντες αὐτὸ, τὸ δ' ἕτερον, ὡς εἴρηται, τὸ τὴν οὐσίαν διδάσκον. ἀρετὴ δ' ἐκατέρου τῶν ὀρων ἰδίᾳ τοῦ μὲν τὴν ἔννοιαν ἐρμηνεύοντος ὁμολογεῖσθαι τε πᾶσι τοῖς ὁμοφώνοις καὶ μὴ προσάπτεσθαι τῆς οὐσίας τοῦ πράγματος, τοῦ δὲ τὴν οὐσίαν διδάσκοντος ὁμολογεῖν μὲν τῷ κατὰ τὴν ἔννοιαν, ἕτερον δὲ ὑπάρχειν αὐτῷ. ... (705.11) διὸ καὶ λόγον αὐτὸν (sc. τὸν φαινομένων ἐναργῶς πραγμάτων ἐρμηνείαν ἔχοντα) ὀνοματῶδη κέκληκεν ὁ Ἀριστοτέλης (*APo.* 2.10 93b30–31), ὡς εἰ καὶ λόγον ὀνόματος ἐρμηνευτικὸν εἰρήκει. τὸν δ' ἕτερον ὅρον, οὐσιῶδη τινεὶ ἐκάλεσαν, λόγον εἶναι φησιν (*Met.* Z.5 1031a11–13 etc.) τὸν τί εἶναι δηλοῦντα. τί μὲν γάρ ἐστιν ἐκάστῳ τῶν ὀριζομένων τὸ εἶναι τοῦτον ἐρμηνεύειν φησί, τὰ συμβεβηκότα δὲ ἰδίως αὐτῷ συνδιέρχεσθαι τὸν ἐννοηματικόν. ὑπολαμβάνει δὲ καὶ ἄλλον ὀρισμὸν εἶναι τὸν καὶ τὴν οὐσίαν τοῦ πράγματος διδάσκοντα. καὶ τί με δεῖ λέγειν μακρότερον ἔτι περὶ τηλικούτων πραγμάτων, ἃ δυσὶν (706.1) ἐδεήθη βιβλίων, τοῦ τρίτου καὶ τετάρτου τῶν ὑπομνημάτων ὧν ἐποίησάμην εἰς τὸ δεύτερον Ἀριστοτέλους τῶν Δευτέρων ἀναλυτικῶν. *Diff.Puls.* 8.708.8.14 K. πρόσκειται δὲ τῷ λόγῳ τὸ ἀκριβῶς, ὅτι τῶν κατὰ τὴν οὐσίαν ἄλλος ἄλλο προσθέντες ἔνιοι τῶν νεωτέρων ἰατρῶν οὐσιῶδη νομίζουσιν ὅρον εἰρηκέναι τοῦ σφυγμοῦ, πρὸς τῷ κακῷ μέγιστον ἡμαρτηκέναι, τὸν μόνον εἰρηκέναι τὸ ὀριζόμενον ὑπ' αὐτῶν οὐσιῶδη, μὴ προειρημένου τοῦ κατὰ τὴν ἔννοιαν, ὃς ἐν τοῖς περὶ τούτων λογισμοῖς ἡμῖν ἐπιδέδεικται κριτήριον γενόμενος τοῦ κατὰ τὴν οὐσίαν. *Di.Dec.* 9.733.14–16 K. βέλτιον δ' ἦν ἄρα τίποτε ἐκ τῆς προσηγορίας δηλοῦται γνόντας περὶ πράγματος αὐτοῦ ποιεῖσθαι τὸν λόγον. *MM* 1.5, 10.39.10–40.19 K. καὶ σοὶ τὸν ἐξῆς λόγον ἤδη ἅπαντα ποιήσομαι, χρώμενος ταῖς μεθόδοις ἃς ἐν τοῖς Περὶ τῆς ἀποδείξεως ὑπομνήμασι κατεστησάμην. ὅτι τε γὰρ ἀρχαὶ πάσης ἀποδείξεως εἰσι τὰ πρὸς αἴσθησιν τε καὶ νόησιν ἐναργῶς φαινόμενα καὶ ὡς ἐπὶ πάντων τῶν ζητούμενων εἰς λόγον χρή μεταλαμβάνεσθαι τοῦνομα, δι' ἐκείνων ἀποδέδεικται. ... πῶς οὖν ἐξεύρωμεν αὐτὸ ὀρθῶς μεθόδῳ; πῶς δ' ἄλλως ἢ ὡς ἐν τοῖς Περὶ ἀποδείξεως ἐλέγετο; τῆς ἐννοίας πρότερον ὁμολογηθείσης, ἥς χωρὶς οὐχ οἶόν τέ ἐστιν εὐρεθῆναι τὴν οὐσίαν τοῦ προκειμένου πράγματος· αὐτὴν δὲ τὴν ἔννοιαν ὁμολογουμένην ἅπασιν ἐλέγομεν χρῆναι λαμβάνειν, ἢ οὐδ' ἂν ἀρχὴν δεόντως ὀνομάζεσθαι. τίς οὖν ὑπὸ πάντων ἔστιν ἀνθρώπων ὁμολογουμένη περὶ τοῦ νοσεῖν ἔννοια; *Sextus Empiricus P.* 2.212 εἴτ' οὖν λόγος εἶναι λέγοιτο (sc. ὁ ὅρος) διὰ βραχείας ὑπομνήσεως εἰς ἔννοιαν

ἡμᾶς ἄγων τῶν ὑποτεταγμένων ταῖς φωναῖς πραγμάτων, ὡς δηλὸν γε ..., εἴτε λόγος ὁ τὸ τί ἦν εἶναι δηλῶν, εἴτε ὁ βούλεται τις. καὶ γὰρ τί ἐστὶν ὁ ὅρος βουλόμενοι παριστᾶν εἰς ἀνήνυτον ἐμπίπτουσι διαφωνίαν, ἣν διὰ τὴν προαίρεσιν τῆς γραφῆς παρήμι νῦν (cf. below Porphyry F70). **Clement of Alexandria Strom.** 8.2.3.1–4 τίς ἂν οὖν ἄλλη βελτίων ἢ ἐναργεστέρα μέθοδος εἰς ἀρχὴν τῆς τοιαύτης εἴη {ἂν} διδασκαλίας ἢ τὸ προταθὲν ὄνομα λόγῳ διελθεῖν οὕτω σαφῶς ὡς πάντας ἀκολουθῆσαι τοὺς ὁμοφώνους; ἀρ' οὖν τοιοῦτόν ἐστι (τὸ) ὄνομα τῆς ἀποδείξεως, οἷον περ τὸ βλίτυρι, φωνὴ μόνον οὐδὲν σημαίνουσα; (2) καὶ πῶς οὐθ' ὁ φιλόσοφος οὐθ' ὁ ῥήτωρ, ἀλλ' οὐδὲ ὁ δικαστὴς ὡς ἄσημον ὄνομα προφέρεται τὴν ἀπόδειξιν, οὔτε τις τῶν δικαζομένων ἀγνοεῖ τὸ σημαίνόμενον, ὅτι οὐχ ὑπάρχει; αὐτίκα ὡς ὑποστατὸν πορίζονται τὴν ἀπόδειξιν οἱ φιλόσοφοι, ἄλλος ἄλλως. (3) περὶ παντὸς τοίνυν τοῦ ζητουμένου εἴ τις ὁρθῶς διαλαμβάνει, οὐκ ἂν ἐφ' ἑτέραν ἀρχὴν ὁμολογουμένην μᾶλλον ἀναγάγοι τὸν λόγον ἢ τὸ πᾶσι τοῖς ὁμοεθνεῖσι τε καὶ ὁμοφώνοις ἐκ τῆς προσηγορίας ὁμολογούμενον σημαίνεσθαι. (4) εἴτα ἐντεῦθεν ὁρμηθέντα ζητεῖν ἀνάγκη, εἰ ὑπάρχει τὸ σημαίνόμενον τοῦτο (περὶ) οὐ ὁ λόγος εἴτε καὶ μὴ· ἐφεξῆς δέ, εἴπερ ὑπάρχειν δειχθεῖν, ζητητέον τοῦτου τὴν φύσιν ἀκριβῶς, ὅποια τίς ἐστὶν καὶ μὴ ποτε ὑπερβαίνει τὴν δοθείσαν τάξιν. **Diogenes Laertius VP.** 7.60 ὅρος δέ ἐστιν, ὡς φησιν Ἀντίπατρος (*SVF* 3 Antip. 23) ἐν τῷ πρώτῳ Περί ὄρων, λόγος κατ' ἀνάλυσιν ἀπαρτιζόντως ἐκφερόμενος, ... ὑπογραφή δέ ἐστι λόγος τυπωδῶς εἰσάγων εἰς τὰ πράγματα, ἢ λόγος ἀπλούστερον τὴν τοῦ ὅρου δύναμιν προσενηγεμένος. *VP.* 7.83 (*SVF* 2.130) δυοῖν δ' οὐσαιν συνηθεῖαιν ταῖν ὑποπιπτούσαιν τῇ ἀρετῇ (sc. τῇ ἐν λόγοις θεωρίᾳ), ἡ μὲν τί ἕκαστόν ἐστι τῶν ὄντων σκοπεῖ, ἡ δὲ τί καλεῖται. **Porphyry (ad Gaur.)** F 70 Smith at Simp. in Cat. 213.11–29 (verbatim) φησιν ὁ Πορφύριος ὅτι 'ὁ περὶ τῆς ποιότητος λόγος ἐννοηματικός ἐστίν, ἀλλ' οὐκ οὐσιώδης. ἔστιν δὲ ἐννοηματικὸς ὁ ἀπὸ τῶν γνωρίμων τοῖς πᾶσιν εἰλημμένος καὶ κοινῇ παρὰ πᾶσιν ὁμολογούμενος, οἷον ὅτι 'ἀγαθόν ἐστίν ἀφ' οὗ συμβαίνει ὠφελεῖσθαι', 'ψυχὴ ἐστίν ἀφ' ἧς ὑπάρχει τὸ ζῆν', 'φωνὴ ἐστίν τὸ ἴδιον αἰσθητὸν ἀκοῆς'. οὐσιώδεις δὲ εἰσιν ὅροι οἱ καὶ τὴν οὐσίαν αὐτὴν τῶν ὀριζομένων διδάσκοντες, οἷον 'ἀγαθόν ἐστίν ἡ ἀρετὴ ἢ τὸ μετέχον ἀρετῆς', 'ψυχὴ ἐστίν οὐσία αὐτοκίνητος', 'φωνὴ ἐστίν ἀήρ πεπληγμένος', καὶ οἱ μὲν ἐννοηματικοὶ ὅροι ἅτε κοινῇ παρὰ πᾶσιν ὁμολογούμενοι οἱ αὐτοὶ εἰσιν, οἱ δὲ οὐσιώδεις κατὰ αἰρέσεις ἰδίαις προαγόμενοι ἀντιλέγονται ὑπὸ τῶν ἐτεροδόξων [cf. above Sextus P. 2.212]. ... δέδοκται οὖν ἐν ταῖς πρώταις εἰσαγωγαῖς τοῖς παρὰ πᾶσιν ὁμολογουμένοις ὅροις κεχρησθαι· αὐτοὶ γὰρ εἰσιν γνωριμώτεροι καὶ πρὸς τὴν πρώτην ἀκρόασιν ἐπιτηδειότεροι, οἱ δὲ ἕτεροι τῆς πρώτης δέονται φιλοσοφίας, ἥτις τὰ ὄντα ἢ ὄντα θεωρεῖ. διόπερ τὸν μὲν οὐσιώδη λόγον τῆς ποιότητος ἐν τοῖς Μετὰ τὰ φυσικά (Δ.14 1022a33–b1) ὁ Ἀριστοτέλης ἀποδέδωκεν, τὸν δὲ ἐννοηματικὸν ἐνταῦθα (sc. Cat. 7 8b3–20)'. cf. **Alexander of Aphrodisias Fat.** 2, p. 165.15–19 οὐ γὰρ κενὸν οὐδ' ἄστοχον τάληθοῦς ἢ κοινῇ τῶν ἀνθρώπων φύσις, καθ' ἣν περὶ τινων ὁμοδοξοῦσιν ἀλλήλοις, ὅσοι γε αὐτῶν μὴ διὰ τινος προκαταβεβλημένας δόξας ὑφ' αὐτῶν διὰ τὸ σῶζειν βούλεσθαι τὴν πρὸς αὐτάς ἀκολουθίαν ἄλλως ἀναγκάζονται λέγειν. cf. **Priscianus Inst. Gram.** 1.1, p. 5.2–4 Hertz (on Stoics, *FDS* fr. 479) *philosophi definiunt, vocem esse aërem tenuissimum ictum* [i.e. ἀήρ πεπληγμένος], *vel suum sensibile aurium* [i.e. τὸ ἴδιον αἰσθητὸν ἀκοῆς], *id est quod proprie auribus accidit. et est prior definitio a substantia sumpta, altera vero a notione, quam Graeci*

ἐννοῖαν *dicunt, hoc est ab accidentibus. accidit enim voci auditus, quantum in ipsa est.* **Trophonius** *Prol.* p. 8.5–11 Rabe δείξαντες, ὅτι ἔστιν ἡ ῥητορική, ἔλθωμεν νῦν καὶ ἐπὶ τὸ τί ἐστίν. ἐπειδὴ δὲ τὸ τί ἐστίν ἢ δι' ὀνόματος ἢ δι' ὀρισμοῦ ἀποδίδεται—δι' ὀνόματος μὲν, ὡς ἵνα ἐρωτηθεῖς τί ἐστὶ ῥητορική τὸ γενικὸν αὐτῆς εἴπομαι ὄνομα 'τέχνη', δι' ὀρισμοῦ δέ, ὡς ἵνα καὶ τὰς διαφορὰς προσθήσῃς εἰπὼν 'τέχνη περὶ λόγου δύναμιν ἐν πράγματι πολιτικῷ, τέλος ἔχουσα τὸ πιθανῶς εἰπεῖν κατὰ τὸ ἐνδεχόμενον'. **Marius Victorinus** *Def.* p. 2.3–4 Pronay '*definitio est*' *ut Tullius in Topicis* (*Top.* 26) *ait 'oratio quae id quod definit explicat quid sit'*. *Def.* p. 16.18—17.5 Pronay *est igitur prima* (sc. definitio) *quae Graece οὐσιώδης dicitur, Latine substantialis appellari potest. secunda est ἐννοηματική, quae solam notionem subicit. tertia ποιότης, quae a qualitate nomen accepit. quarta ὑπογραφική, quae a Tullio* (*de Or.* 1.11 etc.) *descriptio nominatur. quinta κατ' ἀντιλεξιν, Latine ad verbum possumus dicere. sexta κατὰ διαφοράν, Latini de eodem et de altero nominant, quae per differentiam dici potest. septima est κατὰ μεταφοράν, id est per translationem. octava κατ' ἀφαίρεσιν τοῦ ἐναντίου, id est per privantiam contrarii eius. nona καθ' ὑποτύπωσιν, id est per quandam imaginationem. decima est ὡς τύπος, Latine 'veluti'. undecima est κατ' ἑλλειπὲς τοῦ πλήρους ὁμοίου γένους, id est per indigentiam pleni ex eodem genere. duodecima κατ' ἔπαινον, id est per laudem. tertia decima est κατ' ἀναλογίαν, id est iuxta rationem, quae proportio dicitur. quarta decima κατὰ τὸ πρὸς τι, hoc est per id quod ad aliquid est. quinta decima est αἰτιολογική, causam tribuens.* *Def.* p. 20.4–8 Pronay *nos ... quid ὑπογραφική sit, quae a Tullio descriptio* (*de Or.* 1.11 etc.) *nominatur; proposita ratione docebimus, et per exemplum: quae oratio non quid sit potius dicit, sed, adhibita circuitione dictorum factorumque, quid res quaeque sit descriptione declarat. in Rhet.* 1.11, p. 40.7–11 Riesenweber. *ArsGramm.* 1.7, p. 66.6 Mariotti '*definitio est*', *ut ait Cicero* (*Or.* 116), '*(oratio) quae quid sit de quo agitur ostendit quam brevissime*'. **Themistius** *in APo.* 51.3–7 ὀρισμὸς δὲ πολλαχῶς λέγεται. εἰς μὲν ὁ τί σημαίνει τοῦνομα ἐξηγούμενος, ὃς οὐδ' ὀρισμὸς ἂν καλοῖτο δικαίως ἀλλὰ λόγος ὀνοματῶδης· πολλακίς γὰρ ἔχοντες τὸν τοιοῦτον λόγον οὔτε εἰ ἔστι τὸ πρᾶγμα, οὔτε τίς αἰτία τοῦ εἶναι αὐτό, γινώσκουμεν· τί μὲν γὰρ σημαίνει τὸ κενόν, συνίεμεν, οὔτε δὲ εἰ ἔστι κενόν, οὔτε τίς αἰτία τοῦ εἶναι κενόν, ἔχοιμεν ἂν λέγειν. ... ἄλλος δὲ ἐστὶν ὅρος ὁ μετὰ τοῦ τί ἐστὶ καὶ τὴν αἰτίαν ἐκδιδάσκων δι' ἣν ἐστὶ, καὶ μόνος ὁ τοιοῦτός ἐστιν ὅρος οἷον ἀποδείξις τοῦ τί ἐστὶ θέσει μόνῃ διαφέρων τῆς ἀποδείξεως. **Proclus** *in Alc.* 275.1–13 εἴρηται που καλῶς ὑπὸ τοῦ Ἀριστοτέλους (*APo.* 2 1), ὅτι τέτταρα προβλήματά ἐστι δι' ἃ οἱ λόγοι καὶ αἱ ζητήσεις, τὸ εἰ ἔστι, τὸ τί ἐστὶ, τὸ ὁποῖόν τί ἐστὶ καὶ τὸ διατί ἐστὶ, καὶ ὅτι τὸν μέλλοντα γινώσκειν τὸ τί ἐστὶν ἀνάγκη προειδέναι τὸ εἰ ἔστιν. αὐτῶν δὲ ἄρα τῶν τεσσάρων τούτων προεγνώσθαι δεῖ τὸ τί σημαίνει· μὴ γὰρ ἔχοντες ψιλὴν τοῦ πράγματος ἐννοῖαν οὐδ' ἂν εἰ ἔστι γινώσκουμεν. ἔχοντες οὖν τὴν σημασίαν καὶ ὅ τι ἐστὶ περιτυχόντες αὐτῷ γινώμεν (ἂν) ἀνευδοκίᾳ ἔχοντες τὴν ἐννοῖαν αὐτοῦ. τοῦτο οὖν τὸ τί σημαίνει τοῦ τί ἐστὶν ἕτερον ὑπάρχει. ἡ μὲν γὰρ σημασία ἐστὶ τοῦ πράγματος ἀνάπτυξις ἐπὶ τινα νόησιν ὠρισμένην, τὸ δὲ τί ἐστὶ τῆς τοῦ προκειμένου πράγματος φύσεως ἀκριβὴς κατάληψις. οἱ τοίνυν πολλοί, τί μὲν σημαίνει αὕτη καὶ τί ἢ φωνὴ αὕτη, διδάσκουσιν· ὥσπερ τί σημαίνει ἄνθρωπος, τί σημαίνει ἵππος· τί δὲ ἔστι ταῦτα οὔτε ἐγνώκασιν οὔτε διδάσκουσιν. **Ammonius** *in*

Isag. 54.6–10 δει οὖν ἡμᾶς πρότερον εἰπεῖν, τί ἐστὶν ὑπογραφή καὶ τί ὅρος, καὶ τί διαφέρει ὁρισμὸς ὑπογραφῆς, εἴθ' ἐξῆς τὴν αἰτίαν ζητῆσαι, τίνος ἔνεκεν δι' ὑπογραφῆς αὐτὸ διδάσκει (sc. ὁ Πορφύριος) καὶ μὴ δι' ὁρισμοῦ, καίτοι γε εἰώθασιν οἱ ὁρισμοὶ τὴν οὐσίαν τοῦ ὑποκειμένου σημαίνειν πράγματος καὶ περικλείειν μὲν τὰ οἰκεία οὐδὲν δὲ ἀφαιρεῖσθαι τῶν ἀλλοτρίων. *in Isag.* 57.13–25 ἡ μὲν οὖν ὑπογραφή λαμβάνεται ἢ ἐξ ἐτυμολογίας ἢ ἐκ τῆς τῶν συμβεβηκότων συνδρομῆς, ἢ καὶ κυρίως ὑπογραφή λέγεται. ἐξ ἐτυμολογίας μὲν ὅσον 'ἄνθρωπός ἐστι τὸ δυνάμενον ἄνω ἀθρεῖν ἢ ἀναθρεῖν ἃ ὅπωπεν ἢ τὸ ἄνωθεν ἔχον τοὺς ὦπας', ἐκ τῶν συμβεβηκότων δέ, ὡς ἔφθηνεν ἤδη εἰπόντες. ὁ δὲ ὁρισμὸς ἢ ἐξ ὕλης λαμβάνεται, ὥσπερ ὀρίζομεθα τὸν θυμὸν 'ζέσιν τοῦ περικαρδίου αἵματος', ἢ ἐξ εἶδους ὡς τὸ 'ὄρεξις ἀντιλυπῆσεως' ἢ ἐκ τοῦ συναμφοτέρου ὡς τὸ 'ζέσις τοῦ περικαρδίου αἵματος δι' ὄρεξιν ἀντιλυπῆσεως'. καὶ ὅτε μὲν ἐξ ὕλης μόνης ἢ ἐξ εἶδους μόνου ἐλήφθη, ἀτελής ἐστίν, ὅτε δὲ ἐκ τοῦ συναμφοτέρου, τότε ἐστὶ τέλειος ὅρος, ἐπειδὴ τὸ συναμφοτέρον σημαίνει. ἔστι δὲ τέλειος ὅρος ὁ ἐκ γένους καὶ συστατικῶν διαφορῶν· ἐπέχει γὰρ τὴν μὲν τῆς ὕλης τάξιν τὸ γένος, τὴν δὲ τοῦ εἶδους αἱ διαφοραί. **Simplicius** (Syrianus?) *in de An.* 97.29–98.2 τὸν τρόπον τῆς διδασκαλίας ὀρίσας (sc. Aristotle) ὡς ἀπὸ τῶν πρὸς ἡμᾶς σαφῶν ἐπὶ τὰ τῇ φύσει τοιαῦτα ἐπανιδόντα, καὶ ὅτι χρὴ τὸν καλῶς ἔχοντα ὅρον τῆς αἰτίας ἔχεισθαι ὑπομνήσας, καὶ ταύτης ἀκριβῶς, ἀλλ' οὐ τύπῳ τινὶ καὶ ὑπογραφικῶς, διὰ μὲν τὸν τῆς διδασκαλίας τρόπον ἀπὸ τῶν τῇ αἰσθήσει γνωρίμων τῆς περὶ ψυχῆς ἀρχεται θεωρίας, ὅπερ καὶ εὐθὺς ποιεῖ τῷ τὸ ἐμψυχον τοῦ ἀψύχου διωρίσθαι (*de An.* 2.2 413a20–22) τουτέστι διαφέρειν τῷ ζῆν· διὰ δὲ τῆς εἰς τὸ αἷτιον ἀναδρομῆς οὐ τῷ ἐμψύχῳ ἐμμένει, ἀλλ' εἰς τὸ αἷτιον αὐτοῦ τὴν ψυχὴν ἀναγόμενος. ἵνα δὲ μὴ τύπῳ ἔτι ἀλλὰ ἀκριβεῖ αὐτὴν θεωρῇ ὄρω, οὐ κοινῶς ἀλλ' ἕκαστον εἶδος ψυχῆς ἰδίᾳ ὀρίζειται. **Philoponus** *in APo.* 372.6–12 ὀρίζεται τὸν ὁρισμὸν ἐνταῦθα (*APo.* 2.10 93b29, cf. above), καὶ φησὶν ὡς ὁρισμὸς ἐστὶ λόγος τοῦ τί ἐστίν. ἐν τούτῳ πάντα τὰ εἶδη τοῦ ὁρισμοῦ ἐμπεριεῖληπται καὶ αὐτὸς ὁ ὀνοματώδης ὁρισμὸς· καὶ οὗτος γὰρ ἐστὶ λόγος τοῦ τί ἐστίν. ἀλλ' ὅρα καὶ τὴν διαφορὰν· τὰ μὲν ἄλλα εἶδη τοῦ ὁρισμοῦ λόγοι εἰσὶ τοῦ τί ἐστίν, ἡγουν δηλωτικοὶ τῆς φύσεως τοῦ πράγματος· ὁ δὲ ὀνοματώδης ὁρισμὸς λόγος ἐστὶ τοῦ τί (σημαίνει τί add. Wallies ex Arist.) {ἐστίν}, ἡγουν ἐφερμηνευτικὸς τοῦ ὀνόματος. **Cassiodorus** *Inst.* 2.14 *divisio definitionum*: *usiodes, id est substantialis*—*ennoematice, id est notio*—... – (h)ypographice, *id est descriptio* – ... *definitionum prima est usiodes, id est substantialis, quae proprie et vere dicitur definitio, ut est: 'homo animal rationale mortale sensus disciplinaeque capax'. haec enim definitio per species et differentias descendens venit ad proprium, et designat plenissime quid sit homo. secunda est species definitionis, quae Graece ennoematice dicitur, Latine enuntiatio nuncupatur, quam notionem communi non proprio nomine possumus dicere. ... quarta species definitionis est, quae Graece hypographice, Latine descriptio nuncupatur, quae adhibita circuitione dictorum factorumque rem quae quid sit descriptione declarat. **David** *Prol.* 2.2–5 τὸ δὲ τί ἐστίν ἢ δι' ὀνόματος ἢ δι' ὁρισμοῦ γινώσκεται, δι' ὀνόματος μὲν, ὅταν βλέπωμέν τι καὶ ἐρωτῶμεν τί ἐστίν, καὶ λέγωμεν ὅτι 'ἄνθρωπος', δι' ὁρισμοῦ δέ, ὅταν λέγωμεν 'ζῶον λογικὸν θνητὸν νοῦ καὶ ἐπιστήμης δεκτικόν'. *Prol.* 12.19–26 ἰστέον ὅτι ὁρισμὸς ὑπογραφῆς διαφέρει, ὅτι ὁ μὲν ὁρισμὸς ἐξ οὐσιωδῶν φωνῶν λαμβάνεται καὶ τὴν οὐσίαν αὐτὴν καὶ τὴν φύσιν τοῦ ὑποκειμένου πράγματος δηλοῖ, οἷον 'ἄνθρωπός ἐστι ζῶον λογικόν*

θητόν νοῦ καὶ ἐπιστήμης δεκτικόν, ἡ δὲ ὑπογραφή ἀπὸ συμβεβηκότων λαμβάνεται καὶ τὰ παρεπόμενα τῷ ὑποκειμένῳ πράγματι καὶ τὰ περὶ τὴν φύσιν αὐτοῦ δηλοῖ, οἷον ὡς ὅταν εἴπω 'ἄνθρωπός ἐστιν ὀρθοπεριπατητικὸν γελαστικὸν πλατυώνυχον'. **ps.Galen HPh** c. 11, *DG* p. 606.3–6 Περὶ ὄρου. ὅρος δὲ ἐστὶ λόγος σύντομος εἰς γνῶσιν ἡμᾶς ἄγων ἐκάστου πράγματος ἢ λόγος διὰ βραχείας ὑπομνήσεως ἐμφανὲς ἡμῖν ἀπεργαζόμενος τὸ ὑποκείμενον πρᾶγμα· τῶν δὲ ὄρων οἱ μὲν εἰσιν οὐσιώδεις, οἱ δὲ ἐννοηματικοί. cf. **Ptolemy Iudic.** ch. 4, p. 7.12–18 πρῶτον δ' ἐπειδὴ καὶ τοῦτο αὐτὸ διαλεγόμενοι πῶς ποιοῦμεν, προσπαραμυθητέον ὅτι τοῖς μηδέπω διηρθρωκόσιν τὴν τῶν πραγμάτων φύσιν, ἀλλ' ἔτι ζητοῦσιν, ἀπαραποδιστότερον ἂν γένοιτο τὸ τὰς συνηθείας καὶ τοῖς πλείστοις καθωμιλημένας κατηγορίας ἐπιφέρειν ἐκάστῳ τῶν ὑποτιθεμένων· ὕστερον δ' ἂν εἴη τὸ οἰκειότερον αὐτῶν ἐπισκοπεῖν.

§1 Definition of ὕλη: **Aristotle Phys.** 1.9 192a31 λέγει γὰρ ὕλην τὸ πρῶτον ὑποκείμενον ἐκάστῳ. *GC* 1.3 318a9–10 νῦν δὲ τὴν ὡς ἐν ὕλης εἶδει τιθεμένην αἰτίαν εἴπωμεν, δι' ἣν αἰεὶ φθορὰ καὶ γένεσις οὐχ ὑπολείπει τὴν φύσιν. *GC* 1.4 320a2–4 ἐστὶ δὲ ὕλη μάλιστα μὲν καὶ κυρίως τὸ ὑποκείμενον γενέσεως καὶ φθορᾶς δεκτικόν, τρόπον δὲ τινα καὶ τὸ ταῖς ἄλλαις μεταβολαῖς. *Met.* H.1 1042a32–34 ὅτι δ' ἐστὶν οὐσία καὶ ἡ ὕλη, δηλον· ἐν πάσαις γὰρ ταῖς ἀντικειμέναις μεταβολαῖς ἐστὶ τι τὸ ὑποκείμενον ταῖς μεταβολαῖς. *Met.* H.5 1044b27–28 οὐδὲ παντὸς ὕλη ἔστιν ἀλλ' ὅσων γένεσις ἔστι καὶ μεταβολὴ εἰς ἄλληλα. **Plutarch Amic.Mult.** 97A–B ὡς δὲ τὴν ἀσχημάτιστον οἱ φυσικοὶ καὶ (B) ἀχρώματον οὐσίαν καὶ ὕλην λέγουσιν ὑποκειμένην καὶ τρεπομένην ὑφ' αὐτῆς νῦν μὲν φλέγεσθαι νῦν δ' ἐξυγραινέσθαι, τότε δ' ἐξαερούσθαι πηγνύσθαι δ' αὖθις. **Apuleius Plat.** 1.190–191 *materiam inabsolutam, informem, nulla specie nec qualitatibus significacione distinctam ... materiam vero improcreabilem incorruptamque commemorat, non ignem neque aquam nec aliud de principiis et absolutis elementis esse, sed ex omnibus primam, figurarum capacem fictionique subiectam, adhuc rudem et figurationis qualitate viduatam deus artifex conformat universa(m)*. *Plat.* 1.194 *initium omnium corporum materiam esse memoravit; hanc et signari inpressione formarum*. **Diogenes Laertius V.P.** 7.150 (on Stoics, *SVF* 2.316) ὕλη δὲ ἐστὶν ἐξ ἧς ὅτιδηποτοῦν γίνεται. καλεῖται δὲ διχῶς, οὐσία τε καὶ ὕλη. *V.P.* 7.151 καὶ παθητὴ δὲ ἐστὶν, ὡς ὁ αὐτός (sc. Ἀπολλόδωρος, *SVF* 3 Apollod. 4) φησιν· εἰ γὰρ ἦν ἄτρεπτος, οὐκ ἂν τὰ γινόμενα ἐξ αὐτῆς ἐγίνετο. **Philoponus in Cat.** 65.10–19 τὴν πρῶτην ὕλην φασὶν οἱ φιλόσοφοι ἀσώματον εἶναι τῷ οἰκείῳ λόγῳ ἀσχημάτιστόν τε καὶ ἀμεγέθη καὶ πάσης ποιότητος κεχωρισμένην· ὅτι γὰρ ἀνείδεός ἐστι, δεικνύεται σαφῶς τῷ πάντων τῶν φυσικῶν εἰδῶν αὐτὴν εἶναι δεκτικὴν· ὥσπερ γὰρ τὰ ξύλα ὕλης λόγον ἐπέχοντα τοῖς σκεύεσιν ἐστέρηνται παντὸς εἶδους τοῦ κατὰ τὰ σκεῦη θεωρουμένου (οὔτε γὰρ θρόνου εἶδος ἔχει οὔτε ἀβακίου οὔτε οὐδενὸς ἄλλου τοιοῦτου), οὕτω καὶ ἡ ὕλη ὑποβάθρα τις οὖσα καὶ δεκτικὴ πάντων τῶν εἰδῶν τῶν ἐν τοῖς σώμασι θεωρουμένων, οὐδὲ ἐν ἑξὶ οἰκείῳ εἶδος. αὕτη οὖν ἐξογκωθεῖσα κατὰ τὰς τρεῖς διαστάσεις ποιεῖ τὸ δεύτερον ὑποκείμενον κατὰ Ἀριστοτέλην, τοῦτ' ἐστὶ τὸ ἄποιον σῶμα.

§2 Thales Pythagoras Stoics: **Plutarch Is.Osir.** 373F ὁ μὲν οὖν Πλάτων ... τὴν δ' ὕλην καὶ μητέρα (*Tim.* 50d) καὶ τιθῆν (e.g. *Tim.* 49a) ἔδραν (*Tim.* 52b) τε καὶ χώραν γενέσεως (*Tim.* 52a) ... ὀνομάζειν εἴωθεν. **Sextus Empiricus P.** 1.217

φησὶν οὖν ὁ ἀνὴρ (sc. Protagoras, 80A18 DK) τὴν ὕλην ῥευστὴν εἶναι, ῥεοῦσης δὲ αὐτῆς συνεχῶς προσθέσεις ἀντὶ τῶν ἀποφορήσεων γίνεσθαι καὶ τὰς αἰσθήσεις μετακοσμεῖσθαι τε καὶ ἀλλοιοῦσθαι παρὰ τε (τὰς) ἡλικίας καὶ παρὰ τὰς ἄλλας κατασκευὰς τῶν σωμάτων. **Hippolytus Ref.** 1.23.2 (on Pyrrho, T 82 Declava Caizzi) ῥευστὴν γὰρ εἶναι τὴν οὐσίαν πᾶσαν καὶ μεταβλητὴν καὶ μηδέποτε ἐν τῷ αὐτῷ μένειν. **Macrobius in Somn.** 1.12.7 *anima ergo cum trahitur ad corpus, in hac prima sui productione silvestrem tumultum id est ὕλην influentem sibi incipit experiri*. **Calcidius in Tim.** c. 296 *igitur Pythagoras quoque, inquit Numenius (fr. 52 Des Places), fluidam et sine qualitate silvam esse censet*. **Damascius in Parm.** 172.20–22 Ἀριστοτέλης (fr. 207 R³) δὲ ἐν τοῖς Ἀρχυτείοις (Archytas 47A13 DK) ἱστορεῖ καὶ Πυθαγόραν ἄλλο· τὴν ὕλην καλεῖν ὡς ῥευστὴν καὶ ἀεὶ ἄλλο γιγνόμενον. **Galen Morb.Diff.** 6.841.16–18 K. ἐξῆς ἐπὶ τὴν ἐτέραν (sc. ὑπόθεσιν) μεταβησόμεθα, τὴν ἀλλοιοῦσθαι τε καὶ τρέπεσθαι τὴν οὐσίαν ὅλην δι' ὅλης ἑαυτῆς υποτιθεμένην. *in Aph.* 17b.346.16 K. ὁ μὲν οὖν 'καιρός' ἐστὶν 'ὄξυς' διὰ τὸ τῆς ὕλης ῥευστόν. **Sextus Empiricus M.** 10.312 ἐξ ἀποίου μὲν οὖν καὶ ἐνὸς σώματος τὴν τῶν ὅλων ὑπεστήσαντο γένεσιν οἱ Στωικοί (SVF 2.309)· ἀρχὴ γὰρ τῶν ὄντων κατ' αὐτοὺς ἐστὶν ἡ ἀποιοῦς ὕλη καὶ δι' ὅλων τρεπτὴ, μεταβαλλούσης τε ταύτης γίνεται τὰ τέσσαρα στοιχεῖα. *P.* 1.217 (Protagoras 80A14 DK) φησὶν οὖν ὁ ἀνὴρ τὴν ὕλην ῥευστὴν εἶναι. **Nicomachus Intr.Ar.** 1.1.3, p. 2.15–19 Hoche τὰ μὲν γὰρ σωματικά δῆπου καὶ ὕλικά ἐν διηνεκεῖ ῥύσει καὶ μεταβολῇ διὰ παντός ἐστὶ μιμούμενα τὴν τῆς ἐξ ἀρχῆς αἰδίου ὕλης καὶ ὑποστάσεως φύσιν καὶ ιδιότητα· ὅλη γὰρ δι' ὅλης ἦν τρεπτὴ καὶ ἀλλοιωτὴ. **Pythagorica Hypomnemata** at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58B1a DK) at D.L. 8.25 τὰ στοιχεῖα εἶναι τέτταρα, πῦρ, ὕδωρ, γῆν, ἀέρα· μεταβάλλειν δὲ καὶ τρέπεσθαι δι' ὅλων. **Origen CC** 6.77, p. 453.17–19 τὴν φύσει τρεπτὴν καὶ ἀλλοιωτὴν καὶ εἰς πάντα ἀβούλεται ὁ δημιουργὸς ὕλην μεταβλητὴν καὶ πάσης ποιότητος, ἣν ὁ τεχνίτης βούλεται, δεκτικὴν. *in Joann.* 13.21.127 = *Philocal.* 15.14 (SVF 2.1054) εἰ δὲ πᾶν σῶμα ὕλικόν ἔχει φύσιν τῷ ἰδίῳ λόγῳ ἅποιον τυγχάνουσιν, τρεπτὴν δὲ καὶ ἀλλοιωτὴν καὶ δι' ὅλων μεταβλητὴν καὶ ποιότητος χωροῦσαν κτλ.

§3 Followers of Democritus: Aristotle Met. A.4 985b4–10 Λεύκιππος (67A6 DK) δὲ καὶ ὁ ἐταῖρος αὐτοῦ Δημόκριτος στοιχεῖα μὲν τὸ πλήρες καὶ τὸ κενὸν εἶναι φασι ... αἷτια δὲ τῶν ὄντων ταῦτα ὡς ὕλην. **Philo of Alexandria Aet.** 21 κενόν, ἡ ἀπαθὴς φύσις. **Plutarch Colot.** 114B ὅρα μὲν οἷας ὑποτίθεσθε πρὸς γένεσιν ἀρχάς, ἀπειρίαν καὶ κενόν· ὦν τὸ μὲν ἀπρακτὸν ἀπαθὲς ἀσώματον, ἡ δ' ἄτακτος ἄλογος ἀπερίληπτος. **Galen Hipp.Elem.** 2.16–17, 1.418.15–419.4 K. ἀπαθὴ δ' ὑποτίθενται τὰ σώματ' εἶναι τὰ πρῶτα, τινὲς μὲν αὐτῶν ὑπὸ σκληρότητος ἄθραυστα, καθάπερ οἱ περὶ τὸν Ἐπικούρου (fr. 288 Usener), ἔνιοι δ' ὑπὸ σμικρότητος ἀδιαίρετα, καθάπερ οἱ περὶ τὸν Διόδωρον καὶ τὸν Λεύκιππον (68A49 DK), ἀλλ' οὐδ' ἀλλοιοῦσθαι κατὰ τι δυνάμενα ταύτας δὴ τὰς ἀλλοιώσεις, ἅς ἅπαντες ἀνθρωποὶ πεπιστεύκασιν εἶναι διδασκόμενοι ὑπὸ τῶν αἰσθήσεων. *Ther.* 14.250.6–8 K. εἰ μὲν γὰρ ἐξ ἀτόμου καὶ τοῦ κenoῦ κατὰ τὸν Ἐπικούρου (—) τε καὶ Δημοκρίτου (—) λόγον συνειστήκει τὰ πάντα. *Hipp.Elem.* 2.12, 1.417.10 K. *Med.Exp.* 15.7–8, pp. 113–114 Walzer. **Sextus Empiricus M.** 7.135 and *P.* 1.214. **Diogenes Laertius V.P.** 9.72 (on Democritus, 68A49, B9, B125 DK verbatim) 'ἐτεῖ δὲ ἄτομα καὶ κενόν'. **Sim-**

plicius in Phys. 925.13 Λεύκιππος (67A13 DK) μὲν καὶ Δημόκριτος οὐ μόνον τὴν ἀπάθειαν αἰτίαν τοῖς πρώτοις σώμασι τοῦ μὴ διαιρεῖσθαι νομίζουσιν, ἀλλὰ καὶ τὸ σμικρὸν καὶ ἀμερές.

§4 Plato: *Plato Tim.* 49a πάσης εἶναι γενέσεως ὑποδοχὴν αὐτὴν οἷον τιθῆναι. *Tim.* 50b δέχεται τε γὰρ αἰεὶ τὰ πάντα. *Tim.* 50c ἐκμαγεῖον γὰρ φύσει παντὶ κεῖται, κινούμενον τε καὶ διασχηματιζόμενον ὑπὸ τῶν εἰσιόντων. *Tim.* 51a διὸ δὴ τὴν τοῦ γεγονότος ὁρατοῦ καὶ πάντως αἰσθητοῦ μητέρα καὶ ὑποδοχὴν μήτε γῆν μήτε ἀέρα μήτε πῦρ μήτε ὕδωρ λέγωμεν, μήτε ὅσα ἐκ τούτων μήτε ἐξ ὧν ταῦτα γέγονεν· ἀλλ' ἀνόρατον εἶδος τι καὶ ἄμορφον, πανδεχές. *Tim.* 52d–e τὴν δὲ δὴ γενέσεως τιθῆναι ὑγραινόμενῃ καὶ πυρουμένῃ καὶ τὰς γῆς τε καὶ ἀέρος μορφὰς δεχομένην, καὶ ὅσα ἄλλα τούτοις πάθῃ συν(ε)πέπεται πάσχουσιν. *Tim.* 53a οὕτω τὰ τέτταρα γένῃ σειόμενα ὑπὸ τῆς δεξαμένης. *Tim.* 88d ἦν τε τροφὸν καὶ τιθῆναι τοῦ παντός προσείπομεν. **Aristotle** *Phys.* 4.2 209b11–13 διὸ καὶ Πλάτων τὴν ὕλην καὶ τὴν χώραν ταυτὸ φησιν εἶναι ἐν τῷ Τιμαίῳ (*Tim.* 52a)· τὸ γὰρ μεταληπτικὸν καὶ τὴν χώραν ἐν καὶ ταυτόν. *Cael.* 3.8 306b16–19 ὥσπερ γὰρ ἐν τοῖς ἄλλοις αἰεὶδὲς καὶ ἄμορφον δεῖ τὸ ὑποκείμενον εἶναι (μάλιστα γὰρ ἂν οὕτω δύναιτο ρυθμίζεσθαι, καθάπερ ἐν τῷ Τιμαίῳ (*Tim.* 51a) γέγραπται, τὸ πανδεχές). **Theophrastus** *Phys.Op.* fr. 9 Diels, 230 FHS&G at Simp. *in Phys.* 26.8–14 (verbatim) Πλάτων ... ἐπέδωκεν ἑαυτὸν καὶ τοῖς φαινόμενοις ἀψάμενος τῆς περὶ φύσεως ἱστορίας, ἐν ᾗ δύο τὰς ἀρχὰς βούλεται ποιεῖν τὸ μὲν ὑποκείμενον ὡς ὕλην ὃ προσαγορεύει πανδεχές (*Tim.* 51a), τὸ δὲ ὡς αἴτιον καὶ κινούν ὃ περιάπτει τῇ τοῦ θεοῦ καὶ τῇ τοῦ ἀγαθοῦ δυνάμει. **ps.Alexander of Aphrodisias** *Apor.* (i.e. Ἀπορίαι καὶ λύσεις) 52.20–21 (~ tit.) τί ἔσται ἡ ὕλη εἰ παρὰ μὲν τῆς στερήσεως ἔχει τὸ ἄποιος εἶναι καὶ ἀσχημάτιστος, παρὰ δὲ τοῦ εἶδους τὸ πεποιῶσθαι καὶ ἐσχηματίσθαι. **Plutarch** *Is.Osir.* 373F ὁ μὲν οὖν Πλάτων ... τὴν δ' ὕλην καὶ μητέρα (*Tim.* 50d) καὶ τιθῆναι (*Tim.* 49a) ἔδραν (*Tim.* 52b) τε καὶ χώραν γενέσεως (*Tim.* 52a) ὀνομάζειν εἴωθεν. *Is.Osir.* 374E ὅταν οὖν ὕλην λέγωμεν, οὐ δεῖ πρὸς ἐνίων φιλοσόφων δόξας ἀποφερομένους ἀψυχὸν τι σῶμα καὶ ἄποιον ἀργόν τε καὶ ἄπρακτον ἐξ ἑαυτοῦ διανοεῖσθαι. *An.Procr.* 1015d ἀλλὰ μετὰ πολλῶν ἄλλων καὶ Εὐδήμος (fr. 49 Wehrli) ἀγνοήσας κατεριωνεύεται τοῦ Πλάτωνος, ὡς οὐκ εἶ τὴν πολλάκις ὑπ' αὐτοῦ μητέρα (*Tim.* 50d) καὶ τιθῆναι (e.g. *Tim.* 49a) προσαγορευομένην αἰτίαν κακῶν καὶ ἀρχὴν ἀποφαίνοντος. ὁ γὰρ Πλάτων μητέρα μὲν καὶ τιθῆναι καλεῖ τὴν ὕλην, αἰτίαν δὲ κακοῦ τὴν κινήτικὴν τῆς ὕλης καὶ περὶ τὰ σώματα γιγνομένην μεριστὴν ἄτακτον καὶ ἄλογον, οὐκ ἀψυχον δὲ κίνησιν. *CN* 1085B–C (*SVF* 2.313) ἡ δ' ὕλη καθ' αὐτὴν ἄλογος (C) οὕσα καὶ ἄποιος τὸ ἀπλοῦν ἔχει καὶ τὸ ἀρχοειδές. *CN* 1086A τὴν γὰρ ὕλην ἄποιον ὀνομάζουσι (*SVF* 2.380). **Alcinous** *Did.* c. 8, p. 162.29–36 H. καὶ πρώτων γε περὶ ὕλης λέγωμεν. ταύτην τοίνυν ἐκμαγεῖον (*Tim.* 50c) τε καὶ πανδεχές (*Tim.* 51a) καὶ τιθῆναι (*Tim.* 49a) καὶ μητέρα (*Tim.* 50d) καὶ χώραν (*Tim.* 52a) ὀνομάζει καὶ ὑποκείμενον (—) ... ιδιότητα δ' ἔχειν τοιαύτην, ὥστε πάσαν γένεσιν ὑποδέχεσθαι τιθῆνης (e.g. *Tim.* 49a) λόγον ἐπέχουσιν τῷ φέρειν αὐτάς καὶ ἀναδέχεσθαι (*Tim.* 51a) μὲν αὐτὴν πάντα τὰ εἶδη, αὐτὴν δὲ καθ' αὐτὴν ἄμορφον (*Tim.* 51a) τε ὑπάρχειν καὶ ἄποιον καὶ ἀνείδεον. **Alexander of Aphrodisias** *de An.* 3.28–4.4 ἔσται δὴ τὸ τοῖς ἀπλοῖς σώμασιν ὑποκείμενον καὶ ἡ τούτων ὕλη ἀπλή τις φύσις καὶ χωρὶς εἶδους, ἄμορφός τε καὶ ἀνείδεος οὕσα καὶ ἀσχημάτιστος κατὰ τὸν αὐτῆς λόγον, δι' ἣν ἀνείδεον οὐσάν τε καὶ λεγομένην εἶδος

ωνόμασται, ὃ γενόμενον ἐν αὐτῇ παύει τῆς προειρημένης αὐτὴν στερήσεως, καὶ τὴν τοιαύτην φύσιν κυρίως ἂν τις ὕλην λέγοι. **ps.Galen** *Qual.Incorp.* p. 14.4–5 **Westenberger** (*SVF* 2.323a) (καὶ) πῶς ἔτι μόνην λέγουσι τὴν πρώτην ὕλην αἰδῖον τὴν ἄποιον. **Arius Didymus** fr. 20 Diels at *Stob.* 1.11.5c, p. 133.18–19 ἔφησε δὲ ὁ Ποσειδώνιος (*F* 92 E–K, 267 Theiler) τὴν τῶν ὅλων οὐσίαν καὶ ὕλην ἄποιον καὶ ἄμορφον εἶναι. **Alexander of Lycopolis** c.*Manich.* 6.24–26 ὅλως γὰρ καθ’ αὐτὴν μὲν ἡ ὕλη οὔτε σῶμά ἐστιν οὔτε ἀκριβῶς ἀσώματόν τι οὔτε ἀπλῶς τότε τι, ἀλλ’ ἀόριστός τις προσλαβοῦσα τὸ εἶδος γίνεται ὠρισμένη. **Calcidius** in *Tim.* c. 292 **Zeno** (*SVF* 1.88) ... *neque formam neque figuram nec ullam omnino qualitatem propriam fore censet fundamenti rerum omnium silvae.* **Themistius** in *Phys.* 106.18–23 ἀπὸ γὰρ ταύτης τῆς ὁμοιότητος καὶ Πλάτων τὴν ὕλην καὶ τὴν χώραν (*Tim.* 52a) ταῦτόν φησιν εἶναι ἐν τῷ Τιμαίῳ· τὸ γὰρ μεταλαμβάνον τῶν εἰδῶν (ὅπερ ὕλη) καὶ τὴν χώραν (ὅπερ ἐστὶν ὁ τόπος) ταῦτά λέγει. καίτοι τὴν ὕλην ἄλλως μὲν ἐν Τιμαίῳ (52d–e) φησὶ δέχεσθαι τὰ εἶδη, ἄλλως δὲ ἐν τοῖς ἀγράφοις δόγμασιν· ἐκεῖ μὲν γὰρ κατὰ μέθεξιν, ἐν τοῖς ἀγράφοις δὲ καθ’ ὁμοίωσιν. **Isidore of Seville** *Etym.* 13.3.1 see above Section E(a) General texts. **Proclus** *Theol.Plat.* 4.32.22–24 ἐπεὶ καὶ τὴν ὕλην τόπον εἰδῶν προσαγορεύσας μητέρα (*Tim.* 50d) καλεῖ καὶ τιθήνην (e.g. *Tim.* 49a) (τῶν) εἰς αὐτὴν ἀπὸ τοῦ ὄντος καὶ τῆς πατρικῆς αἰτίας προϊόντων λόγων. **Sergius of Reshaina** *Introduction to Aristotle and his Categories* §65 Aydin In order to make here known to you also the argument of philosophers about matter, we will in brief outline for you of what we have found. They say that the primary foundation (i.e. substrate) of the bodies is matter, and that it is by nature without faculty (*haylā*) and without figure, whereby its nature seems to be receptive of any shape and any figure that is a requirement of its manufacture, since it seems to be found without shape and figure. **Scholia vetera** in *Hesiodi Theog.* 116c1, p. 23.18–24.1 di Gregorio Πλάτων πανδεχῇ (*Tim.* 51a) φύσιν λέγει (sc. τὸ χάος)· δεῖ γὰρ τόπον ὑποστήσασθαι, ὃς δέχεται τὰ εἰς αὐτὸν γεννώμενα.

§5 Aristotle: Aristotle *GC* 2.1 329a24–26 ἡμεῖς δὲ φαμέν μὲν εἶναι τινὰ ὕλην τῶν σωμάτων τῶν αἰσθητῶν, ἀλλὰ ταύτην οὐ χωριστὴν ἀλλ’ αἰετ’ ἐναντιώσεως. *GC* 2.1 329a8–11 οἱ μὲν ποιοῦντες μίαν ὕλην παρὰ τὰ εἰρημένα, ταύτην δὲ σωματικὴν καὶ χωριστὴν, ἀμαρτάνουσιν· ἀδύνατον γὰρ ἄνευ ἐναντιώσεως εἶναι τὸ σῶμα τοῦτο αἰσθητόν. *Met.* A.7 983b22–24 ὅσοι μὲν οὖν ἐν τε τῷ πᾶν καὶ μίαν τινὰ φύσιν ὡς ὕλην τιθέασιν, καὶ ταύτην σωματικὴν καὶ μέγεθος ἔχουσιν, δηλόν ὅτι πολλαχῶς ἀμαρτάνουσιν. *de An.* 2.1 412a6–10 λέγομεν δὴ γένος ἐν τι τῶν ὄντων τὴν οὐσίαν, ταύτης δὲ τὸ μὲν ὡς ὕλην, ὃ καθ’ αὐτὸ οὐκ ἔστι τότε τι, ἕτερον δὲ μορφὴν καὶ εἶδος, καθ’ ἣν ἡδη λέγεται τότε τι, καὶ τρίτον τὸ ἐκ τούτων. ἔστι δ’ ἡ μὲν ὕλη δύναμις, τὸ δ’ εἶδος ἐντελέχεια.

§6 Anonymi: Plato *Tim.* 48b τὴν δὴ πρὸ τῆς οὐρανοῦ γενέσεως πῦρ ὅσα τὸς τε καὶ ἄερος καὶ γῆς φύσιν θεατέον αὐτὴν καὶ τὰ πρὸ τούτου πάθη· νῦν γὰρ οὐδεὶς πῶ γενεσὶν αὐτῶν μεμήνυκεν, ἀλλ’ ὡς εἰδόσιν πῦρ ὅτι ποτὲ ἐστὶν καὶ ἕκαστον αὐτῶν λέγομεν ἀρχὰς αὐτὰ τιθέμενοι στοιχεῖα τοῦ παντός. *Tim.* 53c πρῶτον μὲν δὴ πῦρ καὶ γῆ καὶ ὕδωρ καὶ ἀήρ ὅτι σώματά ἐστι, δηλόν που καὶ παντί. **Aristotle** *Met.* A.3 983b6–9 τῶν δὴ πρῶτων φιλοσοφησάντων οἱ πλεῖστοι τὰς ἐν ὕλης εἶδει μόνας ὥθηθησαν ἀρχὰς εἶναι πάντων. *Met.* A.3 983b20–21 Θαλῆς μὲν ὁ τῆς τοι-

αύτης ἀρχηγὸς φιλοσοφίας ὕδωρ φησὶν εἶναι. *Met.* A.3 984a5–9 Ἀναξιμένης (13A4 DK) δὲ ἀέρα καὶ Διογένης πρότερον ὕδατος καὶ μάλιστα ἄρχῃν τιθέασι τῶν ἀπλῶν σωμάτων, Ἰππασος δὲ πῦρ ὁ Μεταποντῖνος (18.7 DK) καὶ Ἡράκλειτος ὁ Ἐφέσιος, Ἐμπεδοκλῆς (31A28 DK) δὲ τὰ τέτταρα, πρὸς τοῖς εἰρημένοις γῆν προστιθεὶς τέταρτον. *Met.* A.10 993a21–22 τὴν ὕλην, ἣν ἐκεῖνος λέγει, πῦρ καὶ γῆν καὶ ὕδωρ καὶ ἀέρα. **Theophrastus** *Phys.Op.* fr. 6 Diels, 227C FHS&G at *Alex.Aphrod. in Met.* 31.113–114 (verbatim) (Parmenides 28A7 DK) δύο ποιῶν τὰς ἀρχάς, πῦρ καὶ γῆν, τὸ μὲν ὡς ὕλην τὸ δὲ ὡς αἷτιον καὶ ποιοῦν. **Alexander of Aphrodisias** *Mixt.* 229.30–32 τὰ γοῦν τέσσαρα σώματα, ἃ στοιχεῖα λέγεται, ἔστι ταῦτα· γῆ καὶ ὕδωρ, ἀήρ τε καὶ πῦρ, ἃ ὕλην τὴν αὐτὴν ἀλλήλοις ἔχοντα κατὰ τὰ εἶδη τὴν πρὸς ἄλληλα σώζει διαφοράν. **Sextus Empiricus** *M.* 10.312 ἐξ ἀποίου μὲν οὖν καὶ ἐνὸς σώματος τὴν τῶν ὄλων ὑπεστήσαντο γένεσιν οἱ Στωικοί (*SVF* 2.309)· ἀρχὴ γὰρ τῶν ὄντων κατ' αὐτοὺς ἐστὶν ἡ ἀποῖος ὕλη. **Diogenes Laertius** *V.P.* 7.137 (*SVF* 2.580) τὰ δὲ τέτταρα στοιχεῖα εἶναι ὁμοῦ τὴν ἀποῖον οὐσίαν, τὴν ὕλην. εἶναι δὲ τὸ μὲν πῦρ τὸ θερμόν, τὸ δὲ ὕδωρ τὸ ὑγρόν, τὸν τε ἀέρα τὸ ψυχρόν καὶ τὴν γῆν τὸ ξηρόν.

§8 Stoics: **Alexander of Aphrodisias** *Mixt.* 225.3–4 εἰ γὰρ θεὸς κατ' αὐτοὺς (*SVF* 2.310) σῶμα, πνεῦμα ὦν νοερόν τε καὶ αἰδῖον, καὶ ἡ ὕλη δὲ σῶμα κτλ.

Liber 1 Caput 10

P^B : ps.Plutarchus *Plac.* 882D–E; pp. 308^a16–309^a10 Diels—**P^E**: Eusebius *PE* 15.45, p. 413.1–8 Mras—**P^G** : ps.Galenus *HPh* c. 25; p. 615.11–16 Diels; pp. 77–81 Jas—**P^Q** : Qustā ibn Lūqā pp. 122–123 Daiber—**P^{Ps}** : Psellus *Omn.Doctr.* 84, pp. 50–51 Westerink (titulus solus)—cf. **P^{Sy}** : Symeon Seth *CRN* 4.58, p. 61.13 Delatte (titulus solus)—**P^{Ars}** : Arsenius *Apophth. Cent.* 8 100c von Leutsch (ex E)—Cf. **P^{Ath}** : Athenagoras *Leg.* 7.2.12–13 Marcovich;
S: Stobaeus *Ecl.* 1.12.1a, p. 134.9–16 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b1 Henry (titulus solus)
Cf. Ach: Achilles c. 6, p. 17.10–11 Di Maria;

Titulus ι'. Περὶ ιδέας (P,S)

- §1 ιδέα ἐστὶν οὐσία ἀσώματος, αἰτία τῶν οἷα ἐστὶν αὐτὴ καὶ παράδειγμα τῆς τῶν κατὰ φύσιν ἐχόντων αἰσθητῶν ὑποστάσεως, αὐτὴ μὲν ὕφεστ-
ῶσα καθ' ἑαυτήν, εἰκονίζουσα δὲ τὰς ἀμόρφους ὕλας καὶ αἰτία γιγνο- 5
μένη τῆς τούτων διατάξεως, πατρὸς ἐπέχουσα τοῖς αἰσθητοῖς τάξιν. (P₁,S₁)
- §2 Σωκράτης καὶ Πλάτων χωριστὰς τῆς ὕλης οὐσίας τὰς ιδέας ὑπολαμβάνει, ἐν τοῖς νοήμασι καὶ ταῖς φαντασίαις τοῦ θεοῦ, τουτέστι τοῦ νοῦ, ὕφεστῶσας. (P₂)
- §3 Πυθαγόρας τὰ λεγόμενα εἶδη καὶ τὰς ιδέας ἐν τοῖς ἀριθμοῖς καὶ ταῖς 10
ἀρμονίαις αὐτῶν καὶ τοῖς καλουμένοις γεωμετρικοῖς ἐτίθετο ἀχώριστα τῶν σωμάτων. (S₂)

§2 Socrates —; Plato —; §3 Pythagoras —

titulus Περὶ ιδέας **P^{BEGQS^{FPP}Phot}** : Περὶ ιδεῶν **P^{PsSL}**-ind, cf. Eus. *PE* 15.32.8 (cit. Ars. *Cent.* 8 100c) §1 [2–3] αἰτία ... ὑποστάσεως S, desunt in P Ars || [2] post ιδέα add. δὲ **P^E** Ars || οὐσία] οὐσα Ars || ἀσώματος] σώματος **P^{B(11)}** (haplogr. –α) || τῶν S : τοιούτων ὄντων Meineke, (τοιούτων) Diels, ὄντων Usener, τοῦ εἶναι Wachsmuth, an οἷαπερ scribendum cf. D.L. *VP.* 3.77 ? || [3] μὲν **P^{EGS}** Diels : μὲν μὴ **P^{BQ}** Wyttenbach Mau Lachenaud || [4] καθ' ἑαυτήν **P^{BG}** : post ἑαυτήν add. ἐν **S^{FP1}** del. Wachsmuth || εἰκονίζουσα] ἐνεικονίζουσα **S^{P(11)}** prob. Diels || αἰτία] αἵτιον **P^{B(11)}** || [5] τῆς τούτων διατάξεως S prob. Baltes : τῆς τούτων δεξιῶς **P^{BE}** Ars : κατὰ τοῦτο **P^G** : *für ihr Sichtbarwerden* Q || πατρὸς ... τάξιν S : om. P §2 et §§4–5 om. S, §3 om. P §2 [7] Σωκράτης καὶ Πλάτων **P^{BEQ}** Ars : Πλάτων **P^G** Diels || [7–8] χωριστὰς ... ὑπολαμβάνει **P^{BQ}** : χωριστὰς (–τὸς Ars) τῆς ὕλης δεῖξεις, τὰς δὲ ιδέας **P^E** (δὲ secl. Mras) Ars, al. **P^G** δὲ συγχωρεῖ, ὅσον δυνατὸν || [8] ἐν] om. **P^G** || [8–9] τουτέστι ... ὕφεστῶσας] al. **P^G** ζητεῖν περὶ τοῦ θεοῦ || [9] ὕφεστῶσας **P^{BQ}** : om. **P^E** Ars

§4 Ἀριστοτέλης δ' εἶδη μὲν ἀπέλιπε καὶ ιδέας, οὐ μὴν κεχωρισμένας τῆς ὕλης, ἔξω γεγρονῶς τοῦ ὑπὸ τοῦ θεοῦ. (P₃)

§5 οἱ δὲ ἀπὸ Ζήνωνος Στωικοὶ ἐννοήματα ἡμέτερα τὰς ιδέας ἔφασαν. (P₄) 15

§4 Aristoteles —; §5 Stoici SVF 1.65, 2.360 (caput cit. in Dörrie–Baltes 127.1)

§4 [13] ἀπέλιπε] post ιδέας pos. P^G || [14] ἔξω ... θεοῦ Xylander prob. Mras, quos dub. secuti sumus : ἔξω τοῦ ὑπὸ τοῦ θεοῦ P^E Ars: δ ἐξ ὧν γεγρονός (sive -ώς) τὸ ὑπὸ τοῦ θεοῦ P^B crucif. Baltes, (οὐδὲ) ἔξω γεγρονίας τοῦ νοῦ (cf. γεγρονίας ... νοῦ Reiske) τοῦ θεοῦ perperam rescriptit Gigon, crucif. Diels Mau Lachenaud : om. P^G || *aus welcher geworden ist, was die Gottheit geschaffen hat* Q, i.e. legit ἐξ ἧς (ὕλης) : 'respici §3 [sc. supra §2] certum mihi videtur' Diels; fort. glossema || γεγρονός P^{B(III)} prob. Diels Mras : γεγρονός P^{B(III)} prob. Mau Lachenaud §5 [15] δὲ P^G : om. P^{BE} || ἔφασαν P^B : om. P^E Ars : εἶναι νομίζουσιν P^G : *waren der Meinung* Q

Testes primi:

Athenagoras *Leg.* 7.2.12–13 (~ tit.) ἄλλος ἄλλως ἐδογμάτισεν αὐτῶν ... καὶ περὶ εἰδῶν

Traditio ps.Plutarchi:

ps.Galenus c. 25 (~ tit.) Περὶ ιδέας (text Jas)

25.1 (~ P₁) ιδέα ἐστὶν οὐσία ἀσώματος, αὐτὴ μὲν ὑφεστώσα καθ' αὐτήν, εἰκονίζουσα δὲ τὰς ἀμόρφους ὕλας καὶ κατὰ τοῦτο αἰτία γιγνομένη.

25.2 (~ P₂) Πλάτων δὲ συγχωρεῖ, ὅσον δυνατόν, τοῖς νοήμασι καὶ ταῖς φαντασίαις ζητεῖν περὶ τοῦ θεοῦ.

25.3 (~ P₃) Ἀριστοτέλης δὲ εἶδη μὲν καὶ ιδέας ἀπέλιπεν, οὐ μὴν κεχωρισμένας τῆς ὕλης.

25.4 (~ P₄) οἱ δὲ Στωικοὶ ἐννοήματα ἡμέτερα τὰς ιδέας εἶναι νομίζουσιν.

Symeon Seth *CRN* 4.58 (~ tit.) Περὶ εἰδους

Arsenius *Apophth. Cent.* 8 100c von Leutsch (ex E) ιδέα δὲ ἐστὶν οὐσία ἀσώματος, αὐτὴ μὲν ὑφεστώσα καὶ καθ' αὐτήν, εἰκονίζουσα δὲ τὰς ἀμόρφους ὕλας καὶ αἰτία γιγνομένη τῆς τούτων δεξιᾶς. Σωκράτης καὶ Πλάτων χωριστὸς τῆς ὕλης δεῖξεις, τὰς δὲ ιδέας ἐν τοῖς νοήμασι καὶ ταῖς φαντασίαις τοῦ θεοῦ, τουτέστι τοῦ νοῦ. Ἀριστοτέλης εἶδη μὲν ἀπέλιπε καὶ ιδέας, οὐ μὴν κεχωρισμένης τῆς ὕλης, ἔξω γεγρονῶς ὑπὸ τοῦ θεοῦ. οἱ ἀπὸ Ζήνωνος Στωϊκοὶ ἐννοήματα ἡμέτερα τὰς ιδέας. Περὶ ιδεῶν· ἐκ τῶν Πλουτάρχου.

Testes secundi:

Achilles *Univ.* c. 6, 17.10–11 οἱ δὲ Πυθαγόρειοι, ἐπεὶ πάντα ἐξ ἀριθμῶν καὶ γραμμῶν συνεστάναι θέλουσι κτλ. (~ §3).

Loci Aetiani:

quaestio A 1.2.2 τὸ εἶδος δὲ καλοῦμεν ἐντελέχειαν. A 1.7.31 ιδέα δὲ οὐσία ἀσώματος.

§1 A 1.7.21 Ξενοκράτης ... τὴν μὲν (sc. τὴν μονάδα) ὡς ἄρρενα πατὴρ ἐχουσιν τάξιν

- ἐν οὐρανῷ βασιλεύουσιν. A 1.7.22 νοὺς οὖν ὁ θεός, χωριστὸν εἶδος, τὸ δὲ χωριστὸν ἀκουέσθω τὸ ἀμιγὲς πάσης ὕλης καὶ μηδενὶ τῶν σωματικῶν συμπεπλεγμένον, μηδὲ τῷ παθητῷ τῆς φύσεως συμπαθές. τούτου δὲ πατρὸς καὶ ποιητοῦ κτλ. A 1.9.1 ὕλη ἐστὶ ... A 1.11.1 αἷτιόν ἐστι ... ἀρκεῖ γὰρ ὑπογραφικῶς. A 1.12.1 σῶμά ἐστι ... ἢ ... ἢ ... A 1.14.1 σχῆμά ἐστιν ... A 1.15.1 χρώμα ἐστι ... A 1.23.1 ... κίνησις ἐστὶ διαφορά τις ἢ ἑτερότης ἐν ὕλῃ, ἢ ἔστιν ὕλη. οὗτος πάσης κινήσεως κοινὸς ὅρος. A 2.32.1 ἐνιαυτός ἐστι ... A 3.1.1 (γαλαξίος) κύκλος ἐστὶ ...
- §2 A 1.3.19 Σωκράτης Σωφρονίσκου Ἀθηναῖος καὶ Πλάτων Ἀρίστωνος Ἀθηναῖος ... ἰδέα δὲ οὐσία ἀσώματος ἐν τοῖς νοήμασι καὶ ταῖς φαντασίαις τοῦ θεοῦ. A 1.7.31 Πλάτων ... νοὺς οὖν ὁ θεός, χωριστὸν εἶδος· τὸ δὲ χωριστὸν ἀκουέσθω τὸ ἀμιγὲς πάσης ὕλης καὶ μηδενὶ τῶν σωματικῶν συμπεπλεγμένον, μηδὲ τῷ παθητῷ τῆς φύσεως συμπαθές.
- §3 A 1.3.7 Πυθαγόρας ... ἀρχὰς τοὺς ἀριθμοὺς καὶ τὰς συμμετρίας τὰς ἐν τούτοις, ἃς καὶ ἁρμονίας καλεῖ, τὰ δ' ἐξ ἀμφοτέρων σύνθετα στοιχεῖα, καλούμενα δὲ γεωμετρικά. ... τὰ γὰρ εἶδη ταῦτα πάντα καὶ γένη κατὰ μονάδας εἰσὶ.
- §4 A 1.13.20 Ἀριστοτέλης ... εἶδος καὶ ὕλην καὶ στέρησιν. al. A 1.3.4 ἀποδεκτέος οὖν ἐστὶν, ὅτι τῇ ὕλῃ τὸν τεχνίτην προσέζευσεν.
- §5 A 4.10.4 τῶν δ' ἐννοιῶν αἱ μὲν φυσικῶς γίνονται κατὰ τοὺς εἰρημένους τρόπους καὶ ἀνεπιτεχνήτως, αἱ δ' ἤδη δι' ἡμετέρας διδασκαλίας καὶ ἐπιμελείας· αὗται μὲν οὖν ἔννοιαι καλοῦνται μόνον, ἐκεῖναι δὲ καὶ προλήψεις. A 4.11.6 ἔστι δ' ἐννόημα φάντασμα διανοίας λογικοῦ ζώου· τὸ γὰρ φάντασμα, ἐπειδὴν λογικῇ προσπίπτῃ ψυχῇ, τότε ἐννόημα καλεῖται, εἰληφὸς τοῦνομα παρὰ τοῦ νοῦ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

Material from this chapter is found only in P and S. It is not utilized by T, who in CAG 4.14 jumps from the subject of 'matter' (A 1.9) to that of 'the void' (A 1.18). The early witness Athenagoras refers only to the title, which he may have derived from either A or P (or indeed elsewhere).

(1) The chapter is recorded by all four main witnesses to the tradition of P, who all write out the same four doxai (with some abridgement in G). It is the last chapter in Book 1 that E writes out. Ps again uses only the heading. Exceptionally P is also written out in the late 15th cent. paroemiographer Arsenius, who clearly copied his text verbatim from E, not from a ms. of P^B, but is a witness all the same and provides evidence for interest in doxography in unexpected quarters, perhaps because of the surmised theological aspect. P is in a position to abridge the Pythagoras doxa preserved in S away because the remaining doxai with name-labels amount to a diaphonic series that is sufficient and clear.

(2) S has a brief chapter on the ideas (plural), 1.12. He commences with the same definition as found at the beginning of P's chapter. It is followed by a doxa on Pythagoras that as we saw is not found in P. Thereafter he includes long excerpts from AD for Aristotle, Plato (followed by a quote, *Parm.* 132c–d), and Zeno. He thus does not include the final three doxai preserved in P. They have plainly been replaced by the material taken from AD.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* A clue to the proximate tradition of at least part of this chapter is given by the terse phrase at §1[2], *αἰτία τῶν οἷα ἐστὶν αὐτῇ* (left out by P and his tradition but extant in S). The only parallels for the phrase are provided by slightly longer passages in Arius Didymus and Alcinous: Arius Didymus fr. 1 Diels (at E *PE* 11.23.5 and at S 1.12.2a, p. 136.9–10 Wachsmuth) *αἰτίαν καὶ ἀρχὴν τοῦ ἑκάστων εἶναι τοιοῦτον, οἷα ἐστὶν αὐτῇ*, and Alcinous *Did.* c. 12, p. 167.6–9 H. *αἰτίας (καὶ) ἀρχῆς τοῦ ἑκάστων εἶναι τοιοῦτον, οἷα ἐστὶν αὐτῇ*. Of these Arius' version comes closest. A's cryptic phrase can only be fully understood with the support of these two parallels. Accordingly, the Aetian version must be an abstract from the source represented by Arius Didymus and Alcinous. (We cannot go into the subsidiary and much-debated question of whether and to what extent Arius is the source of Alcinous, or conversely. Göransson (1995) 105–136 studies the *Didascalicus* qua 'work of many sources'; Algra (2018) plausibly argues that Alcinous is the source of Arius.) The 'natural kinds' (τῶν κατὰ φύσιν ἐχόντων) derive from the definition of Xenocrates fr. 30 Heinze (14 Isnardi Parente²) as attributed in Proclus, cited section E(b)§1 (with anonymous parallels in Seneca, Alcinous, Diogenes Laertius and Calcidius—the attribution to Xenocrates is not certain). The formula τῆς τῶν αἰσθητῶν ὑποστάσεως is only paralleled in Sextus Empiricus, where it is found several times, e.g. *M.* 8.187.

(2) *Sources.* The ultimate sources will be works of Plato, Aristotle, and some Stoics.

C *Chapter Heading*

Attested in both P and S, and of the standard umbrella type 'about x', περὶ τοῦ δεῖνα. The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. It is capable of comprising an implicit reference to the 'idea' both in itself (question type/category of οὐσία) and in relation to matter and visible things (category of πρὸς τι). It is paralleled as a book title for Xenocrates, Aristotle, Theophrastus and Heraclides Ponticus, and also as an embedded heading.

D *Analysis*

a Context

This is the second of the long series of chapters in Book 1 that are concerned with the foundational concepts of theoretical physics. More particularly the present chapter is connected to the previous one, 1.9 ‘On matter’ (*ubi vide* for more details), as the link between transcendental Form (plus form-in-matter) and matter reveals a (Middle) Platonist background. A backward glance at chs. 1.6–7 and the divine mind of §3 plus the implied absence of God in §4 add the divinity, thus completing the triad of principles for which see above at ch. 1.3, Commentary D(d)§20, and chs. 1.6 and 1.7, both times at Commentary D(a). The separation of the theme of the present chapter (and the previous one, ‘On matter’) from that of the next, 1.11 ‘On causes’, is didactic in the manner of the *Placita*. Matter and ἰδέα as well as εἶδος are causes too, as is clear from the prepositional formulas used in ch. 1.12. Compare the use of these formulas in Alcinous’ chapter on the idea, *Did.* 9 (so not separately). There is a good deal of system in the way that this block of three chapters is ordered.

b Number–Order of Lemmata

(1) P and his tradition have four doxai, in the order: P₁ definition, P₂ Plato, P₃ Aristotle and P₄ Stoics.

(2) S has only two doxai, only one of which, viz. S₁, corresponds with one in P, viz. P₁, the definition again. S’s second lemma, name-label Pythagoras, has no counterpart in P. S, as we saw at section A above, clearly has replaced lemmata for Aristotle, Plato and the Stoa in A by excerpts from AD. Diels in the *DG* put S₂ in his reconstructed chapter immediately after P₁/S₁, presumably because in S the unique Pythagorean doxa of S₂ follows immediately upon the definition in S₁ (= P₁). But the sequence of the excerpts from A plus AD in S, with Plato after Aristotle, fails to entail or suggest a significant order for the lemmata in A.

(3) It is clear that the Pythagoras lemma came after the definition in §1, but not clear precisely where. The best position for this lemma in A is between the Plato lemma and the Aristotle lemma, for reasons to be derived from the diaphonic structure of the chapter (see below, section D(c)). This has the additional advantage of allowing us to attribute the properties listed in §1 to the ideas posited by Plato in §2. For the unhistorical lemmata order Plato–Pythagoras cf. chs. 1.11.2–3 and 2.6.4–5. For the order Pythagoras (on numbers etc.)—Aristotle (on forms in matter) see below, ch. 1.11.3, with Commentary D(d) ad loc.

c Rationale–Structure of Chapter

(1) *Definition and lemmata*. For the distinction between nominal and real definitions see above, ch. 1.9, Commentary D(c) and (e)(2). Up to καθ' ἐαυτήν and again at πατὴρ ἐπέχουσα τοῖς αἰσθητοῖς τάξιν, the contents of the definition in §1 (on which see further below, section D(d)§1) are at odds with the immanentist doxai of §§3–5, but quite compatible with the contents of §2.

(2) *Diaphoniae*. The main diaphonia of the chapter is between §1 (in part, namely as to the idea qua ὑφ' ἐστῶσα καθ' ἐαυτήν) plus §2, and §§3–5, namely between the idea (or Idea/Form) as being in itself and separate on the one hand, and (the idea/form or *eidos*) as related to or inseparable from bodies or matter on the other. This contrast recalls the *kath' hautō*—*pros ti* diaeresis of the categories, important in philosophical discussion in the first centuries BCE and BCE. In §1 (for the most part) and §§3–4 the idea is presented in its relation to matter etc., thus in the first place as a concept in physics, which after all is what the *Placita* are concerned with. A subsidiary diaphonia is between §2, ideas as concepts in the mind of God, and §5, ideas as human concepts. Another subsidiary diaphonia is between §3 Pythagoras, which ahistorically modifies the εἶδη and ἰδέαι into immanent numbers (cf. Burkert 1972, 58 n. 28) and their 'harmonies' (combinations and relations), and §4, Aristotle, formally preserving both εἶδη and ἰδέαι (though all inseparable). The Stoics come last in §5, obviously because their in this context idiosyncratic and exceptional doctrine is farthest from the view expressed in the definition at §1. Their doxa produces a third subsidiary diaphonia with the doxai of all the other lemmata by excluding any presence whatsoever of (Platonic or Pythagorean or Aristotelian) ideas in the world around us. Thereby the Stoics seem to put themselves beyond the boundaries of physics, at least from a Platonist or Peripatetic point of view.

d Further Comments

Individual Points

§1 Although it lacks a name-label this is not a nominal definition. It is a virtually complete middle Platonist definition of what it is to be an idea in itself, qua incorporeal substance, and of what is its relation to perceptible and material things. It accords well with the previous chapter's anonymous definition of matter (ch. 1.9.1) and its Plato lemma (ch. 1.9.2). For the (Platonic) ἰδέα as οὐσία ἀσώματος see also ch. 1.3.20. The various suggestions to emend τῶν οἶα are not strictly necessary; it is also possible to follow Diogenes Laertius *V.P.* 3.77 and write οἶά(περ).

§2 For Σωκράτης καὶ (deleted by Diels) and the ideas in the conceptions and perceptions of God see above, ch. 1.3 Commentary D(d)§20.

§3 The immanent character qua mathematical entities of the Pythagorean ‘so-called forms and ideas’ (note the presence of both terms) is in line with the distinction between Pythagoreans and Plato argued by Arist. *Met.* A.6 987b10–13. But observe that Aristotle said that Plato raised the Pythagorean principles to a transcendental level, while here we read that, conversely, the (Platonic) transcendental level has been collapsed into the immanent level. At A 1.3.7 the level of the ‘numbers and the symmetries in them and the harmonies and the elements composed therefrom, called geometricals’ is distinguished (281a6, b4 πάλιν δέ) from that of the Platonizing or Academic, i.e. undoubtedly Neopythagorean ‘Monad and Indefinite Dyad’, and the (immanent and individual) εἶδη and γένη of e.g. ‘man’ and ‘horse’ are ranged under the Monad.

§4 The text of the final part of the Aristotelian doxa has given rise to much discussion. Diels *DG* ad loc. is right to suggest that its purpose is to indicate a diaeretic contrast with the Platonic view in §2 (but it could also be a gloss, or a sort of echo of §2 that has found its way into the text). None of the various conjectures which take the text in P^B as their starting-point are convincing. Taking our cue from Mras, we have started from the text as in the mss. of P^E and included γεγνώως from P^{B(11)}. As interpreted by Mras ad loc. (‘θεοῦ nml. ιδέας γένεσθαι, d.h. Ar. war über die Ansicht hinausgekommen, daß die Ideen von Gott geschaffen seien’) this at least makes sense. Mras suggests ιδέας γένεσθαι, but perhaps better is τῇ ὕλῃ προστίθεναι vel. sim. For parallels of the notion behind the latter see e.g. Alcinous *Did.* 12, p. 167.8–10 H. ἀναγκαῖον καὶ τὸ κάλλιστον κατασκευάσμα τὸν κόσμον ὑπὸ τοῦ θεοῦ δεδημιουργήσθαι (cf. the abstract of this passage at AD fr. 1 Diels at Eus. *PE* 11.23.6 ὑπὸ τοῦ δημιουργήσαντος ... ἀπειργάσθαι θεοῦ), Ath *Leg.* 15.14–15 Marcovich ἡ πανδεχῆς ὕλη ἄνευ τοῦ θεοῦ τοῦ δημιουργοῦ διάκρισιν καὶ σχῆμα καὶ κόσμον οὐκ ἐλάμβανεν, ps.Justin *de Res.* 6 καὶ ὁ μὲν Πλάτων φησὶν ὑπὸ τοῦ θεοῦ τὰ πάντα ἐκ τῆς ὕλης γεγονέναι. The attempt on the part of Q to make sense of the text is also interesting: reading ἐξ ὧν γεγονὸς τὸ ὑπὸ τοῦ θεοῦ, he links the phrase with the separated ideas in the previous clause (‘aus welcher geworden ist, was die Gottheit geschaffen hat’). It is unlikely that A would ascribe the view that God had created the cosmos to Aristotle, though not wholly impossible.

§5 As noted above in section D(c), the final doxa clearly introduces a further contrast with the Platonic view ascribing the ideas to God. Since §4 already has an adversative, it is justified to have one here too. We therefore follow G’s text, which does include the adversative δέ. We may moreover note that the fact that the ideas are concepts implies that the set of Stoic concepts has at the very least the same range of reference as that of Platonic ideas.

e Other Evidence

For parallels to §1 see above at section B.

(1) *εἶδος* and *ἰδέα*. Plato in the dialogues uses *ἰδέα* and *εἶδος* interchangeably; the distinction, of crucial relevance in our chapter, between transcendent *ἰδέα* and immanent *εἶδος* (or *idos*, as in Seneca) made in later Platonism is a consequence of Aristotle's criticism of the so-called Theory of Forms. Note, for instance, that Alcinous in his chapter on matter, *Did.* 8, only uses the word *εἶδος* (five times), but in his chapter on the idea, *Did.* 9, only the word *ἰδέα* (eleven times), and that with very rare exceptions he sticks to the distinction throughout his treatise. On the other hand we observe that at ch. 1.7.22 above the *χωριστὸν εἶδος* ('separate form—by 'separate' let that be understood which is free of all matter, not entwined with any of the bodily entities, and also not sharing affection with anything in nature that is passible') is the God of Plato, and that at 1.7.23 this *χωριστὸν εἶδος* is the God of Aristotle. So there *εἶδος* is used, not *ἰδέα*.

(2) *Antecedents of the Stoic position?* That a variety of the Stoic position is actually anticipated by Plato or in the Early Academy is uncertain. The suggestion of 'Socrates' at Plato *Parm.* 132c, that 'perhaps each of the ideas is a thought' (or 'concept', *νόημα*) 'in our souls' is immediately refuted by 'Parmenides', while the description of the soul as 'place of the forms', cited and then immediately criticized by Aristotle *de An.* 3.4 429a27–29 and frequently mentioned and discussed in later authors, remains unclear. This also holds for the relation of this notion to that of the *χώρα* of the *Timaeus* as the place of the immanent forms, *τόπον τῶν ἐνύλων εἰδῶν* (e.g. A 1.19.1 and Simplicius in *Phys.* 539.9–11). Proclus' attribution to Xenocrates of the view expressed in Aristotle's quotation has insufficient authority, since Aristotle (see section E(a)§1) explicitly attributes it to Plato; cf. the ambiguous discussion in *Parm.* 130c–d. Cicero *Varr.* 30 and two parallel passages in the earlier *Orator*, all cited section E(a)§§2 & 5, makes the (Antiochean) point that our mind (*mens*) is the sole judge of what is always simple and uniform and exactly such as it is, i.e. of what Plato and his followers called 'idea', but this does not divest the (Platonic) ideas of objective and permanent existence beyond our minds, as is especially clear from parallels at *Or.* 10 and 101.

Interestingly enough, the Stoic position is the only one that is still regarded as valid today.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *Ac.Po.* 30–31 + 32–33 *id quod semper esset simplex et unius modi et tale quale esset* (*hanc illi ἰδέαν appellabant, iam a Platone ita*

nominatam, nos recte speciem possumus dicere). ... *Aristoteles primus species quas paulo ante dixi labefactavit, quas mirifice Plato erat amplexatus, ut in iis quiddam divinum esse diceret.* *Suda* s.v. Φ 862, p. 4.775.28–776.4 Adler φυσικός λόγος παρὰ φιλοσόφοις ... ὅτι τρία εἰσὶν ἐν τοῖς φυσικοῖς πράγμασιν, εἶδος, ὕλη καὶ ἡ αἰτία, καθ' ἣν ἐστὶ τὸ εἶδος ἐν τῇ ὕλῃ.

Chapter heading: Arius Didymus fr. 1 Diels at Stob. *Ecl.* 1.12.1b, p. 135.20 Wachsmuth περὶ δὲ τῶν ιδεῶν ὡδὶ διεξήρχετο.

§1 Definition: Cicero Varr. 30 *id quod semper esset simplex et unius modi et tale quale esset (hanc illi ιδεάν appellabant, iam a Platone ita nominatam, nos recte speciem possumus dicere).* Seneca Ep. 58.18 *propria Platonis supellex est: 'ideas' vocat, ex quibus omnia, quaecumque videmus, fiunt et ad quas cuncta formantur.* Arius Didymus fr. 1 Diels at Stob. *Ecl.* 1.12.1b, p. 135.20–23 and at Eus. *PE* 11.23.3–5 (cf. Alcinous *Did.* 12, p. 166.39–167.8 H., ἐπεὶ γὰρ τῶν κατὰ φύσιν αἰσθητῶν κτλ.) περὶ δὲ τῶν κατὰ φύσιν αἰσθητῶν κατὰ γένος ὠρισμένα τινὰ παραδείγματα φάμενος εἶναι τὰς ιδέας. ... εἶναι δὲ τὴν ιδεάν αἰδῖον οὐσίαν, αἰτίαν καὶ ἀρχὴν τοῦ ἕκαστον εἶναι τοιοῦτον, οἷα ἐστὶν αὐτῇ. Diogenes Laertius *V.P.* 3.64 (on Plato) τὴν γοῦν ιδεάν καὶ εἶδος ὀνομάζει καὶ γένος καὶ παράδειγμα καὶ ἀρχὴν καὶ αἴτιον. *V.P.* 3.77 (also on Plato) τὰς δὲ ιδέας ὑφίσταται, καθὰ καὶ προείρηται, αἰτίας τινὰς καὶ ἀρχὰς τοῦ τοιαῦτ' εἶναι τὰ φύσει συνεστῶτα οἷάπερ ἐστὶν αὐτά. Calcidius in *Tim.* c. 304 *porro ideae sunt exempla naturalium rerum.*

§2 Socrates Plato and §4 Aristotle: Seneca Ep. 58.21 *quid intersit (sc. between idea and form) quaeris? alterum exemplar est, alterum forma ab exemplari sumpta et operi inposita. alteram artifex imitatur, alteram facit. habet aliquam faciem statua: haec est idos. habet aliquam faciem exemplar ipsum, quod intuens opifex statuam figuravit: haec idea est. etiam nunc si aliam desideras distinctionem, idos in opere est, idea extra opus, nec tantum extra opus est, sed ante opus.* Calcidius in *Tim.* c. 337 *in exemplo rerum gemina species consideratur: illa, qua exornata silva est, nihiloque minus alia species, ad cuius similitudinem illa species facta est quae silvae tributa est. et est inposita quidem silvae species secunda, prima vero illa, ad cuius haec secunda similitudinem facta est.*

§2 Socrates Plato: Seneca Ep. 58.18–19 *propria Platonis supellex est: ideas vocat, ex quibus omnia, quaecumque videmus, fiunt et ad quas cuncta formantur. ... (19) quid sit idea, id est, quid Platoni esse videatur, audi: 'idea est eorum, quae natura fiunt, exemplar aeternum'.* Ep. 65.7 *his (sc. the four Aristotelian causes) quintam Plato adicit exemplar, quam ipse 'idean' vocat: hoc est enim, ad quod respiciens artifex id, quod destinabat, effecit ... haec exemplaria rerum omnium deus intra se habet numerosque universorum, quae agenda sunt, et modos mente complexus est; plenus his figuris est, quas Plato 'ideas' appellat, immortales, immutabiles, infatigabiles.* Tertullian de An. 18.3 *vult enim Plato esse quasdam substantias invisibiles incorporales supermundiales, divinas et aeternas, quas appellat ideas, id est formas, exempla et causas naturalium istorum manifestorum et subiacentium corporalibus sensibus, et illas quidem esse veritates, haec autem imagines earum.* Hippolytus Ref. 1.19.2 *τὸ δὲ παράδειγμα τὴν διάνοιαν τοῦ θεοῦ εἶναι· ὃ καὶ ιδεάν καλεῖ, ὅσον εἰκόνισμά τι, (ᾧ) προσέχων*

ἐν τῇ ψυχῇ ὁ θεὸς τὰ πάντα ἐδημιούργει. *Calcidius in Tim.* c. 330 *idea scilicet, quae exemplum est rerum omnium quas natura progeniuit, hoc est eorum, quae silvae quasi quodam gremio continentur exemplorumque imagines esse dicuntur.* **ps.Galen HPh** c. 17, *DG* p. 610.3–4 Πλάτων δὲ καὶ τὰς ιδέας εἰσῆγαγεν, αἷς ἴσα μὲν ἀπεργάσασθαι δύναται (sc. ὁ θεός).

§3 Pythagoras: Cicero Luc. 118 *Pythagorei e numeris et mathematicorum initiis proficisci volunt omnia.*

§4 Aristotle: Seneca Ep. 58.20 *quantum locum habebit idos.* *Ep.* 65.4 *Aristoteles putat causam tribus modis dici: ... tertia est forma, quae unicuique operi inponitur tamquam statucae, nam hanc Aristoteles 'idos' vocat.*

§5 Stoic successors of Zeno: Arius Didymus fr. 40 *Diels at Stob. Ecl.* 1.12.3, pp. 136.21–137.6 *Zήνωνος (SVF 1.65) (καὶ τῶν ἀπ' αὐτοῦ). τὰ ἐννοήματά φασι μῆτε τινὰ εἶναι μῆτε ποιὰ, ὥσανεὶ δὲ τινὰ καὶ ὥσανεὶ ποιὰ φαντάσματα ψυχῆς· ταῦτα δὲ ὑπὸ τῶν ἀρχαίων ιδέας προσαγορεύεσθαι. τῶν γὰρ κατὰ τὰ ἐννοήματα ὑποπιπτόντων εἶναι τὰς ιδέας, οἷον ἀνθρώπων, ἵππων, κοινότερον εἰπεῖν πάντων τῶν ζώων καὶ τῶν ἄλλων ὁπόσων λέγουσιν ιδέας εἶναι. ταύτας δὲ οἱ Στωικοὶ φιλόσοφοι φασιν ἀνυπάρκτους εἶναι, καὶ τῶν μὲν ἐννοημάτων μετέχειν ἡμᾶς, τῶν δὲ πτώσεων, ἃς δὴ προσηγορίας καλοῦσι, τυγχάνειν.* **Diogenes Laertius VP.** 7.61 (on Stoics, *SVF* 1.65, 3 *Diog.* 25) ἐννόημα δὲ ἐστὶ φάντασμα διανοίας, οὔτε τί ὄν οὔτε ποιόν, ὥσανεὶ δὲ τί ὄν καὶ ὥσανεὶ ποιόν, οἷον γίνεται ἀνατύπωμα ἵππου καὶ μὴ παρόντος.

b Sources and Other Parallel Texts

General texts: Philo of Alexandria Spec. 1.327–328 οἱ μὲν γὰρ τὰς ἀσωμάτων ιδέας ὄνομα κενὸν ἀμέτοχον ἀληθοῦς πράγματος εἶναι φασι, τὴν ἀναγκαιοτάτην οὐσίαν ἐκ τῶν ὄντων ἀναιροῦντες, ἥτις ἐστὶν ἀρχέτυπον παράδειγμα πάντων ὅσα ποιότητες οὐσίας, καθ' ἣν ἕκαστον εἰδοποιεῖτο καὶ διεμετρεῖτο. **Dionysius of Halicarnassus Thuc.** 3 Ἀριστοτέλης τε γὰρ οὐχ ἅπαντα κατὰ τὸ κράτιστον εἰρήσθαι πείθεται τῷ καθηγητῇ Πλάτωνι· ὦν ἐστὶ τὰ περὶ τῆς ιδέας καὶ τὰ περὶ τὰ γὰθου καὶ τὰ περὶ τῆς πολιτείας. **Alcinous Did.** 9, p. 163.14–17 H. ἐστὶ δὲ ἡ ιδέα ὡς μὲν πρὸς θεὸν νόησις αὐτοῦ, ὡς δὲ πρὸς ἡμᾶς νοητὸν πρῶτον, ὡς δὲ πρὸς τὴν ὕλην μέτρον, ὡς δὲ πρὸς τὸν αἰσθητὸν κόσμον παράδειγμα, ὡς δὲ πρὸς αὐτὴν ἐξεταζομένη οὐσία. cf. *Calcidius in Tim.* c. 339 *est igitur principalis species, ut cum aliqua dicatur effigie, iuxta nos quidem, qui intellectus compotes sumus, primum intellegibile, iuxta deum vero perfectus intellectus dei, iuxta silvam modus mensuraque rerum corporearum atque silvestrium, iuxta ipsam vero speciem incorporea substantia causaque eorum omnium quae ex ea similitudinem mutuuntur, iuxta mundum vero exemplum sempiternum omnium quae natura progeniuit.* **Apuleius Plat.** 1.6 *ιδέας vero, id est formas omnium, simplices et aeternas esse nec corporales tamen; esse autem ex his, quae deus sumpserit, exempla rerum quae sunt eruntve; nec posse amplius quam singularum specierum singulas imagines in exemplaribus inveniri gignentiumque omnium, ad instar cerae, formas etfigurationes ex illa exemplorum inpressione signari.* **Heraclitus All.Hom.** 78.4 (τὶ) παρὰ Πλάτωνι τῷ φιλοσόφῳ; πλὴν εἰ μὴ νῆ Δία τιμὴν (καὶ) ὠφέλ(ειαν φ)ήσομεν εἶναι τὰ σεμνὰ τῶν ιδεῶν τερετίσματα (Arist. *APo* 1.22 83a33) καὶ παρ' Ἀριστοτέ-

λει τῷ μαθητῇ γελῶμενα. **Simplicius in Phys.** 10.32–35 (**Porphyry** 120F Smith) ἀλλ' ὁ μὲν Ἀριστοτέλης τὸ ἐν τῇ ὕλῃ μόνον θεασάμενος εἶδος τοῦτο ἔλεγεν ἀρχήν, ὁ δὲ Πλάτων πρὸς τούτῳ καὶ τὸ χωριστὸν ἐννόησας εἶδος τὴν παραδειγματικὴν ἀρχὴν προσεισήγαγε. **Ambrose of Milan de Fid.** 4.4.67–70 *Faller nisi forte philosophicas tibi ideas Platonica illa disputatione praestituunt, quas ab ipsis tamen philosophis scimus intrisas.* **Syrianus in Met.** 105.19–30 + 106.5–8 ἀλλ' ἵνα μὴ νῦν περὶ τὴν ἱστορίαν φανεράν οὖσαν διατρίβωμεν, ῥητέον ἓνα λόγον περὶ Σωκράτους καὶ Πλάτωνος καὶ τῶν Παρμενιδείων τε καὶ Πυθαγορείων πρὸς αὐτόν, ὡς ἄρα τὰ εἶδη παρὰ τοῖς θεοῖς τούτοις ἀνδράσιν οὔτε πρὸς τὴν χρῆσιν τῆς τῶν ὀνομάτων συνηθείας παρήγετο, ὡς Χρῦσιππος (*SVF* 1.494, 2.361) καὶ Ἀρχέδημος (*SVF* 3 Arched. 13) καὶ οἱ πλείους τῶν Στωικῶν ὕστερον ᾤκησαν (πολλαῖς γὰρ διαφοραῖς διέστηκεν τὰ καθ' αὐτὰ εἶδη τῶν ἐν τῇ συνηθείᾳ λεγομένων), οὔτε τοῖς λεκτοῖς τοῖς πολυθρῦλοις ἀνάλογον τῷ νῷ παρυφίσταται, ὡς ἥρεϊτο Λογγίνος (fr. 18 Patillon–Brisson) πρεσβεῦειν· οὐδὲν γὰρ ὅλως παρυφίσταται τῷ νῷ, εἴπερ ἀνούσιόν ἐστι τὸ παρυφιστάμενον· πῶς δ' ἂν τὸ αὐτὸ νοητὸν τε εἶη καὶ παρυφίσταίτο; οὐ μὴν οὐδ' ἐννοήματά εἰσι παρ' αὐτοῖς αἱ ἰδέαι, ὡς Κλεάνθης (*SVF* 1.494) ὕστερον εἶρκεν, οὐδ', ὡς Ἀντωνῖνος μιγνύς τὴν Λογγίνου καὶ Κλεάνθους δόξαν, τῷ νῷ παρυφίστανται κατὰ τὰς ἐννοητικὰς [ἐννοη(μ)α]τικὰς? prop. Patillon–Brisson ad loc.] ἰδέας. ... (106.5) παραφέρεται δὲ καὶ Βοηθὸς ὁ Περιπατητικὸς ἐκ τῶν παρὰ τῷ Ἀριστοτέλει κατηχήσεων εἰς ταῦτὸν ἄγων τοῖς γενικοῖς τὰς ἰδέας· ᾧ καὶ τὸν Κορνοῦτον συντάττειν εὐλογον, οὐ πόρρω καὶ αὐτὸν ταύτης ὑπενεχθέντα τῆς δόξης. **Proclus in Tim.** 1.327.1–4 οἱ δὲ λέγουσιν, ὅτι, ἐπεὶ τῶν αἰσθητῶν τὰ μὲν ἐστὶ παρὰ φύσιν, τὰ δὲ κατὰ φύσιν, τούτων δὲ τὰ μὲν εἰκόνας ἔχει τινῶν γενητῶν, τὰ δὲ ἀγενήτων ἐστὶν ὁμοιώματα κτλ. **Philoponus in Nic.Ar.** 1.60–63 Giardina εἰ γὰρ ἔστιν εἶδη τὰ πάντα τῆς ὕλης ἀχώριστα, ἔστι δὲ καὶ τὰ πῇ μὲν χωριστά, πῇ δὲ ἀχώριστα, ἀνάγκη που καὶ τὴν τρίτην τῶν εἰδῶν εἶναι μοῖραν, τῶν παντάπασιν χωριστῶν καὶ τῇ οὐσίᾳ καὶ τῇ ἐπινοίᾳ. **Tzetzes Chil.** 7.596–620 Leone τῶν ἰδεῶν δε λέγουσι τρεῖς δόξας πεφυκέναι. / ψιλὰς ἐννοίας γὰρ φησὶ ταύτας ὁ Ἀντισθένης (fr. VA 149 Giannantoni, 149F Prince) / λέγων· βλέπωμεν ἄνθρωπον καὶ ἵππον δὲ ὁμοίως, / ἰππότητα οὐ βλέπω δὲ οὐδ' ἄνθρωπότητά γε. / (600) ἀλλ' οὐδ' ἐγώ, Ἀντισθενες, ὁ Τζέτζης ἄρτι βλέπω / ποῦ ποτε ἀνθρωπότητα, οὐδ' ἐν τοῖς πατριάρχαις· / καὶ Ὑδραργύρου γὰρ εἰσὶ κλεπτότεροι τοῦ κλέπτου. / ταῦτα τὸν Ἀντισθένην μὲν λέγουσι δογματίζειν. / τὸν Πλάτωνα δὲ λέγουσι δοξάζειν τὰς ἰδέας / (605) ὑφ' ἐστῆκότα πράγματα καὶ ἀληθῆ καὶ ὄντα, / ὡς σφραγιστήρας ἀκραιφνεῖς ὄντα καὶ πρωτοτύπους / βοός, ἀνθρώπου καὶ λοιπῶν. πρὸς ἃ τὸ θεῖον βλέπον / βοῦν τε ποιεῖ καὶ ἄνθρωπον καὶ τὰ λοιπὰ ὁμοίως. / Ἀριστοτέλην δὲ φασὶν ἰδέας ὀνομάζειν / (610) θεοῦ τὸ προενοήμα πάσης δημιουργίας. / οἷον ποιῆσαι μέλλων τις κλίνην καὶ πρὸ τοῦ ἔργου / τῷ λογισμῷ προενοεῖ πρῶτον καὶ προγινώσκει, / ὅποιαν ἀπεργάσεται καὶ ποδαπὴν τὴν κλίνην. / ταῦτα φασὶ δοξάζειν μὲν εἰς ἰδεῶν τοὺς λόγους / (615) τὸν Ἀντισθένην, Πλάτωνα καὶ τὸν Ἀριστοτέλην. / ἐγὼ δὲ μᾶλλον Πλάτωνα ἐν τῷ Τιμαίῳ εὗρον / λέγοντα ταύτας νόημα δημιουργοῦ τυγχάνειν, / κἄνπερ αὐτόθι ἀλλαγῇ τοῦ λόγου τούτου φέρῃ / (620) οἷα ὑφ' ἐστῆκότα τε καὶ οἷα σφραγιστήρας. / ὅμως ὡς λέγουσι πολλοὶ κἀγὼ τανῦν εἰρήκειν.

Chapter heading: *Vita Aristotelis Menagiana* Düring no. 28 Περί εἰδῶν α', no. 45 Περί ἰδέας α', *Diogenes Laertius V.P.* 5.23 no. 54 Περί τῆς ἰδέας α'.

mentatores Aristotelis Περὶ εἰδῶν α' sive α'β'. **Diogenes Laertius** *V.P.* 4.12–13 (on Xenocrates, p. 158.35 and 40 Heinze, test. 2 Isnardi Parente²) Περὶ εἰδῶν α' ... Περὶ ἰδεῶν α' ... (13) Περὶ γενῶν καὶ εἰδῶν α'. *V.P.* 5.23 (Aristotle) Περὶ τῆς ιδέας α'. *V.P.* 5.43 (Theophrastus fr. 246 no. 4 FHS&G) Περὶ εἰδῶν α'β'. *V.P.* 5.88 (Heraclides Ponticus fr. 29 Wehrli, 1 Schütrumpf) Περὶ εἰδῶν α'. **Porphyrus** *Isag.* 3.21 Περὶ εἰδους (cited by Ammon. in *Isag.* 69.12, El. in *Isag.* 60.21 and Dav. in *Isag.* 142.23). **Ioannes Damascenus** *Dial.* 10 (~ tit.) Περὶ εἰδους.

§1 **Definition:** Plato *Sph.* 246b (cited Clem. Alex. *Strom.* 2.4.15.1) νοητὰ ἅττα καὶ ἀσώματα εἶδη βιάζομενοι τὴν ἀληθινὴν οὐσίαν εἶναι. *Parm.* 132d (cited Stob. *Ecl.* 1.12.2b, p. 136.16–19) τὰ μὲν εἶδη ταῦτα ὥσπερ παραδείγματα ἐστάναι ἐν τῇ φύσει, τὰ δὲ ἄλλα τοῖς τοῖς εἰσὶν καὶ εἶναι ὁμοιώματα, καὶ ἡ μέθεξις αὕτη τοῖς ἄλλοις γίνεσθαι τῶν εἰδῶν οὐκ ἄλλη τις ἢ εἰκασθῆναι αὐτοῖς. **Aristotle** *Met.* A.9 990a34 οἱ δὲ τὰς ιδέας αἰτίας τιθέμενοι. *Met.* A.9 991b3–4 ἐν δὲ τῷ Φαίδωνι (100b–c) οὕτω λέγεται, ὡς καὶ τοῦ εἶναι καὶ τοῦ γίνεσθαι αἴτια τὰ εἶδη ἐστίν. *Met.* A.3 1070a18–19 διὸ δὴ οὐ κακῶς Πλάτων ἔφη ὅτι εἶδη ἔστιν ὅποσα φύσει. **Seneca** *Ep.* 58.19 *quid sit idea, id est, quid Platoni esse videatur, audi: 'idea est eorum, quae natura fiunt, exemplar aeternum'*. **Festus** *Verb. Sign.* p. 340.40–42 Lindsay (*speciem*) *quam nos dicimus, εἶδος* (Graeci dixerunt; *Platon quidem idean*. **Alcinous** *Did.* c. 9, p. 163.23–24 H. ὁρίζονται δὲ τὴν ιδέαν παράδειγμα τῶν κατὰ φύσιν αἰώνιον (cf. above Calcidius in *Tim.* c. 330). **Proclus** in *Parm.* p. 2.888.13–15 Steel καθά φησιν ὁ Ξενοκράτης (fr. 30 Heinze, F 14 Isnardi-Parente²), εἶναι τὴν ιδέαν θέμενος αἰτίαν παραδειγματικὴν τῶν κατὰ φύσιν αἰεὶ συνεστώτων. **Plutarch** *Is. Osir.* 373F ὁ μὲν οὖν Πλάτων (*Tim.* 50c–d) τὸ μὲν νοητὸν καὶ ιδέαν καὶ παράδειγμα καὶ πατέρα ... ὀνομάζειν εἴωθεν. **Diogenes Laertius** *V.P.* 3.13 (Alcimus *Ad Amynt. FGRH* 560 F7, Epicharmus ad 23B2 DK) διὸ καὶ φησιν (Pl. *Parm.* 132d) ἐν τῇ φύσει τὰς ιδέας ἐστάναι καθάπερ παραδείγματα· τὰ δ' ἄλλα ταύταις εἰσὶν, τούτων ὁμοιώματα καθεστῶτα. **Alcinous** *Did.* 9, p. 163.14–15 H. ἔστι δὲ ἡ ιδέα ὡς μὲν πρὸς θεὸν νόησις αὐτοῦ. *Did.* 9, p. 163.23–24 H. ὁρίζονται δὲ τὴν ιδέαν παράδειγμα τῶν κατὰ φύσιν αἰώνιον. *Did.* c. 12, p. 166.39–41 H. ἐπεὶ γὰρ τῶν κατὰ φύσιν αἰσθητῶν καὶ κατὰ μέρος ὠρισμένα τινὰ δεῖ παραδείγματα εἶναι τὰς ιδέας. **Alexander of Aphrodisias** in *Met.* 196.25–27 εἶρηκε δὲ ἐν τῷ πρώτῳ ὅτι οὐσίας ὀριστικὰς αὐτὰς καθ' αὐτὰς ἔλεγον εἶναι τὰς ιδέας, κεχωρισμένας τῶν αἰσθητῶν, πρὸς παραδείγματα δὲ τὰς αἰσθητὰς τὸ εἶναι ἔχειν.

§§2–3 **Socrates Plato Pythagoras:** Aristotle *Met.* A.6 987b7–13 οὗτος (sc. Plato) οὖν τὰ μὲν τοιαῦτα τῶν ὄντων ιδέας προσηγόρευσε, τὰ δ' αἰσθητὰ παρὰ ταῦτα καὶ κατὰ ταῦτα λέγεσθαι πάντα· κατὰ μέθεξιν γὰρ εἶναι τὰ πολλὰ {τῶν συνωνύμων} ὁμώνυμα τοῖς εἶδεσιν. τὴν δὲ μέθεξιν τοῦνομα μόνον μετέβαλεν· οἱ μὲν γὰρ Πυθαγόρειοι μιμήσει τὰ ὄντα φασὶν εἶναι τῶν ἀριθμῶν, Πλάτων δὲ μετέξει, τοῦνομα μεταβαλὼν. **Alexander of Aphrodisias** in *Met.* 54.23–26 (cited Ascl. in *Met.* 49.25–29) εἰπὼν ἐν οἷς διαφωνοῦσι, νῦν λέγει τὴν αἰτίαν δι' ἣν οὐχ ὁμοίως Πλάτων τοὺς ἀριθμοὺς τῶν ὄντων ἀρχὰς ἔθετο τοῖς Πυθαγορείοις, ἀλλὰ καὶ τούτους ἐχώρισε τῶν αἰσθητῶν καὶ τὰς ιδέας ἄλλας τινὰς οὐσίας τε καὶ φύσεις παρὰ τὰς αἰσθητὰς οὐσίας ἐτίθετο. **Asclepius** in *Met.* 45.16–19 ἐφεξῆς τὴν Πλάτωνος ἐκτίθεται δόξαν καὶ φησιν αὐτὸν τὰ μὲν πολλὰ ἀκολουθεῖν τοῖς Πυθαγορείοις, ἔχει δὲ καὶ ἰδιά τινα ἡ

Πλάτωνος φιλοσοφία παρά τοὺς Ἰταλικούς· λέγει δὲ τὰς ἰδέας. ἰστέον δὲ ὅτι καὶ κείνοι ἔλεγον τὰς ἰδέας, ἀλλὰ ἀριθμοὺς ταῦτα ὑπετίθεντο.

§§2 & 4 *Socrates Plato Aristotle: Philo of Alexandria Leg.* 2.12 πρότερον μὲν ἐν τῇ ἐξαημέρῳ τὰ γένη τῶν παθῶν καὶ τὰς ἰδέας εἰργάζετο, νυνὶ δὲ τὰ εἶδη προσπλάττει. *Alcinous Did.* 4, p. 155.39–41 H. τῶν νοητῶν τὰ μὲν πρῶτα ὑπάρχει, ὡς αἱ ἰδέαι, τὰ δὲ δεύτερα, ὡς τὰ εἶδη τὰ ἐπὶ τῇ ὕλῃ ἀχώριστα ὄντα τῆς ὕλης. *Atticus fr.* 9.1–2.13–19 des Places (verbatim) at Eus. *PE* 15.13.1–2 αὐτῷ κανόνι καὶ κριτῇ τῶν ὑπὲρ αὐτὸν χρησάμενος (sc. Aristotle), ἀπέγνω τινὰς εἶναι ἰδίας φύσεις, οἷας Πλάτων ἔγνω, λήρους δὲ καὶ τερετίσματα (*APo.* 1.22 83a33) καὶ φλυαρίας ἐτόλμυσεν εἰπεῖν τὰ τῶν ὄντων ἀνώτατα. (2) τὸ μὲν οὖν ἄκρον τε καὶ ἔσχατον τῶν Πλάτωνος φιλοσοφημάτων ἐστὶ τὸ περὶ τὴν νοητὴν ταύτην καὶ αἰδίου οὐσίαν τὴν τῶν ἰδεῶν.

§2 *Socrates Plato: Cicero Or.* 10 *has rerum formas appellat* ἰδέας ille non intellegendi solum sed etiam dicendi gravissimus auctor et magister Plato, easque gigni negat et ait semper esse ac ratione et intelligentia contineri, cetera nasci occidere, fluere labi nec diutius esse uno et eodem statu. *Or.* 101 redeoque ad illam Platonis de qua dixeram rei formam et speciem, quam etsi non cernimus tamen animo tenere possumus (cf. Cicero *Luc.* 30, below §5). *Atticus fr.* 9.5.40–43 des Places (verbatim) at Eus. *PE* 15.13.5 τὰ τοῦ θεοῦ νοήματα πρεσβύτερα τῶν πραγμάτων, τὰ τῶν γενομένων παραδείγματα, ἀσώματα καὶ νοητά, κατὰ τὰ αὐτὰ καὶ ὡσαύτως ἔχοντα αἰεί. *Apuleius Plat.* 1.190 *rerumque formas, quas ἰδέας idem vocat.* *Plat.* 1.192 ἰδέας vero, id est formas omnium, simplices et aeternas esse nec corporales tamen; esse autem ex his, quae deus sumpserit, exempla rerum quae sunt eruntve. *Augustine C.D.* 7.28.15–23 Dombart–Kalb (*Varro Ant.Rer.Div.* fr. 206 Cardauns) *hinc etiam Samothracum nobilia mysteria in superiore libro sic interpretatur* (sc. Varro) *each se, quae nec suis nota sunt, scribendo expositurum eisque missurum quasi religiosissime pollicetur. dicit enim se ibi multis indiciis collegisse in simulacris aliud significare caelum, aliud terram, aliud exempla rerum, quas Plato appellat ideas; caelum Iovem, terram Iunonem, ideas Minervam vult intellegi; caelum a quo fiat aliquid, terram de qua fiat, exemplum secundum quod fiat.* *Ver.Rel.* 4 (where he also cites Cic. *Or.* 10 (cf. above §2) *cetera nasci occidere, fluere labi*). (cf. also above on chs. 1.3.20 and 1.7.31.)

§3 *Pythagoras: Aristotle Met.* A.5 985b23–32 οἱ καλούμενοι Πυθαγόρειοι (58B4 DK) τῶν μαθημάτων ἀψάμενοι πρῶτοι ταῦτά τε προήγαγον, καὶ ἐντραφέντες ἐν αὐτοῖς τὰς τούτων ἀρχὰς τῶν ὄντων ἀρχὰς ᾧήθησαν εἶναι πάντων. ἐπεὶ δὲ τούτων οἱ ἀριθμοὶ φύσει πρῶτοι, ἐν δὲ τούτοις ἐδόκουν θεωρεῖν ὁμοιώματα πολλὰ τοῖς οὐσι καὶ γιγνομένοις, ... ἔτι δὲ τῶν ἀρμονιῶν ἐν ἀριθμοῖς ὁρῶντες τὰ πάθη καὶ τοὺς λόγους κτλ. *Met.* A.8 1073a18–19 ἀριθμοὺς γὰρ λέγουσι τὰς ἰδέας οἱ λέγοντες ἰδέας. *Met.* N.3 1090a20–26 οἱ δὲ Πυθαγόρειοι (cf. ad 58B22 DK) διὰ τὸ ὅρᾶν πολλὰ τῶν ἀριθμῶν πάθη ὑπάρχοντα (ἐν) τοῖς αἰσθητοῖς σώμασιν, εἶναι μὲν ἀριθμοὺς ἐποίησαν τὰ ὄντα, οὐ χωριστοὺς δέ, ἀλλ' ἐξ ἀριθμῶν τὰ ὄντα. διὰ τί δέ; ὅτι τὰ πάθη τὰ τῶν ἀριθμῶν ἐν ἀρμονίᾳ ὑπάρχει καὶ ἐν τῷ οὐρανῷ καὶ ἐν πολλοῖς ἄλλοις. *Clement of Alexandria Strom.* 5.3.16.3 ἡ δὲ ἰδέα ἐννόημα τοῦ θεοῦ, ὅπερ οἱ βάρβαροι λόγον εἰρήκασιν τοῦ θεοῦ.

§4 Aristotle: Aristotle *Phys.* 4.3 210a21 ὅλως τὸ εἶδος ἐν τῇ ὕλῃ. *Met.* H.7 1032b1–2 εἶδος δὲ λέγω τὸ τί ἦν εἶναι ἐκάστου καὶ τὴν πρώτην οὐσίαν. *Met.* H.11 1037a29–30 ἡ γὰρ οὐσία ἐστὶ τὸ εἶδος τὸ ἐνόν, ἐξ οὗ καὶ τῆς ὕλης ἡ σύνολος λέγεται οὐσία. **Syrianus** in *Met.* 105.30–32 οὐ μὴν οὔτε ὁ ὁριστικός λόγος οὔτε τὸ ἐνυλον εἶδος καὶ τὸ ὁριστόν ἐστιν ἡ ἰδέα, ὡς ἐν τούτοις καὶ ἐν ἄλλοις ὁ Ἀριστοτέλης φησὶν οἰηθῆναι τὸν Σωκράτην.

§5 Stoic successors of Zeno: Plato *Parm.* 132b ‘ἀλλά, φάναι, ὦ Παρμενίδη, τὸν Σωκράτη, ‘μὴ τῶν εἰδῶν ἕκαστον ἢ τούτων νόημα, καὶ οὐδαμοῦ αὐτῷ προσήκη ἐγγίγνεσθαι ἄλλοθι ἢ ἐν ψυχαίς’. differently Aristotle *de An.* 3.4 429a27–29 καὶ εὖ δὴ οἱ λέγοντες τὴν ψυχὴν εἶναι τόπον εἰδῶν, πλὴν ὅτι οὔτε ὅλη ἄλλ’ ἡ νοητικὴ, οὔτε ἐντελεχεῖα ἄλλὰ δυνάμει τὰ εἶδη. **Cicero** *Varr.* 30 *mentem volebant rerum esse iudicem; solam censebant idoneam cui crederetur, quia sola cerneret id quod semper esset simplex et unius modi et tale quale esse. hanc illi ιδέαn appellabant, iam a Platone ita nominatam, nos recte speciem possumus dicere* (cf. *Or.* 10 et 101, above §2). **Cicero** *Or.* 9.3 *nec vero ille artifex cum faceret Iovis formam aut Minervae, contemplabatur aliquem e quo similitudinem duceret, sed ipsius in mente insidebat species pulchritudinis eximia quaedam, quam intuens in ea-que defixus ad illius similitudinem artem et manum dirigebat.* **Plutarch** *Is. Osir.* 374F τὸν τε νοῦν ἐνιοι (Arist. *de An.* 3.4 429a27) τόπον εἰδῶν ἀπεφάνησαντο καὶ τῶν νοητῶν οἶον ἐκμαγεῖον. **Alexander of Aphrodisias** *de An.* 85.5–10 διὸ καὶ οὐκ ἀλόγως τινὲς ἀπὸ τῆς τοῦ νοῦ δυνάμεως κινούμενοι τόπον εἰδῶν τὴν ψυχὴν (Arist. *de An.* 3.4 429a27–28) εἶπον εἶναι, ὃ τῷ κυριωτάτῳ τῆς ψυχῆς ὑπάρχει, τοῦτ’ ἐπὶ πάσαν αὐτὴν μεταφέροντες. τόπος δ’ ἂν εἴη τῶν εἰδῶν οὐ κατ’ ἐνέργειαν (οὐδὲν γὰρ κατὰ τὴν αὐτοῦ φύσιν τῶν εἰδῶν ἔχων ἐδείχθη), ἀλλ’ ὡς δυνάμενος αὐτὰ λαμβάνειν τόπος αὐτῶν ἂν εἴη δυνάμει κατὰ τοῦτο. **Themistius** in *de An.* 95.5–9 εὖ δὴ οἱ λέγοντες τὴν ψυχὴν τόπον εἶναι εἰδῶν, εἰ καὶ τῷ ὀνόματι καταχρῶνται τοῦ τόπου· πλὴν ὅτι οὔτε ὅλη ἡ ψυχὴ, ἀλλὰ αἱ δύο μόναι δυνάμεις καθ’ ἣν τε νοοῦμεν καθ’ ἣν τε αἰσθανόμεθα, οὔθ’ οὔτω τόπος ὡς περιέχειν, ἀλλ’ ὡς γίνεσθαι πως ἃ νοεῖ καὶ ὧν αἰσθάνεται. **Ammonius** in *Isag.* 40.6–10 ὁ τοίνυν Ἀντισθένης (fr. VA 149 Giannantoni, 149A Prince) ἔλεγε τὰ γένη καὶ τὰ εἶδη ἐν ψιλαῖς ἐπινοαῖς εἶναι λέγων ὅτι ‘ἵππον μὲν ὁρῶ, ἵππότητα δὲ οὐχ ὁρῶ’ καὶ πάλιν ‘ἄνθρωπον μὲν ὁρῶ, ἀνθρωπότητα δὲ οὐχ ὁρῶ’. ταῦτα ἐκεῖνος ἔλεγε τῇ αἰσθήσει μόνῃ ζῶν καὶ μὴ δυνάμενος τῷ λόγῳ εἰς μείζονα εὗρεσιν ἑαυτὸν ἀνενεργεῖν. **Simplicius** in *Cat.* 105.7–9 (*SVF* 2.278) ἄξιον δὲ ζητεῖν κατὰ τοὺς ὑπόστασιν διδόντας τοῖς εἶδεσιν καὶ γένεσιν εἰ ῥηθήσεται τάδε εἶναι· καὶ γὰρ καὶ Χρύσιππος (*SVF* 2.278) ἀπορεῖ περὶ τῆς ἰδέας, εἰ τόδε τι ῥηθήσεται (κτλ). **Philoponus** in *de An.* 165.24–27 (Xenocrates fr. 65 Heinze, F 117 Isnardi Parente²) ἀριθμοὺς δὲ τὰ εἶδη ἐκάλουν, ὡς εἴρηται· καὶ αὐτὸς (sc. Aristotle *de An.* 3.4 429a27–28) γοῦν ἐν τοῖς ἐξῆς φησιν ‘καὶ εὖ δὴ οἱ λέγοντες τὴν ψυχὴν τόπον εἰδῶν’. ἀριθμὸν μὲν οὖν διὰ τοῦτο, κινουντα δὲ αὐτὸν διὰ τὸ αὐτοζῶν αὐτῆς.

Liber 1 Caput 11

- P^B** : ps.Plutarchus *Plac.* 882E–F; p. 309^a11–310^a7 Diels—**P^Q** : Qustā ibn Lūqā pp. 124–125 Daiber—**P^s** : Psellus *Omn.Doctr.* 87, p. 52 Westerink (titulus solus)
- S**: Stobaeus *Ecl.* 1.13.1a, p. 137.7–13 + 1.13.1b, p. 138.6–12, + 1.11.1d, p. 139.10–14 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b1 Henry (titulus solus)
- Cf. Ach.: Achilles c. 14, p. 22.4 Di Maria; G: ps.Galenus *HPh* c. 19, p. 611.5, 7–8 Diels

Titulus 1α'. Περί αἰτίων (P,S)

- §1 αἴτιον ἐστὶ δι' ὃ τὸ ἀποτέλεσμα ἢ δι' ὃ συμβαίνει τι· ἀρκεῖ γὰρ ὑπογραφικῶς. (P1,S1)
- §2 Πλάτων τριχῶς τὸ αἴτιον· φησὶ γὰρ ὑφ' οὗ ἐξ οὗ πρὸς ὅ· κυριώτερον δ' ἡγείται τὸ ὑφ' οὗ τοῦτο δ' ἦν τὸ ποιοῦν, ὃ ἐστὶ νοῦς. (P2,S2) 5
- §3 Πυθαγόρας Ἀριστοτέλης τὰ μὲν πρῶτα αἴτια ἀσώματα, τὰ δὲ κατὰ μετοχὴν ἢ κατὰ συμβεβηκὸς τῆς σωματικῆς ὑποστάσεως· ὥστ' εἶναι τὸν κόσμον σῶμα. (P3,S3)
- §4 οἱ Περιπατητικοὶ τῶν αἰτίων εἶναι τὰ μὲν αἰσθητά, τὰ δὲ νοητά. (S6)
- §5 οἱ Στωικοὶ πάντα τὰ αἴτια σωματικά· πνεύματα γάρ. (P4) 10
- §6 Θαλῆς καὶ οἱ ἐφεξῆς τὸ πρῶτον αἴτιον ἀκίνητον ἀπεφώνησαντο. (S4)
- §7 οἱ Στωικοὶ τὸ πρῶτον αἴτιον ὥρισαντο κινήτον. (S5)

§1—; §2 Plato cf. *Tim.* 28a–29a, 46c–e, 50c–d; §3 Pythagoras —; Aristoteles cf. *Met.* A.4, A.7; §4 Peripatetici —; §5 Stoici *SVF* 2.340; §6 Thales fr. 347 Wöhrle; §7 Stoici *SVF* 2.338

§1 [2] δι' ὃ S : om. P^{BQ} || ἢ om. P^Q || [2–3] ἀρκεῖ γὰρ ὑπογραφικῶς S : om. P^{BQ} §2 [4] φησὶ γὰρ P^{BQ}(ut vid.) : om. S || [5] τοῦτο τὸ P^{B(III)} || ὃ ἐστὶ νοῦς P, sed fort. glossema : non hab. S §3 [6] Ἀριστοτέλης post Πυθαγόρας P^{BQ} : om. S qui pro nomine Arist. ap. §3 substituit *Ecl.* 1.13.1b ex AD || κατὰ om. P^{B(II)} || [7–8] ὥστ' ... σῶμα P^{BQ} : εἶναι S §5 [10] πνεύματα] πνευματικά susp. Diels

Testes secundi:

Achilles *Univ.* c. 14, p. 22.4 (*SVF* 2.368) ἔστι δὲ ἕξις πνεύμα σώματος συνεκτικόν (~ §5).

ps.Galenus *HPh* c. 19, *DG* p. 611.5 ἀρχὴν δὲ καὶ αἰτίαν τινὲς μὲν ᾤθησαν μὴδὲν ἀλλήλων διαφέρειν. p. 611.7–8 τὸ δὲ ἐν ἐκάστῳ πρῶτον εἶναι δοκοῦν τὸ αἴτιον ἡγήσαντο καθεστάναι, δι' ὃ γίγνεται τὰ ἀποτελέσματα (~ P1).

Loci Aetiani:

quaestio A 1.5.4 Μητροδώρος ὁ καθηγητὴς Ἐπικούρου φησὶν ἄτοπον εἶναι ἐν μεγάλῳ πεδίῳ ἓνα στάχυν γεννηθῆναι καὶ ἓνα κόσμον ἐν τῷ ἀπειρῷ. ὅτι δὲ ἄπειροι κατὰ τὸ πλῆθος, δηλὸν ἐκ τοῦ ἄπειρα τὰ αἷτια εἶναι. εἰ γὰρ ὁ κόσμος πεπερασμένος, τὰ δ' αἷτια πάντα ἄπειρα, ἐξ ὧν ὅδε ὁ κόσμος γέγονεν, ἀνάγκη ἀπείρους εἶναι· ὅπου γὰρ τὰ αἷτια ἄπειρα, ἐκεῖ καὶ ἀποτελέσματα. αἷτια δὲ ἦτοι αἱ ἄτομοι ἢ τὰ στοιχεῖα. A 3.4.4 Ξενοφάνης ἀπὸ τῆς τοῦ ἡλίου θερμότητος ὡς (προκατ)αρκτικῆς αἰτίας τὰν τοῖς μεταρσίοις συμβαίνειν. A 5.30.1b Ἡρόφιλος τὰς νόσους συμπιπτειν ὡς μὲν ὑφ' οὗ ὑπερβολῇ θερμότητος ἢ ψυχρότητος· ὡς δ' ἐξ οὗ διὰ πλῆθος τροφῆς ἢ ἔνδειαν· ὡς δ' ἐν οἷς ἢ αἷμα ἢ μυελὸν ἢ ἐγκέφαλον· γίνεσθαι δὲ ποτε καὶ ὑπὸ τῶν ἔξωθεν αἰτιῶν ...

§1 A 1.9.1 ὕλη ἐστὶ ... A 1.10.1 ιδέα ἐστὶν ... A 1.12.1 σῶμά ἐστι ... ἢ ... ἢ ... A 1.14.1 σχῆμά ἐστιν ... A 1.15.1 χρῶμα ἐστὶ ... A 1.23.1 ... κινήσις ἐστὶ διαφορὰ τις ἢ ἐτερότης ἐν ὕλῃ, ἢ ἔστιν ὕλη. οὗτος πάσης κινήσεως κοινὸς ὅρος. A 2.32.1 ἐνιαυτὸς ἐστὶ ... A 3.1.1 (γαλαξίος) κύκλος ἐστὶ ...

§2 A 1.3.19 Πλάτων Ἀρίστωνος τρεῖς ἀρχάς, τὸν θεόν, τὴν ὕλην, τὴν ιδέαν· ὑφ' οὗ, ἐξ οὗ, πρὸς ὅ. A 1.29.1 Πλάτων τὴν τύχην ἀπεφαίνετο αἰτίαν ἐν ἀπροαιρέτοις κατὰ συμβεβηκὸς καὶ παρακολούθημα καὶ σύμπτωμα καὶ προαιρέσεως κατὰ τὴν πρὸς τὸ τέλος πρόθεσιν ἐναλλακτικὴν σχέσιν.

§3 A 1.2.1 οἱ μὲν οὖν περὶ Ἀριστοτέλην καὶ Πλάτωνα διαφέρειν ἡγούνται ἀρχὴν καὶ στοιχεῖα. A 1.3.7 Πυθαγόρας ... σπεύδει δ' αὐτῷ τῶν ἀρχῶν ἢ μὲν ἐπὶ τὸ ποιητικὸν αἷτιον καὶ εἰδικόν, ὅπερ ἐστὶ νοῦς ὁ θεός, ἢ δ' ἐπὶ τὸ παθητικόν τε καὶ ὕλικόν, ὅπερ ἐστὶν ὁ ὁρατὸς κόσμος. 1.7.18 Πυθαγόρας τῶν ἀρχῶν τὴν μὲν μονάδα θεὸν καὶ τὰγαθόν, ἣτις ἐστὶν ἡ τοῦ ἐνὸς φύσις, αὐτὸς ὁ νοῦς· τὴν δ' ἀόριστον δυάδα δαίμονα καὶ τὸ κακόν, περὶ ἣν ἐστὶ τὸ ὕλικόν πλῆθος· ἔστι δὲ καὶ ὁρατὸς ὁ κόσμος. A 1.7.32 Ἀριστοτέλης τὸν μὲν ἀνωτάτω θεὸν εἶδος χωριστὸν ... ἐκάστην οἶεται τῶν σφαιρῶν ζῶον εἶναι σύνθετον ἐκ σώματος καὶ ψυχῆς, ὧν τὸ μὲν σῶμά ἐστιν αἰθέριον κινούμενον κυκλοφορικῶς, ἡ ψυχὴ δὲ λόγος ἀκίνητος αἷτιος τῆς κινήσεως κατ' ἐνέργειαν. A 2.10.1 Πυθαγόρας Πλάτων Ἀριστοτέλης.

§5 A 1.3.22 Ζήνων Μνασέου Κιτιεὺς ἀρχὰς μὲν τὸν θεὸν καὶ τὴν ὕλην, ὧν ὁ μὲν ἐστὶ τοῦ ποιεῖν αἷτιος ἢ δὲ τοῦ πάσχειν. A 1.27.3 οἱ Στωικοὶ ... τὴν δ' εἰμαρμένην συμπλοκὴν αἰτιῶν τεταγμένην. A 1.28.3 Χρύσιππος δύναμιν πνευματικὴν τὴν οὐσίαν τῆς εἰμαρμένης (sc. φησιν εἶναι). A 1.28.4 Στωικοὶ εἰρμόν αἰτιῶν (sc. τὴν οὐσίαν εἰμαρμένης φασιν εἶναι).

§6 A 1.17.1 (S) Θαλῆς καὶ οἱ ἀπ' αὐτοῦ. A 3.9.1 Θαλῆς καὶ οἱ ἀπ' αὐτοῦ.

§7 A 1.28.5 Ποσειδώνιος τρίτην ἀπὸ Διός (sc. τὴν οὐσίαν εἰμαρμένης φησιν εἶναι)· πρῶτον μὲν γὰρ εἶναι τὸν Δία, δεύτερον δὲ τὴν φύσιν, τρίτον δὲ τὴν εἰμαρμένην.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The evidence for the chapter on causes is confined to P and S.

(1) In P and his tradition the chapter is only found in P^B and Q. Both record the same four doxai. Note that P abridges by skipping §4 and omitting the two final paragraphs. The chapter is missing in E, and in G (who offers related information from a shared tradition). Ps again takes over the title only.

(2) S includes most of P's material, but also adds more.

(a) He opens his chapter *Ecl.* 1.13 with the conceptual definition of αἰτίον, which is the first doxa in P; on this definition see further below, section D(d)§1.

(b) He continues with the Platonic doxa (second in P) and, similarly to what he does with ch. 1.9.4, follows it with a quote from the *Timaeus* (28a–b).

(c) The next doxa is the same as the third in P, but has only the name-label Pythagoras while P has Pythagoras (plus) Aristotle. It is followed by another doxa attributed to Aristotle that is not in P. This lemma, printed by Diels as A 1.11.4, most likely derives from AD as suggested by Wachsmuth; see M–R 1.250–251 and 3.323. Also note that it comes immediately before the abstracts on the Stoics from AD at S 1.13.1c. It may have replaced an Aëtian paragraph with name-label Aristotle, whose doxa was epitomized away and whose name-label was added to the previous paragraph, just as happened in P at ch. 1.20.1, or in the opposite direction at ch. 4.4.12–13. But there are grounds for hesitation, and thus for doubting the rejection of attribution to A. Diels *DG* 64 believed that it was the paragraph as formulated in S that was deprived of its doxa, and whose name-label was included in the previous paragraph. The presence of the tell-tale term ἐφησε, characteristic for AD and nowhere found in A, is not sufficient, because S sometimes adds this word to a lemma of A, see e.g. ch. 2.3.9, where the paragraph is extant in both main sources. Decisive in our view, however, is that inclusion of the Aristotle lemma obstructs the reconstruction of the chapter. Preserving it entails acceptance of an unusually chaotic sequence of lemmata; this, though possible, is not our preference.

(d) The extracts from AD on the Stoics follow, showing typical stylistic features of his method. They give the partly differing views of Zeno, Chrysippus and Posidonius, replacing the Stoic doxa that comes last in P. See Mansfeld (2002a) 64 = M–R 3.410: 'The insertion of a substantial abstract from Arius Didymus on Zeno Chrysippus Posidonius on causes which replaces the Aëtian lemma with the name-label Stoics is more in the nature of an amplification than in that of a correction.'

(e) In S then follow three brief doxai not in P, so he has switched from A to AD and back again to A. The first two brief doxai deal with the 'first cause',

the last one distinguishes between sense-perceptible and noetic causes. S's chapter concludes with a quote from a pseudonymous work attributed to the Pythagorean Ocellus.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The proximate tradition is widely represented by passages in Cicero, Clement of Alexandria, Sextus Empiricus, Arius Didymus and Seneca, all cited at section E(a), to mention only the chief representatives.

(2) *Sources.* The intermediary sources (predecessors of among others Middle Platonist authors) are unknown, but the works of Plato, Aristotle, and some Stoics were of course the ultimate sources, however badly these are represented in the present chapter.

C Chapter Heading

Attested in both P and S, and of the standard umbrella type 'about *x*', περί τοῦ δεῖναι. The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. For chapter headings in general see above, ch. 1.3 Commentary C. The heading of the present chapter covers the categories of quantity and action / passivity, or the question types of 'what is it' and 'how is it' and, of course, 'why is it', and the question type of cause is what the chapter deals with *per se*. The chapter heading is paralleled as a book title for Theophrastus, Strato, Erasistratus, Hegetor the Herophilean, Aristaeus and Galen, and also as an embedded heading.

D Analysis

a Context

(1) Diels *DG* 62 hypothesizes that §§8–9, not paralleled in P, originally were part of a separate chapter Περί τοῦ πρώτου αἰτίου, although there is no evidence in S for this chapter heading. See further section A above, *ad finem*.

(2) We need not dwell on the relation between the concept of cause and material, formal and moving principle in Aristotle, as set out in *Metaphysics* Book A (and as echoed in ch. 1.3 above). Our ch. 1.11 combines well with chs. 1.7, 1.9 and 1.10, because God, matter and idea (see above at ch. 1.9, Commentary D(a)) qua principles are also causes. All three occur or are involved in §2, while matter via the corporeal occurs in §3, via the sensible in §4 and via the corporeal again in §5, and First Causes are at issue in §3 and §§6–7. The next chapter, 1.12 'On bodies', links up well with 1.9 'On Matter' and with the references to the corporeal ingredient in the present chapter.

b Number–Order of Lemmata

(1) P (that is, only P^B plus P^Q) has four, S six lemmata, three of which, §§1(definition)–2(Plato)–3(Pythagoras) are shared with P, and occur in the same order, which therefore must have been that of A.

(2) Rather than assuming that P, using a habitual epitomator's ploy, inserted the name-label Aristotle to §3 to account for the abridging away of this separate lemma, we argue that S abstracted this other lemma from AD and therefore deleted the name-label in the previous lemma.

(3) One of P's lemmata, P₄ on the Stoics, is not paralleled in S because it was replaced by an excerpt from AD (fr. 18 Diels) as well, and three of S's lemmata are not paralleled in P because they are not of *Placita* descent. For reasons put forth below, at section D(c), we have modified the order of these final lemmata in S. And we do not believe that these lemmata (S 4–5–3 are now §§4–6–7) represent an original chapter Περί τοῦ πρώτου αἰτίου, as suggested by Diels *DG* 62 (cf. above section D(a)(1)), not only because they can be very well accommodated in the present chapter, but also because S₅/§4 is diaphonically bound up with P₄/§5.

c Rationale–Structure of Chapter

(1) *The definition of §1.* For the nature of the preliminary definition of the term 'cause' in the first lemma see above, ch. 1.9, Commentary D(c) and (e)(2). Its nominal, that is, not properly definitory nature is explicitly formulated and thereby confirmed in the little added note. The present sentence provides the first of only five occurrences of the adverb ὑπογραφικῶς, paralleled three times in the late Commentators, e.g. Simplicius (Syrianus?) in *de An.* 15.14–15, 'the distinction between the correctly and the so to speak descriptively and superficially formulated definitions'. For the sense of S's expression 'a preliminary definition suffices' (ἀρκεῖ ὑπογραφικῶς) cf. e.g. Aristotle *EN* 2.7 1107b14–15 'we now give a mere outline and summary, and find this sufficient' (νῦν μὲν οὖν τύπω καὶ ἐπὶ κεφαλαίου λέγομεν, ἀρκούμενοι αὐτῷ τούτῳ).

S's phrase is absent in P. M–R 1.223–224 hesitate in attributing this phrase to A. Mansfeld, e.g. (2002a) 29 = M–R 2.378, followed by Bottler (2014) 177, attributes the phrase to S. But we now accept that it does derive from A. Extra words in S (a *verbum declarandi*, or words from the chapter heading, or a name-label) are added when lemmata are quoted out of their original context, which is not the case here. It is too technical to be attributed to S himself (forms of the substantive ὑπογραφή or the verb ὑπογράφειν in this sense occur 11 more times in Book 2 of the *Anthology*, always in texts that have been excerpted, namely Ethical doxography A and the Stoic Ethical doxography B).

(2) *Diaeresis/diaphonia*. The three counts on which the doxai with name-labels differ (diaeresis), or disagree (diaphonia), are (a) the number of causes, category of quantity; (b) the incorporeality *vs.* the corporeality of causes, category of quality; and (c) the mobility *v.* the immobility of the first cause, category of action/passivity. Cf. Mansfeld (2002a) 22–23 = M–R 3.379–381.

(3) *Order according to number*. The numbers form a diaeretically ordered descending series, 3–2–1: according to §2 (Plato) causes are threefold (all three are listed), according to §3 (Pythagoras Aristotle) and §4 (Peripatetics) two, and according to §5 (Stoics) only one. §6 and §7 also mention only one cause. Although a bit unusual, for in the majority of cases ordering according to quantity starts with the lowest number, such a sequence is not unparalleled, see ch. 3.9.2–3, ‘two–one–and–finite’; also compare ch. 4.4.4–6 with Commentary D(c), and ch. 8.1–4 with Commentary D(c), and an early series of principles e.g. at Isocr. *Antid.* 268, discussed above, ch. 1.3 Commentary D(e) *ad init.*, and e.g. M–R 2.1.154–157. The diaphonia between incorporeality *vs.* the corporeality of causes on a gliding scale according to diaeresis is next: §3 (Pythagoras Aristotle) state that first causes are incorporeal and the others participate in or are attributes of the corporeal substructure. (These ‘others’ therefore are not, in themselves, fully corporeal.) Similarly §4, the Peripatetics, whose tenet is expressed in epistemic terms, posit that some causes are sensible (i.e. are corporeal) and others intelligible (i.e. are incorporeal). But the Stoics in §5 posit that causes are corporeal. The Peripatetic doxa of §4 belongs with the doxai of §5 and §3 both from the point of view of the opposition between the corporeal and the incorporeal and of the duality of causes, and clearly not in the final position, as in S, who presumably first skipped but then decided to preserve it. Finally there is the diaphonia of the two final lemmata, Thales and his followers (§6) holding that the first cause is unmoved and the Stoics (§7) that it is moved. These two doxai *ad finem* link up with the final clause of §2: ‘Plato ... most properly (regards) the ‘by which’ (as the cause). This is the agent, which is the Intellect’, thus lending the character of a ring composition to the chapter as an extra feature. And they are also linked to the ‘first causes’ (plural) of §3, for which see below, section D(d) further detailed comments at this paragraph.

(4) The order, with Pythagoras after Plato and Thales in penultimate position (his ‘followers’ make this a little bit less obvious), is of course not chronological but systematic and due to the variety of oppositions. And the Stoics occur in two lemmata with different doxai; for this feature cf. e.g. Stoics at ch. 1.9.2 and 1.9.8, Xenophanes at ch. 2.20.2 and 2.20.5, and Parmenides at ch. 2.20.3 and 2.20.15.

d Further Comments

General Points

For chance (τύχη) as cause (αἰτία) see below, ch. 1.29.

Individual Points

§1 The preliminary definition combines words that became, or had become, Stoic technical terms (δι' ὅ, ἀποτέλεσμα, συμβαίνει, τι *ad finem*). But note that δι' ὅ is a quite common formula, occurring for instance thirteen times in the *Corpus Platonikum* and twenty times in the *Corpus Aristotelicum*, in various causal or other meanings, and that συμβαίνει too is a quite common term. Even so, the emphasis on cause qua *una causa id quod facit* (to use the vocabulary of Seneca *Ep.* 65.4) shows a liking for the Stoically inspired preference for the moving cause, which is said to be the chief one also in §2.

§2 Aristotle, who alludes to the *agrapha dogmata* at *Met.* A.6 987b21–22 but who may quite well be thinking of the *Timaeus* as well, attributes two principles/causes to Plato in this chapter of *Metaphysics*, viz. the formal and the material. Theophrastus, who refers to Plato's philosophy of nature, i.e. the *Timaeus*, also attributes two principles/causes, viz. the material and the efficient/final (*Phys.Op.* fr. 9 Diels, 230 FHS&G). By combining these items and reducing the material cause occurring both times to a single occurrence one gets the three types of cause of the present lemma (someone must have practised retrograde contamination). The prepositional formulas are later (cf. Philo *Cher.* 125, Runia 1986, 171–173) but may be Peripatetic too, for the relevant combination of ὑφ' οὗ with ἐξ οὗ is occasionally found in Aristotle. The term τὸ ποιῶν for the moving cause can already be paralleled in Aristotle (*Phys.* 2.3 195a22, *GC* 2.9 335b27, *Met.* B.2 1013b24) and Theophrastus (*Phys.Op.* fr. 4 Diels = 228A FHS&G; *Phys.Op.* fr. 6 Diels = 227C FHS&G, verbatim). The primary importance of the moving cause, though anticipated in a fragment of Theophrastus, is in the first place a Hellenistic feature that makes 'Plato' more up to date, while expressions such as τὴν κυριωτέραν αἰτίαν/αἰ κυριώταται αἰτίαι are already paralleled in Aristotle (*GC* 2.9 335b34–35) and Epicurus (at D.L. 10.79). For the triad see further references at Mansfeld (2002a) 30–34, repr. M–R 3.385–389, and above ch. 1.3.20 where they are not called causes but principles, with comments at ch. 1.3 Commentary D(d)§20.

The final words in P ὅ ἐστι νοῦς, explaining τὸ ποιῶν, could be a gloss. They are not found in S. Cf. 1.13.1 with Commentary D(d)§1, and esp. 5.14.1 (with Commentary D(d)§1), where ὅ ἐστι σπέρματος and ὅ ἐστι ἀναστομοῦσθαι in P^B are not found in P^{GQ} and are not printed in the text by Diels. But they make good sense in the context of the present chapter and are also found in P^Q, so this time may be given the benefit of the doubt (exclusion should not be a matter of routine).

For such schoolmasterly addenda cf. immediately below at §3. See also ch. 3.5a.1 (formerly 3.18), where the explanatory phrase $\delta\varsigma\ \kappa\acute{\upsilon}\kappa\lambda\omicron\varsigma\ \phi\alpha\iota\upsilon\omicron\mu\epsilon\upsilon\omicron\varsigma\ \acute{\alpha}\lambda\omega\varsigma\ \kappa\alpha\lambda\epsilon\acute{\iota}\tau\alpha\iota$, $\delta\tau\iota\ \acute{\epsilon}\sigma\tau\iota\nu\ \acute{\alpha}\lambda\omega\ \pi\rho\omicron\sigma\epsilon\omicron\iota\kappa\acute{\omega}\varsigma$, is wrongly bracketed by Diels: it is neatly paralleled in the same context at Seneca *Nat.* 1.2.3 *ob hoc tales splendores Graeci 'areas' vocaverunt, quia fere terendis frugibus destinata loca rotunda sunt*.

§3 Presumably the incorporeal causes of Pythagoras are the One and the Dyad and of Aristotle the Unmoved Movers, see the parallels from chs. 1.3.7 plus 1.7.18 and 1.7.32 quoted at *Loci Aetiani* §3, where the material principles are also mentioned. The other causes of Pythagoras will be the numbers and harmonies and geometricals of ch. 1.10.3, of Aristotle the forms in matter of ch. 1.10.4. Also compare the distinction between principles and elements of ch. 1.2.

The final consecutive clause is not present in S. According to Diels ad loc. it has been added by P (cf. *DG* 65: 'inepta additamenta'). Cf. ch. 1.7.18, the words $\acute{\epsilon}\sigma\tau\iota\ \delta\acute{\epsilon}\ \kappa\alpha\acute{\iota}\ \acute{\omicron}\rho\alpha\tau\acute{\omicron}\varsigma\ \acute{\omicron}\ \kappa\acute{\omicron}\sigma\mu\omicron\varsigma$ at the end of the lemma (in P not S and banished to the apparatus by Diels, who refers to ch. 1.11.3), and the added explanation at 2.1.7 (in P not S, bracketed by Diels), $\acute{\omega}\sigma\tau\epsilon\ \{\omicron\upsilon\}\ \tau\acute{\omicron}\ \alpha\upsilon\tau\acute{\omicron}\ \acute{\epsilon}\iota\upsilon\alpha\iota\ \tau\acute{\omicron}\ \acute{\omicron}\lambda\omicron\nu\ \kappa\alpha\acute{\iota}\ \tau\acute{\omicron}\nu\ \kappa\acute{\omicron}\sigma\mu\omicron\nu$. But such schoolmasterly clauses appear to be part of A's style; cf. immediately above at §2, and chs. 1.27.4, 2.1.8, 2.24.3, 4.8.2. In addition it makes a significant philosophical point: the cosmos would not be produced as an effect in the form of a body if qualities resulting from 'participation' or 'attribution' were not present in matter. So the clause should be retained.

For the combination of prepositional phrases cf. A 5.30.1b, quoted above at *Loci Aetiani*.

§5 *pneuma* elsewhere functions as a cohesive cause ($\alpha\iota\tau\acute{\iota}\alpha\ \sigma\upsilon\nu\epsilon\kappa\tau\iota\kappa\acute{\eta}$, cf. Galen in *Aph.* 18a.128.18–20 K.), analogous to the formal cause of Aristotelian philosophy. For causation in relation to fate according to the Stoics see below, chs. 1.27.3 and 1.28.4, with parallels and Commentary ad loc.

§§6–7 Presumably the immobility of Aristotle's First Mover(s) is also attributed to the Succession beginning with Thales. The notion and doxa have been certainly stretched in order to achieve a strong diaphonia with the moving and flexible God of the Stoics. Cf. Goldschmidt (1953) 93: the Stoic doxa 'paraît si surprenante à un ancien historien de la philosophie [sc. A], qu'il l'oppose à tous les systèmes précédents'.

e Other Evidence

(1) The finer distinctions between the various kinds of causes according to the Stoics (see section E(a)§5 and section E(b)§5) are regrettably absent here, while for example even ps.Galen *HPh* c. 19 summarily lists them. Perhaps they were left out because the subject is so very complicated.

(2) Alcinous, whose order is matter–idea–God, has no separate chapter on causes. In *Did.* 9 (i.e. in the chapter on the idea, and in this chapter of the treatise alone) we encounter the somewhat looser prepositional formulas ἐκ τίνος pertaining to matter, ὑπό τίνος pertaining to the Demiurge, and πρὸς τι (or πρὸς ὅ) pertaining to the idea, see at section E(b) General texts. So he treats the causes in an inclusive way in relation to the idea qua bound up with matter and the divinity.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *Top.* 58–59 *causarum enim genera duo sunt; unum, quod vi sua id quod sub eam vim subiectum est certe efficit, ut: ignis accendit; alterum, quod naturam efficiendi non habet sed sine quo effici non possit, ut si quis aes statuæ causam velit dicere, quod sine eo non possit effici.* (59) *huius generis causarum, sine quo non efficitur, alia sunt quæta, nihil agentia, stolidæ quodam modo, ut locus, tempus, materia, ferramenta, cetera generis eiusdem; alia autem præcursionem quandam adhibent ad efficiendum et quædam afferunt per se adiuvantia, etsi non necessaria, ut: amor congressio causam attulerat, amor flagitio. ex hoc genere causarum ex æternitate pendentium fatum a Stoicis (—) nectitur.* *Fat.* 36 *interesse autem aiunt, utrum eius modi quid sit, sine quo effici aliquid non possit, an eius modi, cum quo effici aliquid necesse sit. nulla igitur earum est causa, quoniam nulla eam rem sua vi efficit, {in} cuius causa dicitur. nec id, sine quo quippiam non fit, causa est, sed id, quod cum accessit, id, cuius est causa, efficit necessario.* **Clement of Alexandria** *Strom.* 8.9.25.5–26.1 (on Stoics, *SVF* 2.344–345) αἴτιον δὲ κυρίως λέγεται τὸ παρεκτικὸν τίνος ἐνεργητικῶς, ἐπεὶ καὶ τὸν σιδηρὸν τμητικὸν φαμεν εἶναι οὐ μόνον ἐν τῷ τέμνειν, ἀλλὰ καὶ ἐν τῷ μὴ τέμνειν· οὕτως οὖν καὶ τὸ παρεκτικὸν ἄμφω σημαίνει καὶ τὸ ἤδη ἐνεργοῦν καὶ τὸ μηδέπω μὲν, δυνάμει δὲ κεχρημένον τοῦ ἐνεργῆσαι. (26) οἱ μὲν οὖν σώματων, οἱ δ' ἄσωμάτων φασιν εἶναι τὰ αἴτια. οἱ δὲ τὸ μὲν σῶμα κυρίως αἰτιὸν φασι, τὸ δὲ ἄσώματον καταχρηστικῶς καὶ οἷον αἰτιωδῶς· ἄλλοι δ' ἔμπαλιν ἀναστρέφουσι, τὰ μὲν ἄσώματα κυρίως αἴτια λέγοντες, καταχρηστικῶς δὲ τὰ σώματα. **Sextus Empiricus** *P.* 3.14 δόξα δ' ἂν αἴτιον εἶναι κοινότερον κατ' αὐτοὺς (—) δι' ὃ ἐνεργοῦν γίνεται τὸ ἀποτελεσμα, οἷον ὡς ὁ ἥλιος ἡ ἢ τοῦ ἡλίου θερμότης τοῦ χεῖσθαι τὸν κηρὸν ἢ τῆς χύσεως τοῦ κηροῦ. **Eusebius** *PE* 15.14.1 (**Aristocles** fr. 3 **Chiesara**) στοιχεῖον εἶναι φασι (*SVF* 1.98) τῶν ὄντων τὸ πῦρ, καθάπερ Ἡράκλειτος (*T* 258 **Mouraviev**), τούτου δ' ἀρχὰς ὕλην καὶ θεόν, ὡς Πλάτων. ἀλλ' οὗτος ἄμφω σώματ' ἀφ' ὧν εἶναι, καὶ τὸ ποιοῦν καὶ τὸ πάσχον, ἐκείνου τὸ πρῶτον ποιοῦν αἴτιον ἄσώματον εἶναι λέγοντος. **ps.Galen** *Def.Med.* 19.392.5–9 **K.** ρνδ. αἰτιὸν ἐστὶν ὃ ποιοῦν τι ἐν τῷ σώματι καὶ αὐτὸ ἄσώματόν ἐστι. ἢ αἰτιὸν ἐστὶν, ὡς οἱ φιλόσοφοι (sc. **Stoici**, —) λέγουσι, τὸ τίνος ποιητικὸν ἢ δι' ὃ τι γίνεται. τριπλοῦν δὲ αἴτιον· ἐστὶ δὲ τὸ μὲν προκαταρκτικόν, τὸ δὲ προηγούμενον, τὸ δὲ συνεκτικόν. *Def.Med.* 19.392.10 **K.** (cf. *SVF* 2.354) ρνε. προκαταρκτικὸν μὲν οὖν ἐστὶν ... **Photius** *Bibl.* cod. 212, p. 170b3–8 (**Aenesidemus** fr. 8B **Polito**) ἐν δὲ τῷ β' κατὰ μέρος ἡδὴ ἀρχόμενος ἐπέξιναι τὰ ἐν κεφαλαίῳ εἰρη-

μένα, περί τε ... καὶ αἰτίων διαλαμβάνει ... καὶ τῶν τούτοις ἐναντίων, κατὰ πάντων αὐτῶν τὸ ἄπορόν τε καὶ ἀκατάληπτον πυκνοῖς, ὥς οἶεται, ἐπιλογισμοῖς ὑποδεικνύς.

Chapter heading: —

§2 Plato: Philo of Alexandria *Cher.* 125–127 πρὸς γὰρ τὴν τινος γένεσιν πολλὰ δεῖ συνελθεῖν, τὸ ὕφ' οὗ, τὸ ἐξ οὗ, τὸ δι' οὗ, τὸ δι' ὃ· καὶ ἔστι τὸ μὲν ὕφ' οὗ τὸ αἴτιον, ἐξ οὗ δὲ ἡ ὕλη, δι' οὗ δὲ τὸ ἐργαλεῖον, δι' ὃ δὲ ἡ αἰτία. ... (127) εὐρήσεις γὰρ αἴτιον μὲν αὐτοῦ (sc. τοῦ κόσμου) τὸν θεὸν ὕφ' οὗ γέγονεν, ὕλην δὲ τὰ τέσσαρα στοιχεῖα ἐξ ὧν συνεκράθη, ὄργανον δὲ λόγον θεοῦ δι' οὗ κατασκευάσθη, τῆς δὲ κατασκευῆς αἰτίαν τὴν ἀγαθότητα τοῦ δημιουργοῦ. **Diogenes Laertius** *V.P.* 3.69 δύο δὲ τῶν πάντων ἀπέφηνεν ἀρχάς, θεὸν καὶ ὕλην, ὃν καὶ νοῦν προσαγορεύει καὶ αἴτιον. εἶναι δὲ τὴν ὕλην ἀσχημάτιστον καὶ ἄπειρον, ἐξ ἧς γίνεσθαι τὰ συγκρίματα. ἀτάκτως δὲ ποτε αὐτὴν κινουμένην ὑπὸ τοῦ θεοῦ φησιν εἰς ἓνα συναχθῆναι τόπον τάξιν ἀταξίας κρείττονα ἡγησάμενον. **Eusebius** *PE* 15.14.1 (**Aristocles** fr. 3 **Chiesara** on Stoics, *SVF* 1.98) ἐκείνου (sc. Πλάτων) τὸ πρῶτον ποιοῦν αἴτιον ἀσώματον εἶναι λέγοντος. **Proclus** in *Tim.* 1.456.17–19 (**Theophrastus** *Phys.Op.* fr. 20 **Diels**, 242 **FHS&G**) 'ἢ γὰρ μόνος ἢ μάλιστα Πλάτων τῇ ἀπὸ τοῦ προνοοῦντος αἰτίᾳ κατεχρήσατο' φησὶν ὁ Θεόφραστος τοῦτό γε καλῶς αὐτῷ μαρτυρῶν.

§4 Aristotle: differently Seneca *Ep.* 65.4 **Aristoteles** *putat causam tribus modis dici: 'prima' inquit 'causa est ipsa materia, sine qua nihil potest effici; secunda opifex; tertia est forma, quae unicuique operi inponitur tamquam statuae'.* **Stobaeus** *Ecl.* 1.13.1b, p. 138.9–12 (**A** 1.11.4 **Diels**, 'fort. rectius ad Didymum referas' **Wachsmuth**) Ἀριστοτέλης ἔφησε δηλοῦν ἕκαστον χρώμενον σχήμασι τῆς ἐρμηνείας τοιοῦτοις, τό τε ἐξ οὗ λέγοντα (τὴν ὕλην), καὶ τὸ ὕφ' οὗ τὸ ποιοῦν, τὸ δὲ καθ' ὃ τὸ εἶδος, τὸ δὲ δι' ὃ τὸ τέλος.

§5 Peripatetics: Arius Didymus fr. 18 **Diels** at **Stob.** *Ecl.* 1.13.1c, pp. 138.14–139.9 **Wachsmuth** αἴτιον δ' ὁ Ζήνων (*SVF* 1.89) φησὶν εἶναι δι' ὃ, οὗ δ' αἴτιον συμβεβηκός· καὶ τὸ μὲν αἴτιον σῶμα, οὗ δ' αἴτιον κατηγορήμα· ἀδύνατον δ' εἶναι τὸ μὲν αἴτιον παρεῖναι, οὗ δὲ ἐστὶν αἴτιον μὴ ὑπάρχειν. τὸ δὲ λεγόμενον τοιαύτην ἔχει δύναμιν· αἰτίον ἐστὶ δι' ὃ γίνεταί τι, οἷον διὰ τὴν φρόνησιν γίνεται τὸ φρονεῖν καὶ διὰ τὴν ψυχὴν γίνεται τὸ ζῆν καὶ διὰ τὴν σωφροσύνην γίνεται τὸ σωφρονεῖν. ἀδύνατον γὰρ εἶναι σωφροσύνης περί τινα οὐσης μὴ σωφρονεῖν ἢ ψυχῆς μὴ ζῆν ἢ φρονήσεως μὴ φρονεῖν. Χρύσιππος (*SVF* 2.336) αἴτιον εἶναι λέγει δι' ὃ. καὶ τὸ μὲν αἴτιον ὃν καὶ σῶμα, (οὗ δὲ αἴτιον μήτε ὃν, μήτε σῶμα) [add. **Wachsmuth** prob. ab **Arnim** alii, (οὗ δὲ αἴτιον μὴ ὃν καὶ κατηγορήμα) add. **Bobzien** (1999) 198 n. 2] καὶ αἴτιον μὲν ὅτι [{αἴτιον μὲν} ὃ τι **Heeren** probat **Diels**, αἴτιον (δι') ὅτι **Sandbach** prob. **Kidd** (1972) 101], οὗ δὲ αἴτιον διὰ τι [τί **Long & Sedley** (1987) 2.333, {διὰ} τι **Mansfeld** (2001) 104]. αἰτίαν δ' εἶναι λόγον αἰτίου ἢ λόγον τὸν περὶ τοῦ αἰτίου ὡς αἰτίου. Ποσειδώνιος (**F** 95 **E.-K.**, 269 **Theiler**) δὲ οὕτως· αἴτιον δ' ἐστὶ τινος, δι' ὃ ἐκείνο, ἢ τὸ πρῶτον ποιοῦν ἢ τὸ ἀρχηγὸν ποιήσεως· καὶ τὸ μὲν αἴτιον ὃν καὶ σῶμα, οὗ δ' αἴτιον οὕτε ὃν οὕτε σῶμα, ἀλλὰ συμβεβηκός καὶ κατηγορήμα. **Sextus Empiricus** *M.* 9.211 εἴγε (οἱ) Στωικοὶ (*SVF* 2.341) μὲν πᾶν αἴτιον σῶμα φασι. **Clement of Alexandria** *Strom.* 8.9.25.1 (on Stoics, *SVF* 2.351) τῶν αἰτίων τὰ μὲν προκαταρκτικά, τὰ δὲ συνεκτικά κτλ. *Strom.* 8.9.33.1 συνεκτικὸν δὲ ἐστὶν αἴτιον, οὗ παρόντος μένει τὸ ἀποτέλεσμα καὶ αἰρομένου αἴρεται. **ps.Galen** *Intr.* 8.3, 14.691.17–18 **K.** συνεκτι-

κόν δὲ αἰτίον ἐστίν, οὗ παρόντος πάρεστι καὶ τὸ νόσημα καὶ ἐξαίρουμένου λύεται. **Diogenes Laertius V.P.** 7.158 (SVF 2.766) αἰτίας δὲ τῶν παθῶν ἀπολείπουσι τὰς περὶ τὸ πνεῦμα τροπὰς. **ps.Galen HPh** c. 19, *DG* p. 611.8–10 αἴτια δὲ ὑπέθεντο (sc. Stoics, *FDS* 767A) τέσσαρα· προκαταρκτικόν, ὃ πεπονηκὸς παραμεμένηκεν, καὶ (συνεκτικόν), οὗ παρόντος τὸ ἀποτέλεσμα πάρεστι καὶ πεπαυμένου παρενήλλακται καὶ αὐξομένου εἰς ἐπίδοσιν πρόεισι καὶ μειομένου ἐλαττοῦται, (τὸ δὲ) συναίτιον ὑπάρχειν ἔφασαν, ὃ τὴν ἴσιν δύναμιν συμβάλλεται πρὸς τὸ ἀποτέλεσμα ὡς ἐπὶ τῶν ἀροτικών βοῶν, συνεργὸν δὲ δοκεῖ τὸ μικρὰν ῥοπὴν πρὸς τὸ ἀποτέλεσμα εἰσάγον ὡς ἐπὶ δυσοῖν δοκὸν ἅμα φερόντων δυσκόλως καὶ ῥᾶον οἰσόντων, εἰ τρίτος ἐπιγίνοιτο συνδιακουφίζων.

§7 **Stoics: Seneca Ep.** 65.2 *Stoici nostri* (SVF 2.303) *duo esse in rerum natura ex quibus omnia fiunt, causam et materiam. materia iacet iners, res ad omnia parata, cessatura si nemo moveat; causa autem, id est ratio, materiam format et quocumque vult versat, ex illa varia opera producit. esse ergo debet unde fiat aliquid, deinde a quo fiat: hoc causa est, illud materia.* *Ep.* 65.4 *Stoicis* (SVF 2.364a) *placet unam causam esse id quod facit.* *Ep.* 65.11–12 *haec quae ab Aristotele et Platone ponitur turba causarum aut nimium multa aut nimium pauca comprehendit. nam si, quocumque remoto quid effici non potest, id causam iudicant esse faciendi, pauca dixerunt. ponant inter causas tempus: nihil sine tempore potest fieri. ponant locum: si non fuerit, ubi fiat aliquid, ne fiet quidem. ponant motum: nihil sine hoc nec fit nec perit. nulla sine motu ars, nulla mutatio est.* (12) *sed nos nunc primam et generalem quaerimus causam. haec simplex esse debet, nam et materia simplex est, quaerimus quae sit causa, ratio scilicet faciens, id est deus.*

b Sources and Other Parallel Texts

General texts: *Galen UP* 6.12, 3.465.4–11 K. ἡμεῖς δ', ὅπως μὴ δόξωμεν ὑπὲρ ὀνομάτων τερβρεύεσθαι, συγχωρήσαντες γένῃ πλείω τῶν αἰτίων ὑπάρχειν, πρῶτον μὲν καὶ μάλιστα, δι' ὃ γίγνεται τι, δεύτερον δ', ὅφ' οὗ γίγνεται, καὶ τρίτον, ἐξ οὗ, καὶ τέταρτον, δι' οὗ, καὶ ἐμππτον, εἰ βούλει, τὸ καθ' ὃ, πρὸς ἕκαστον γένος ἀξιόσωμεν αὐτοὺς ἀποκρίνασθαι περὶ πάντων τοῦ ζώου τῶν μορίων, εἴπερ ὄντως εἰσὶ φυσικοί. **Sextus Empiricus M.** 9.195 τῶν σκεψαμένων περὶ αὐτοῦ οἱ μὲν ἔφασαν εἶναι τί τινος αἰτίον, οἱ δὲ μὴ εἶναι, οἱ δὲ μὴ μᾶλλον εἶναι ἢ μὴ εἶναι. καὶ εἶναι μὲν οἱ πλείστοι τῶν δογματικῶν ἢ πάντες σχεδόν, μὴ εἶναι δὲ οἱ τὴν μεταβλητικὴν καὶ τὴν μεταβατικὴν κίνησιν ἀνελόντες σοφισταί· οὐ χωρὶς γὰρ ταύτης ὑφίσταται τὸ ποιοῦν. μὴ μᾶλλον δὲ εἶναι ἢ μὴ εἶναι τὸ αἰτίον φασιν οἱ ἀπὸ τῆς σκέψεως. *P.* 3.13–14 ὅσον μὲν οὖν ἐπὶ τοῖς λεγομένοις ὑπὸ τῶν δογματικῶν οὐδ' ἂν ἐννοῆσαι τις τὸ αἰτίον δύναιτο, εἴγε πρὸς τῷ διαφώνους καὶ ἀλλοκότους ἐννοίας τοῦ αἰτίου (ἀποδίδοσθαι) ἔτι καὶ τὴν ὑπόστασιν αὐτοῦ πεποιήκασιν ἀνεύρετον διὰ τὴν περὶ αὐτὸ διαφωνίαν. οἱ μὲν γὰρ σώμα, οἱ δὲ ἀσώματον τὸ αἰτίον εἶναι φασιν. δόξα δ' ἂν αἰτίον εἶναι κοινότερον κατ' αὐτοὺς δι' ὃ ἐνεργοῦν γίνεταί τὸ ἀποτέλεσμα, οἷον ὡς ὁ ἥλιος ἢ ἡ τοῦ ἡλίου θερμότης τοῦ χεῖσθαι τὸν κηρὸν ἢ τῆς χύσεως τοῦ κηροῦ. καὶ γὰρ ἐν τούτῳ διαπεφωνήκασιν, οἱ μὲν προσηγχορίων αἰτίον εἶναι τὸ αἰτίον φάσκοντες, οἷον τῆς χύσεως, οἱ δὲ κατηγορημάτων, οἷον τοῦ χεῖσθαι. διό, καθάπερ εἶπον, κοινότερον ἂν εἴη τὸ αἰτίον τοῦτο δι' ὃ ἐνεργοῦν

γίνεται τὸ ἀποτέλεσμα. *Suda* s.v. Φ 862, p. 4.775.28–776.4 Adler φυσικὸς λόγος παρὰ φιλοσόφοις ... ὅτι τρία εἰσὶν ἐν τοῖς φυσικοῖς πράγμασιν, εἶδος, ὕλη καὶ ἡ αἰτία.

Chapter heading: Apollonius of Citium in Artic. 23.19 (Hegetor the Hero-phileian T 3 von Staden) ἐν γὰρ τῷ Περὶ αἰτίων. *Cicero Top.* 65 *toto igitur loco causarum explicato.* *ps.Dioscurides Ther.* pr. 116–120 ὁ Ἑρασίστρατος (—) ... τῇ τε Περὶ αἰτίων γραφῇ. *Galen in Progn.* 18b.171.8–9 K. ὡς ἐν τοῖς Περὶ αἰτίων λόγοις διήρηται. *Aretaeus* Περὶ αἰτίων καὶ σημείων ὀξέων καὶ χρονίων παθῶν. *Sextus Empiricus M.* 7.11 ὁ περὶ αἰτίων τόπος, φασὶν (Cyrenaici fr. IVA 168 Gianantoni), ἐκ τοῦ φυσικοῦ μέρους ἐτύγχανεν. *M.* 9 pinax γ' Περὶ αἰτίου καὶ πάσχοντος. *M.* 9.194 tit. Περὶ αἰτίου καὶ πάσχοντος. *P.* pinax δ' Περὶ αἰτίου. *P.* 3.13 tit. δ' Περὶ αἰτίου. *ps.Alexander Febr.* 20.4.5 Ideler ἀλλὰ πρῶτον περὶ αἰτίων ῥητέον ἐν γένει. *Diogenes Laertius V.P.* 5.49 (Theophrastus fr. 137 no. 9 FHS&G) Περὶ αἰτίων α'. *V.P.* 5.59 (Strato fr. 18 Wehrli, 1 Sharples) no. 35 Περὶ αἰτίων.

§1 Definition: Sextus Empiricus *P.* 3.14 δόξαι δ' ἂν αἴτιον εἶναι κοινότερον κατ' αὐτοὺς (sc. τοὺς δογματικούς) δι' ὃ ἐνεργοῦν γίνεται τὸ ἀποτέλεσμα. *M.* 9.228 εἰ αἴτιόν ἐστιν οὗ παρόντος γίνεται τὸ ἀποτέλεσμα. *Simplicius* (Priscianus?) *in de An.* 15.14–15 ἐφ' οἷς οἶον πόρισμα ἐπάγει πρὸς διάκρισιν τῶν τε ὁρθῶς καὶ τῶν οἶον ὑπογραφικῶς καὶ ἐπιπολαιῶς ἀποδιδωμένων ὁρισμῶν. *in de An.* 97.30–32 ὅτι χρὴ τὸν καλῶς ἔχοντα ὅρον τῆς αἰτίας ἔχεσθαι ὑπομνήσας, καὶ ταύτης ἀκριβῶς, ἀλλ' οὐ τύπῳ τινὶ καὶ ὑπογραφικῶς. *Olympiodorus in Cat.* 43.37–44.1 διότι ὑπογραφικῶς τὴν φύσιν ἐκάστου ἐδήλωσεν.

§2 Plato: Plato Tim. 28a–b (cited Stob. *Ecl.* 1.13.1a) πᾶν δὲ αὐτὸ τὸ γιγνόμενον ὑπ' αἰτίου τινὸς ἐξ ἀνάγκης γίγνεσθαι· παντὶ γὰρ ἀδύνατον χωρὶς αἰτίου γένεσιν σχεῖν. ὅτου μὲν οὖν ἂν ὁ δημιουργὸς πρὸς τὸ κατὰ ταυτὰ ἔχον βλέπων ἀεὶ κτλ. *Tim.* 50c–d ἐν δ' οὖν τῷ παρόντι χρὴ γένη διανοηθῆναι τριττά, τὸ μὲν (d) γιγνόμενον, τὸ δ' ἐν ᾧ γίγνεται, τὸ δ' ὅθεν ἀφομοιούμενον φύεται τὸ γιγνόμενον. καὶ δὴ καὶ προσεικάσαι πρέπει τὸ μὲν δεχόμενον μητρὶ, τὸ δ' ὅθεν πατρὶ, τὴν δὲ μεταξὺ τούτων φύσιν ἐκγόνῳ. *Phlb.* 30c ἄπειρόν τε ἐν τῷ παντὶ πολὺ, καὶ πέρας ἱκανόν, καὶ τις ἐπ' αὐτοῖς αἰτία οὐ φαύλη, κοσμοῦσά τε καὶ συντάττουσα ἐνιαυτοὺς τε καὶ ὥρας καὶ μῆνας, σοφία καὶ νοὺς λεγομένη δικαιοτάτ' ἂν. *Aristotle Met.* A.6 988a7–10 Πλάτων ... δυοῖν αἰτίαι μόνον κέχρηται, τῇ τε τοῦ τί ἐστὶ καὶ τῇ κατὰ τὴν ὕλην. *Theophrastus Phys.Op.* fr. 9 Diels, 230 FHS&G (verbatim) at *Simp. in Phys.* 26.8–13 Πλάτων ... ἐπέδωκεν ἑαυτὸν καὶ τοῖς φαινομένοις ἀψάμενος τῆς περὶ φύσεως ἱστορίας· ἐν ᾗ δύο τὰς ἀρχὰς βούλεται ποιεῖν τὸ μὲν ὑποκείμενον ὡς ὕλην ὃ προσαγορεύει πανδεχέας, τὸ δὲ ὡς αἴτιον καὶ κινοῦν ὃ περιάπτει τῇ τοῦ θεοῦ καὶ τῇ τοῦ ἀγαθοῦ δυνάμει. *Varro Antiq.rer.div.* fr. 206 Cardauns at August. *C.D.* 7.28.18–21 Dombart–Kalb *dicit enim se ibi multis indiciiis collegisse in simulacris aliud significare caelum, aliud terram, aliud exempla rerum, quas Plato appellat ideas; caelum Iovem, terram Iunonem, ideas Minervam vult intellegi; caelum a quo fiat aliquid, terram de qua fiat, exemplum secundum quod fiat.* *Seneca Ep.* 65.7 *his* (sc. Aristotle's four causes) *quintam Plato adicit exemplar, quam ipse 'idean' vocat; hoc est enim ad quod respiciens artifex id quod destinabat effecit.* *ps.Archytas de Princ.* p. 19.25–26 Thesleff ὥστε τρεῖς ἀρχὰς εἶμεν ἤδη, τὸν τε θεόν

καὶ τὰν ἐστῶ τῶν πραγμάτων καὶ τὰν μορφῶ. **Alcinous** *Did.* c. 9, p. 163.17–20 H. καθόλου γὰρ πᾶν τὸ γινόμενον κατ' ἐπίνοιαν πρὸς τι ὀφείλει γίνεσθαι, οὐ ὥσπερ εἰ ἀπὸ τινός τι γένοιτο, ὡς ἀπ' ἐμοῦ ἢ ἐμῇ εἰκῶν, δεῖ τὸ παράδειγμα προϋποκεῖσθαι. *Did.* c. 9, p. 163.38–42 H. ἔτι γε μὴν εἰ ὁ κόσμος μὴ ἐκ ταυτομάτου τοιοῦτός ἐστιν, οὐ μόνον ἐκ τινός ἐστι γεγονώς, ἀλλὰ καὶ ὑπὸ τινος, καὶ οὐ μόνον τοῦτο, ἀλλὰ καὶ πρὸς τι· τὸ δὲ πρὸς ὃ γέγονε τί ἂν ἄλλο εἴη ἢ ἰδέα; **Sextus Empiricus** *M.* 10.10 ὥσπερ τε εἰ τὸ ἐξ οὐ τι γίνεταί ἐστι, καὶ τὸ ὑφ' οὐ τι γίνεταί καὶ τὸ δι' ὃ, οὕτως ὑπάρχοι ἂν καὶ τὸ ἐν ᾧ τι γίνεταί. ἐστι δὲ τὸ ἐξ οὐ τι γίνεταί, οἶον ἢ ὕλη, καὶ τὸ ὑφ' οὐ, οἶον τὸ αἶτιον, καὶ τὸ δι' ὃ, καθάπερ τὸ τέλος· ἐστὶν ἄρα καὶ τὸ ἐν ᾧ τι γίνεταί, τουτέστιν ὁ τόπος. **Zosimus Alchemista** 2.206.6–7 κατὰ δὲ Πλάτωνα καὶ ἕτερα δύο (sc. to be added to Aristotle's four) εἰσὶν, παραδειγματικὸν καὶ ἀποτελεσματικόν. **Proclus** *in Tim.* 1.357.12–16 καλεῖν δὲ εἰώθασι τὸ μὲν τελικὸν αἶτιον δι' ὃ, τὸ δὲ παραδειγματικὸν πρὸς ὃ, τὸ δὲ δημιουργικὸν ὑφ' οὐ, τὸ δὲ ὀργανικὸν δι' οὐ, τὸ δὲ εἶδος καθ' ὃ, τὴν δὲ ὕλην ἐξ οὐ ἢ ἐν ᾧ, ταῦτα καὶ αὐτῶ τῷ Πλάτῳ δοκοῦντα τὰ ὀνόματα λαμβάνοντες. **Simplicius** *in Phys.* 11.2–6 (Porphyry 120F Smith) κατὰ δὲ Πλάτωνα καὶ τὸ πρὸς ὃ ὡς τὸ παράδειγμα καὶ τὸ δι' οὐ ὡς τὸ ὀργανικόν· ὅσαχὺς δὲ ἡ ἀρχὴ λέγεται, τοσαυταχὺς καὶ τὸ αἶτιον· καὶ τῷ μὲν ὑποκειμένῳ ταῦτὸν ἄμφω, τῇ δὲ ἐπινόῳ διαφέροντα. **Philoponus** *in Phys.* 5.7–12 ἀρχὰς δὲ τῶν πραγμάτων πάντων Πλάτων μὲν ἕξ φησὶν εἶναι, ὕλην, εἶδος, ποιητικὸν αἶτιον, παραδειγματικόν, ὀργανικόν, τελικόν· καὶ καλεῖ τὴν μὲν ὕλην ἐν ᾧ ..., τὸ δὲ εἶδος ὃ ..., τὸ δὲ ποιητικὸν ὑφ' οὐ, τὸ ὀργανικὸν δι' οὐ, τὸ παραδειγματικὸν πρὸς ὃ, τὸ τελικὸν δι' ὃ.

§3 Pythagoras: Plato *Tim.* 46c–e τὸν δὲ νοῦ καὶ ἐπιστήμης ἐραστὴν ἀνάγκη τὰς τῆς ἔμφρονος φύσεως αἰτίας πρώτας (e) μεταδιώκειν, ὅσαι δὲ ὑπ' ἄλλων μὲν κινουμένων, ἕτερα δὲ κατὰ ἀνάγκης κινούντων γίνονται, δευτέρας.

§5 Stoics: Cicero *Varr.* 38 *discrepabat* (sc. Zeno, *SVF* 1.90) *etiam ab isdem, quod nullo modo arbitrabatur quicquam effici posse ab ea quae expers esset corporis, ... nec vero aut quod efficeret aliquid aut quod efficeretur posse esse non corpus.* **Plutarch** fr. 134 Sandbach at *Stob. Ecl.* 4.20a.34 Περὶ ἔρωτος. τῶν Μενάνδρου δραμάτων ὁμαλῶς ἀπάντων ἐν συνεκτικόν ἐστιν, ὃ ἔρωσ, οἶον πνεῦμα κοινὸν διαπεφοιτηκώς.

§6 Thales and followers: Aristotle *Met.* Γ.8 1012b31 τὸ πρῶτον κινεῖν ἀκίνητον αὐτὸ [according to Jaeger ad loc. an ἔλλειμμα]. **Ptolemy** *Synt.* 1.1 p. 5.13–16 Heiberg τὸ μὲν τῆς τῶν ὄλων πρώτης κινήσεως πρῶτον αἶτιον, εἴ τις κατὰ τὸ ἀπλοῦν ἐκλαμβάνοι, θεὸν ἀόρατον καὶ ἀκίνητον ἂν ἡγήσαιτο. **Alcinous** *Did.* 10, p. 164.21–24 H. ὁ πρῶτος θεός, αἷτιος ὑπάρχων τοῦ αἰεὶ ἐνεργεῖν τῷ νῷ τοῦ σύμπαντος οὐρανοῦ· ἐνεργεῖ δὲ ἀκίνητος.

Liber 1 Caput 12

P^B : ps.Plutarchus *Plac.* 882F–883B; pp. 310^a16–311^a13 Diels—**P^Q** : Qustā ibn Lūqā pp. 124–127 Daiber—**P^{Ps}** : Psellus *Omn.Doctr.* c. 92, p. 53 Westerink
S: Stobaeus *Ecl.* 1.14.1a, pp. 140.11–141.2 + 1.14.1d, p. 141.24–25 + 1.14.1.f, pp. 142.9–143.2 + 1.14.1h, p. 143.6–8 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b1–2 Henry (titulus solus)
Cf. Ach.: Achilles c. 4, p. 10.19–23 Di Maria; Nem: Nemesius *NH* c. 2, p. 18.15–18 Morani

Titulus ιβ'. Περὶ σωμάτων (P,S)

- §1 σῶμά ἐστι τὸ τριχῇ διαστατόν, πλάτει βάθει μήκει ἢ ὄγκος ἀντίτυπος ὅσον ἐφ' ἑαυτῷ ἢ τὸ κατέχον τόπον. (P₁,S₁)
- §2 Πλάτων μήτε βαρὺ μήτε κοῦφον εἶναι τι φύσει ἔν γε τῷ οἰκείῳ τόπῳ ὑπάρχον· ἐν δέ γε τῷ ἀλλοτρίῳ γενόμενον τότε νεύσιν ἴσχειν, ἐκ δὲ τῆς 5 νεύσεως ῥοπήν ἤτοι πρὸς βαρύτητα ἢ κουφότητα. (P₂,S₂)
- §3 Ἀριστοτέλης βαρύτατον μὲν εἶναι τὴν γῆν ἀπλῶς, κουφότατον δὲ τὸ πῦρ· ἀέρα δὲ καὶ ὕδωρ ἄλλοτ' ἄλλως. μηδὲν δὲ πῦρ κυκλοτερῶς φύσει κινεῖσθαι, μόνον δὲ τὸ πέμπτον σῶμα. (P₃,S₃)
- §4 οἱ Στωικοὶ δύο μὲν ἐκ τῶν τεσσάρων στοιχείων κοῦφα, πῦρ καὶ ἀέρα, 10 δύο δὲ βαρέα, ὕδωρ καὶ γῆν· κοῦφον γὰρ ὑπάρχει φύσει, ὃ νεύει ἀπὸ τοῦ ἰδίου μέσου, βαρὺ δὲ τὸ εἰς μέσον. καὶ τὸ μὲν περίγειον φῶς κατ' εὐθείαν, τὸ δ' αἰθέριον περιφερῶς κινεῖται. (P₄,S₄)

§1 —; §2 Plato cf. *Tim.* 62c–63e; §3 Aristoteles cf. *Cael.* 1.1 269a15–b6, 4.4 311a15–b27; §4 Stoici *SVF* 1.101, 2.571

titulus Περὶ σωμάτων ^{P^{BQ}}, Περὶ σωμάτων καὶ περὶ τῆς τούτων τομῆς (~ tit. c. 1.16) καὶ περὶ ἐλαχίστου (~ tit. c. 1.13) **S** §1 [2] πλάτει βάθει μήκει | μήκει πλάτει βάθει ^{P^Q} || [3] ἐφ' ἑαυτῷ ^{P^{B(11)}} : ἐφ' ἑαυτῷ ^{P^{B(1)}}, ἐφ' ἑαυτὸν ^{P^{B(111)}} : ἐπ' αὐτῷ ^{S^{FP}}, ἐφ' αὐτῷ Wachsmuth || ἢ ... τόπον ^{P^{BQ}} : om. **S** §2 [4] post Πλάτων hab. ^{P^B} ὃ del. Diels Mau Lachenaud, non hab. **S** || τι **S** : τῇ ^{P^B}, *seiner Natur nach* **Q** || [4–5] γε bis ^{P^B} : om. bis **S** || [5] ἴσχειν ^{P^B} : ἴσχει ^{S^{FP}} corr. Wachsmuth || [6] ἤτοι ... κουφότητα || om. ^{P^Q} §3 [7] ἀπλῶς ^{P^{BQ}} : om. **S** || τὸ || om. ^{P^{B(11)}} || [8–9] μηδὲν ... σῶμα **S** (ab priore lemmatis parte separata) : om. ^{P^{BQ}} || [8] πῦρ] σῶμα conī. Meineke §4 [11] φύσει ^{P^{BS}} : om. ^{P^Q} || ὃ νεύει ^{S^{PQ}} (*was sich ... weghebt* **Q**) : οὐ νεύσει ^{P^B} || [11–12] τοῦ ... μέσου ^{P^{BS}} prob. Diels Wachsmuth ab Arnim alii : ἰδίου om. ^{P^Q} || [12] τὸ ^{P^{BS}} : ὃ dub. Wachsmuth || post μέσον hab. ^{P^B} βαρὺ δ' οὐκ ἔστι τὸ μέσον, damn. Diels ('ut variam lectionem sive ineptum scholion') Mau Lachenaud, *die Mitte selbst aber ist weder schwer noch leicht* **Q**; fort. post ἰδίου addendum τῆς γῆς *vel sim.* || [12–13] καὶ ... κινεῖται **S** : om. ^{P^{BQ}}

- §5 Ἐπίκουρος ἀπερίληπτα εἶναι τὰ σώματα, καὶ τὰ πρῶτα δὲ ἀπλᾶ τὰ δὲ
ἐξ ἐκείνων συγκρίματα πάντα βάρος ἔχειν. κινεῖσθαι δὲ τὰ ἄτομα τότε
μὲν κατὰ στάθμην, τότε δὲ κατὰ παρέγκλισιν· τὰ δὲ ἄνω κινούμενα
κατὰ πληγὴν καὶ ἀποπαλμόν. (P5,S5) 15
- §6 Δημόκριτος τὰ πρῶτά φησι σώματα (ταῦτα δ' ἦν τὰ ναστά) βάρος μὲν
οὐκ ἔχειν, κινεῖσθαι δὲ κατ' ἄλληλοτυπίαν ἐν τῷ ἀπείρῳ. δυνατὸν εἶναι
κοσμιαίαν ὑπάρχειν ἄτομον. (S6) 20
- §7 Στράτων μὲν προσεῖναι τοῖς σώμασι φυσικὸν βάρος, τὰ δὲ κουφότερα
τοῖς βαρυτέροις ἐπιπολάζειν, οἷον ἐκπυρηνίζόμενα. (S7)

§5 Epicurus frs. 275, 280 Usener; §6 Democritus 68A47 DK; §7 Strato fr. 51 Wehrli, 50A Sharples

§5 [14] post Ἐπίκουρος hab. P^{B(I,III)} δὲ, deest in SP^{B(III)Q} || ἀπερίληπτα || περίληπτα P^{Q(ut vid.)} || post σώματα add. ἄτομα Usener prob. Wachsmuth || τὰ σώματα ... ἀπλᾶ PS susp. Diels, ἀπερίληπτα ... ἀπλᾶ crucif. Mau, in apparatu pro ἀπερίληπτα prop. ἀεικίνητα, pro δ' ἀπλᾶ prop. ἀπλῶς quod prob. Lachenaud || τὰ δὲ P^{BS} : τὰ τε con. Usener prob. Wachsmuth Torraca || [15] πάντα P^{BQ} : om. S || [15–16] τότε μὲν ... τότε δὲ P^{B(III)S} : πότε μὲν ... τότε δὲ P^{B(I)} : τὸ μὲν ... τὸ δὲ P^{B(III)} || [17] καὶ ἀποπαλμόν Diels Wachsmuth (καὶ ὑπὸ παλμόν S^F, καὶ ὑποπαλμόν S^P, corr. Heeren) : κατὰ παλμόν P^B (τολμόν P^{B(II)}) §§6–7 om. P §6 [18] ἦν τὰ S^F : ἂν τὰ S^P, ὄντα con. Heeren || [19] δὲ S^{P(m.s.)} : om. S^{FP} || ante εἶναι add. δ' Heeren Diels || [20] ἄτομον S : ἀτοπον (sc. ἐστιν) scribendum? vid. infra, comm. D(d)§6.

Testes primi:

Traditio ps. Plutarchi:

Psellus Omn. Doctr. c. 92 (~ tit.) Περὶ σωμάτων

(~ P1) σῶμα ἐστὶ τὸ πλάτος ἔχον καὶ μήκος καὶ βάθος. καὶ ἔστι μήκος μὲν λόγῳ χάριν τὸ ἀπὸ κεφαλῆς εἰς πόδας· πλάτος δὲ τὸ ἀπὸ τῆς δεξιᾶς χειρὸς εἰς τὴν ἀριστεράν ἢ τὸ ἀνάπαλιν· βάθος δὲ τὸ ἀπὸ τῶν στέρνων ἐπὶ τὰ νῶτα ἢ τὸ ἔμπαλιν.

(~ P4) πᾶν δὲ σῶμα ἢ βαρὺ ἢ κούφον ἐστί· καὶ τὸ μὲν βαρὺ κάτω φέρεται, τὸ δὲ κούφον ἄνω αἵρεται. τόποι δὲ τῶν σωμάτων, τῶν μὲν κούφων ὁ ἄνω τοῦ παντὸς τόπος, τῶν δὲ βαρέων ὁ κάτω.

(~ P3) καὶ κουφότατον μὲν τὸ πῦρ ὡς πᾶσιν ἐπιπολάζον, βαρύτατον δὲ ἡ γῆ ὡς πᾶσιν ὑποκείμενον.

(~ P2) πᾶν δὲ σῶμα ἐν μὲν τῷ οἰκίῳ τόπῳ ἐστὼς οὔτε βαρὺ ἐστὶν οὔτε κούφον· ὅτε δὲ ἀποστή τῶν οἰκείων τόπων καὶ μέλλῃ πρὸς αὐτοὺς ἀπιέναι, τότε ἡ βαρύτητα ἴσχει ἢ κουφότητα.

Testes secundi:

Achilles Univ. c. 4, p. 10.19–23 (SVF 2.555) καλῶς ἂν ἔχοι πείθεσθαι τῷ Χρυσίπῳ φήσαντι ἐκ τῶν τεσσάρων στοιχείων τὴν σύστασιν τῶν ὅλων γεγενέαι, αἴτιον δὲ τῆς μονῆς τούτων τὸ ἰσοβαρές. δύο γὰρ ὑποκειμένων βαρέων, γῆς καὶ ὕδατος, δύο δὲ κούφων, πυρὸς καὶ ἀέρος, τὴν τούτων σύγκρασιν αἰτίαν εἶναι τῆς τοῦ παντὸς τάξεως (~ §4). [verba sequentia vid. c. 1.14, *Testes secundi*].

Nemesius *NH* 2, p. 18.15–18 (Numenius fr. 1.4b des Places) εἰ δὲ λέγοιεν (sc. οἱ Στωικοί) — ὅτι τὰ σώματα τριχῇ διαστατά ἐστι, καὶ ἡ ψυχὴ δὲ δι' ὅλου διήκουσα τοῦ σώματος τριχῇ διαστατὴ ἐστὶ καὶ διὰ τοῦτο πάντως καὶ σώμα, ἐροῦμεν ὅτι πᾶν μὲν σώμα τριχῇ διαστατόν, οὐ πᾶν δὲ τὸ τριχῇ διαστατόν σώμα (~ §1a). *NH* c. 4, p. 44.22–25 Περὶ σώματος (~ tit.). πᾶν σώμα τῶν τεσσάρων στοιχείων ἐστὶ σύγκριμα καὶ ἐκ τούτων γέγονε· προσεχῶς δὲ τὰ τῶν ἐναίμων ζώων ἐκ τῶν τεσσάρων χυμῶν, αἷματος φλέγματος ξανθῆς τε χολῆς καὶ μελαίνης κτλ. (~ quaestio).

Loci Aetiani:

quaestio A 1.14.2 οἱ ἀπὸ Πυθαγόρου σφαιρικά τὰ σχήματα τῶν τεττάρων στοιχείων, μόνον δὲ τὸ ἀνώτατον πῦρ κωνοειδές. A 2.6.5 Πυθαγόρας πέντε σχημάτων ὄντων στερεῶν, ἅπερ καλεῖται καὶ μαθηματικά, ἐκ μὲν τοῦ κύβου φησὶ γεγονέναι τὴν γῆν, ἐκ δὲ τῆς πυραμίδος τὸ πῦρ, ἐκ δὲ τοῦ ὀκταέδρου τὸν ἀέρα, ἐκ δὲ τοῦ εἰκοσαέδρου τὸ ὕδωρ, ἐκ δὲ τοῦ δωδεκαέδρου τὴν τοῦ παντός σφαῖραν.

§1 A 1.9.1 ὕλη ἐστὶ ... A 1.10.1 ἰδέα ἐστὶν ... A 1.11.1 αἰτίον ἐστὶ ... ἀρκεῖ γὰρ ὑπογραφικῶς. A 1.14.1 σχῆμά ἐστιν ... A 1.15.1 χρώμα ἐστὶ ... A 1.23.1 ... κίνησις ἐστὶ διαφορὰ τις ἢ ἑτερότης ἐν ὕλῃ, ἣ ἐστὶν ὕλη. οὗτος πάσης κινήσεως κοινὸς ὅρος. A 2.32.1 ἐνιαυτός ἐστι ... A 3.1.1 (γαλαξίος) κύκλος ἐστὶ ... A 1.20.1 Ζήνων καὶ οἱ ἀπ' αὐτοῦ ... τὸν δὲ τόπον τὸ ἐπεχόμενον ὑπὸ σώματος.

§3 A 1.3.21 Ἀριστοτέλης ... πέμπτον δὲ τι σώμα αἰθέριον ἀμετάβλητον. A 1.7.23 Ἀριστοτέλης τὸν μὲν ἀνωτάτω θεὸν εἶδος (χωριστόν) ἐπιβεβηκότα τῇ σφαίρᾳ τοῦ παντός, ἥτις ἐστὶν αἰθέριον σώμα, τὸ πέμπτον ὑπ' αὐτοῦ καλούμενον. A 1.28.1 αὕτη δ' ἐστὶ τὸ αἰθέριον σώμα. A 2.7.5 Ἀριστοτέλης πρῶτον αἰθέρα ἀπαθῆ, πέμπτον τι σώμα· μεθ' ὃν παθητὰ πῦρ ἀέρα ὕδωρ· τελευταῖαν δὲ γῆν. τούτων δὲ τοῖς μὲν οὐρανίοις ἀποδεδοῖσθαι τὴν κυκλικὴν κίνησιν, τῶν δ' ὑπ' ἐκείνα τεταγμένων τοῖς μὲν κούφοις τὴν ἄνω τοῖς δὲ βαρέσι τὴν κάτω. A 2.11.5 Ἀριστοτέλης ἐκ πέμπτου σώματος (sc. εἶναι τὸν οὐρανόν). A 2.13.12 Ἀριστοτέλης ἐκ τοῦ πέμπτου σώματος (sc. εἶναι τὰ ἄστρα). A 2.20.11 Ἀριστοτέλης σφαῖραν ἐκ τοῦ πέμπτου σώματος (sc. εἶναι τὸν ἥλιον). A 2.30.7 ... τοῦ αἰθέρος, ὃν προσαγορεύει σώμα πέμπτον. A 4.4.6 οἱ δὲ γε Πυθαγόρου διάδοχοι ἐκ πέντε στοιχείων τὸ σώμα κραθῆναι φάντες—τοῖς γὰρ τέτταρσι ξυνέταξαν τὸ αἰθέριον.

§§5–6 A 1.3.16 Ἐπίκουρος ... ἔφη ... συμβεβηκέναι δὲ τοῖς σώμασι τρία ταῦτα, σχῆμα μέγεθος βάρος. Δημόκριτος μὲν γὰρ ἔλεγε δύο, μέγεθος τε καὶ σχῆμα, ὃ δ' Ἐπίκουρος τούτοις καὶ τρίτον, τὸ βάρος, ἐπέθηκεν· ἀνάγκη γάρ φησὶ 'κινεῖσθαι τὰ σώματα τῇ τοῦ βάρους πληγῇ· ἐπεὶ οὐ κινήθησεται.' εἶναι δὲ τὰ σχήματα τῶν ἀτόμων (ἀ)περίληπτα, οὐκ ἄπειρα. A 1.15.8 Δημόκριτος φύσει μὲν μηδὲν εἶναι χρώμα, τὰ μὲν γὰρ στοιχεῖα ἄποια, τὰ τε ναστὰ καὶ τὸ κενόν.

§5 A 1.23.4 Ἐπίκουρος δύο εἶδη κινήσεως, τὸ κατὰ στάθμην καὶ τὸ κατὰ παρέγκλισιν.

§6 A 1.3.15 Δημόκριτος τὰ ναστὰ καὶ κενόν. A 1.4.1 τῶν ἀτόμων σωμάτων ἀπρονόητον καὶ τυχαῖαν ἐχόντων τὴν κίνησιν συνεχῶς τε καὶ τάχιστα κινουμένων εἰς τὸ αὐτό, πολλὰ σώματα συνηθοῖσθαι, {καὶ} διὰ τοῦτο ποικιλίαν ἔχοντα καὶ σχημάτων καὶ μεγεθῶν. ἀθροιζομένων δ' ἐν ταύτῳ τούτων, τὰ μὲν, ὅσα μείζονα ἦν καὶ βαρύτερα, πάντως ὑπεκάθισεν· ὅσα δὲ μικρὰ καὶ περιφερῆ καὶ λεῖα καὶ εὐόλισθα,

ταῦτα καὶ ἐξεθλίβετο κατὰ τὴν σύνοδον τῶν σωμάτων εἰς τε τὸ μετέωρον ἀνεφέ-
 ρετο. A 1.9.3 οἱ ἀπὸ Δημοκρίτου ἀπαθῇ τὰ πρῶτα, τὴν ἄτομον καὶ τὸ κενὸν καὶ
 {τὸ} ἀσώματον. A 1.23.3 Δημόκριτος ἐν γένος κινήσεως τὸ κατὰ παλμόν. A 3.13.4
 Δημόκριτος κατ' ἀρχὰς μὲν πλάζεσθαι τὴν γῆν διὰ τε μικρότητα καὶ κουφότητα,
 πυκνωθεῖσαν δὲ τῷ χρόνῳ καὶ βαρυνθεῖσαν καταστήναι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The evidence of this chapter depends again on P and S only.

(1) The tradition of P has five doxai, beginning as in the previous three chapters with a definition, or rather with three more or less complementary definitions. Only P^B and Q record these five doxai. Like in other chapters (1.13, 1.14, 15) P abridges by omitting the final lemmata, here §§6–7. As was the case for ch. 1.11, the chapter is missing in G (and E), though §1α is paralleled in G's brief ch. 23. Ps takes over the chapter heading, and to some extent echoes the contents of §1, §4, §3 and §2 (in that order).

(2) S's chapter 1.14 on bodies etc. combines material from A 1.12, 1.13 and 1.16 as his collective chapter heading indicates, as well from other sources (mainly AD).

(a) He commences at 14.1a by citing the definition of σῶμα from A, followed by the same next two doxai as in P. At 14.1b he interpolates S's version of A 1.16.3 (paralleled at P) because it preludes upon the next excerpt.

(b) This long further excerpt at 14.1c on Aristotelian doctrine has been identified as taken from AD (= fr. 5 Diels). It is followed at 14.1d by a final sentence on the motion of 'the fifth body'. Diels plausibly suggests that this is a final part of the doxa on Aristotle that was omitted by P. For the next doxa, 1.14.1e, which he also attributes to A, see ch. 1.16.4.

(c) The next block of texts consists of three doxai, the first two of which correspond to the fourth and fifth in P. The third, attributed to Democritus, will also have come from A, but has been abridged away by P. To it is attached a doxa which P attributes to the Atomists in ch. 1.16.2. It is then followed by a doxa attributed to Strato on weight, which will again have been taken from the present chapter in A.

(d) The remainder of the chapter adds material from A 1.13 and AD. It is most unlikely that the verses *ad finem* from Parmenides' poem (28B8.43–45 DK) have been taken from A, *pace* Diels' uncertainty at DG 31ub in app.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition is richer for the three definitions in §1 than for the individual doxai. Some information on the latter is provided by Cicero, Sextus Empiricus and Arius Didymus, but the information about the different views on weight is quite widespread.

(2) *Sources.* A decisive precedent and source for this issue is Aristotle's *De caelo*, which in the first chapter of Book 1 provides definitions of body just like our §1, and then is especially concerned with primary physical bodies both terrestrial and celestial. In A ch. 1.12, too, the bodies (apart from the definitions in §1) turn out to be not bodies in general, or bodies inclusive of those of living beings, but what Aristotle calls simple bodies, with their specific motions and respective weights in §§2–4, that is, the four (§2 and §4), or five (§3) *elements*. This too follows the *De caelo*, where the simple motions up or down and in a circle characterize the elements and are linked with the motion of the first body and the respective weights and specific motions of the four terrestrial bodies (*Cael.* Book 1 chs. 2–3, Book 4). In our chapter bodies according to the Hellenistic philosophers, too, turn out to be such bodies. The views of Epicurus, Democritus and Plato on the relation between elements and weight must ultimately derive from their original writings, though the doxai of Democritus and Plato may have percolated through Aristotle's *pragmateiai*, and those of the former even through his monograph on Democritus. The doxa of Strato, like his other doxai in the *Placita*, ultimately derives from the original works, but one does not know through what intermediary. Aristotle *Cael.* 4.3 309a19–21 points out that Anaxagoras and Empedocles did not have a theory of weight. Accordingly they are absent from the present chapter.

C *Chapter Heading*

Attested in both P and S, and of the standard umbrella type 'about x ', περί τοῦ θεῖνα. The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. Because of its lack of specification it is able to comprise various issues that are not mentioned explicitly (cf. ch. 1.3 Commentary C). In the present case the emphasis is upon the property of weight (question type of quality) in relation to movement, the question type of cause, and the category of place.

D *Analysis*

a Context

(1) The chapter is the first of the block consisting of chs. 1.12–17, dealing with the corporeal in its various aspects. Diels *DG* 62 argued that ch. 1.16 'On the division of bodies' should have followed immediately (P '1.16 ... absurde a 1.12 ...

diremit'), and that S has preserved this arrangement. Similarly Leszl (2002) 178. But also elsewhere S combines in one of his chapters matters that are further apart in P; think for instance of chs. 1.18 at S 1.18.1 and 2.9 at 1.18.4: coalescence on the level not only of paragraphs but also of entire chapters.

(2) Ch. 1.12 is preceded by the block consisting of chs. 1.9–11, dealing with the related themes of matter, idea and cause, which were preceded by, among others, the introductory chs. 1.2–3 and 1.6–7 dealing with principles, elements, and the gods. Roughly, this order corresponds with that of the first sub-section of the Stoic φυσικὸς λόγος at Diogenes Laertius *V.P.* 7.132, cited below at section E(a) General texts. There, however, bodies are mentioned first, presumably because the next three subparts, namely principles, elements (cf. chs. 1.2–3), and gods (cf. ch. 1.7) are corporeals, while the last three, namely bounding entities (cf. chs. 1.14.1 and, presumably, 1.15), place (cf. ch. 1.19), and void (cf. ch. 1.18) are incorporeals. This prominent position of 'body' represents a shift in priorities compared with earlier ontologies, despite what was said above at section B, and Aristotle *Cael.* 3.1 298b1–3. See further at ch. 1 above, Commentary D(a), and the detailed exposition at M–R 2.1.97–109, also for the accommodation and integration of sequences of topics *more Aristotelico*.

b Number–Order of Lemmata

P has five lemmata, S seven of which the first five are parallel to those of P. When we disregard the abstracts from other chapters of A and from AD that have been interpolated among those belonging to the present chapter (see at section A above), it becomes clear that the order in S is the same as in P. The two final lemmata in S not paralleled in P are best left where they are. We therefore see no reason for changing Diels' order.

c Rationale–Structure of Chapter

(1) *Definitions*. The chapter begins with three different but unattributed definitions. As is clear from the parallels cited at section E(a)§1, and (b)§1, the first and second definition were acceptable, even in combination, to both Epicureans and Stoics, and esp. §1a is also widely paralleled. The third definition is best known as Stoic, but when slightly differently formulated not incompatible with Aristotle's view of physical body in a place, for body according to the Stoics is of course physical. Therefore we may see these definitions as preliminary (nominal or conceptual, cf. above, ch. 1.9, Commentary D(d) General points, and also D(e)(2)).

(2) *Diaphoniae*. Accordingly dissent only appears at the level of the property of weight, more explicitly heaviness and lightness, in relation to movement. The main diaphonia is between those who attribute weight as an intrinsic prop-

erty to bodies and those who describe it as an adventitious property depending on the circumstances. §2 Plato: no 'natural' weight, as body is heavy or light depending on its being in its own or in a foreign place (sc. in the cosmos), with concomitant movement away or towards. Opposed to §3 Aristotle: natural weight, since earth is heaviest, fire lightest, the other two being in between in various ways; negative information on the movement of the four elements only, esp. that fire, unlike the fifth, does not naturally move in a circle. The latter (as Diels ad loc. points out) is in contrast with §4 the Stoics, according to whom the aetherial light (i.e. fire) does move in a circle. The Stoic view of natural weight also contrasts with Plato's in §2, and to a lesser degree with Aristotle's in §3, because they posit two light and two heavy elements, which do have these properties naturally in virtue of their movement away from or towards the centre.

In contrast to the four elements of §§2–4 those of §5 Epicurus (and of §6 Democritus) are 'indefinitely many' in number. In contrast to those of §2 Plato the elements of Epicurus do possess (natural) weight, i.e., heaviness but not lightness, both when single and when combined. Their (primary) movement is not related to where they happen to be, but occurs always either in a straight line or by deviation (from this line). Upward movement may occur when they strike each other and rebound from each other, so is clearly secondary, and not natural in the sense in which the upward movement of the lighter elements is natural for Aristotle. The implication is that the primary movement is downward. In contrast to the natural weight of Epicurus' atoms those of Democritus lack weight (cf. ch. 1.3.16 above), and they move about by hitting each other in infinite space. We are not informed about what happens when atoms combine.

Finally, Strato §7 agrees with Aristotle §3 about the natural weight of the elements, but does not attribute the higher placement of the lighter ones to what happens in the cosmos at large or to their own activity, but to the tendency of the heavier elements to contract under their own weight, and so to expel the lighter stuff. His doxa comes last not only for chronological reasons, but also because this view is rather exceptional.

d Further Comments

General Points

We may feel that 'On weight' would have been a better chapter heading, but this neutral concept, comprising both lightness and heaviness, is not an ancient one. Nevertheless some further specification after the umbrella formula 'On bodies' would not have been amiss. The chapter belongs with the group in which more than one theme is set forth; here, both body in general and body in relation to weight, movement and place.

Individual Points

§1 The formula ὅσον ἐφ' αὐτῷ, just as its Latin counterpart *quantum in ipso*, in fact became quite common and so is not exclusively Stoic. But it is familiar from the Stoic definition of the ἀξίωμα (Diogenes Laertius *VP*. 7.65 = *SVF* 2.193). It is also found in one of the definitions of 'sound' (φωνή): Marius Victorinus *ArsGramm.* c. 2 (*FDS* 500) *vox est aër ictus auditu percipibilis, quantum in ipso est. Graeci qualiter? ἄῤῥ πεπληγῶς αἰσθητὸς ἀκοῇ τὸ ὅσον ἐφ' αὐτῷ ἐστίν*, Diomedes *ArsGramm.* p. 420.9 (*FDS* 501). On the Stoic background see W. Ax (1986) 169, and further his index s. νν. ὅσον ἐφ' αὐτῷ ἐστίν and *quantum in ipso est*. In combination with ἀντίτυπος it lends a Stoic flavour to the definition.

§2 The paired formulas οἰκείος τόπος—ἀλλότριος τόπος are Aristotelian; e.g. Arist. *Cael.* 1.8 276a12, then also Theophr. *Sens.* 88.

§4 ἀπὸ τοῦ ἰδίου μέσου: Lachenaud literally translates 'est léger par nature ce qui s'incline à partir du centre qui lui est propre'. But a light body does not have its own and proper centre. One understands why Q, or perhaps rather his Greek source, omitted ἰδίου. The centre of the cosmos must be meant, which coincides with that of the earth. According to an anti-Aristotelian argument in favour of a plurality of worlds at Plutarch *Def.Or.* 424A–425C each of the many kosmoi has its own centre (425A, ἔχει γὰρ καὶ μέσον ἕκαστος ἴδιον). So maybe, though rather unexpectedly, the Stoic position is here considered from a neutral point of view, which does not exclude a plurality of kosmoi. Another possibility is that these words are what remains of a lost lemma, dealing with an Atomist position that was coalesced *more doxographico* with the present one (see, for instance, what happened to ch. 1.20.1–2 in P). Yet it is also not unlikely that the words τῆς γῆς *vel sim.* have fallen by the wayside. Arguing against Anaximander's explanation of the central position of the earth, Aristotle writes (*Cael.* 2.13 295b25) τὸ δὲ φέρεσθαι πρὸς τὸ μέσον ἴδιον τῆς γῆς, which means 'motion towards the centre is peculiar to earth', but could have been misunderstood as 'motion towards the proper centre of the earth' (which is also that of the cosmos) and so suggested proper centers for each of the elements.

§§5–6 The remarkably similar expressions (full texts below section E(a)§§5–6) of Cicero *ND* 1.69 *Epicurus ... invenit quo modo necessitatem effugeret, quod videlicet Democritum fugerat* and Diogenes of Oenoanda fr. 54 col. 3.1–6 Smith ἐλευθέραν τινὰ ἐν ταῖς ἀτόμοις κείνησιν εἶναι, ἥ[ν] | Δημόκριτος μὲν οὐχ εὔρεν, Ἐπικούρος δὲ εἰς φῶς ἤγαγεν will derive from a shared tradition.

§5 The text of the first part of Epicurus' doxa is awkwardly phrased and not immediately clear. But it is not helpful to apply cruces to τὰ σώματα, καὶ τὰ πρῶτα δὲ ἀπλᾶ as done by Mau, following Diels *DG* 52 who put these words between asterisks, and argued 'cum elementis gravitatem exemit, peccat Aëtius contra Epicuri doctrinam'. ἀπερίληπτα pertains to atomic shapes elsewhere

(Diogenes Laertius *V.P.* 10.42) and will do so here as well (see also the explicit antithesis at ch. 1.3.16): the shapes i.e. qualities of the Epicurean elements are indefinitely many, and not four or five in number as with Plato, Aristotle and the Stoics mentioned in §§2–4. See also the sensible comments ad loc. of Torraca (1961) 447–448. The problem is solved by eliminating the comma after ἀπλᾶ, and having πάντα apply to both ἀπλᾶ and συγκρίματα, which moreover makes more sense for πάντα too.

§6 O'Brien (1981b) 282–290 rightly points out that the claim that a Democritean atom can be as big as the world cannot be reconciled with the evidence in Aristotle and Theophrastus that atoms are too small to be perceived. Mugler (1963) 399–401, forgetting that atoms in combination do have perceptible qualities (see Theophr. *Sens.* 73–76), argues that the imperceptibility of the individual atom is a matter of its lack of such qualities, not of its size. Asmis (1984) 273, inspired by Mugler, believes that in our world atoms are below the level of the perceptible, but that somewhere in the infinite universe there can be an atom as big as our world (one cannot help being reminded of Scott Fitzgerald's *Diamond as Big as the Ritz*). Taylor (1999) 173–174 seems to share O'Brien's preference, but *par acquit de conscience* cites a few far-fetched and of course hypothetical attempts to make sense of the cosmic atom. Other attempts to save the atom as big as the cosmos are cited by Fleischer (2016) 295 n. 50. O'Brien discusses several ways in which what in his view is a mistake may have come about during the transmission of the texts. To a large extent we agree with his explanation. If what we have here is a mistake it must be an early one. As Fleischer loc. cit. duly points out, the third cent. CE bishop Dionysius of Alexandria (who, like his predecessor Origen as head of the Alexandrian catechetical school, had received a good philosophical education), says something similar (cited below at section E(a)§6). Dionysius may be dependent on the wider *Placita* tradition (his account of cosmogony parallels that of ch. 1.4, see at 1.4 section E(a)) and so provides a proximate version of A. The idea of an atom, or atoms, of unlimited size may have been deduced from careless formulations such as one found in the doxography at Diogenes Laertius *V.P.* 9.44 'and the atoms are unlimited in size and number' (καὶ τὰς ἀτόμους δὲ ἀπείρους εἶναι κατὰ μέγεθος καὶ πλῆθος), where μέγεθος represents not 'size' but σχῆμα, 'shape'. Diogenes' source(s) may go back to a sentence in the verbatim fragment (fr. 1 Ross, 208R³, Democritus 68A37 DK) of Aristotle's *On Democritus* preserved by Simplicius in *Cael.* 295.7–8: 'he is of the opinion that the substances are *so small that they escape our senses*, and that they have all sorts of forms and shapes and differences as to size' (νομίζει δὲ εἶναι οὕτω μικρὰς τὰς οὐσίας ὥστε ἐκφυγεῖν τὰς ἡμετέρας αἰσθήσεις, ὑπάρχειν δὲ αὐτοῖς παντοίας μορφὰς καὶ σχήματα παντοῖα καὶ κατὰ μέγεθος διαφορὰς, or italics). The atoms of indefinitely numerous dif-

ferent sizes mentioned by Aristotle are still too small to be perceived by the senses. Theophrastus *Phys.Op.* fr. 8 Diels (229 FHS&G) at Simp. *in Phys.* 28.9–10 and 28.25–26 too speaks of an ‘infinite numbers of shapes, since there is no reason for them to be one shape than another’—not of sizes (τῶν ἐν αὐτοῖς σχημάτων ἄπειρον τὸ πλῆθος διὰ τὸ μηδὲν μᾶλλον τοιοῦτον ἢ τοιοῦτον εἶναι). Perhaps, as Laks–Most (2016j) 985 n. 1 = (2016g) 117 n. 1 suggest, someone inferred (polemically?) that an infinite number of shapes entail an infinite number of sizes. But this hypothetical interpreter forgot the limiting condition concerned with the imperceptible smallness of the atoms.

An alternative suggestion is to assume an early corruption and to emend ἄτομον to ἄτοπον (a very comprehensible *lapsus calami* in this account of atoms) and to translate ‘it would be *odd* (to suppose) that it is possible for one of the size of a cosmos to exist’. Cf. Lucretius *DRN* 2.496–499 (arguing against atoms of ‘immense magnitude’, *immani maximitate*), also cited below at section E(b)§6. It would follow that a view of Epicurus is attributed to Democritus. We have left the Aëtian text as transmitted, because as we have seen the reading of S (the only source for this paragraph) is confirmed by Dionysius, which makes it unadvisable it to emend the text of A. For ἄτοπον in the *Placita* cf. chs. 1.1.1 and 1.5.5; at the end of a sentence e.g. Plato *Phd.* 99a ἀλλ’ αἴτια μὲν τὰ τοιαῦτα καλεῖν λίαν ἄτοπον, Aristotle *Sens.* 3 440a15–17 τὸ μὲν οὖν, ὥσπερ οἱ ἀρχαῖοι, λέγειν ἀπόρροϊαν εἶναι τὴν χροάν καὶ ὁρᾶσθαι διὰ τοιαύτην αἰτίαν, ἄτοπον.

On the issue of weight see above, ch. 1.3, Commentary D(d) §16[116–118].

§7 For the metaphor in the final words see Aristotle *Phys.* 2.4 214a33–b1, where it is used to describe the compression of water in an argument against the existence of the void. The metaphor envisages a stone or a pip in fruit being squeezed out by compressing the flesh of the fruit. This is the only recorded instance of the verb before A. It is not unlikely that the use here derives from Strato himself and was inspired by the Aristotelian passage that he would have known well. Strato is recorded at Diogenes Laertius *V.P.* 5.59 as having written a book Περὶ κούφου καὶ βαρέος. A book on the void is not included in the list, but his opinion on the subject is found at A 1.18.4.

e Other Evidence

(1) For a discussion of body in general see Sextus Empiricus *M.* 9.359–367 (including limits), *P.* 3.38–55. For weight in the context of a discussion of body see e.g. *M.* 10.16. The Chrysippean account cited at *Testes secundi* above also comprises a discussion of the position and weight of the elemental cosmic layers (see below, ch. 1.14, also section E).

(2) Atticus fr. 5 des Places at Eusebius *PE* 15.7.2 states that the primary bodies (7.1, τῶν καλουμένων στοιχείων, τῶν πρώτων σωμάτων) are either hot or cold,

or dry or wet (cf. Aristotle in the *De generatione et corruptione*), or soft or hard, or light or heavy, or rare or dense (λεγόντων γοῦν ἡμῶν ὅτι πᾶν σῶμα ἢ θερμόν ἢ ψυχρόν, ἢ ξηρόν ἢ ὑγρόν, ἢ μαλακόν ἢ σκληρόν, ἢ κοῦφον ἢ βαρύν, ἢ ἀραιόν ἢ πυκνόν), and that the four elements are defined by combinations of these properties. In the present chapter, as in the parallel passages in *De caelo*, the essential qualities are limited to light and heavy.

(3) The doxai of Plato and Aristotle deal with ‘heavy’, ‘light’, and the ‘inclination’ or ‘turn of the scale’ (ρόπή, the latter in the Plato lemma only—note, however, that the term does *not* occur in the *Timaeus*), but there is no separate chapter dealing with ροπή in the *Placita*. Eutocius, in his commentary on Archimedes’ *De planorum aequilibriis*, procem. 3.264.2–15 Heiberg–Stamatis (Greek text cited below at section E(a) General texts) writes as follows on ροπή in his proem: ‘Aristotle, noblest Peter, says that the turn of the scale (ρόπή) is the common genus of heaviness and lightness, and so does Ptolemy who follows him. But Timaeus in Plato says that every turn of the scale depends on heaviness, for his point of view is that lightness is a deprivation. Those ambitious to learn may collect the doxai from the book *On Turnings of the Scale* written by Ptolemy and from Aristotle’s physical treatises and from Plato’s *Timaeus* and from those who have commented on these works. But Archimedes’ view in the present book is’ etc. This advice is absolutely fascinating, since as a matter of fact Eutocius advises us that if necessary one may, or even should, compile one’s own doxography, and tells us where to look for the evidence. He lists the diaphonia between the views of Aristotle (followed by Ptolemy) and Plato, and announces the more complicated doctrine of Archimedes. One may perhaps infer that Eutocius knew the *Placita* and was aware of what he sees as a lacuna. However this may be, doxographies composed by Eutocius himself are in fact found both in the *Commentarii in libros de sphaera et cylindro* 2.1 (a very extensive one), and in the proem of the *Commentarius in dimensionem circuli*.

E Further Related Texts

a Proximate Tradition

General texts: Sextus Empiricus *M.* 10.9 εἴ ἐστι τι σῶμα, καὶ τόπος ἔστιν· ἀλλὰ μὴν τὸ πρῶτον· τὸ ἄρα δεύτερον. πρὸς τούτοις· εἴ ὅπου τὸ κοῦφον φύσει φέρεται, ἐκεῖ τὸ βαρύν φύσει οὐ φέρεται, ἔστιν ἴδιος τοῦ κοῦφου καὶ τοῦ βαρέος τόπος· ἀλλὰ μὴν τὸ πρῶτον· τὸ ἄρα δεύτερον. τὸ γέ τοι πῦρ φύσει κοῦφον καθεστώς ἀνώφορόν ἐστι, καὶ τὸ ὕδωρ φύσει βαρύν τυγχάνον κάτω βρίθαι, καὶ οὔτε τὸ πῦρ κάτω φέρεται οὔτε τὸ ὕδωρ ἄνω ἄττει. ἔστιν ἄρα ἴδιος καὶ τοῦ φύσει κοῦφου καὶ τοῦ φύσει βαρέος τόπος.

Hippolytus *Ref.* 1.15.2 (on Ecphantus, 51.1 DK) κινεῖσθαι δὲ τὰ σώματα μήτε ὑπὸ βάρους μήτε πληγῆς, ἀλλ’ ὑπὸ θείας δυνάμεως, ἣν νοῦν καὶ ψυχὴν προσαγορεύει.

Diogenes Laertius *V.P.* 7.132 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. οἱ Στωικοί) εἰς τε τὸν περὶ σωμάτων τόπον (cf. ch. 1.12) καὶ περὶ ἀρχῶν καὶ στοιχείων (cf. chs. 1.2–3)

καὶ θεῶν (cf. ch. 1.7) καὶ περάτων (cf. chs. 1.14.1 and 1.15) καὶ τόπου (cf. ch. 1.19) καὶ κενοῦ (cf. ch. 1.18)· καὶ οὕτω μὲν εἰδικῶς. **ps.Galen HPh** c. 23, *DG* pp. 612.19–613.2 (on Stoics, *FDS* 745a) σῶμα τινῶν ὑπολαβόντων τὸ οἶόν τε ποιεῖν ἢ πάσχειν, ἕτεροι (cf. §1α) τὸ τριχῆ διαστατὸν μετὰ ἀντιτυπίας τὸ σῶμα καθεστάναι φασίν. εἶναι μὲν γὰρ σημεῖον, οὐ μέρος οὐδέν, ἐπιφάνειαν δὲ τὸ μήκους καὶ πλάτους μετέχον, τοῦτο δὲ ὅποταν καὶ βάθος προσλάβῃ, σῶμα νομίζουσιν εἶναι. τινές (cf. Posidonius F 16 E.-K, 311 Theiler) δὲ τὰ πέρατα σῶματα εἶναι ὑπειλήφασιν.

Chapter heading: Diogenes Laertius V.P. 7.132 τὸν δὲ φυσικὸν λόγον διαιρουσιν εἷς τε τὸν περὶ σωμάτων τόπον κτλ. **ps.Galen HPh** c. 23 tit., *DG* p. 612.18 Περί σωμάτων. *Suda* s.v. Φ 862, p. 4.775.28–29 Adler φυσικὸς λόγος παρὰ φιλοσόφοις. μετὰ τὸν ἡθικὸν διεξέρχονται περὶ τοῦ φυσικοῦ, τοῦτέστι περὶ σωμάτων κτλ.

§1 Definitions: Arius Didymus fr. 5 at Stob. *Ecl.* 1.14.1c, p. 141.11–19 ἐπιφάνειαν δ' εἶναι σώματος πέρας δυσὶν ὀριζομένην διαστάσεσι· γραμμὴν δὲ τὸ τῆς ἐπιφανείας πέρας κατὰ μίαν διάστασιν· σῶμα δὲ τοῖνυν ἐστὶ (τὸ) τὰς τρεῖς ἔχον διαστάσεις. ἐπεὶ δὲ καὶ περὶ τὸν τόπον εἰσὶν αὐταί, προσθετέον τό τε μετ' ἀντερείσεως καὶ τὸ μὴ δεχόμενον ἕτερον εἰς τὸν αὐτὸν τόπον σῶμα· πληρωτικὸν γὰρ εἶναι τοῦ τόπου τὸ σῶμα, καθάπερ καὶ τὸν τόπον τοῦ σώματος δεκτικόν.

§1α–β Definitions: Aquilius Def. 82 Rashed σῶμά ἐστιν οὐσία τριχῆ διαστατὴ μετὰ ἀντιτυπίας.

§1α Definition: Arius Didymus fr. 19 Diels at Stob. *Ecl.* 1.14.1l, p. 143.24 σῶμά ἐστι τὸ τριχῆ διαστατὸν, πλάτει, βάθει, μήκει. **ps.Galen Def.Med.** 19.356.1–3 K. λ'. σῶμά ἐστι μέγεθος τριχῆ διάστατον ἔχον ἐν ἑαυτῷ μήκος, βάθος, πλάτος. ἢ μέγεθος ἐκ τριῶν διαστημάτων συνεστηκός.

§1β Definition: ps.Galen Def.Med. 19.441.10–14 K. τπβ'. φλεγμονή ἐστιν ὄγκος μετὰ ἐρυθήματος ... ἢ ὄγκος ὀδυνηρὸς καὶ ἀντίτυπος ... ἢ φλεγμονή ἐστιν ὄγκος ὀδυνηρὸς, σκληρὸς, ἀντίτυπος κτλ.

§1γ Definition: Sextus Empiricus M. 10.3 (on Stoics, *SVF* 2.505) τόπον δὲ τὸν ὑπὸ ὄντος κατεχόμενον καὶ ἐξισαζόμενον τῷ κατέχοντι αὐτόν, νῦν δὲ καλοῦντες τὸ σῶμα. cf. *P.* 3.124.

§3 Aristotle: ps.Valerius Probus in Buc. 6.31, p. 335.1–4 Hagen *Aristoteles quattuor elementa ait, aquam et terram ponderibus suis deorsum ferri, ignem et aëra tenuitate sua sublevari, et his quattuor elementis quintum quasi proprium aethera addit privata mole discretum.*

§4 Stoics: Stobaeus Ecl. 1.15.6a, p. 147.21 (printed as A 1.14.6 Diels, but probably AD) Ζήνων (*SVF* 1.101) ἔφασκε τὸ πῦρ κατ' εὐθείαν κινεῖσθαι.

§5 Epicurus: Plutarch Adv.Colot. 1114B ὅρα μὲν οἷας ὑποτίθεσθε πρὸς γένεσιν ἀρχάς, ἀπειρίαν καὶ κενόν· ὦν τὸ μὲν ἀπρακτὸν ἀπαθὲς ἀσώματον, ἢ δ' ἄτακτος ἄλογος ἀπερίληπτος. **Diogenes Laertius V.P.** 9.44 (Democritus 68A1 DK) τὰς ἀτόμους δὲ ἀπείρους εἶναι κατὰ μέγεθος καὶ πλῆθος, φέρεσθαι δ' ἐν τῷ ὅλῳ δινουμένας, καὶ οὕτω πάντα τὰ συγκρίματα γεννᾶν, πῦρ, ὕδωρ, ἀέρα, γῆν.

§6 Democritus: Dionysius of Alexandria Περί φύσεως at Eus. *PE* 14.23.3 ταύτης δὲ τῆς δόξης (sc. regarding the infinitely many atoms and kosmoi) Ἐπίκουρος (cf. fr. 301 Usener) γεγόνασι καὶ Δημόκριτος (68A43 DK)· τοσοῦτον δὲ διεφώνησαν ὅσον ὁ μὲν ἐλαχίστας πάσας καὶ διὰ τοῦτο ἀνεπαισθήτους, ὁ δὲ καὶ μεγίστας εἶναι τινὰς ἀτόμους ὁ Δημόκριτος ὑπέλαβεν.

b Sources and Other Parallel Texts

General texts: Aristotle *Cael.* 4.1 307b28–30 *περὶ δὲ βαρέος καὶ κούφου, τί τ' ἐστὶν ἐκάτερον καὶ τίς ἡ φύσις αὐτῶν, σκεπτέον, καὶ διὰ τίν' αἰτίαν ἔχουσι τὰς δυνάμεις ταύτας.* Cicero *Tusc.* 5.69 *omnia delata gravitate medium mundi locum semper expetant, qui est idem infimus in rutundo.* Ovid *Met.* 1.25–31 *igneae convexi vis et sine pondere caeli / emicuit summaque locum sibi fecit in arce; / proximus est aër illi levitate locoque, / densior his tellus elementaque grandia traxit / et pressa est gravitate sua circumfluus umor / ultima possedit solidumque coarctuit orbem.* *Met.* 1.52–53 *inminet his aër; qui quanto est pondere terrae, / pondere aquae levior, tanto est onerosior igni.* *Met.* 15.239–243. Seneca *Dial.* 10.19.1 *sciturus ... quid sit quod ... supra levia suspendat, in summum ignem ferat.* Sextus Empiricus *M.* 1.20–21 αἰσθητὰ μὲν οὖν οὐκ ἔστιν (sc. τὰ σώματα), ὡς ἐκ τῆς ἐννοίας αὐτῶν συμφανές. (21) εἰ γὰρ σύνοδος ἐστὶ κατὰ ἀθροισμὸν μεγέθους καὶ σχήματος καὶ ἀντιτυπίας τὸ σῶμα, ὡς φησιν Ἐπίκουρος (cf. fr. 275 Usener), ἢ τὸ τριχῆ διαστατὸν, τοὔτεστι τὸ ἐκ μήκους καὶ πλάτους καὶ βάθους, καθάπερ οἱ μαθηματικοὶ λέγουσιν, ἢ τὸ τριχῆ διαστατὸν μετὰ ἀντιτυπίας, ὡς πάλιν ὁ Ἐπίκουρος, ἵνα τοῦτω διορίζῃ (καὶ) τὸ κενόν, ἢ ὄγκος ἀντίτυπος, ὡς ἄλλοι κτλ. *M.* 9.366–367 εὐθέως τοίνυν κατὰ μὲν τοὺς σώμα νοοῦντας τὸ οἶόν τε παθεῖν ἢ διαθεῖναι, ὧν ἀρχηγὸς ἰστορεῖται ὁ Πυθαγόρας (—). ... (367) κατὰ δὲ τὰς τῶν μαθηματικῶν ἐννοίας νῦν συντακτέον τὸ προκείμενον. φασὶ γὰρ σῶμα εἶναι τὸ τρεῖς ἔχον διαστάσεις, μήκος βάθος πλάτος, ὧν μήκος μὲν ὑπάρχειν τὸ ἄνωθεν κάτω, πλάτος δὲ τὸ ἀπὸ ἀριστερῶν ἐπὶ δεξιᾷ, τρίτην δὲ διάστασιν ὑπάρχειν, τοὔτεστι τὸ βάθος, τὸ ἐκ τῶν ἔμπροσθεν εἰς τοὔπισω. ὅθεν καὶ παρατάσεις εἶναι ἕξ, δύο καθ' ἑκάστην διάστασιν, ἄνω κάτω, δεξιὰ ἀριστερά, πρόσω ὀπίσω. *P.* 3.38–39 (on Stoics, *FDS* 745b) σῶμα τοίνυν λέγουσιν εἶναι τινες ὁ οἶόν τε ποιεῖν ἢ πάσχειν. ... (39) τινές (cf. §1α) δὲ σῶμα εἶναι λέγουσι τὸ τριχῆ διαστατὸν μετὰ ἀντιτυπίας. Macrobius *Sat.* 1.9.14 *M. etiam Messala, Cn. Domitii in consulatu collega idemque per annos quinquaginta et quinque augur, de Iano ita incipit: 'qui cuncta fingit eademque regit, aquae terraeque vim ac naturam gravem atque pronam in profundum dilabentem, ignis atque animae levem in immensum sublime fugientem, copulavit circumdato caelo: quae vis caeli maxima duas vis dispaes colligavit'.* Eutocius in *Aequil.* proœm. 3.264.2–15 Heiberg–Stamatis τὴν ῥοπήν, ᾧ γενναϊότατε Πέτρε, κοινὸν εἶναι γένος βαρύτητος καὶ κουφότητος Ἀριστοτέλης τε λέγει (*Cael.* 3.2 301a22–26, 4.1 307b28–33) καὶ Πτολεμαῖος (fr. 3 Heiberg) τοῦτω ἀκολουθῶν· ὁ δὲ γε παρὰ Πλάτωνι Τίμαιος (62c–63e) πάσαν ῥοπήν ἀπὸ βαρύτητος λέγει γίνεσθαι· τὴν γὰρ κουφότητα στέρησιν νομίζει. ὧν ἕξεστι τὰς δόξας τοῖς φιλομαθέσιν ἀναλέγεσθαι ἕκ τε τοῦ Περὶ ῥοπῶν βιβλίου τῷ Πτολεμαίῳ συγγεγραμμένου καὶ ἐκ τῶν Ἀριστοτέλους φυσικῶν πραγματειῶν καὶ ἐκ τοῦ Πλάτωνος Τιμαίου καὶ τῶν ταῦτα ὑπομνηματισάντων· ὁ δὲ Ἀρχιμήδης ἐν τοῦτω τῷ βιβλίῳ κέντρον ῥοπῆς ἐπιπέδου σχήματος νομίζει, ἀφ' οὗ ἀρτῶμενον παράλληλον μένει τῷ ὀρίζοντι, δύο δὲ ἢ πλειόνων ἐπιπέδων κέντρον ῥοπῆς ἦτοι βάρους, ἀφ' οὗ ἀρτῶμενος ὁ ζυγὸς παράλληλός ἐστι τῷ ὀρίζοντι. Simplicius in *Phys.* 230.21–26 μήποτε οὖν διττὸν θετέον τὸ σῶμα τὸ μὲν ὡς κατὰ εἶδος καὶ κατὰ λόγον ὑφεστῶς καὶ τρισὶν ὠρισμένον διαστάσεις, τὸ δὲ ὡς πάρεσιν καὶ ἕκτασιν καὶ ἀοριστίαν τῆς ἀσωμάτου καὶ ἀμερίστου καὶ νοητῆς φύσεως, οὐ τρισὶ

τούτο διαστάσεσιν εἰδητικῶς ὠρισμένον, ἀλλὰ πάντῃ παρειμένον τε καὶ ἐκλελυμένον καὶ πανταχόθεν ἀπὸ τοῦ ὄντος ἀπορρέον εἰς τὸ μὴ ὄν. *in Cael.* 268.32–269.14 οἱ δὲ τοῦ πάντα πρὸς τὸ μέσον φέρεσθαι κατὰ φύσιν τεκμήριον κομίζοντες τὸ τῆς γῆς ὑποσπωμένης τὸ ὕδωρ ἐπὶ τὸ κάτω φέρεσθαι καὶ τοῦ ὕδατος τὸν ἀέρα ἀγνοοῦσι τὴν τούτου αἰτίαν τὴν ἀντιπερίστασιν οὖσαν· τῶν γὰρ παχυτέρων εἰς τὴν τῶν λεπτοτέρων χώραν μετατιθεμένων τὰ λεπτότερα τὴν τῶν παχυτέρων χώραν μεταλαμβάνει περιωθούμενα πρὸς τὸ κάτω διὰ τὸ μὴδὲν εἶναι κενὸν μὴδὲ σῶμα διὰ σώματος χωρεῖν. ἰστέον δέ, ὅτι οὐ Στράτων (fr. 50 Wehrli, 49 Sharples) μόνος οὐδὲ Ἐπίκουρος (fr. 276 Usener) πάντα ἔλεγον εἶναι τὰ σώματα βαρέα καὶ φύσει μὲν ἐπὶ τὸ κάτω φερόμενα, παρὰ φύσιν δὲ ἐπὶ τὸ ἄνω, ἀλλὰ καὶ ὁ Πλάτων οἶδε φερομένην † αὐτὴν † (leg. ταύτην τὴν δόξαν) καὶ διελέγχει τό τε κάτω καὶ τὸ ἄνω ἐπὶ τοῦ κόσμου μὴ καλῶς εἰρῆσθαι νομίζων καὶ τὸ βαρὲα λέγεσθαι οὕτως ὡς πρὸς τὸ κάτω φερόμενα μὴ ἀποδεχόμενος. γράφει δὲ ἐν Τιμαίῳ τάδε (62c)· ‘φύσει γὰρ δὴ τινας τόπους δύο εἶναι διειληφότας διχῇ τὸ πᾶν ἐναντίους, τὸν μὲν κάτω, πρὸς δὲ φέρεται πάντα, ὅσα τινὰ ὄγκον σώματος ἔχει, τὸν δὲ ἄνω, πρὸς δὲ ἀκουσίως ἔρχεται πᾶν, οὐκ ὀρθὸν οὐδαμῇ νομίζειν. καὶ γὰρ καὶ οἱ τὰς ἀτόμους λέγοντες ναστάς οὕσας βαρείας ἔλεγον αὐτάς καὶ βάρους τοῖς συνθέτοις αἰτίας, ὥσπερ κουφότητος τὸ κενόν. *in Cael.* 710.14–711.11 Πτολεμαῖος (fr. 1 Heiberg) δὲ ὁ μαθηματικὸς ἐν τῷ Περὶ ῥοπῶν τὴν ἐναντίαν ἔχων τῷ Ἀριστοτέλει δόξαν πειράται κατασκευάζειν καὶ αὐτός, ὅτι ἐν τῇ ἑαυτῶν χώρᾳ οὔτε τὸ ὕδωρ οὔτε ὁ ἀήρ ἔχει βάρος. καὶ ὅτι μὲν τὸ ὕδωρ οὐκ ἔχει, δείκνυσιν ἐκ τοῦ τοῦς καταδύοντας μὴ αἰσθάνεσθαι βάρους τοῦ ἐπικειμένου ὕδατος, καίτοι τινὰς εἰς πολὺ καταδύοντας βάθος. ... τὸ δὲ τὸν ἀέρα ἐν τῇ ὁλότῃ τῇ ἑαυτοῦ μὴ ἔχειν βάρος καὶ ὁ Πτολεμαῖος ἐκ τοῦ αὐτοῦ τεκμηρίου τοῦ κατὰ τὸν ἀσκὸν δείκνυσιν οὐ μόνον πρὸς τὸ βαρύτερον εἶναι τὸν πεφυσημένον ἀσκὸν τοῦ ἀφυσήτου, ὅπερ ἐδόκει τῷ Ἀριστοτέλει, ἀντιλέγων, ἀλλὰ καὶ κουφότερον αὐτὸν γίνεσθαι φυσηθέντα βουλόμενος. ... τῶν δὲ πρὸ ἐμοῦ τις καὶ αὐτὸς πειραθεὶς τὸν αὐτὸν εὐρηκέναι σταθμὸν ἔγραψε, μᾶλλον δὲ πρὶν φυσηθῆναι βαρύτερον ὄντα ἑλαχίστω τινί, ὅπερ τῷ Πτολεμαίῳ συμφυγγεται. καὶ δῆλον, ὅτι, εἰ μὲν, ὡς ἐπειράθην ἐγώ, τὸ ἀληθὲς ἔχει, ἀρρεπὴ ἂν ἐν τοῖς οἰκείοις τόποις εἴη τὰ στοιχεῖα μήτε βάρος ἔχοντα μὴδὲν αὐτῶν μήτε κουφότητα, ὅπερ ἐπὶ τοῦ ὕδατος ὁ Πτολεμαῖος ὁμολογεῖ. ... εἰ δέ, ὡς ὁ Πτολεμαῖός φησι, κουφότερος ὁ πεφυσημένος ἐστὶν ἀσκὸς τοῦ ἀφυσήτου, ὁ μὲν ἀήρ κουφότητα ἔχει ἐν τῷ ἑαυτοῦ τόπῳ, τὸ δὲ ὕδωρ ἀκόλουθον ἂν εἴη κατὰ τὸν αὐτὸν λόγον βάρος ἔχειν ἐν τῷ ἑαυτοῦ τόπῳ κτλ.

Chapter heading: Aristotle *Cael.* 3.1 298b1–3 φανερόν ὅτι τὴν πλείστην συμβαίνει τῆς περὶ φύσεως ἱστορίας περὶ σωμάτων εἶναι. **Sextus Empiricus** *M.* 1.20 tit. Περὶ σώματος. *M.* 9 pinax ε’ Περὶ σώματος. *M.* 9.359 tit. Περὶ σώματος. **Diogenes Laertius** *V.P.* 7.132 (on the Stoics) τὸν δὲ φυσικὸν λόγον διαίρουσιν εἰς τε τὸν περὶ σωμάτων τρόπον καὶ κτλ.

§1αβ Definitions: Heron *Mechanicus Def.* 11.1 σῶμα μὲν οὖν μαθηματικόν ἐστὶ τὸ τριχῇ διαστατόν, σῶμα δὲ ἀπλῶς τὸ τριχῇ διαστατόν μετὰ ἀντιτυπίας. **ps.Galen** *Qual.Incorp.* 19.464.14–17 K. ἀρ’ οὐχὶ σῶμά τινος φήσαντος εὐθύς νοεῖν ἡμῖν συμβέβηκε τριχῇ τινὰ διαστατὴν οὐσίαν ἀντίτυπον, αὐτὸ δὲ μόνον εἰ φαίη τι τριχῇ διαστατόν, οὐ μᾶλλον σῶμα νοῆσαι τὸ λεγόμενον ἢ καὶ τὸ κενὸν καὶ τὸν τρόπον; *Qual.Incorp.* 19.483.13–14 (SVF 2.381) διὰ τί δὲ μόνου, καθάπερ ἔφην, τοῦ σώματος

τούτον ὅρον εἶναι φασί, τὸ τριχῇ διαστατὸν μετ' ἀντιτυπίας. **ps.Galen** *HPh* c. 23, *DG* p. 612.19–20 ἕτεροι τὸ τριχῇ διαστατὸν μετὰ ἀντιτυπίας τὸ σῶμα καθεστάναι φασίν.

§1α Definition: **Plato** *Tim.* 32a–b εἰ μὲν οὖν ἐπίπεδον μὲν, βάθος δὲ μηδὲν ἔχον ἔδει γίγνεσθαι τὸ τοῦ παντὸς σῶμα, μία μεσότης ἂν ἐξήρκει (b) τὰ τε μεθ' αὐτῆς συνδεῖν καὶ ἑαυτήν, νῦν δὲ στερεοσιδῇ γὰρ αὐτὸν προσήκειν εἶναι. *Tim.* 53c τὸ δὲ τοῦ σώματος εἶδος πᾶν καὶ βάθος ἔχει. τὸ δὲ βάθος αὖ πᾶσα ἀνάγκη τὴν ἐπίπεδον περιειληφέναι φύσιν. **Aristotle** *Top.* 6.5 142b23–25 ἀμάρτημα ἔστιν ἐν οἷς οὐ πρόκειται τοῦ λόγου τὸ τί ἐστίν, οἷον ὁ τοῦ σώματος ὁρισμὸς 'τὸ ἔχον τρεῖς διαστάσεις'. *Phys.* 4.1 209a4–6 διαστήματα μὲν οὖν ἔχει τρία (sc. ὁ τόπος), μήκος καὶ πλάτος καὶ βάθος, οἷς ὀρίζεται σῶμα πᾶν. *Cael.* 1.1 268a6–8 συνεχὲς μὲν οὖν ἐστὶ τὸ διαιρετὸν εἰς αἰεὶ διαιρετὰ, σῶμα δὲ τὸ πάντῃ διαιρετὸν. μεγέθους δὲ τὸ μὲν ἐφ' ἑν γραμμῇ, τὸ δ' ἐπὶ δύο ἐπίπεδον, τὸ δ' ἐπὶ τρία σῶμα. *Met.* Δ.13 1020a13–14 μῆκος δὲ γραμμῇ πλάτος δὲ ἐπιφάνεια βάθος δὲ σῶμα. **Euclid** *Elem.* 11 hor. 1 στερεὸν ἐστὶ τὸ μῆκος καὶ πλάτος καὶ βάθος ἔχον. *Elem.* 11 hor. 2 στερεοῦ δὲ πέρας ἐπιφάνεια. **Philo of Alexandria** *Somn.* 1.26 ὅτι τὸ σῶμα καὶ τριχῇ διαστατὸν ... ἴσμεν, διαστάσεις μὲν τρεῖς ἔχον, μῆκος, βάθος, πλάτος. *Opif.* 102 τεκ. μνηριώσαιοτο δ' ἂν τις ἐκ τοῦ πᾶν σώμα ὀργανικὸν τρισὶ μὲν κεχρησθῇ διαστάσεσι, μήκει πλάτει καὶ βάθει. **Diogenes Laertius** *VP.* 7.135 σῶμα δ' ἐστίν, ὡς φησιν Ἀπολλόδωρος (*SVF* 3 Apoll. 6) ἐν τῇ Φυσικῇ, τὸ τριχῇ διαστατὸν, εἰς μῆκος, εἰς πλάτος, εἰς βάθος· τοῦτο δὲ καὶ στερεὸν σῶμα καλεῖται. **Tertullian** *de An.* 9.1 *illud trifariam distantivum, longitudinem dico et latitudinem et sublimitatem, quibus metantur corpora philosophi.* **Eustratius** in *EN* 322.4–10 ὡς ὁ Πτολεμαῖος (fr. 6 Heiberg) τὸν ὅρον τοῦ τελείου σώματος ἀπέδειξεν ἔχοντα καλῶς σημεῖον ὑποθέμενος καὶ εἰς τρία δειξας γινομένην τὴν ῥύσιν αὐτοῦ, τὴν μὲν κατὰ μῆκος, τὴν δὲ κατὰ πλάτος, τὴν δὲ κατὰ βάθος, καὶ ἐπεὶ μὴ ἐνδέχεται ἐκ τοῦ αὐτοῦ σημείου πλείους τῶν τριῶν ἐπινοῆσαι ῥύσεις γινομένας, δῆλον, ὡς οὐδὲ πλείους τῶν τριῶν ἐνδέχεται διαστάσεις γενέσθαι. καὶ οὕτω δείκνυται τέλειος ὦν (ὁ) ὅρος τοῦ σώματος ὁ λέγων εἶναι σῶμα τὸ τριχῇ διαστατὸν.

§1βγ Definitions: **Sextus Empiricus** *M.* 1.21 εἰ γὰρ σύνοδος ἐστὶ κατὰ ἀθροισμὸν μεγέθους καὶ σχήματος καὶ ἀντιτυπίας τὸ σῶμα, ὡς φησιν Ἐπίκουρος (cf. fr. 275 Usener), ἢ τὸ τριχῇ διαστατὸν, τουτέστι τὸ ἐκ μήκους καὶ πλάτους καὶ βάθους, καθάπερ οἱ μαθηματικοὶ λέγουσιν, ἢ τὸ τριχῇ διαστατὸν μετὰ ἀντιτυπίας, ὡς πάλιν ὁ Ἐπίκουρος, ἵνα τοῦτω διορίζῃ τοῦ κενοῦ, ἢ ὄγκος ἀντίτυπος, ὡς ἄλλοι.

§1δ Definition: **Plato** *Sph.* 246a (cited by Clem. *Strom.* 2.4.15.1, by Eus. *PE* 14.4.10 and by Theod. *CAG* 2.19) διισχυρίζονται τοῦτο εἶναι μόνον ὃ παρέχει προσβολὴν καὶ ἐπαφὴν τινα, ταῦτόν σῶμα καὶ οὐσίαν ὀριζόμενοι. **Philodemus** *Sign.* (*PHerc.* 1065) 52, col. xxxiv.5–9 [κ]α[ι] τ[ὸ] λόγον ἴδιον εἶναι τόν[δε] τοῦ[δε] καὶ | ταύτην τὴν πρόληψιν, ὡ[σ]περ ὅταν | εἴπωμεν τὸ σῶμα καθὼ σῶμα | ὄγκον ἔχειν καὶ ἀντ[ι]τυπ[ί]αν. **Lucretius** *DRN* 1.304 *tangere enim et tangi nisi corpus nulla potest res.* *DRN* 1.336–337 *namque officium quod corporis exstat, / officere atque obstar.* **Plutarch** *de E* 390D μέχρι τοῦ σώματος τελειῶσαι καὶ παρασχεῖν ἀπτὸν ὄγκον καὶ ἀντίτυπον. **Sextus Empiricus** *M.* 10.221–222 ἀχώριστα μὲν οὖν ἐστὶ τῶν οἷς συμβέβηκεν ὥσπερ ἡ ἀντιτυπία μὲν τοῦ σώματος, εἷξις δὲ τοῦ κενοῦ·

(222) οὔτε γὰρ σῶμα δυνατόν ἐστί ποτε νοῆσαι χωρὶς τῆς ἀντιτυπίας οὔτε τὸ κενὸν χωρὶς εἵξεως, ἀλλ' αἰδίον ἐκατέρου συμβεβηκός, τοῦ μὲν τὸ ἀντιτυπεῖν, τοῦ δὲ τὸ εἶκιν.

§1γ Definition: Aristotle *Phys.* 3.5 205b31 πᾶν σῶμα αἰσθητὸν ἐν τόπῳ.

§§2–3 Plato Aristotle: Atticus fr. 6.11–12 Des Places at Eus. *PE* 15.8.11–12 (verbatim) καὶ περὶ τῶν ἄλλων δὲ σωμάτων, ὑπεξαίρουμένου τοῦ πέμπτου, φαίνεται φιλονεικῶν Ἀριστοτέλης μὴ τὰ αὐτὰ λέγειν Πλάτῳ. ζητήσαντος γὰρ τοῦ Πλάτωνος, εἰ ἐστὶ φύσει βαρὺ σῶμα ἢ φύσει κοῦφον, καὶ ἐπειδὴ ταῦτα κατὰ τὴν πρὸς τὸ ἄνω καὶ κάτω σχέσιν ἐφαίνοτο λέγεσθαι, σκεψαμένου, εἴτε ἐστὶ τι κάτω φύσει καὶ ἄνω εἴτε μή, καὶ ἀποδείξαντος ἀκριβῶς, ὅτι κατὰ μὲν τὰς τῶν σωμάτων πρὸς τοὺς τόπους οἰκειότητος τὸ κάτω λέγοιτο ἐκάστοις ἐφ' ὃ φέροιτο, ἄνω δὲ ἐκάστοις τὸ ἀλλότριον ἂν οὐ ἀναχωροῖεν, καὶ κατὰ τὴν αὐτὴν σχέσιν καὶ τὸ βαρὺ καὶ τὸ κοῦφον διανείμαντος καὶ πρόσω τούτων ἀποδείξαντος ὅτι μήτε τὸ μέσον μήτε τὸ περίξ αὐτῶν εὐλογον ἄνω τι ἢ κάτω λέγεσθαι (12) ὅδε ἀντίθησι πανταχόθεν καταβάλλειν δεῖν ἡγούμενος τὰ ἐκείνου, καὶ τὸ μὲν ἐπὶ τὸ μέσον φερόμενον βαρὺ λέγειν βιάζεται, τὸ δὲ ἐπὶ τὸ περίξ κοῦφον· καὶ τὸν μὲν τόπον τὸν ἐν μέσῳ κάτω φησί, τὸν δὲ περίξ ἄνω.

§2 Plato: Plato *Tim.* 63b–d εἴ τις ἐν τῷ τοῦ παντός τόπῳ καθ' ὃν ἡ τοῦ πυρὸς εἴληχε μάλιστα φύσις, οὐ καὶ πλείστον ἂν ἡθροισμένον εἴη πρὸς ὃ φέρεται, ἐπεμβάς ἐπ' ἐκεῖνο καὶ δύνανται εἰς τοῦτο ἔχων, μέρη τοῦ πυρὸς ἀφαιρῶν ἵσταται τιθεὶς εἰς πλάστιγγας, αἰρῶν τὸν ζυγὸν καὶ τὸ πῦρ ἔλκων εἰς ἀνόμοιον ἀέρα βιαζόμενος (c) δῆλον ὡς τοῦλαττόν που τοῦ μείζονος ῥῶον βιάται· ῥώμη γὰρ μιᾷ δυοῖν ἅμα μετεωρίζομενοι τὸ μὲν ἔλαττον μᾶλλον, τὸ δὲ πλέον ἦττον ἀνάγκη που κατατεινόμενον συνέπεσθαι τῇ βίᾳ, καὶ τὸ μὲν πολὺ βαρὺ καὶ κάτω φερόμενον κληθῆναι, τὸ δὲ σμικρὸν ἐλαφρὸν καὶ ἄνω. ταῦτ' οὖν δὴ τοῦτο δεῖ φωρᾶσαι δρῶντας ἡμᾶς περὶ τόνδε τὸν τόπον. ἐπὶ γὰρ γῆς βεβῶτες γεῶδη γένῃ διστάμενοι, καὶ γῆν ἐνίοτε αὐτὴν, ἔλκομεν εἰς ἀνόμοιον ἀέρα βίᾳ καὶ παρὰ φύσιν, ἀμφοτέρω τοῦ (d) συγγενοῦς ἀντεχόμενα, τὸ δὲ σμικρότερον ῥῶον τοῦ μείζονος βιαζόμενοι εἰς τὸ ἀνόμοιον πρότερον συνέπεται· κοῦφον οὖν αὐτὸ προσειρήκαμεν, καὶ τὸν τόπον εἰς ὃν βιαζόμεθα, ἄνω, τὸ δ' ἐναντίον τούτοις πάθος βαρὺ καὶ κάτω.

§3 Aristotle: Aristotle *Cael.* 4.4 311a16–b16 πρῶτον μὲν οὖν διωρίσθω ... βαρὺ μὲν ἀπλῶς τὸ πᾶσιν ὑφίσταμενον, κοῦφον δὲ τὸ πᾶσιν ἐπιπολάζον. ἀπλῶς δὲ λέγω εἷς τε τὸ γένος βλέπων, καὶ ὅσοις μὴ ἀμφοτέρω ὑπάρχει· οἷον φαίνεται πυρὸς μὲν τὸ τυχὸν μέγεθος ἄνω φερόμενον, ἐὰν μὴ τι τύχη κωλύον ἔτερον, γῆς δὲ κάτω· τὸν αὐτὸν δὲ τρόπον καὶ θάττον τὸ πλεῖον. ἄλλως δὲ βαρὺ καὶ κοῦφον, οἷς ἀμφοτέρω ὑπάρχει· καὶ γὰρ ἐπιπολάζουσι τισὶ καὶ ὑφίστανται, καθάπερ ἀήρ καὶ ὕδωρ· ἀπλῶς μὲν γὰρ οὐδέτερον τούτων κοῦφον ἢ βαρὺ· γῆς μὲν γὰρ ἄμφω κουφότερα (ἐπιπολάζει γὰρ αὐτὴ τὸ τυχὸν αὐτῶν μόριον), πυρὸς δὲ βαρύτερα (ὑφίσταται γὰρ αὐτῶν ὅποσον ἂν ἢ μόριον), πρὸς ἑαυτὰ δὲ ἀπλῶς τὸ μὲν βαρὺ τὸ δὲ κοῦφον· ἀήρ μὲν γὰρ ὅποσος ἂν ἢ, ἐπιπολάζει ὕδατι, ὕδωρ δὲ ὅποσον ἂν ἢ, ἀέρι ὑφίσταται. ... πάντα βάρους ἔχει πλὴν πυρὸς καὶ κουφότητα πλὴν γῆς. γῆν μὲν οὖν καὶ ὅσα γῆς ἔχει πλείστον, πανταχοῦ βάρους ἔχειν ἀναγκαῖον, ὕδωρ δὲ πανταχοῦ πλὴν ἐν γῇ, ἀέρα δὲ πλὴν ἐν ὕδατι καὶ γῇ· ἐν τῇ αὐτοῦ γὰρ χώρα πάντα βάρους ἔχει πλὴν πυρὸς, καὶ ὁ ἀήρ. ... ὅτι δ' ἐστὶ τι ἀπλῶς κοῦφον καὶ ἀπλῶς βαρὺ, ἐκ τῶνδ' ἐστὶ φανερόν. λέγω δ' ἀπλῶς κοῦφον ὃ αἰεὶ ἄνω καὶ βαρὺ ὃ αἰεὶ κάτω πέφυκε φέρεσθαι μὴ κωλύομενον. *Cael.*

3.1 269a12–b6 εἰ οὖν πῦρ ἢ ἄλλο τι τῶν τοιούτων ἐστὶ τὸ κύκλῳ φερόμενον, ἐναντία ἢ κατὰ φύσιν αὐτοῦ φορὰ ἔσται τῇ κύκλῳ. ... εἰ μὲν ἐστὶν ἡ κύκλῳ τινὶ φορὰ κατὰ φύσιν, δῆλον ὡς εἴη ἂν τι σῶμα τῶν ἀπλῶν καὶ πρῶτων, ὃ πέφυκεν, ὥσπερ τὸ πῦρ ἄνω καὶ ἡ γῆ κάτω, ἐκεῖνο κύκλῳ φέρεσθαι κατὰ φύσιν. **Cicero ND 2.44** *nec vero Aristoteles* (fr. 24 Rose³, *de Phil.* fr. 21 Walzer/Ross) *non laudandus in eo quod omnia quae moventur aut natura moveri censuit aut vi aut voluntate; moveri autem solem et lunam et sidera omnia; quae autem natura moverentur, haec aut pondere deorsum aut levitate in sublime ferri, quorum neutrum astris contingeret propterea quod eorum motus in orbem circumque ferretur; nec vero dici potest vi quadam maiore fieri ut contra naturam astra moveantur (quae enim potest maior esse?); restat igitur ut motus astrorum sit voluntarius.*

§4 Stoics: Aristotle Cael. 4.4 312a7–8 διὸ καὶ εὐλόγως τὸ βαρὺ καὶ κοῦφον δύο ἐστίν· καὶ γὰρ οἱ τόποι δύο, τὸ μέσον καὶ τὸ ἔσχατον. **Seneca Nat.** 2.10.1 *ab aethere lucidissimo air in terram usque diffusus est, agilior quidem tenuiorque et altior terris nec minus aquis, ceterum aethere spissior graviorque.* **Alexander of Aphrodisias Mixt.** 218.2–6 καὶ τῶν στοιχείων δέ φασι (*SVF* 2.473) τῶν τεσσάρων τὰ δύο, τὸ τε πῦρ καὶ τὸν ἀέρα, λεπτομερῆ τε καὶ κοῦφα καὶ εὐτονα ὄντα διὰ τῶν δύο, γῆς τε καὶ ὕδατος, παχυμερῶν καὶ βαρέων καὶ ἀτόνων ὄντων, διαπεφοιτηθέναι ὅλα δι' ὅλων, σῶζοντα τὴν οἰκείαν φύσιν καὶ συνέχειαν αὐτὰ τε καὶ ἐκείνα.

§§5–6 Epicurus Democritus: Cicero ND 1.69 Epicurus (fr. 281 Usener) *cum videret, si atomi ferrentur in locum inferiorem suapte pondere, nihil fore in nostra potestate, quod esset earum motus certus et necessarius, invenit quo modo necessitatem effugeret, quod videlicet Democritum* (fr. 38 Luria) *fugerat: ait atomum, cum pondere et gravitate directo deorsus feratur, declinare paululum.* **Fat.** 22 (Epicurus fr. 281 Usener) *itaque tertius quidam motus oritur extra pondus et plagam, cum declinat atomus intervallo minimo (id appellat ἑλάχιστον); quam declinationem sine causa fieri si minus verbis, re cogitur confiteri.* **Fat.** 46 *'declinat' inquit 'atomus'. primum cur? aliam enim quandam vim motus habebant a Democrito (68A47 DK) impulsione, quam plagam ille appellat, a te, Epicure* (fr. 281), *gravitatis et ponderis.* **Diogenes of Oenoanda** fr. 54 cols. 2.3–3.9 Smith ἂν γὰρ [ρ] τῷ Δημοκρίτου (68A50 DK) τις [ρ]ήσῃται | λόγῳ, μηδεμίαν μὲν | ἐλευθέραν [φ]άσκων | ταῖς ἀτόμ[οι]ς κείνησιν εἶναι διὰ τὴν πρὸς | ἀλλήλας σύ[ν]χρουσιν | αὐτῶν, ἐνθεν δὲ φαί[νεσθαι] κατ[η]ννακασ[μένως] πά[ν]τα κεινεῖσθαι, φή[σομ]εν πρὸς | αὐτόν, ὡς [οὐκ] οἶδας, ὅσ[τις] ποτὲ εἶ, καὶ ἐλευθέραν τινα ἐν ταῖς ἀτόμ[οι]ς κείνησιν εἶναι, ἢ [ν] | Δημόκριτος μὲν οὐχ εὗρεν, Ἐπίκουρος (—) δὲ εἰς φῶς ἦγαγεν, παρεν[χλιτικὴν] ὑπάρχουσαν, | ὡς ἐκ τῶν φαινομένων δείκνυσιν;

§5 Epicurus: Epicurus Ep.Hdt. at D.L. 10.42 πρὸς τε τούτοις τὰ ἄτομα τῶν σωμάτων καὶ μεστά, ἐξ ὧν καὶ αἱ συγκρίσεις γίνονται καὶ εἰς ἃ διαλύονται, ἀπερίληπτά ἐστι ταῖς διαφοραῖς τῶν σχημάτων. ... ταῖς δὲ διαφοραῖς οὐχ ἀπλῶς ἄπειροι ἀλλὰ μόνον ἀπερίληπτοι. **Ep.Hdt.** 43–44 κινοῦνται τε συνεχῶς αἱ ἄτομοι ... αἱ δὲ αὐτοῦ τὸν παλμὸν ἴσχυσαι, ὅταν τύχωσι τῇ περιπλοκῇ κεκλειμένα ἢ στεγαζόμε-

ναι παρὰ τῶν πλεκτικῶν. (44) ἥ τε γάρ τοῦ κενοῦ φύσις ἡ διορίζουσα ἐκάστην αὐτὴν τοῦτο παρασκευάζει, τὴν ὑπέρεισιν οὐχ οἷα τε οὖσα ποιεῖσθαι· ἥ τε στερεότης ἡ ὑπάρχουσα αὐταῖς κατὰ τὴν σύγκρουσιν τὸν ἀποπαλμὸν ποιεῖ, ἐφ' ὅποσον ἂν ἡ περιπλοκὴ τὴν ἀποκατάστασιν ἐκ τῆς συγκρούσεως διδῶ. **Lucretius DRN** 2.216–224 *illud in his quoque te rebus cognoscere avemus, / corpora cum deorsum rectum per inane feruntur / ponderibus propriis, incerto tempore ferme / incertisque locis spatium depellere paulum, / tantum quod momen mutatum dicere possis. / quod nisi declinare solerent, omnia deorsum / imbris uti guttae caderent per inane profundum / nec foret offensus natus nec plaga creata / principibus; ita nihil umquam natura creasset.* **DRN** 2.284–293 *quare in seminibus quoque idem fateare necessest, / esse aliam praeter plagas et pondera causam / motibus, unde haec est nobis innata potestas, / de nilo quoniam fieri nihil posse videmus. / pondus enim prohibet ne plagis omnia fiant / externa quasi vi; sed ne mens [Lambinus alii, res codd.] ipsa necessum / intestinum habeat cunctis in rebus agendis / et devicta quasi cogatur ferre patique, / id facit exiguum clinamen principiorum / nec regione loci certa nec tempore certo.* **Capitula Lucretiana** at **DRN** 2.21 *de (de)clinatione motus.* **Plutarch Adv.Col.** 116D ἄτε δὴ καὶ τῶν ἐν βᾶθει τοῦ συγκρίματος ἀτόμων οὐδέποτε λήξει κινήσεως οὐδὲ παλμῶν πρὸς ἀλλήλας δυναμένων, ὥσπερ αὐτοὶ λέγουσιν. **Galen Morb.Diff.** 6.848.12–15 K. οἷον ἀναπέτειά τις οὖσα ἐκπτώσει τῶν στοιχείων, ἃ δὴ καὶ κυρίως σώματα προσαγορεύεσθαι φασὶν ἀπλᾶ τε καὶ πρῶτα ὑπάρχοντα· τὰ γὰρ ἐκ τούτων συντιθέμενα συγκρίματα καλοῦσιν.

§5 + §7 **Epicurus Strato: Simplicius in Cael.** 267.29–268.4 ὅτι δὲ οὐδὲ τῇ ὑπ' ἀλλήλων ἐκθλίψει βιαζόμενα κινεῖται (sc. τὰ στοιχεῖα), δείκνυσιν ἐφεξῆς (sc. Ἀριστοτέλης). ταύτης δὲ γεγόνασι τῆς δόξης μετ' αὐτὸν Στράτων (fr. 52 Wehrli, 50B Sharples) τε καὶ Ἐπικουρος (fr. 276 Usener) πᾶν σῶμα βαρύτητα ἔχειν νομίζοντες καὶ πρὸς τὸ μέσον φέρεσθαι, τῷ δὲ τὰ βαρύτερα ὑφιζάνειν τὰ ἡττον βαρέα ὑπ' ἐκείνων ἐκθλίβεσθαι βίᾳ πρὸς τὸ ἄνω, ὥστε, εἴ τις ὑφείλε τὴν γῆν, ἐλθεῖν ἂν τὸ ὕδωρ εἰς τὸ κέντρον, καὶ εἴ τις τὸ ὕδωρ, τὸν ἀέρα, καὶ εἰ τὸν ἀέρα, τὸ πῦρ.

§6 **Democritus: Aristotle GC** 1.8 325a30–31 (Leucippus 67A7 DK) ἄπειρα τὸ πλῆθος (sc. atomi) καὶ ἀόρατα διὰ σμικρότητα τῶν ὄγκων. **Simplicius in Cael.** 295.5–8 (**Aristotle** Περὶ Δημοκρίτου, fr. 208 R³; 68A37 DK) νομίζει (sc. Δημόκριτος) δὲ εἶναι οὕτω μικρὰς τὰς οὐσίας ὥστε ἐκφυγεῖν τὰς ἡμετέρας αἰσθήσεις, ὑπάρχειν δὲ αὐτοῖς παντοίας μορφᾶς καὶ σχήματα παντοῖα καὶ κατὰ μέγεθος διαφοράς. **Epicurus Ep.Hdt.** at D.L. 10.55–56 ἀλλὰ μὴν οὐδὲ δεῖ νομίζειν πᾶν μέγεθος ἐν ταῖς ἀτόμοις ὑπάρχειν, ἵνα μὴ τὰ φαινόμενα ἀντιμαρτυρῇ· παραλλαγὰς δὲ τινὰς μεγεθῶν νομιστέον εἶναι. ... (56) πᾶν δὲ μέγεθος ὑπάρχον οὔτε χρησίμὸν ἐστὶ πρὸς τὰς τῶν ποιότητων διαφοράς, ἀφίχθαι τε ἅμ' ἔδει καὶ πρὸς ἡμᾶς ὁρατὰς ἀτόμους· ὃ οὐ θεωρεῖται γινόμενον οὐθ' ὅπως ἂν γένοιτο ὁρατὴ ἄτομος ἔστιν ἐπινοήσαι. **Lucretius DRN** 2.496–499 ... *quare non est ut credere possis / esse infinitis distantia semina formis, / ne quaedam cogas inmani maximitate / esse, supra quod iam docui non posse probari.* **DRN** 4.111–113 ... *quoniam primordia tantum / sunt infra nostros sensus tantoque minora / quam quae primum oculi coeptant non posse tueri.*

§7 Strato: *Aristotle Cael.* 4.1 308a9–13 περι μὲν οὖν τῶν ἀπλῶς λεγομένων οὐδέν εἴρηται παρὰ τῶν πρότερον, περι δὲ τῶν πρὸς ἕτερον· οὐ γὰρ λέγουσι τί ἐστι τὸ βαρὺ καὶ τί τὸ κοῦφον, ἀλλὰ τί τὸ βαρύτερον καὶ κουφότερον ἐν τοῖς ἔχουσι βάρος. **Alexander of Aphrodisias** *in Mete.* 127.28–30 οὕτως γοῦν ἤδη τινὰ βάρος ἔχοντα διὰ τὸ κάτωθεν ἐκθλίβεσθαι ἄνω φέρεται οἷον ἐκπηδῶντα, ὡς ὁρῶμεν τὰ τε ἐκπυρηνιζόμενα φερόμενα πολλάκις καὶ ὕδατα πολλά.

Liber 1 Caput 13

- P^B**: ps.Plutarchus *Plac.* 883B; p. 312^a1–7 Diels—**P^G**: ps.Galenus *HPh* c. 26; p. 615.17–20 Diels—**P^Q**: Qusṭā ibn Lūqā pp. 126–127 Daiber—**P^s**: Psellus *Omn.Doctr.* c. 93, p. 54 Westerink
S: Stobaeus *Ecl.* 1.14.1k, p. 143.13–22 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b2 Henry (titulus solus)

Titulus γγ'. Περὶ ἐλαχίστων (P,S)

- §1 Ἐμπεδοκλῆς πρὸ τῶν τεσσάρων στοιχείων θραύσματα ἐλάχιστα, οἶονεῖ στοιχεῖα πρὶν στοιχείων, ὁμοιομερῆ, ὃ ἐστι στρογγύλα. (P1,S1)
§2 Ἡράκλειτος πρὸ τοῦ ἐνὸς δοκεῖ τισι ψηγμάτια τινα εἰσάγει(ν). (P2,S2)
§3 Ξενοκράτης καὶ Διόδωρος ἀμερῇ τὰ ἐλάχιστα ὠρίζοντο. (S3)
§4 Ἡρακλείδης θραύσματα. (S4)

5

§1 Empedocles 31A43 DK; §2 Heraclitus T405–407 Mouraviev; §3 Xenocrates fr. 51 Heinze, F 68 Isnardi Parente²; Diodorus Cronus fr. 117B Döring, II F8 Giannantoni; §4 Heraclides fr. 121 Wehrli, 62 Schütrumpf

titulus Περὶ ἐλαχίστων ^{P^BG^Q} : Περὶ σωμάτων (~ tit. c. 1.12) καὶ περὶ τῆς τούτων τομῆς (~ tit. c. 1.16) καὶ περὶ ἐλαχίστου S §1 [2] post Ἐμπεδοκλῆς add. S περὶ ἐλαχίστου ἔφη, i.e. tit. repetit ex pleniore tit. capitis sui 1.14, ἔφη retin. Vitek || [2–3] οἶονεῖ ... στοιχείων] om. P^Q || πρὶν P^B : πρὶν τῶν S, ἀπὸ P^G || [3] ὃ ... στρογγύλα post ὁμοιομερῇ add. P^B, cf. P^Q (*die einander in den runden Teilen ähnlich sind* Q), non hab. S, secl. edd. §2 [4] πρὸ ἐνὸς S : om. P^B, *die ersten unter den Arten* Q || δοκεῖ τισι S : om. P || ψηγμάτια τινα P^B : ψήγματα S, ex suo §1 P^G || ἐλάχιστα καὶ ἀμερῇ post ψηγμάτια τινα P^B, νοήσει μόνον ληπτὰ paraphr. P^G, *kleinste, unteilbare Teile von äußerster Kleinheit* Q : non hab. S, 'ex §3 falso translata' ap. P^B Diels ad loc. || εἰσάγει(ν) scripsimus: εἰσάγει P^BG, καταλείπειν S §§3–4 om. P

Testes primi:

Tradito ps.Plutarchi:

ps.Galenus *HPh* c. 26 (~ tit.) Περὶ ἐλαχίστων (text Diels)

26.1 (~ P1–2) τῶν τεσσάρων στοιχείων πράγματα βαρύτατα οἷον στοιχεῖα ἀπὸ στοιχείων ἢ ψήγματα νομίζουσιν εἶναι τινες τὰ λεγόμενα ἐλάχιστα.

26.2 (~ P2) Ἡράκλειτος δὲ εἰσάγει ταῦτα νοήσει μόνον ληπτὰ.

Psellus *Omn.Doctr.* c. 93 (~ tit.) Περὶ ἐλαχίστων

ἐλάχιστα φασὶν οἱ φιλόσοφοι σώματα τινὰ ὧν οὐκ ἔστιν ἕτερα σμικρομερέστερα. καὶ ὑποτίθενται ἀμερῇ τινα, ἥτοι σμικρομερῇ, καὶ ἄσγκα, ἥτοι σμικρομεγέθη, ἀρχὰς τῶν ὄντων· κτλ.

Loci Aetiani:

quaestio A 1.16.2 οἱ τὰς ἀτόμους (εἰσάγοντες) περὶ τὰ ἀμερῆ ἵστασθαι καὶ μὴ εἰς ἄπειρον εἶναι τὴν τομὴν. A 4.9.10 οἱ τὰ ἄτομα καὶ οἱ τὰ ὁμοιομερῆ καὶ οἱ τὰ ἀμερῆ καὶ τὰ ἐλάχιστα πάντ' ἐν πᾶσι τὰ αἰσθητὰ ἀναμεμῖχθαι κτλ.

§§1 et 4 A 4.19.2 Ἐπικούρος τὴν φωνὴν εἶναι ρεῦμα ἐκπεμπόμενον ἀπὸ τῶν φωνούντων ἢ ἡχούντων ἢ ψοφούντων· τοῦτο δὲ τὸ ρεῦμα εἰς ὁμοιοσχήμονα θρύπτεσθαι θραύσματα. A 4.19.3 Δημόκριτος καὶ τὸν ἀέρα φησὶν εἰς ὁμοιοσχήμονα θρύπτεσθαι σώματα καὶ συγκαλινδεῖσθαι τοῖς ἐκ τῆς φωνῆς θραύσμασι. ... ἔχει δ' ἂν τις πρὸς τούτους εἰπεῖν· πῶς ὀλίγα θραύσματα πνεύματος μυριάνδρον ἐκπληροῖ θέατρον;

§§1–2 A 1.24.2 Ἐμπεδοκλῆς Ἀναξαγόρας Δημόκριτος Ἐπικούρος καὶ πάντες, ὅσοι κατὰ συναθροισμὸν τῶν λεπτομερῶν σωμάτων κοσμοποιοῦσι, συγκρίσεις μὲν καὶ διακρίσεις εἰσάγουσι κτλ. A 1.17.2 οἱ περὶ Ἀναξαγόραν καὶ Δημόκριτον τὰς κράσεις κατὰ παράθεσιν γίνεσθαι τῶν στοιχείων.

§1 A 1.14.3 Ἀναξαγόρας τὰ ὁμοιομερῆ πολυσχήμονα. A 1.17.3 Ἐμπεδοκλῆς καὶ Ξενοκράτης ἐκ μικροτέρων ὄγκων τὰ στοιχεῖα συγκρίνει, ἅπερ ἐστὶν ἐλάχιστα καὶ οἰοῖται στοιχεῖα στοιχείων. A 1.30.1 Ἐμπεδοκλῆς φύσιν μὴδὲν εἶναι, μίξιν δὲ τῶν στοιχείων καὶ διάστασιν.

§2 + §3 A 1.16.2 οἱ τὰς ἀτόμους (εἰσάγοντες) περὶ τὰ ἀμερῆ ἵστασθαι καὶ μὴ εἰς ἄπειρον εἶναι τὴν τομὴν. A 4.9.10 οἱ τὰ ἄτομα καὶ οἱ τὰ ὁμοιομερῆ καὶ οἱ τὰ ἀμερῆ καὶ τὰ ἐλάχιστα κτλ.

§3 A 1.3.18 Διόδωρος ἐπίκλην Κρόνος τὰ ἀμερῆ σώματα ἄπειρα, τὰ δ' αὐτὰ λεγόμενα καὶ ἐλάχιστα.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses for this chapter are P and S.

(1) P records two doxai in P^B, as do also Q and G, who strangely has a chapter on the ἐλάχιστα σώματα, but not on bodies in general (Diels omits a reference to this chapter at *DG* 312). Ps takes over the chapter heading and the beginning of his chapter reveals slight influence from its contents.

(2) S refers to the chapter heading of A 1.13 in the collective heading of *Ecl.* 1.14 on bodies etc. and includes a block of four successive doxai, which follow on from the doxai of 1.13 and the first doxa from 1.16. The first two doxai are the same as in P, and in the same order. The remaining two are not in P and will have been abridged away by him, though part of the contents of §3, i.e. the reference to ἀμερῆ, ended up in the abridged §2. So like in other chapters (1.12, 1.14, 1.15) P abridges by omitting the final lemmata, here §§3–4. It would seem that S wrote out the entire chapter.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Doxographical overviews of tenets concerned with the smallest elements are to be found in Sextus Empiricus and elsewhere; see further below, section D(e).

(2) *Sources.* It is to be noted that this chapter is anticipated in, or rather, dependent on, the account of 'body' in Aristotle's *De caelo* Book 1 ch. 1, and of body qua physical or elemental body in relation to weight *ibid.* Books 3–4. In *De caelo* 3.4–5 Aristotle, among other things, criticizes elemental theories that posit minimal bodies, viz. those of Leucippus and Democritus, of Plato in the *Timaeus*, and of various anonymous philosophers who make fire the element.

C *Chapter Heading*

Attested in both P and S, and of the standard umbrella type 'about x ', περὶ τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. The question types/categories involved in the present chapter are substance (in the physical sense) and quality, as is the category of quantity (sc. size: smallest particles). It is paralleled as a book title for the Stoic Sphaerus.

D *Analysis*

a Context

The chapter is the second of the block consisting of chs. 1.12–17, which deals with body in its various aspects. A chapter on the smallest type of bodies quite naturally follows upon ch. 1.12 on bodies, and is followed by 1.14 on the shapes of the cosmos, the elements and the elementary particles. See also above at section B.

b Number–Order of Lemmata

P has two, S four lemmata of which the first two, as we noted at section A, are the same as those of P and in the same order. Moreover P's second lemma incorporates an element from S's third. Accordingly there is no reason to modify the order of S, which is also that of Diels.

c Rationale–Structure of Chapter

The *Placita* rather scholastically devotes a separate chapter to this subject, boosting the evidence on bodies in ch. 1.12 with extra lemmata about Empedocles and Heraclitus and omitting references to the ordinary Atomists. Rather exceptionally in a plurilemmatic chapter there is no clear diaphonia, but only a diaeretic overview on a gliding scale of various views concerned with minima.

Major differences pertain to the elements: four in §1 Empedocles, one in §2 Heraclitus, who are depicted as agreeing about the priority of the particles vis-à-vis the elements. Nothing is said about priority in §§3–4. §3 fails to advise us about the different natures of these partless minima in Xenocrates and Diodorus Cronus respectively. We only hear about the views concerning ἀμερῇ of the latter and possibly Epicurus below, at the anonymous lemma ch. 1.16.2. Anyhow the result is a series of *recherché* examples, pleasing to the doxographical taste.

d Further Comments

General Points

The genus *minima* (ἐλάχιστα) has ‘fragments’ (θραύσματα), ‘little filings’ (ψηγμάτια) and ‘partless entities’ (ἀμερῇ) as species, but it is not immediately clear in which respects these species are believed to differ from each other. Perhaps we may assume that unlike the atomic ἀμερῇ the θραύσματα and ψηγμάτια are not unsplittable. For the visible ἐλάχιστον and the atomic ἐλάχιστον, i.e. for the technical use of the term, see Epicurus *Ep.Hdt.* at Diogenes Laertius *VP.* 10.58–59.

Individual Points

§1 The additional words in P^B ὃ ἐστι στρογγύλα are confirmed as part of the P tradition by Q. Diels and other editors opted for exclusion, believing it to be a glossema. But P, the epitomator, is as a rule not prone to adding something. For other additional phrases using the phrase ὃ ἐστι (‘i.e.’, thus explaining the meaning of a word or adding a further elucidation), see above, ch. 1.11.2 with Commentary D(d)§2, and below, ch. 5.14.1, twice, with commentary D(d)§1. Even so, and though small things may well be round and round things small, ‘round’ as the explanation of ‘smallest’ is not immediately clear. The adjective στρογγύλος is used for descriptions of specific kinds of atoms (cf. e.g. 67A129, Democritus cited by Theophrastus; Epicurus at A chs. 3.4.5, 4.19.3), but there is no (other) evidence of its use in relation to Empedocles. Since it does not make sense to say that the smallest parts have similar parts (unless one thinks of Epicurus’ minimal parts, but this lemma is about Empedocles), the adjective ὁμοιομερῇ will pertain to στοιχεῖα: the elements have similar parts, namely their θραύσματα, earth consisting of small pieces of earth etc. ‘Round’ should pertain in the first place not to smallest parts but to the spherical shape of the elemental layers around the spherical earth. Perhaps however one may believe that, exceptionally, ὁμοιομερῇ pertains not to substance but to shape, round elements having round parts. A curious passage in ps.Alexander’s *Problems* (cited below at section E(b)§1) states that ‘water is a spherical element, just like the other elements’, and argues from the ‘roundness of a falling drop of water’ to the roundness of the element as a whole: ‘water as a whole is just like its part; there-

fore it consists of similar parts'. In the next chapter, 'On shapes' 1.14.2–3, the smallest parts according to Anaxagoras and the Atomists, viz. the 'things with like parts' and the atoms, are said to be of 'many shapes' (πολυσχήμονα), while according to the Pythagoreans the 'shapes of the four elements' (τῶν τεττάρων στοιχείων), except 'cone-like' (κωνοειδές) fire, are said to be 'spherical' (σφαιρικά τὰ σχήματα). The conical form of fire can only pertain to the elemental parts. Cf. below, ch. 1.14, Commentary D(d)§2, also for parallels of confusion between the shape of the elements qua wholes and of their smallest parts. Empedocles was often considered a Pythagorean, e.g. Theophrastus *Phys.Op.* fr. 3 Diels = 227A FHS&G at Simplicius in *Phys.* 25.20–21, Timaeus *FrGrH* 566 F14 at Diogenes Laertius *VP.* 8.54. So these parallels rescue P's extra phrase: ii is a typical doxographical oddity, or confusion.

For the interpretation of Empedocles in Atomist terms, or rather in terms of a doctrine pertaining to smallest parts, beginning with Aristotle see Gemelli Marciano (1991).

§2 Remarkably all four witnesses have rather different texts for this short doxa; see the critical apparatus above. We note the following, but are aware of the eclectic and hypothetical nature of our *constitutio*:

(1) The version of S has a periphrastic character (see below at section D(d)(2)), so some preference has to be given to P^B. But S's reading πρὸ τοῦ ἑνός, confirmed by Q but absent in P^B, should not be sacrificed. Mouraviev (2000) T 406 rightly translates 'avant l'élément unique'. We have refrained from adding <στοιχείου> in our text. §2 πρὸ τοῦ ἑνός (sc. στοιχείου) takes up §1 πρὸ τῶν τεσσάρων στοιχείων. as Heraclitus' single element is contrasted with Empedocles' four (see at section D(c) above). G too has resorted to paraphrase.

(2) Diels' kept ἐλάχιστα καὶ ἀμερῇ in the text of P, though in his apparatus he plausibly asserted that ἐλάχιστα καὶ ἀμερῇ have been imported from §3, presumably before P decided to omit this paragraph. It is indeed likely that P coalesced two paragraphs, as is so often his practice. It is surely surprising to find Heraclitus credited with minima; the phrase δοκεῖ τισι ('some people believe') shows that this interpretation of a remark in Aristotle (see below at section D(d)(4)) was not the *opinio communis*, see M–R 2.1.191.

(3) The verb εἰσάγειν is standard idiom in A, see Diels *DG* 746a s.v.: 'saepe de dogmatis velut ψηγμάτια, συγκρίσεις, μαντικὴν, πέμπτον σῶμα al.'. S's verb καταλείπειν does not occur (elsewhere) in A. εἰσάγει is supported by the agreement of P^B and G; we venture to amend to the infinitive after δοκεῖ τισι (as in S).

(4) Instead of P^B's ψηγμάτιά τινα S and G have ψήγματα (Aristotle *Cael.* 3.5 304a18–21, for which see below, has ψήγματος). Although the Aristotelian precedent favours the common word the more unusual reading should be retained (only four more cases in extant Greek literature, including κονιορτώδη ψηγμάτια

at Philoponus *in de An.* 67.22 = Democritus fr. 200 Luria, the familiar comparison of Democritus' atoms with 'motes of dust' visible in sunbeams shining through windows). ψήγματα means 'gold dust' or 'motes in the air'; our translation of ψήγματα follows Guthrie's rendering (LCL) of the Aristotelian precedent at *Cael.* 3.5 304a18–21 where no name-label is provided; cited below in section E(b)§2. The tradition on which the *Placita* depends 'knows' that Aristotle here means Heraclitus; for other instances of this sort of knowledge see above, ch. 1.3 Commentary D(d)§13 and below, ch. 1.21, Commentary B(2). Lebedev (1979 and 1980) has meritoriously noticed that the gist of our lemma is anticipated in Aristotle's text, which however lacks a name-label. He argues that Aristotle provides us with a genuine fragment of Heraclitus. But this identification of Aristotle's anonymus is a hyper-interpretation. For other, sometimes more plausible instances see ad ch. 3.10.4 below, where the *Placita* 'knows' that Aristotle at *Cael.* 2.13 293b34–294a1 means Leucippus, and in other lemmata where—one does not know on what authority—it provides the names of individual Pythagoreans, e.g. Philolaus at ch. 2.7.6 or Hicetas at ch. 3.9.2, while Aristotle had mentioned the cosmology of 'the Pythagoreans' in general, as at *Cael.* 2.13 293a17–27. Cf. above ch. 1.3, Commentary D(d)§15.

§3 In ch. 1.16.3 ἀμερῇ are attributed to 'those thinkers who introduce the atoms', but it is not immediately clear what exactly this term refers to. In ch. 1.3.18 (as also elsewhere) Diodorus Cronus is credited with partless bodies (ἀμερῇ σώματα) as minima. For Xenocrates the theory of indivisible lines must be meant, much different from Diodorus' atomism. Ch. 4.9.10 (no name-labels) puts those who posit ἄτομα or ὁμοιομερῇ or ἀμερῇ or ἐλάχιστα on a par without providing further information as to what these terms mean, or in what respect they differ; the atoms and the void are mentioned immediately before at ch. 4.9.9 and attributed to Leucippus, Democritus and Diogenes.

e Other Evidence

The account of smallest particles qua elements belongs with the final section of doxographical overviews of theories concerned with the elements starting with Thales. Compare e.g. ps.Galen *HPh* c. 18, *DG* pp. 610.20–611.2, and Sextus Empiricus *P.* 3.32, *M.* 9.363–364, *M.* 10.254, cited below section E(a) General texts and §§2–3. Alexander of Aphrodisias *Mixt.* 213.15–214.5, cited section E(a) General texts, opposes the various Atomists to those thinkers who favour infinite division (see full text as cited below, at chs. 1.16 and 1.17, section E(a) General texts). Note, on the other hand, that only Diodorus is cited for a view on minima in the chapter on the principles above (1.3.18). For references to minima in these other *Placita* chapters see the Commentary and at *Loci Aetiani*.

E Further Related Texts

a Proximate Tradition

General texts: Alexander of Aphrodisias *Mixt.* 213.15–214.5 οὐ γὰρ μόνον διη-
νέχθησαν πρὸς ἀλλήλους περὶ τοῦδε τοῦ δόγματος οἱ μίαν ὕλην ὑποκεῖσθαι πᾶσι
τοῖς ἐν γενέσει σώμασιν λέγοντες πρὸς τοὺς ἐκ διωρισμένων τε καὶ κεχωρισμένων
σωμάτων ποιούντας αὐτήν, ὧν οἱ μὲν ἄτομα σώματα ἄπειρα τῷ πλήθει, κατὰ σχῆμα
καὶ μέγεθος μόνον τὴν πρὸς ἄλληλα διαφορὰν ἔχοντα, τὰς ἀρχὰς καὶ τὰ στοιχεῖά
φασιν εἶναι, καὶ τῇ τούτων συνθέσει τε καὶ ποιᾷ περιπλοκῇ ἔτι τε τάξει καὶ θέσει
τᾶλλα γίνεσθαι· ἐφ' ἧς δόξης πρῶτοι μὲν Λεύκιππος τε καὶ Δημόκριτος (fr. 225
Luria) γενέσθαι δοκοῦσιν, ὕστεροι δὲ Ἐπίκουρος (—) τε καὶ οἱ τὴν αὐτὴν τούτῳ
τραπέντες· οἱ δὲ αὐτῶν, οὐκ ἀτόμους, ὁμοιομερῆ δὲ τινὰ φασιν ἄπειρα εἶναι σώματα,
ἐξ ὧν ἡ τῶν αἰσθητῶν γενέσεις σωμάτων γινομένη κατὰ σύγκρισιν καὶ σύνθεσιν, ἧς
δόξης Ἀναξαγόρας (—) τε καὶ Ἀρχέλαος (—) δοκοῦσι γεγενῆσθαι· ἤδη δὲ τινες (sc.
Diodorus Cronus)(—) καὶ ἄμερῇ τινὰ σώματα τὰς ἀρχὰς καὶ στοιχεῖα τῶν πάντων
προήχθησαν εἰπεῖν· ἔστι δὲ τις δόξα (*Tim.* 53c–56c) καὶ ἐξ ἐπιπέδων τὴν γένεσιν
ποιοῦσα τῶν σωμάτων καὶ ἐξ ἀριθμῶν τις ἄλλη (—). **Dionysius of Alexandria**
Περὶ φύσεως at Eus. *PE* 14.23.4 οἱ δὲ τὰς ἀτόμους μετονομάσαντες ἄμερῇ φασιν
εἶναι σώματα, τοῦ παντός μέρη, ἐξ ὧν ἀδιαιρέτων ὄντων συντίθεται τὰ πάντα καὶ
εἰς ἃ διαλύεται. καὶ τούτων φασὶ τῶν ἡμερῶν ὀνοματοποιῶν Διόδωρον (—) γεγενέ-
σθαι· ὄνομα δέ, φασίν, αὐτοῖς ἄλλο Ἡρακλείδης (fr. 118 Wehrli, 59 Sharples) θέμε-
νος ἐκάλεσεν ὄγκους, παρ' οὗ καὶ Ἀσκληπιάδης ὁ ἱατρὸς (cf. Vallance *ANRW*
2.37.1, p. 716) ἐκληρονόμησε τὸ ὄνομα. **Galen** *Hipp.Elem.* 1.416.6–10 K. ἰδέα δὲ
καὶ δυνάμει δύναιτ' ἂν τις ἐν, π. εἶναι λέγειν τὰ πάντα, καθάπερ οἱ περὶ τὸν Ἐπί-
κουρον (fr. 288 Usener) τε καὶ Δημόκριτον (fr. 215 Luria) τὰς ἀτόμους· ἐκ ταύτου
δ' εἰσὶν αὐτοῖς χοροὶ καὶ οἱ τὰ ἐλάχιστα καὶ ἄναρμα καὶ ἄμερῇ τιθέμενοι στοι-
χεῖα. cf. *Med.Nam.* 27.39–28.2 Meyerhof–Schacht *Was mich am meisten bei
Menschen dieses Schlages wundert, ist, daß sie ... nicht gehört haben, daß die
Naturphilosophen, wenn sie nach der Natur jedes bestehenden Dinges forschen,
es (das Forschen) teils auf ungeteilte Elemente beziehen und sagen, daß die
Dinge aus diesen Elementen zusammengesetzt sind, teils auf unteilbare Ele-
mente (Atomists), teils auf unzusammenhängende Elemente (Asclepiades or
Heraclides of Pontus), teils auf an Teilen gleichartigen Elemente (Anaxagoras)
und teils auf das Feuer, die Luft, das Wasser und die Erde (Empedocles etc.).*
Sextus Empiricus *P.* 1.147–148 δογματικὴ δὲ ἐστὶν ὑπόληψις παραδοχῇ πράγμα-
τος δι' ἀναλογισμοῦ ἢ τινος ἀποδείξεως κρατύνεσθαι δοκοῦσα, οἷον ὅτι ἄτομα ἔστι
τῶν ὄντων στοιχεῖα (148) ἢ ὁμοιομερῆ (ἢ) ἐλάχιστα ἢ τινὰ ἄλλα. *P.* 3.32 Δημόκρι-
τος (cf. fr. 124 Luria) δὲ καὶ Ἐπίκουρος (—) ἀτόμους, Ἀναξαγόρας δὲ ὁ Κλαζομένιος
(—) ὁμοιομερείας, Διόδωρος δὲ ὁ ἐπικληθεὶς Κρόνος (fr. 117C Döring, II F 8 Gian-
nantonio) ἐλάχιστα καὶ ἄμερῇ σώματα, Ἡρακλείδης δὲ ὁ Ποντικός (fr. 119b Wehrli,
60b Schütrumpf) καὶ Ἀσκληπιάδης ὁ Βιθυνός (cf. Vallance *ANRW* 2.37.1, p. 726)
ἀνάρμους ὄγκους. *M.* 9.363 Δημόκριτος (68A55 DK) δὲ καὶ Ἐπίκουρος (—) ἀτό-
μους, εἰ μὴ τι ἀρχαιοτέραν ταύτην θετέον τὴν δόξαν καί, ὥς ἔλεγεν ὁ Στωϊκὸς Ποσει-
δώνιος (F 286 E.-K., 57b Theiler), ἀπὸ Μώχου τινὸς ἀνδρὸς Φοίνικος καταγομένην,
Ἀναξαγόρας δὲ ὁ Κλαζομένιος (—) ὁμοιομερείας, Διόδωρος δὲ ὁ ἐπικληθεὶς Κρόνος

(fr. 117D Döring, II F 8 Giannantoni) ἐλάχιστα καὶ ἀμερῇ σώματα, Ἀσκληπιάδης δὲ ὁ Βιθυνὸς (cf. Vallance *ANRW* 2.37.1, p. 726) ἀνάρμους ὄγκους. **ps.Galen** *HPh* c. 18, *DG* pp. 610.20–611.2. **Calcidius in Tim.** c. 279 *restat nunc, ut eorum quoque qui generatam esse corpoream silvam negant sententias exequamur; quorum aequae diversae opiniones omnino sunt. sunt enim qui textum eius et quasi continuationem quandam corpusculis, quae intellegantur potius quam sentiantur, conexas sibi invicem assignent in aliquo modo positis et aliquatenus figuratis, ut Democrito (—) et Epicuro (—) placet. addunt alii qualitatem, ut Anaxagoras (—), sed hic omnium materiarum naturam proprietatemque in singulis materiis congestam esse censet; alii propter exiguitatem individuorum corporum, quorum numerus in nullo fine sit, subtilitatem silvae contexti putant, ut Diodorus (—) et non nulli Stoicorum [sic], quorum sit fortuitus tam coetus quam segregatio. quas opiniones, cum sint omnino sine fine, praetereo.* cf. in *Tim.* c. 203.

§1 Empedocles: Galen HNH 15.49.12–150.3 K. κάκεινος (sc. Ἐμπεδοκλῆς 31A43 DK) γὰρ ἐκ μὲν τῶν αὐτῶν στοιχείων, ὧν καὶ Ἱπποκράτης, γεγονέναι φησὶν ἡμᾶς τε καὶ τὰ ἄλλα σώματα πάντα τὰ περὶ τὴν γῆν, οὐ μὴν κεκραμένων γε δι' ἀλλήλων, ἀλλὰ κατὰ σμικρὰ μόρια παρακειμένων τε καὶ ψαύοντων. *Propr.Plac.* 7, p. 179.23–24 Boudon-Millot–Pietrobelli, text Lami καὶ πότερον κατατεθραυσμένον, ὡς Ἐμπεδοκλῆς ὑποτίθεται τὴν ἐκ τῶν στοιχείων ὑπάρχειν ἡμῖν γένεσιν. *Propr.Plac.* 15, p. 188.23–24 Boudon-Millot–Pietrobelli, text Lami οὐχ ὡς ὁ Ἐμπεδοκλῆς ἡγεῖτο, κατὰ σμικρὰ μόρια κατατεθραυσμένων (cf. Gal. 4.726.11–12 K. ad Emp. 31A43 DK, ... καταθραυομένων).

§§1–2 Empedocles Heraclitus: Diogenes Laertius V.P. 2.8 (Anaxagoras 59A1 DK) ἀρχὰς δὲ τὰς ὁμοιομερείας· καθάπερ γὰρ ἐκ τῶν ψηγμάτων λεγομένων τὸν χρυσὸν συνεστάναι, οὕτως ἐκ τῶν ὁμοιομερῶν μικρῶν σωμάτων τὸ πᾶν συγκεκρίσθαι.

§§2–3 Heraclitus Xenocrates: Sextus Empiricus P. 3.32 Δημόκριτος (cf. fr. 124 Luria) δὲ καὶ Ἐπίκουρος (—) ἀτόμους, Ἀναξαγόρας δὲ ὁ Κλαζομένιος ὁμοιομερείας (—), Διόδωρος δὲ ὁ ἐπικληθεὶς Κρόνος (fr. 117C Döring, II F 8 Giannantoni) ἐλάχιστα καὶ ἀμερῇ σώματα, Ἡρακλείδης δὲ ὁ Ποντικὸς (fr. 119b Wehrli, 60B Schütrumpf) καὶ Ἀσκληπιάδης ὁ Βιθυνὸς (cf. Vallance *ANRW* 2.37.1, p. 726) ἀνάρμους ὄγκους (sc. τὰς ὑλικὰς ἀρχὰς εἶναι) (cf. **ps.Galen HPh** c. 18, *DG* p. 610.20–611.2). *M.* 9.363–364 (cf. Democritus 68A55 DK). *M.* 10.254.

§3 Xenocrates: Sextus Empiricus M. 10.85–86 καὶ μὴ κινεῖσθαι μὲν, τοῦτο ἀκόλουθόν ἐστι ταῖς κατ' αὐτὸν (sc. Διόδωρος Κρόνος, fr. 123 Döring, II F 13 Giannantoni) τῶν ἀμερῶν ὑποθέσεσιν. (86) τὸ γὰρ ἀμερές σῶμα ὀφείλει ἐν ἀμερεῖ τόπω περιέχεσθαι, καὶ διὰ τοῦτο μῆτε ἐν αὐτῷ κινεῖται ... μῆτε ἐν ᾧ μὴ ἔστιν κτλ.

§4 Heraclides: Sextus Empiricus P. 3.33 οὐ γὰρ δήπου δυνησόμεθα καὶ τοῖς περὶ Ἀσκληπιάδην (cf. Vallance *ANRW* 2.37.1, p. 726) συγκατατίθεσθαι, θραυστὰ εἶναι τὰ στοιχεῖα λέγουσι καὶ ποιᾶ.

b Sources and Other Parallel Texts

General texts: Plato *Tim.* 53b ὅτε δ' ἐπεχειρεῖτο κοσμεῖσθαι τὸ πᾶν, πῦρ πρῶτον καὶ ὕδωρ καὶ γῆν καὶ ἀέρα, ἔχνη μὲν ἔχοντα αὐτῶν ἅττα, παντάσῃ γε μὴν διακείμενα ὥσπερ εἰκὸς ἔχειν ἅπαν ὅταν ἀπὴ τινος θεός, οὕτω δὴ τότε πεφυκότα ταῦτα πρῶτον διεσχηματίσατο εἶδεσί τε καὶ ἀριθμοῖς. Plutarch *Prim.Frig.* 948C καὶ Πλάτων ὁρθῶς καὶ Δημόκριτος (fr. 506 Luria) αἰτίαν θερμότητος καὶ βαρύτητος ζητοῦντες οὐ κατέπαυσαν ἐν γῇ καὶ πυρὶ τὸν λόγον ἀλλ' ἐπὶ τὰς νοητὰς ἀναφέροντες ἀρχὰς τὰ αἰσθητὰ μέχρι τῶν ἐλαχίστων ὥσπερ σπερμάτων προήλθον. Iamblichus *de An.* at Stob. *Ecl.* 1.49.32, p. 363.11–14 τινὲς εἰς τὰς τῶν τεσσάρων στοιχείων ἀρχὰς τὴν οὐσίαν τῆς ψυχῆς ἐπαναφέρουσιν. εἶναι μὲν γὰρ τὰ πρῶτα σώματα ἄτομα, πρὸ τῶν τεσσάρων στοιχείων στοιχειωδέστερα. John Philoponus *Aet.* 16.1, p. 542.2–5 Rabe ὅταν ἐπεχείρει τὸ πᾶν δημιουργεῖν ὁ θεός, πρῶτον μὲν τὰ στοιχεῖα εἰδοποιήσας διεσχημάτισεν, καὶ πρὶν δὲ τὰ στοιχεῖα γενέσθαι προὔπαρχειν αὐτῶν τὰ ἔχνη ἀλόγως καὶ ἀμέτρως ἔχοντα.

Chapter heading: Diogenes Laertius *V.P.* 7.178 (Sphaerus *SVF* 1.620) Περί ἐλαχίστων.

§§1–2 *Empedocles Heraclitus: Philo of Alexandria Opif.* 131 οἱ μὲν ἄλλοι φιλόσοφοι τὸ σύμπαν ὕδωρ ἐν στοιχείῳ εἶναι φασὶ τῶν τεττάρων, ἐξ ὧν ὁ κόσμος ἐδημιουργήθη· Μωυσῆς δ' κτλ.

§1 *Empedocles: Aristotle Cael.* 3.5 304b6–9 τοῖς δὲ τῷ μεγέθει διορίζουσι πρότερόν τι τοῦ στοιχείου στοιχεῖον εἶναι, καὶ τοῦτ' εἰς ἅπειρον βαδίζειν, εἴπερ ἅπαν σώμα διαιρετὸν καὶ τὸ μικρομερέστατον στοιχεῖον. *Cael.* 3.6 305a1–4 εἰ δὲ στήσεται που ἡ διάλυσις, ἧτοι ἄτομον ἔσται τὸ σώμα ἐν ᾧ ἴσεται, ἡ διαιρετὸν μὲν οὐ μέντοι διαιρεθιστόμενον οὐδέποτε, καθάπερ ἔοικεν Ἐμπεδοκλῆς (31A43a DK) βούλεσθαι λέγειν. *GC* 1.8 325b5–9 σχεδὸν δὲ καὶ Ἐμπεδοκλεῖ (—) ἀναγκαῖον λέγειν, ὥσπερ καὶ Λεύκιπός (—) φησιν· εἶναι γὰρ ἅττα στερεὰ, ἀδιαίρετα δέ, εἰ μὴ πάντη πόροι συνεχεῖς εἰσιν. *GC* 2.7 334a26–30 τοῖς λέγουσιν ὡς Ἐμπεδοκλῆς (31A43 DK) τίς ἔσται τρόπος; ἀνάγκη γὰρ σύνθεσιν εἶναι καθάπερ ἐξ πλίνθων καὶ λίθων τοίχος· καὶ τὸ μίγμα δὲ τοῦτο ἐκ σωζομένων μὲν ἔσται τῶν στοιχείων, κατὰ μικρὰ δὲ παρ' ἄλληλα συγκειμένων. *Sens.* 4.441a3–6 ἡ μὲν οὖν τοῦ ὕδατος φύσις βούλεται ἄχρμος εἶναι· ἀνάγκη δ' ἡ ἐν αὐτῷ τὸ ὕδωρ ἔχειν τὰ γένη τῶν χυμῶν ἀναίσθητα διὰ μικρότητα, καθάπερ Ἐμπεδοκλῆς (31A94 DK) φησίν. Theophrastus *Sens.* 11 (31A86 DK) ὧν δὲ πυκνὰ καὶ κατὰ μικρὰ τεθραυσμένα (sc. κείται τὰ στοιχεῖα), τοὺς δὲ τοιούτους ἄξις φερομένους καὶ πολλὰ ἐπιβαλλομένους ὀλίγα ἐπιτελεῖν διὰ τὴν δέυτην τῆς τοῦ αἵματος φοράς. Arius Didymus fr. 4 Diels at Stob. *Ecl.* 1.17.2 p. 152.13–16 Ἀριστοτέλους καὶ τῶν ἀπ' αὐτοῦ· τὰ μὲν σώματα φασὶ θρυπτόμενα κατὰ μικρὰ μόρια παρατίθεσθαι ἀλλήλοις. ps.Alexander *Probl.* 2.39 Ideler σφαιροειδὴς δὲ γίνεται, ἰδίῳ τὸ ὕδωρ στοιχεῖον ἔστι σφαιροειδές, καθάπερ καὶ τὰ λοιπὰ στοιχεῖα. δεῖξις δὲ τούτου, κατὰ φύλλων βαλλόμενον τὸ ὕδωρ καὶ καταφερόμενον ἐξ ὕψους στρογγυλοῦσθαι. καὶ ὡς ἔχει τὸ μέρος, οὕτω καὶ τὸ ὅλον ὕδωρ· διὸ καὶ ὁμοιομερές ἐστιν. Arethas *Schol. in Cat.* p. 300.66–67 Share ζητηθήσεται στοιχεῖα στοιχείων, ὅπερ ἄτοπον.

§2 *Heraclitus: Aristotle Cael.* 3.5 304a9–21 (Heraclitus T181 Mouraviev) οἱ μὲν γὰρ αὐτῶν σχῆμα περιάπτουσι τῷ πυρὶ, ... οἱ δὲ περὶ μὲν σχήματος οὐδὲν ἀπο-

φαίνονται, λεπτομερέστατον δὲ μόνον ποιοῦσιν, ἔπειτ' ἐκ τούτου συντιθεμένου φασὶ γίγνεσθαι τὰλλα καθάπερ ἂν εἰ συμφυσωμένου ψήγματος. **Diogenes Laertius** *V.P.* 2.8 (Anaxagoras 59A1 DK) ἀρχὰς δὲ τὰς ὁμοιομερείας· καθάπερ γὰρ ἐκ τῶν ψηγμάτων λεγομένων τὸν χρυσὸν συνεστάναι, οὕτως ἐκ τῶν ὁμοιομερῶν μικρῶν σωμάτων τὸ πᾶν συγκεκρίσθαι. **Simplicius** *in Phys.* 23.33–24.11 (**Theophrastus** *Phys.Op.* fr. 1 Diels, 225 FHS&G) Ἵππασος δὲ ὁ Μεταποντίνος (—) καὶ Ἡράκλειτος ὁ Ἐφέσιος (T 934 Mouraviev) ... πῦρ ἐποίησαν τὴν ἀρχὴν ..., ἔτι δὲ εἰ στοιχεῖον μὲν τὸ ἐλάχιστόν ἐστιν ἐξ οὗ γίνεται τὰ ἄλλα καὶ εἰς ὃ ἀναλύεται, λεπτομερέστατον δὲ τῶν ἄλλων τὸ πῦρ, τοῦτο ἂν εἴη μάλιστα στοιχεῖον. **Lucretius** *DRN* 1.834–835 (on Anaxagoras, 59A45DK) *ex aurique putat micis consistere posse / aurum*.

§3 Xenocrates: Aristotle *Cael.* 3.1 299a6–11 (Xenocrates fr. 41 Heinze, F 45 Isnardi-Parente²) ἔπειτα δὴλον ὅτι τοῦ αὐτοῦ λόγου ἐστὶ στερεὰ μὲν ἐξ ἐπιπέδων συγκεῖσθαι, ἐπίπεδα δ' ἐκ γραμμῶν, ταύτας δ' ἐκ στιγμῶν· οὕτω δ' ἔχόντων οὐκ ἀνάγκη τὸ τῆς γραμμῆς μέρος γραμμὴν εἶναι· περὶ δὲ τούτων ἐπέσκειται πρότερον ἐν τοῖς περὶ κινήσεως λόγοις (sc. *Phys.* 6.1), ὅτι οὐκ ἔστιν ἀδιαίρετα μήκη. **Simplicius** *in Phys.* 140.6–16 (Porphyry 135F Smith) οἱ δὲ περὶ τὸν Ξενοκράτην (fr. 45 Heinze, F 60 Isnardi-Parente²) τὴν μὲν πρώτην ἀκολουθίαν ὑπείναι συνεχῶρουν, τούτεστιν ὅτι εἰ ἔν ἐστι τὸ ὄν καὶ ἀδιαίρετον ἔσται, οὐ μὴν ἀδιαίρετον εἶναι τὸ ὄν. διὸ πάλιν μὴδὲ ἐν μόνον ὑπάρχειν τὸ ὄν, ἀλλὰ πλείω. διαιρετὸν μέντοι μὴ ἐπ' ἄπειρον εἶναι, ἀλλ' εἰς ἄτομά τινα καταλήγειν. ταῦτα μέντοι μὴ ἄτομα εἶναι ὥς ἄμερῃ καὶ ἐλάχιστα, ἀλλὰ κατὰ μὲν τὸ ποσὸν καὶ τὴν ὕλην τμητὰ καὶ μέρη ἔχοντα, τῷ δὲ εἶδει ἄτομα καὶ πρῶτα, πρῶτας τινὰς ὑποθέμενος εἶναι γραμμάς ἀτόμους καὶ τὰ ἐκ τούτων ἐπίπεδα καὶ στερεὰ πρῶτα. τὴν οὖν ἐκ τῆς διχοτομίας καὶ ἀπλῶς τῆς ἐπ' ἄπειρον τομῆς καὶ διαιρέσεως ὑπαντῶσαν ἀπορίαν ὁ Ξενοκράτης οἶεται διαλύεσθαι τὰς ἀτόμους εἰσαγαγὼν γραμμάς, καὶ ἀπλῶς ἄτομα ποιήσας μεγέθη. **Xenocrates** frs. 44–67 Isnardi-Parente².

§4 Heraclides: Galen *Constit.* 1.249.13–15 K. οὐ μὴν οὐδὲ τὸ ἄναρμον τὸ Ἄσκληπιάδου (cf. Vallance *ANRW* 2.37.1, p. 716) θραυστὸν ὃν ὁδυνῆσεται θραυόμενον, ἀναίσθητον γάρ ἐστιν. *Nat.Fac.* 2.39.4–7 K. κατὰ δὲ τὸν Ἄσκληπιάδην (cf. Vallance *ANRW* 2.37.1, p. 716) οὐδὲν οὐδενὶ συμπαθὲς ἐστὶ φύσει, διηρημένης τε καὶ κατατεθραυσμένης εἰς ἄναρμα στοιχεῖα καὶ ληρώδεις ὄγκους ἀπάσης τῆς οὐσίας. **Caelius Aurelianus** *Cel.Pass.* 1.105–106 Bendz *Asclepiadi* (cf. Vallance *ANRW* 2.37.1, p. 713) *responsuri eius primum dogma proponamus, qua voluti apprehensionis falsitate peccatis etiam involvuntur curationum. primordia namque corporis prima constituerat atomos, secunda corpuscula intellectu sensa sine ulla qualitate solita atque ex initio concitata (et) aeternum moventia, quae suo incursu offensa mutuis ictibus in infinita partium fragmenta solvantur, magnitudine atque schemate differentia. quae rursum eundo sibi adiecta vel coniuncta omnia faciant sensibilia, vim in semet mutationis habentia aut per magnitudinem sui aut per multitudinem aut per schema aut per ordinem.* (106) *nec, inquit, ratione carere videatur, quod nullius faciant qualitatis corpora. aliud enim partes, aliud universitatem sequetur.*

Liber 1 Caput 14

P^B : ps.Plutarchus *Plac.* 883B–C; p. 312^a8–13 Diels—**P^G** : ps.Galenus *HPh* c. 28; p. 616.7–8 Diels—**P^Q** : Qustā ibn Lūqā pp. 126–127 Daiber—**P^s** : Psellus *Omn.Doctr.* c. 88, p. 53 Westerink (titulus solus)
S: Stobaeus *Ecl.* 1.15.3b, p. 145.5–6 + 1.15.6a, p. 146.14–20 Wachsmuth—cf. Phot. *Bibl.* 167, p. 112b2–3 Henry (titulus solus)
Cf. Ach: Achilles *Univ.* c. 4, p. 11.1–8; c. 12, p. 20.12 Di Maria

Titulus ιδ'. Περὶ σχημάτων (P,S)

- §1 σχῆμά ἐστιν ἐπιφάνεια καὶ περιγραφὴ καὶ πέρας σώματος. (P1,S1)
§2 οἱ ἀπὸ Πυθαγόρου σφαιρικὰ τὰ σχήματα τῶν τεττάρων στοιχείων, μόνον δὲ τὸ ἀνώτατον πῦρ κωνοειδές. (P2,S2)
§3 Ἀναξαγόρας τὰ ὁμοιομερῆ πολυσχήμενα. (S3)
§4 οἱ ἀπὸ Λευκίππου τὰ ἄτομα πολυσχήμενα. (S4)
§5 Κλεάνθης μόνος τῶν Στωικῶν τὸ πῦρ ἀπεφήνατο κωνοειδές. (S5)

5

§1—; §2 Pythagorei —; §3 Anaxagoras 59A51 DK; §4 Leucippe cf. 68A43 DK; §5 Cleanthes *SVF* 1.498

§2 [3] post οἱ ἀπὸ Πυθαγόρου hab. S τὸν κόσμον typis exaravit Diels ap. text. Stob. sed secl. in app., secl. Wachsmuth || σφαιρικὰ τὰ σχήματα Diels, cf. P^Q (*die Gestalten ... sind kugelförmig* Q) : σφαιρικὰ τὰ σώματα P^B Mau Lachenaud : σφαίραν κατὰ σχῆμα S^FP, retinuit Diels ap. text. Stob., emend. Wachsmuth ex P : τὸν κόσμον σφαίραν κατὰ σχῆμα τῶν τεττάρων στοιχείων prob. Sachs §§3–5 om. P §§3–4 [5–6] ὁμοιομερῆ et ἄτομα inv. S^FP, corr. Diels. sed ipse inv. §3 et §4 perperam §5 [7] μόνος S^F: om. S^P || post κωνοειδές habet S Ζήνων ἔφασκε τὸ πῦρ κατ' εὐθείαν κινεῖσθαι, quod typis exaravit Diels *DG* 1.14.6 quamquam ad 1.12 addendum esse opinavit; sed Ario Didymo tribuendum

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus c. 28 (~ tit.) Περὶ σχημάτων (text Diels)

28.1 (~ P1) σχῆμά ἐστιν ἐπιφάνεια καὶ περιγραφὴ καὶ πέρας σώματος.

Psellus *Omn.Doctr.* c. 88 (~ tit.) Περὶ σχημάτων

Testes secundi:

Achilles *Univ.* c. 4, p. 11.1–8 (*SVF* 2.555) τὸν δὲ αἰθέρα καὶ οὐρανὸν—εἴτε ὁ αὐτός, εἴτε διάφορος—ἔξωθεν εἶναι, σφαιρικὸν σχῆμα ἔχοντα. μετὰ δὲ τοῦτον ἐντὸς αὐτοῦ τὸν ἀέρα εἶναι, καὶ αὐτὸν σφαιρικῶς περικείμενον ἔξωθεν τῇ γῇ. ἐνδοτέρῳ δὲ αὐτοῦ τρίτην εἶναι σφαίραν, τὴν τοῦ ὕδατος, περὶ αὐτὴν τὴν γῆν μετὰ τοῦ ἀέρος καὶ τῆς γῆς. ἐν δὲ τῷ μεσαιτάτῳ τὴν γῆν εἶναι, κέντρου τάξιν καὶ μέγεθος ἐπέχουσιν, ὥς ἐν σφαίρᾳ· καὶ τὰς μὲν ἄλλας τρεῖς σφαίρας ἢ τέσσαρας περιδι-

νεῖσθαι· τὴν δὲ τῆς γῆς μόνην ἐστάναι (~ §2) [verba antecedentia vid. c. 1.12, *Testes secundi*]. c. 12, p. 20.12 Κλεάνθης (*SVF* 1.498) αὐτοὺς (sc. τοὺς ἀστέρας) κωνοειδὲς ἔχειν σχήμα φησι (~§5).

Loci Aetiani:

titulus A 2.2 tit. Περὶ σχήματος κόσμου. A 2.14 tit. Περὶ σχημάτων ἀστέρων. A 2.22 tit. Περὶ σχήματος ἡλίου. A 2.27 tit. Περὶ σχήματος σελήνης. A 3.10 tit. Περὶ σχήματος γῆς.

§1 A 1.9.1 ὕλη ἐστὶ ... A 1.10.1 ἰδέα ἐστὶν ... A 1.11.1 αἰτίον ἐστὶ ... ἀρκεῖ γὰρ ὑπογραφικῶς. A 1.12.1 σῶμά ἐστι ... ἢ ... ἢ ... A 1.15.1 χρῶμα ἐστὶ ... A 1.23.1 ... κίνησίς ἐστι διαφορὰ τις ἢ ἐτερότης ἐν ὕλῃ, ἣ ἐστὶν ὕλη. οὗτος πάσης κινήσεως κοινὸς ὅρος. A 2.32.1 ἐνιαυτός ἐστι ... A 3.1.1 (γαλαξίος) κύκλος ἐστὶ ... A 1.12.1 σῶμά ἐστι τὸ τριχῇ διαστατόν, πλάτει βάθει μήκει. A 1.15.1 οἱ Πυθαγορικοὶ χροιάν ἐκάλουν τὴν ἐπιφάνειαν τοῦ σώματος. A 4.8.9 οἱ ἀπὸ τῶν ἀρχαίων *** τῶν περὶ τὰ σώματα ἀσωμάτων λόγων, ἅπερ ἤδη σχήματα προσαγορεύουσι. A 4.20.1 πᾶσα δ' ἐπιφάνεια ἀσώματος. συγκινεῖται μὲν γὰρ τοῖς σώμασιν, αὐτὴ δ' ἀσώματος πάντως καθέστηκεν, ὥσπερ ἐπὶ τῆς καμπτομένης ῥάβδου ἢ μὲν ἐπιφάνεια οὐδὲν πᾶσχει ἢ δ' ὕλη ἐστὶν ἢ καμπτομένη.

§2 A 2.6.2 Πυθαγόρας ἀπὸ πυρός καὶ τοῦ πέμπτου στοιχείου (sc. ἄρξασθαι φησι τὴν γένεσιν τοῦ κόσμου). A 2.6.5 Πυθαγόρας πέντε σχημάτων ὄντων στερεῶν, ἅπερ καλεῖται καὶ μαθηματικά, ἐκ μὲν τοῦ κύβου φησὶ γεγενῆσθαι τὴν γῆν, ἐκ δὲ τῆς πυραμίδος τὸ πῦρ, ἐκ δὲ τοῦ ὀκταέδρου τὸν ἀέρα, ἐκ δὲ τοῦ εἰκοσαέδρου τὸ ὕδωρ, ἐκ δὲ τοῦ δωδεκαέδρου τὴν τοῦ παντὸς σφαῖραν. A 2.2.2 ἄλλοι δὲ κωνοειδῇ (sc. τὸν κόσμον ἀπεφῆναντο). A 2.7.6[27] καὶ πάλιν πῦρ ἕτερον ἀνωτάτω, τὸ περιέχον.

§4 A 1.4.1[4–6] πολλὰ σώματα ..., ποικιλίαν ἔχοντα καὶ σχημάτων καὶ μεγεθῶν. A 4.3.5 Δημόκριτος πυρῶδες σύγκριμα ἐκ τῶν λόγῳ θεωρητῶν (sc. τὴν ψυχὴν), σφαιρικὰς μὲν ἔχοντων τὰς ἰδέας, πυρίνην δὲ τὴν δύναμιν. A 4.19.5[15–16] Δημόκριτος καὶ τὸν ἀέρα φησὶν εἰς ὁμοιοσχήμονα θρύπτεσθαι σώματα κτλ.

§5 A 2.14.2 Κλεάνθης κωνοειδεῖς (sc. τοὺς ἀστέρας). A 4.15.3 Χρῦσιππος κατὰ τὴν συνέντασιν τοῦ μεταξὺ ἀέρος ὄραν ἡμᾶς, νυγέντος μὲν ὑπὸ τοῦ ὀρατικοῦ πνεύματος, ὅπερ ἀπὸ τοῦ ἡγεμονικοῦ μέχρι τῆς κόρης διήκει, κατὰ δὲ τὴν πρὸς τὸν περιεχόμενον ἀέρα ἐπιβολὴν ἐντείνοντος αὐτὸν κωνοειδῶς κτλ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses to this chapter are again P and S.

(1) P^B and Q record only two lemmata, the former a general, or nominal, definition of *σχῆμα*, the second a doxa attributed to 'Pythagoras and his follow-

ers'. Of these G retains only the former. As was the case for 1.13, Diels omits to include a reference to this chapter in his text at *DG* 312. Ps makes use of the title only. Like in other chapters (1.12, 1.13, 1.15) P abridges by omitting the final lemmata, here §§3–5.

(2) The five doxai in S are all found in his ch. 1.15 on shapes (for a detailed analysis of his procedure in this chapter see M–R 1.219–220). The two doxai matched in P are in the same order. He may have written out the entire chapter, interpolating other material between §1 and the succession of §§2–5 and adding a snippet from AD as final doxa at the end.

(a) He does not commence this time with A's definition, but first writes out three brief poetic quotes, including one from Empedocles (31B28.2 DK).

(b) He then quotes the first doxa in A, the definition of σχῆμα.

(c) Next he presents a brief doxa attributed to Plato on the sphericity of the cosmos which is probably his own work (on ch. 2.2 see further section D(d) below), followed by two quotes from Plato's *Timaeus* (33b, 62d–63a).

(d) Thereafter he cites the remaining doxa in P, followed by three further doxai on the shapes of primary bodies not found in P. The last of these has the name-label 'Cleanthes alone of the Stoics'. These three doxai are all very likely derived from A; the concluding phrase of the first (attributed to Pythagoras and his followers) anticipates the last doxa in the block. It is followed by a further doxa attributed to Zeno on the motion of fire, which Diels included in his S column, but which in view of its use of the verb ἔφασκε is best regarded as derived from AD.

(e) The remainder of S's chapter contains material from A Book 2 and a final quote attributed to Philolaus' *Bakchai* (on this text see Huffman 1993, 16).

B *Proximate Tradition and Sources*

(1) The *proximate tradition* is negligible.

(2) *Sources*. Naturally the ultimate sources for §§3–5 are the original writings of Anaxagoras, Leucippus, and Cleanthes, but the information ending up in §§2–5 arrived via secondary sources, among which (for the Atomist theory) perhaps Aristotle's monograph on Democritus, and/or passages in the school writings. For Anaxagoras too we may think of intermediate Peripatetic sources. §2 is a confused and typically doxographical fabrication (see section D(d)§2 below), composed from on the one hand Platonic, Peripatetic and Stoic views about the concentric elemental components of the cosmos, and on the other from Cleanthes' view that fire is conical, itself a revision of Plato's view that molecules of fire have the shape of a pyramid.

C Chapter Heading

Attested in both P and S, and of the standard umbrella type ‘about *x*’, *περὶ τοῦ δεῖναι* (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. In the present chapter the heading pertains to the category of quality (*σχῆμα*, ‘shape’ itself) and that of quantity (the number of shapes involved). Its meaning ‘On rhetorical figures’ is paralleled as the title of treatises by e.g. Herodian and Apollonius Dyscolus, or of chapters, e. g. in ps.Longinus.

D Analysis

a Context

The chapter is the third of the block consisting of chs. 1.12–17, dealing with body in its various aspects. ‘Shape’ as defined here belongs with the subdivision of the eidetic Stoic division of physics at Diogenes Laertius *V.P.* 7.132, for which see above at ch. 1.12, Commentary D(a). Note that S 1.15.4 may have replaced an original Platonic lemma lost in P (since a reference to the Platonic atomic shapes might be expected). Cf. ch. 2.6.5 (where we have the name-label Pythagoras).

b Number–Order of Lemmata

(1) §6 in Diels has been rejected as out of context and most likely drawn from AD; cf. the discussion in M–R 3.324.

(2) P^B and Q have two lemmata, of which P^G only has the former. S has five lemmata, of which the first two are the same as those of P^{BQ}.

There is no need to change the order of the *DG*.

c Rationale–Structure of Chapter

(1) For the function of the nominal definitions in the first lemma cf. above, ch. 1.9, Commentary D(c) and (e)(2).

(2) *Diaeresis according to number*. The chapter is a mix of information on shape in general (the definition) on the one hand and particular shapes on the other, namely of the elements, or rather of the elementary particles. In §§2–4 we have a diaeretic list of elemental shapes according to number. When we accept the second phrase in §2 we have two shapes, if we reject it only one. According to §§3–4 we have to account for many shapes, the (many) elementary particles being contrasted with the four (or five) elements of §2, and their many shapes with the one or two shapes of that previous paragraph. The view of §5 is exceptional (doxography is interested in the bizarre), and appropriately comes last.

d Further Comments

Individual Points

§1 We note that ‘shape’ is defined as incorporeal, cf. ch. the puzzling lemma at ch. 4.8.9. At S 1.15.3a the name-label ‘Porphyrius’ has been preserved, but the text is lost. Volkmann erroneously concluded that §1 derives from Porphyry, see Diels *DG* 48 et n. 1, Wachsmuth ad loc.

§2 Diels (though he did not change his text accordingly) argued that the reference to the cosmos in S’s text has been brought in from the context (S 1.15.4 Plato’s *Timaeus*, 1.15.6b excerpts from A 2.2 on the sphericity of the cosmos) and that A’s original text is to be found in P^B (thus, we may add, also in P^Q). Eva Sachs (1917) 12 n. 1, 68 argued that S’s text is probably right (‘wahrscheinlich ... die bessere Fassung’), and it certainly makes some sense. That the cosmos is spherical (cf. A 2.2) follows from the spherical shape of the elemental layers (cf. Aristotle *Cael.* 2.4 287a30–b4), or rather conversely (cf. *Cael.* 2.4 287a2–11), which is worth remembering. Anyhow, the spherical shape of the four elements (from earth up to fire) should pertain to the spherical earth and the spherical layers of the intra-cosmic bodies of the three other elements, application to their atomic structure being out of the question. The (Cleanthean) cone-like shape of the fifth element, celestial fire, on the other hand can only be understood as pertaining to its quasi-atomic micro-structure. In the vicinity of cosmic layers this conical fire is a *Fremdkörper*. For this sort of hodgepodge, jumbling macro-shape and micro-shape together, we may compare Cleomedes 1.5.10–23 Todd (quoted below, ch. 3.10, section E(b) General texts), where in a polemical context various shapes of the earth qua cosmic body are discussed, such as flat, concave, and spherical, but also ‘square’, ‘rectangular’ and ‘pyramidal’, which can only pertain (originally) to the microstructure of earth qua element. Ps.Alexander *Probl.* 2.39 (see above, ch. 1.13 Commentary D(d)§1), arguing from the spherical shape of a drop of water to that of the element (and of the other elements) is the only other parallel we have found.

The present lemma, which perhaps sets up a straw doxa to be refuted (cf. Euclid *Phaen.* cited below section E(b)§2) conflicts with the Pythagorean lemma of ch. 2.6.5 below. The attribution of cone-like fire to the Pythagoreans perhaps is only a *lapsus calami*, anticipating the final lemma.

§3 Only A and his tradition (not illogically) attribute a plurality of shapes to the *homoiomere*. In §§3–4 the *homoiomere* are placed on a par with the atoms, as in ch. 4.9.10.

§5 Cleanthes’ idiosyncratic view that the shape of the stars and of fire is cone-like may perhaps be connected with the optical theory that the visual rays form a cone, professed by Chrysippus and other Stoics (for which see below ch. 4.15.2). Cleanthes’ view on the shape of the stars as recorded in A 2.14.2 is

not mentioned here, but if we add it to that of fire in general we have a mixture of cosmic body and elemental particle in this doxa too.

e Other Evidence

(1) For the contents of §1 we may look to mathematical or mathematically inspired literature (Euclid, Archimedes) echoed in other sources. For the concentric layers of the other elements around the spherical earth the evidence extends from Aristotle to Proclus.

(2) The parallel passage in Achilles (see at *Testes secundi*) is part of a Chrysippean cosmological account, which begins with a discussion of the weight, circular movement and position of the elements, themes of ch. 1.12 above. It is followed, in its turn, by accounts of the issue ascribed to ‘the Archimedean’ and ‘the Orphics’ (cf. 114F II Bernabé).

E Further Related Texts

a Proximate Tradition

§1 *Definition*: Arius Didymus fr. 5 Diels at Stob. *Ecl.* 1.15.1c, p. 141.11–13 (on Aristotle) ἐπιφάνειαν δ’ εἶναι σώματος πέρας δυσὶν ὀριζομένην διαστάσεσι. **Diogenes Laertius** *VP.* 7.132 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. οἱ Στωικοί) εἰς τε τὸν περὶ σωμάτων τρόπον (i.e. ch. 1.12) καὶ περὶ ἀρχῶν καὶ στοιχείων (cf. chs. 1.2–3) καὶ θεῶν (cf. ch. 1.7) καὶ περάτων (i.e. ch. 1.14.1, and cf. ch. 1.15) καὶ τόπου (cf. ch. 1.19) καὶ κενοῦ (cf. ch. 1.18) καὶ οὕτω μὲν εἰδικῶς. *VP.* 7.135 (*SVF* 3 Apoll. 6) ἐπιφάνεια δὲ ἐστὶ σώματος πέρας ἢ τὸ μήκος καὶ πλάτος μόνον ἔχον, βᾶθος δ’ οὔ.

b Sources and Other Parallel Texts

Chapter heading (rhetorical): Longinus *Subl.* 16.1 αὐτόθι μέντοι καὶ ὁ περὶ σχημάτων ἐφεξῆς τέτακται τόπος. **Apollonius Dyscolus** *de Pron.*, *Gramm.Gr.* 2.1, p. 63.4 Schneider εἴρηται ἡ αἰτία ἐν τῷ Περὶ σχημάτων. **Herodian** *Π. Ἰλιακ.* προσφδ., *Gramm.Gr.* 3.2, p. 66.36 Lenz περὶ ὧν ἐντελέστερον λέγεται ἐν τοῖς Περὶ σχημάτων. **Hermogenes** *Id.* 1.3.17.1 Patillon μετὰ δὲ τὸν περὶ σχημάτων λόγον.

§1 *Definition*: Euclid *Elem.* 1 ὅροι 14 σχήμα ἐστὶ τὸ ὑπὸ τινος ἢ τινων ὄρων περιεχόμενον. **Archimedes** *Sph.Cyl.* 1.72.2 τὸ σχήμα τὸ περιγραφόμενον. **Heron** *Mechanicus* *Def.* 8.1 ἐπιφάνειά ἐστίν, ὃ μήκος καὶ πλάτος μόνον ἔχει ἢ πέρας σώματος καὶ τόπου ἢ κτλ. *Def.* 23 σχήμα ἐστὶ τὸ ὑπὸ τινος ἢ τινων ὄρων περιεχόμενον ἢ τὸ πέρατι ἢ πέρασι συγκλειόμενον. *Def.* 24 ὅροι δὲ σχημάτων εἰσὶν αἵ τε ἐπιφάνειαι καὶ γραμμαί. **Alexander of Aphrodisias** *in Met.* 373.34–374.1 τὸ γὰρ ἑκάστου σώματος ἢ μεγέθους πέρας, χωρίζον ἀπὸ τῶν ἄλλων αὐτό, αἴτιον αὐτῷ τοῦ τόδε εἶναι κατὰ περιγραφὴν οἰκείαν ὃ ἐστίν. **Sextus Empiricus** *M.* 9.415 ἡ δὲ ἐπιφάνεια πέρας σώματος. **Diogenes Laertius** *VP.* 7.135 (Apollodorus *SVF* 3 fr. 6) ἐπιφάνεια δὲ ἐστὶ σώματος πέρας. **Porphyrus** *in Cat.* 123.20–24 τί οὖν ἐστὶ τὸ τέταρτον εἶδος τῆς ποιότητος;—σχῆμα καὶ ἡ περὶ ἑκάστον μορφή.—τί οὖν ἐστὶ τὸ σχῆμα καὶ πῶς αὐτὸ ὥρισαντο οἱ γεωμέτραι;—σχῆμα ἐστὶ τὸ ὑπὸ τινος γραμμῆς ἢ τινων

γραμμῶν περιεχόμενον. **Boethius** *Div.* MPL 64.888–889, p. 42.5–13 *Magee alio autem modo* (sc. divisionis) *secundum modum, haec enim non plura significant, sed multis modis, ut cum dicimus 'infinitum,' unam rem quidem significat, cuius terminus inveniri non possit. sed hoc dicimus aut secundum mensuram, aut secundum multitudinem, aut secundum speciem: ... rursus secundum speciem, ut infinitas dicimus figuras, infinitae enim sunt species figurarum.*

§2 **Pythagoreans**: **Aristotle** *Mete.* 2.2 354b23–25 τοῦ γὰρ ὕδατος περὶ τὴν γῆν περιτεταμένου, καθάπερ περὶ τοῦτο ἢ τοῦ ἀέρος σφαῖρα καὶ περὶ ταύτην ἢ λεγομένη πυρὸς. **ps.Aristotle** *Mu.* 3 392b35–a4 πέντε δὴ στοιχεῖα ταῦτα ἐν πέντε χώραις σφαιρικῶς ἐγκείμενα, περιεχομένης αἰετὸς τῆς ἐλάττονος τῇ μείζονι—λέγω δὲ γῆς μὲν ἐν ὕδατι, ὕδατος δὲ ἐν ἀέρι, ἀέρος δὲ ἐν πυρὶ, πυρὸς δὲ ἐν αἰθέρι—τὸν ὅλον κόσμον συνεστήσατο. **Anon. Photii** cod. 249, p. 239.7–8 Thesleff εἶτα ἢ τοῦ πυρὸς σφαῖρα, ἐξῆς ἢ τοῦ ἀέρος, μετ' αὐτὸν ἢ τοῦ ὕδατος, λοιπὴ καὶ ἐπὶ πάσιν ἢ γῇ. **Alexander of Aphrodisias** in *Mete.* 72.1–2 ὅτι δὲ σφαιρικὰ τὰ τῶν τεσσάρων στοιχείων σώματα, ἔδειξε καὶ ἐν τοῖς Περὶ οὐρανοῦ. **Ptolemy** *Synt.* 1.3–7. **Dio-genes Laertius** *V.P.* 7.155 ἀρέσκει δὲ αὐτοῖς (*SVF* 2.558) καὶ τὴν διακόσμησιν ὧδε ἔχειν· μέσσην τὴν γῆν κέντρου λόγον ἐπέχουσιν, μεθ' ἣν τὸ ὕδωρ σφαιροειδές, ἔχον τὸ αὐτὸ κέντρον τῇ γῇ, ὥστε τὴν γῆν ἐν ὕδατι εἶναι· μετὰ τὸ ὕδωρ δὲ ἀέρα σφαιρωμένον. **Salustius** 6.5 καὶ σφαιρὰς δὲ τούτων ἔστιν ἰδεῖν· Ἐστίας μὲν γῆν, Ποσειδῶνος δὲ ὕδωρ, Ἡρας (δὲ) ἀέρα, Ἥφαιστου δὲ πῦρ. **Euclid** *Phaen.* pr. 50–54 διὰ δὴ τὰ προειρημένα πάντα ὁ κόσμος ὑποκείσθω σφαιροειδής· εἴτε γὰρ ἦν κυλινδροειδής ἢ κωνοειδής, ἐπὶ τῶν λοξῶν κύκλων καὶ τεμνόντων τὸν ἰσημερινὸν δῖχα λαμβανόμενοι ἀστέρες ἐν τῇ περιφορᾷ οὐκ ἂν ἐφαίνοντο αἰετὸς ἐπὶ ἡμικυκλίων ἴσων φερόμενοι. **ps.Alexander** *Probl.* 2.3 Ideler see ch. 1.13 under section E(b)§2. **Proclus** in *Tim.* 2.8.8–13 καὶ πρὸς τούτοις, ὅτι τὸν ὀφθαλμὸν ἀνὰ λόγον εἶναι τῷ πυρὶ δείκνυσιν ὁ Πυθαγόρας ἐν τῷ Πρὸς Ἀβάριν λόγῳ (**ps.Pythagoras** *ad Abar.* fr. 2 Thesleff)· καὶ γὰρ ἀνωτάτω τῶν αἰσθητηρίων ἐστίν, ὡς τὸ πῦρ τῶν στοιχείων, καὶ ὀξείαις ἐνεργείαις χρήται, ὡς ἐκεῖνο, τὸ τε κωνοειδές ὁμοιότητα ἔχει πρὸς τὸ πυραμοειδές οὐκ ὀλίγην (see below §5). **Suda** s.v. Φ 862, p. 4.776.9–13 Adler ὅτι τῶν οὐρανίων ὕλη οὐχὶ τὰ τέσσαρα στοιχεῖα, ἀλλὰ ἕτερόν τι σῶμα. πάλιν, τί τὸ εἶδος; ὅτι σφαιρικὰ. καὶ διὰ τί σφαιρικὰ; ὅτι πολυχωρητότατον ἐν ἐπιπέδῳ μὲν τῶν ἄλλων σχημάτων ὁ κύκλος, ἐν στερεοῖς δὲ ἡ σφαῖρα. ὡς καὶ ὁ Πλάτων ἐν Τιμαίῳ (33b) διὰ τοῦτο σφαιρικὸν γενέσθαι τὸν οὐρανὸν ἀποδέδωκε.

§3 **Anaxagoras**: **Anaxagoras** at **Simp.** in *Phys.* 156.2–4 ~ in *Cael.* 609.5–8 (59B4, p. 2.34.5–8 DK, verbatim) τούτων δὲ οὕτως ἐχόντων, χρὴ δοκεῖν ἐνεῖναι πολλὰ τε καὶ παντοῖα ἐν πάσι τοῖς συγκρινόμενοις καὶ σπέρματα πάντων χρημάτων καὶ ἰδέας παντοίας ἔχοντα καὶ χροιάς καὶ ἡδονάς.

§4 **Followers of Leucippus**: **Aristotle** *Phys.* 1.5 188a22–26 Δημόκριτος (68A45 DK) τὸ στερεὸν [πλήρες **Simp.** in *Phys.* 44.16] καὶ κενόν, ὧν τὸ μὲν ὡς ὄν τὸ δὲ ὡς οὐκ ὄν εἶναι φησιν· ἔτι θέσει, σχήματι, τάξει. ταῦτα δὲ γένη ἐναντίων· θέσεως ἄνω κάτω, πρόσθεν ὀπίσθεν, σχήματος γεγωνιωμένον ἀγώνιον, εὐθὺ περιφερέες. *Cael.* 3.4 303a10–14 (**Leucippus** 67A15 DK) καὶ πρὸς τούτοις, ἐπεὶ διαφέρει τὰ σώματα σχήμασιν, ἄπειρα δὲ τὰ σχήματα, ἄπειρα καὶ τὰ ἀπλὰ σώματά φασι εἶναι. ποῖον δὲ καὶ τί ἐκάστου τὸ σχῆμα τῶν στοιχείων, οὐθὲν ἐπιδιώρισαν, ἀλλὰ

μόνον τῷ πυρὶ τὴν σφαίραν ἀπέδωκαν. *de An.* 1.2 405a8–13 Δημόκριτος (68A101 DK) ... ψυχὴν μὲν γὰρ εἶναι ταῦτό καὶ νοῦν, τοῦτο δ' εἶναι τῶν πρώτων καὶ ἀδιαιρέτων σωμάτων, κινητικὸν δὲ διὰ μικρομέρειαν καὶ τὸ σχῆμα· τῶν δὲ σχημάτων εὐκίνητότατον τὸ σφαιροειδὲς λέγει· τοιοῦτον δ' εἶναι τὸν τε νοῦν καὶ τὸ πῦρ. **Aristotle** *Περὶ Δημοκρίτου*, fr. 208 R³ at *Simp. in Cael.* 295.5–8 νομίζει (Democritus 68A37 DK) δὲ εἶναι οὕτω μικρὰς τὰς οὐσίας ὥστε ἐκφυγεῖν τὰς ἡμετέρας αἰσθήσεις, ὑπάρχειν δὲ αὐτοῖς παντοίας μορφᾶς καὶ σχήματα παντοῖα καὶ κατὰ μέγεθος διαφορὰς. *in Phys.* 28.8–10 (**Theophrastus** *Phys.Op.* fr. 8 Diels, 229 FHS&G, Leucippus 67A8 DK, Democritus 68A38 DK) οὗτος ἄπειρα καὶ αἰεὶ κινούμενα ὑπέθετο στοιχεῖα τὰς ἀτόμους καὶ τῶν ἐν αὐτοῖς σχημάτων ἄπειρον τὸ πλῆθος. **Epicurus** *Ep.Hdt.* at D.L. 10.42 πρὸς τε τούτοις τὰ ἄτομα τῶν σωμάτων καὶ μεστὰ, ἐξ ὧν καὶ αἱ συγκρίσεις γίνονται καὶ εἰς ἃ διαλύονται, ἀπερίληπτά ἐστι ταῖς διαφοραῖς τῶν σχημάτων· οὐ γὰρ δυνατόν γενέσθαι τὰς τοσαύτας διαφορὰς ἐκ τῶν αὐτῶν σχημάτων περιειλημμένων. καὶ καθ' ἑκάστην δὲ σχημάτισιν ἀπλῶς ἄπειροί εἰσιν αἱ ὅμοιοι, ταῖς δὲ διαφοραῖς οὐχ ἀπλῶς ἄπειροι, ἀλλὰ μόνον ἀπερίληπτοι. **Dionysius of Alexandria** *Περὶ φύσεως* at Eus. *PE* 14.23.2 (on Democritus, 68A43 DK, cf. Epicurus fr. 301 Usener) οἱ μὲν γὰρ ἀτόμους προσειπόντες ἄφθαρτά τινα καὶ σμικρότατα σώματα ... ταύτας δὴ φασὶ τὰς ἀτόμους ... διὰ τὸ πολυσχήμενας οὕσας ἀλλήλων ἐπιλαμβάνεσθαι.

§5 Cleanthes: Plato *Tim.* 56b ἔστω δὴ κατὰ τὸν ὀρθὸν λόγον καὶ κατὰ τὸν εἰκότα τὸ μὲν τῆς πυραμίδος στερεὸν γεγενὸς εἶδος πυρὸς στοιχείον καὶ σπέρμα. **Proclus** *in Tim.* 2.8.11–12 Diehl τό τε κωνοειδὲς ὁμοιότητα ἔχει πρὸς τὸ πυραμοειδὲς οὐκ ὀλίγην (see above §2).

Liber 1 Caput 15

P^B: ps.Plutarchus *Plac.* 883C–D; pp. 313^a3–19 Diels—P^G: ps.Galenus *HPh* c. 27; pp. 615.21–616.6 Diels; pp. 81–88 Jas—P^Q: Qustā ibn Lūqā pp. 126–127 Daiber—P^{Ps}: Psellus *Omn.Doctr.* c. 89, p. 52 Westerink
S: Stobaeus *Ecl.* 1.16.1, pp. 148.12–150.8 Wachsmuth; cf. Photius *Bibl.* 167, p. 112b3 Henry (titulus solus)

Titulus ιε'. Περὶ χρωμάτων (P,S)

- §1 χρώμά ἐστι ποιότης σώματος ὁρατὴ προηγουμένως. (P1,S1)
§2 οἱ Πυθαγορικοὶ χροιάν ἐκάλουν τὴν ἐπιφάνειαν τοῦ σώματος. (P2,S2a)
§3 Ἐμπεδοκλῆς τὸ τοῖς πόροις τῆς ὀψεως ἐναρμόττον· τέτταρα δὲ τοῖς
στοιχείοις ἰσάριθμα, λευκόν, μέλαν, ἐρυθρόν, ὠχρόν. (P3,S3) 5
§4 Πλάτων φλόγα ἀπὸ τῶν σωμάτων σύμμετρα μόρια ἔχουσιν πρὸς τὴν
ὄψιν. (P4,S4)
§5 Ἀρίσταρχος Σάμιος μαθηματικός, ἀκουστής Στράτωνος, φῶς εἶναι τὸ
χρῶμα τοῖς ὑποκειμένοις ἐπιπίπτει. (S5)
§6 Ζήνων ὁ Στωικός τὰ χρώματα πρώτους εἶναι σχηματισμοὺς τῆς ὕλης. 10
(P5,S6)
§7 οἱ ἀπὸ Πυθαγόρου τὰ γένη τῶν χρωμάτων λευκόν τε καὶ μέλαν,
ἐρυθρόν, ὠχρόν· τὰς δὲ διαφορὰς τῶν χρωμάτων παρὰ τὰς ποιὰς μίξεις
τῶν στοιχείων· τὰς δὲ τῶν ζῶων παρὰ τὰς ποικιλίας τῶν τροφῶν καὶ
τῶν ἀέρων. (P6,S2b) 15

§1 —; §2 cf. Pythagorei 58B42 DK; §3 Empedocles 31A92 DK; §4 Plato *Tim.* 67c; §5 Aristarchus ap. Strato fr. 7 Sharples; §6 Zeno *SVF* 1.91; §7 Pythagorei —

§1 [2] προηγουμένως om. P §2 [3] οἱ Πυθαγορικοὶ P^B: οἱ Πυθαγόρειοι SP^G Diels (om. οἱ S) || post οἱ add δὲ P^G || ἐκάλουν || ἀνεκάλουν P^{B(III)} || post σώματος add. S §7 τὰ δὲ (δὲ non hab. P) γένη ... ἀέρων unum lemma pythagoricum confectans ubi P habet duo §3 [4] post nomen χρώμα εἶναι ἀπεφάνετο add. S || ἐναρμόττον P^B: ἐναρμόττων S^{FP} corr. Wachsmuth || post ἐναρμόττον ex §7 iterata ap. S verba τὰς δὲ διαφορὰς ... παρὰ τῶν τροφῶν τὰς ποικιλίας conservanda et Empedocli tribuenda esse pos. Primavesi (2011) 512, reiec. Diels Wachsmuth alii || τὸ ... ἐναρμόττον || al. *etwas ist, worauf die Sehstrahlen fallen* Q || [4–§4.6] ἐναρμόττον ... φλόγα lac. hab. P^G et pro σωμάτων legit ἀπ' αὐτῶν || [4–5] τέτταρα ... ὠχρόν S, non hab. P || [5] ὠχρόν] χλωρόν maluit Diels *DG*, prob. Ierodiakonou (2005a) 11 §§5, 8–13 exhibet S solus §6 [10] χρώματα P^{BQS}: τρίμματα P^G ret. Jas §7 [13–15] τὰς δὲ διαφορὰς ... ἀέρων addenda esse ad §3 iudic. Primavesi (2011) 512, vid. supra ap. §3 || [13] ἐρυθρόν, ὠχρόν P^B: ἐρυθρόν τε καὶ ὠχρόν S: καὶ ἐρυθρόν (et add. νομίζουσιν) P^G || ὠχρόν] χλωρόν maluit Diels *DG* || post δὲ hab. ἄλλας P^G || ποιὰς P^{BG}, cf. P^Q (*von der besonderen Art* Q): hic om. S, sed hab. in iteratis ap. §3 || [14] παρὰ P^{GQS}: καὶ παρὰ P^B || τροφῶν S prob. edd. Primavesi: τροπῶν P^B: τόπων P^{GQ} || [14–15] καὶ ... ἀέρων om. Primavesi (2011) 512

- §8 Δημόκριτος φύσει μὲν μηδὲν εἶναι χρώμα, τὰ μὲν γὰρ στοιχεῖα ἅποια, τὰ τε ναστὰ καὶ τὸ κενόν· τὰ δὲ ἐξ αὐτῶν συγκρίματα κεχρώσθαι διαταγῇ τε καὶ ῥυθμῷ καὶ προτροπῇ, ὧν ἡ μὲν ἐστὶ τάξις, ὁ δὲ σχῆμα, ἡ δὲ θέσις· παρὰ ταῦτα γὰρ αἱ φαντασίαι. τούτων δὲ τῶν πρὸς τὴν φαντασίαν χρωμάτων τέτταρες αἱ διαφοραὶ, λευκοῦ, μέλανος, ἐρυθροῦ, ὡχροῦ. (S7) 20
- §9 Ἐπίκουρος καὶ Ἀρίσταρχος τὰ ἐν τῷ σκότῳ σώματα χροῖαν οὐκ ἔχειν. (S8)
- §10 Ἀριστοτέλης πέρας ἐν ὠρισμένῳ διαφανεῖ, διαφανὲς δὲ ὕλην εἶναι διηθημένην καθαρὰν καὶ ἀμιγῇ, τούτου δὲ αὐτοῦ τὸ κινητικὸν χρώμα 25 ὑπάρχειν· ἐν δὲ τῷ σκότῳ τὰ σώματα χροῖαν δυνάμει μὲν ἔχειν, ἐνεργείᾳ δὲ μηδαμῶς· πολὺ δὲ τὸ μεταξὺ τοῦ τε μὴ ἔχειν καὶ μὴ ὁράσθαι. (S9)
- §11 οἱ μὲν ἄλλοι τὰ στοιχεῖα κεχρώσθαι φυσικῶς, (S10)
- §12 οἱ δὲ τὰ ὁμοιομερῆ ποιότητος μετέχειν τὰ πρῶτα, (S11)
- §13 οἱ δὲ τὰ ἄτομα πάντα συλλήβδην ἄχροα, ἐξ ἀποίων δὲ τῶν λόγῳ 30 θεωρητῶν τὰς αἰσθητάς ὑποφαίνουσι γίγνεσθαι ποιότητας. (S12)

§8 Democritus 68A125 DK; §9 Epicurus fr. 29 Usener; Aristarchus —; §10 Aristoteles *Sens.* 3 439b11–12, *de An.* 2.7 418a31–b3; §11 Stoici *SVF* 2.419; §§12–13 anonymi —

§8 [16] φύσει edd. : φύσιν S || χρώμα, τὰ edd. : χρώματα S || ἅποια Heeren prob. Wachsmuth, ποιά S || [17] ναστὰ Diels prob. Wachsmuth, μεστὰ S || κεχρώσθαι edd. : κέχρωστα S || [18] προτροπῇ S Diels Wachsmuth : τροπῇ Meineke || ὁ δὲ σχῆμα edd. : ἡ δὲ σχῆμα S^F, om. S^P || [21] ὡχροῦ] χλωροῦ maluit Diels *DG*, prob. Sassi (1978) 138 §9 [22] σώματα Usener Wachsmuth (prob. Diels sed non in textu pos.) : χρώματα S || χροῖαν scripsimus, cf. §2 : χροάν S Diels Wachsmuth §10 [24] διαφανὲς corr. Diels : διαφανέν S prob. Wachsmuth, διαφανῇ Heeren || [25] διηθημένην S Wachsmuth, crucif. Diels || κινητικὸν corr. Diels ex *de An.* 418b1, prob. Wachsmuth : κινήτων S || [26] σώματα idem ut ap. §9 [22] : χρώματα S || χροῖαν scripsimus, cf. §2 : χροάν S Diels Wachsmuth §11 [28] κεχρώσθαι S^{P2} : κεχρήσθαι S^{F P1} §13 [31] ποιότητας S^{P2} : ποιότητος S^{F P1}

Testes primi:

Tradito ps.Plutarchi:

ps.Galenus *HPh* c. 27 (~ tit.) Περὶ χρωμάτων (text Jas)

27.1 (~ P1) χρώμα ἐστὶ ποιότης σώματος ὁρατή.

27.2 (~ P2) οἱ δὲ Πυθαγόρειοι χροῖαν ἐκάλουν τὴν ἐπιφάνειαν τοῦ σώματος.

27.3 (~ P3) Ἐμπεδοκλῆς δὲ τὸ τοῖς πόροις τῆς ὕψεως [...]

27.4 (~ P4) [...] ἀπ' αὐτῶν σύμμετρα μόρια ἔχουσιν πρὸς τὴν ὕψιν.

27.4 (~ P5) Ζήνων δὲ ὁ Στωικός τὰ χρώματα [τρίμματα Jas per litt.] ἐπίχρωσιν τῆς ὕλης ὑπέλαβεν.

27.5 (~ P6) οἱ δὲ ἀπὸ Πυθαγόρου τὰ γένη τῶν χρωμάτων λευκὸν τε καὶ μέλαν καὶ ἐρυθρόν νομίζουσιν, τὰς δ' ἄλλας διαφορὰς παρὰ τὰς ποιάς μίξεις τῶν στοιχείων, τὰς δὲ τῶν ζῶων παρὰ τὰς τῶν τόπων καὶ τῶν ἀέρων.

Psellus *Omn. Doctr.* c. 89 (~ tit.) Περὶ χρωμάτων

89.1 (~P1) χρώμα ἐστὶν ὁρατὴ ποιότης τῆς τῶν σωμάτων ἐπιφανείας.

89.2 (~P2) ὁ δὲ γε Πλάτων καινὸν τινα τρόπον διερμηνεύει περὶ τῶν χρωμάτων.
λέγει δὲ ὅτι κτλ.

Loci Aetiani:

quaestio A 4.15 (~ tit.) Εἰ ὁρατὸν τὸ σκότος.

§1 A 1.9.1 ὕλη ἐστὶ ... A 1.10.1 ἰδέα ἐστὶν ... A 1.11.1 αἷτιόν ἐστι ... ἀρκεῖ γὰρ ὑπογραφικῶς. A 1.12.1 σῶμά ἐστι ... ἦ ... ἦ ... A 1.14.1 Σχήμα ἐστὶν ... A 1.23.1 ... κίνησις ἐστὶ διαφορά τις ἢ ἑτερότης ἐν ὕλῃ, ἣ ἔστιν ὕλη. οὗτος πάσης κινήσεως κοινὸς ὁρος. A 2.32.1 ἐνιαυτός ἐστι ... A 3.1.1 (γαλαξίος) κύκλος ἐστὶ ...

§2 A 1.14.1 σχῆμα ἐστὶν ἐπιφάνεια καὶ περιγραφὴ καὶ πέρας σώματος.

§3 A 4.13.12 Ἐμπεδοκλῆς (sc. τὸ ὁρατικὸν συμβαίνειν πάθος) καὶ πρὸς τὸ διὰ τῶν ἀκτίνων καὶ πρὸς τὸ διὰ τῶν εἰδῶλων ἐκδοχὰς παρέχεται· πλείους δὲ πρὸς (τὸ) δεύτερον· τὰς γὰρ ἀπορροίας ἀποδέχεται. 4.14.1 Ἐμπεδοκλῆς κατ' ἀπορροίας τὰς συνισταμένας (sc. τὰς κατοπτρικὰς ἐμφάσεις γίνεσθαι) μὲν ἐπὶ τῆς ἐπιφανείας τοῦ κατόπτρου, πλουμένας δ' ὑπὸ τοῦ ἐκκρινομένου ἐκ τοῦ κατόπτρου πυρώδους καὶ τὸν προκείμενον ἀέρα, εἰς ὃν φέρεται τὰ ρεύματα, συμμεταφέροντος. A 4.5.9 Ἐμπεδοκλῆς ἐν τῇ τοῦ αἵματος συστάσει (sc. τὸ τῆς ψυχῆς ἡγεμονικόν). A 5.22.1 Ἐμπεδοκλῆς τὰς μὲν σάρκας γεννᾶσθαι ἐκ τῶν ἴσων τῇ κράσει τεττάρων στοιχείων· τὰ δὲ νεύρα ἐκ πυρὸς καὶ γῆς ὕδατι διπλασίονι μιχθέντων· τοὺς δ' ὄνυχας τοῖς ζώοις γεννᾶσθαι τῶν νεύρων καθὼς ἀέρι συνέτυχε περιψυχθέντων· ὅσα δὲ θυεῖν μὲν ὕδατος καὶ γῆς, τεττάρων δὲ πυρὸς, (ἔσω τῆς) γῆς τοῦτων συγκραθέντων μερῶν· ἰδρώτα καὶ δάκρυον γίνεσθαι τοῦ αἵματος τηχομένου καὶ παρὰ τὸ λεπτύνεσθαι διαχεομένου.

§4 A 4.13.7 Πλάτων (sc. ὁρᾶν ἡμᾶς κατὰ) συναύγειαν τοῦ μὲν ἐκ τῶν ὀφθαλμῶν φωτὸς ἐπὶ ποσὸν ἀπορρέοντος εἰς τὸν ὁμογενῆ ἀέρα, τοῦ δὲ ἀπὸ τῶν σωμάτων ἀντιφερομένου, τοῦ δὲ περὶ τὸν μεταξὺ ἀέρα, εὐδιάχυτον ὄντα καὶ εὐτρεπτον, συντεινομένου τῷ πυρώδει τῆς ὄψεως. αὕτη λέγεται Πλατωνικὴ συναύγεια.

§5 A 4.13.4 Ἀρίσταρχος (sc. ὁρᾶν ἡμᾶς κατὰ) σχήματα συνδιατυποῦντά πως αὐτοῖς τὸν ἀέρα.

§7 A 1.14.2 οἱ ἀπὸ Πυθαγόρου σφαιρικὰ τὰ σχήματα τῶν τεττάρων στοιχείων. A 5.19.6[20–23] (de Empedocle) τῶν δὲ ζώων πάντων τὰ γένη διακριθῆναι διὰ τὰς ποιάς κράσεις· τὰ μὲν ὑγρότερα εἰς τὸ ὕδωρ τὴν ὁρμὴν ἔχειν, τὰ δ' εἰς ἀέρα ἀναπτῆναι, ὅς' ἂν πυρώδες ἔχῃ τὸ πλεον, τὰ δὲ βαρύτερα ἐπὶ τὴν γῆν, τὰ δ' ἰσομοῖρα τῇ κράσει πᾶσι τοῖς χωρίοις σύμφωνα εἶναι.

§8 A 1.3.15 Δημόκριτος τὰ ναστὰ καὶ κενόν. A 1.12.6 Δημόκριτος τὰ πρῶτά φησι σώματα (ταῦτα δ' ἦν τὰ ναστά) κτλ. A 4.9.9 Λεύκιππος δὲ Δημόκριτος Διογένους νόμῳ, τοῦτο δ' ἐστὶ δόξη καὶ πάθει τοῖς ἡμετέροις· μὴδὲν δ' εἶναι ἀληθές μὴδὲ καταληπτὸν ἐκτὸς τῶν πρῶτων στοιχείων, ἀτόμων καὶ κενοῦ· ταῦτα γὰρ εἶναι μόνον φύσει, τὰ δ' ἐκ τούτων, θέσει καὶ τάξει καὶ σχήματι διαφέροντα ἀλλήλων, συμβεβηκότα.

§9–10 A 4.15.1 Σφαῖρος ὁ Στωϊκὸς ὁρατὸν εἶναι τὸ σκότος. 4.15.1 [7–8] διὰ τοῦτο μὴ ὁρᾶν ἡμᾶς ἐν τῷ σκότει ἀλλ' αὐτὸ μόνον τὸ σκότος. 4.15.2[13–14] διόπερ ὁρατὸν εἶναι τὸ σκότος.

§10 A 4.13.9 Ἀριστοτέλης ὁρᾷν ἡμᾶς κατὰ κίνησιν τοῦ κατ' ἐνέργειαν διαφανοῦς.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

Our knowledge of A's chapter on colours again depends on the evidence of P and S.

(1) P^B and Q preserve six doxai. P skipped §7 and edited out the whole final section §§7–12, even more than in chs. 1.12–14. All six are taken over by G in his *Epitome*, but the third and fourth have been coalesced into a single doxa in the mss. Ps retains the chapter heading and slightly abridges the nominal definition that opens the chapter.

(2) S in his chapter on colours (1.16) in all likelihood simply writes out the chapter as he found it in A, making one significant alteration. He joins together what in P are the second and fifth doxai, which have (in the version of P) very similar name-labels (οἱ Πυθαγορικοί, οἱ ἀπὸ Πυθαγόρου), for which S substitutes Πυθαγόρειοι ... The third doxa (in both P and S) attributed to Empedocles is also longer in S than what is preserved in P, for S here has a slightly different version of the lines τὰς δὲ διαφορὰς τῶν χρωμάτων ... καὶ τῶν ἀέρων in the Pythagorean lemma (he does not have καὶ τῶν ἀέρων the second time). S thus preserves 13 doxai in all, including all those found in P.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The *traditio proxima* is virtually non-existent. The few parallels in Hippolytus and Sextus Empiricus pertain to generalities.

(2) *Sources.* The relation of the chapter with Theophrastus *De sensibus* is less marked than Diels believed, though in some instances beyond reasonable doubt.

(a) In the first place there are no Pythagoreans in the *De sensibus*. The Pythagorean definition οἱ Πυθαγορικοί 'χροιὰν' ἐκάλουν τὴν ἐπιφάνειαν τοῦ σώματος in §2 ultimately derives from Aristotle *Sens.* 3 439a30 τὸ γὰρ χρῶμα ἢ ἐν τῷ πέρατί ἐστιν ἢ πέρας, διὸ καὶ οἱ Πυθαγόρειοι (58B42 DK) τὴν ἐπιφάνειαν 'χρόαν' ἐκάλουν, as Diels ad loc. and *DG* 215 already saw. He included it among the purported excerpts from the *pragmateiai* about the Pythagoreans listed at *DG*, loc. cit., almost all of which however have to be attributed not to A but to S; see below, ch. 1.18.6, Commentary D(d), individual points §6. For the doxa of 'the successors of Pythagoras' at §7, a later construct, see below section D(d), individual points §7.

(b) The Empedocles doxa in §3 that colour is what is fitting for the *poroi* of vision may ultimately derive from Aristotle *GC* 1.8 324b26–35, but perhaps more readily from the shorter account at Theophrastus *Sens.* 7, see *DG* 222. But Diels correctly stipulates that the *four-colour* theory is at variance with Theophrastus' account, who for Empedocles mentions only two colours and *Sens.* 17 argues that the other colours cannot be perceived, for the basis of perception is that of like by like.

(c) Plato's doxa in §4 is a virtually verbatim reproduction of Theophrastus *Sens.* 5 and 86. Theophrastus closely paraphrases *Tim.* 67c and preserves much of Plato's wording. What apparently gives the Theophrastean origin away is the phrase 'with the organ of sight' (πρὸς τὴν ὄψιν), a calque of Theophrastus' τῇ ὄψει (twice), not of Plato's ὄψει alone and of his 'with perception' (πρὸς αἴσθησιν). Theophrastus and A have ἀπὸ τῶν σωμαμάτων, while there is no preposition in Plato. Cf. Baltussen (2000a) 230; πρὸς, on the other hand, is again closer to Plato than to Theophrastus. But the final position of πρὸς τὴν ὄψιν corresponds with that of Theophrastus' τῇ ὄψει.

(d) On the other hand it is certain that Democritus' doxa in §8 does not derive from *Sens.* 60, 63 and 73–76 alone. Baltussen (1993) 224–225 hears '[a]t most a faint echo'. The compact presentation of atomist principles is based on Aristotle's classic account at *Met.* A.4 985b4–17 and (possibly, for the sentence may be by Simplicius citing Aristotle) Theophrastus *Phys. Op.* fr. 8 Diels = 229 FHS&G. Not, however, without interesting modifications of primary key terms, namely, instead of διαθιγῇ, ῥυσμῶ, τροπῇ the words ῥυθμῶ [normalization], διαταγῇ ['arrangement', found only here instead of διαθιγῇ], προτροπῇ ['impulse', 'exhortation', the original term apparently being too unfamiliar]. They are accompanied by the same explanatory substitutes τάξις 'order', σχῆμα 'shape' and θέσις 'position', as in Aristotle and Theophrastus (these substitutes, but not the (variations of) the original terms, are paralleled at A ch. 4.9.9). But the original Democritean terminology is not paralleled in the *De sensibus*. Their equivalents, plus as a fourth (or rather first) property 'size' (μέγεθος), are listed Theophrastus *Sens.* 60: 'he (sc. Democritus) distinguishes some (sense-data) by their sizes, others by their shapes, and several by their order and position' (τὰ μὲν τοῖς μεγέθεσι, τὰ δὲ τοῖς σχήμασιν, ἔνια δὲ τάξει καὶ θέσει διορίζει).

The denial of the existence of colour at the level of the individual atom is anticipated both at Aristotle *GC* 1.2 316a2–3 'he denies that colour exists, for colouring, he says, is due to position' (χροιὰν οὐ φησιν εἶναι τροπῇ γὰρ χρωματίζεσθαι), and Theophrastus *Sens.* 60 'he makes them states of the perceptive faculty' (ὁ μὲν γὰρ (sc. τὰ αἰσθητά) πάθη ποιῶν τῆς αἰσθήσεως). See also below, ch. 4.9.9. For different atomic shapes in this context according to Aristotle

see *Sens.* 4 442b10–13 = 68A126 DK. Theophrastus *Sens.* 61 rubs in the purported contradiction in Democritus between colours as on the one hand sense-data and on the other as one of the consequences of varieties at the level of uncompounded atoms, namely of size and shape. A similar point is made by Aristotle *Met.* Γ.5 1009b7–17, though less specifically. This contradiction is not paralleled in §8 of our chapter. We should anyway realize that ‘shape’ not only pertains to individual atoms but also to compounds. The atomic shape of a compound depends on the shape of the majority of the atoms of which it is composed. Individual atoms cannot be perceived, so also shape and size are only perceptible via compounds. A compound consisting of smooth elements can be perceived as white, of rough elements as black, of round elements (larger than those of soul) as red, and varieties of shape and arrangement also determine various shades of white or black or red or green (Theophrastus *Sens.* 73–76, cited section E(b)§8). In our present paragraph the colours are connected with shapes and arrangements. We should recall that compounds consisting of similarly shaped atoms of about the same size are formed by means of a natural process, when like meets with like in the precosmic or cosmic whirl.

Our information on Democritus’ views on perception is varied, because in some sources he is depicted as a true-blue Skeptic denying the possibility of knowledge in any form, and in others as someone who believes that there is a significant relation between the shapes and arrangements of the elements in compounds and the qualities that are perceived, though these qualities cannot be attributed to the individual elements or the compounds themselves.

(3) Apart from a brief reference in §7 there is no discussion of mixed colours, though for Plato and Democritus these are discussed at some length by Theophrastus. This is another difference between the present chapter and the *De sensibus*.

C Chapter Heading

Attested in both P and S, and again of the standard umbrella type ‘about x’, περὶ τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. Here the heading comprises the question types of substance, quality and existence, or the categories of substance, quality and quantity. The phrase is paralleled as the title of a treatise in the *Corpus Aristotelicum* that belongs with the present context, as a title of Strato, and as a heading in the ps.Alexandrian *Problemata*.

D *Analysis*

a Context

(1) The chapter is the fourth of the block of six chapters, 1.12–17, which deal with body in its various aspects. It follows not unnaturally on 1.12 ‘On bodies’, 1.13 ‘On smallest (bodies)’, and 1.14 ‘On shapes’, and is followed by 1.16, ‘On cutting of bodies’, which is closely related to the theme of 1.13, ‘On smallest (bodies)’. The structure of ch. 1.15 is quite complicated, because it takes several issues in its stride. These could very well have been distributed over several chapters. According to Diels *DG* 62 §§8–13, not paralleled in P, are a separate ‘quaestio’ dealing with the issue of whether colours are by nature or by convention etc., and he posits they originally formed a separate chapter, although there is no evidence in S for an appropriate chapter heading. We hesitate to follow Diels. Distribution of related themes over different chapters and their combination in a single one occur fairly equally.

(2) In various ways the chapter is related to ch. 4.13 ‘On vision, how we see’, and ch. 4.15, ‘Whether darkness is visible’. Thus, it is noteworthy that the colour theme is placed here, in Book 1, and not further down in Book 4 among the epistemological chapters dealing with perception, esp. those dealing with vision. In an uncontaminated Peripatetic environment this is where colour would be discussed in the first place, as in Aristotle’s *De sensu et sensibilibus* and Theophrastus *De sensibus*. Goethe in the first pages of the ‘historischer Theil’ of the *Farbenlehre* actually combined several lemmata of chs. 1.15 and 4.13, namely those having the same name-labels. The present positioning presumably depends on the preliminary definition of colour as ‘the primarily visible quality of a *body*’, itself not so very far from the modified Pythagorean view adopted by Aristotle, or from the Stoic view (cf. §6, §11). Thus, the shift from epistemology to ontology will have been caused by the position of the corporeal in Stoic thought, attested by the prominent place in Book 1 of ch. 1.12 ‘On bodies’, *ubi vide* at Commentary D(a). The definition in §1 explicitly ranges colour under the category of quality, but in a Stoicizing context qualities are corporeal. This nominal definition is also acceptable to those (e.g. the Platonists) who see quality as an incorporeal.

b Number–Order of Lemmata

P has six lemmata, S twelve, combining at Szab the second and fifth doxa with their similar Pythagorean name-labels, as noted above at section A. For the rest the order of the lemmata, which are shared by P and S, is the same, so we may follow that of the more complete S but emend his order by putting back Szb to the fifth position according to P. This is also Diels’ order in the *DG*.

c Rationale–Structure of Chapter

(1) *Definition*. For the preliminary and descriptive definition of a word, or concept (as here ‘colour’ in §1) see above ch. 1.9, Commentary D(c) and (e)(2). We used to think that προηγουμένως had been added by S, but have now come to the conclusion that it was left out by P. Like ch. 1.11.1 ἀρκεῖ γὰρ ὑπογραφικῶς and ch. 1.23.1 οὗτος πάσης κινήσεως κοινὸς ὅρος it serves to identify the definition as a preliminary and nominal, or conceptual, one. The definition places colour in the category of quality, but at section D(a)(2) above we have noticed that in a Stoicizing context qualities are corporeal.

(2) *Diaphoniae*. The first diaphonia opposes §§2–7 to §8, the former being concerned with the substance and corporeality of colour, while the latter denies its objective reality, claiming that it is the secondary result of the various ways primary corpuscles are arranged in combination. This combines the question types of substance and existence. §9 provides an addendum to the atomist doctrine of §8: bodies have no colour in the dark. This, in its turn, conflicts with §10, where according to Aristotle in darkness bodies do have colour, though not actually but potentially. The brief reference to Aristotle’s view with regard to coloured surfaces and the ‘transparent’ explains why the appeal to potentiality is justified, but this is only comprehensible, or so we believe, to one who is familiar with his complicated theory of the transparent. Finally §§11–13 to some extent summarize what has gone before (and thus are formally parallel to what is found at ch. 4.3.1 below): §11 opposes the realists of §§2–7 to the Atomists of §§8–9 and also to those of §13, who in their turn also recall §8–9, while a subspecies of those who assume primary corpuscles is added in §12, as an ally of the people mentioned in §11 and an opponent of those mentioned in §13.

(3) Other ingredients of colour theory are added here and there. The four-colour theory (category of quantity) is represented in §3 and §§7–8. Secondary and further colours that are the product of these main colours (by mixture) are mentioned in §7, but only play a very limited part, while Democritus (as discussed esp. in Theophrastus *De sensibus*), Plato, and Aristotle also discuss the ways primary colours mix to produce further colours.

d Further Comments

Individual Points

§§3 and 7–8 Diels *DG* 50 and 222, following his predecessors and of course with his theory of Theophrastus qua most important source of A in mind, argues that ὤχρὸν (‘ochre’, ‘yellow’) in §3 Empedocles, §7 Pythagoreans and §8 Democritus is corrupt (cf. Ierodiakonou 2005a, 11, who n. 16 cites other followers of Diels). The original reading would have been χλωρόν (‘green’), the last

of the four primary colours according to Theophrastus on Democritus at *Sens.* 75–82. Since ὥχρὸν occurs in all witnesses for §3 plus §§7–8 and, if it is indeed a corruption, has to be an ancient one (‘Aetius an librarius tam pertinaciter peccaverit nescio’, Diels says), he does not introduce χλωρόν in the text of the *DG*, flagging ὥχρὸν with asterisks instead. At *PPF* 5A92 (1901 p. 104) he keeps ὥχρὸν too, but adds, between brackets: ‘an i.q. χλωρόν cf. Galen. XV 554?’ [i.e. *HVA* p. 182.8 Mewaldt, where one reads ἔστι δὲ τὸ ὥχρὸν χρώμα] ‘at cf. Heraclit. fr. 10’ [i.e. 22B10 DK]; these two texts are quoted below at section E(b) General texts, where we have added a few more examples. Galen rather often provides the information that the two terms are equivalent although χλωρός is ‘ancient’ (but so, we must say, is ὥχρὸς, see below) and ‘Asian’, and ὥχρὸς standard usage. Diels also keeps ὥχρὸν in his quotations of §3 and §8 in the first edition of the *Fragmente der Vorsokratiker* (no change in all subsequent editions). In several four-colour lists, some of which are also quoted at section E(b) General texts, we do not find χλωρός but ὥχρὸς. This supports Galen’s point about the equivalence of the two terms. Both Pliny and the author of the *De mundo*, contemporaries of A, attribute a palette of four colours including ochre to the great painters of the past, or to the art of painting in general. See also Ferrini (1999) 105 on the interchangeability of these two terms, and compare the entries χλωρός and ὥχρὸς in the *Index Hippocraticus*. The Hippocratic treatise *De aere aquis locis* 15.15–16 τήν τε χροίην ὥχρην ἔχουσιν, ὥσπερ ὑπὸ ἱκτέρου ἐχόμενοι and similar passages in the *Corpus Hippocraticum* show that Galen’s claim that only χλωρός is ‘ancient’ is false. So *pace* a majority of scholars we need not assume a corruption or vulgarization, quite the contrary. What is more to the point, the fact that in the *De sensibus* Democritus’ fourth colour is χλωρός, while here it is ὥχρὸς (just as in §§7–8), shows that the four-colours theory of the present chapter does not derive from the *De sensibus* unchanged.

§1 χρώμα εἶναι ἀπεφαίνεται may well have been added by S (the verbal form ἀπεφαίνεται does not occur in P), but we have left it in the text.

§3 P^B, S attribute the intromission theory of vision, while Q presents the extramission theory. We return to this below.

Primavesi (2001) 512 posits that the lines τὰς δὲ διαφορὰς ... παρὰ τῶν τροφῶν τὰς ποικιλίας (see app. crit.), occurring in virtually the same form in our §7 (= the second part of S2), which were rejected by Diels and Wachsmuth as repetitive, are to be left in §3, and as to contents to be attributed to Empedocles. That the contents are arguably Empedoclean is correct, see below, section D(d)§7, where however their ascription to the Pythagoreans is explained. What is against the *constitutio* as defended by Primavesi is that S combined what in P’s chapter is divided over two paragraphs, P2 and P7, by adding the latter to the former. By mistake S then repeated this move, omitting the refer-

ence to the four colours of §7 because there is already one in §2, and abridging the end from *παρὰ τὰς ποικιλίας τῶν τροφῶν καὶ τῶν ἀέρων* to the shorter *παρὰ τῶν τροφῶν τὰς ποικιλίας*.

That the colours are equal in number to the elements does not entail that each element has, or produces, its own specific colour (see Ierodiakonou 2005a). The point of Empedocles' simile in 31B23 DK is that just as in painting you need no more than four colours, so in cosmology you need no more than four elements. According to 31B71 DK the elements produce all the various colours, but it is not said—though not excluded either!—that each element contributes its own specific colour. At 31B21.3–5 DK the sun is 'white to look on' and 'warm', and the other heavenly bodies are 'flooded with white light', while rain is 'dark' (these lines about sun and rain are also cited by Aristotle). Theophrastus *Sens.* 7 attests that for Empedocles the pores of fire of the eyes 'know' white and those of water 'know' black, and *Sens.* 59 tells us that for Empedocles fire is white and water black. (See already Arist. *GA* 5.1 779b15–20). Theophrastus does not mention the other two elements, or the other two primary colours, though at *Sens.* 17 he speaks of 'grey and other mixed colours', sc. mixed from black and white. It is not certain, however, that he is right in doing this, for—to give an example—he also makes the astonishing mistake of stating that Plato discusses only two senses, hearing and sight (*Sens.* 5). A mistake that is not as innocent as it has been made out to be by some scholars, because the sequential ordering of doctrines according to the number of senses at issue is one of the structural determinants of the Theophrastean treatise. We assume that we may argue from a certain to a possible mistake; the actual number (two) is incidental to this argument.

The list of the four 'roots of all things' represented by four divinities at 31B6 DK begins with fire and ends with water, the first being 'white Zeus' (Ζεὺς ἀργῆς). So water at the other end may represent 'black' (cf. the rain at 31B21.5 DK cited above), while no clue is provided as to the colour of earth and air, which are in between. Contrary evidence however seems to be provided by 31B67, where black is linked to heat. It is hard to believe that air and water have no colour at all, for how can one see something that is colourless? According to 31B109 'we see earth with earth, water with water, divine air with air, but annihilating fire with fire, love with love, and strife with baneful strife'. The separate visibilities of the individual elements suggest that each has a colour, but love and strife presumably lack one, so the verb 'to see' in this fragment is not used in a purely visual sense.

That all colours can be perceived if one departs from black and white as the opposite ends of the spectrum has been plausibly argued by Ierodiakonou (2005a). Now blood is red; there is no Empedoclean text telling us that this is so,

but one can hardly doubt that he will have known. Blood is what we think with (31B105 DK etc.), and what we think with and are able to do what we are good at is said to consist of all four elements in more or less equal proportions, 1:1:1:1 (Theophrastus *Sens.* 10–11, 31A86 DK). So we should perhaps assume that air and earth too are white and black, respectively, especially if these colour terms are made to comprise a multiplicity of shades.

If, as seems to be the case, the attribution to Empedocles of the four-colour theory is an interpretation rather than a report based on unambiguous textual evidence, it will be based on a creative reading of the painter simile of 31B23 DK. As to elements and colours, although Parmenides, whose theory of two elements inspired Empedocles' theory of four, is not explicit, he certainly gives a hint by the names he gives to the pair: *φλογός αἰθέριον πῦρ* and *νύκτ' ἄδαή* (28B8.56 and 59 DK), or *φῶς καὶ νύξ* (28B9.1)—'fire' or 'light' and 'night' or darkness, which amounts to their being white and black, respectively.

At ch. 4.13.12, in the chapter on vision, both competing theories concerned with vision are attributed to Empedocles, namely that of extramission, the visual rays stretching out to the objects, and that of intromission, the effluences from the objects reaching the eyes. See below, ch. 4.13, Commentary D(d)§12. In ch. 1.15.3, the present lemma, the Greek tradition consisting of P^B, P^G and S, representing one side of this diaphonia, has 'Empedocles (says) that colour is what fits the pores of the eyes', while Q, representing the other side, has *Empedokles war der Meinung, daß die Farbe etwas ist, worauf die Sehstrahlen fallen*. This difference cannot be due to a mistranslation on Q's part, so represents a genuine reading, or rather tradition. Possibly the Aëtian lemma at ch. 1.15.3 originally presented both views, just as ch. 4.13.11, and P^B as well as S lost one half and P^Q the other. For other genuine readings preserved by Q see e.g. at ch. 2.20.13[35] *den Berg ..., welcher 'Olympos' genannt wird*, and ch. 5.30.2[6] *Herophilos glaubte*.

§5 Ἀρίσταρχος Σάμιος μαθηματικός, ἀκουστής Στράτωνος. Because this is the first mention of Aristarchus in A he is given both his ethnicon and professional status. That he is a pupil of Strato enlists him in a philosophical Succession. He is cited at §9 below, and at chs. 2.24.7 and 4.13.4 (where he follows directly after 4.13.3 Strato). An edition of his fragments is still lacking.

§7 The reading of τροφῶν in S (τὰς ποικιλίας τῶν τροφῶν) is probably to be preferred to G's and Q's τόπων and to τροπῶν in P (where it is emended to τροφῶν by Corsinus). The *varia lectio* may have been caused not so much by stories about animal mimicry (for which see Theophrastus frs. 365A–D FHS&G, Philo *Ebr.* 172–175) as by the association of τόπων with ἄερων, as in the famous Hippocratic title. Aristotle *GA* 5.6 treats the varying colours of animal species and individual animals from a different perspective, though he also allows for

changes due to environmental factors. And so does Theophrastus *CP* 2.16.6; see further Amigues (2012) 220 n. 12, with references to other Aristotelian passages. For the ‘varying foodstuffs’ (ποικίλη τροφή) on the other hand see Plutarch *Quaest. Conv.* 663A (with Empedocles 31B90 DK) cited at section E(b)§7, a text adduced by Primavesi (2011) 512 to justify his transposition of lines from the Pythagoreans in §7 to Empedocles in §3 (for which see above, app. crit. and section D(d)§3).

The phrase γένη τῶν χρωμάτων varies Aristotle’s formula εἶδη χρωμάτων (e.g. *Sens.* 3 440b23–24). According to Aristotle *Sens.* 4 442a20–21 there are exactly seven species of primary colours, but according to the present chapter, which agrees with what is a very common view, there are just four. The attribution to the Pythagoreans of the four elements is to be explained by the interpretation of the ῥιζώματ(α), contained in the *tetraktys* (‘tetrad’, quaternary number) of the famous Pythagorean oath, as the τέσσαρα πάντων ῥιζώματα of Empedocles 31B6 DK. (On the oath see above ch. 1.3, Commentary D(d)§7[72–73]).

Empedocles, at any rate, was often seen as a Pythagorean, or a Pythagorean in part: Theophrastus *Phys. Op.* fr. 3 Diels = 227A FHS&G at Simplicius in *Phys.* 25.20–21, Timaeus *FrGrH* 566 F14 at D.L. 8.54, Neanthes *FrGrH* 84 F26 at Diogenes Laertius *V.P.* 8.55, etc. So the four roots with their purported colours could be projected back upon the archegete Pythagoras. There is in fact quite a lot of evidence for the attribution of the four elements to Pythagoras and his followers, often explicitly linked to the oath, or at any rate to the *tetraktys*. Some examples: Sextus Empiricus *M.* 7.100 tells us that the number ‘four pertains to the solid; for when we hang a fourth over three points a pyramid results, which is the first shape of the solid; rightly therefore the *tetraktys* is the fount of all nature’ (ἡ τετρακτὺς πηγή τῆς τῶν ὅλων φύσεως ἐστίν). Theon *Exp.* p. 97.4–12 Hiller tells us that ‘the fourth *tetraktys* is that of the simple bodies, fire, air, water, earth’. Hippolytus *Ref.* 6.23.4 says that the Pythagoreans swear by the ‘symphony of the four elements’ (ὄρκος τίς ἐστὶ τοῖς Πυθαγορικοῖς ἢ τῶν τεσσάρων στοιχείων συμφωνία), then cites the oath, adding that ‘the *tetraktys* is the principle of the physical and solid bodies’. Ps.Iamblichus *Theol. Ar.* p. 22.18–22 De Falco attributes the oath to both the Pythagoreans and Empedocles (ἐπώμνυον δι’ αὐτῆς τὸν Πυθαγόραν οἱ ἄνδρες ... καθά που καὶ Ἐμπεδοκλῆς), and p. 23.19–23 lists the four elements among the wonderful products of the *tetraktys*. See further Anatolius *de Dec.* pp. 7.22–8.7 Heiberg, Eusebius *L. Const.* 6.5. 5–7 τὴν τῶν στοιχείων τετρακτὺν ἐπινοήσας, γῆν, ὕδωρ, ἀέρα, πῦρ, πηγὰς ἀενάους εἰς τὴν τοῦδε τοῦ παντὸς προὔβαλετο χορηγίαν, Hierocles in *Carm. Aur.* 20.19.1–4, Proclus in *Tim.* 3.67.29 τὴν τῶν στοιχείων τετρακτὺν, and the substantial accounts of David *Prol.* 48.23–31 and David/Elias in *Isag.* 4.18–28 Westerink. The *Lexicon* of Hesychius

at τ 625 explains τετρακτὺς as ‘Pythagorean oath pertaining to the four elements’ (Πυθαγορικὸς ὄρκος, ἡγουν τῶν τεσσάρων στοιχείων σημαίνων). Again the *Placita* are among the first sources to inform us about a particular and widespread Neopythagorean doctrine. Another early one is Vitruvius 2.2.1, whose brief overview of physical elements, derived from an unknown source, lists Thales’ water, Heraclitus’ fire, and next says that the Pythagoreans added air and earth (*Pythagoreorum vero disciplina adiecit ad aquam et ignem aëra et terrenum*). The Pythagoreans rather than Empedocles and even *two* further elements, not earth only, as Aristotle has it *Met.* A.3 984a8–9 (Ἐμπεδοκλῆς δὲ τὰ τέτταρα, πρὸς τοῖς εἰρημένοις γῆν προστιθείς τέταρτον).

This purported ἐμπεδοκλίζειν of the Pythagoreans also helps to understand the final sentence about the various colours of the living beings as depending on their nurture and environment. At ch. 5.19.6 [20–23] (Empedocles 31A72 DK) the various kinds of living beings move to inhabit the various elements depending on their elementally mixed constitution (‘the more *moist* ones having an impulse towards the *water* (τὰ μὲν ὑγρότερα εἰς τὸ ὕδωρ), others flying up to the *air*, namely those in which the *fiery* element (πυρῶδες) predominates’). In our present chapter we first have the various mixtures of the colours, then the various colours of the living beings according to their environment. Perhaps we may include the mixed elemental constitutions in thought, and the colours at ch. 5.19.5. The variety of foodstuffs has been mentioned above.

§8 See above at section B, sources.

§§9–10 For the issue of what or whether one sees in the dark see below, ch. 4.15, ‘Whether darkness is visible’, which (just as ch. 4.13 ‘On vision’) is closely connected qua theme with the present chapter.

§9 It does not seem plausible to have two different spellings of χροιά c.q. χρόα in the one chapter. We have changed the occurrence of χρόαν in §9 and §10 to the χροιάν as in §2, which is attested by both P and S.

§11 Attributed to the Stoics as *SVF* 2.419 by Von Arnim *SVF* 2 p. 137 in app. ad loc., who compares *SVF* 1.91 (consisting of P5 of the present chapter plus G4 because of its phrase ἐπίχρωσιν τῆς ὕλης). But ps.Aristotle *Col.* 1 791a1–10, cited section E(b)§11, provides the perfect parallel. For the third-century Peripatetics in this context see Ganson (2004).

e Other Evidence

(1) Plato’s theory of colours at *Tim.* 67d–68d is part of his account of sense perception. In Aristotle too colour is part of an account of sense perception at *Sens.* 3–4, then a theme at *Mete.* 3.4 (colours of the halo and the rainbow), but not the subject of a monograph of its own. Therefore the pseudepigraphic monobiblos *On Colours*, which has been dated to the generation of Strato, fills a gap in the

Corpus Aristotelicum, whether or not it was meant to. Theophrastus critically discusses earlier theories of colour in the *De sensibus*, with special attention to Empedocles, Plato, and Democritus.

(2) Alcinous' *Didascalicus*, which in its chapters on sense-perception contains echoes of Theophrastus' treatise, fails or declines to mention colour in this context.

E Further Related Texts

a Proximate Tradition

General Texts: Aulus Gellius *NA* 2.26.

Chapter heading: cf. *Capitula Lucretiana* at *DRN* 2.755 *colores non esse*.

§7 Pythagoreans: Hippolytus *Ref.* 6.23.4 ὅρκος τίς ἐστι τοῖς Πυθαγορικοῖς ἡ τῶν τεσσάρων στοιχείων συμφωνία· ὁμνύουσι δ' οὕτως· 'ναὶ μὰ τὸν ἀμετέρα κεφαλᾷ παραδόντα τετρακτύν, / πηγὴν ἀενάου φύσεως ῥι(ζώμ)ατ' ἔχουσιν'. ἔστι γὰρ ἡ τετρακτὺς τῶν φυσικῶν καὶ στερεῶν σωμάτων ἀρχή, ὡς ἡ μονὰς τῶν νοητῶν.

§8 Democritus: Diogenes of Oenoanda fr. 7 col. 2.2–8 Smith ἐσφά|λῃ δ' ἀναξίως ἑαυτοῦ | καὶ Δημόκριτος (fr. 61 Luria), τὰς | ἀτόμους μόνας κατ' ἀ|λήθειαν εἰπὼν ὑπάρχειν | ἐν τοῖς οὖσι, τὰ δὲ λοιπὰ | νομιστεῖ ἅπαντα. **Diogenes Laertius** *VP.* 9.43–44 δοκεῖ δ' αὐτῷ (Democritus 68A1 DK) τὰδε· ἀρχὰς εἶναι τῶν ὄλων ἀτόμους καὶ κενόν, τὰ δ' ἄλλα πάντα νενομίσθαι.

§§11–12 Various anonymi: Sextus Empiricus *P.* 3.33 οὐ γὰρ δήπου δυνησόμεθα ... συγκατατίθεσθαι ... καὶ τοῖς περὶ Δημόκριτον (—), ἄτομα ταῦτα (sc. τὰ στοιχεῖα) εἶναι φάσκουσι καὶ ἅποια, καὶ τοῖς περὶ Ἀναξαγόραν (—) πάσαν αἰσθητὴν ποιότητα περὶ ταῖς ὁμοιομερείαις ἀπολείπουσιν.

b Sources and Other Parallel Texts

General texts: Aristotle *Cat.* 10 12a20–21 ἐπ' ἐνίων μὲν οὖν ὀνόματα κεῖται τοῖς ἀνὰ μέσον, οἷον λευκοῦ καὶ μέλανος τὸ φαινὸν καὶ ὥχρὸν (καὶ ὅσα ἄλλα τοιαῦτα χρώματα add. Bodéüs). *Sens.* 3 439b18–22 περὶ δὲ τῶν ἄλλων χρωμάτων ἡδὴ, διελομένοις ποσυχῶς ἐνδέχεται γίνεσθαι, λεκτέον. ἐνδέχεται μὲν γὰρ παρ' ἄλληλα τιθέμενα τὸ λευκὸν καὶ τὸ μέλαν, ὥσθ' ἑκάτερον μὲν εἶναι ἀόρατον διὰ σμικρότητα, τὸ δ' ἐξ ἀμφοῖν ὁρατόν, οὕτω γίγνεσθαι. also *Sens.* 3 440a15–17 τὸ μὲν οὖν, ὥπερ οἱ ἀρχαῖοι, λέγειν ἀπόρροιαν εἶναι τὴν χροάν καὶ ὁρᾶσθαι διὰ τοιαύτην αἰτίαν ἄτοπον. **Theophrastus** *Sens.* 59 Ἐμπεδοκλῆς (31A69a, cf. 31B94 DK) δὲ καὶ περὶ τῶν χρωμάτων, καὶ ὅτι τὸ μὲν λευκὸν τοῦ πυρὸς τὸ δὲ μέλαν τοῦ ὕδατος· οἱ δ' ἄλλοι τοσοῦτον μόνον, ὅτι τὸ τε λευκὸν καὶ τὸ μέλαν ἀρχαί, τὰ δ' ἄλλα μειγνυμένων γίνονται τούτων. **Philo of Alexandria** *Leg.* 3.57 εὐθύς ὁ νοῦς κατέλαβε τὸ ὁραθὲν, ὅτι μέλαν ἢ λευκὸν ἢ ὥχρὸν ἢ φοινικοῦν. **Pliny** *Nat.* 35.50 *quattuor coloribus solis immortalia illa opera fecere—ex albis Melino, e siliciis Attico, ex rubris Sinopide Pontica, ex nigris atramento—Apelles, (A)etion, Melanthius, Nicomachus, clarissimi pictores, cum tabulae eorum singulae oppidorum venirent opibus.* **ps.Aristotle** *Mu.* 5 396b11–15 (Heraclitus 22B10 DK) ἔοικε δὲ καὶ ἡ τέχνη τὴν φύσιν μιμουμένη τοῦτο ποιεῖν· ζωγραφία μὲν γὰρ λευκῶν τε καὶ μελάνων, ὥχρων τε

καὶ ἐρυθρῶν, χρωμάτων ἐγκερασασμένη φύσεις τὰς εἰκόνας τοῖς προηγουμένοις ἀπετέλεσε συμφώνους. **Galen** *Hipp.Elem.* 6.18, 1.461.5–7 K. φαμέν γὰρ τῶν χρωμάτων τὸ μὲν λευκὸν εἶναι, τὸ δὲ μέλαν, τὸ δ' ἐρυθρόν, τὸ δὲ ξανθόν, τὸ δ' ὠχρόν. **MM** 10.58.4–8 K. τί γὰρ δὴ καὶ πρὸς ἔπος οὐκ εἶναι τὴν νόσον ἐναντίον ὑγείᾳ, διότι μέσον αὐτῶν ἐστὶ τι; δῆλον γὰρ ὡς οὐδὲ τὸ λευκὸν ἐναντίον ἔσται τῷ μέλανι, διότι μέσον αὐτῶν ἐστὶ τὸ ξανθὸν τε καὶ τὸ φαιόν, ἐρυθρόν τε καὶ ὠχρόν ἕκαστόν τε τῶν ἄλλων χρωμάτων. **HVA** 15.554.6–11 K. 'καὶ οὐρεῖν θερμόν τε καὶ χλωρόν' (**Hipp. Acut.** 9.31), θερμόν μὲν λέγων δηλονότι τὸ τοῦ συνήθους θερμότερον, χλωρόν δὲ κατὰ τι τῶν ἐπὶ τῆς Ἀσίας Ἑλλήνων ἔθος, ὃ ἐστὶ καὶ νῦν ἔτι διασφζόμενον. ὠχροὺς γὰρ τινὰς ἰδόντες ἐρωτῶσι τὴν αἰτίαν, δι' ἣν οὕτω γεγόνῃσι χλωροί, μὴδὲν διαφέρειν ἡγούμενοι χλωρόν εἰπεῖν ἢ ὠχρόν. ἔστι δὲ τὸ ὠχρόν χρώμα κατ' ἀλήθειαν τοιοῦτον, οἷον περ καὶ τὸ τῆς καλουμένης ὠχρας, ὀξυνομένης κατὰ τὴν προσηγορίαν τῆς πρώτης συλλαβῆς· καὶ γίνεται τοιοῦτον ἐπιμιγνυμένης τῷ ὕδατῳ περιττώματι τῆς ὠχρᾶς τε καὶ ξανθῆς ὀνομαζομένης χολῆς· ὅσον γὰρ τοῦ ἐρυθροῦ χρώματος ἐπὶ τὸ λευκότερον ἀποκεχώρηκε τὸ ξανθόν, τοσοῦτον τοῦτοῦ τὸ ὠχρόν. **Hipp.Epid.** 17A.929.4–8 K. ὁρώμεν γὰρ καὶ νῦν ἔτι καθάπερ κατὰ τὴν Κῶ αὐτὴν τὴν Ἱπποκράτους πατρίδα καὶ πᾶσαν τὴν ἡμετέραν Ἀσίαν 'χλωρὰ' μὲν ὀνομαζόμενα καὶ λάχνα καὶ δένδρα καὶ φυτὰ τὰ οἷον χλοερά 'χλωράζειν' τε καὶ τὰ κτήνη λέγομεν τὰ τὴν ἑαρινὴν βοτάνην ἐσθίοντα. λέγουσι γε μὴν καὶ τῶν ἀνθρώπων ἐνίους χλωροὺς οὐκ ἔχοντας ὁμοίαν τῇ χολῇ τὴν χροάν, ἀλλὰ μάλλον ὠχράν. **Hipp.Prog.** 18B.31.1–2 K. τὸ χλωρόν εἰώθασι δὲ οὕτως ὀνομάζειν οἱ παλαιοὶ ποτε μὲν τὸ ὠχρόν. **Hipp.Prog.** 18B.70.10–11 K. εἵπομεν δ' ἔμπροσθεν ὡς τὸ χλωρόν ἐνίστε μὲν σημαίνει ταῦτόν τῳ ὠχρῳ. **Philostratus V.Apoll.** 2.22 'τὰ χρώματα' ἔφη 'ξυγκεράνυσιν, ὅποσα ἐστὶ, τὰ κυανὰ τοῖς βατραχείοις καὶ τὰ λευκὰ τοῖς μέλασι καὶ τὰ πυρσὰ τοῖς ὠχροῖς'. **Alexander of Aphrodisias in Met.** 1.22–2.1 πολλὰ γὰρ αἱ τῶν χρωμάτων διαφοραὶ μεταξὺ τῶν ἄκρων λευκοῦ καὶ μέλανος τυγχάνουσιν, οἷον φαιόν, ξανθόν, πυρρόν, ἐρυθρόν, ὠχρόν. **Alexander of Aphrodisias(?) Quaest.** 13, p. 25.18–24 ὅτι μὴ ὁμοίως κατὰ τε τὰς ἄλλας αἱρέσεις καὶ κατ' Ἐπίκουρον εἰσάγεται τὰ χρώματα, ὡς ἔλεγεν Κηνησορίνος ὁ Ἀκαδημαϊκός. ὅτι μὴ ὁμοίως κατ' Ἐπίκουρον (—) εἰσάγεται τὰ χρώματα, ὡς ἔλεγεν τις παριστάμενος αὐτοῦ τῇ δόξῃ, καὶ κατὰ τὰς ἄλλας αἱρέσεις. ὁ μὲν γὰρ ἐν τοῖς στοιχείοις, (ἄ) ἀρχὰς ὑποτίθεται τῶν ἀπάντων, οὐδὲν τούτων φησὶν εἶναι, καθ' οὓς δὲ στοιχεῖα τὰ τέσσαρα, κατὰ τούτους ἐν τοῖς στοιχείοις ἐστὶν καὶ ταῦτα. **Porphyrus in Cat.** 130.28–30 ἡ λευκότης φημὶ καὶ ἡ μελανία καὶ αἱ ἄλλαι χροαὶ παθητικαὶ ποιότητες λέγονται τῷ πεπονθέναι τὰ ἔχοντα· ὠχρὸς γὰρ τις φοβηθεὶς καὶ ἐρυθρὸς αἰσχυθεὶς παθόντος τοῦ σώματος ἐγένετο. **Sextus Empiricus P.** 3.51 αἱ μὲν αἰσθήσεις κατὰ ἐπέρεις καὶ νῦν ἐν ἀντιλαμβάνεσθαι δοκοῦσι τῶν αἰσθητῶν, οἷον ἡ ὄρασις, ... ἐάν τε κατὰ εἰδῶλων ἀποκρίσεις τε καὶ ἐπικρίσεις, ἐάν τε (κατ') ἀκτίνων ἢ χρωμάτων ἀποχρύσεις.

Chapter heading: **ps.Aristotle** Περὶ χρωμάτων. **ps.Alexander Probl.** 1.2, p. 5.1 **Ideler** Περὶ χρώματος τίνα. **Diogenes Laertius V.P.** 5.59 (**Strato** fr. 18 **Wehrli**, 1 **Sharples**) no. 22. Περὶ χρωμάτων. **V.P.** 9.46 (**Democritus** 68B5h **DK**) Περὶ χροῶν. **Calcidius in Tim.** c. 7, p. 60.24–25 **Waszink** *De colorum varietate et conversione ex alio in alium quaeque coloribus similia sunt*. **Isidore of Seville Etym.** 19.17 *De coloribus*.

§1 Definition: Aristotle *Cat.* 1 1a27–29 καὶ τὸ τί λευκὸν ἐν ὑποκειμένῳ μὲν ἐστὶ τῷ σώματι (ἅπαν γὰρ χρώμα ἐν σώματι) καθ' ὑποκειμένου δὲ οὐδενὸς λέγεται. Galen *Ant.* 14.62.1–2 K. ἐπ' ἐνίων δὲ καὶ τὰς ὁρατὰς ποιότητας οὐ σμικρὰ συντελούσας εὐρήσεις. Alexander of Aphrodisias *in Top.* 113.7–8 (cited *Suda* s.v. X 538, p. 4.820.10–11 Adler) χρώμα γὰρ σημαίνει καὶ τὸ ἐν τοῖς σώμασιν, ὡς τὸ λευκὸν καὶ τὸ μέλαν καὶ τὰ τούτων μεταξύ. *in Top.* 166.30–32 ἀλλὰ καὶ ὅτι τοῦ χρώματος μὴ ἐστὶν ὁρισμὸς τὸ ἴδιον ὀψευς αἰσθητόν, οὕτως δέικνυται· εἰ γὰρ ἐν τούτῳ αὐτῷ τὸ εἶναι, πρὸς τί ἐστὶ τὸ χρώμα· οὐκ ἐστὶ δὲ πρὸς τι· ποιότης ἄρα. *in Apr.* 359.26 τὸ χρώμα ποιότης ἐστίν.

§2 Pythagoreans: Aristotle *Sens.* 3 439a30–31 τὸ γὰρ χρώμα ἢ ἐν τῷ πέρατι ἐστὶν ἢ πέρας (διὸ καὶ οἱ Πυθαγόρειοι (58B42 DK) τὴν ἐπιφάνειαν 'χροάν' ἐκάλουν). *Met.* Λ.4 1070b18–21 ὥσπερ εἴ τις εἴποι ὅτι ἀρχαὶ εἰσὶ τρεῖς, τὸ εἶδος καὶ ἡ στέρησις καὶ ἡ ὕλη. ἀλλ' ἕκαστον τούτων ἕτερον περὶ ἕκαστον γένος ἐστίν, οἷον ἐν χρώματι λευκὸν μέλαν ἐπιφάνεια. differently *Met.* A.8 990a16–18 (on Pythagoreans, 58B22 DK) περὶ πυρός ἢ γῆς ἢ τῶν ἄλλων τῶν τοιούτων σωμάτων οὐδ' ὅτι οὐκ εἰρήκασιν, ἅτε οὐθὲν περὶ τῶν αἰσθητῶν οἶμαι λέγοντες ἴδιον. ps.Iamblichus *Theol.Ar.* p. 22.4–6 De Falco ἀλλ' ὅτι καὶ ἴδιον τοῦ διδασκάλου τούτου, τὰς ἐπιφανείας, ἃς δὴ 'χροιάς' ἔφασκον, γεωμετρίαν περαινέουσας ὀνομάζειν αἰεί. *Theol.Ar.* p. 25.14–16 De Falco ἀλλὰ καὶ τὰ ἐν ἀριθμῷ στοιχειωδέστατα ἰδιώματα τέσσαρα. ταῦτ' ἐν μονάδι, ἕτερον ἐν δυάδι, χροιά ἐν τριάδι, σώμα ἐν τετράδι.

§3 Empedocles: Empedocles 31B71 DK at Simp. *in Cael.* 530.1–4 'εἰ δὲ τί σοι περὶ τῶνδε λιπόξυλος ἔπλετο πίστις, / πῶς ὕδατος γαίης τε καὶ αἰθέρος ἡελίου τε / κίρναμένων εἶδη τε γενοίετο χροιά τε θνητῶν / τόσσ', ὅσα νῦν γεγασίαι συναρμοσθέντ' Ἀφροδίτῃ'. 31B23 DK at Simp. *in Phys.* 159.27–160.4 καὶ παράδειγμα δὲ ἐναργὲς παρέθετο τοῦ ἐκ τῶν αὐτῶν γίνεσθαι τὰ διάφορα· ὥς δ' ὅπότεν γραφεὲς ἀναθήματα ποικίλλωσιν / ἄνδρες ἀμφὶ τέχνης ὑπὸ μῆτιος εὖ δεδῶντε, / οἷτ' ἐπεὶ οὖν ἀρπύωσι πολύχροα φάρμακα χερσίν, / ἄρμονίῃ μεῖξαντε τὰ μὲν πλέω, ἄλλα δ' ἐλάσσω' (κτλ.). Pap.Strasb. 1665/66 a–c, l. 309–313 = Empedocles 31B21 DK at Simp. *in Phys.* 159.13–17 'ἀλλ' ἄγε, τόνδ' ὁάρων προτέρων ἐπιμάρτυρα δέρκευ, / εἴ τι καὶ ἐν προτέροισι λιπόξυλον ἔπλετο μορφῇ, / ἡέλιον μὲν λευκὸν [cited Arist. *GC* 1.1 314b20–22] ὁράν καὶ θερμὸν ἀπάντη, / ἄμβροτα δ' ὅσσ' εἶδει τε καὶ ἀργέτι δεύεται αὐγῇ, / ὄμβρον δ' ἐν πᾶσι δοφοθέντ' ἀεὶ ῥιγαλέον τε' (κτλ.). Empedocles 31B96 DK at Arist. *de An.* 1.2 410a4–6 'ἢ δὲ χθὼν ἐπὶ ἥρος ἐν εὐστέροις χροάνοισιν / τῷ δύο τῶν ὀκτῶ μερέων λάχε νῆστιδος αἴγλης, / τέσσαρα δ' Ἡφαίστιοι· τὰ δ' ὅστέα λευκὰ γέγοντο'. cf. comment on this passage of Simplicius (Priscianus?) *in de An.* 68.10–14 μίγνυσι δὲ πρὸς τὴν τῶν ὁστών γένεσιν τέσσαρα μὲν πυρὸς μέρη, διὰ τὸ ξηρόν καὶ λευκὸν χρώμα ἴσως πλείστου λέγων αὐτὰ μετέχειν πυρός, δύο δὲ γῆς καὶ ἐν μὲν ἀέρος ἐν δὲ ὕδατος· ἃ δὴ ἄμφω 'νῆστιν αἴγλην' προσαγορεύει (31B96.2 DK), 'νῆστιν' μὲν διὰ τὸ ὑγρὸν ἀπὸ τοῦ νάειν καὶ ρεῖν, 'αἴγλην' δὲ ὡς διαφανῇ. Empedocles 31B98 DK at Simp. *in Phys.* 32.1–10 ἄκουσον αὐτοῦ τῶν ἐν τοῖς Φυσικοῖς λεγομένων, ἐν οἷς καὶ τῆς ἐνταῦθα δημιουργικῆς συγκράσεως τὴν Ἀφροδίτην ἦτοι τὴν Φιλίαν αἰτίαν φησί. καλεῖ δὲ τὸ μὲν πῦρ καὶ Ἡφαίστον καὶ ἥλιον καὶ φλόγα, τὸ δὲ ὕδωρ ὄμβρον, τὸν δὲ ἀέρα αἰθέρα. λέγει οὖν πολλαχοῦ μὲν ταῦτα, καὶ ἐν τούτοις δὲ τοῖς ἔπεσιν 'ἢ δὲ χθὼν τούτοις ἴση συνέκυρσε μάλιστα / Ἡφαίστω τ' ὄμβρῳ τε

καὶ αἰθέρι παμφανώνντι, / Κύπριδος ὀρμισθεῖσα τελείους ἐν λιμένεσσιν, / εἴτ' ὀλίγον μείζων εἴτε πλέον ἐστὶν ἐλάσσων. / ἐκ τῶν αἱμὰ τε γέντο καὶ ἄλλης εἶδεα σαρκός'. **Aristotle** *GC* 1.8 324b26–33 τοῖς μὲν οὖν δοκεῖ πάσχειν ἕκαστον διὰ τινων πόρων εἰσιόντος τοῦ ποιούντος ἐσχάτου καὶ κυριωτάτου, καὶ τοῦτον τὸν τρόπον καὶ ὁρᾶν καὶ ἀκοῦειν ἡμᾶς φασὶ καὶ τὰς ἄλλας αἰσθήσεις αἰσθάνεσθαι πάσας, ἔτι δὲ ὁρᾶσθαι διὰ τε ἀέρος καὶ ὕδατος καὶ τῶν διαφανῶν, διὰ τὸ πόρους ἔχειν ἀοράτους μὲν διὰ μικρότητα, πυκνοὺς δὲ καὶ κατὰ στοίχον, καὶ μάλλον ἔχειν τὰ διαφανῆ μάλλον. οἱ μὲν οὖν ἐπὶ τινων οὕτω διώρισαν, ὥσπερ καὶ Ἐμπεδοκλῆς (31A87 DK). *GA* 5.1 779b15–28 τὸ μὲν οὖν ὑπολαμβάνειν τὰ μὲν γλαυκὰ πυρώδη, καθάπερ Ἐμπεδοκλῆς (31A91 DK) φησὶ, τὰ δὲ μέλανα πλεῖον ὕδατος ἔχειν ἢ πυρός, καὶ διὰ τοῦτο τὰ μὲν ἡμέρας οὐκ ὀξύ βλέπειν, τὰ γλαυκὰ, δι' ἔνδειαν ὕδατος, θάτερα δὲ νύκτωρ δι' ἔνδειαν πυρός, οὐ λέγεται καλῶς, εἴπερ μὴ πυρὸς τὴν ὄψιν θετέον ἄλλ' ὕδατος πᾶσιν. ἔτι δ' ἐνδέχεται τῶν χρωμάτων τὴν αἰτίαν ἀποδοῦναι καὶ κατ' ἄλλον τρόπον, ἄλλ' εἴπερ ἐστὶν ὥσπερ ἐλέγχθη πρότερον ἐν τοῖς Περὶ τὰς αἰσθήσεις (*Sens.* 2 438a16) καὶ τούτων ἔτι πρότερον ἐν τοῖς Περὶ ψυχῆς (*de An.* 3.1 425a4) διωρισμένοις, καὶ ὅτι ὕδατος καὶ δι' ἣν αἰτίαν ὕδατος ἄλλ' οὐκ ἀέρος ἢ πυρὸς τὸ αἰσθητήριον τοῦτ' ἐστὶ, ταύτην αἰτίαν ὑποληπτέον εἶναι τῶν εἰρημένων. οἱ μὲν γὰρ ἔχουσι τῶν ὀφθαλμῶν πλεον ὑγρόν, οἱ δ' ἔλαττον τῆς συμμετροῦ κινήσεως, οἱ δὲ σύμμετρον. **Theophrastus** *Sens.* 7 (on Empedocles, 31A86 DK) τοὺς δὲ πόρους ἐναλλάξ κεῖσθαι τοῦ τε πυρός καὶ τοῦ ὕδατος, ὧν τοῖς μὲν τοῦ πυρός τὰ λευκὰ, τοῖς δὲ τοῦ ὕδατος τὰ μέλανα γνωρίζειν· ἐναρμόττειν γὰρ ἑκατέρους ἑκάτερα. φέρεσθαι δὲ τὰ χρώματα πρὸς τὴν ὄψιν διὰ τὴν ἀπορροήν. *Sens.* 17 (on Empedocles, 31A86 DK) ἔτι δ' ἐν ταῖς κατὰ μέρος συμβαίνει γὰρ τῷ ὁμοίῳ γίνεσθαι τὴν γνώσιν· τὴν γὰρ ὄψιν ὅταν ἐκ πυρός καὶ τοῦ ἐναντίου συστήσῃ, τὸ μὲν λευκὸν καὶ τὸ μέλαν δύναται· ἂν τοῖς ὁμοίοις γνωρίζειν, τὸ δὲ φαῖον καὶ τὰλλα χρώματα τὰ μικτὰ πῶς; οὔτε γὰρ τοῖς τοῦ πυρός οὔτε τοῖς τοῦ ὕδατος πόροις οὔτ' ἄλλοις ποιεῖ κοινούς ἐξ ἀμφοῖν ὁρώμεν δ' οὐδὲν ἦττον ταῦτα τῶν ἀπλῶν. *Sens.* 59 Ἐμπεδοκλῆς (31A69a DK) δὲ καὶ περὶ τῶν χρωμάτων καὶ ὅτι τὸ μὲν λευκὸν τοῦ πυρός, τὸ δὲ μέλαν τοῦ ὕδατος. **Philo of Alexandria** *Mos.* 2.88 τὰς δὲ τῶν ὑφασμάτων ὕλας ἀριστίνδην ἐπέκρινεν ἐκ μυρίων ὧσων ἐλόμενος τοῖς στοιχείοις ἰσαριθμούς, ἐξ ὧν ἀπετελέσθη ὁ κόσμος, καὶ πρὸς αὐτὰ λόγον ἔχουσας, γῆν καὶ ὕδωρ καὶ ἀέρα καὶ πῦρ· ἡ μὲν γὰρ βύσσος ἐκ γῆς, ἐξ ὕδατος δ' ἡ πορφύρα, ἡ δ' ὑάκινθος ἀέρι ὁμοιοῦται—φύσει γὰρ μέλας οὗτος—, τὸ δὲ κόκκινον πυρὶ, διότι φοινικὸν ἑκάτερον.

§4 Plato: *Plato Tim.* 67c τέταρτον δὴ λοιπὸν ἔτι γένος ἡμῖν αἰσθητικόν, ὃ διελέσθαι δεῖ συχνὰ ἐν ἑαυτῷ ποικίλματα κεκτημένον, ἃ σύμπαντα μὲν χροᾶς ἐκαλέσαμεν, φλόγα τῶν σωμάτων ἐκάστων ἀπορρέουσιν, ὅψιν σύμμετρα μόρια ἔχουσιν πρὸς αἴσθησιν. **Theophrastus** *Sens.* 5 (on Plato) τὸ χρῶμα φλόγα τιν' ἀπὸ τῶν σωμάτων σύμμετρα μόρια τῇ ὄψει ἔχουσιν. *Sens.* 86 τὸ δὲ χρῶμα φλόγα εἶναι ἀπὸ τῶν σωμάτων σύμμετρα μόρια ἔχουσιν τῇ ὄψει· λευκὸν μὲν τὸ διακριτικόν, μέλαν δὲ τὸ συγκριτικόν.

§5 Aristarchus: *Aristotle de An.* 2.6 418b11 τὸ δὲ φῶς οἷον χρῶμά ἐστὶ τοῦ διαφανοῦς.

§6 Zeno Stoicus: *Plutarch SR* 1054A–B (on Stoics, *SVF* 2.449) τὴν ὕλην ἀργὸν ἐξ ἑαυτῆς καὶ ἀκίνητον ὑποκεῖσθαι ταῖς ποιότησιν ἀποφαίνουσι, τὰς δὲ (B)

ποιότητας πνεύματα ούσας και τόνους αερώδεις, οἷς ἂν ἐγγένωνται μέρεσι τῆς ὕλης εἰδοποιεῖν ἕκαστα καὶ σχηματίζουσιν.

§7 Pythagoreans: Aristotle *Sens.* 3 440b23–25 διὰ τίνα δ' αἰτίαν εἶδη τῶν χρωμάτων ἐστὶν ὠρισμένα καὶ οὐκ ἄπειρα ... ὕστερον ἐπισκεπτέον. *GA* 5.6 786a2–7 μάλιστα δὲ μεταβάλλουσι καὶ τὰ φύσει ὁλόχροα μὲν ὄντα τῷ γένει δὲ πολύχροα (sc. τὰ ζῶα) διὰ τὰ ὕδατα· τὰ μὲν γὰρ θερμὰ λευκὴν ποιεῖ τὴν τρίχα τὰ δὲ ψυχρὰ μέλαιναν ὥσπερ καὶ ἐπὶ τῶν φυτῶν. αἴτιον δ' ὅτι τὰ θερμὰ πνεύματος πλεόν ἔχει ἢ ὕδατος, ὁ δ' ἄλλῃ διαφανόμενος λευκότητα ποιεῖ καθάπερ καὶ τὸν ἀφρόν. **Theophrastus** *CP* 2.16.6 εἰ δὲ καὶ ἐπὶ τῶν ζώων τοῦτο συμβαίνει (sc. ἡ μεταβολὴ γίνεσθαι) καθάπερ φασὶν ἐπὶ τῶν ὀρνίθων καὶ χρώμασι καὶ σχήμασι καὶ δυνάμεσι καὶ τοῦτο καθ' ἕκαστον ἐνιαυτὸν οὐκ ἐν πλήθει χρόνου πλείονι. **Plutarch** *Quaest. Conv.* 663A εἴτε γὰρ ἐξ ὁμοίων ἀναλαμβάνει τὸ οἰκεῖον ἢ φύσις καὶ εἰς τὸν ὄγκον αὐτὸθεν ἢ ποικίλῃ τροφῇ πολλὰς μετεῖσα ποιότητας ἐξ ἑαυτῆς ἐκάστῳ μέρει τὸ πρόσφορον ἀναδιδωσιν, ὥστε γίνεσθαι τὸ τοῦ Ἐμπεδοκλέους (31B90 DK)· 'ὥς γλυκὺ μὲν γλυκὺ μάρπτε, πικρὸν δ' ἐπὶ πικρὸν ὄρουσεν, ὄξυ δ' ἐπ' ὄξυ (σπεῦ)δ' [e.g. Primavesi, alii alia], ἄλερον δ' ἄλερου λάβετ' ὦκα'. **Anon. Photii** c. 239, p. 238.20–23 Thesleff ὅτι ἡ ὄψις κατὰ Πυθαγόραν καὶ Πλάτωνα καὶ Ἀριστοτέλην τῶν δώδεκα χρωμάτων ἐστὶ κριτική, λευκοῦ καὶ μέλανος καὶ τῶν μεταξύ, ξανθοῦ φαιοῦ ὠχροῦ ἐρυθροῦ κυανοῦ ἀλουργοῦ λαμπροῦ ὀρφνίνου.

§8 Democritus: Democritus 68B9, B125, 68A49 DK at *Gal. Elem. Hipp.* 2.12, 1.417.9–13 K. 'νόμῳ γὰρ χροὴ νόμῳ γλυκὺ νόμῳ πικρὸν, ἔτεῃ δ' ἄτομα καὶ κενόν' ὁ Δημόκριτός φησιν ἐκ τῆς συνόδου τῶν ἀτόμων γίγνεσθαι νομίζων ἀπάσας τὰς αἰσθητάς ποιότητας ὡς πρὸς ἡμᾶς τοὺς αἰσθανομένους αὐτῶν, φύσει δ' οὐδὲν εἶναι λευκὸν ἢ μέλαν ἢ ξανθὸν ἢ ἐρυθρὸν ἢ γλυκὺ ἢ πικρὸν. **Plutarch** *Adv. Col.* 1110E τὸ γὰρ 'νόμῳ χροὴν εἶναι καὶ νόμῳ γλυκὺ' καὶ νόμῳ σύγκρισιν (ἀπάσας perperam add. Westman) ('ἔτεῃ δὲ τὸ κενὸν καὶ add. Wytttenbach alii) τὰς ἀτόμους' εἰρημέων φησιν (sc. Colotes) ὑπὸ Δημοκρίτου (fr. 61 Luria) (μάχεσθαι add. Reiske alii) ταῖς αἰσθήσεσι. **Plotinus** *Enn.* 3.6 [26].12.22–24 εἴ τις οὖν ἐνταῦθα τὸ (νόμῳ χροὴ) καὶ τὰ ἄλλα (νόμῳ) λέγοι τῷ τὴν φύσιν τὴν ὑποκειμένην μηδὲν οὕτως ἔχειν, ὡς νομίζεται, οὐκ ἂν ἄτοπος εἴη τοῦ λόγου (—).

Aristotle *Phys.* 1.5 188a22–26 Δημόκριτος (68A45 DK) τὸ στερεὸν [πλήρες *Simp. in Phys.* 44.16] καὶ κενόν, ὦν τὸ μὲν ὡς ὄν τὸ δὲ ὡς οὐκ ὄν εἶναι φησιν· ἔτι θέσει, σχήματι, τάξει. ταῦτα δὲ γένη ἐναντίων· θέσεως ἄνω κάτω, πρόσθεν ὀπίσθεν, σχήματος γεγωνιόμενον ἀγώνιον, εὐθὺ περιφερές. *GC* 1.2 315b33–316a1 ὅμως δὲ τούτοις ἀλλοίωσιν καὶ γένεσιν ἐνδέχεται ποιεῖν {καθάπερ εἴρηται} τροπῇ καὶ διαθιγῇ μετακινουντα τὸ αὐτὸ καὶ ταῖς τῶν σχημάτων διαφοραῖς, ὅπερ ποιεῖ Δημόκριτος (68A123 DK). διὸ καὶ χροῖαν οὐ φησιν εἶναι· 'τροπῇ' γὰρ χρωματίζεσθαι. *Sens.* 4 442b10–12 ... ὥσπερ Δημόκριτος (68A126)· τὸ γὰρ λευκὸν καὶ τὸ μέλαν τὸ μὲν τραχύ φησιν εἶναι τὸ δὲ λείον. *Met.* A.4 985b4–19 Λεύκιππος (67A6 DK) δὲ καὶ ὁ ἐταῖρος αὐτοῦ Δημόκριτος στοιχεῖα μὲν τὸ πλήρες καὶ τὸ κενὸν εἶναι φασί, ... οὗτοι τὰς διαφορὰς αἰτίας τῶν ἄλλων εἶναι φασιν. ταύτας μέντοι τρεῖς εἶναι λέγουσι, σχήμα τε καὶ τάξιν καὶ θέσιν· διαφέρειν γὰρ φασὶ τὸ ὄν ῥυσμῷ καὶ διαθιγῇ καὶ τροπῇ μόνον· τούτων δὲ ὁ μὲν ῥυσμὸς σχήμα ἐστὶν ἢ δὲ διαθιγὴ τάξις ἢ δὲ τροπὴ θέσις. διαφέρει γὰρ τὸ μὲν Α τοῦ Ν σχήματι, τὸ δὲ ΑΝ τοῦ ΝΑ τάξει, τὸ δὲ Ι τοῦ Η θέσει. *Met.* Γ.5

1009b7–17 ἔτι δὲ καὶ πολλοῖς τῶν ἄλλων ζώων τάναντία {περὶ τῶν αὐτῶν} φαίνεσθαι καὶ ἡμῖν, καὶ αὐτῷ δὲ ἐκάστω πρὸς αὐτὸν οὐ ταῦτά κατὰ τὴν αἴσθησιν αἰεὶ δοκεῖν. ποῖα οὖν τούτων ἀληθῆ ἢ ψευδῆ, ἄδηλον· οὐθὲν γὰρ μάλλον τάδε ἢ τάδε ἀληθῆ, ἀλλ' ὁμοίως. διὸ Δημόκριτος (68A112) γέ φησιν ἥτοι οὐθὲν εἶναι ἀληθές ἢ ἡμῖν γ' ἄδηλον. ὅλως δὲ διὰ τὸ ὑπολαμβάνειν φρόνησιν μὲν τὴν αἴσθησιν, ταύτην δ' εἶναι ἀλλοίωσιν, τὸ φαινόμενον κατὰ τὴν αἴσθησιν ἐξ ἀνάγκης ἀληθές εἶναι φασιν· ἐκ τούτων γὰρ καὶ Ἐμπεδοκλῆς (—) καὶ Δημόκριτος καὶ τῶν ἄλλων ὡς ἔπος εἰπεῖν ἕκαστος τοιαύταις δόξαις γεγένηται ἔνοχοι. **Simplicius in Phys.** 29.15–19 (**Theophrastus Phys.Op.** fr. 8 Diels, 229 FHS&G) Δημόκριτος ὁ Ἀβδηρίτης (68A38 DK) ἀρχὰς ἔθετο τὸ πλήρες καὶ τὸ κενόν ... ὡς (γὰρ) ὕλην τοῖς οὐσι τὰς ἀτόμους ὑποτιθέντες τὰ λοιπὰ γεννῶσι ταῖς διαφοραῖς αὐτῶν· τρεῖς δὲ εἰσιν αὐταί· ῥυσμὸς τροπὴ διατηγῆ, ταῦτ' οὖν δὲ εἰπεῖν σχῆμα καὶ τάξις καὶ θέσις. **Theophrastus Sens.** 60–61 Δημόκριτος (68A135) δὲ πάντα (sc. τὰ αἰσθητά) πάθη τῆς αἰσθήσεως ποιῶν. ... Δημόκριτος μὲν οὖν οὐχ ὁμοίως λέγει περὶ πάντων, ἀλλὰ τὰ μὲν τοῖς μεγέθεσι, τὰ δὲ τοῖς σχήμασιν, ἕνα δὲ τάξει καὶ θέσει διορίζει. ὥστε δόξειεν ἂν ... ἐναντίως τῇ ὑποθέσει λέγειν. **Sens.** 73–76 (68A135) τῶν δὲ χρωμάτων ἀπλᾶ μὲν λέγει τέτταρα. λευκὸν μὲν οὖν εἶναι τὸ λεῖον. ὃ γὰρ ἂν μὴ τραχὺ μὴδ' ἐπισκιάζῃ μὴδὲ δυσδιοδόν ἦ, τοιοῦτον πᾶν λαμπρὸν εἶναι. δεῖ δὲ καὶ εὐθύτροπα καὶ διαυγῆ τὰ λαμπρὰ εἶναι. τὰ μὲν οὖν σκληρὰ τῶν λευκῶν ἐκ τοιούτων σχημάτων συγκεῖσθαι οἶον ἢ ἐντὸς πλᾶξ τῶν κογχυλίων· οὕτω γὰρ ἂν ἄσκια καὶ εὐαγῆ καὶ εὐθύπορα εἶναι. τὰ (δὲ) ψαθυρὰ καὶ εὐθρυπτα ἐκ περιφερῶν μὲν λοξῶν δὲ τῇ θέσει πρὸς ἄλληλα καὶ κατὰ δύο συζεύξει, τὴν δ' ὄλην τάξιν ἔχειν ὅτι μάλιστα ὁμοίαν. τοιούτων δ' ὄντων ψαθυρὰ μὲν εἶναι, διότι κατὰ μικρὸν ἢ σὺναψις· εὐθρυπταδ', ὅτι ὁμοίως κεῖνται· ἄσκια δὲ, διότι λεία καὶ πλατέα· λευκότερα δ' ἀλλήλων τῷ τὰ σχήματα τὰ εἰρημένα καὶ ἀκριβέστερα καὶ ἀμειγέστερα εἶναι καὶ τὴν τάξιν καὶ τὴν θέσιν ἔχειν μάλλον τὴν εἰρημένην. τὸ μὲν οὖν λευκὸν ἐκ τοιούτων εἶναι σχημάτων. τὸ δὲ μέλαν ἐκ τῶν ἐναντίων ... ἐρυθρὸν δ' ἐξ οἴωνπερ καὶ τὸ θερμόν ... τὸ δὲ χλωρὸν ἐκ τοῦ στερεοῦ καὶ τοῦ κενοῦ συνεστάναι μεικτὸν ἐξ ἀμφοῖν ... τὰ μὲν οὖν ἀπλᾶ χρώματα τούτοις κεκρῆσθαι τοῖς σχήμασιν. **Epicurus Ep.Hdt.** at D.L. 10.54 καὶ μὴν καὶ τὰς ἀτόμους νομιστέον μηδεμίαν ποιότητα τῶν φαινομένων προσφέρεσθαι πλὴν σχήματος καὶ βάρους καὶ μεγέθους καὶ ὅσα ἐξ ἀνάγκης σχήματος συμφυῆ ἐστί. ποιότης γὰρ πᾶσα μεταβάλλει· αἱ δὲ ἄτομοι οὐδὲν μεταβάλλουσιν. **Scholia in Epicurum Ep.Hdt.** at D.L. 10.44 τὸ δὲ χρῶμα παρὰ τὴν θέσιν τῶν ἀτόμων ἀλλάττεσθαι ἐν ταῖς δώδεκα στοιχειώσεσιν φησι (**Epicurus** fr. 56 Usener). **Lucretius DRN** 2.730–738 *nunc age dicta meo dulci quaesita labore / percipe, ne forte haec albis ex alba rearis / principiis esse, ante oculos quae candida cernis, / aut ea quae nigrant nigro de semine nata; / nive alium quemvis quae sunt inbuta colorem, / propterea gerere hunc credas, quod materiai / corpora consimili sint eius tincta colore; / nullus enim color est omnino materiai / corporibus, neque par rebus neque denique dispar.* **Alexander of Aphrodisias in Sens.** 56.11–15 ὡς ἄρα τοῦ ὁρᾶν κατὰ τὴν ἀπὸ τῶν ὁρωμένων ἀπορροῖαν γινομένου· εἰδῶλα γὰρ τινὰ ὁμοιόμορφα ἀπὸ τῶν ὁρωμένων συνεχῶς ἀπορρέοντα καὶ ἐμπίπτοντα τῇ ὄψει τοῦ ὁρᾶν ἡτιώντο. τοιοῦτοι δὲ ἦσαν οἵτε περὶ Λευκιππον καὶ Δημόκριτον (67A29 DK), οἱ καὶ ἐκ τῆς τῶν ἀοράτων διὰ μικρότητα παραθέσεως τὴν τῶν μεταξύ χρωμάτων (sc. intermediate between black and white)

φαντασίαν ἐποιοῦν. **Plotinus Enn.** 3.6[26].12.22–24 εἴ τις οὖν ἐνταῦθα τὸ νόμῳ χροίη καὶ τὰ ἄλλα νόμῳ λέγοι τῷ τὴν φύσιν τὴν ὑποκειμένην μηδὲν οὕτως ἔχειν, ὥς νομίζεται, οὐκ ἂν ἄτοπος εἶη τοῦ λόγου (—). See also below, ch. 4.9, section E(b)§9.

§9 Epicurus: Plutarch Adv.Col. 110C–D αὐτὸς γὰρ οὖν ὁ Ἐπίκουρος ἐν τῷ δευτέρῳ τῶν Πρὸς Θεόφραστον (fr. 29 Usener, in part verbatim) οὐκ εἶναι λέγων τὰ χρώματα συμφυῇ τοῖς σώμασιν, ἀλλὰ γεννᾶσθαι κατὰ ποιᾶς τινας τάξεις καὶ θέσεις πρὸς τὴν ὄψιν, οὐ μᾶλλον φησι κατὰ τοῦτον τὸν λόγον ἀχρωμάτιστον σῶμα εἶναι ἢ χρῶμα ἔχον. ἀνωτέρω δὲ κατὰ λέξιν ταῦτα γέγραφε· ‘ἀλλὰ καὶ χωρὶς τοῦτου τοῦ μέρους οὐκ οἶδ’ ὅπως δεῖ τὰ ἐν τῷ σκότει ταῦτ’ ὄντα φῆσαι χρώματα ἔχειν. καίτοι πολλάκις ἀέρος ὁμοίως σκοτώδους (D) περιεχυμένου οἱ μὲν αἰσθάνονται χρωμάτων διαφορὰς οἱ δὲ οὐκ αἰσθάνονται δι’ ἀμβλύτητα τῆς ὀψews· ἔτι δ’ εἰσελθόντες εἰς σκοτεινὸν οἶκον οὐδεμίαν ὄψιν χρώματος ὀρώμεν, ἀναμείναντες δὲ μικρὸν ὀρώμεν.’ οὐ μᾶλλον οὖν ἔχειν ἢ μὴ ἔχειν χρῶμα ῥηθήσεται τῶν σωματῶν ἕκαστον. **Lucretius DRN** 2.795–819 *praeterea quoniam nequeunt sine luce colores / esse neque in lucem existunt primordia rerum, / scire licet quam sint nullo velata colore; / qualis enim caecis poterit color esse tenebris? / lumine quin ipso mutatur propterea quod / recta aut obliqua percussus luce refulget. ... (817) non certis certa figuris / est natura coloris et omnia principiorum / formamenta queunt in quovis esse nitore.* **Servius Auctus in Aeneid.** p. 2.47 Thilo–Hagen on 6.272 ‘*nox abstulit atra colorem*’: *hoc et videmus et tractatur ab Epicureis, rebus tollere noctem colorum varietatem: unde etiam apud inferos omnia nigra esse dicuntur.*

§10 Aristotle: Aristotle Sens. 2 439b11–12 ὥστε χρῶμα ἂν εἴη τὸ τοῦ διαφανοῦς ἐν σώματι ὠρισμένῳ πέρας. *de An.* 2.7 417b31–418a1 πᾶν δὲ χρῶμα κινητικόν ἐστι τοῦ κατ’ ἐνέργειαν διαφανοῦς, καὶ τοῦτ’ ἐστὶν αὐτοῦ ἡ φύσις· διόπερ οὐχ ὁρατὸν ἄνευ φωτός, ἀλλὰ πᾶν τὸ ἐκάστου χρῶμα ἐν φωτὶ ὁράται. *de An.* 2.8 420a27–28 ὥσπερ γὰρ ἄνευ φωτός οὐχ ὁράται τὰ χρώματα. *de An.* 3.2 426a20–25 οἱ πρότερον φυσιολόγοι τοῦτο οὐ καλῶς ἔλεγον, οὐθὲν οἰόμενοι οὔτε λευκὸν οὔτε μέλαν εἶναι ἄνευ ὀψews, οὐδὲ χυμὸν ἄνευ γεύσεως. τῇ μὲν γὰρ ἔλεγον ὀρθῶς, τῇ δ’ οὐκ ὀρθῶς· διχῶς γὰρ λεγομένης τῆς αἰσθήσεως καὶ τοῦ αἰσθητοῦ, τῶν μὲν κατὰ δύναμιν τῶν δὲ κατ’ ἐνέργειαν, ἐπὶ τούτων μὲν συμβαίνει τὸ λεχθέν, ἐπὶ δὲ τῶν ἐτέρων οὐ συμβαίνει. *de An.* 3 5.430.16–17 τρόπον γὰρ τινὰ καὶ τὸ φῶς ποιεῖ τὰ δυνάμει ὄντα χρώματα ἐνεργείᾳ χρώματα. **Alexander of Aphrodisias de An.** 42.6–7 εἴ γε χρώμα ἐστὶ τὸ κινητικὸν τοῦ κατ’ ἐνέργειαν διαφανοῦς. *in Sens.* 51.24 τὸ πέρας ἄρα τοῦ ὠρισμένου διαφανοῦς, καθὼ διαφανές, χρώμα ἐστὶ. **Alexander of Aphrodisias? de An.Mant.** c. 16 tit. p. 147.26 ‘Ὅτι τὸ χρῶμα πέρας τοῦ διαφανοῦς. *An.Mant.* c. 16, p. 147.29–30 ἔστι γὰρ ἡ διαφάνεια ὅλη πως χρώματος. *Probl.* 1.2, p. 5.2–3 τὸ χρῶμα ὠρίσατο Ἀριστοτέλης πέρας τοῦ ὠρισμένου διαφανοῦς ἢ διαφανές. **Thomas Aquinas in de An.** 2.14.403.8 *et quia diaphanum non fit in actu nisi per lumen, sequitur quod color non sit visibilis sine lumine.*

§11 Anonymi: ps.Aristotle Col. 1.791a1–10 ἀπλᾶ τῶν χρωμάτων ἐστὶν ὅσα τοῖς στοιχείοις συνακολουθεῖ, οἷον πυρὶ καὶ ἀέρι καὶ ὕδατι καὶ γῇ. ἀήρ μὲν γὰρ καὶ ὕδωρ

καθ' ἑαυτὰ τῇ φύσει λευκά, τὸ δὲ πῦρ καὶ ὁ ἥλιος ξανθά. καὶ ἡ γῆ δ' ἐστὶ φύσει λευκή, παρὰ δὲ τὴν βαφὴν πολύχρους φαίνεται. ... τὸ δὲ μέλαν χρῶμα συνακολουθεῖ τοῖς στοιχείοις εἰς ἄλληλα μεταβαλλόντων.

§12 *Anonymi: Theophrastus Sens.* 59 οἱ δὲ ἄλλοι τοσοῦτον μόνον, ὅτι τό τε λευκὸν καὶ τὸ μέλαν ἀρχαί, τὰ δ' ἄλλα μιγνυμένων γίνεται τούτων. καὶ γὰρ Ἀναξαγόρας (59A92 DK) ἀπλῶς εἶρηκε περὶ αὐτῶν.

Liber 1 Caput 16

P^B: ps.Plutarchus *Plac.* 883D; pp. 313^a29–315^a4 Diels—P^Q: Qusṭā ibn Lūqā pp. 128–129 Daiber

S: Stobaeus *Ecl.* 1.14.1b, p. 141.4–5 + 1.14.1g, p. 143.4–5 + 1.14.1i, p. 143.10–12 Wachsmuth; cf. Photius *Bibl.* 167, p. 112b2 Henry (titulus solus)

Cf. Nem: Nemesius *NH* c. 2, p. 17.18–19 Morani

Titulus ις'. Περὶ τομῆς σωμάτων (P,S)

- §1 οἱ ἀπὸ Θάλεω καὶ Πυθαγόρου παθητὰ (τὰ) σώματα καὶ τμητὰ εἰς ἄπειρον, καὶ πάντα τὰ συνεχῇ, γραμμὴν ἐπιφάνειαν στερεὸν σῶμα τόπον χρόνον. (P₁,S₃)
- §2 οἱ τὰς ἀτόμους (εἰσάγοντες) περὶ τὰ ἀμερῇ ἴστασθαι καὶ μὴ εἰς ἄπειρον εἶναι τὴν τομῇ. (P₂,S₂) 5
- §3 Ἀριστοτέλης δυνάμει μὲν εἰς ἄπειρον ἐντελεχεῖα δ' οὐδαμῶς. (P₃,S₁)

§1 Thales frs. 152, 348 Wöhrlé; Pythagoras —; §2 Atomisti: Democritus 68A48 DK; §3 Aristoteles cf. *GC* 1.2 316b20–23

titulus Περὶ ... σωμάτων P : Περὶ σωμάτων (~ tit. c. 1.12) καὶ περὶ τῆς τούτων τομῆς καὶ περὶ ἐλαχίστου (~ tit. c. 1.13) S, Περὶ τῆς σωμάτων τομῆς Diels (S) §1 [2] (τὰ) add. edd. : om. P^{BS} || [3–4] καὶ ... χρόνον S : om. P §2 [5] οἱ P^{B(11)Q} : ἢ P^{B(1,11)} (ὁ δ' αὐτὸς (sc. Δημόκριτος de priore lemmate 1.12.6) ἔλεγε S) || (εἰσάγοντες) add. Mau Lachenaud cf. c. 1.21.2[4] : (λέγοντες) add. Diels in app.; cf. c. 1.9.6 atque *welche behaupten* Q : non prob. Laks–Most || περὶ τὰ ἀμερῇ || om. P^Q || περὶ S : ἢ P^B corr. edd. || [5–6] καὶ ... εἶναι P^{BQ} : om. S §3 [7] post ἄπειρον add. τέμνεσθαι S || οὐδαμῶς P^B : μηδαμῶς S

Testes secundi:

Nemesius *NH* 2, p. 17.18–19 (Numenius 1 fr. 4b des Places) τὰ σώματα τῇ οἰκείᾳ φύσει τρεπτὰ ὄντα καὶ σκεδαστὰ καὶ διόλου εἰς ἄπειρον τμητὰ (~ quaestio).

Loci Aetiani:

cf. A 1.12 Περὶ σωμάτων

§1 A 1.9.2 οἱ ἀπὸ Θάλεω καὶ Πυθαγόρου, λέγω δὲ τοὺς μέχρι τῶν Στωικῶν καταβεβηκότας σὺν Ἡρακλείτῳ, τρεπτὴν καὶ ἀλλοιωτὴν καὶ μεταβλητὴν καὶ ῥευστὴν ὄλῃν δι' ὅλης τὴν ὕλην. A 2.12.1 Θαλῆς Πυθαγόρας οἱ ἀπ' αὐτοῦ. A 1.12.1 σῶμά ἐστι τὸ τριχῇ διαστατόν, πλάττει βάθει μήκει ... ἢ τὸ κατέχον τόπον. A 1.14.1 σχῆμά ἐστιν ἐπιφάνεια καὶ περιγραφὴ καὶ πέρας σώματος. A 1.18 tit. Περὶ τόπου. A 1.20 tit. Περὶ χρόνου. A 4.19.4 οἱ δὲ Στωικοὶ φασὶ τὸν ἀέρα μὴ συγκεῖσθαι ἐκ θραυσμάτων, ἀλλὰ συνεχῇ δι' ὅλου μηδὲν κενὸν ἔχοντα.

§2 A 1.3.16[122–125] καὶ εἴρηται ἄτομος, οὐχ ὅτι ἐστὶν ἐλαχίστη ἀλλ' ὅτι οὐ δύναται τμηθῆναι, ἀπαθὴς οὕσα καὶ ἀμέτοχος κενοῦ· ὥστε, ἐὰν εἴπῃ ἄτομον, ἄθραυστον λέγει καὶ ἀπαθῆ, ἀμέτοχον κενοῦ. A 1.3.18 Διόδωρος ἐπὶ κλην Κρόνος τὰ ἀμερῇ

σώματα ἄπειρα, τὰ δ' αὐτὰ λεγόμενα καὶ ἐλάχιστα. A 1.13.3 Ξενοκράτης καὶ Διόδωρος ἀμερῇ τὰ ἐλάχιστα ὠρίζοντο. A 4.9.10 οἱ τὰ ἄτομα καὶ οἱ τὰ ὁμοιομερῇ καὶ οἱ τὰ ἀμερῇ καὶ τὰ ἐλάχιστα κτλ. A 4.19.2 Ἐπίκουρος ... τοῦτο δὲ τὸ ρεῦμα εἰς ὁμοιοσχήμονα θρύπτεσθαι θραύσματα A 4.19.3 Δημόκριτος καὶ τὸν ἀέρα φησὶν εἰς ὁμοιοσχήμονα θρύπτεσθαι σώματα.

§3 A 4.2.6 Ἀριστοτέλης ἐντελέχειαν πρῶτην σώματος φυσικοῦ, ὁργανικοῦ, δυνάμει ζῶν ἔχοντος· τὴν δ' ἐντελέχειαν ἀκουστέον ἀντὶ τοῦ εἶδους καὶ τῆς ἐνεργείας.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

Texts belonging to this chapter are found in P and S.

(1) P^B and Q record three doxai. G does not include it. Ps lacks a chapter on the subject and so does not testify to the title.

(2) S absorbs the contents of this chapter into his ch. 1.14, as his collective chapter heading indicates. But the four doxai he preserves are scattered throughout the chapter.

(a) Diels acutely saw that the third Aristotelian doxa in P was placed in between extracts from A 1.12 and AD.

(b) He then argued that a rather long doxa attributed to Chrysippus on the cutting of bodies and other subjects was taken from the present chapter. However, from a stylistic point of view (note the tell-tale *ἔφασκε*) it is more likely to have been drawn from AD. It is not impossible that it replaced a Stoic doxa in A. But the Stoic doctrine falls under the first doxa and the diaeresis with three views did not need to be expanded further. So we have left out this lemma.

(c) The second doxa in P is then found coalesced with the Democritean doxa from ch. 1.12.6, which meant that a change of name-label was required (P has the Atomists).

(d) Finally the first doxa in P is placed after the citation of the final doxa A 1.12.7 of the earlier chapter on bodies. It was the last one remaining. There is no more material in S's chapter that he can have derived from A's chapter.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The rather rewarding proximate tradition is mostly limited to Arius Didymus, Cicero, Seneca, Sextus Empiricus and Calcidius (see section E(a) below).

(2) *Sources*. The ultimate sources of §2 are clearly the writings of the Atomists, and of §3 those of Aristotle, while for §1 we may think of Platonists, Stoics and mathematicians (the purported successors of Pythagoras). We recall that Aristotle in the first chapter of the *De caelo* closely links three-dimensionality of ‘body’ (generously ambiguous between mathematical and physical body) and infinite divisibility in all directions. But (ultimately in the wake of the *De caelo* too) the term ‘bodies’ (ch. 1.12) here brings about an association with ‘smallest bodies’ (heading of 1.13), a subject that crops up again in §2 of our present chapter. The intermediary sources are unknown.

C Chapter Heading

Attested in both P and S, and of the standard umbrella type ‘about *x*’, περὶ τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. In the present chapter we note a specialized version of the standard type through addition of the term ‘cutting’, which moreover does not pertain to any kind of division whatsoever but only to that of bodies. Body here means not only physical but also three-dimensional geometrical body. The umbrella also covers the categories of place (place is defined as what is occupied by body at chs. 1.12.1 and 1.20.1) and time, analogous to place in respect of divisibility according to Aristotle (this aspect is not mentioned in chs. 1.21–22). Remarkably it is not precisely paralleled elsewhere as a title or embedded heading.

D Analysis

a Context

The chapter belongs with the block consisting of chs. 1.12–17, dealing with body in its various aspects, but would perhaps have been better placed immediately after 1.12, ‘On bodies’. See Diels *DG* 62, who goes a bit far in calling the present arrangement absurd (‘Plutarchus I 16 ... absurde a c. 12 diremit’). Lachenaud ad loc. (1993) 231 points out that Aristotle at *GC* 1.10 327b31–328a5 discusses infinite divisibility together with mixture, the theme of the next chapter, 1.17 ‘On mixture and blending’, which appropriately follows. These processes variously depend on matter as either corpuscular (here §2) or continuous (here §1). For place see chs. 1.19–20, for time 1.21–22.

b Number–Order of Lemmata

(1) We may be confident that the three-lemmatic chapter is complete, as S did not combine further material that would have belonged in 1.16 with lemmata with other name-labels (Plato, Heraclitus etc.) from the chs. A 1.12 and 1.13 he abstracted for *Ecl.* 1.14 as well.

(2) P and S have the same three lemmata, but the order of S is the converse of that of P. It seems safest to interpret S's order as depending on his rather intricate coalescence of the Aëtian doxai and other material. We therefore, in this case just as Diels in the *DG*, have stuck to the order of P, which also has the obvious advantage from the point of view of the chapter's rationale in allowing the compromise Aristotelian doxa to be placed at the end.

c Rationale—Structure of Chapter

(1) A simple and clear structure, opposing in diaphonia the followers of Thales and Pythagoras (that is, the two main Successions), who posit infinite division, to the Atomists who reject it; cf. ch. 1.9.1, which explicitly adds the Stoics to the grand tradition. Line, surface, three-dimensional body, place, and time are Stoic incorporeals. We note that the atomism of the Pythagorean Ecphantus (attested for ch. 1.3.17 by S and T not P, and for 2.3.3 by S not P) is not taken into account where we have P alone. Aristotle's doctrine of potentially, not actually, infinite division is presented *ad finem* as a compromise between Thales and Pythagoras and their followers on the one hand and the Atomists on the other. A nice example of an a-historical doxographical construct, for originally Aristotle's view of infinite divisibility as potential was directed against Zeno of Elea's paradoxical assumption of infinite divisibility in actuality.

(2) We may compare ch. 2.3 on providence, where similarly the Atomists are opposed (even) to 'all others', and Aristotle's is the second of two compromise positions that are listed.

d Further Comments

Individual Points

§2 A participle is definitely required at the beginning of the doxa to complete the periphrastic reference to the Atomists. Mau's suggestion, which we have incorporated in our text, is an excellent one, cf. chs. 1.13.2, 1.23.4, 1.24.2, 5.1.1, though it cannot be considered certain. Diels *ad loc.* writes 'audiendum λέγοντες', but his parallels are not good enough, and Q's '*welche behaupten*' not decisive, since he often adds a *verbum declarandi*.

According to Simplicius (see below section E(b)§2), Leucippus and Democritus attributed partlessness (τὸ ἀμερές) to the atoms, but Epicurus did not do so because of Aristotle's criticism. The term ἀμερῆ (for ἀμειγῆ, non prob. Dorandi), pertaining to the smallest parts that constitute the indivisible atom, has been introduced by conjecture in Epicurus *Ep.Hdt.* 10.59 (also cited below section E(b)§2), but this reading has by no means been universally accepted. For discussion see Verde at Spinelli–Verde (2010) 162–176 and Verde (2013) 58–73, in favour of ἀμερῆ.

In the present paragraph the early Atomists may be meant to the extent that physical division is meant, while if Epicurus is involved as well theoretical division may also be at issue. However, building on the ambiguity of ἀμερῇ denoting on the one hand whole atoms (Leucippus Democritus) and on the other smallest atomic parts (Epicurus) is perhaps too subtle for a doxographical lemma. Epicurus unfortunately does not figure in ch. 1.13, 'On smallest parts'. In this earlier chapter 'minima' (ἐλάχιστα) are attributed to Empedocles Heraclitus Xenocrates Diodorus Cronus Heraclides, and ἀμερῇ indiscriminately to Xenocrates and Diodorus (for the latter see also ch. 1.3.18). Ch. 4.9.10 (no name-labels) puts those who posit ἄτομα or ὁμοιομερῇ or ἀμερῇ or ἐλάχιστα on a par without providing further information as to what these terms mean, or in what respect they differ; the atoms and the void are mentioned immediately before at ch. 4.9.9 and attributed to Leucippus, Democritus and Diogenes.

e Other Evidence

Epicurus argued against Aristotle's argument against the assumption of the earlier Atomists that the atoms are not only in reality but also theoretically indivisible, and in reply developed his theory of the minimal parts of the atom (Furley 1967b). For the Stoics, here absent, see AD at S 12.14.1e, p. 142.2–7 (printed by Diels as A 1.16.4, but below at section E(b) General texts) and in general SVF 2.482–491 'de infinita divisione'. The majority of these texts, however, are not about division *ad infinitum*.

E Further Related Texts

a Proximate Tradition

General texts: Arius Didymus at Stob. *Ecl.* 12.14.1e, p. 142.2–7 (printed by Diels as A 1.16.4) Χρύσιππος (SVF 2.482) ἔφασκε τὰ σώματα εἰς ἄπειρον τέμνεσθαι καὶ τὰ τοῖς σώμασι προσεικότα, οἷον ἐπιφάνειαν, γραμμὴν, τόπον, κενόν, χρόνον· εἰς ἄπειρόν τε τούτων τεμνομένων οὔτε σῶμα ἐξ ἀπείρων σωματῶν συνέστηκεν οὔτ' ἐπιφάνεια οὔτε γραμμὴ οὔτε τόπος (οὔτε κενόν οὔτε χρόνος). fr. 26 Diels at Stob. *Ecl.* 1.8.42, p. 106.15–17 (SVF 2.509) ἐπεὶ γὰρ εἰς ἄπειρον ἡ τομῇ τῶν συνεχόντων ἐστὶ, κατὰ τὴν διάρρυσιν ταύτην καὶ πᾶς χρόνος εἰς ἄπειρον ἔχει τὴν τομὴν. **Sextus Empiricus** M. 1.27 αὐτὸ τοῦτο ἀνεπικρίτως διαφωνεῖσθαι παρὰ πᾶσι τοῖς φιλοσόφοις, τῶν μὲν ἄτομον τοῦτο (sc. τὸ σῶμα) λεγόντων ὑπάρχειν τῶν δὲ τμητόν, καὶ τῶν τμητόν φαμένων εἶναι ἐνίων μὲν εἰς ἄπειρον τέμνεσθαι τοῦτο ἀξιούντων, ἐνίων δὲ εἰς ἐλάχιστον καὶ ἀμερές καταλήγειν. **Alexander of Aphrodisias** *Mixt.* 213.15–214.10 οὐ γὰρ μόνον διηνήχθησαν πρὸς ἀλλήλους περὶ τοῦδε τοῦ δόγματος (sc. τῶν περὶ μίξεώς τε καὶ κράσεως λόγων) οἱ μίαν ὕλην ὑποκεῖσθαι πᾶσι τοῖς ἐν γενέσει σώμασιν λέγοντες πρὸς τοὺς ἐκ διωρισμένων τε καὶ κεχωρισμένων σωματῶν ποιούντας αὐτὴν ὧν οἱ μὲν ἄτομα σώματα ἄπειρα τῷ πλήθει, κατὰ σχῆμα καὶ μέγεθος μόνον τὴν πρὸς ἀλλήλα διαφοράν ἔχοντα, τὰς ἀρχὰς καὶ τὰ στοιχεῖα φασιν εἶναι, καὶ

τῇ τούτων συνθέσει τε καὶ ποιᾷ περιπλοκῇ ἔτι τε τάξει καὶ θέσει τὰλλα γίνεσθαι· ἐφ' ἧς δόξης πρῶτοι μὲν Λεύκιππος τε καὶ Δημόκριτος (fr. 225 Luria) γενέσθαι δοκοῦσιν, ὕστεροι δὲ Ἐπίκουρος (—) τε καὶ οἱ τὴν αὐτὴν τούτῳ τραπέντες· οἱ δὲ αὐτῶν, οὐκ ἀτόμους, ὁμοιομερῇ δὲ τινὰ φασιν ἄπειρα εἶναι σώματα, ἐξ ὧν ἡ τῶν αἰσθητῶν γένεσις σωμάτων γινομένη κατὰ σύγκρισιν καὶ σύνθεσιν, ἧς δόξης Ἀναξαγόρας (—) τε καὶ Ἀρχέλαος (—) δοκοῦσι γεγενῆσθαι· ἤδη δὲ τινες (sc. Diodorus Cronus)(—) καὶ ἄμερῇ τινὰ σώματα τὰς ἀρχὰς καὶ στοιχεῖα τῶν πάντων προήχθησαν εἰπεῖν· ἔστι δὲ τις δόξα (*Tim.* 53c–56c) καὶ ἐξ ἐπιπέδων τὴν γένεσιν ποιοῦσα τῶν σωμάτων καὶ ἐξ ἀριθμῶν τις ἄλλη (—), οὐ δὴ πρὸς ἀλλήλους μόνον, ὡς ἔφην, οὔτοι διηνέχθησαν κατὰ τὴν πρὸς τὰς ἀρχὰς διαφορὰς οὕσας ἀκολουθεῖν καὶ τὰς κράσεις διαφορῶς γίνεσθαι λέγοντες, ἀλλὰ καὶ αὐτῶν τῶν ἡνωμένην τὴν ὕλην λεγόντων καὶ ἄλλιν αὐτῶν διωρισμένην τε καὶ κεχωρισμένην ἔστι τις πρὸς ἀλλήλους διαφωνία. *Calcidius in Tim.* c. 275 *qua ratione factum ut, cum nullus eam (sc. silvam) veterum dubitet esse, utrum tamen facta an contra infecta sit disceptetur eorumque ipsorum, qui infectam sine generatione posuerunt, plerique continuam et iugem, alii vero divisam putent, rursumque eorum, qui dividuam esse censent, partim sine qualitate et informem, partim formatam esse pronuntiant, hi vero, qui iugem continuatamque posuerunt, disceptent inter se de qualitatibus formae eorum quae ibidem conformantur et omnium quae isdem accidunt, utrum ex silva proveniant an ex alio potiore numine accommodentur. quorum breviter perstringentur opiniones.* in *Tim.* c. 251. in *Tim.* c. 254.

§1 *Followers of Thales and Pythagoras: Calcidius in Tim.* c. 292 Zeno (SVF 1.88) *hanc ipsam essentiam finitam esse dicit unamque eam communem omnium quae sunt esse substantiam, dividuam quoque et usquequaque mutabilem. in Tim.* c. 315 *sunt item qui putent infinitae sectionis patibilem silvam. sed omne quod secatur compositum minimeque simplex erit et in aliquo spatio, quod est proprium quantitatis: ergo silva minime secabitur; caret enim quantitate perinde ut qualitate, quamvis qualitatem quantitatemque comitetur. si vero, quia corpora qualitatibus et quantitativis praedita, quae ab ea continentur, secari queunt, ipsam quoque una cum isdem secari fingamus, non erit omnino abhorrens a ratione vel inconveniens praesumptio.*

§2 *Atomists: Caputula Lucretiana* at DRN 1.551 *contra* εἰς ἀπειρον τὴν τομὴν. *Servius in Buc.* 6.31, p. 69.21–23 *Thilo et corpus volunt esse atomos, id est quasdam minutissimas partes, quae τομήν, id est sectionem, non recipiunt, unde et atomi dictae sunt.*

§3 *Aristotle: Arius Didymus* fr. 5 Diels at Stob. *Ecl.* 1.14.1c, p. 141.8–11 (on Aristotle) διαιρεῖσθαι δὲ εἰς ἄπειρον τὰ μεγέθη καὶ τὰ μέγεθος ἔχοντα. ταῦτα δὲ καὶ συνεχὴ καλεῖσθαι· μεγέθη δ' εἶναι μῆκος, πλάτος, βάθος· τὰ δ' ἔχοντα μέγεθος ἔξ ὑπάρχειν, σῶμα, τόπον, ἐπιφάνεια, γραμμὴν, κίνησιν, χρόνον.

b Sources and Other Parallel Texts

General texts: *Aristotle Sens.* 6 445b3–7 ἀπορήσειε δ' ἂν τις, εἰ πᾶν σῶμα εἰς ἄπειρον διαιρεῖται, ἄρα καὶ τὰ παθήματα τὰ αἰσθητά, οἷον χρῶμα καὶ χυμὸς καὶ δσμή καὶ ψόφος, καὶ βαρὺ καὶ κοῦφον, καὶ θερμὸν καὶ ψυχρόν, καὶ σκληρόν καὶ μαλακόν,

ἢ ἀδύνατον κτλ. **Seneca** *Dial.* 8.4.2 *continua sit omnis et plena materia ex qua cuncta gignuntur, an diducta et solidis inane permixtum. Dial.* 8.5.6 *individua sint per quae struitur omne quod natum futurumque est, an continua eorum materia sit et per totum mutabilis. Galen* *QAM* 4.785.4–7 K. *δυοῖν οὐσῶν αἰρέσεων ἐν φιλοσοφίᾳ {κατὰ τὴν πρώτην τομὴν}—ἔνιοι (SVF 2.544) μὲν γὰρ ἠνώσθαι τὴν κατὰ τὸν κόσμον οὐσίαν ἅπασαν, ἔνιοι δὲ διηγήσθαι φασὶ κενοῦ περιπλοκῇ. in NH 15.60.8–12 διττῆς δ' οὕσης τῷ γένει τῆς ἐν ταῖς λογικαῖς αἰρέσεσι στοιχειώσεως, ἡ μὲν ἑτέρα κατὰ παράθεσιν τε καὶ περιπλοκὴν τῶν πρώτων σωμάτων τὰς γενέσεις τῶν συνθέτων γενέσθαι φησίν, ἡ δὲ ἑτέρα κατὰ κράσιν. ἡ μὲν οὖν προτέρα τὴν συμμετρίαν ἐν τῇ ποροποιίᾳ τίθεται, ἡ δὲ ἑτέρα κατὰ τὴν εὐκрасίαν τῶν στοιχείων ὑγιαίνειν ἡμᾶς φησιν. Clemens Romanus (trans. Rufini) *Recog.* 8.13.2, p. 224.15–16 Rehm–Paschke *omne autem corpus duas recipit differentias; aut enim conexum est et solidum aut divisum et separatum.**

titulus Heron Mechanicus *Def.* pinax 1 no. 93 *Περὶ τομῆς κοινῶς.*

§§1–2 *Followers of Thales and Aristotle, Atomists: Lucretius* *DRN* 1.551–564. *DRN* 1.746–752 *deinde quod omnino finem non esse secandis / corporibus facient neque pausam stare fragori / nec prorsum in rebus minimum consistere qui(cquam), / cum videamus id extremum cuiusque cacumen / esse quod ad sensus nostros minimum esse videtur, / conicere ut possis ex hoc, quae cernere non quis / extremum quod habent, minimum consistere (rerum).*

§1 *Followers of Thales and Aristotle: Aristotle* *Cael.* 1.1 268a6–7 *συνεχὲς μὲν οὖν ἐστὶ τὸ διαιρετὸν εἰς αἰεὶ διαιρετά, σῶμα δὲ τὸ πάντῃ διαιρετόν. Cicero* *Ac.Po.* 27 *partes* (sc. of matter) ... *quae infinite secari ac dividi possint, cum sit nihil omnino in rerum natura minimum quod dividi nequeat. Heron Mechanicus* *Def.* 119 *μέγεθος ἐστὶ τὸ αὐξανόμενον καὶ τεμνόμενον εἰς ἄπειρον· εἶδη δὲ αὐτοῦ γ', γραμμῇ, ἐπιφάνεια, στερεόν. Galen* *PHP* 8.2.8–9 *περὶ δὲ τῆς κατὰ μέγεθος τομῆς τῶν σωμάτων ἐπιδεδείκται τοῖς γεωμετρικοῖς ἀνδράσιν ὡς οὐδέποτε στήναι δυναμένης ἀλλ' αἰεὶ τοῦ τεμνομένου μικρότερον ἑαυτοῦ τὸ μέγεθος ἔχοντος. Sextus Empiricus* *M.* 10.142 *πρὸς μὲν οὖν τοὺς εἰς ἄπειρον τέμνεσθαι λέγοντας τὰ τε σώματα καὶ τοὺς τόπους καὶ τοὺς χρόνους (οὔτοι δὲ εἰσιν οἱ ἀπὸ τῆς Στοᾶς, SVF 2.491) ταῦθ' ἤρμοζε λέγειν. Diogenes Laertius* *VP.* 7.150–151 *ἔνθεν κακῆφινος ὡς ἢ τε τομῇ (μὴ) εἰς ἄπειρόν ἐστιν ἢν ἄπειρον φησὶν ὁ Χρῦσιππος (SVF 2.482) (151) (οὐ γὰρ ἐστὶ τι ἄπειρον, εἰς δὲ γίνεταί ἡ τομῇ), ἀλλ' ἀκατάληκτός ἐστι. Alexander of Aphrodisias* *in Met.* 164.5–6 *ὁ διεξιὼν τὴν συνεχὴ γραμμὴν τὴν ἐπ' ἄπειρον διαιρετὴν. Themistius* *in Phys.* 141.24–25 *διότι συνεχῆς ὁ χρόνος καὶ εἰς ἄπειρα διαιρετέος. Proclus* *Inst.Phys.* 1.5.8–9 *πάν ἄρα τὸ συνεχὲς διαιρετὸν εἰς αἰεὶ διαιρετά. Simplicius* *in Phys.* 645.27–28 *ἐπειδὴ ἡ κίνησις ἢ πεπερασμένη ἢ ἄπειρος δοκεῖ καὶ συνεχῆς οὐσα ἐπ' ἄπειρόν ἐστι διαιρετὴ ὥσπερ πάντα τὰ συνεχῇ. Boethius* *Div.* *MPL* 64.888–889, p. 42.5–11 *Magee alio autem modo (sc. divisionis) secundum modum, haec enim non plura significant, sed multis modis, ut cum dicimus 'infinitum', unam rem quidem significat, cujus terminus inveniri non possit. sed hoc dicimus aut secundum mensuram, aut secundum multitudinem, aut secundum speciem: ... secundum multitudinem, ut est infinitam esse corporum divisionem, infinitam namque divisionum multitudinem significamus.*

§2 Atomists: Aristotle GC 1.2 316a13–26 Δημόκριτος (68A48b DK) δ' ἂν φανείη οἰκεῖοις καὶ φυσικοῖς λόγοις πεπεισθαι. δῆλον δ' ἔσται ὃ λέγομεν προιοῦσιν. ἔχει γὰρ ἀπορίαν, εἴ τις θεῖη σώμα τι εἶναι καὶ μέγεθος πάντῃ διαιρετόν, καὶ τοῦτο δυνατόν. τί γὰρ ἔσται ὅπερ τὴν διαιρέσιν διαφεύγει; εἰ γὰρ πάντῃ διαιρετόν, καὶ τοῦτο δυνατόν, κἂν ἅμα εἴη τοῦτο πάντῃ διηρημένον, καὶ εἰ μὴ ἅμα διήρηται· κἂν εἰ τοῦτο γένοιτο, οὐδὲν ἂν εἴη ἀδύνατον. οὐκοῦν καὶ κατὰ τὸ μέσον ὡσαύτως, καὶ ὅλως δέ, εἰ πάντῃ πέφυκε διαιρετόν, ἂν διαιρεθῇ, οὐδὲν ἔσται ἀδύνατον γεγονός, ἐπεὶ οὐδ' ἂν εἰς μυρία μυριάκις διηρημένα ἦ, οὐδὲν ἀδύνατον· καίτοι ἴσως οὐδεὶς ἂν διέλοι. ἐπεὶ τοίνυν πάντῃ τοιοῦτόν ἐστι τὸ σῶμα, διηρήσθω. τί οὖν ἔσται λοιπόν; μέγεθος; οὐ γὰρ οἶόν τε· ἔσται γάρ τι οὐ διηρημένον, ἣν δὲ πάντῃ διαιρετόν κτλ. **Epicurus** *Ep.Hdt.* at D.L. 10.56 οὐ μόνον τὴν εἰς ἄπειρον τομὴν ἐπὶ τοῦλαττον ἀναιρετέον. ... ἀλλὰ καὶ τὴν μετάβασιν μὴ νομιστέον γίνεσθαι ἐν τοῖς ὠρισμένοις εἰς ἄπειρον μὴδ' ἐ(πὶ) τοῦλαττον. *Ep.Hdt.* at D.L. 10.59 ἔτι τε τὰ ἐλάχιστα καὶ ἄμερῃ (Von Arnim : ἀμιγῇ BPF prob. Dorandi alii) πέρατα δεῖ νομίζειν τῶν μηχανῶν τὸ καταμέτρημα ἐξ αὐτῶν πρῶτον τοῖς μείζοσι καὶ ἐλάττοσι παρασκευάζοντα τῇ διὰ λόγου θεωρίᾳ ἐπὶ τῶν ἀοράτων. **Lucretius** *DRN* 1.615–618 *praeterea nisi erit minimum, parvissima quaeque / corpora constabunt ex partibus infinitis, / quippe ubi dimidiae partis pars semper habebit / dimidiam partem nec res praeфинiet ulla*. **Sextus Empiricus** *M.* 10.615 οἱ δ' ἀξιοῦντες ἄμερῃ εἶναι σώματα καὶ τὴν κατάληξιν τῆς τῶν σωμάτων τομῆς εἰς ἐλάχιστον γίνεσθαι. **Iamblichus** *de An.* at *Stob. Ecl.* 1.49.32, p. 363.12–16 εἶναι μὲν γὰρ τὰ πρῶτα σώματα ἄτομα, πρὸ τῶν τεσσάρων στοιχείων στοιχειωδέστερα· εἰλικρινῇ δ' ὄντα καὶ πεπληρωμένα πάντῃ καθαράς πρῶτης οὐσίας μὴ δέχεσθαι μὴδ' ὁπωσιτοῦν εἰς αὐτὰ διαιρέσιν. **Themistius** *in Phys.* 98.21–24 ἀλλὰ τίς ἂν βλάβῃ τοι γεωμετρίαν τῶν περὶ φύσεως λόγων; ὁ τὰ ἄμερῃ καὶ ἐλάχιστα ἀρχὰς ὑποτιθέμενος καὶ στοιχεῖα· τὴν γὰρ εἰς ἄπειρον τομὴν ἀναιρεῖ, ἣ συναναιρεῖται πολλὰ τῶν ἐν τοῖς μαθημασιν νῦν προσχειρώς δεικνυμένων. **Simplicius** *in Phys.* 925.10–22 οἱ δὲ τῆς ἐπ' ἄπειρον τομῆς ἀπεργνωκότες, ὥς οὐ δυναμένων ἡμῶν ἐπ' ἄπειρον τεμεῖν καὶ ἐκ τούτου πιστώσασθαι τὸ ἀκατάληκτον τῆς τομῆς, ἐξ ἀδιαίρετων ἔλεγον ὑφεισθάναι τὰ σώματα καὶ εἰς ἀδιαίρετα διαιρεῖσθαι. πλὴν ὅτι Λευκίππος (67A13 DK) μὲν καὶ Δημόκριτος οὐ μόνον τὴν ἀπάθειαν αἰτίαν τοῖς πρῶτοις σώμασι τοῦ μὴ διαίρεσθαι νομίζουσιν, ἀλλὰ καὶ τὸ σμικρὸν καὶ ἄμερές, Ἐπίκουρος (fr. 268 Usener) δὲ ὕστερον ἄμερῃ μὲν οὐχ ἡγεῖται, ἄτομα δὲ αὐτὰ διὰ τὴν ἀπάθειαν εἶναι φησι. καὶ πολλαχοῦ μὲν τὴν Λευκίππου καὶ Δημοκρίτου δόξαν ὁ Ἀριστοτέλης διηλέγξεν, καὶ δι' ἐκείνους ἴσως τοὺς ἐλέγχους πρὸς τὸ ἄμερές ἐνισταμένους ὁ Ἐπίκουρος, ὕστερον μὲν γενόμενος, συμπαθὼν δὲ τῇ Λευκίππου καὶ Δημοκρίτου δόξῃ περὶ τῶν πρῶτων σωμάτων, ἀπαθῇ μὲν ἐφύλαξεν αὐτά, τὸ δὲ ἄμερές αὐτῶν παρείλετο, ὥς διὰ τοῦτο ὑπὸ τοῦ Ἀριστοτέλους (*Phys.* 6.1) ἐλεγχομένων.

§3 Aristotle: Aristotle *Phys.* 8.8 263a28–29 (cited **ps.Justin** *Confut.* 143A) ἐν δὲ τῷ συνεχεῖ ἔνεστι μὲν ἄπειρα ἡμίση, ἀλλ' οὐκ ἐντελεχεῖα ἀλλὰ δυνάμει. *Phys.* 8.8 263b3–6 ὥστε λεκτέον πρὸς τὸν ἐρωτῶντα εἰ ἐνδέχεται ἄπειρα διεξελεθεῖν ἢ ἐν χρόνῳ ἢ ἐν μήκει, ὅτι ἔστιν ὥς, ἔστιν δ' ὥς οὐ. ἐντελεχεῖα μὲν γὰρ ὄντα οὐκ ἐνδέχεται, δυνάμει δὲ ἐνδέχεται. GC 1.2 316b20–23 τὸ μὲν οὖν ἅπαν σῶμα αἰσθητὸν εἶναι διαιρετόν καθ' ὅτιον σημείον καὶ ἀδιαίρετον οὐδὲν ἄτοπον· τὸ μὲν γὰρ δυνάμει διαιρετόν, τὸ δ' ἐντελεχεῖα ὑπάρξει. **Themistius** *in Phys.* 199.17–18 ῥητέον δέ, ὥς

οὐκ ἐνεργεία πρῶτον ἐπ' ἄπειρον ἢ διαίρεσις ἐν τοῖς συνεχέσιν, ἀλλὰ δυνάμει. **Simplicius** in *Phys.* 1291.1–2 πῶς ἐστι τὰ συνεχῆ ἐπ' ἄπειρον διαιρετά· διότι γὰρ δυνάμει ἔχει τὰ ἄπειρα, οὐκ ἐντελεχεῖα. **Philoponus** in *de An.* 371.16–19 τὰ γὰρ μεγέθη, φησί, δυνάμει μὲν {φησὶν} ἐπ' ἄπειρόν εἰσιν ὡς μεγέθη διαιρετά· δυνατὸν γὰρ αἰεὶ ὅσον ἐπὶ τῇ ἰδίᾳ φύσει τὸ δοθὲν τεμεῖν τῇ ἐπινοίᾳ, κάκεῖνο εἰς ἄλλο, καὶ τοῦτο ἐπ' ἄπειρον.

Liber 1 Caput 17

P^B: ps.Plutarchus *Plac.* 883E; p. 315^a5–18 Diels—**P^G**: ps.Galenus *HPh* c. 29; p. 616.9–14 Diels; pp. 88–94 Jas—**P^Q**: Qustā ibn Lūqā pp. 128–129 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* 90, p. 53 Westerink (titulus solus)
S: Stobaeus *Ecl.* 1.17.1, p. 152.2–12 Wachsmuth; cf. Photius *Bibl.* 167, p. 112b3 Henry (titulus solus)
Cf. Nem: Nemesius *NH* c. 5, p. 50.25–26 Morani

Titulus ιζ'. Περὶ μίξεως καὶ κράσεως (P,S)

- §1 Θαλῆς καὶ οἱ ἄπ' αὐτοῦ τὰς τῶν στοιχείων μίξεις κατ' ἀλλοίωσιν. (P1,S1)
§2 οἱ δὲ περὶ Ἀναξαγόραν καὶ Δημόκριτον κατὰ παράθεσιν. (P2,S2)
§3 Ἐμπεδοκλῆς καὶ Ξενοκράτης ἐκ μικροτέρων ὄγκων τὰ στοιχεῖα συγκρίνει, ἅπερ ἐστὶν ἐλάχιστα καὶ οἷον εἰ στοιχεῖα στοιχείων. (P3,S3)
§4 Πλάτων τὰ μὲν τρία σώματα (οὐ γὰρ θέλει κυρίως αὐτὰ εἶναι στοιχεῖα ἢ προσονομάζειν) τρεπτὰ εἰς ἄλληλα, πῦρ ἀέρα ὕδωρ, τὴν δὲ γῆν εἰς τι τούτων ἀμετάβλητον. (P4,S4)

5

§1 Thales 11A13a DK; §2 Anaxagoras 59A54 DK; Democritus fr. 341 Luria; §3 Empedocles 31A43 DK; Xenocrates fr. 50 Heinze, F 71 Isnardi Parente²; §4 Plato cf. *Tim.* 49b–d, 54b–d

titulus Περὶ μίξεως καὶ κράσεως **P^{BQPS}** : Περὶ μίξεως **P^G** §1 [2] Θαλῆς καὶ οἱ ἄπ' αὐτοῦ **S** : οἱ μὲν ἀρχαῖοι **P^{BQ}** : οἱ μὲν παλαιότεροι **P^G** || post αὐτοῦ hab. **S** κράσεις εἶναι, non exhib. **P** || μίξεις] om. **P^{G1}** Jas, sed hab. **P^{G2}** et Nic (ante τὰς), ret. Diels || post κατ' ἀλλοίωσιν hab. **P^G** ἦτοι κράσιν ᾧ ἤθησαν γίνεσθαι §2 [3] οἱ δὲ περὶ Ἀναξαγόραν καὶ Δημόκριτον **P^{BGQ}** : om. **S** || κατὰ παράθεσιν **P^{BGQ}** : τὰς κράσεις κατὰ παράθεσιν γίνεσθαι τῶν στοιχείων **S** §3 [4] Ἐμπεδοκλῆς καὶ Ξενοκράτης **S** : Ἐμπεδοκλῆς δ' **P^{BGQ}** || μικροτέρων **P^{BS}** : μικροτάτων **P^G**, aus *kleinen Teilen* **Q** || ὄγκων] οἶται **P^G** || [4–5] συγκρίνει] συγκρίνειν **P^G** || [5] ἅπερ ... στοιχείων] om. **P^G** §4 [6] post σώματα hab. **P^G** εἶναι || [6–7] οὐ ... προσονομάζειν **P^{BQ}** : om. **P^{GS}** || [7] τρεπτὰ] μικτὰ coni. Jas ex Nic *miscibilia*, Diels lac. pos. || πῦρ ἀέρα ὕδωρ] om. **P^G** || [7–8] εἰς τι τούτων ἀμετάβλητον **P^{BQS}** (τῶν ἀμεταβλήτων **S** corr. Diels Wachsmuth) : ἀμετάβλητον μόνην **P^G**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus c. 29 (~ tit.) Περὶ μίξεως (text Jas)

- 29.1 (~ P1) οἱ μὲν παλαιότεροι τὰς τῶν στοιχείων κατ' ἀλλοίωσιν ἦτοι κράσιν ᾧ ἤθησαν γίνεσθαι,
29.2 (~ P2) οἱ δὲ περὶ Ἀναξαγόραν καὶ Δημόκριτον κατὰ παράθεσιν.
29.3 (~ P3) Ἐμπεδοκλῆς δὲ ἐκ μικροτάτων οἶται τὰ στοιχεῖα συγκρίνειν.
29.4 (~ P4) Πλάτων δὲ τὰ μὲν τρία εἶναι τρεπτὰ εἰς ἄλληλα λέγει, τὴν δὲ γῆν ἀμετάβλητον μόνην.

Testes secundi:

Psellus *Omn.Doctr.* c. 89 (~ tit.) Περὶ μίξεως καὶ κράσεως

Nemesius *NH* c. 5, p. 50.25–26 (~ §4) Πλάτωνι (*Tim.* 55c) δὲ δοκεῖ τὰ μὲν τρία στοιχεῖα μεταβάλλειν εἰς ἄλληλα, τὴν δὲ γῆν ἀμετάβλητον μένειν.

Loci Aetiani:

§1 A 1.15.7 οἱ ἀπὸ Πυθαγόρου ... τὰς δὲ διαφορὰς τῶν χρωμάτων παρὰ τὰς ποιὰς μίξεις τῶν στοιχείων. A 1.24.3 Πυθαγόρας καὶ πάντες, ὅσοι παθητὴν τὴν ὕλην ὑποτίθενται, κυρίως γένεσιν καὶ φθορὰν γίνεσθαι· ἐκ γὰρ ἀλλοιώσεως τῶν στοιχείων καὶ τροπῆς καὶ ἀναλύσεως γένεσιν καὶ φθορὰν, παράθεσιν καὶ μίξιν, κράσιν τε καὶ σύγχυσιν γίνεσθαι.

§§2–3 A 1.24.2 Ἐμπεδοκλῆς Ἀναξαγόρας Δημόκριτος Ἐπίκουρος καὶ πάντες, ὅσοι κατὰ συναθροισμὸν τῶν λεπτομερῶν σωμάτων κοσμοποιοῦσι, συγκρίσεις μὲν καὶ διακρίσεις εἰσάγουσι, γενέσεις δὲ καὶ φθορὰς οὐ κυρίως· οὐ γὰρ κατὰ τὸ ποῖον ἐξ ἀλλοιώσεως, κατὰ δὲ τὸ ποσὸν ἐκ συναθροισμοῦ ταύτας γίνεσθαι.

§3 A 1.3.19 Ἐμπεδοκλῆς ... τέσσαρα μὲν λέγει στοιχεῖα, πῦρ ἀέρα ὕδωρ γῆν. A 1.13.1 Ἐμπεδοκλῆς πρὸ τῶν τεσσάρων στοιχείων θραύσματα ἐλάχιστα, οἷον εἰ στοιχεῖα πρὶν στοιχείων, ὁμοιομερῆ. A 1.30.1 Ἐμπεδοκλῆς φύσιν μὴδὲν εἶναι, μίξιν δὲ τῶν στοιχείων καὶ διάστασιν. A 4.3.12 Ἐμπεδοκλῆς μίγμα ἐξ αἰθερώδους καὶ ἀερώδους (καὶ ὕδατῶδους καὶ γεώδους) οὐσίας (sc. εἶναι τὴν ψυχὴν). A 4.9.15 ... τὰς δ' ἀλγηδόνας (sc. γίνεσθαι) τοῖς ἐναντίοις· ἡλλοτριῶσθαι γὰρ πρὸς ἄλληλα ὅσα διαφέρει κατὰ τε τὴν σύγκρισιν καὶ τὴν τῶν στοιχείων κράσιν. A 5.22.1 Ἐμπεδοκλῆς τὰς μὲν σάρκας γεννᾶσθαι ἐκ τῶν ἴσων τῇ κράσει τεττάρων στοιχείων· τὰ δὲ νεῦρα ἐκ πυρὸς καὶ γῆς ὕδατι διπλασίονι μιχθέντων κτλ.

§4 A 1.3.20 ἡ δὲ ὕλη τὸ ὑποκείμενον γενέσει καὶ φθορᾷ. A 1.9.1 ὕλη ἐστὶ τὸ ὑποκείμενον πάσῃ γενέσει καὶ φθορᾷ καὶ ταῖς ἄλλαις μεταβολαῖς. A 1.9.2 οἱ ἀπὸ Θάλεω καὶ Πυθαγόρου, λέγω δὲ τοὺς μέχρι τῶν Στωικῶν καταβεβηκότας σὺν Ἡρακλείτῳ, τρεπτὴν καὶ ἀλλοιωτὴν καὶ μεταβλητὴν καὶ ῥευστὴν ὅλην δι' ὅλης τὴν ὕλην. A 1.24.3 Πυθαγόρας καὶ πάντες, ὅσοι παθητὴν τὴν ὕλην ὑποτίθενται, κυρίως γένεσιν καὶ φθορὰν γίνεσθαι· ἐκ γὰρ ἀλλοιώσεως τῶν στοιχείων καὶ τροπῆς καὶ ἀναλύσεως γένεσ(ιν) καὶ φθορ(άν), παράθεσιν καὶ μίξιν, κράσιν τε καὶ σύγχυσιν γίνεσθαι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The witnesses to this chapter are P and S, presenting the same lemmata in the same order.

(1) ^{PB} and ^Q have four doxai. G includes all four, but shortens the final two. ^{Ps} makes use only of the title.

(2) S has a chapter with the same title as A (also 1.17) and writes out the four doxai found in P at the beginning of his chapter. This suggests that he copied out at least part of the chapter of A in full (for possible omissions see below section D(b)). The remaining texts in his chapter are drawn from AD.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The proximate tradition in AD and Philo is for the most part devoted to Stoic thought.

(2) *Sources.* The main concepts ultimately depend in various ways on the discussion of alteration according to Anaxagoras, Empedocles, the Atomists and Plato (read, of course, and excerpted by Aristotle), and of mixture, in Aristotle's *De generatione et corruptione*. Aristotle does not provide a detailed dialectical overview of other views, which is made good by Alexander of Aphrodisias *Mixt.* ch. 1 (see section E(b) General texts), who must have used doxographical sources along with Aristotle's treatise.

C Chapter Heading

Attested in both P and S, and of the standard umbrella type 'about x ', περί τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. In the present chapter comprising the question types/categories of substance and quality. The headings Περί μίξεως and Περί κράσεως are quite often paralleled, their combination far less often (Hipp. *Ref.* 5.21.12, see section E(b), chapter heading).

D Analysis

a Context

(1) The chapter is the last of the block consisting of chs. 1.12–17, dealing with body in its various aspects. It is appropriately preceded by ch. 1.16 dealing with smallest particles, as these are one of the pair of decisive factors in ch. 1.17. It is followed by the triad of chapters 1.18–20 dealing with the void, place, and space, so we have body first, then the environment where it may find itself.

(2) The overarching diaphonia is prefigured in Aristotle's chapter on mixture (GC 1.10); see section E(b) General texts.

b Number–Order of Lemmata

(1) Both main witnesses have four lemmata and these are the same, so the chapter may be complete in spite of the omission of the Stoic view(s). The lemmata order too is the same (and not interrupted by interpolated matter in S), and capable of a satisfactory explanation (see below, at section D(c)). Thus there is no reason to modify this order, which is also that of Diels.

(2) Even so, P may have omitted Aristotle's and the Stoic's views, and S, as so often, may have replaced them with abstracts from Arius Didymus. For the Plato doxa in final position, after that of his pupil Xenocrates, see below, section D(c)(4).

c Rationale–Structure of Chapter

(1) Parmenides' introduction of the concept of elements that cannot change into each other, which was accepted and revised by Anaxagoras, Empedocles and the Atomists, necessitated the introduction of the concept of mixture as a combination of parts of such elements, and so of the idea that they must be divisible into parts.

(2) In the present chapter mixture and blending are restricted to the basic blending and mixture of simple bodies, the conditions for which are formulated. The first two lemmata present a standard overarching diaphonia, namely between alteration (ἀλλοίωσις) and juxtaposition (παράθεσις) of elemental parts, which are preconditions for contrasting ways of mixture. We should assume that in §1 the elements are the standard four: water, air, fire and earth, and in §2 smallest particles: atoms and *homoiomere*.

(3) §3 presents a special case of juxtaposition, combining the notion of the standard four (as in §1) with that of smallest particles (as in §2) by positing that each of the four is a primary blend, or compound, of 'smaller masses' of water, of air, and so on. What is not said but follows is that more complicated mixtures of water and earth and so on are brought about by the juxtaposition of various such small 'elements prior to elements' (ch. 1.13.1, στοιχεῖα πρὶν στοιχεῖων), that is, of small, or smallest, masses of water to small masses of earth, and so on.

(4) §4, on the other hand, presents a special case of alteration which is an exception to the axiom formulated in §1, namely that of only three out of these four elements changing into each other while the fourth, earth, does not change into either of the others, and conversely. It is thus a compromise position, presenting mixture according to change (fire air water) as well as to juxtaposition (earth), and is appropriately placed last.

d Further Comments

Individual Points

§1 The unclear name-label οἱ ἀρχαῖοι in P is a unique occurrence in the texts of P^B, P^G and S. G records οἱ παλαιότεροι, which is also unique and equally vague. There can hardly be any doubt that preference should be given to Θαλῆς καὶ οἱ ἀπ' αὐτοῦ in S, which also occurs elsewhere in the *Placita*. See similar name-labels at chs. 2.12.1, 3.9.1, 3.10.1 (but at 2.1.2 and 2.28.5 these are the result of

abridgement of P, who thus emulates the practice of A that he had observed elsewhere in the compendium).

e Other Evidence

In Aristotle, mixture, treated in a sort of appendix at the end (ch. 10) of Book 1 of *De generatione et corruptione* and again at *GC* 2.7, is not a concept that is discussed prominently, but still an important one, since all compounds are mixtures. See Alexander of Aphrodisias *Mixt.* 228.7–10 on the brevity (συντομία) of Aristotle's treatment of the subject, which prevented his view from becoming widely known. The subject became more prominent in Hellenistic philosophy, the Stoic theory of continuous and infinitely divisible matter being the competitor of the Epicurean theory of discrete matter. Alexander's monograph *De mixtione* was intended to fill a gap in the Peripatetic panoply. Surprisingly, in our present chapter the complex Stoic theory is absent (Alexander criticizes it at appropriate length; it is criticized briefly at Sextus Empiricus *P.* 3.56–62, and again by Plotinus *Enn.* 2.7[37], who is believed to have used Alexander's account). For the terms relating to the four states of mixture according to the Stoics, namely παράθεις, μίξις, κράσις and σύγχυσις, see below A 1.24.3, where they are attributed to 'Pythagoras and all those who assume that matter is passive'. The difference between Plato and Aristotle is not mentioned explicitly, but perhaps Aristotle is included among the followers of Thales in §1, and Plato excluded. In S's ch. 1.17 with the same heading as our chapter the Aristotelian and Stoic views are represented by abstracts from AD, the former briefly (fr. 4 Diels), the latter at some length (fr. 28 plus fr. 38 Diels), so S (provided A's chapter has been transmitted complete, see above at section D(b)) must have noticed what was missing. Blending is discussed by Sextus Empiricus *P.* 3. 56–62 (omitted in *P^G* chs. 1–25, not in *M.*).

E Further Related Texts

a Proximate Tradition

General texts: Arius Didymus fr. 28 Diels at Stob. *Ecl.* 1.17.4, p. 154.8–155.14 διαφέρειν γὰρ ἀρέσκει τοῖς ἀπὸ τῆς Στωικῆς αἰρέσεως (*SVF* 2.471) παράθεις μίξιν κράσιν σύγχυσιν κτλ. **Philo of Alexandria** *Conf.* 183–188. **Anonymus Londinensis** *Iatr.* col. xiv.15–26 Manetti διαφέρειν δὲ ταῦτα· | σύνθ[αρσιν, μ]ίξιν, κράσιν. καὶ σύμ[φθαρσιν [μὲν] καὶ σύγχυσιν, ὅταν σώματα | διὰ ἑαυτῶν ὄλων ἢ[κ]οντα μίαν ὑπεράνω | ἀποτελέσῃ ποιότητα, ὡς ἐπὶ τῆς τετρα[φαρμάκου. μίξις δὲ | ἐστιν, ὅταν σώματά | τινὰ ἑαυτοῖς κατὰ παράθεις παρακένται | καὶ μὴ δι' ἑαυτῶν ἥκη ὡς σωρὸς πυροῦ, | κριθῆς. δ[ιὰκρ]ασίς δὲ ἐστιν, ὅταν σώματά | τινὰ ἐπὶ [τ[αὐ]τ[ὸ] σ]υνελθόντα ἀλλήλοις | παρακ[έ]νται, ὡς ἐπὶ τοῦ οἶνομέλιτος | βλέπομ[εν]. **Alexander of Aphrodisias** *Mixt.* 213.15–214.10 οὐ γὰρ μόνον διηνήχθησαν πρὸς ἀλλήλους περὶ τοῦδε τοῦ δόγματος (sc. τῶν περὶ μίξεώς τε καὶ κράσεως λόγων) οἱ μίαν

ὑλην ὑποκεῖσθαι πᾶσι τοῖς ἐν γενέσει σώμασιν λέγοντες πρὸς τοὺς ἐκ διωρισμένων τε καὶ κεχωρισμένων σωμάτων ποιούντας αὐτήν, ὧν οἱ μὲν ἄτομα σώματα ἄπειρα τῷ πλήθει, κατὰ σχῆμα καὶ μέγεθος μόνον τὴν πρὸς ἄλληλα διαφορὰν ἔχοντα, τὰς ἀρχὰς καὶ τὰ στοιχεῖα φασιν εἶναι, καὶ τῇ τούτων συνθέσει τε καὶ ποιᾷ περιπλοκῇ ἔτι τε τάξει καὶ θέσει τὰλλα γίνεσθαι· ἐφ' ἧς δόξης πρῶτοι μὲν Λεύκιππος τε καὶ Δημόκριτος (fr. 225 Luria) γενέσθαι δοκοῦσιν, ὕστεροι δὲ Ἐπίκουρός (—) τε καὶ οἱ τὴν αὐτὴν τούτῳ τραπέντες· οἱ δὲ αὐτῶν, οὐκ ἀτόμους, ὁμοιομερῇ δὲ τινὰ φασιν ἄπειρα εἶναι σώματα, ἐξ ὧν ἡ τῶν αἰσθητῶν γενέσεις σωμάτων γινομένη κατὰ σύγκρισιν καὶ σύνθεσιν, ἧς δόξης Ἀναξαγόρας (—) τε καὶ Ἀρχέλαος (—) δοκοῦσι γεγενῆσθαι· ἤδη δὲ τινες (sc. Diodorus Cronus)(—) καὶ ἀμερῇ τινὰ σώματα τὰς ἀρχὰς καὶ στοιχεῖα τῶν πάντων προήχθησαν εἰπεῖν· ἔστι δὲ τις δόξα (*Tim.* 53c–56c) καὶ ἐξ ἐπιπέδων τὴν γένεσιν ποιούσα τῶν σωμάτων καὶ ἐξ ἀριθμῶν τις ἄλλη (—), οὐ δὴ πρὸς ἀλλήλους μόνον, ὥς ἔφην, οὗτοι διηνέχθησαν κατὰ τὴν πρὸς τὰς ἀρχὰς διαφόρους οὐσας ἀκολουθίαν καὶ τὰς κράσεις διαφόρως γίνεσθαι λέγοντες, ἀλλὰ καὶ αὐτῶν τῶν ἡνωμένην τὴν ὑλην λεγόντων καὶ πάλιν αὐτῶν διωρισμένην τε καὶ κεχωρισμένην ἔστι τις πρὸς ἀλλήλους διαφωνία.

§1 Thales and followers: Arius Didymus fr. 38 Diels at Stob. *Ecl.* 1.17.3, pp. 152.19–153.6 Ζήνωνας (*SVF* 1.102) δὲ οὕτως ἀποφαίνεσθαι διαβρῆθην· ‘... τὴν δὲ μίξιν (καὶ) (conj. Diels Wachsmuth, del. Von Arnim) κράσιν γίνεσθαι τῇ εἰς ἄλληλα τῶν στοιχείων μεταβολῇ, σώματος ὅλου δι' ὅλου τινὸς ἐτέρου διερχομένου’.

b Sources and Other Parallel Texts

General texts: Aristotle *Top.* 4.2 122b30–31 οὕτε γὰρ ἡ μίξις ἅπανα κράσις (ἡ γὰρ τῶν ξηρῶν μίξις οὐκ ἐστὶ κράσις). *GC* 1.10 328a7–9 δῆλον ὡς οὔτε κατὰ μικρὰ σωζόμενα δεῖ τὰ μινύμενα φάναι μεμίχθαι· σύνθεσις γὰρ ἔσται καὶ οὐ κράσις οὐδὲ μίξις. *Sens.* 3 440a31–b4 εἰ δ' ἔστι μίξις τῶν σωμάτων μὴ μόνον τὸν τρόπον τοῦτον ὅνπερ οἶονταί τινες, παρ' ἄλληλα τῶν ἐλαχίστων τιθεμένων, ἀδῆλων δ' ἡμῖν διὰ τὴν αἴσθησιν, ἀλλ' ὅλως πάντη πάντως, ὥσπερ ἐν τοῖς περὶ μίξεως εἴρηται καθόλου περὶ πάντων. *Galen Temp.* 2.2, 1.587.10–13 K. ἀρχὴ μὲν ἀπάσης ἐστὶ τῆς περὶ τῶν κράσεων πραγματείας ἡ περὶ τῶν στοιχείων ἐπίσκεψις, εἴτ' ἀπαθὴ καὶ ἀμετάβλητα τελέως ἐστὶν εἴτ' ἁλλοιοῦσθαι τε καὶ μεταβάλλεσθαι δυνάμενα. *HNH* 15.60.8–11 K. διττῆς δ' οὕσης τῷ γένει τῆς ἐν ταῖς λογικαῖς αἰρέσεσι στοιχειώσεως, ἡ μὲν ἑτέρα κατὰ παράθεσιν τε καὶ περιπλοκὴν τῶν πρώτων σωμάτων τὰς γενέσεις τῶν συνθέτων γενέσθαι φησίν, ἡ δὲ ἑτέρα κατὰ κράσιν. *HNH* 15.32.8–16 K. ἔνιοι μὲν γὰρ τὰς τέτταρας ποιότητας μόνας κεράνυσθαι δι' ὅλων ἀλλήλαις λέγουσιν, ἔνιοι δὲ τὰς οὐσίας ἀπεφώνησαντο, Περιπατητικοὶ μὲν τῆς προτέρας δόξης προστάντες, Στωϊκοὶ (*SVF* 2.463) δὲ τῆς δευτέρας· ἔτι τε τούτων ἔμπροσθεν Ἐμπεδοκλῆς (31A34 DK) ἐξ ἀμεταβλήτων τῶν τεσσάρων στοιχείων ἡγεῖτο γίνεσθαι τὴν τῶν συνθέτων σωμάτων φύσιν, οὕτως ἀναμεμιγμένων ἀλλήλοις τῶ πρώτων, ὥσπερ τις λειώσας ἀκριβῶς καὶ χνοῶδῃ ποιήσας ἰὸν καὶ χαλκίτην καὶ καδμείαν καὶ μίσυ μίξειεν, ὥς μηδὲν ἐξ αὐτῶν δύνασθαι μεταχειρίσασθαι χωρὶς ἐτέρου. *Sextus Empiricus P.* 3.56 πολλὰ μὲν γὰρ λέγεται περὶ κράσεως, καὶ σχεδὸν ἀνήνυτοι περὶ τοῦ προκειμένου σκέμματός εἰσι παρὰ τοῖς δογματικοῖς στάσεις. *P.* 3.62 διόπερ εἰ μήτε κατὰ θίξιν παρατιθέμενα ἀλλήλοις τὰ καλούμενα στοιχεῖα μήτε ἀνακρινόμενα ἢ μινύμενα ποιητικὰ τῶν συγ-

κριμάτων εἶναι δύναται, ἀνεπινόητός ἐστιν ἡ κατὰ τοὺς δογματικούς φυσιολογία. **Plotinus** *Enn.* 2.7[37]1.1–9 περὶ τῆς δι’ ὅλων λεγομένης τῶν σωμάτων κράσεως ἐπισκεπτέον. οἱ μὲν γὰρ τῇ παραθέσει διδόντες ὡς μιγνύντες μᾶλλον ἢ κιρνάντες ἐατέοι, εἴπερ δεῖ τὴν κράσιν ὁμοιομερὲς τὸ πᾶν ποιεῖν, καὶ ἕκαστον μέρος τὸ σμικρότατον ἐκ τῶν κεκρασθαι λεγομένων εἶναι. οἱ μὲν οὖν τὰς ποιότητας μόνας κιρνάντες κτλ.

Chapter heading: **Aristotle** *Sens.* 3 440b3–4 ὥσπερ ἐν τοῖς περὶ μίξεως (*GC* 1.10) εἴρηται. **ps.Aristotle** *Probl.* 14 “Ὅσα περὶ κράσεις. **Galen** *SMT* 11.385.2–3 *K.* ὡς καὶ τοῖς *Περὶ κράσεως* ἐλέγετο. **ps.Galen** *Rem.* 14.485.6–7 *K.* ὡς ἔν τε τῷ πρὸ τούτου λόγῳ (sc. *Book of Rem.*) καὶ τῷ τρίτῳ *Περὶ κράσεως* διήρηται. *Ord.Propr.Libr.* 2.10, 19.56.4 *K.* τὰ *Περὶ κράσεων* ὑπομνήματα τρία. **Sextus Empiricus** *P.* 3 pinax η’ *Περὶ κράσεως*. *P.* 3.56 tit. η’. *Περὶ κράσεως*. **Hippolytus** *Ref.* 5.21.1–2 πείθουσι δὲ (διὰ τοῦ) ἐντυγχάνειν τῷ *Περὶ κράσεως* καὶ μίξεως λόγῳ τοὺς μαθητευομένους, ὅς (μέντοι) μεμελέτῃται πολλοῖς (τε) (2) ἄλλοις καὶ Ἀνδρονίκῳ τῷ *Περιπατητικῷ*. λέγουσιν οὖν οἱ Σηθιανοὶ τὸν περὶ κράσεως καὶ μίξεως λόγον συνεστάναι τῷδε τῷ τρόπῳ κτλ. **Diogenes Laertius** *V.P.* 5.59 (*Strato* fr. 18 Wehrli, 1 and 17 Sharples) no. 16. *Περὶ μίξεως*. **Alexander of Aphrodisias** *Mixt.* 213.15 τῶν περὶ μίξεως τε καὶ κράσεως λόγων, but his book title is *Περὶ κράσεως* καὶ αὐξήσεως. **Porphyrus** *Plot.* 5 & 24, **Plotinus** *Enn.* 2.7[37] *Περὶ τῆς δι’ ὅλων κράσεως*. **Themistius** *in Phys.* 104.20–21 ὁ τε Ἀφροδισιεὺς Ἀλέξανδρος ἐν τῷ *Περὶ κράσεως* συγγράμματι. **Nemesius** *NH* c. 2, p. 24.15 ὡς αὐτὸς (sc. *Galen*) ἐν τῷ *Περὶ κράσεως* ἔδειξεν.

§1 Thales and followers: **Eusebius** *PE* 3.13.7–8 οὕτω δῆτα καὶ ἐπὶ τοῦ σύμπαντος κόσμου, ἐνὸς μὲν ὄντος καὶ ἐκ μιάς τῆς σωματικῆς ὕλης συνεστῶτος, εἰς μέρη δὲ πλείστα διηρημένου καὶ μίαν τῶν ὅλων φυσικὴν συμπάθειαν ὑποφαίνοντος κράσιν τε καὶ μίξιν τῶν ἐν αὐτῷ στοιχείων ἀλλοιώσεις τε καὶ μεταβολὰς αὐτῶν εἰς ἑαυτά, ὅλον δὲ καὶ τὸ πᾶν ἓνα κόσμον καὶ μίαν ἀρμονίαν ἐπιδεικνυμένου, οὐ πολλὰς χρῆν ὑποτίθεσθαι δημιουργοὺς δυνάμεις, μόνην δὲ θεολογεῖν τὴν ὡς ἀληθῶς ‘θεοῦ δυνάμιν καὶ θεοῦ σοφίαν’ (1 Cor 1:24).

§2 Anaxagoras Democritus and followers: **Seneca** *Ep.* 102.6 (on Stoics, *SVF* 3.160) *quaedam* (sc. *corpora*) *esse composita, ut navem, domum, omnia denique, quorum diversae partes iunctura in unum coactae sunt.* *Nat.* 2.2.3 *quaedam sint composita (illa constant aut nexu aut acervatione (aut compositione), ut puta funis frumentum navis).* **Alexander of Aphrodisias** *Mixt.* 214.18–25 Δημόκριτος (68A64 DK) μὲν οὖν ἡγούμενος τὴν λεγομένην κράσιν γίνεσθαι κατὰ παράθεσιν σωμάτων, διαιρουμένων τῶν κιρναμένων εἰς μικρὰ καὶ τῇ παρ’ ἄλληλα θέσει τὴν μίξιν ποιομένων, οὐδὲ τὴν ἀρχὴν φησιν εἶναι πρὸς ἀλήθειάν τινα κεκραμένα, ἀλλ’ εἶναι τὴν δοκοῦσαν κράσιν παράθεσιν σωμάτων ἀλλήλοις κατὰ μικρὰ σιωζόντων αὐτῶν ἑκάστου τὴν οἰκείαν φύσιν, ἣν εἶχον καὶ πρὸ τῆς μίξεως· δοκεῖν δ’ αὐτὰ κεκρασθαι τῷ τὴν αἴσθησιν διὰ μικρότητα τῶν παρακειμένων μηδενὸς αὐτῶν αἰσθάνεσθαι δύνασθαι μόνου. *Mixt.* 216.14–22 ἔστι δὲ ἡ Χρυσίππου (*SVF* 2.310) δόξα περὶ κράσεως ἥδε· ἡνῶσθαι μὲν ὑποτίθεται τὴν σύμπασαν οὐσίαν, πνεύματός τινος διὰ πάσης αὐτῆς διήκοντος, ὅφ’ οὗ συνέχεται τε καὶ συμμένει καὶ σύμπαθός ἐστιν αὐτῷ τὸ πᾶν, τῶν δὲ μιγνυμένων ἐν αὐτῇ σωμάτων τὰς μὲν παραθέσει

μίξεις γίνεσθαι λέγει, δύο τινῶν ἢ καὶ πλείονων οὐσιῶν εἰς ταὐτὸν συντεθειμένων καὶ παρατιθεμένων ἀλλήλαις, ὥς φησιν, καθ' ἀρμῆν, σωζούσης ἐκάστης αὐτῶν ἐν τῇ τοιαύτῃ παραθέσει κατὰ τὴν περιγραφὴν τὴν οἰκείαν οὐσίαν τε καὶ ποιότητα, ὥς ἐπὶ κυάμων φέρε εἰπεῖν καὶ πυρῶν ἐν τῇ παρ' ἀλλήλους θέσει γίνεται. **ps.Alexander Probl.** 1.106.4–5 *Ideler* λέγω ὅτι τὸ εἶναι τὰ ἐν αὐτοῖς ἄτομα καὶ σμικρότατα σώματα κατὰ παράθεσιν καὶ μὴ κατὰ κράσιν.

§3 Empedocles Xenocrates: Parmenides 22B16.1 DK 'ὥς γὰρ ἑκάστος' ἔχει κράσις μελέων πολυπλάγκτων ...'. **Empedocles** 31B21.13–14 DK 'αὐτὰ γὰρ ἔστιν ταῦτα, δι' ἀλλήλων δὲ θέοντα / γίνονται ἀλλοιωπά· τόσον διὰ κρήσις ἀμείβει'. **Aristotle de An.** 1.5 410a1–6 οὐ γὰρ ὅπως οὖν ἔχοντα τὰ στοιχεῖα τούτων ἕκαστον, ἀλλὰ λόγῳ τινὶ καὶ συνθέσει, καθάπερ φησὶ καὶ Ἐμπεδοκλῆς (31B96.1–3 DK) τὸ ὅσπου· 'ἢ δὲ χθὼν ἐπίηρος ἐν εὐστέροισι χόανοισι / τῷ δύο τῶν ὀκτῶ μερέων λάχε Νήσιδος αἰγλῆς, / τέσσαρα δ' Ἡφαίστιο· τὰ δ' ὅστέα λευκὰ γέγοντο'. **GC** 2.6 333a35–b3 ἀλλὰ μὴν οὐδ' αὐξήσις ἂν εἴη κατ' Ἐμπεδοκλέα (31B37 DK), ἀλλ' ἢ κατὰ πρόσθεσιν· πυρὶ γὰρ αὖξει τὸ πῦρ· 'αὖξει δὲ χθὼν μὲν σφέτερον δέμας (or: γέ Rashed), αἰθέρα δ' αἰθήρ'. ταῦτα δὲ προστίθεται· δοκεῖ δ' οὐχ οὕτως αὖξεσθαι τὰ αὐξανόμενα. **GC** 2.7 334a27–30 Ἐμπεδοκλῆς (31A43 DK) ... ἀνάγκη γὰρ σύνθεσιν εἶναι ...· καὶ τὸ μίγμα δὲ τοῦτο ἐκ σωζομένων μὲν ἔσται τῶν στοιχείων, κατὰ μικρὰ δὲ παρ' ἀλλήλα συγκειμένων. **Met.** A.4 985a23–27 (on Empedocles, 31A37 DK) πολλαχοῦ γοῦν αὐτῷ ἢ μὲν Φιλία διακρίνει τὸ δὲ Νείκος συγκρίνει. ὅταν μὲν γὰρ εἰς τὰ στοιχεῖα δίσσεται τὸ πᾶν ὑπὸ τοῦ Νείκου, τότε τὸ πῦρ εἰς ἓν συγκρίνεται καὶ τῶν ἄλλων στοιχείων ἕκαστον. **Galen HNH** 15.49.13–50.3 K. (Empedocles 31A34 DK) κἀκεῖνος γὰρ ἐκ μὲν τῶν αὐτῶν στοιχείων, ὧν καὶ Ἱπποκράτης, γεγενῆσθαι φησὶν ἡμᾶς τε καὶ τὰ ἄλλα σώματα πάντα τὰ περὶ τὴν γῆν, οὐ μὴν κεκραμένων γε δι' ἀλλήλων, ἀλλὰ κατὰ σμικρὰ μόρια παρακειμένων τε καὶ ψαυόντων. **Propr.Plac.** 7, p. 179.23–24 Boudon-Millot–Pietrobelli, text Lami καὶ πότερον κατατεθραυσμένον, ὥς Ἐμπεδοκλῆς ὑποτίθεται τὴν ἐκ τῶν στοιχείων ὑπάρχειν ἡμῖν γένεσιν. **Propr.Plac.** 15, p. 188.23–24 οὐχ ὥς ὁ Ἐμπεδοκλῆς ἡγεῖτο κατὰ σμικρὰ μόρια κατατεθραυσμένων (cf. fragment of this work at 4.726.11–12 K. ... καταθραυσμένων).

§4 Plato: Plato Tim. 54b–c τὸ δὴ πρόσθεν ἀσαφῶς ῥηθέν νῦν μάλλον διορίστέον. τὰ γὰρ τέτταρα γένη δι' ἀλλήλων εἰς ἀλλήλα ἐφάνητο πάντα γένεσιν ἔχειν, οὐκ ὁρθῶς φανταζόμενα· γίνονται μὲν γὰρ ἐκ (c) τῶν τριγώνων ὧν προηγήμεθα γένη τέτταρα, τρία μὲν ἐξ ἐνός τοῦ τὰς πλευρὰς ἀνίσους ἔχοντος, τὸ δὲ τέταρτον ἐν μόνον ἐκ τοῦ ἰσοσκελοῦς τριγώνου συναρμοσθέν. οὐκ οὖν δυνατόν πάντα εἰς ἀλλήλα διαλυόμενα ἐκ πολλῶν σμικρῶν ὀλίγα μεγάλα καὶ τούναντίον γίνεσθαι, τὰ δὲ τρία οἷον τε· ἐκ γὰρ ἐνός ἅπαντα πεφυκότα λυθέντων τε τῶν μειζόνων πολλὰ σμικρὰ ἐκ τῶν αὐτῶν συστήσεται, δεχόμενα τὰ προσήκοντα ἑαυτοῖς σχήματα, καὶ σμικρὰ ὅταν αὐτὰ πολλὰ κατὰ τὰ τρίγωνα διασπαρῇ, γενόμενος εἰς ἀριθμὸς ἐνός ὄγκου μέγα ἀποτελέσειεν ἂν ἄλλο εἶδος ἓν. ταῦτα μὲν οὖν λελέχθω περὶ τῆς εἰς ἀλλήλα γενέσεως. **Timaeus Locrus** 34, p. 216.10–12 Thesleff βαρύτατόν τε καὶ δυσκίνητον ἂν γὰρ, ἀμετάβλητόν τε σῶμα εἰς ἄλλα διὰ τὸ ἀκοινῶνατον εἶμεν τῷ ἄλλῳ γένεος τῷ τριγώνῳ. μόνον γὰρ ἂν γὰρ ἴδιον στοιχεῖον ἔχει τὸ ἀμιτετράγωνον. **Damascius in Phaed.** vers. 1, 179.9 ὁ Τίμαιος (*Tim.* 55e) μόνον ποιεῖ τὴν γῆν ἀμετάβλητον. **Simplicius in Cael.** 643.17 γῆ δὲ πᾶσα ἀμετάβλητός ἐστιν, ὅταν ἢ γῆ μόνον. **Philoponus in GC** 243.24–25 ὥσπερ Πλάτων ἔλεγε τὴν γῆν ἀμετάβλητον ὑποτιθέμενος.

Liber 1 Caput 18

P^B: ps.Plutarchus *Plac.* 883E–F; pp. 315^a19–316^a14 Diels—**P^G**: ps.Galenus *HPH* c. 30; p. 616.15–21 Diels; pp. 94–99 Jas—**P^Q**: Qustā ibn Lūqā pp. 128–129 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 153, p. 79 Westerink
S: Stobaeus *Ecl.* 1.18.1ab, pp. 155.16–156.5 + 1.18.1d, p. 156.27–28 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b3–4 Henry (titulus solus)
T: Theodoretus *CAG* 4.14, pp. 103.14–104.7 Raeder
 Cf. Ach: Achilles c. 8, pp. 17.20–18.7 Di Maria

Titulus ιη'. Περί κενού (P,S)

- §1 οἱ ἀπὸ Θάλεω φυσικοὶ πάντες μέχρι Πλάτωνος τὸ κενὸν ὡς ὄντως κενὸν ἀπέγνωσαν. (P1,S1)
- §2 Ἐμπεδοκλῆς· οὐδὲ τι τοῦ παντὸς κενεὸν πέλει οὐδὲ περιττόν'. (P2, S2,T2) 5
- §3 Λεύκιππος Δημόκριτος Δημήτριος Μητρόδωρος Ἐπίκουρος τὰ μὲν ἄτομα ἄπειρα τῷ πλήθει, τὸ δὲ κενὸν ἄπειρον τῷ μεγέθει. (P3,S3,T1)
- §4 Στράτων ἐξωτέρω τοῦ κόσμου μὴ εἶναι κενόν, ἐνδοτέρω δὲ δυνατόν γενέσθαι. (S4,T4)
- §5 Ζήνων καὶ οἱ ἀπ' αὐτοῦ ἐντὸς μὲν τοῦ κόσμου μηδὲν εἶναι κενόν, ἔξω δ' αὐτοῦ ἄπειρον. (P4,S6,T3) 10

§1 Thales frs. 153, 350, 488 Wöhrlé; physici—; §2 Empedocles 31B13 DK; §3 Leucippus 67A15 DK; Democritus fr. 187 Luria; Demetrius Laco pp. 19–20 De Falco, test. 3 Gigante; Metrodorus—; Epicurus fr. 295 Usener; §4 Strato fr. 55 Wehrli, 26B Sharples; §5 Zeno Stoici—

titulus Περί κενού **P^{BQPs}**: Περί κενού καὶ τόπου (~ tit. c. 1.19) καὶ χώρας (~ tit. c. 1.20) **S^{LPhot}**, καὶ χώρας om. **S^{FP}** §1 [2] οἱ ... Πλάτωνος **PS**: al. post §2 **T** οἱ δὲ ἄλλοι ἅπαντες τοῦτον γε ἄντικρυς κωμωδοῦσι τὸν λόγον || Θάλεω **P^{BQS}**: Πυθαγόρου **P^G** || ante φυσικοὶ add. **P^G** καὶ οἱ || [2–3] ὡς ... κενὸν **S**, cf. *fest* **Q**: om. **P^{BG}** || [3] ἀπέγνωσαν **P^{BS}**: ἐν τῷ κόσμῳ κενὸν εἶναι λέγουσιν **P^G**, cf. *waren von (der Existenz) des leeren Raumes überzeugt* **Q** (fort. legit ἐπέγνωσαν) §2 [4] οὐδὲ **S**: οὐδὲν **P^{BQ}**, corr. edd. || κενεὸν **T**: κενὸν **P^{BS}** corr. ed. §3 [6] Λεύκιππος ... Ἐπίκουρος **P^{BQ}**: Δημοκρίτου καὶ ἐτέρων (ἕτεροι corr. Diels *DG*) Λεύκιππος **S^P**, (Δημόκριτος Λεύκιππος **S^F**: Δημήτριος Μητρόδωρος om. **P^G**: Δημήτριος non hab. **S**, ut dittographiam (Δημ–οκρ.) del. Crönert §4 om. **P** || [8] post ἐξωτέρω verba μὲν ἔφη add. **S** §5 [10] Ζήνων ... αὐτοῦ **S**: οἱ Στωικοὶ **P^{BG}**, οἱ δὲ Στωικοὶ **T** || μηδὲν **P^{GST}**: οὐδὲν **P^B** || ἔξω **S**: ἔξωθεν **P^{BG}**: ἐκτὸς **T**, qui post αὐτοῦ add. πάμπολύ τε καὶ

§6 Ἀριστοτέλης τοσοῦτον εἶναι τὸ κενὸν ἐκτὸς τοῦ κόσμου, ὥστ' ἀναπνεῖν εἰς αὐτὸ τὸν οὐρανόν· ἔνδοθεν γὰρ εἶναι τόπον πύρινον. (P5, cf. S5)

§6 Aristoteles fr. 201 R³, cf. comm. A(b) infra ad §6.

§6 om. T || [12–13] pro lemmate Aetiano subst. S verisimiliter ex AD Ἀριστοτέλης ἐν τετάρτῳ Φυσικῆς (4.6 213b22–27) γράφει· 'εἶναι δέ φασιν οἱ Πυθαγόρειοι κενὸν καὶ ἐπεισιέναι αὐτὸ τῷ οὐρανῷ ἐκ τοῦ ἀπείρου πνεύματος ὡς ἀναπνέοντι.' ἐν δὲ τῷ Περὶ τῆς Πυθαγόρου φιλοσοφίας (fr. 201 R³, de Pyth. fr. 11 Ross) γράφει τὸν μὲν οὐρανὸν εἶναι ἓνα, ἐπεισάγεσθαι δὲ ἐκ τοῦ ἀπείρου χρόνον τε καὶ πνοὴν καὶ τὸ κενόν, ὃ διορίζει ἐκάστων τὰς χώρας αἰεῖ. καὶ ἐν ἄλλοις λέγει, τόπον εἶναι τὸ τοῦ περιέχοντος πέρας ἀκίνητον κτλ. || [12] post Ἀριστοτέλης add. P^G δὲ || τὸ] om. P^G || ἐκτὸς] ἔξω P^G || [13] εἰς αὐτὸ P^G : om. P^{BQ} || ἔνδοθεν ... πύρινον P^G : εἶναι γὰρ αὐτὸν πύρινον P^{BQ}

Testes primi:

Theodoretus CAG 4.14

- 14.1 (~ §3) τὸ δὲ κενὸν οἱ περὶ Δημόκριτον τῶν ἀτόμων ὠνομάκασιν τόπον.
 14.2 (~ §1) οἱ δὲ ἄλλοι ἅπαντες τοῦτόν γε ἀντικρυς καμῶδοῦσι τὸν λόγον.
 14.3 (~ §2) αὐτίκα τοῖνυν Ἐμπεδοκλῆς οὕτω φησίν· οὐδὲ τι τοῦ παντὸς κενεὸν πέλει οὐδὲ περιττόν.
 14.4 (~ §5) οἱ δὲ Στωϊκοὶ ἐντὸς μὲν τοῦ παντὸς μηδὲν εἶναι κενόν, ἐκτὸς δὲ αὐτοῦ πάμπολύ τε καὶ ἄπειρον.
 14.5 (~ §4) ὁ δὲ Στράτων ἔμπαλιν ἔξωθεν μὲν μηδὲν εἶναι κενόν, ἔνδοθεν δὲ δυνατόν εἶναι.

Traditio ps.Plutarchi:

ps.Galenus HPh c. 30 (~ tit.) Περὶ κενοῦ (text Jas)

- 30.1 (~ P1–2) οἱ ἀπὸ Πυθαγόρου οἱ φυσικοὶ πάντες μέχρι Πλάτωνος ἐν τῷ κόσμῳ κενὸν εἶναι λέγουσιν.
 30.2 (~ P3) Λεύκιππος δὲ καὶ Δημόκριτος καὶ Ἐπίκουρος τὰ μὲν ἄτομα ἄπειρα τῷ πλήθει, τὸ δὲ κενὸν ἄπειρον τῷ μεγέθει.
 30.3 (~ P4) οἱ Στωϊκοὶ δὲ ἐντὸς μὲν τοῦ κόσμου κενὸν οὐδὲν εἶναι νομίζουσιν, ἔξωθεν δ' αὐτοῦ ἄπειρον.
 30.4 (~ P5) Ἀριστοτέλης δὲ τοσοῦτον εἶναι κενὸν ἔξω τοῦ οὐρανοῦ, ὥστ' ἀναπνεῖν τὸν οὐρανόν. ἔνδοθεν γὰρ εἶναι τόπον πύρινον.

Psellus Omn.Doctr. c. 153 (~ tit.) Περὶ κενοῦ

- τὸ κενὸν οὐ πάντες, ἀλλ' ἔνιοι τῶν φιλοσόφων εἰσὴνγεγκάν τε τῷ λόγῳ καὶ ὠνομάκασιν (~ quaestio).
 (~ P5) ἀποφαίνονται δὲ τοῦτο πάντῃ σώματος ἔρημον οἶον τι χάος ἀόρατον, καὶ φασὶ τοῦτο προϋποκεῖσθαι τοῦ κόσμου· εἴτα τῶν στοιχείων γεγονότων καὶ τοῦ οὐρανοῦ τῇ κυκλοφορίᾳ τὰ σώματα πάντα συσφίγγαντος κενὸν μὲν ἐντὸς μηδὲν ἀπολελεῖσθαι, τὸ δ' ἐκτὸς τῆς ἔξω περιφερείας αὐτοῦ ὅλον κενὸν εἶναι, ἄπειρον ἐν ἀπείρῳ τόπῳ ἐμφανταζόμενον.
 (~ P6) τοῦτον δὲ τὸν λόγον Ἀριστοτέλης μὲν ἀπογινώσκει παντάπασι, καὶ οὐδαμοῦ τίθεται οὔτε ἐντὸς τοῦ κόσμου οὔτε ἐκτὸς·

Testes secundi:

Achilles Univ. c. 8, p. 17.20–18.7 Εἰ ἔστι τι ἐκτός

(~ quaestio) οἱ μὲν εἶναι τι ἐκτός φασιν, ὥσπερ καὶ Ἐπίκουρος (fr. 301 Usener), ὃς καὶ ἀπείρους κόσμους ὑποτίθεται ἐν ἀπείρῳ τῷ κενῷ. οἱ δὲ Στωϊκοί (SVF 2.610) ἐκπύρῳσιν λέγοντες κόσμους κατὰ τινὰς ὠρισμένους χρόνους εἶναι κενὸν μὲν, οὐ μὴν ἀπείρον φασιν, ἀλλὰ τοσοῦτον ὅσον χωρῆσαι λυθὲν τὸ πᾶν. οἱ δὲ μὴδὲν εἶναι λέγοντες χρώνται λόγῳ τοιοῦτῳ· τοῦ οὐρανοῦ σφαιρικῶς κινουμένου εἰ ἔστι τι ἐκτός κενόν, συμβήσεται τὴν σφαῖραν παρεγκλίσεις τινὰς ὑπομένειν ἐξολισθαίνουσαν τῇδὲ κάκεισε· τοῦτο δὲ οὐ γίνεται· οὐκ ἄρα ἔστι κενόν· αἰεὶ γὰρ κατὰ τὰ αὐτὰ καὶ ἀπὸ τῶν αὐτῶν ὁρώμεν τὰς ἀνατολάς καὶ τὰς δύσεις.

Loci Aetiani:

quaestio A 1.proœm. §3[17–19] ζητεῖται ὁμοίως εἰ ἄπειρος ὁ κόσμος ἐστὶ καὶ εἰ ἔξω τι τοῦ κόσμου ἔστι· ταῦτα γὰρ πάντα θεωρητικά.

titulus A 2.9 Περὶ τοῦ ἐκτός τοῦ κόσμου, εἰ ἔστι κενόν.

§1 A 2.9.4 Πλάτων Ἀριστοτέλης μὴτ' ἐκτός τοῦ κόσμου μὴτ' ἐντός μὴδὲν εἶναι κενόν.

§3 A 1.3.15 Λεύκιππος Μιλήσιος ἀρχὰς καὶ στοιχεῖα τὸ πλήρες καὶ τὸ κενόν. A 1.3.16 Δημόκριτος τὰ ναστὰ καὶ κενόν. A 1.3.17 Μητρόδωρος Θεοκρίτου Χίος τὰ ἀδι-αίρετα καὶ τὸ κενόν. A 1.3.18 Ἐπίκουρος Νεοκλέους Ἀθηναῖος κατὰ Δημόκριτον φιλοσοφῆσας ... ἀρχὰς εἶναι τῶν ὄντων σώματα λόγῳ θεωρητὰ, ἀμέτοχα κενοῦ ... ταῦτα μέντοι κινεῖσθαι ἐν τῷ κενῷ καὶ διὰ τοῦ κενοῦ, εἶναι δὲ καὶ αὐτὸ τὸ κενὸν ἄπειρον καὶ τὰ σώματα ἄπειρα. A 1.3.19 Ἐκφαντος Συρακούσιος, εἰς τῶν Πυθαγορείων, πάντων τὰ ἀδιαίρετα σώματα καὶ τὸ κενόν. A 1.7.34 Ἐπίκουρος ... ἄλλας τέσσαρας φύσεις κατὰ γένος ἀφάρτους τάσδε· τὰ ἄτομα, τὸ κενόν, τὸ ἄπειρον κτλ. A 1.9.3 οἱ ἀπὸ Δημοκρίτου ἀπαθῆ τὰ πρῶτα, τὴν ἄτομον καὶ τὸ κενόν. A 2.1.4 Ἀναξίμανδρος, Ἀναξίμενης, Ἀρχέλαος, Ξενοφάνης, Διογένης, Λεύκιππος, Δημόκριτος, Ἐπίκουρος καὶ ὁ τοῦτου καθηγητὴς Μητρόδωρος ἀπείρους κόσμους ἐν τῷ ἀπείρῳ κατὰ πάσαν περίστασιν. A 2.1.5 Σέλευκος ὁ Ἐρυθραῖος καὶ Ἡρακλείδης ὁ Ποντικός ἄπειρον τὸν κόσμον. A 2.1.6 Διογένης καὶ Μέλισσος τὸ μὲν πᾶν ἄπειρον, τὸν δὲ κόσμον πεπεράνθαι. A 2.3.2 Δημόκριτος δὲ καὶ Μητρόδωρος καὶ Ἐπίκουρος καὶ ὅσοι τὰ ἄτομα εἰσηγοῦνται καὶ τὸ κενόν κτλ. A 4.9.9 Λεύκιππος δὲ Δημόκριτος ... μὴδὲν δ' εἶναι ἀληθὲς μὴδὲ καταληπτὸν ἐκτός τῶν πρῶτων στοι-χείων, ἀτόμων καὶ κενοῦ.

§§3–6 A 1.proœm. §3[17–18] ζητεῖται ὁμοίως ... εἰ ἔξω τι τοῦ κόσμου ἔστι.

§5 A 2.1.9 οἱ Στωϊκοὶ διαφέρειν τὸ πᾶν καὶ τὸ ὅλον· πᾶν μὲν γὰρ εἶναι σὺν τῷ κενῷ τῷ ἀπείρῳ, ὅλον δὲ χωρὶς τοῦ κενοῦ τὸν κόσμον. A 2.9.2 οἱ δὲ Στωϊκοὶ (sc. ἐκτός εἶναι τοῦ κόσμου κενόν), εἰς ὃ κατὰ τὴν ἐκπύρῳσιν ἀναλύεται, τὸ ἄπειρον. A 4.19.4 οἱ δὲ Στωϊκοὶ φασὶ τὸν ἀέρα μὴ συγκεῖσθαι ἐκ θραυσμάτων, ἀλλὰ συνεχῇ δι' ὅλου μὴδὲν κενὸν ἔχοντα.

§6 A 2.9.1 οἱ μὲν ἀπὸ Πυθαγόρου ἐκτός εἶναι τοῦ κόσμου κενόν, εἰς ὃ ἀναπνεῖ ὁ κόσμος καὶ ἐξ οὗ. A 2.9.3 Ποσειδώνιος οὐκ ἄπειρον (sc. τὸ κενόν), ἀλλ' ὅσον αὐτάρκες εἰς τὴν διάλυσιν. A 2.5a.4 Φιλόλαος ... τὸ δὲ ἡγεμονικὸν (sc. τοῦ κόσμου) ἐν τῷ μεσαιτάτῳ πυρί, ὅπερ τρόπεως δίκην προϋπεβάλλετο τῇ τοῦ παν-τός (σφαίρᾳ) ὁ δημιουργὸς θεός. A 2.7.6 Φιλόλαος πῦρ ἐν μέσῳ περὶ τὸ κέντρον,

ὅπερ ἐστὶν τοῦ παντὸς καλεῖ καὶ Διὸς οἶκον καὶ μητέρα θεῶν, βωμόν τε καὶ συν-
οχὴν καὶ μέτρον φύσεως καὶ πάλιν πῦρ ἕτερον ἄνωτάτω, τὸ περιέχον. πρῶτον
δ' εἶναι φύσει τὸ μέσον κτλ. A 3.11.3 Φιλόλαος ὁ Πυθαγόρειος τὸ μὲν πῦρ μέσον,
τοῦτο γὰρ εἶναι τοῦ παντὸς ἐστὶν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The chapter is represented in all three main sources, P, S, and T. The witnesses for P are P^B, P^G and P^Q (E did not include P chs. 1.2–3 and 1.10–30 among his excerpts from Book 1). P^B and P^Q have the same lemmata, but §2 has gone missing in P^G. P has mechanically combined P₁ and P₂ in such a way that the view of Empedocles is attributed to the Pythagoreans (not in P and the rest of his tradition). Did G's copy of P read something like P's οἱ ἀπὸ Πυθαγόρου οἱ φυσικοὶ κτλ., and did he replace ἀπὸ Πυθαγόρου by ἀπὸ Θάλεω? For he did preserve the important phrase ἔνδοθεν γὰρ εἶναι τόπον πύρινον, while P's reading has been corrupted to εἶναι γὰρ αὐτὸν πύρινον.

(2) In S the lemmata of our chapter are found mixed with those of A chs. 1.19, 1.20 and 2.9 (!)—sometimes coalesced with each other—in a chapter with the collective heading Περί κενοῦ καὶ τόπου καὶ χώρας ('On void and place and space'). A separate problem is provided by S 1.18.1c, the long and interesting lemma printed by Diels with some misgivings in the right column as ch. 1.18.6, which we exclude from the present chapter (see below, section D(d)§6), since for systematic reasons we prefer the bizarre lemma of P. The contents of the lemmata which S shares with P are virtually the same.

(3) The abstract of this chapter in T is found in the cosmological Book 4, bearing the title 'On matter and cosmos' (following abstracts from A 1.18 and continued with a series chapters of A Book 2). T as to the lemmata he preserves agrees with S (minus S's 1.18.1c lemma) and in his usual way partly rewrites the sentences; see M–R 1.278–279. Pace Bottler (2014) 219–220 T's simpler version of the Atomist doxa (§3) should not be given the same weight as that of P and S, let alone more. Whenever these two main witnesses agree, as here in respect of a multiplicity of name-labels and a specific doxa, we always have to start from their agreement as providing our evidence for A. What is more, T agrees with S against P in providing the Strato lemma, which proves that he also here abstracted A directly. Cf. Diels *DG* 46, Mansfeld at M–R 4.174–195 and cf. above, ch. 1.9 Commentary A(3), ch. 1.27, Commentary A(2), and below, ch. 4.3 Commentary (5), ch. 4.7 Commentary A(2).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* For the proximate tradition we may presumably include the passage from the anonymous Commentary on the Aristotelian *Categories* in the Archimedes palimpsest printed below at section E(a) under General texts; probably by Porphyry, see Tchernetska and Wilson at Netz (2011) 253–257, Chiaradonna & alii (2013). This text—interestingly enough—cites the (contents of) three lemmata in the order of T (the Empedocles lemma found in T and S is an appendix to the one before it). Note however that the wording of the tenet of its third proposition (πρότασις, Plato plus Aristotle) does not correspond to ch. 1.18.1 (which includes Plato) plus 1.18.6 (Aristotle) but to ch. 2.9.4, thus underscoring for us the interdependence of these two *Placita* chapters on the void (or perhaps rather the advantage of combining them), as is also implied by S, who combined extracts from both in his ch. 1.18. The intersection of a Commentary and the *Placita* tradition is itself of great interest, as is of course Porphyry's(?) explicit use of the term diaeresis for the presentation of the diaphoniae. That the lemmata are here called 'propositions', προτάσεις, and not *doxai* or *dogmata* or *kephalaia*, is due to the fact that the commentator explains a logical treatise. He clearly knew what doxography is about and how it works.

The Aristotelian lemma at S 1.18.1c, which Diels reluctantly printed as A §6, is also relevant for the *traditio proxima*; see below.

(2) *Sources.* The sources appear to be a mixed bag. §2, name-label Empedocles, finds a surprising, singular and interesting parallel in ps.Arist. *MXG* (31B14 DK). Moreover §3, the Atomist lemma, echoes a fragment of Aristotle's treatise against Democritus rather precisely. The tenet of §5 is rather widely paralleled. For the very complicated tradition(s) relating to §6 see below, section D(d)§6. For the Aristotelian background see below, section D(c). And for the tradition relating to 1.18 and 2.9 see further below, at section D(a).

C *Chapter Heading*

Attested in both P and S, and of the standard umbrella type 'about x', περὶ τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. In the present chapter it comprises the question types of existence and quality, and the categories of place and quantity. It is confirmed by the three witnesses for P, and by S's collective heading. It is also paralleled in Aristotle as an imbedded indication of the subject to be treated, see section E(b) Chapter heading.

D Analysis

a Context

(1) Ch. 1.18 is the first of a trio of chapters 1.18–20 dealing with the traditionally related issues of void / place / space. The first sub-section of the Stoic *φυσικός λόγος* (quoted above ch. 1.1, *Testes secundi*, §1) contains in succession *inter alia* a part about the void and one about space. For Aristotelian precedents see below section D(c), and for reverberations in the sequential arrangement of chapters in the *Placita* see M–R 2.1.97–109.

Such triads of related chapters also occur elsewhere in the *Placita*, e.g. chs. 1.6–8 on knowledge of gods / existence and substance of God / daemons and heroes, and chs. 4.13–15 on vision / mirror images / visible darkness. In the present case the parcelling out of chapters with different headings is rather scholastic. *κενόν* also occurs in 1.20, *χώρα* in both 1.19 and 1.20, and 1.20 is a sort of appendix to 1.18–19.

(2) We have seen that there are important links with a later chapter dealing with the void, 2.9 ‘On what is outside the cosmos, whether a void exists’, for which see M–R 2.2.426–427 and our treatment below. On ch. 1.18 see also M–R 2.1.220 and 2.2.421, which we now no longer follow in the case of the final lemma. The presence of closely related themes in two different books of the *Placita* is also to be explained by a *proprium originis* attesting the tenacity of the tradition; cf. M–R 2.1.101, 135–138. For Aristotle, too, discusses the void in several places, namely both in the *Physics* and the *On the Heavens*: in the *Physics* esp. at 4.6–9, chs. 4.6–8 being about the void *per se* and the assumption of a void outside the cosmos, ch. 4.9 about internal void; and in *On the Heavens* in chs. 1.9 279a11–18, 2.4 287a11–22, 3.7 305b16–20, and 4.2 309a6–16. Cf. also *GC* 1.8, on the purported relation between void and motion. Both in Aristotle and in the *Placita* such questions may clearly have both a general and preliminary, i.e. a conceptual, character, and a more specific one, i.e. one at home in a cosmological context.

(3) We note in particular that ch. 1.18.1–3 are about the void *per se*, while 1.18.4–6 are about the void in relation to the cosmos, just like the four lemmata of ch. 2.9. Yet the heading of ch. 2.9 intimates that the issue of the existence or not of the void is included, and this is confirmed by the content of its lemmata.

b Number–Order of Lemmata

(1) All three witnesses, P, S and T, have five lemmata (counting §2 as an appendix to §1), but not always the same. A lemma with the name-label Strato is found as both S4 and T4 but not in P (but there is a significant proximate parallel with this name-label in the passage from the Commentary on the *Categories* cited below at section E(a)§4), while P’s final lemma with name-label

Aristotle is not paralleled in either S (who replaces it with other material) or T. The order of the first three lemmata is the same in P and S, so this sequence of §§1–3 should be accepted for A. §4 is lacking in P and present in S, so that (including the lemma missing in P) the order of §3 followed by §5 in P is the same as that of §3 followed by §4 followed by §5 in S. This not only makes the order §1–§5 secure for A, but also leaves only the final position, §6, for the Aristotle lemma found only in P. This order entirely agrees with that of Diels in the *DG*, who as usual follows P's order.

(2) T has not only modified the wording but also the order of his excerpts, presumably in order to emphasize the oppositions better. Thus we find the lemma corresponding to §3 as T1 before the lemma corresponding to §1 as T2 (still followed, as in P and S, by §3 the Empedocles lemma as T3). In the same way T4 before T5 corresponds to §5 after §4.

c Rationale–Structure of Chapter

(1) *Diaphoniae*. The diaphonic structure is quite complex, but easily followed. There is, first, an opposition of §§1–2: no void (cf. ch. 2.9.4), to §§3–6: various forms of acceptance of a void (cf. ch. 2.9.1–3). Next we have an opposition between §3: infinitely large (and clearly omnipresent) void, and §§4–6: varieties of void that are related to the cosmos and qualified in different ways. There is a strong opposition between §4: no void outside the cosmos but possible within, and §5: no void within the cosmos but infinite void outside. Finally there is the opposition between §5: infinite void outside the cosmos and §6: a relatively small void outside (cf. the contrast between ch. 2.9.2 and ch. 2.9.3).

A discussion of opposed views is said to be necessary in this context in Book 4 of Aristotle's *Physics*, 4.6 213a19–22: 'We must begin the investigation by looking at what those who say that it (sc. the void) exists say and what those who deny this say (λαβοῦσιν ἃ τε λέγουσιν οἱ φάσκοντες εἶναι καὶ πάλιν ἃ λέγουσιν οἱ μὴ φάσκοντες), and thirdly at the common views'. His representative of those against is Anaxagoras (not mentioned explicitly in our chapter, but not excluded either in §1 or presumably falling under the general label in §1), while those in favour are represented by Democritus and Leucippus and numerous other natural philosophers (cf. §3), and subsequently also by the Pythagoreans (cf. A ch. 2.9.1).

(2) *Question types*. We also note the presence of question types: the diaphonia of §§1–2 versus §§3–6 is concerned with the question of existence ('whether it exists or not', εἰ ἔστιν ἢ μὴ), just as is the case for ch. 2.9 according to the second part of its heading, 'whether the void exists' (εἰ ἔστι κενόν). This agenda was set by Aristotle *Phys.* 4.6 213a12–14: 'in the same manner it is to be assumed that it is the task of the natural philosopher to inquire about the

void as well, whether it is or not, and how it is, and what it is, just as about place' (τὸν αὐτὸν δὲ τρόπον ὑποληπτέον εἶναι τοῦ φυσικοῦ θεωρῆσαι καὶ περὶ κενοῦ, εἰ ἔστιν ἢ μή, καὶ πῶς ἔστι, καὶ τί ἐστίν, ὥσπερ καὶ περὶ τόπου). The question type of the attribute ('how it is', πῶς ἔστι) is represented by the categories: §§3–6 are concerned with quantity, and §§4–6 also with place. Note the explicit subdivision into number and size in the category of quantity at §3 (cf. for this subdivision Arist. *Met.* Δ.13 1020a8–10). But the question type 'what it is' (τί ἐστίν) is not at issue in our chapter: void is not defined. For a definition we have to wait till ch. 1.20.1, name-label Zeno and his followers: τὸ μὲν κενὸν εἶναι ἐρημίαν σώματος, 'void is vacancy of body'. Compare the definitions cited by Aristotle *Phys.* 4.1 208b26–27, 'the void should be a place bereft of body' (τὸ ... κενὸν τόπος ἂν εἴη ἐστερημένος σώματος), or 4.7 213b31, 'the void is believed to be a place in which there is nothing' (δοκεῖ δὴ τὸ κενὸν τόπος εἶναι ἐν ᾧ μηδὲν ἐστίν), as well as the general definition cited from Arist. *Phys.* 4.1 208b26–27 at Anon. *in Cat.*, Archimedes-palimps. fol. 78^v + 75^r20–21, 'for the void is believed to be a place bereft of body' (τοῦ γὰρ κενοῦ) δοκοῦντος εἶναι τόπος [scripsimus, vid. below] ἐστερημένος σώματος). The reason, as rather often, is that in the other location of the doxography an effective (or more effective) diaphonia can be obtained, as clearly occurs in ch. 1.20.

d Further Comments

General Points

For a preliminary reconstruction and discussion of the chapter see Mansfeld (2014).

§1 plus §3 These lemmata oppose sections of Successions to each other: §1 the Ionian succession from Thales to Plato (no void), §3 the Italian (or perhaps rather Eleatic) Succession of Atomists from Leucippus to Epicurus (void). We note that the *physikoi* in §1 exclude the Atomists, listed §3; that is because the former belong with the Ionian and the latter with the Italian (or Eleatic) Succession. Of G Diels *DG* 13 rightly says 'Pythagorae memoria citra Plutarchi fidem inlata est'. For chapters beginning with the earliest archegetes, Thales and/or Pythagoras, see M–R 2.1.94–95, so G's alternative name-label Pythagoras is perhaps not so surprising. Q may have made a mistake in translation, or read the different verbal form ἐπέγνωσαν. We note that T here omits the name-labels and just mentions 'all the others'. S at *Ecl.* 1.18.1a, where he quotes §1, omits the name-label Plato. We have noted that elsewhere too, to begin with his abridgements of paragraphs of ch. 1.3, he leaves out details pertaining to Successions. He does so also here because further down in his chapter (at 1.18.4c) he coalesces the tenet of ch. 1.19.1 (preserving the name-label Plato) with ch. 2.9.4 (now omitting both name-labels) followed by an abstract from

the *Timaeus* (32c–33a plus 33b) at 1.18.4c. Thus S's mini-cento combines two passages in A with an excerpt from the original Platonic source, a type of expansion by appending found in his case also elsewhere (see Diels *DG* 75 n. 2, and M–R 1.249–254). It is quite unlikely that epitomator P added the words μέχρη Πλάτωνος *suo Marte*, but entirely in character that he omits the phrase ὡς ὄντως κενόν, for τὸ κενόν alone already suffices for his purpose.

Individual Points

§1 The first lemma might seem problematic because G's version, apparently confirmed by Q, states the opposite of the parallel lemmata in P^B, S and T: the existence of the void is not denied but accepted. But these three parallels (T and S also deriving from A directly) outweigh G's and Q's evidence.

§2 Empedocles is cited to exemplify the physicists, so the lemma is a sort of appendix to §1. The meaning of οὐδὲ περιττόν is clarified by the parallel at 31B14 DK (πότεν οὐδὲ τίς κ' ἐπέλθοι;), for there is nothing beyond the All that could come in to fill a vacuum.

§3 On this lemma see Algra (1995) 41–58. Crönert (1906) 105 n. 503 argues that Δημήτριος is a dittography of Δημόκριτος, but De Falco (1923) 20 defends the reading. Again it is extremely unlikely that P would have added this obscure name-label. Metrodorus presumably is not the Epicurean Metrodorus of Lampsacus (the younger; not to be confused with Anaxagoras' contemporary Metrodorus of Lampsacus the elder, no. 61 DK), but the Democritean Metrodorus of Chios (no. 70 DK), who appears to be the only Metrodorus cited in the *Placita*. Cf. Simplicius in *Phys.* 648.15, cited below at section E(b) General texts, and Diels *DG* 686–687, s. vv. Metrodorus Chius and Metrodorus (Lampsacenus). Even so, the fact that he is cited after Demetrius Laco may be a reason for doubt.

§4 Lemmata on void and place with name-label Strato are extant only in S 1.18 (and on the void in the passage from the Commentary on the *Categories* cited below section E(a)§4). Note that at *Ecl.* 1.18.4b, p. 160.9–14, S inserted the first three lemmata of ch. 2.9, and as first item of 1.18.4c the fourth lemma of this chapter, which he coalesced with 1.18.1 (here omitting the name-labels). Wachsmuth's division of paragraphs 4b and 4c is unfortunate, because it cuts right through the sequential quotation of the whole of ch. 2.9. For the contents of the present paragraph see further Algra (1995) 58–69, esp. 63–64.

§5 On this lemma see Algra (1995) 263–281.

§6 The final lemma is the most difficult. For G's text see above, section A. Diels *DG* 316^b14–317^b21 included in his right-hand column the long lemma with name-label Aristotle found at S 1.18.1c (printed partly in the app. crit. and as a whole below at section E(a)§6) as S's version of ch. 1.18.6, but in his apparatus ad loc. and at *DG* 75 n. 2 he expressed well-founded doubts. Here as elsewhere, in

his view, snippets ('frustula') from Arius Didymus could have been blended in. But he refrained from identifying them. The correspondence of S 1.18.1c with the final lemma of P is indeed unsatisfactory. It is clear that the view P attributes to Aristotle himself ('Plutarchea ut ridicule perversa sunt' says Diels) is basically the one Aristotle himself attributed to the Pythagoreans, as is documented by means of the two *laudationes*—ἐν δὲ τῷ Περὶ τῆς Πυθαγόρου φιλοσοφίας γράφει: fr. 201 R³ = *de Pyth.* 11 Ross and ἐν τετάρτῳ Φυσικῆς γράφει: *Phys.* 4.6 213b22–27—in the first section of S 1.18.1c, p. 156.8–15 = *DG* 316^b14–317^b4. Yet at *DG* 215 Diels is more optimistic about the Aristotelian connection, comparing the two titles together with their verbatim quotations in our present paragraph with ch. 2.29.4, *DG* 360^b1–3: 'according to the research of Aristotle and the assertion of Philip of Opus' (κατὰ τὴν Ἀριστοτέλειον ἱστορίαν καὶ τὴν Φιλίππου τοῦ Ὀπουντίου ἀπόφασιν) as evidence for his belief that Aristotle 'in testimonium vocatur'. In ch. 2.29.4 the sentence referring to Aristotle and Philip is not found in P. Note that Diels *DG* 215–216 argues that references to Aristotelian book titles at S 1.24.2, p. 201.1–23 Wachsmuth (λέγει γοῦν ἐν τοῖς Περὶ τῆς φυσικῆς ἀκροάσεως καὶ οὐρανοῦ λόγοις οὕτως) were added by S to A's terse Aristotelian lemma 2.11.3, so would be an interpolation. Finally, P^B (not contradicted by P^Q, not yet known to Diels) has a plus compared with S, viz. 'for it is fiery' (εἶναι γὰρ αὐτὸν πύρινον), to which 'inside there is a fiery place' (ἐνδοθεν γὰρ εἶναι τόπον πύρινον) in P^G corresponds. This supplementary piece of information, as Diels ad loc. duly noted, is in favour of accepting P's lemma as Aëtian, for P epitomizes his source and does not make things up. Subsequently Diels printed Arist. fr. 201 R³ at 58B30 DK as from S, not from A. We are aware that this argument has the drawback of showing up A's lack of knowledge of basic views in Greek philosophy, in this case Aristotle's view on the void.

The sequel in S, p. 156.15–25 = *DG* 317^b4–21 Diels, from 'and he says elsewhere' (καὶ ἐν ἄλλοις λέγει) onwards, is not paralleled in the left-hand column (Diels rightly points out that 'cetera, loci motus infiniti definitiones ab hoc capite abhorrere videntur').

ἐν ἄλλοις, meaning 'elsewhere', need not refer to more than a single work, book, section, or even line. References to works without a title are found in the *Scholia in Epicurum* at D.L. 10.66, 10.74, and 10.139; to one with a title at *V.P.* 10.135, *μαντικὴν δ' ἄπασαν ἐν ἄλλοις ἀναίρει* (sc. Epicurus), ὡς καὶ ἐν τῇ Μικρᾷ ἐπιτομῇ. καὶ φησι κτλ. See also Diogenes Laertius *V.P.* 2.65 ὡς ἐν ἄλλοις εἰρήκαμεν, a telling reference to 3.36; Aristotle *de An.* 3.3 427a24–25, two references to single lines of Empedocles, the second of which is announced with the formula καὶ ἐν ἄλλοις λέγει (cf. *Pol.* 8.3 1338a27–30, καὶ ἐν ἄλλοις δὲ φησιν, citing *Od.* 9.7–8), as well as some of Aristotle's references to his own works, e.g. *EN* 10.4 1174b3, reference to *Phys.* Books 6–8, *GA* 2.3 736a37 referring to *de An.* 2.4, *GC* 1.3 317b13

referring to *Phys.* 1.6–9. A *TLG* search for ἐν ἄλλοις plus *verbum declarandi* in the *Scholia in Homerum* alone produced almost a hundred instances.

Primavesi (2018) has proved that the text from καὶ ἐν ἄλλοις λέγει consists of excerpts from *Physics* Book 4, viz. ch. 4.212a20–21 + ch. 6.213a15–18 + ch. 6.213a31–b2 + ch. 7.214a26–30 (and 6.213b4–14) + ch. 4.187b7–9 (and 6.213b22–27). The caesura between the two parts of the lemma at 1.18.1c, p. 317^b4, may therefore be less strong than one would suppose at a first glance. Earlier David Runia had argued that the second part, from p. 317^b4–5 καὶ ἐν ἄλλοις λέγει, should be attributed to AD, though he pointed out that the puzzle had not been solved entirely. See Runia (1996) at M–R 3.324–325, and M–R 1.251–252.

We have come to believe that the first part of S 1.18.1c, pp. 316^b14–317^b4, need not be attributed to A either, so no longer follow the analysis of M–R 2.1.220 and 2.2.421. In the first place it is far from clear how P, practising his standard technique of epitomization and abridging things away, could have derived the text of his final lemma from the first section of the text as found in S. The formula τοσοῦτον ... ὥστ', 'precisely large enough in order to', though perfectly at home in P's chapter where it shores up a diaphonia in the category of quantity, fails to correspond to the lemma in S, where a void that should be limited in this way is not mentioned. This in fact constitutes the perfect fit of §6 in P's version in the diaeretic exposition of ch. 1.18, which is responsible for our conviction that in its present form (however bizarre this may seem from the point of view of the combination of name-label and contents) it precisely performs the diaphonic function it should perform—an aspect which Diels, as so often, did not take into account. This function is not performed by the Pythagorean section of S's Aristotle lemma, which if attributed to A should be considered to fall within the category of exceptional tenets placed at the end of a chapter because they do not fit its diaeresis; see Runia (1996), cited above.

It is, however, clear that the contents of P's final lemma ultimately derive from a source that is not dissimilar to the first section (*DG* 316^b14–317^b4 with its *laudationes*) of S's text. In the course of transmission the original information was rephrased in order to suit the purposes of discussion better. The last lemma in P as a matter of fact presents us with an Aristotle who has been turned into a sort of Pythagorean, which is not too surprising in a (late Hellenistic) environment that—like some of our contemporaries—strived to admit other philosophers as members of a wider Pythagorean school of thought (the Aristotelian categories are originally Pythagorean according to the evidence of ps.Archytaς Περὶ τοῦ καθόλου λόγου ἥτοι τῶν κατηγοριῶν, and his physics originally Pythagorean according to the evidence of ps.Ocellus Lucanus Περὶ τῆς τοῦ παντός φύσεως). A, as has been pointed out at M–R 2.1.99, 175, 192, and 217, takes

Neopythagorean views into account. Thus, in A's lemma as witnessed at P Aristotle is made to adopt the view of philosophers he in reality only quoted. We may say that he is included among οἱ ... ἀπὸ Πυθαγόρου, who declare that ἐκτὸς εἶναι τοῦ κόσμου κενόν, εἰς δ' ἀναπνέει ὁ κόσμος καὶ ἐξ οὗ (2.9.1).

We are furthermore convinced that the originally Aristotelian information on the Pythagoreans does not constitute the only ingredient of P's lemma. The τοσοῦτον ... ὥστ' formula calls the ὅσον in a lemma of the related chapter dealing with the void to mind, viz. ch. 2.9 (on the void outside the cosmos): 'Posidonius (says that the void) is not infinite, but large enough to be sufficient for the dissolution (of the cosmos)' (2.9.3, paralleled without attribution to Posidonius at Ach c. 8, cited above at *Testes secundi*). To be sufficiently large to sustain the expansion of the cosmos at its dissolution is similar to being sufficiently large to provide it with room for breathing. See already Algra (1993) 484–485. The false Aristotelian view of A at P §6 plays the same part vis-à-vis the Stoic view of §5 as the dissident view of Posidonius at 2.9.3 does vis-à-vis the general Stoic view at 2.9.2. P's lemma, then, will be the result of a very doxographical conflation of the view of 'Aristotle' with that of Posidonius.

Whether S's text, from 'elsewhere he says', really derives from AD or not we do not know, though another candidate is hard to find. This type of coalescence is after all found more often in the *Anthology*, see Diels *DG* 75 n. 2, M–R 1.249–254, and Jeremiah at M–R 4.286 and 353. The fact that, if this attribution is correct, we would, in one and the same chapter in S, have not only a fragment dealing with Chrysippus at 1.18.4d, but also one before it dealing with Aristotle at 1.18.4c, is a further argument in favour of the attribution. The remains of AD on physics almost without exception deal with either the Peripatetics or the Stoics. In the individual chapters of his first Book S often quotes a Didymean passage on Aristotle (and/or the Peripatetics) *plus* one on Chrysippus (and/or on the Stoics, or other Stoics), e.g. in ch. 1.8 'On the substance and parts of time and of how many things it is the cause'. Here we find at 1.8.40c Aristotle (AD fr. 6 Diels), 1.40d Aristotelians (AD fr. 7), 1.40e Zeno (AD fr. 26), and 1.42 Apollodorus, Posidonius, and Chrysippus (also AD fr. 26). This important fact is obscured because Diels in the *DG* (perhaps inspired by the lay-out of the ethical doxography in S Book 2, or just obeying the dictates of chronology) separated the physical fragments of AD dealing with the Peripatetics (frs. 2–17) from those dealing with the Stoics (frs. 18–40).

A second and more important argument in favour of the attribution is that, as we saw, the section of S's text at 1.18.c beginning with καὶ ἐν ἄλλοις λέγει deals with a number of themes, viz. 'loci / motus / infiniti / definitiones', as Diels correctly pointed out; it also mentions the void. Exactly the same analysis of contents applies to S 1.18.4d, AD fr. 25, on Chrysippus: this, too, is a mixed bag.

It deals with and defines place (τόπος), describes the void, tells us that outside the cosmos the void is infinite, and indeed mentions the infinite *per se* as well. Placing these two texts next to each other in a double column would immediately show where and how they correspond to each other.

These arguments for the attribution of this section to AD seem compelling. They may be capped by the observation that S also omitted the Aristotle lemma of ch. 1.19.2 (*ubi vide*), clearly believing that its contents are amply represented by the Aristotelian definition of τόπος included at 1.18.1c, p. 156^b15–16 Wachsmuth, τόπον εἶναι τὸ τοῦ περιέχοντος πέρας ἀκίνητον, ἥ ἐν ᾧ μένει τε καὶ κινεῖται τὰ σώματα.

Accordingly, we hypothesize that, finding A's lemma mistaken or at the very least insufficient (cf. Algra 1993, 483), S looked for and then substituted a better account, as he often does where Plato or Aristotle or the Stoics are concerned. S can hardly have failed to see that the name-label Aristotle of the first lemma in ch. 1.18 (as now known to us in P's version) is at odds with that of the first lemma of ch. 2.9, which he quotes further down at *Ecl.* 1.18.4b: 'Pythagoras and his followers (say that) a void outside the cosmos exists, into which and from which the cosmos breathes', for the doxai are virtually the same. (This was also noticed by a copyist of Q, see Daiber (1980) 361–362). He also must have thought that the attribution of a void outside the cosmos to Aristotle is flagrantly contradicted by 2.9.4 (a lemma he transcribed as well), according to which 'Plato and Aristotle (declare that) there is no void either outside the cosmos or inside'. So he looked for better material on Aristotle, and found it. His interest in Pythagoras and Pythagoreanism generally must also be taken into account, as this should have motivated him to look for better evidence for the Pythagorean doxa as well. S then not inelegantly coalesced these two accounts, that of Aristotle on the Pythagoreans and AD on Aristotle, which he introduced with the word 'and elsewhere he says' (καὶ ἐν ἄλλοις λέγει). As to S's source for the former, we may refuse a chronological association with A or P, and think of a Commentary on the Aristotelian *Physics*.

Our preference for the final clause of ch. 1.18.1 as preserved by P^G, 'inside there is a fiery place', derives from the fact that Philolaus according to ch. 2.7.6 said that 'there is a fire in the middle around the centre (of the cosmos), which he calls the universe's hearth and Zeus' house' etc. (cf. also ch. 3.11.3). This fire is 'primary'. The central fire (of the Pythagoreans—no mention of Philolaus) is already mentioned at Arist. *Cael.* 2.13 293a21, 'for they say there is a fire at the centre' (ἐπὶ μὲν γὰρ τοῦ μέσου πῦρ εἶναι φασί). That the cosmos itself is fiery, as the reading of P^B has it, seems to be less plausible, although this consideration is not decisive against the reading itself, which after all is of doxographical quality and perhaps echoes another item also in ch. 2.7.6, viz. the fire at the

circumference of the cosmos: ‘and again another fire, at the highest place, the surrounding (firmament)’ (καὶ πάλιν πῦρ ἕτερον ἀνωτάτω, τὸ περιέχον). But as Primavesi has shown (not yet published, cited Jas 2018b, 8–9) the fact that the cosmos inhales from the void to cool the fire at the centre is consistent with Philolaus’ view at 44A27 DK (cited below at E(b)§6)—so with a Pythagorean doctrine—that the inhalation of cold air from outside serves to cool our bodies.

e Other Evidence

(1) There is a certain overlap between issues concerned with the infinite, with the void, and with place. Aristotle treated these questions separately, the infinite at *Phys.* 3.4–8, the void at *Phys.* 4.6–9, place at *Phys.* 4.1–5, but did not keep them strictly apart. A Pythagorean infinite outside the cosmos is mentioned at *Phys.* 3.4 203a6–8, which at 4.6 213b22–26 becomes a ‘void that enters the cosmos out of the infinite breath’ (the latter passage is quoted by AD, see below section E(b)§6). At 4.1 208b25–26 he says that those who posit the existence of the void accept that of place, as ‘the void would be place bereft of body’ (τὸ γὰρ κενὸν τόπος ἂν εἴη ἐστερημένος σώματος). We note that in the *Placita* the void and place have changed places compared with Aristotle’s *Physics*; this may be due to the presence of the ‘infinite’ in ch. 1.18.

(2) Surprisingly enough there is no reference either here or in ch. 1.23 ‘On motion’ to the well-known view of Melissus or the Atomists (e.g. Melissus fr. 30B7.(7–10) DK and at Aristotle *Phys.* 4.6 213b12–14; Leucipp. fr. 67A7 DK at Arist. *GC* 1.8 325a23–32; Epicurus *Ep.Hdt.* 67) that motion is only possible because of the existence of the void. However, a version of the Early Pythagorean view of the void is present (in disguise) even when one eliminates S 1.18.1c on Aristotle from the chapter, as we argue one probably should.

E Further Related Texts

a Proximate Tradition

General texts: Seneca *Dial.* 8.5.6 ‘*illud*’ inquit ‘*scrutor quod ultra mundum iacet, utrumne profunda vastitas sit an et hoc ipsum terminis suis cludatur*’.

Anon. (Porphyry?) in *Categorias*, Archimedes-palimps. fol. 78^v + 75^r20–28, τοῦ γὰρ κε[νοῦ] δοκοῦντος εἶναι τόπος {scripsimus, τόπου litteris incertis codex} ἐστερημένος σώματος, | λάβοντες τὸ ἐντὸς καὶ τὸ ἐκτὸς τοῦ κόσμου ὡς δύο, | [φήσομεν, τ]οῦ κενοῦ ἐνὸς κατὰ δεῖν φερομένου, τέσ[σα]ρας γενέσθαι κατὰ διαίρεσιν προτάσεις, ἢ | ἐκτὸς (καὶ) ἐντὸς τοῦ κόσμου εἶναι κενὸν ὡς Δημοκρίτῳ τε καὶ Ἐπικουρῷ ἡρσκεν, ἢ οὔτ’ ἐντὸς | οὔτε ἐκτὸς ὡς Ἀριστοτέλει καὶ Πλάτῳ, ἢ ἐκτὸς μὲν | ἐντὸς δὲ οὐ, (καθάπερ τοῖς ἀπὸ Ζήνωνος, ἢ ἐντὸς μὲν ἐκτὸς δὲ οὐ) καθάπερ Στράτῳ (fr. 26C Sharples) ἔδοξεν [lac. ex. gr. suppl. edd.]. **Commentaria in Aratum** Anon. I 3, pp. 92.34–93.2 Maass cited on A 2.9. **Galen** *PHP* 9.6.21 ἐν μὲν γὰρ φιλοσοφίᾳ μὴ πεπαῦσθαι τὰς πλείστας τῶν διαφωνιῶν οὐδὲν θαυμαστόν,

ὥς ἂν μὴ δυναμένων τῶν πραγμάτων ἐναργῶς τῇ πείρᾳ· καὶ διὰ τοῦτο τινῶν μὲν ἀποφνηαμένων ... οὐδὲν ἔξωθεν αὐτοῦ περιέχον εἶναι, τινῶν δὲ εἶναι λεγόντων καὶ τούτων αὐτῶν {περιεχόμενον τι φάντων} ἐνίων μὲν κενὸν ἀποφνηαμένων εἶναι τοῦτο μηδεμίαν οὐσίαν ἔχον ἐν ἑαυτῷ. *Propr.Plac.* c. 2, p. 172.31–173.2 Boudon-Millot–Pietrobelli, text Lami πότερον ἀγέννητός ἐστιν ὁ κόσμος ἢ γέννητος, εἴτε τι μετ’ αὐτὸν ἔξωθεν, εἴτε μηδὲν, ... ἀγνοεῖν φημι. **ps.Galen Gloss.** 19.73.9–11 K. ‘ἀκριτον πάγος’ τὸ οἷον ἀδιάκριτον· εἴρηται δὲ ἐν τῷ Περὶ ἐβδομάδος (where ἀκριτοῦ κόσμου 1.44–45 Roscher, 1.2.1 West) ἐπὶ τοῦ μετὰ τὸν κόσμον ἦτοι ἀπείρου ἢ οἷον ἀδιατυπωτοῦ κενοῦ. *PHP* 9.7.9 μόνους οὖν ἐκείνους τοῖς φιλοσόφοις καὶ τὸ μηδὲν εἰς ἡθὺς τε καὶ τὰς πολιτικὰς πράξεις χρήσιμον ζητεῖν ἀκόλουθόν ἐστιν, ὅσοι τὴν θεωρητικὴν φιλοσοφίαν εἶλοντο, καθάπερ γε καὶ εἰ μετὰ (τὸν) κόσμον τοῦτόν ἐστί τι, καὶ εἰ ἔστιν, ὁποῖόν τι τοῦτο. *Inst.Log.* 14.1 δ’ ἐστὶ μέγιστόν τε καὶ πρῶτον ἐφ’ ἑκάστου τῶν μὴ φαινομένων αἰσθῆσει, τὸ κατὰ τὴν ὑπαρξιν ἦτοι οὐσίαν † γίγνεται μὴ εἶναι ζητήμ’ ἐστίν, ἐν ᾧ γε τὰ τοιαῦτα προβάλλεται ... ἄρα γε κενὸν ἔστιν; **Alexander of Aphrodisias in Phys.** lib. 4, *Schol.* 89 Rashed οἱ μὲν περὶ Δημόκριτον ... οἱ δὲ περὶ τὴν Στοᾶν ... · κοινὸν δὲ αὐτοῖς τὸ ἔξω τοῦ κόσμου ἄπειρον κενὸν εἶναι. **Diogenes Laertius VP.** 7.132 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. οἱ Στωικοί) εἰς τε τὸν περὶ σωματῶν τόπον (cf. ch. 1.12) καὶ περὶ ἀρχῶν καὶ στοιχείων (cf. chs. 1.2–3) καὶ θεῶν (cf. ch. 1.7) καὶ περάτων (cf. ch. 1.14.1 and ch. 1.15) καὶ τόπου (cf. ch. 1.19) καὶ κενοῦ (i.e. ch. 1.18)· καὶ οὕτω μὲν εἰδικῶς. **Arnobius of Sicca Adv.Nat.** 2.58, p. 133.3–5 *locus ipse ac spatium, in quo situs est ac volutatur, quid sit? infinitus, finitus inanis an solidus?*

Chapter heading: Capitula Lucretiana at DRN 1.334 de inani.

§4 Strato: Anon. (Porphyry?) in Categorias, Archimedes-palimps. fol. 78^v + 75^r 27–28 (see above, General texts) (ἢ ἐντὸς μὲν ἐκτὸς δὲ οὐ) καθάπερ Στράτωνι ἔδοξεν.

§5 Zeno Stoicus and followers: Arius Didymus fr. 25 Diels at Stob. Ecl. 1.18.4d, p. 161.17–26 (*SVF* 2.503) τὸ μὲν οὖν κενὸν ἄπειρον εἶναι λέγεσθαι· τὸ γὰρ ἐκτὸς τοῦ κόσμου τοιοῦτ’ εἶναι, τὸν δὲ τόπον πεπερασμένον διὰ τὸ μηδὲν σῶμα ἄπειρον εἶναι. καθάπερ δὲ τὸ σωματικὸν πεπερασμένον εἶναι, οὕτως τὸ ἀσώματον ἄπειρον, ὅτε γὰρ χρόνος ἄπειρος καὶ τὸ κενόν. ὥσπερ γὰρ τὸ μηδὲν οὐδὲν ἐστὶ πέρασ, οὕτως οὐδὲ τοῦ μηδενός, οἷόν ἐστι τὸ κενόν. κατὰ γὰρ τὴν αὐτοῦ ὑπόστασιν ἄπειρόν ἐστι· περατοῦται δ’ αὐ τοῦτο ἐκπληρούμενον· τοῦ δὲ πληροῦντος ἀρθέντος οὐκ ἔστιν αὐτοῦ νοῆσαι πέρασ. **fr. 26 Diels at Stob. Ecl.** 1.8.42a, p. 106.11 (*SVF* 2.509) τὸ κενὸν πᾶν ἄπειρον εἶναι πάντη. **Sextus Empiricus P.** 3.124 οἱ Στωικοί (cf. at *SVF* 2.505) φασι κενὸν μὲν εἶναι τὸ οἷον τε ὑπὸ ὄντος κατέχεσθαι μὴ κατεχόμενον δέ, ἢ διάστημα ἔρημον σώματος, ἢ διάστημα ἀκαθεκτούμενον ὑπὸ σώματος. **Diogenes Laertius VP.** 7.143 (*SVF* 3 Apollod. 9) ὁ μὲν οὖν κόσμος πεπερασμένος ἐστί, τὸ δὲ κενὸν ἄπειρον. **Anon. (Porphyry?) in Categorias,** Archimedes-palimps. fol. 78^v + 75^r 24–28 (see above, General texts) ἢ ἐκτὸς μὲν ἐντὸς δὲ οὐ, (καθάπερ τοῖς ἀπὸ Ζήνωνος ...).

§6 Aristotle: Stobaeus Ecl. 1.18c, p. 156.8–25 Ἀριστοτέλης ἐν τετάρτῳ Φυσικῆς (4.6 213b22–27) γράφει· εἶναι δὲ φασι οἱ Πυθαγόρειοι (58B30 DK) κενὸν καὶ ἐπεισέναι αὐτὸ τῷ οὐρανῷ ἐκ τοῦ ἀπείρου πνεύματος ὡς ἀναπνέοντι· ἐν δὲ τῷ Περὶ

τῆς Πυθαγόρου φιλοσοφίας (fr. 201 R³, fr. 11 Ross) γράφει τὸν μὲν οὐρανὸν εἶναι ἓνα, ἐπεισάγεσθαι δὲ ἐκ τοῦ ἀπείρου χρόνον τε καὶ πνοὴν καὶ τὸ κενόν, ὃ διορίζει ἐκάστων τὰς χώρας αἰεί. (the remainder is to be attributed to AD) καὶ ἐν ἄλλοις λέγει, τόπον εἶναι τὸ τοῦ περιέχοντος πέρας ἀκίνητον, ἢ ἐν ᾧ μένει τε καὶ κινεῖται τὰ σώματα, πλήρη μὲν, ὅταν πανταχόθεν περιέχῃ τὸ σῶμα, κενὸν δέ, ὅταν μηθέν ἔχῃ τὸ παράπαν ἐν ἑαυτῷ. τόπον μὲν οὖν ἀναγκαῖον ὑπάρχειν καὶ σῶμα, κενὸν δὲ οὐδαμῶς, εἰ μὴ μόνον πρὸς νόησιν· ἀναιρετικὴν γάρ εἶναι τὴν κατ' ἐνδελέχειαν αὐτοῦ φύσιν τῆς τε τῶν ὄντων συμπαθείας καὶ τῆς τῶν σωμάτων ἀλληλουχίας· τὰς δὲ κινήσεις γίνεσθαι τὰς κατὰ τόπον {κατὰ τὸ πρότερον} ἀντιπερισταμένων ἀλλήλοις τῶν σωμάτων. ἀπειρον δὲ οὐθὲν ἀπολείπει οὔτε κατὰ τὸ πλῆθος οὔτε κατὰ τὸ μέγεθος.

b Sources and Other Parallel Texts

General texts: Aristotle *Phys.* 4.6 213a12–b14 τὸν αὐτὸν δὲ τρόπον ὑποληπτέον εἶναι τοῦ φυσικοῦ θεωρῆσαι καὶ περὶ κενοῦ, εἰ ἔστιν ἢ μή, καὶ πῶς ἔστι, καὶ τί ἔστιν ... ἄρξασθαι δὲ δεῖ τῆς σκέψεως λαβοῦσιν ἅ τε λέγουσιν οἱ φάσκοντες εἶναι καὶ πάλιν ἃ λέγουσιν οἱ μὴ φάσκοντες, καὶ τρίτον τὰς κοινὰς περὶ αὐτῶν δόξας. οἱ μὲν οὖν δεικνύουσι πειρώμενοι ὅτι οὐκ ἔστιν, οὐχ ὃ βούλονται λέγειν οἱ ἄνθρωποι κενόν, τοῦτ' ἐξελέγχουσιν, ἀλλ' (ὃ) ἀμαρτάνοντες λέγουσιν. ὥσπερ Ἀναξαγόρας (—) καὶ οἱ τοῦτον τὸν τρόπον ἐλέγχοντες ... δεῖ δεικνύουσι ... ὅτι οὐκ ἔστι διάστημα ἔτερον τῶν σωμάτων, οὔτε χωριστὸν οὔτε ἐνεργεῖα ὃν, ὃ διαλαμβάνει τὸ πᾶν σῶμα ὥστε εἶναι μὴ συνεχές, καθάπερ λέγουσιν Δημόκριτος καὶ Λεύκιππος (67A19 DK) καὶ ἔτεροι πολλοὶ τῶν φυσιολόγων ... Μέλισσος (30A8 DK) μὲν οὖν καὶ δεικνύουσιν ὅτι τὸ πᾶν ἀκίνητον ἐκ τούτων· εἰ γὰρ κινήσεται, ἀνάγκη εἶναι (φησί) κενόν, τὸ δὲ κενόν οὐ τῶν ὄντων. **Heron Mechanicus Pneum.** prooem. 17–23 πρὸ δὲ τῶν λέγεσθαι μελλόντων πρῶτον περὶ κενοῦ διαληπτέον. οἱ μὲν γὰρ τὸ καθόλου μηδὲν εἶναι κενόν (διατείνονται), οἱ δὲ ἄθρουν μὲν κατὰ φύσιν μηδὲν εἶναι κενόν, παρεσπαρμένον δὲ κατὰ μικρὰ μόρια τῷ ἀέρι καὶ τῷ ὑγρῷ καὶ (τῷ) πυρὶ καὶ τοῖς ἄλλοις σώμασιν. **Galen in Epid.** vi, p. 215.3–7 Wenkebach–Pfaff τὸ δὲ κενὰς εἶναι τινὰς χώρας ἢ κατὰ τὸ ὕδωρ ἢ κατὰ τὸν ἀέρα, τῇ μὲν Ἐπικούρου (fr. 285 Usener) τε καὶ Ἀσκληπιάδου (cf. Vallance *ANRW* 2.37.1, p. 719) δόξῃ περὶ τῶν στοιχείων ἀκόλουθόν ἐστιν· τῇ δ' Ἀριστοτέλους τε καὶ Στωικῶν (*SVF* 2.433) ἐναντίον, οὐδαμῶθι κενὸν οὐδὲν ἐν τῷ κόσμῳ πεπεισμένων ὑπάρχειν, ἀλλ' ἐκπεπληρωθῆαι πάντα σώμασιν. **ps.Galen Gloss.** 19.73.9–11 K. see above, section E(a) General texts. **Sextus Empiricus M.** 8.146 φύσει δὲ ἦν ἄδηλα τὰ δι' αἰῶνος ἀποκεχυρμμένα καὶ μὴ δυνάμενα ὑπὸ τὴν ἡμετέραν πεσεῖν ἐνάργειαν, καθάπερ ... τὸ ἀξιούμενον ἐκτὸς εἶναι τοῦ κόσμου τισὶ φυσικοῖς ἄπειρον κενόν. **Alexander of Aphrodisias in Top.** 76.26–28 ἐκάτεροι δὲ ἑαυτοῖς ἐναντίως δοξάζουσιν, ἐν μὲν τοῖς σοφοῖς περὶ κενοῦ, ... περὶ τῶν τοιούτων. **Themistius in Phys.** 123.15–22 δύο γὰρ οὗτοι τῆς θέσεως τοῦ κενοῦ τρόποι, ἢ παρεσπάρθαι τοῖς σώμασιν αὐτὸ, καθάπερ λέγουσι Δημόκριτός τε καὶ Λεύκιππος (—) καὶ ἄλλοι πολλοὶ καὶ Ἐπίκουρος (—) ὕστερον (οὗτοι γὰρ πάντες τὴν τοῦ κενοῦ παρεμπλοκὴν αἰτιῶνται τῆς διαιρέσεως τῶν σωμάτων, ἐπεὶ τό γε ἀληθές συνεχές ἀδιαίρετον κατ' αὐτούς), ἢ κεχωρισμένον καὶ ἀθρόον εἶναι, καθ' αὐτὸ περιέχον τὸν οὐρανόν, ὡς πρότερον μὲν ὦντο τῶν ἀρχαίων τινές, μετὰ δὲ ταῦτα οἱ περὶ Ζήνωνα τὸν Κιτιέα (*FDS* 729). **Simplicius in Phys.** 648.11–22 ἐκεῖ-

νοι γὰρ ἔλεγον ἐνεργεῖα τι τοιοῦτον εἶναι διάστημα, ὃ μεταξύ τῶν σωμάτων ὑπάρχον οὐκ ἐξ συνεχῆς εἶναι τὰ σώματα, ὡς οἱ περὶ Δημόκριτον καὶ Λεύκιππον (67A20 DK) ἔλεγον, οὐ μόνον ἐν τῷ κόσμῳ κενὸν εἶναι τι λέγοντες, ἀλλὰ καὶ ἔξω τοῦ κόσμου, ὅπερ δῆλον ὅτι τόπος μὲν οὐκ ἂν εἴη, αὐτὸ δὲ καθ' αὐτὸ ὑφέστηκε. ταύτης δὲ τῆς δόξης γέγονε καὶ Μητροδωρος ὁ Χίος (70A8 DK), καὶ τῶν Πυθαγορείων τινές (—), ὡς μετ' ὀλίγον αὐτὸς (sc. Aristotle) ἐρεῖ· ὕστερον δὲ καὶ Ἐπίκουρος (—). ὁ μὲν-τοι Πορφύριος (157F Smith) οὐ γράφει 'οὔτε χωριστὸν οὔτε ἐνεργεῖα ὄν', ἀλλ' 'οὔτε ἀχώριστον αὐτῶν οὔτε χωριστόν'. 'ἀχώριστον μὲν γὰρ ἔθεντο', φησὶν, 'αὐτὸ οἱ περὶ τὸν Δημόκριτον (fr. 268 Luria), διόπερ μὴδὲ συνεχές τὸ πᾶν μεσολαβουμένων τῶν σωμάτων ὑπὸ τοῦ κενοῦ· χωριστὸν δὲ οἱ λέγοντες ἔξω τοῦ κόσμου κενόν, συνεχές δὲ ἀπολείποντες τὸ πᾶν, ὡς οἱ Πυθαγόρειοι (—)'. **John Philoponus in Phys.** 613.18–26 χωριστὸν μὲν ἀντὶ τοῦ δυνάμενον χωρισθῆναι, λέγω δὴ διάστημα ἔχον μὲν σῶμα, δυνάμενον δὲ χωρισθῆναι καὶ εἶναι κενὸν καθ' αὐτό, ἐνεργεῖα δὲ διάστημα κενὸν σώματος. καὶ τοῦτο ἦτοι ἐγκατεσπαρμένον ἐν τοῖς σώμασι καὶ κωλύον αὐτὰ συνεχῆς εἶναι, ὥσπερ ἔλεγον οἱ περὶ Δημόκριτον καὶ Λεύκιππον (fr. 270 Luria), ἡγοῦν μὴ κατεσπάρθαι μὲν ἐν τοῖς σώμασιν, ἀλλ' εἶναι συνεχή, ἔξω δὲ τοῦ οὐρανοῦ εἶναι κενόν τι καθ' αὐτό, ὥσπερ μάλιστα καὶ ἡ τῶν πολλῶν ἔχει φαντασίαν ἁπειρόν τι νομίζουσα εἶναι κενόν ἔξω τοῦ οὐρανοῦ, καὶ οἱ Πυθαγόρειοι (—) δὲ οὕτως ἔλεγον, ὡς ἡδὴ εἶπε (sc. Aristotle). φασι δὲ καὶ τοὺς περὶ Ζήνωνα τὸν Κιτιέα (*FDS* 730) οὕτω δοξάζειν. **John Philoponus in Phys.** 608.26–609.8 ὁ Μέλισσος (—) διὰ τοῦτο ἐνόμισεν ἀκίνητον εἶναι τὸ πᾶν, διὰ τὸ ὑπολαμβάνειν μὴ εἶναι τὸ κενόν, ὡς δὴ μὴ ἂν ἄλλως κινήσεως γενέσθαι δυναμένης, εἰ μὴ διὰ κενοῦ. ὁ μὲν οὖν Μέλισσος τῇ ἀναιρέσει τῶν δῆλων τὰ ἀδύνατα κατασκευάζει· τὸ μὲν γὰρ εἶναι τὴν κίνησιν σαφές καὶ δῆλον τῷ αἰσθησεως μετέχοντι, τὸ μέντοι εἶναι ἢ μὴ εἶναι τὸ κενὸν ἀδύνατον. λαμβάνων οὖν τὸ ἀδύνατον ὡς ὁμολογούμενον, οὕτως ἀναιρεῖ τὰ προφανή· εἰ γὰρ ἔστι, φησὶ, κίνησις, ἔστι κενόν, ἀλλὰ μὴν κενὸν οὐκ ἔστιν, οὐδὲ κίνησις ἄρα. εὐλογώτερον δὲ οἱ τὸ κενὸν εἰσαγόντες τῇ θέσει τῶν ὁμολογούμενων κατασκευάζουσι τὸ ἀνυπόστατον· εἰ γὰρ ἔστι κίνησις, ἔστι κενόν, ἀλλὰ μὴν ἔστι τὸ πρότερον, καὶ τὸ δεύτερον ἄρα.

Chapter heading: Aristotle *Phys.* 4.6 213a12–13 τὸν αὐτὸν δὲ τρόπον ὑποληπτέον εἶναι τοῦ φυσικοῦ θεωρῆσαι καὶ περὶ κενοῦ. Epicurus at D.L. 10.27 (p. 85 Usener) Περί ἀτόμων καὶ κενοῦ. Strato fr. 18 Wehrli, nos. 1 and 17 Sharples at D.L. *V.P.* 5.59 Περί τοῦ κενοῦ. Chrysippus at D.L. *V.P.* 7.140 φησὶ δὲ περὶ τοῦ κενοῦ Χρύσιππος (*SVF* 2.543) μὲν ἐν τῷ Περί κενοῦ. Sextus Empiricus *M.* 8.350 τὴν περὶ κενοῦ. Diogenes Laertius *V.P.* 7.132 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. Stoici) εἰς τε τὸν περὶ σωμάτων τρόπον ... καὶ τόπου καὶ κενοῦ. *Verba interpol.* A 2.9.4 ἐν τῷ πρώτῳ περὶ κενοῦ (see *DG* p. 9). Themistius in *Phys.* 67.14 ὁ περὶ κενοῦ (sc. λόγος).

§1 From Thales to Plato: Plato *Tim.* 58a ἡ τοῦ παντὸς περίοδος ... σφίγγει πάντα καὶ κενὴν χώραν οὐδεμίαν ἐξ εὐκλείπειν. *Tim.* 59a πάλιν δ' ἐκπίπτοντος αὐτόθεν τοῦ πυρός, ἅτε οὐκ εἰς κενὸν ἐξίστοντος. Aristotle *GC* 1.8 325b32–33 (on Plato) κενόν ... οὐκ εἶναι φησιν. Alcinoüs *Did.* c. 13 p. 169.12–13 H. (on Plato) διὰ τοῦτο δὲ μὴδὲν κενὸν ὑπολείπεται σώματος ἔρημον. Sextus Empiricus *M.* 9.334 οἱ δὲ φάμενοι μὴδ' ὅλως εἶναι κενόν, ὡς οἱ ἐκ τοῦ Περιπάτου. ps.Aristotle

MXG 2.976b12–22 ἀκίνητον δ' εἶναι φησίν (on Melissus, 30A5 DK), εἰ κενὸν μὴ ἔστιν· ἅπαντα γὰρ κινεῖσθαι τῷ ἀλλάττειν τόπον. πρῶτον μὲν οὖν τοῦτο πολλοῖς οὐ συνδοκεῖ, ἀλλ' εἶναι τι κενόν, οὐ μέντοι τοῦτό γέ τι σῶμα εἶναι, ἀλλ' οἶον καὶ ὁ Ἡσίοδος (*Th.* 106) ἐν τῇ γενέσει πρῶτον τὸ χάος φησὶ γενέσθαι, ὡς δὲ χώραν πρῶτον ὑπάρχειν τοῖς οὐσιν. τοιοῦτον δὲ τι καὶ τὸ κενὸν οἶον ἀγγεῖν τι ἀνὰ μέσον εἶναι ζητοῦμεν. ἀλλὰ δὴ καὶ εἰ μὴ ἔστι κενόν, μηδὲ τι ἦσσαν ἂν κινεῖτο, ἐπεὶ καὶ Ἀναξαγόρας (—) τὸ πρὸς αὐτὸ πραγματευθεῖς, καὶ οὐ μόνον ἀποχρήσαν αὐτῷ ἀποφῆναισθαι ὅτι οὐκ ἔστιν, ὅμως κινεῖσθαι φησι τὰ ὄντα, οὐκ ὄντος κενοῦ (cf. below §2).

§2 *Empedocles: Aristotle Cael.* 4.2 309a19–21 ἔνιοι μὲν οὖν τῶν μὴ φασκόντων εἶναι κενόν ... οἶον Ἀναξαγόρας (59A68 DK) καὶ Ἐμπεδοκλῆς (—). *Theophrastus Sens.* 13 (on Empedocles, 31A86) φησὶ γὰρ ὅλως οὐκ εἶναι κενόν. *ps.Aristotle MXG* 2.976b22–27 ὁμοίως δὲ καὶ ὁ Ἐμπεδοκλῆς (31B14 DK) ... φησι ... κενὸν δὲ οὐδὲν εἶναι, λέγων ὡς 'τοῦ παντὸς δι(ἐ) οὐδὲν κενεόν· πόθεν οὖν τί κ' ἐπέλθοι;' ὅταν δὲ εἰς μίαν μορφήν συγκριθῇ, ὡς ἐν εἶναι, οὐδὲν φησι (31B13 DK) τὸ γε 'κενεὸν πέλει οὐδὲ περισσόν' (cf. above on §1).

§3 *Leucippus Democritus Demetrius Metrodorus Epicurus: Aristotle de Democr.* fr. 208 R³ at *Simp. in Cael.* 295.1–4 Δημόκριτος (68A37 DK) ἡγείται τὴν τῶν αἰδίων φύσιν εἶναι μικρὰς οὐσίας πλήθος ἀπείρους, ταύταις δὲ τόπον ἄλλον ὑποτίθησιν ἅπειρον τῷ μεγέθει· προσαγορεύει δὲ τὸν μὲν τόπον τοῖσδε τοῖς ὀνόμασι τῷ τε 'κενῷ' καὶ τῷ 'οὐδενί' καὶ τῷ 'ἀπειρῷ' κτλ. *GC* 1.1 314a21–23 Δημόκριτος δὲ καὶ Λεύκιππος (67A9 DK) ἐκ σωμάτων ἀδιαιρέτων τὰλλα συγκεῖσθαι φασί, ταῦτα δ' ἅπειρα καὶ τὸ πλήθος εἶναι καὶ τὰς μορφάς. *Theophrastus Phys.Op.* fr. 8 Diels, 229 FHS&G at *Simp. in Phys.* 28.4–10 Λεύκιππος (67A8 DK) ... ἅπειρα καὶ αἰετινὰ κινούμενα ὑπέθετο στοιχεῖα τὰς ἀτόμους καὶ τῶν ἐν αὐτοῖς σχημάτων ἅπειρον τὸ πλήθος. *Epicurus Ep.Hdt.* at D.L. 10.40 εἰ (δὲ) μὴ ἦν ὁ κενὸν καὶ χώραν καὶ ἀναφή φύσιν ὀνομάζομεν, οὐκ ἂν εἶχε τὰ σώματα ὅπου ἦν οὐδὲ δι' οὐ ἐκινεῖτο, καθάπερ φαίνεται κινούμενα. *Ep.Hdt.* at D.L. 10.41 καὶ μὴν καὶ τῷ πλήθει τῶν σωμάτων ἅπειρόν ἐστι τὸ πᾶν καὶ τῷ μεγέθει τοῦ κενοῦ. *Lucretius DRN* 1.329–339 *nec tamen undique corporea stipata tenentur / omnia natura; namque est in rebus inane. / quod tibi cognosse in multis erit utile rebus / nec sinet errantem dubitare et quaerere semper / de summa rerum et nostris diffidere dictis. / qua propter locus est intactus inane vacansque. / quod si non esset, nulla ratione moveri / res possent; namque officium, quod corporis exstat, / officere atque obstare, id in omni tempore adesset / omnibus; haud igitur quicquam procedere posset, / principium quoniam cedendi nulla daret res.* *Sextus Empiricus M.* 7.213–214 ὁ Ἐπίκουρος (—) λέγων εἶναι κενόν, ὅπερ ἐστὶν ἄδηλον, πιστοῦται δι' ἐναργούς πράγματος τοῦτο, τῆς κινήσεως· μὴ ὄντος γὰρ κενοῦ οὐδὲ κίνησις ὦφειλεν εἶναι, τόπον μὴ ἔχοντος τοῦ κινουμένου σώματος εἰς ὃν περιστήσεται διὰ τὸ πάντα (214) εἶναι πλήρη καὶ ναστά. *M.* 9.333 ὁ δὲ Ἐπίκουρος (fr. 75* Usener) ... ὅτε μὲν γὰρ φησιν, ὅτι ἡ τῶν ὄλων φύσις σώματά ἐστι καὶ κενόν, ὅτε δὲ, ὅτι τὸ πᾶν κατ' ἀμφοτέρας ἅπειρόν ἐστι, κατὰ τε σώματα καὶ τὸ κενόν, τουτέστι κατὰ τε τὸ πλήθος τῶν σωμάτων καὶ κατὰ τὸ μέγεθος τοῦ κενοῦ. *Simplicius in Cael.* 242.14–23 δεῖξας (sc. Aristotle) ... ὅτι οὐδὲ ὡς διωρισμένα ἅπειρα τῷ πλήθει δυνατόν εἶναι τὰ στοιχειώδη

σώματα, ὡς οἱ περὶ Λεύκιππον καὶ Δημόκριτον (67A14 DK) ὑπετίθεντο πρὸ αὐτοῦ γεγονότες καὶ μετ' αὐτὸν Ἐπίκουρος (fr. 284 Usener). οὗτοι γὰρ ἔλεγον ἀπείρους εἶναι τῷ πλήθει τὰς ἀρχάς ταύτας δὲ τὰς ἀτόμους ἐν ἀπειρῷ τῷ κενῷ ... φέρεσθαι κτλ.

§4 Strato: Simplicius in Phys. 693.11–15 ὁ μέντοι Λαμψακηνὸς Στράτων (fr. 65a Wehrli, 30A Sharples) δεικνύναι πειράται, ὅτι ἔστι τὸ κενὸν διαλαμβάνον τὸ πᾶν σῶμα, ὥστε μὴ εἶναι συνεχές, λέγων ὅτι 'οὐκ ἂν δι' ὕδατος ἢ ἀέρος ἢ ἄλλου σώματος ἐδύνατο διεκπίπτειν τὸ φῶς οὐδὲ ἡ θερμότης οὐδὲ ἄλλη δύναμις οὐδεμία σωματική' κτλ.

§5 Zeno of Citium and followers: Cleomedes Cael. 1.1.148–149 ἀναγκαῖον τοίνυν ὁμολογεῖν ἡμᾶς ἀπειρον εἶναι τὸ ἔξω τοῦ κόσμου κενόν (cf. **Psellus Omn.Doctr.** c. 153, p. 79.10–11 Westerink Κλεομήδης δὲ ὁ φιλόσοφος ἐντὸς μὲν τοῦ κόσμου οὐ φησιν εἶναι τὸ κενόν, ἐκτὸς δὲ καὶ πάνυ βιάζεται.) **Plutarch SR** 1054B (on Stoics, *SVF* 2.549) ὅτι τοῦ κόσμου κενὸν ἐκτὸς ἀπειρόν ἐστι, τὸ δ' ἀπειρον οὐτ' ἀρχὴν οὔτε μέσον οὔτε τελευτὴν ἔχει, πολλάκις ὑπ' αὐτοῦ (sc. Chrysippus) λέγεται. **Galen Pecc.Dig.** 67.14–15 De Boer ὁ μὲν γὰρ Στωικός (*SVF* 2.542) οὐκ ἔνδον εἶναι τι κενόν (λέγων) ἔξωθεν δὲ τοῦ κόσμου ὑπάρχειν αὐτό. **Sextus Empiricus M.** 9.332 οἱ μὲν ἀπὸ τῆς Στοᾶς φιλόσοφοι (*SVF* 2.524) ... ὑπολαμβάνουσι ... τὸ δὲ πᾶν ἀπειρον (τοιοῦτον γὰρ τὸ ἐκτὸς τοῦ κόσμου κενόν). **Alexander of Aphrodisias at Simp. in Phys.** 671.4–7 λέγει δὲ ὁ Ἀλέξανδρος ὅτι 'δυνατὸν τούτῳ τῷ ἐπιχειρήματι καὶ πρὸς τοὺς Στωικούς (*SVF* 2.552) χρῆσασθαι ἀπειρον κενὸν λέγοντας ἐκτὸς περιέχειν τὸν κόσμον. διὰ τί γὰρ ἀπείρου ὄντος τοῦ κενοῦ ἐνταῦθα οὐ ἔστι μένει ὁ κόσμος καὶ οὐ φέρεται;' **Diogenes Laertius V.P.** 7.140 (on Stoics, *SVF* 1.95) ἔξωθεν δὲ αὐτοῦ (sc. τοῦ κόσμου) περιεχυμένον εἶναι τὸ κενὸν ἀπειρον, ὅπερ ἀσώματον εἶναι. ἀσώματον δὲ τὸ οἷόν τε κατέχεσθαι ὑπὸ σωμάτων οὐ κατεχόμενον· ἐν δὲ τῷ κόσμῳ μὴδὲν εἶναι κενόν, ἀλλ' ἡνώσθαι αὐτόν· τοῦτο γὰρ ἀναγκάζειν τὴν τῶν οὐρανίων πρὸς τὰ ἐπίγεια σύμπνοιαν καὶ συντονίαν. φησὶ δὲ περὶ τοῦ κενοῦ Χρύσιππος (*SVF* 2.543) μὲν ἐν τῷ Περὶ κενοῦ καὶ ἐν τῇ πρώτῃ τῶν Φυσικῶν τεχνῶν καὶ Ἀπολλοφάνης (*SVF* 1 Apollon. 404) ἐν τῇ Φυσικῇ καὶ Ἀπολλόδωρος (*SVF* 3 Apollod. 5) καὶ Ποσειδώνιος (F 6 E.-K., 259 Theiler) ἐν δευτέρῳ τοῦ Φυσικοῦ λόγου. *V.P.* 7.143 τὸ δὲ πᾶν λέγεται, ὡς φησιν Ἀπολλόδωρος (*SVF* 3 Apollod. 9), ὃ τε κόσμος καὶ καθ' ἕτερον τρόπον τὸ ἐκ τοῦ κόσμου καὶ τοῦ ἔξωθεν κενοῦ σύστημα. **Philoponus in Phys.** 613.23–27 μὴ κατεσπάρθαι μὲν ἐν τοῖς σώμασιν (sc. κενόν), ἀλλ' εἶναι συνεχῇ, ἔξω δὲ τοῦ οὐρανοῦ εἶναι κενόν τι καθ' αὐτό, ὥσπερ μάλιστα καὶ ἡ τῶν πολλῶν ἔχει φαντασία, ἀπειρόν τι νομίζουσα εἶναι κενὸν ἔξω τοῦ οὐρανοῦ. ... φασι δὲ καὶ τοὺς περὶ Ζήνωνος τὸν Κιτιέα (*SVF* 1.96) οὕτω δοξάζειν

§6 Aristotle: Aristotle Phys. 3.4 203a6–8 οἱ μὲν Πυθαγόρειοι (58B28 DK) ... εἶναι τὸ ἔξω τοῦ οὐρανοῦ ἀπειρον. *Phys.* 3.6 206b23–24 ὥσπερ φασὶν οἱ φυσιολόγοι τὸ ἔξω σῶμα τοῦ κόσμου, οὐ ἡ οὐσία ἢ ἀήρ ἢ ἄλλο τι τοιοῦτον, ἀπειρον εἶναι. *Phys.* 4.6 213b22–26 εἶναι δ' ἔφασαν καὶ οἱ Πυθαγόρειοι (58B30 DK) κενόν, καὶ ἐπεισέναι αὐτὸ τῷ οὐρανῷ ἐκ τοῦ ἀπείρου πνεύματος ὡς ἀναπνέοντι καὶ τὸ κενόν, ὃ διορίζει τὰς φύσεις, ὡς ὄντος τοῦ κενοῦ χωρισμοῦ τινὸς τῶν ἐφεξῆς καὶ {τῆς} διορίσεως. (And note Aristotle himself, e.g., at *Phys.* 4.8 216b20–21 ὅτι μὲν τοίνυν οὐκ ἔστι κεχωρισμένον κενόν, ἐκ τούτων ἐστὶ δῆλον.) **Anonymus Londiniensis Iatr.**

col. 18.21–28 Manetti με[τὰ γάρ], φησιν Philolaus 44A27 DK, τὴν ἔκτεξιν εὐθέως {το} | τὸ ζῶιον ἐπισπάται τὸ ἐκτὸς πνεῦμα | ψυχρὸν ὄν· εἴτα πάλιν καθαπερεὶ χρέος | ἐκπέμπε[ι] αὐτό· διὰ τοῦτο δὴ καὶ ὄρεξις | τοῦ ἐκτὸς πνεύματος, ἵνα τῇ | ἐπεισάκτῳ τοῦ πνεύματος ὁλκῇ θερμοτέρα ὑπάρχοντα τὰ ἡμέτερα σώματα πρὸς αὐτοῦ | καταψύχῃται.

Liber 1 Caput 19

P^B: ps.Plutarchus *Plac.* 884AB; p. 317^a1–7 Diels—**P^Q**: Qustā ibn Lūqā pp. 130–131 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 154, p. 80 Westerink—cf. **P^{Sy}**: Symeon Seth *CRN* 4.62, p. 64.16 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.18.4c, p. 160.17–19 + 1.18.1b, pp. 156.5–6 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b4 Henry (titulus solus)
Cf. Nem: Nemesius *NH* c. 3, p. 41.22–23 Morani

Titulus ιθ'. Περὶ τόπου (P,S)

- §1 Πλάτων τὸ μεταληπτικὸν τῶν εἰδῶν, ὅπερ εἴρηκε μεταφορικῶς τὴν ὕλην, καθάπερ τινὰ τιθῆνην καὶ δεξαμενὴν. (P1,S2)
§2 Ἀριστοτέλης τὸ ἔσχατον τοῦ περιέχοντος συνάπτον τῷ περιεχομένῳ. (P2)
§3 Στράτων τὸ μεταξὺ διάστημα τοῦ περιέχοντος καὶ τοῦ περιεχομένου. (S1)

5

§1 Plato cf. *Tim.* 49a, 50a–d, 53a; §2 Aristoteles cf. *Phys.* 4.4 211b10–12, *Cael.* 4.4 310b7–8; §3 Strato fr. 55 Wehrli, 26B Sharples

titulus Περὶ τόπου **P^{BQPs}** : Περὶ κενοῦ (~ tit. c. 1.18) καὶ τόπου καὶ χώρας (~ tit. c. 1.20) **S^{PhotL}**, καὶ χώρας om. **S^{FP}** §1 [2] post Πλάτων add. *glaubte, der Ort ist Q*, τόπον εἶναι S || [3] καθάπερ ... δεξαμενὴν **P^S** : *das für die Materie empfänglich ist Q* §2 lemma non hab. S || [4] post Ἀριστοτέλης add. *glaubte: der Ort ist Q* §3 lemma om. P || [6] post Στράτων add. τόπον δὲ εἶναι S, seclusimus, ret. Diels || post διάστημα verba τῶν ἐσχάτων add. Gottschalk prob. Sharples

Testes primi:

Traditio ps.Plutarchi:

Psellus Omn.Doctr. c. 154 (~ tit.) Περὶ τόπου

ὁ τόπος, ὡς αὐτὸ τοῦνομα δηλοῖ, πρᾶγμα ἐστὶ δεκτικὸν σώματος (cf. c. 1.20.1) ἢ ἀσωμάτου φύσεως.

(~ P1) ἐπεὶ οὖν ἡ ὕλη τὸ εἶδος δέχεται, τόπος ἂν λέγοιτο ἡ ὕλη τοῦ εἶδους· ἀσώματον δὲ τὸ εἶδος. πάλιν ἐπεὶ τὸ διάστημα ἔρημον ὂν καὶ κενὸν σώματα δύνανται δέξασθαι, τόπος σωμάτων εἶη ἂν τὸ ὂν καὶ κενὸν σώματα δύνανται δέξασθαι, τόπος σωμάτων εἶη ἂν τὸ διάστημα.

(~ P2) κυρίως δὲ τόπος ἐστὶ τὸ ἔσχατον τοῦ περιέχοντος μέρος τὰ σώματα. οἷον ὁ ἀήρ περιέχει τὰ φυσικὰ σώματα, ἀλλ' οὐ πᾶς ὁ ἀήρ· οὐ γὰρ καὶ ὁ ἐν τοῖς ὄρεσιν ἢ ὁ πλησίον τοῦ οὐρανοῦ, ἀλλὰ τὸ ἔσχατον μέρος αὐτοῦ περιέχει ἡμᾶς· αὕτη οὖν ἡ τελευταία τοῦ ἀέρος ἐπιφάνεια τόπος ἐστὶ τῶν ἡμετέρων σωμάτων.

Symeon Seth CRN 4.62 (~ tit.) Περὶ τόπου

Testes secundi:

Nemesius NH c. 3 pp. 41.22–42.1 τόπος γάρ ἐστι πέρας τοῦ περιέχοντος, καθ' ὃ περιέχει τὸ περιεχόμενον (~ §2).

Loci Aetiani:

quaestio A 1.20.1 Ζήνων καὶ οἱ ἄπ' αὐτοῦ διαφέρειν κενόν, τόπον, χώραν ...

§1 A 1.3.22 Πλάτων ... ὕλη δὲ τὸ ὑποκείμενον πρῶτον γενέσκει καὶ φθορᾷ ... **A 1.9.4** Πλάτων τὴν ὕλην ... δεξαμενὴν δὲ τῶν εἰδῶν καὶ οἶον τιθήνην ... **A 1.12.1** σῶμά ἐστι τὸ τριχῇ διαστατόν, πλάτει βάθει μήκει· ἢ ὄγκος ἀντίτυπος ὅσον ἐφ' ἑαυτῷ· ἢ τὸ κατέχον τόπον.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The witnesses for this brief chapter are rather limited, namely P (represented by P^B and P^Q) and S, who have only one lemma and the chapter heading in common. It is absent from P^E and P^G. Psellus in his chapter on *topos* utilized the heading and paraphrased the first two lemmata of P 1.19, augmenting the text with exegetic material. For S's omission of the Aristotle doxa see below, section D(b)(1).

B Proximate Tradition and Sources

(1) *Proximate tradition.* The proximate tradition is virtually non-existent for the three extant lemmata.

(2) *Sources.* As to the sources we must note that the theme and structure of this chapter as well as the gist of the alternative definitions that it provides derive without exception from Aristotle's account and overview in Book 4 of the *Physics*. *Phys.* 4.4 211b6–9 lists exactly four possible denotations of τόπος: (1) form (μορφή or εἶδος), (2) matter (ὕλη), (3) the interval between the extremities, or (4) the extremities themselves. Aristotle then argues in favour of the fourth. These different options are also listed by e.g. Sextus Empiricus *M.* 10.24, and Simplicius *in Phys.* 571.21–31, so may be seen as having become standard. Three of these four are present in our chapter: (2) matter, (4) the extremities, and (3) the interval between the extremities. So the first listed, τόπος as form, is lacking, presumably because it had never been adopted by any individual or school.

§1 is a virtually verbatim reproduction of a conflation of two passages in Aristotle (with the addition of Platonic designations of χώρα) that provide a critical account of Plato's view of space, *Phys.* 4.2 209b11–17 plus 209b33–210a2 (see

section E(b)§2): ‘Plato says in the *Timaeus* that matter (τὴν ὕλην) and space (τὴν χώραν) are the same; for what partakes (τὸ ... μεταληπτικόν: A preserves Aristotle’s verbal form) and space (τὴν χώραν) are one and the same thing. His account of what partakes differs in the *Timaeus* and the so-called Unwritten Doctrines, but he still declared that place and space are the same (ὅμως τὸν τόπον καὶ τὴν χώραν τὸ αὐτὸ ἀπεφώνητο). [...] One has to inquire of Plato ... why the Forms and numbers are not in place, if place is what partakes (sc. of them, εἴπερ τὸ μεθεκτικὸν ὁ τόπος)’. By this interpretative move Plato’s view of τόπος is made to dovetail into the pattern of the four options, filling the slot of theoretical option (2), ‘matter’. This background also helps to explain the presence of the lemma under the heading Περὶ τόπου rather than under Περὶ χώρας. Even so we note that Aristotle’s claim (not reproduced in the lemma) that according to Plato place and space are one and the same preludes upon the theme of the next chapter, 1.20, where the differences, or lack of difference, of the denotation(s) of void, place, and space are at issue. The suppressed or at any rate hidden past of 1.19.1 apparently contributed to the thematic agenda of our triad of *Placita* chapters.

§2 is an abridged version of one of the formulae in the *Physics*, 4.4.212a5–7, ἀνάγκη τὸν τόπον εἶναι ... τὸ πέρας τοῦ περιέχοντος σώματος (καθ’ ὃ συνάπτεται τῶ περιεχομένῳ). It corresponds to the last of Aristotle’s four options listed above, i.e., (4) the extremities themselves. The *Placita* passage here proves its importance for the text of the *Physics*, for the words καθ’ ὃ ... περιεχομένῳ are not in the Greek mss. but found in the Arabo-Latin translation and the late commentators.

§3 corresponds to the third of Aristotle’s options, (3) the interval between the extremities.

C Chapter Heading

Attested in both P and S, and of the standard umbrella type ‘about x’, περὶ τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. In the present chapter it pertains to definitions of the (incorporeal) substance, or question type of ‘what it is’. It is paralleled in Aristotle as embedded indication of the subject that is to be treated, see section E(b) Chapter heading.

The indication of the theme in the heading is indispensable for understanding the chapter, since the word for place, τόπος, is not found in the lemmata. As the text in P shows, the mentions of τόπος in S’s §§1 and 3 are added for the sake of his process of coalescence. Diels’ method of double columns meant he had to retain them.

D *Analysis*

a Context

Ch. 1.19 is the second of the triplet of chapters 1.18–20 dealing with the traditionally related issues of the void, place, and space. See Commentary D(a) at ch. 1.18 above.

b Number–Order of Lemmata

(1) Both P and S have two lemmata. S has omitted the Aristotle lemma extant as P2, clearly believing that its contents are amply represented by what is in the large abstract (to be attributed to AD) concerned with Aristotle's views of place and void at his 1.18.1c. On the other hand he has preserved a Strato lemma not found in P, just as is the case with the Strato lemma in ch. 1.18 (but there is a lemma with this name-label in the passage from the Commentary on the *Categories* cited above, ch. 1.18, at section E(a) General texts). He furthermore coalesced these two Strato lemmata at 1.18.1b, citing first the lemma from ch. 1.18 with name-label and next that from ch. 1.19 without it, and placed his abstracts concerned with Plato further down in his chapter, at 1.18.4c. This explains why his quotation of the Plato lemma of ch. 1.19.1 comes second after his quotation of the Strato lemma, whereas the first position of the Plato lemma in P will be original. The lemmata at §2 and §3 that we have obtained by combining the evidence of P and S obviously form a pair. The sequence of lemmata this time is not only systematic but also chronological, as is often the case also elsewhere in the *Placita*, see M–R 2.1.94–95 (and Jeremiah at M–R 4.310–319): Plato–Aristotle–Strato. Our reconstruction of the order has the same result as reached by Diels in the *DG*.

(2) The absence of lemmata with the Stoic and Epicurean definitions of place is noteworthy, esp. because ch. 1.20 is about the ways Zeno and his followers and Epicurus use the terms void, τόπος, and space. A brief version of the Stoic definition is actually found at ch. 1.20.1 Ζήνων καὶ οἱ ἀπ' αὐτοῦ ... τὸν ... τόπον τὸ ἐπεχόμενον ὑπὸ σώματος (cf. AD fr. 25 Diels = *SVF* 2.503 at Stob. *Ecl.* 1.18.4d, p. 161.8–11 τόπον δ εἶναι ὁ Χρύσιππος ἀπεφαίνετο τὸ κατεχόμενον δι' ὅλου ὑπὸ ὄντος ἢ τὸ οἶόν (τε) κατέχεσθαι ὑπὸ ὄντος καὶ δι' ὅλου κατεχόμενον εἶτε ὑπὸ τινὸς (εἴτε) ὑπὸ τινῶν). One of the reasons, presumably, is that they can be subsumed under the definition of §3, see Simplicius in *Phys.* 571.21–24, cited below at section E(b) General texts. The other is that the presence of the Stoic definitions in ch. 1.20 makes for a more inclusive diaphonia with the Epicurean view. Cf. the presence of the Stoic doctrine of vision in 4.15 instead of in 4.13.

c Rationale—Structure of Chapter

(1) *Diaphoniae*. The structure is simple. §2 is diaphonically opposed to §3: place either clings to the object on the outside or is the interior distance from side to side. This alternative is paralleled in other sources, from Aristotle to Simplicius. The pair of §§2–3 in its turn is opposed to Plato's purported and very different view of place as the matter that participates in the Forms. The agenda for this chapter (just as for ch. 1.18 and in identical terms) was set by Aristotle, *Phys.* 4.1.208a27–29 *ὁμοίως δ' ἀνάγκη καὶ περὶ τόπου τὸν φυσικὸν ὥσπερ καὶ περὶ ἀπείρου γνωρίζειν, εἰ ἔστιν ἢ μὴ, καὶ πῶς ἔστι, καὶ τί ἔστιν.*

(2) *Question types*. All three lemmata are concerned with the category and question-type of the τί ἐστίν, 'what is it' (we have three definitions here). The question-type of the attribute (πῶς ἔστι) is also at issue in the various qualifications of the notion of place in each of the three lemmata. And because it is 'about place' the chapter is, obviously, also concerned with the category of place—*per se*, so to speak, but also, paradoxically, with the place of 'place'. For of the two alternative doxai the first (§2) places place at the periphery of the object, as 'the outermost of what surrounds connecting with what is surrounded', while the other (§3) puts it inside, as 'the interval between what surrounds and what is surrounded'. The question-type of existence (εἰ ἔστιν ἢ μὴ) is not included.

d Further Comments

General Points

For a preliminary reconstruction and discussion of the chapter see Mansfeld (2014).

Individual Points

§3 Lemmata on void and place with name-label Strato are extant only in S (and in the passage from the Commentary on the *Categories* cited above, ch. 1.18, at section E(a) General texts). Gottschalk's emendation is attractive, but superfluous in the doxographical context. Sharples (2011a) 73, who accepts the emendation, comments: 'the place of the water in a jar is the interval between the inner surface of the container on opposite sides, or between the outer surface of what is contained—it makes no difference, as the two are contiguous'.

e Other Evidence

Sextus Empiricus discusses place at *M.* 10.1–36 and *P.* 3.119–135 (including discussion of the void). Rich documentation on the topic is found at Simplicius' *Corollarium de loco*, translated by Urmson (1992); extracts cited below in section E(b) General texts.

E Further Related Texts

a Proximate Tradition

General texts: Alexander of Aphrodisias *de An.* 14.19–20 οὕτως γὰρ ἔσται τὸ σῶμα ἢ διάστημά τι κενὸν ἢ πέρας τοῦ περιέχοντος· αὐταὶ γὰρ αἱ περὶ τόπου δόξαι. **Sextus Empiricus** *M.* 10.5 περὶ δὲ τοῦ τόπου ... ἐπὶ τοῦ παρόντος σκεψόμεθα. **Dio-genēs Laertius** *V.P.* 7.132 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. οἱ Στωικοί) εἷς τε τὸν περὶ σωμάτων τόπον (cf. ch. 1.12) καὶ περὶ ἀρχῶν καὶ στοιχείων (cf. chs. 1.2–3) καὶ θεῶν (cf. ch. 1.7) καὶ περάτων (cf. ch. 1.14.1 and ch. 1.15) καὶ τόπου (i.e. ch. 1.19) καὶ κενοῦ (cf. ch. 1.18)· καὶ οὕτω μὲν εἰδικῶς.

Chapter heading: —

§3 **Strato:** Arius Didymus(?) at Stob. *Ecl.* 1.18.1c, p. 156.15–16 (printed by Diels as A 1.18.6, cf. above on ch. 1.18.6) καὶ ἐν ἄλλοις λέγει (sc. Aristotle) τόπον εἶναι τὸ τοῦ περιέχοντος πέρας ἀκίνητον, ἢ ἐν ᾧ μένει τε καὶ κινεῖται τὰ σώματα.

b Sources and Other Parallel Texts

General texts: Aristotle *Phys.* 4.1 208a27–29 ὁμοίως δ' ἀνάγκη καὶ περὶ τόπου τὸν φυσικὸν ... γνωρίζειν, εἰ ἔστιν ἢ μή, καὶ πῶς ἔστι, καὶ τί ἐστιν. *Phys.* 4.4 211b6–9 σχεδὸν γὰρ τέτταρά ἐστιν ὧν ἀνάγκη τὸν τόπον ἔν τι εἶναι· ἢ γὰρ μορφή ἢ ὕλη ἢ διάστημα τι τὸ μεταξύ τῶν ἐσχάτων, ἢ τὰ ἔσχατα, εἰ μὴ ἔστι μηδὲν διάστημα παρὰ τὸ τοῦ ἐγγιγνομένου σώματος μέγεθος. **Sextus Empiricus** *M.* 10.2–3 see below on ch. 1.20 §§1–2. *M.* 10.10 (on Stoics, printed as part of *SVF* 2.501) ὥσπερ τε εἰ τὸ ἐξ οὗ τι γίγνεται ἔστι, καὶ τὸ ὑφ' οὗ τι γίγνεται καὶ τὸ δι' ὅ, οὕτως ὑπάρχει ἂν καὶ τὸ ἐν ᾧ τι γίγνεται. ἔστι δὲ τὸ ἐξ οὗ τι γίνεται, οἷον ἡ ὕλη, καὶ τὸ ὑφ' οὗ, οἷον τὸ αἶτιον, καὶ τὸ δι' ὅ, καθάπερ τὸ τέλος· ἔστιν ἄρα καὶ τὸ ἐν ᾧ τι γίγνεται, τουτέστιν ὁ τόπος. *M.* 10.24 εἰ ἔστιν ὁ τόπος, ὀφείλει τι τούτων τυγχάνειν ὧν τὸ μὲν ἐστιν ὕλη, τὸ δὲ εἶδος, τὸ δὲ μεταξύ διάστημα τῶν ἐσχάτων τοῦ σώματος περάτων, τὸ δὲ πέρατα ἔσχατα. *P.* 3.119 ζητοῦμεν οὖν περὶ τοῦ τόπου (τοῦ) πρὸς ἀκρίβειαν. τοῦτον δὲ οἱ μὲν ἔθεσαν, οἱ δὲ ἀνείλον, οἱ δὲ ἐπέσχον περὶ αὐτοῦ. **Stobaeus** *Ecl.* 1.18.1e, p. 157.4–5 Θαλῆς (cf. p. 205 Wöhrlé) ἐρωτηθεὶς, τί τὸ μέγιστον; ἔφησε, τόπος· τὰλλα μὲν γὰρ ὁ κόσμος, τὸν δὲ κόσμον οὗτος περιέχει. **Iamblichus** fr. 112 Dalsgaard Larsen at *Simp. in Cat.* 361.7–15 τούτοις δὲ πᾶσι τὴν νοερὰν θεωρίαν προστιθεὶς ὁ Ἰάμβλιχος ζητεῖ πρῶτον, πότερον αὐτὰ τὰ πράγματα ἐν τόπῳ ὄντα ἀφορίζει τὸν τόπον περὶ ἑαυτὰ ἢ σὺν αὐτοῖς, ἢ ὁ τόπος ἀφορίζει τὰ πράγματα ὡς ἂν αὐτὸς αὐτὰ συμπεραίνων. καὶ φησιν ὅτι, εἰ μὲν ὡς οἱ Στωικοί (*SVF* 2.507) λέγουσιν, παρυφίσταται τοῖς σώμασιν ὁ τόπος, καὶ τὸν ὅρον ἀπ' αὐτῶν προσλαμβάνει τὸν μέχρι τοσοῦδε, καθ' ὅσον συμπληροῦται ὑπὸ τῶν σωμάτων· εἰ μὲντοι οὐσίαν ἔχει καθ' αὐτὸν ὁ τόπος καὶ οὐδὲ ὅλως εἶναι τι τῶν σωμάτων δύναται, ἐὰν μὴ ἢ ἐν τόπῳ, ὥσπερ ἔοικεν Ἀρχύτας (*de Cat.*, p. 24.9–11 Thesleff) βούλεσθαι σημαίνειν, αὐτὸς ὁ τόπος ἀφορίζει τὰ σώματα καὶ ἐν ἑαυτῷ συμπεραίνει (κτλ). **Simplicius** *in Phys.* 571.21–31 καὶ φησιν (sc. Arist. *Phys.* 4.4 211b6–7) ὅτι 'τέτταρά ἐστιν, ὧν ἀνάγκη τὸν τόπον ἔν τι εἶναι'. ἢ γὰρ τὸ εἶδος τοῦ ἐν τόπῳ ἢ ἡ ὕλη αὐτοῦ ἢ τὸ διάστημα τὸ μεταξύ τῶν ἐσχάτων τοῦ περιέχοντος τὸν τόπον ἀνάγκη εἶναι (ὁ τινὲς καὶ τῶν προτέρων ὡς οἱ περὶ Δημόκριτον (—) καὶ τῶν ὑστέρων ὡς οἱ περὶ Ἐπίκουρον (fr. 273 Usener) καὶ οἱ Στωικοί (*SVF* 2.508), τινὲς δὲ καὶ κατὰ Πλάτωνα τοῦτο τὸν τόπον εἶναι ἐνόμισαν ἢ τὰ ἔσχατα

τοῦ περιέχοντος. εἰ οὖν μηδὲν τῶν τριῶν ἐστίν, ὡς δείξει, ἀνάγκη τὸ λειπόμενον εἶναι τὸν τόπον· τὸ δὲ διάστημα τοῦτο οἱ μὲν περὶ Δημόκριτον καὶ Ἐπίκουρον κενὸν εἶναι λέγουσιν οὕτως ὥστε ποτὲ μὲν πληροῦσθαι σώματος ποτὲ δὲ καὶ κενὸν ἀπολείπεσθαι, οἱ δὲ Πλατωνικοὶ καὶ οἱ Στωικοὶ εἶναι μὲν ἄλλο παρὰ τὰ σώματ' αἰεὶ δὲ σῶμα ἔχειν, ὡς μηδέποτε κενὸν ἀπολείπεσθαι. *in Phys.* (coroll. de loco) 601.14–24 ἰστέον οὖν ὅτι τῶν περὶ τόπου τι γραψάντων οἱ μὲν σῶμα τὸν τόπον, οἱ δὲ ἄσῳματον ὑπέθεντο· σῶμα μὲν ὥσπερ Πρόκλος ὁ ἐκ τῆς Λυκίας φιλόσοφος (*in Resp.* 2.198.14–15)· τῶν δὲ ἄσῳματον λεγόντων οἱ μὲν πάντῃ ἀδιάστατον, οἱ δὲ διαστατὸν λέγουσι· καὶ τῶν πάντῃ ἀδιάστατον οἱ μὲν ὑποκείμενον τοῖς σώμασιν ὡς Πλάτων τὴν ὕλην τόπον λέγων, οἱ δὲ τελεσιουργὸν τῶν σωμάτων, ὡς ὁ ἡμέτερος Δαμάσκιος· τῶν δὲ διαστατὸν λεγόντων οἱ μὲν ἐπὶ δύο διεστῶς ὡς ὁ Ἀριστοτέλης τε καὶ ὁ Περίπατος ἅπας, οἱ δὲ ἐπὶ τρία, καὶ τούτων οἱ μὲν πάντῃ ἀδιάφορον καὶ ποτε καὶ ἄνευ σώματος μένον ὡς οἱ περὶ Δημόκριτον καὶ Ἐπίκουρον (cf. fr. 273 Usener), οἱ δὲ διάστημα καὶ αἰεὶ σῶμα ἔχον καὶ ἐπιτήθειον πρὸς ἕκαστον ὡς οἱ κλεινοὶ τῶν Πλατωνικῶν καὶ ὁ Λαμψακηνὸς Στράτων (cf. fr. 59 Wehrli, 27A Sharples).

Chapter heading: Aristotle *Phys.* 4.1 208a27–28 ἀνάγκη καὶ περὶ τόπου τὸν φυσικόν ... γνωρίζειν. *Phys.* 4.6 213a14 ὥσπερ καὶ περὶ τόπου. *Phys.* 4.7 214a16 ἐπεὶ δὲ περὶ τόπου διώρισται. Sextus Empiricus *M.* 10 pinax α' Περί τόπου. *M.* 10.1 ἡ περὶ τοῦ τόπου ζήτησις; cf. *M.* 10.5 cited above. *P.* 3 pinax ιγ' Περί τόπου. *P.* 3.119 tit. ιγ' Περί τόπου. Simplicius *in Phys.* 566.18–19 Θεόφραστος (cf. app. at Theophr. fr. 147 FHS&G) καὶ Εὐδημος (fr. 79a Wehrli) ἐν τοῖς Περὶ τόπου ἀξιώμασι.

§0 *Whether it exists:* ps.Aristotle *MXG* 6.979b25–26 μηδαμοῦ δὲ ὄν οὐδὲ εἶναι (sc. τὸν τόπον) κατὰ τὸν Ζήνωνος (—) λόγον περὶ τῆς χώρας.

§1 *Plato:* Plato *Tim.* 49a πάσης εἶναι γενέσεως ὑποδοχὴν αὐτὴν οἷον τιθήνην. *Tim.* 50d καὶ δὴ καὶ προσεικάσαι πρέπει τὸ μὲν δεχόμενον μητρί. *Tim.* 52a–b τρίτον δὲ αὐτὸ γένος ὄν τὸ τῆς χώρας αἰεὶ ... , (b) ἔδραν δὲ παρέχον ὅσα ἔχει γένεσιν πᾶσιν, ... καὶ φαμεν ἀναγκαῖον εἶναι· που τὸ ὄν ἅπαν ἐν τινὶ τόπῳ καὶ κατέχον χώραν τινά, τὸ δὲ μήτ' ἐν γῇ μήτε που κατ' οὐρανὸν οὐδὲν εἶναι. *Tim.* 53a τῆς δεξαμενῆς. Aristotle *Phys.* 4.2 209b11–16 διὸ καὶ Πλάτων τὴν ὕλην καὶ τὴν χώραν ταυτὸ φησὶν εἶναι ἐν τῷ Τιμαίῳ (*Tim.* 53a)· τὸ γὰρ μεταληπτικὸν καὶ τὴν χώραν ἐν καὶ ταυτόν. ἄλλον δὲ τρόπον ἐκεῖ τε λέγων τὸ μεταληπτικὸν καὶ ἐν τοῖς λεγομένοις ἀγράφοις δόγμασιν, ὅμως τὸν τόπον καὶ τὴν χώραν τὸ αὐτὸ ἀπεφήνατο. *Phys.* 4.7 214a13–14 διὸ φασὶν τινες εἶναι τὸ κενὸν τὴν τοῦ σώματος ὕλην (οἷπερ καὶ τὸν τόπον τὸ αὐτὸ τοῦτο), λέγοντες οὐ καλῶς. Plutarch *Is.* 373E ὁ μὲν οὖν Πλάτων ... τὴν δ' ὕλην καὶ μητέρα (*Tim.* 50d) καὶ τιθήνην (e.g. *Tim.* 49a) ἔδραν (*Tim.* 52b) τε καὶ χώραν γενέσεως (*Tim.* 52a) ... ὀνομάζειν εἴωθεν. *Is.Osir.* 374B Πλάτων χώραν γενέσεως (*Tim.* 52a) καὶ δεξαμενὴν (*Tim.* 53a). *Epit.An.Procr.* 1032A καὶ χώραν (*Tim.* 52a) τε γὰρ καλεῖ τὴν ὕλην ὥσπερ ἔδραν (*Tim.* 52b) ἔστιν ὅτε καὶ ὑποδοχὴν (*Tim.* 49a). *Def.Or.* 414F Πλάτων τὸ ταῖς γεννωμέναις ποιότησιν ὑποκείμενον στοιχεῖον ἐξευρών, ὃ νῦν ὕλην καὶ φύσιν καλοῦσιν. Alcinous *Did.* 8 p. 162.29–31 H. καὶ πρῶτόν γε περὶ ὕλης λέγωμεν. ταύτην τοῖνυν ἐκμαγεῖον (*Tim.* 50c) τε καὶ πανδεχὲς (*Tim.* 51a) καὶ τιθήνην (e.g. *Tim.* 49a) καὶ μητέρα (*Tim.* 50d) καὶ χώραν (*Tim.* 52a) ὀνομάζει καὶ ὑποκείμενον (—). Hippolytus *Ref.* 1.19.1 ὕλην δὲ τὴν πᾶσιν ὑποκει-

μένην, ἣν καὶ δεξαμενὴν (*Tim.* 53a) καὶ τιθήνην (e.g. *Tim.* 49a) καλεῖ. **Calcidius** in *Tim.* c. 273 *corpora cum sola et per se ac sine suscipiente {ex} eadem essentia esse non possunt, quam modo 'matrem' (Tim. 50d), alias 'nutriculam' (e.g. Tim. 49a), interdum 'totius generationis gremium' (Tim. 52a), nonnumquam 'locum' (Tim. 52a) appellat quamque iuniores hylen, nos silvam vocamus. **Themistius** in *Phys.* 106.18–23 ἀπὸ γὰρ ταύτης τῆς ὁμοιότητος καὶ Πλάτων τὴν ὕλην καὶ τὴν χώραν ταύτῃ φησιν εἶναι ἐν τῷ Τιμαίῳ· τὸ γὰρ μεταλαμβάνον τῶν εἰδῶν (ὅπερ ὕλη) καὶ τὴν χώραν (ὅπερ ἐστὶν ὁ τόπος) ταῦτά λέγει. καίτοι τὴν ὕλην ἄλλως μὲν ἐν Τιμαίῳ φησὶ δέχεσθαι τὰ εἶδη, ἄλλως δὲ ἐν τοῖς Ἀγράφοις δόγμασιν· ἐκεῖ μὲν γὰρ κατὰ μέθεξιν, ἐν τοῖς ἀγράφοις δὲ καθ' ὁμοίωσιν. **Proclus** *Theol. Plat.* 4.32.22–24 ἐπεὶ καὶ τὴν ὕλην τόπον εἰδῶν προσαγορεύσας μητέρα (*Tim.* 50d) καλεῖ καὶ τιθήνην (e.g. *Tim.* 49a) (τῶν) εἰς αὐτὴν ἀπὸ τοῦ ὄντος καὶ τῆς πατρικῆς αἰτίας προϊόντων λόγων. **Simplicius** in *Phys.* 601.17–18 οἱ μὲν ὑποκείμενον τοῖς σώμασιν ὡς Πλάτων τὴν ὕλην τόπον λέγων.*

§2 Aristotle: Aristotle *Cael.* 4.4 310b7–8 ὁ τόπος ἐστὶ τὸ τοῦ περιέχοντος πέρας. *Phys.* 4.4 211b10–12 διὰ μὲν τὸ περιέχειν δοκεῖ (sc. ὁ τόπος) ἢ μορφή εἶναι· ἐν ταύτῃ γὰρ τὰ ἐσχάτα τοῦ περιέχοντος καὶ τοῦ περιεχομένου. *Phys.* 4.4 212a5–7 ἀνάγκη τὸν τόπον εἶναι ... τὸ πέρας τοῦ περιέχοντος σώματος καθ' ὃ συνάπτει τῷ περιεχομένῳ. *Phys.* 4.4 212a30–21 ὥστε τὸ τοῦ περιέχοντος πέρας ἀκίνητον πρῶτον, τοῦτ' ἐστὶν ὁ τόπος. **Sextus Empiricus** *M.* 10.30 ναί, φασὶν οἱ ἀπὸ τοῦ Περιπάτου φιλόσοφοι, ἀλλὰ τόπος ἐστὶ τὸ πέρας τοῦ περιέχοντος σώματος. **Themistius** in *Phys.* 112.23–25 φανερόν ἐκ τούτων, τί ἐστὶν ὁ τόπος, ὅτι τὸ πέρας καὶ τὸ ἐσχάτον τοῦ περιέχοντος, ὃ τοῦ σώματος ἄπτεται, ὃ περιέχει. *P.* 3.131 οἱ δὲ Περιπατητικοὶ φασὶν εἶναι τόπον τὸ πέρας τοῦ περιέχοντος, καθὼ περιέχει, ὡς ἐμοῦ τόπον εἶναι τὴν ἐπιφάνειαν τοῦ ἀέρος τὴν περιτετυπωμένην τῷ ἐμῷ σώματι.

§3 Strato: Aristotle *Phys.* 4.4 211b7–8 ἡ διάστημά τι τὸ μεταξὺ τῶν ἐσχάτων. *Phys.* 4.6 213a27–31 οἱ δὲ ἄνθρωποι βούλονται κενὸν εἶναι διάστημα ἐν ᾧ μηδὲν ἐστὶ σῶμα αἰσθητόν· οἰόμενοι δὲ τὸ ὄν ἅπαν εἶναι σῶμα φασίν, ἐν ᾧ ὅλως μηδὲν ἐστὶ, τοῦτ' εἶναι κενόν, διὸ τὸ πλήρες ἀέρος κενὸν εἶναι. **Simplicius** in *Cat.* 423.12–14 (Strato fr. 27 Wehrli, 15 Sharples) πρῶτον δὲ τῇ φύσει ὡς μὴ ἀντιστρέφον κατὰ τὴν τοῦ εἶναι ἀκολούθησιν, ὅπερ δυνατὸν εἶναι θατέρου μὴ ὄντος, ὡς τόπος σώματος καὶ σῶμα χρώματος κτλ. in *Phys.* 601.19–24 (coroll. de loco) τῶν δὲ διαστατῶν λεγόντων οἱ μὲν ἐπὶ δύο διεστῶς ὡς ὁ Ἀριστοτέλης τε καὶ ὁ Περύπατος ἅπας, οἱ δὲ ἐπὶ τρία (sc. διεστῶς), καὶ τούτων ... οἱ δὲ διάστημα καὶ αἰεὶ σῶμα ἔχον καὶ ἐπιτήδειον πρὸς ἕκαστον ὡς ... ὁ Λαμψακηνὸς Στράτων (fr. 59 Wehrli, 27A Sharples).

Liber 1 Caput 20

PB: ps.Plutarchus *Plac.* 884AB; p. 317^a11–14 Diels—**PG:** ps.Galenus *HPh.* c. 31; p. 616.22–25 Diels; pp. 99–102 Jas—**PQ:** Qustā ibn Lūqā pp. 130–131 Daiber—**PPs:** Psellus *Omn.Doctr.* c. 154, p. 80 Westerink
S: Stobaeus *Ecl.* 1.18.1d, pp. 156.27–157.3 + 1.18.4a, p. 160.6–7 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b4 Henry (titulus solus)

Titulus ιθ'. Περὶ χώρας (P,S)

§1 Ζήνων καὶ οἱ ἀπ' αὐτοῦ διαφέρειν κενόν, τόπον, χώραν· καὶ τὸ μὲν κενόν εἶναι ἐρημίαν σώματος, τὸν δὲ τόπον τὸ ἐπεχόμενον ὑπὸ σώματος, τὴν δὲ χώραν τὸ ἐκ μέρους ἐπεχόμενον, ὥσπερ ἐπὶ τῆς τοῦ οἴνου πιθάκνης. (P₁,S₁)

§2 Ἐπίκουρος ὀνόμασι πᾶσιν παραλλάττειν κενόν τόπον χώραν. (S₂)

5

§1 Zeno Stoici *SVF* 1.95, 2.504; §2 Epicurus fr. 271 Usener

titulus Περὶ χώρας ^{PBQPs}: Περὶ κενοῦ (~ tit. c. 1.18) καὶ τόπου (~ tit. c. 1.19) καὶ χώρας ^{S^{PhotL}}, καὶ χώρας om. ^{S^{FP}} §1 [2] Ζήνων ... αὐτοῦ S : οἱ Στωικοὶ καὶ Ἐπικούρου ^{PBQG} ('Επικούρειοι ^{PG}) οἱ Στωικοὶ ab Arnim qui nomen Epicuri om. || Ζήνων ... διαφέρειν scripsimus : Ζήνων καὶ οἱ ἀπ' αὐτοῦ ἐντὸς μὲν τοῦ κόσμου μὴδὲν εἶναι κενόν, ἔξω δ' αὐτοῦ ἄπειρον [i.q. A 1.18.5] διαφέρειν δὲ κενόν κτλ. S || διαφέρειν ... χώραν] al. ^{PG} διαλλάττειν τὸν τόπον τῆς χώρας ἐνόμισαν || [2–3] τὸν ... σώματος ^{PBS} : *der Ort das einen Körper umfassende* Q : al. ^{PG} τὸν μὲν γὰρ τόπον ὑπὸ σώματος (κατέχεσθαι) || [3–4] τὴν ... ἐπεχόμενον] al. ^{PG} τὴν δὲ χώραν κατὰ μὲν τι κατέχεσθαι, κατὰ δὲ τι οὐδαμῶς || [4] ἐπεχόμενον S : ἐχόμενον ^{PB} || ὥσπερ ... πιθάκνης ^{PBQ} : om. ^{PGS} §2 lemma om. P, qui erravit nomen Epicuri ad §1 addendo || [6] πᾶσιν del. Usener prob. Diels Wachsmuth Long–Sedley || παραλλάττειν S: διαλλάττειν G vid. supra ad §1[2]

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 31 (~ tit.) Περὶ χώρας (text Jas)

31.1 (~ P₁) οἱ Στωικοὶ καὶ Ἐπικούρειοι διαλλάττειν τὸν τόπον τῆς χώρας ἐνόμισαν. τὸν μὲν γὰρ τόπον ὑπὸ σώματος (κατέχεσθαι), τὴν δὲ χώραν κατὰ μὲν τι κατέχεσθαι, κατὰ δὲ τι οὐδαμῶς.

Psellus Omn.Doctr. c. 155, p. 80.1 + 6–11 (~ tit.) Περὶ χώρας

(~ P₁) ... χώραν πάλιν τινὲς τῶν φιλοσόφων εἰρήκασιν τὴν μερικὴν τοῦ περιέχοντος τὸ σῶμα περιοχὴν. οἷον ὁ πίθος περιέχει τὸν οἶνον· ὑποκείσθω δὲ καὶ ὁ οἶνος περιχειλῆς· ἀλλ' οὐχ' ὅλον τὸ σῶμα τοῦ πίθου τὸν οἶνον ἐδέξατο, ἀλλὰ μόνῃ ἢ κοίλῃ αὐτοῦ περιφέρεια. τοῦτο γοῦν τὸ μέρος χώραν φασὶ τῶν φυσικῶν φιλοσόφων τινές· (~ P₁) οὐκ ἀπεικόντως δὲ τοῦτο καὶ τόπον τις ὀνομάσειε.

Loci Aetiani:

quaestio vid. A 1.18 *Περὶ κενού*; A 1.19 *Περὶ τόπου*.

§1 A 1.12.1 *σῶμά ἐστι ... τὸ κατέχον τόπον*.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses for the lemmata of this brief and dilemmatic chapter are again P and S. S has two lemmata. P (represented by P^B and P^Q) has only one lemma, combining Zeno (generalised to ‘Stoics’) and Epicurus by lifting the name-label ‘Epicurus’ (generalising it to ‘Epicureans’) from the second lemma and including it in the first, thus attributing to the latter to opposite of what is attributed in §2. The chapter is not found in P^E. G not unintelligently edits out the void and paraphrases the rest of P’s single lemma, on place and space. But he unnecessarily replaces §1[1] *διαφέρειν* (‘differ’) with its synonym *διαλλάττειν*, which reminds one of S’s *παραλλάττειν*. This suggests that a remnant of §2 survived as a *varia lectio* in his copy of P. Ps’ paraphrase leaves out the void too.

B *Proximate Tradition and Sources*

(1) *Proximate tradition*. The proximate tradition is limited to a fragment of AD cited at section E(a)§1. The partial parallel with the account in Sextus Empiricus cited at section E(b)§1 seems to show that the chapter reflects the main Hellenistic philosophical views that were current.

(2) *Sources*. The source of §2 is without doubt the passage from the *Letter to Herodotus* cited at section E(b)§2, or a similar but lost verbatim passage.

C *Chapter Heading*

(1) Attested in both P and S, and of the standard umbrella type ‘about *x*’, *περὶ τοῦ δεῖναι* (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type, in the present chapter pertaining to the question type of ‘what it is’. The word *χώρα* occurs here for the first time, but the chapter is not about views concerned with *χώρα* alone in the way ch. 1.18 is about the void, but only with the difference or lack of difference as to the meaning of all three terms *κενόν* *τόπος* *χώρα* according to the authorities listed.

(2) *Περὶ χώρας*, unlike the headings of chs. 1.18 and 1.19 is not paralleled in Aristotle; in fact, this formula is never found elsewhere with reference to an

account or discussion of place or space in the strict sense, but usually means ‘about a country’ and is preceded by words like ‘war’.

D *Analysis*

a Context

Ch. 1.20 is the third of the triplet of chapters 1.18–20 dealing with the traditionally related issues of the void, place, and space. See Commentary D(a) at ch. 1.18 above. It is a sort of appendix dealing with semantic matters.

b Number–Order of Lemmata

(1) The two lemmata have been coalesced by P, who from the point of view of both philosophy and doxography blundered by omitting §2 and including its name-label in §1 (cf. at ch. 1.11.3 above), thus jettisoning the diaphonia. See Diels *DG* 64. For a similar coalescence cf. e.g. ch. 4.7.1–2 (cf. ch. 4.7 Commentary A), or ch. 4.13.12–13. There is however a partial parallel for this coalescence, or perhaps proof of its influence, elsewhere, for Sextus Empiricus *M.* 10.2–4, cited below at section E(b) General texts, formulates Epicurus’ view in such a way that the difference with the Stoic view is somewhat less; see M–R 2.1.101.

(2) There is no reason to change the order of S, also because P (abridging Ζήνων καὶ οἱ ἄπ’ αὐτοῦ to οἱ Στωικοί, as he also does elsewhere) included the name-label Epicurus from §2 *after* the name-label Stoics of §1.

c Rationale–Structure of Chapter

The structure of this bilemmatic chapter is simple and effective: a strong diaphonia between the Stoics, who carefully distinguish between the meaning of the three terms, and Epicurus, who treats them as equivalent.

d Further Comments

General Points

For a preliminary reconstruction and discussion of the chapter see Mansfeld (2014).

A reference to the principle of the *χώρα* of the *Timaeus* that one would have expected to find in a chapter with this heading is absent because of the interpretation of this concept as being equivalent to ὕλη, see above, ch. 1.19.1 (though the term is not used there). Aristotle *Phys.* 4.2 209b11–12 said that according to Plato ὕλη and *χώρα* are the same, so this quasi-tenet could have been deployed as a lemma, but as Plato rejected the void only these two terms were available, not three as in the other two lemmata.

Individual Points

§2 There is no need to eliminate πᾶσιν with Usener, as the adjective underlines that all the concepts at issue in chs. 1.18–20 are involved. Note that Sedley (1982) 187–188, and Long and Sedley (1987) 1.30, argue in favour of Sextus Empiricus' presentation at *M.* 10.2 cited at section E(b) General texts. That different words (names) are irrelevant as long as one knows that what is meant is the same thing is a thought often expressed by Galen too, e.g. *PHP* 2.5.81.

e Other Evidence

For the distinction between Stoics and Epicurus, though more low-key, see Sextus Empiricus *M.* 10.2–4 at section E(b) General texts.

E Further Related Texts

a Proximate Tradition

General texts: Philo of Alexandria *Somn.* 1.184 δικαίως οὖν ἐφοβήθη καὶ εἶπε θαυμαστικῶς· 'ὡς φοβερός ὁ τόπος οὗτος' (*Gen* 28:17)· ὄντως γὰρ τῶν ἐν φυσιολογίᾳ τόπος ἀργαλεώτατος, ἐν ᾧ ζητεῖται, ποῦ καὶ εἰ συνόλως ἐν τινὶ τὸ ὄν, τῶν μὲν λεγόντων, ὅτι πᾶν τὸ ὑφ' ἐστῶς χώραν τινὰ κατεῖληφε, καὶ ἄλλων ἄλλην ἀπονεμόντων, ἢ ἐντὸς τοῦ κόσμου ἢ ἐκτὸς αὐτοῦ μετακόσμιόν τινα (cf. ch. 1.18), τῶν δὲ φασκόντων, ὅτι οὐδενὶ τῶν ἐν γενέσει τὸ ἀγέννητον ὅμοιον, ἀλλὰ τοῖς ὅλοις ὑπερβάλλον.

§1 *Zeno Stoicus:* Arius Didymus fr. 25 Diels at Stob. *Ecl.* 1.18.4d, p. 161.8–26 τόπον δ' εἶναι ὁ Χρῦσιππος (*SVF* 2.503) ἀπεφαίνετο τὸ κατεχόμενον δι' ὅλου ὑπὸ ὄντος ἢ τὸ οἶον (τέ) κατέχεσθαι ὑπὸ ὄντος καὶ δι' ὅλου κατεχόμενον εἶτε ὑπὸ τινὸς (εἶτε) ὑπὸ τινῶν. ἐὰν δὲ τοῦ οἴου τε κατέχεσθαι ὑπὸ ὄντος τί μὲν κατέχεται, τί δὲ μή, τὸ ὅλον (οὔτε) κενὸν ἔσσεσθαι οὔτε τόπον, ἕτερον δέ τι οὐκ ὠνομασμένον· τὸ μὲν γὰρ κενὸν τοῖς κενοῖς ἀγγείοις λέγεσθαι παραπλησίως, τὸν δὲ τόπον τοῖς πλήρεσι· χώραν δὲ πότερον τὸ μείζον οἶον τε κατέχεσθαι ὑπὸ ὄντος καὶ οἶον μείζον ἀγγεῖον σώματος ἢ τὸ χωροῦν μείζον σώμα; τὸ μὲν οὖν κενὸν ἄπειρον εἶναι λέγεσθαι· τὸ γὰρ ἐκτὸς τοῦ κόσμου τοιοῦτ' εἶναι· τὸν δὲ τόπον πεπερασμένον διὰ τὸ μηδὲν σώμα ἄπειρον εἶναι. καθάπερ δὲ τὸ σωματικὸν πεπερασμένον εἶναι, οὕτως τὸ ἀσώματον ἄπειρον, ὃ τε γὰρ χρόνος ἄπειρος καὶ τὸ κενόν. ὥσπερ γὰρ τὸ μηδὲν οὐδὲν ἐστὶ πέρας, οὕτως οὐδὲ τοῦ μηδενός, οἶον ἐστὶ τὸ κενόν. κατὰ γὰρ τὴν αὐτοῦ ὑπόστασιν ἄπειρόν ἐστι· περατοῦται δ' αὐτοῦτο ἐκπληρούμενον· τοῦ δὲ πληροῦντος ἀρθέντος οὐκ ἔστιν αὐτοῦ νοῆσαι πέρας. fr. 5 Diels at Stob. *Ecl.* 1.15.1c, p. 141.17–19 (on Aristotle) πληρωτικὸν γὰρ εἶναι τοῦ τόπου τὸ σώμα, καθάπερ καὶ τὸν τόπον τοῦ σώματος δεκτικόν.

§2 *Epicurus:* Plutarch *Adv. Col.* 1112E–F 'Ἐπικούρου (fr. 76 Usener) δὲ λέγοντος 'ἢ τῶν ὄντων φύσις σώματ' ἐστὶ καὶ τόπος', πότερον οὕτως ἀκούωμεν ὡς ἄλλο τι τὴν (F) φύσιν παρὰ τὰ ὄντα βουλομένου λέγειν (ἢ) τὰ ὄντα δηλοῦντος ἕτερον δὲ μηθέν, ὥσπερ ἀμέλει καὶ κενοῦ φύσιν αὐτὸ τὸ κενόν, καὶ νῆ Δία τὸ πᾶν 'παντὸς φύσιν' ὀνομάζειν εἴωθε. Hippolytus *Ref.* 1.22.1–2 'Ἐπικούρου (Usener fr. 271 adn.) ... ἀρχὰς μὲν τῶν ὄλων ὑπέθετο ἀτόμους καὶ κενόν—κενὸν μὲν οἶον τόπον τῶν ἐσομένων, ἀτόμους δὲ τὴν ὕλην, ἐξ ἧς τὰ πάντα.

b Sources and Other Parallel Texts

General texts: *Sextus Empiricus M.* 10.2–4 προληπτέον, ὅτι κατὰ τὸν Ἐπίκουρον (fr. 271 Usener) τῆς ἀναφοῦς καλουμένης φύσεως τὸ μὲν τι ὀνομάζεται κενόν, τὸ δὲ τόπος, τὸ δὲ χώρα, μεταλαμβάνομένων κατὰ διαφόρους ἐπιβολὰς τῶν ὀνομάτων, ἐπεὶ περ ἡ αὐτὴ φύσις ἔρημος μὲν καθεστηκυῖα παντὸς σώματος κενὸν προσαγορεύεται, καταλαμβάνομένη δὲ ὑπὸ σώματος τόπος καλεῖται, χωροῦντων δὲ δι' αὐτῆς σωμάτων χώρα γίνεται. κοινῶς μέντοι φύσις ἀναφῆς εἴρηται παρὰ τῷ Ἐπικουρῷ διὰ τὸ ἐστερηθῆαι τῆς κατὰ ἀντίβασιν ἀφῆς. (3) οἱ Στωικοὶ (*SVF* 2.505) φασι κενὸν μὲν εἶναι τὸ οἷον τε ὑπὸ ὄντος κατέχεσθαι μὴ κατεχόμενον δέ, ἢ διάστημα ἔρημον σώματος, ἢ διάστημα ἀκαθεκτούμενον ὑπὸ σώματος, τόπον δὲ διάστημα ὑπὸ ὄντος κατεχόμενον καὶ ἐξισαζόμενον τῷ κατέχοντι αὐτόν, (νῦν δὲ καλοῦντες τὸ σῶμα, καθὼς καὶ ἐκ τῆς μεταλήψεως τῶν ὀνομάτων ἐστὶ συμφανές), χώραν δὲ φασι εἶναι διάστημα κατὰ μὲν τι κατεχόμενον ὑπὸ σώματος κατὰ δέ τι ἀκαθεκτούμενον. (4) ἔτι οἱ δὲ χώραν ἔλεξαν ὑπάρχειν τὸν τοῦ μείζονος σώματος τόπον, ὡς ταύτῃ διαφέρειν τοῦ τόπου τὴν χώραν, τῷ ἐκείνῳ μὲν μὴ ἐμφαίνειν μέγεθος τοῦ ἐμπεριεχομένου σώματος (κἂν γὰρ ἐλάχιστον περιέχῃ σῶμα, οὐδὲν ἦττον τόπος προσαγορεύεται), τὴν δ' ἀξιόλογον ἐμφαίνειν μέγεθος τοῦ ἐν αὐτῇ σώματος.

Chapter heading: *Sextus Empiricus M.* 10.5 περὶ δὲ τοῦ τόπου καὶ τῆς συζυγούσης τούτῳ χώρας, ἥτις καὶ αὐτὴ κατὰ τὸ γένος ἐστὶ τόπος, ἐπὶ τοῦ παρόντος σκεψόμεθα.

§1 Zeno Stoicus: Philo of Alexandria Somn. 1.62 τριχῶς δὲ ἐπινοεῖται τόπος, ἅπαξ μὲν χώρα ὑπὸ σώματος πεπληρωμένη, κτλ. **Sextus Empiricus P.** 3.124 οἱ Στωικοὶ (cf. *SVF* 2.505) φασι κενὸν μὲν εἶναι τὸ οἷον τε ὑπὸ ὄντος κατέχεσθαι μὴ κατεχόμενον δέ, ἢ διάστημα ἔρημον σώματος, ἢ διάστημα ἀκαθεκτούμενον ὑπὸ σώματος, τόπον δὲ διάστημα ὑπὸ ὄντος κατεχόμενον καὶ ἐξισαζόμενον τῷ κατέχοντι αὐτόν, νῦν δὲ καλοῦντες τὸ σῶμα, χώραν δὲ διάστημα κατὰ μὲν τι κατεχόμενον ὑπὸ σώματος κατὰ δέ τι ἀκαθεκτούμενον, ἐνίων χώραν εἰπόντων εἶναι τὸν τόπον τοῦ μεγάλου σώματος, ὡς ἐν μεγέθει τὴν διαφορὰν εἶναι τοῦ τε τόπου καὶ τῆς χώρας. **Diogenes Laertius V.P.** 7.53 (*SVF* 2.87) νοεῖται δὲ καὶ κατὰ μετὰ βᾶσιν τινα, ὡς τὰ λεκτὰ καὶ ὁ τόπος. **Iamblichus** fr. 112 Dalsgaard Larsen at *Simp. in Cat.* 361.10–11 ὡς οἱ Στωικοὶ (*SVF* 2.507) λέγουσιν, παρυφίσταται τοῖς σώμασιν ὁ τόπος. **Porphyry in Cat.** 77.23–24 ἔστιν ἓν τι καὶ τὸ ὡς ἐν ἀγγεῖῳ οἶον ὡς ἐν τῷ ἐκπόματι τὸ ὕδωρ καὶ ἐν τῷ ἀμφορεῖ ὁ οἶνος. **Ammonius in Cat.** 29.6–8 ἐν τόπῳ ... ἐν ἀγγεῖῳ, λέγομεν γὰρ τὸν οἶνον ἐν τῷ κεράμῳ εἶναι. **Olympiodorus in Cat.** 47.6–7 λέγεται ἓν τι καὶ ὡς ἐν ἀγγεῖῳ, ὡς ὅταν φαμὲν τὸν οἶνον ἐν τῷ ἀμφορεῖ εἶναι. **Simplicius in Cat.** 46.6–7 ὡς ἐν τόπῳ ... ὡς ἐν ἀγγεῖῳ ὡς οἶνος ἐν τῷ ἀμφορεῖ. **Elias in Cat.** 149.17–128 ἐν τόπῳ ... ἐν ἀγγεῖῳ, ὡς ὁ οἶνος ἐν τῷ ἀμφορεῖ.

§2 Epicurus: Epicurus Ep.Hdt. at D.L. 10.40–41 τόπος (δὲ) (coni. Usener prob. Dorandi) εἰ μὴ ἦν ὁ κενὸν καὶ χώραν καὶ ἀναφῆ φύσιν ὀνομάζομεν, οὐκ ἂν εἶχε τὰ σώματα ὅπου ἦν οὐδὲ δι' οὗ ἐκινεῖτο, καθάπερ φαίνεται κινούμενα. ... (41) ... καὶ μὴν καὶ τῷ πληθίει τῶν σωμάτων ἄπειρόν ἐστι τὸ πᾶν καὶ τῷ μεγέθει τοῦ κενοῦ. **Ep.Hdt.** at D.L. 10.44 ἦ τε ... τοῦ κενοῦ φύσις. **Ep.Pyth.** at D.L. 10.86 τὸ πᾶν σῶμα (σώμα(τα) Usener) καὶ ἀναφῆς φύσις ἐστίν. **Lucretius DRN** 1.334 ... *locus est intactus inane vacansque*. **DRN** 1.426 *tum porro locus ac spatium, quod inane*

vocamus. DRN 1.520–524 *tum porro si nil esset quod inane vacaret, / omne foret solidum; nisi contra corpora certa / essent quae inane complerent quae cumque tenerent, / omne quod est, spatium vacuum constaret inane. Plutarch Adv.Col.* 1112E Ἐπικούρου (fr. 76 Usener) δὲ λέγοντος ‘ἡ τῶν ὄντων φύσις σώματά ἐστι καὶ τόπος’. *Adv.Col.* 1114A Ἐπίκουρος (fr. 74 Usener), ... ἐν ἀρχῇ δὲ τῆς πραγματείας ὑπειπὼν τὴν τῶν ὄντων φύσιν σώματα εἶναι καὶ κενὸν ὡς μιᾶς οὐσῆς εἰς δύο πεποιή-
ται τὴν διαίρεσιν, ὧν θάτερον ὄντως μὲν οὐθέν ἐστιν, ὀνομάζεται δ’ ὑφ’ ὑμῶν ἀναφῆς καὶ κενὸν καὶ ἀσώματον. cf. Aristotle *Phys.* 4.2 209b11–12 (on Plato) τὸν τόπον καὶ τὴν χώραν τὸ αὐτὸ ἀπεφώνηατο.

Liber 1 Caput 21

P^B: ps.Plutarchus *Plac.* 884B; pp. 318^a1–14 Diels—**P^G**: ps.Galenus *HPh* c. 37; p. 619.12–15 Diels—**P^Q**: Qustā ibn Lūqā pp. 130–131 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 102, p. 57 Westerink (titulus solus)—cf. **P^{Sy}**: Symeon Seth *CRN* 4.65, p. 66.15 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.8.40b, p. 102.17–18 + 1.8.45, p. 109.3–4 Wachsmuth

Titulus κα'. Περί χρόνου (P,S)

§1 Πυθαγόρας τὴν σφαῖραν τοῦ περιέχοντος. (P1,S1)

§2 Πλάτων αἰῶνος εἰκόνα κινήτην, ἣ διάστημα τῆς τοῦ κόσμου κινήσεως.
(P2,S3)

§2α *Aristoteles behauptete, daß sie die Zahl der Bewegung der Himmels-Sphäre ist.* (Q3) 5

§3 Ἐρατοσθένης τὴν τοῦ ἡλίου πορείαν. (P^{BG}3,S2)

§1 Pythagoras 58B33 DK; §2 Plato cf. *Tim.* 37d; §2α cf. Arist. *Phys.* 4.11 219b1–2, 4.14 223b21–23, *Cael.* 1.9 279a14–15; §3 Eratosthenes fr. V 6 Bernhardy.

titulus Περί χρόνου P : al. S Περί χρόνου οὐσίας καὶ μερῶν καὶ πόσων εἴη αἴτιος (cf. Περί οὐσίας χρόνου tit. c. 1.22) §1 [2] Πυθαγόρας ... περιέχοντος S : ante τὴν hab. P τὸν χρόνον fort. recte, post περιέχοντος hab. P εἶναι fort. recte, τὸν χρόνον P^{BG} (τὸν χρόνον εἶναι ante Πυθαγόρας P^G), cf. *Pythagoras glaubte, daß die Zeit ... ist* Q || εἶναι P^{BG}, cf. Q : om. S : post Πυθαγόρας add. P^G ὑπέιληφε §2 [3] post Πλάτων hab. P^G δὲ || αἰῶνος ... ἥ] om. sive lac. P^G || post ἡ Bobzien (2015) 308 con1. (τὴν τοῦ κόσμου κίνησιν οἱ Στωικοὶ) vid. comm. infra τῆς σφαίρης τοῦ οὐρανοῦ κινήσεως] §2α lemma hab. solus P^Q nisi additio Q; vid. comm. infra §3 [7] post Ἐρατοσθένης hab. P^G δὲ || ἡλίου P^S : κόσμου P^{GQ}

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 37 (~ tit.) Περί χρόνου (text Diels)

27.1 (~ P1) τὸν χρόνον εἶναι Πυθαγόρας ὑπέιληφε τὴν σφαῖραν τοῦ περιέχοντος.

27.2 (~ P2) Πλάτων δὲ διάστημα τῆς τοῦ κόσμου κινήσεως.

27.3 (~ P3) Ἐρατοσθένης δὲ τὴν τοῦ κόσμου πορείαν.

Psellus Omn.Doctr. c. 102 (~ tit.) Περί χρόνου

Symeon Seth CRN 4.65 (~ tit.) Περί χρόνου

Loci Aetiani:

quaestio A 1.22 Περί οὐσίας χρόνου. A 2.32 Περί ἐνιαυτοῦ, πόσος ἐκάστου τῶν πλανητῶν χρόνος καὶ τίς ὁ μέγας ἐνιαυτός.

§1 A 1.16.1 οἱ ἀπὸ Θάλεω καὶ Πυθαγόρου παθητὰ (τὰ) σώματα καὶ τμητὰ εἰς ἄπειρον, καὶ πάντα τὰ συνεχῇ, γραμμὴν ἐπιφάνειαν στερεὸν σῶμα τόπον χρόνον. A 2.12.1

Θαλῆς Πυθαγόρας οἱ ἅπ' αὐτοῦ μεμερίσθαι τὴν τοῦ παντός οὐρανοῦ σφαῖραν εἰς κύκλους πέντε. A 3.14.1 Πυθαγόρας τὴν γῆν ἀναλόγως τῇ τοῦ παντός οὐρανοῦ σφαίρᾳ διηγήσθαι εἰς πέντε ζώνας.

§2 A 1.25.2 Πυθαγόρας ἀνάγκην ἔφη περικεῖσθαι τῷ κόσμῳ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) This short chapter is witnessed by the Byzantine mss. of P and the translation of Q (who has one lemma more than P^B and S). It is found in an abridged (or lacunose) and muddled form in G. P^{Ps} utilises only the title.

(2) It is also found complete (except for the extra lemma in Q) but dispersed in S's long chapter on time, which apart from a large collection of poetic fragments and a few apophthegms comprises the lemmata of A 1.21–22, AD frs. 6 and 7 Diels on Aristotle and the Aristotelians, AD fr. 26 Diels on Zeno, Apollodorus, Posidonius, and Chrysippus (interwoven between Zeno and Apollodorus with a Hermetic fragment), then ch. 3.8.1 followed by ch. 2.1–4, by a prose paraphrase of a fragment of Scythinus (Heraclitus 22C3.2 DK, note verse restoration by Wilamowitz), by an excerpt from Plutarch's *Numa*, and concluding with one from Plato's *Timaeus* preceded by a combination of chs. 1.21.2, 1.22.9 and 1.22.1. For further details see the analysis at M–R 1.226–228, and also below at ch. 1.22, Commentary D(b). With some hesitation we have revised earlier suggestions and included Q's Aristotle lemma, retaining Daiber's numbering with 2α, because it seems after all unlikely that it was added on Q's initiative. Q is quite often at a loss to understand his Greek source yet still provides a sort of translation, which makes the occasional nugget, when more or less unexceptionable in itself, all the more gratifying.

(3) P, or rather A, has distributed material on time over two chapters that could just as well have been placed in a single chapter, just as in S, see Cavagnaro (1994) 239. See below at section C. He just attempted to follow the tradition, as is clear from Sextus Empiricus' parallels for the distinction between 'on time' and 'on the substance/essence of time' (cf. sections C and D(a) below). The distinction between chs. 4.2 'On soul' (soul qua incorporeal, so without substance in the sense of matter), and 4.3 'On the substance of soul' (soul qua corporeal entity) is much clearer at a first glance. As the authorial remark at ch. 4.3.1 tells us *disertis verbis*, 'all those arrayed previously [sc. in ch. 4.2] assume that the soul is incorporeal', while the doxai that follow list corporeal entities.

(4) Sharples (2011a) 90–91 prints the material for chs. 1.21–22 from S alone in its Stobaeian order as Strato fr. 33, as follows: A 1.21.1 plus 1.21.3 (both in both S and P) plus 1.22.7–8 (both in both S and P) plus 1.22.2 (not in P) plus 1.22.3–6 (not in P), strangely omitting to add 1.22.8 (in both S and P). He rejects Diels' reconstruction of A, and argues that Diels 'inserts a reference to Plato in his Stobaeus column', i.e. at ch. 1.21.2, as if Diels took this from P instead of from S 1.8.45 (but he does not cite the other evidence of S 1.8.45 either). He also argues that Diels 'inserts a heading "On Time"' and 'one "On the Being of Time"' in the S column of 1.21 and 1.22, as if these derive from P alone, and omits to tell us that the first ingredient of the heading of S's own chapter is an epitomized combination of those in P. He also rejects other details of Diels' reconstruction, but on the other hand retains a phrase from AD fr. 26 Diels (without revealing its provenance) that has been inserted by S in the midst of the Aëtian material. But then, surprisingly, he concludes that 'Diels' reconstruction of the original sequence in Aëtius may be correct', but that does not alter the potentially misleading nature of the way in which he presents the text of Stobaeus. One wonders what particular purpose can be served by presenting the *rudis indigestaque moles* of S. It certainly does little or nothing for the interpretation of Strato. It is also a good example of what happens when an individual witness is cited in isolation without taking into account the need to reconstruct the original text of A.

(5) Bobzien (2015) 293–312 rejects Diels' reconstruction of chs. 1.21–22 from P and S. She argues that the attribution of the Stoic view of time as διάστημα τῆς τοῦ κόσμου κινήσεως (for which cf. below, ch. 1.22 Commentary D(d) individual points §2) to Plato in ch. 1.21.2 must be due to a textual corruption that occurred somewhere in the tradition, because it cannot be derived from something Plato really said or meant. She therefore posits (307 n. 81) that Diels was wrong in inserting the five lemmata 1.22.3–7 (Xenocrates, Hestiaeus, Strato, Epicurus, Antiphon and Critolaus) from S in ch. 1.22, and suggests (in rather cavalier fashion) that S excerpted them 'from one or more additional sources'. 'In this way' (she adds) 'no long gap has to be postulated for' P. According to her reconstruction (o.c. 307–308, inclusive of italics and bold characters) the text must have looked as follows in S's source (note that P's chapter headings are omitted):

Πυθαγόρας τὴν σφαῖραν τοῦ περιέχοντος. Πλάτων αἰῶνος εἰκόνα κινήτην, ἢ διάστημα τῆς τοῦ κόσμου κινήσεως. Ἐρατοσθένης τὴν τοῦ ἡλίου πορείαν. [Πλάτων] οὐσίαν χρόνου τὴν τοῦ οὐρανοῦ κίνησιν. οἱ Στωικοὶ (χρόνου οὐσίαν) αὐτὴν τὴν κίνησιν. Οἱ πλείους ἀγέννητον τὸν χρόνον. [Πλάτων] γενητὸν δὲ κατ' ἐπίνοιαν.

Although in the exactly parallel versions of P the name-label Πλάτων actually occurs each time, Bobzien has bracketed it both times because in S's Plato

lemma at *Ecl.* 1.8.45, coalesced (as we have seen) from three Aëtian lemmata, the name-label occurs only with the first excerpt, as he did not need repeat it. We stipulate that adding ⟨χρόνου οὐσίαν⟩ for the Stoics is unnecessary, since these words occur both in the previous lemma and in the chapter heading (rejected by Bobzien). Deleting the five lemmata of 1.22.3–7, notwithstanding their perfect Aëtian form and presentation, is a consequence of arguing towards a conclusion rather than from the evidence, and is entirely unwarranted (for Aëtian enclaves or micro-environments in S see above, General Introduction sections 2.4 and 3.3). Nevertheless, concluding that sections of chs. 1.21.2 and 1.22.1 should be combined in the above way, Bobzien goes on to emend the text of ch. 1.21.2 in the following elegant way:

... Πλάτων αἰῶνος εἰκόνα κινητήν, ἢ ⟨τὴν τοῦ κόσμου κίνησιν· οἱ Στωικοί⟩ διάστημα τῆς τοῦ κόσμου κινήσεως. ...

Note a minor slip: 1.22.1 reads οὐρανοῦ, not κόσμου. What is more important is that uncoupling the contents of chs 1.21.2 and 1.22.1 was not Diels' doing, since they are already distributed over different chapters in P (confirmed by Q and G). In S's coalesced Plato lemma the two lemmata are included in the same order as they have in P on either side of the chapter division, namely of 1.21.2 first and of 1.22.1 second, and are separated from each other by a stray lemma from the next chapter on time, namely 1.22.9.

Even so, this emendation is probably correct as far as the wider tradition of A is concerned. But we need not involve ch. 1.22.1 and the rest of ch. 1.22 (thus preserving 1.22.3–7 for A), and can afford to limit the hypothetical emendation to the *prehistory* of ch. 1.21.2. What happened, as Bobzien saw, is that the name-label οἱ Στωικοί (or something similar) has at some time fallen by the wayside. Accidents or occurrences of this nature are not unusual in A, as could have been learned at Diels *DG* 64, or M–R 1.192–193.

To repeat some of Diels' examples: At ch. 1.20 P coalesced A's two lemmata (both extant in S) *suo more* by adding (note the adventitious καί) the name-label Ἐπίκουρος to the name-label οἱ Στωικοί (S has Ζήνων καὶ οἱ ἄπ' αὐτοῦ), taking the false attribution of a Stoic doctrine to Epicurus in his stride; see above ch. 1.20, Commentary D(b). An even better parallel is provided by ch. 4.7.1–2, where the parallel in T (S is almost entirely lost for this chapter) shows that the name-label Ἡράκλειτος has fallen out unintentionally or been omitted in P, with as a consequence that a doxa originally ascribed to Heraclitus has now by mistake though in itself not implausibly been attributed to Πυθαγόρας Πλάτων; see below ch. 4.7, Commentary A. At ch. 4.13.12–13, again, P abridged his predecessor so as to produce a single lemma, epitomizing away both the name-label

Ἑστιάιος of §13 and the Empedoclean tenet of §12, thus combining the Ἑστιάιος doxa with the name-label Ἐμπεδοκλήης. Finally ch. 3.3.13–14, where P has coalesced two lemmata by omitting the first lines of the second, including the name-label Στράτων; cf. ch. 3.3, Commentary A. We may add another example, namely ch. 4.23.1–2, where a bizarre new lemma is produced by *saut du même au même* in part of P's tradition; see ch. 4.23 Commentary D(d)§§1–2.

The fact, as noted above, that P and S have transmitted the text of 1.21.2 in exactly the same form demonstrates that this was already A's text. Mistakes may become part of the tradition! We note that the improbable Plato doxa is also found in Philo (as it seems, cf. *Aet.* 52) and Alcinous (see below, section D(d)§2), so it infiltrated a Middle Platonist strand of the tradition without causing offence. Later Platonists do not repeat the mistake.

Bobzien's reading not only entails obliterating P's chapter division, which is only permitted when the evidence warranting such a surgical intervention is unavoidable, but also means rewriting A's text, which of course we should not do at all. If a corruption occurred, as is indeed most likely, this must have happened in one of A's doxographical predecessors. Which in its turn would entail that some lemmata in this source of A had the same terse structure as the majority of A's lemmata, which constitutes a quite important piece of information.

B Proximate Tradition and Sources

(1) *Proximate tradition.* Examples of the proximate tradition are found as far apart as in Sextus Empiricus and Simplicius, blended with that for ch. 1.22. Parallels virtually constituting a rather full summary of the proximate tradition concerned with chs. 1.21 and 1.22 together are found in Plotinus *Enn.* 3.7[45] *On time and eternity*. See esp. the summary at *Enn.* 3.7[45].7.17–27, cited below section E(b) General texts, and section D(e).

(2) *Sources.* The link with Aristotle *Phys.* 4.10 218a31–b10 is unmistakable (cf. Burkert 1972, 75–76) and decisive; this text may therefore count as an ultimate source. Aristotle first asks 'what time is and under what category it falls' (τί δ' ἐστὶν ὁ χρόνος καὶ τίς αὐτοῦ ἢ φύσις), giving as examples two anonymous doxai echoed in our two *Placita* chapters, though now with name-labels added, namely 'Pythagoras' in the echo at A 1.21.1 and 'Plato' in the not fully verbatim echo at 1.22.1; we note that, again, the *Placita* 'knows' who are meant here (cf. above, ch. 1.3, Commentary D(d)§14). Aristotle argues that 'time is most usually supposed to be motion and a kind of change' (ἐπεὶ δὲ δοκεῖ μάλιστα κίνησις εἶναι καὶ μεταβολή τις ὁ χρόνος, τοῦτ' ἂν εἴη σκεπτέον), a point of view that corresponds with the overarching focus of 1.21.2–3 and 1.22.1–5. Accordingly Aristotle first speaks of time as an accident—or incorporeal—, namely 'the motion of the

whole', and then as a substance, or physical entity—something corporeal—, namely 'the sphere itself' (see for this pair §1 with the first part of §2).

Aristotle then concentrates on the specifics of the incorporeal entity, namely of 'time qua something belonging to motion' (*Phys.* 4.11 219a8–10).

The Plato doxa at §2 has been modified by the incorporation, as it would seem in the course of the transmission, of a Stoic notion at §2b (see above at section A). The Aristotle doxa in the third lemma (§2α, provided we may include it) amounts to a remarkable misunderstanding of his doctrine, perhaps based on identifying his summary of someone else's view at *Phys.* 4.14 223b21–23 (cited below at section E(b)§2α) as representing his own doctrine. It would also fit in between ch. 1.22.1 and 1.22.2. The Eratosthenes doxa at §3 is an addition to the earlier material, but we do not know by what route these contents have travelled to our chapter.

C Chapter Heading

(1) Attested in both P and S, and of the standard umbrella type 'about x', περὶ τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. In the present chapter it encompasses physical substance as well as a number of accidents (or incorporeals), namely time, which of course is a category by itself, plus motion in the categories of place and quantity. For more information see below ch. 1.22, Commentary C.

(2) We note that P's headings Περί χρόνου (1.21) and Περί οὐσίας χρόνου (1.22) have been coalesced into Περί χρόνου οὐσίας as the heading of S 1.8 (note the modified word order), who also adds further specifications. The difference between the heading of the present chapter and that of the next, which includes οὐσίας, suggests that there must be a meaningful difference between them, but this is not so easy to discover. For the distinction and connection between Περί τοῦ δεῖναι and Περί οὐσίας τοῦ δεῖναι see above, ch. 1.3, Commentary C ad init., and for similar problems below at chs. 1.25–26 and 1.27–28. The distinction between and conjoined treatment of 'time' and 'the οὐσία of time' is paralleled *disertis verbis* at Sextus Empiricus *M.* 10.170–181, 10.215–219, 10.227–229, and P. 3.136–138 (partly cited below section E(a) General texts, and at 1.22, section E(a) General texts). Leszl (2002) 174–175 and, following him, Botler (2014) 229–230, who have difficulties with the relation between our twin chapters, fail to mention this parallel discussion, which at least proves that we have to take the duality seriously. See further below at section D(c).

D Analysis

a Context

The twin chapters 1.21 ‘On time’ and 1.22 ‘On the substance of time’ appositely follow upon chs. 1.18–20, the triad of chapters dealing with the void, place, and space. They are appropriately followed by the two chapters 1.23, ‘On motion’ (motion already plays an important part in chs. 1.21–22) and 1.24, ‘On coming to be and passing away’. Appropriately, because already since Aristotle the concept of motion is closely bound up with the concept of time and conversely, and the concept of time with those of coming to be and passing away. There is also a connection of ch. 1.22 with ch. 2.4, ‘Whether the cosmos is indestructible’, since the issue of the coming to be and passing away of the cosmos versus its eternity or indestructibility is associated with the question of time. See esp. ch. 2.4.1, ‘Pythagoras and Heraclitus (say that) the cosmos is generated in thought (κατ’ ἐπίνοιαν), but not in time’, which is parallel to ch. 1.22.9, ‘Plato (says that it, sc. time, is) generated in thought (κατ’ ἐπίνοιαν)’. This association is formulated *disertis verbis* by Sextus Empiricus *M.* 10.169, cited below at section E(a) General texts, and present in Diogenes Laertius *V.P.* 7.141 = *SVF* 2.589 (reproduced *Suda* s.v. X 533 χρόνος).

b Number–Order of Lemmata

P^B and S provide three lemmata, Q four. The relative order of P₁ and P^B₃ + Q₄ is the same as that of S₁ and S₂. S took §2 on Plato away from this chapter to coalesce it, in his usual way, with 1.22.1 and 1.22.9 as a preamble to his lengthy abstract from the *Timaeus* on time at 1.8.45 (cf. ch. 1.22 Commentary D(b)). If §2α, the Aristotle lemma preserved in Q, is genuine, we must suppose that S left it out (compare his handling of §2 Plato), because he preferred to replace it with AD frs. 6 and 7 Diels on Aristotle and the Aristotelians on time at 1.8.40c–d, and that for whatever reasons it was epitomized away by P^B. To indicate the hypothetical nature of this consideration we have preserved Daiber’s numbering.

We may in any case preserve the order of P, just as Diels did. This time the lemmata are presented in a relative chronological sequence.

c Rationale–Structure of Chapter

(1) *Corporeal vs. incorporeal*. As we have seen above at section C, according to Sextus Empiricus *M.* 10.215, 10.218, 10.227–229 and *P.* 3.138 the issue of the οὐσία of time is concerned with its being corporeal or incorporeal. This diaeresis has no explicit counterpart here in A, though the explicit distinction between incorporeal and corporeal does figure elsewhere in the *Placita*, see M–R 2.1.14, 2.1.57–58, and 2.1.147. Nevertheless it is reflected in the present chapter. In chs. 1.21 and 1.22 we only find a single doxa that certainly pertains to body, namely

1.21.1: 'the sphere of the encompassing', and another one that possibly does so, namely the 'image of eternity' of 1.21.2 qua collection of functioning heavenly bodies. But §2b, Plato's purported (and originally Stoic) second definition, is about the dimension of the motion of the cosmos, i.e. an incorporeal.

(2) *Diaphoniae and diaeresis*. There is a gradual diaeresis from §2b to §3 in that §2b is about the motion of the cosmos as a whole, §2α (if we may include it) about the motion or its quantitative aspect of a more limited entity, namely of the outer heaven, and §3 about even an even further restricted motion of this nature, namely that of the sun alone. Accordingly the diaphonia is between §1 (and §2α): physical substance(s), and §§2b–3 accidents. This opposition ultimately derives from Arist. *Phys.* 4.10 218a33–b10, see above at section B. The accidents themselves are ordered diaeretically on a gliding scale, as their differences seem to be partial rather than complete and are a matter of emphasis rather than pointers to noticeable variety. §§1–7 and presumably §8 of the next chapter are all about accidents, i.e. incorporeals, while §9, Plato's generated time, is an incorporeal in the next chapter, but a corporeal if we look at §2α of the present chapter. Ch. 1.22.1–7, comprising only doxai pertaining to incorporeals, is a natural sequel to the second part of ch. 1.21, although, as already pointed out, all the doxai (so also including 1.22.8–9) could have been collected in a single chapter under a single heading.

(3) *Chronology?* As a subsidiary reason for the presence of two chapters we may perhaps assume that ch. 1.21, a sort of calque of Aristotle's account at *Phys.* 4.10–11 (see above at section C), is earlier than ch. 1.22, with its more generous selection of Hellenistic doxai. We may anyhow conclude that the presence in our chapter of both corporealist and incorporealist doxai is to be explained by its descent from Aristotle's brief overview. For this piece of *Quellenforschung* we do have the *Quelle*. That all the doxai apart from that of Pythagoras in §1 (plus perhaps that of Plato in §2α) pertain to properties or incorporeals is not surprising, because no one apart from the rather primitive anonymous authority cited by Aristotle (Pythagoras according to our chapter) saw time as a physical entity.

d Further Comments

General Points

Chs. 1.21–22 are translated in Mejer's overview of doxography at (2006) 24–26, and critically discussed as representative examples of Aëtian chapters.

For the diaeresis between corporeal and incorporeal (οὐσίᾱ) in general see Szlezák (1972) 171, and below section E(b) ad fin.

Individual Points

§1 (1) It is noteworthy that in the case of the first lemma, S is compacter than P, not including the subject of the doxa and the verb in the infinitive as found in P. Usually it is the other way around, with S having the longer form. With some hesitation we have opted for S, since the abridged form is what is most commonly found in A.

(2) Aristotle's remark *Phys.* 4.10 218a33–34 that 'some people say that time is the sphere itself (of the All)' is applied to Pythagoras by the doxographer, and to the Pythagoreans by people who may have misunderstood Archytas or some of the Stoics according to Simplicius (*in Phys.* 700.19–22). This view, according to Simplicius in the same passage (*in Phys.* 700.28–30), is not refuted by Aristotle because it is entirely implausible. It may actually be early and perhaps even Pythagorean, as it is based on the idea that things really *are* numbers. A parallel in the *Placita* for 'Pythagoras' on the sphere of the All is at ch. 2.6.5, where the dodecahedron derives from a *Timaeus interpretatus* (55c), cf. *Timaeus* Locrus p. 216.20–21 Thesleff τὸ δὲ δωδεκάεδρον εἰκόνα τῷ παντὸς ἐστάσατο, ἐγγιστα σφαῖρα ἐόν, and the comments of Cornford (1937) 218–221.

A possible parallel for the sphericity of the heavens in Hellenistic Pythagoreanism is ps.Philolaus 44B12 DK, if one of the conjectures of Zeller (1876) 376 n. 3 is accepted, namely ὅλ{κ}ας for mss. ὀλκός, see Mansfeld (2016b). For the phrase τῆς ὅλης σφαίρας cf. Arist. *Mete.* 2.7 365a23–24, AD fr. 23 Diels at Stob. *Ecl.* 1.19.4, p. 166.13; for the Doric genitive ἄλλας σφαίρας Archim. *Fluit.* pp. 3.10.6, 3.12.12 (γεγράφθω τις ἄλλας σφαίρας ἐπιφάνεια περὶ κέντρον).

§2 The double definition attributed to Plato is paralleled in the *Didascalicus*, the introduction to Plato's philosophy of the Middle Platonist Alcinous, and Philo knew it both as a Stoic (*Aet.* 4, 54) and, perhaps, a Platonic view (cf. *Aet.* 52), see below section E(a)§2. Note however that the phrase διάστημα τῆς τοῦ κόσμου κινήσεως is generally quoted as Stoic (also by Simplicius), see section E(b) General texts and §2 and ch. 1.22.2 with section E(b)§2, and that only the first part of the doxa corresponds to the genuine Plato. Even so, κινήσεως διάστημα to some extent catches the element of succession that is characteristic of time also according to Plato, so one sees why it came to be tolerated. For the emendation proposed by Bobzien see above, section A(5) *ad finem*. In the next chapter an *early* doxa that is anonymous in Aristotle comes to be attributed to the Stoics, see at 1.22.2.

§2α For the inclusion of the lemma found only in Q see above at section D(b). S 1.8.40c–40d presumably preferred AD fr. 6 Diels on Aristotle on time and fr. 7 Diels on the Aristotelians on time.

§3 This text is not included in Jacoby's rather limited collection at *FrGrH* 2.1010–1021 (Nr. 241). Given that S confirms P^B, the inferior reading of κόσμου

rather than ἡλίου may have been introduced by G and Q from §2 independently of each other. G's inferior version of 1.22.1–2 (*ubi vide*) attributes τὴν τοῦ ἡλίου πορείαν of 1.21.3 (Eratosthenes) in the paraphrased version ἡλίου τὴν κίνησιν to the Stoics and as τὴν πορείαν τούτου to Plato, thus once again exposing his cavalier handling of ingredients of lemmata, because the preservation of variety and/or conflict is the only thing that matters to him.

e Other Evidence

(1) A fair selection of doxai, decorated with a poetic quotation, is found at Plutarch *Platonic Questions* 1006F–1007D, cited below section E(b) General texts, remembered either from a doxography similar to what is in A, or from a doxographical excursus in a *Timaeus* Commentary.

(2) Time is discussed at length by Sextus Empiricus at *M.* 10.169–247 and *P.* 3.136–150, accounts that are to some degree indebted to doxographical traditions comparable to A. Here (*M.* 10.215, *P.* 3.138) the οὐσία of time applies to the distinction between incorporeal and corporeal that is often found in Sextus. At *M.* 10.215 and 10.219 Epicurus (cf. A ch. 1.22.6) and at 10.228 Strato (cf. A ch. 1.22.5) are made to hold that time is an incorporeal. His representative for the view that time is a body, namely Aenesidemus at *M.* 10.216, 10.230 and *P.* 3.138 (frs. B28A–C Polito), is not paralleled in A, who instead mentions Pythagoras. A detailed discussion of the doxographical material on time up to and including Sextus is found at Bobzien (2015) 296–321, see above at section A(5). See also the next chapter, 1.22.2.

(3) Time was also discussed by Galen in the *De demonstratione*, see Chiara-donna (2009) 54–62.

(4) In the first chapter of his treatise ‘On eternity and time’ (3.7.1), cited section E(b) General texts, Plotinus begins with what is in fact a preliminary and conceptual definition (cf. above, ch. 1.9, Commentary D(c) and (e)(2)) of the dialectically opposed words and concepts ‘time’ and ‘eternity’, by stating that we more or less know what these words mean and what they refer to; such an introductory definition is not a feature of our chapter. He then provides a noteworthy description of the use and utility of, among other things, a doxography: ‘(W)hen we try to concentrate on them (sc. eternity and time) and, so to speak, to get close to them, we find again that our thought runs into difficulties; we consider the statements of the ancient philosophers about them, who differ from one another, and perhaps also different interpretations of the same statements. ... Now we must consider that some of the blessed philosophers of ancient times have found out the truth; but it is proper to investigate which of them have attained it most completely, and how we too could reach an understanding about these things’ (trans. Armstrong, LCL). Aristotle’s over-

arching contrast between motion and a substance that is moved (cf. above, at section B) is paralleled at *Enn.* 3.7[45].2.2–3, where Plotinus mentions the Pythagorean view first, just as our *Placita* chapter, (though anonymously). But at *ibid.* 3.7[45].7.18–20 he briefly presents a tripartition, first mentioning (just as Aristotle) motion and secondly the (corporeal) thing moved, and thirdly what he calls ‘something belonging to motion’, which is not paralleled in this diaeresis, but at *Phys.* 4.11 219a8–10 prepares Aristotle’s own definition. Both Plotinian texts are cited below section E(a)§1; for the tripartition itself cf. further below, ch. 1.22, Commentary D(c). In *Enn.* 3.7.7–10 the detailed doxographical overview concerned with time (likewise cited below at section E(b) General texts), comprising doxai paralleled in A chs. 1.21–22, then follows; in these chapters ‘(ist) die Zeit doxographisch behandelt’ (Harder & *alii* 1967, 513). See also the detailed discussion of Kalligas (2014) 600–602. Among the doxai cited by Plotinus is the view that time is the ‘dimension of the motion’ (διάστημα τῆς κινήσεως), which is Stoic and by mistake attributed to Plato at 1.21.2 and elsewhere (see above, section A(5), and AD fr. 26 at section E(b)§2 below). This is not found in Aristotle, so the dialectical discussion at *Phys.* 4.10 218a30–b20 is not Plotinus’ only point of departure, as is of course also clear from the other parallels with post-Aristotelian tenets. E.g. *Enn.* 3.7.10.1–8 briefly cites and criticizes Epicurus’ view. Strange (1994) argues that Plotinus’ dialectical method derives from Aristotle’s, with modifications, which of course is right to an important extent. But he fails to discuss the *Placita* chapters, and seems to be unaware of the fact that the dialectical method (a critical discussion of views of predecessors) had become a quite general tool of research and is relied upon and used by numerous authors, as has been pointed out by us *usque ad abundantiam*. See e.g. Cicero in the first book of the *De natura deorum*, Galen in many places (see now Tieleman 2018), Alexander of Aphrodisias (in the introduction to his *De fato*), as well as Sextus Empiricus, *passim*. And so on.

Plotinus apparently remembered or used a text resembling our chs. 1.22.1 and 1.22.2. The references in the *apparatus fontium* (thus on p. 383) of Henry-Schwyzler are in this respect insufficient.

(5) Rich documentation, above all concerned with developments that are much later, is to be found in Simplicius’ *Corollarium de tempore*, translated by Urmson (1992) and discussed by Meyer (1969) and Sonderegger (1982). Simplicius’ observation (*in Phys.* 700.22–24, cited below section E(b) General texts) that Aristotle’s ‘tripartite division of the doxai on time leaves out the mythological examples and actually comprises all the options’ (τρεῖς γὰρ ἱστορεῖ περὶ χρόνου δόξας τὰς μυθικωτέρας παρείς· ἐν αἷς ἐκ διαιρέσεως εἰλημμέναις πάσας συνείληφεν) is valuable from a methodological point of view, for this secular presentation is also what an Aëtian chapter aims at.

E Further Related Texts

a Proximate Tradition

General texts: (N.B. pertains to both ch. 1.21 and ch. 1.22; see also below ch. 1.22 section E(a) General texts) **Sextus Empiricus** *M.* 10.169–170 πειρασόμεθα καὶ περὶ χρόνου ζητεῖν· τάχα γὰρ καὶ περὶ τούτου ὁ λόγος ἄπορος φανεῖται τοῖς τε αἰώνιον ὑποτιθεμένοις εἶναι τὸν κόσμον φυσικοῖς καὶ τοῖς ἀπὸ τίνος χρόνου λέγουσιν αὐτὸν συνεστάσθαι (cf. ch. 2.4). (170) καὶ δὴ τινές (*SVF* 2.513) φασὶν χρόνον εἶναι διάστημα τῆς τοῦ κόσμου κινήσεως (cf. ch. 1.21.2), οἱ δὲ αὐτὴν τὴν τοῦ κόσμου κίνησιν. *M.* 10.176 Ἀριστοτέλης (*Phys.* 4.11 219b2–9) δὲ χρόνον ἔφασκεν εἶναι ἀριθμὸν τοῦ ἐν κινήσει πρώτου καὶ ὑστέρου. *M.* 10.215 ἐνέσται δὲ τοῦτο ἀπορεῖν καὶ ἀπὸ τῆς οὐσίας, ὡς καὶ ἀπὸ τῆς ἐννοίας προηπόρηται. αὐτίκα γὰρ τῶν δογματικῶν φιλοσόφων φασὶν οἱ μὲν σῶμα εἶναι τὸν χρόνον οἱ δὲ ἀσώματον, καὶ τῶν ἀσώματων φαμένων οἱ μὲν ὡς καθ' αὐτὸ τι νοούμενον πρᾶγμα, οἱ δ' ὡς συμβεβηκὸς ἐτέρῳ. *M.* 10.218 ὥσθ' οὗτοι μὲν σῶμα ποιοῦσι τὸν χρόνον, οἱ δὲ ἀπὸ τῆς Στοᾶς φιλόσοφοι (*SVF* 2.331) ἀσώματον αὐτὸν ᾤθησαν ὑπάρχειν. *M.* 10.228 Πλάτων δὲ ἔλεγεν, ὡς δὲ τινες Ἀριστοτέλης (*Phys.* 4.11 219b1–2), χρόνον εἶναι ἀριθμὸν τοῦ ἐν κινήσει προτέρου καὶ ὑστέρου, Στράτων δὲ ὁ φυσικός (fr. 79c Wehrli, 35 appar. Sharples), ὡς δ' ἄλλοι Ἀριστοτέλης, μέτρον κινήσεως καὶ μονῆς. *P.* 3.136–138 χρόνον γὰρ εἶναι φασιν οἱ μὲν διάστημα τῆς τοῦ ὅλου κινήσεως (cf. ch. 1.21.2) (ὅλον δὲ λέγω τὸν κόσμον), οἱ δὲ αὐτὴν τὴν κίνησιν τοῦ κόσμου (cf. ch. 1.22.1), Ἀριστοτέλης (*Phys.* 4.11 219b2–9) δὲ, ἢ ὡς τινες Πλάτων, ἀριθμὸν τοῦ ἐν κινήσει προτέρου καὶ ὑστέρου, (137) Στράτων (fr. 79b Wehrli, 35 app. Sharples) δὲ, ἢ ὡς τινες Ἀριστοτέλης, μέτρον κινήσεως καὶ μονῆς (cf. ch. 1.22.5), Ἐπίκουρος (cf. ch. 1.22.6, on fr. 294 Usener, pp. 352.32–353.3) δὲ, καθὼς Δημήτριος ὁ Λάκων (test. 6 Gigante at Puglia (1988) 19) φησί, σύμπτωμα συμπτωμάτων, παρεπόμενον ἡμέραις τε καὶ νυξὶ καὶ ὥραις καὶ πάθεσι καὶ ἀπαθείαις καὶ κινήσεσι καὶ μοναῖς: (138) κατ' οὐσίαν τε οἱ μὲν σῶμα αὐτὸν ἔφασαν εἶναι, ὡς οἱ περὶ τὸν Αἰνησίδημον (fr. B28C Polito) (μηδὲν γὰρ αὐτὸν διαφέρειν τοῦ ὄντος καὶ τοῦ πρώτου σώματος), οἱ δὲ ἀσώματον. ἦτοι οὖν πᾶσαι αἱ στάσεις αὐταὶ εἰσιν ἀληθεῖς, ἢ πᾶσαι ψευδεῖς, ἢ τινὲς μὲν ἀληθεῖς, τινὲς δὲ ψευδεῖς. **Plutarch** *Plat. Quaest.* 1006F–1007D ἐκεῖνο δὲ μάλλον ἂν τις ὑπίδοιτο, μὴ παρὰ τὸ εἰκὸς ὁ ἥλιος καὶ ἀτόπως λέγεται μετὰ τῆς σελήνης καὶ τῶν πλανήτων εἰς διορισμὸν χρόνου γεγενῆσθαι (cf. *Tim.* 38c) (1007A) ... ῥητέον οὖν τοὺς ὑπὸ τούτων ταρτατομένους δι' ἄγνοιαν οἶεσθαι τὸν χρόνον 'μέτρον εἶναι κινήσεως καὶ ἀριθμὸν κατὰ (τὸ) πρότερον καὶ ὕστερον' ὡς Ἀριστοτέλης (*Phys.* 4.11219b1–2, 220a24–25 etc.) εἶπεν, ἢ 'τὸ ἐν (B) κινήσει ποσόν' ὡς Σπεύσιππος (fr. 53 Lang, 93 Isnardi Parente, 60 Tarán, cf. ch. 1.22.5), ἢ 'διάστημα κινήσεως' ἄλλο δ' οὐδὲν ὡς ἔνιοι τῶν Στωικῶν (*SVF* 2.515) ἀπὸ συμβεβηκότητος ὀριζόμενοι τὴν δ' οὐσίαν αὐτοῦ καὶ τὴν δύναμιν οὐ συνορῶντες. ... ὃ τε Πυθαγόρας (—), ἐρωτηθεὶς τί χρόνος ἐστί, τὴν τοῦρανοῦ ψυχὴν εἰπεῖν (cf. §1). οὐ γὰρ πάθος οὐδὲ συμβεβηκὸς ἥς ἔτυχε κινήσεως ὁ χρόνος ἐστίν, αἰτία δὲ καὶ δύναμις καὶ ἀρχὴ τῆς πάντα συνεχούσης τὰ γιγνώμενα συμμετρίας καὶ τάξεως, ἣν ἡ τοῦ ὅλου φύσις ἐμψυχος οὖσα κινεῖται· μάλλον δὲ κίνησις (C) οὖσα καὶ τάξις αὐτὴ καὶ συμμετρία χρόνος καλεῖται. ... καὶ γὰρ ἡ ψυχῆς οὐσία κατὰ τοὺς παλαιούς (Xenocrates fr. 60 Heinze, F 92 Isnardi Parente²) 'ἀριθμὸς ἦν αὐτὸς ἑαυτὸν κινῶν'. ... (D) ... οὕτως οὖν ἀναγκαίαν πρὸς τὸν οὐρανὸν ἔχων συμπλοκὴν καὶ συναρμογὴν ὁ χρό-

νος οὐχ ἀπλῶς ἐστὶ κίνησις ἀλλὰ ὥσπερ εἴρηται κίνησις ἐν τάξει μέτρον ἐχούσης καὶ πέρατα καὶ περιόδους. **Plotinus** *Enn.* 3.7[45].2.2–4 ὥσπερ ἂν εἴ τις λέγοι τὸν χρόνον τὸν σύμπαντα οὐρανὸν καὶ κόσμον εἶναι (cf. §1); καὶ γὰρ αὐτὸ καὶ ταύτην τὴν δόξαν ἔσχον τινές, φασί, περὶ τοῦ χρόνου. also 3.7[45].2.21 ὥσπερ ἐνταῦθα τὸν χρόνον κατὰ τὴν κίνησίν φασιν (cf. §§2–3 and ch. 1.22.1–5). *Enn.* 3.7[45].1.7–17 πειρώμενοι μὴν εἰς ἐπίστασιν αὐτῶν (sc. τοῦ αἰῶνος καὶ τοῦ χρόνου) ἵεναι καὶ οἶον ἐγγὺς προσελθεῖν πάλιν αὐτὰς γνώμαις ἀποροῦντες τὰς τῶν παλαιῶν ἀποφάσεις περὶ αὐτῶν ἄλλος ἄλλως, τάχα δὲ καὶ ἄλλως τὰς αὐτὰς λαβόντες ἐπὶ τούτων ἀναπαυσάμενοι καὶ αὐταρκες νομίσαντες, εἰ ἔχοιμεν ἐρωτηθέντες τὸ δοκοῦν ἐκείνοις λέγειν, ἀγαπήσαντες ἀπαλλαττόμεθα τοῦ ζητεῖν ἔτι περὶ αὐτῶν. εὐρηκέναι μὲν οὖν τινὰς τῶν ἀρχαίων καὶ μακαρίων φιλοσόφων τὸ ἀληθὲς δεῖ νομίζειν· τίνες δ' οἱ τυχόντες μάλιστα, καὶ πῶς ἂν καὶ ἡμῖν σῦνσεις περὶ τούτων γένοιτο, ἐπισκέψασθαι προσήκει. *Enn.* 3.7[45].7.17–27 τριχῇ δ' ἴσως διαιρετέον τοὺς λεγομένους περὶ αὐτοῦ (sc. τοῦ χρόνου) λόγους τὴν πρώτην· ἢ γὰρ κίνησις ἢ λεγομένη (cf. §§2–2a and ch. 1.22.1–5), ἢ τὸ κινούμενον λέγοι ἂν (cf. §1), ἢ κινήσεώς τι τὸν χρόνον (cf. ch. 22.6)· τὸ γὰρ στάσιν ἢ τὸ ἐστηκὸς ἢ στάσεώς τι λέγειν παντάπασι πόρρω τῆς ἐννοίας ἂν εἴη τοῦ χρόνου οὐδαμῇ τοῦ αὐτοῦ ὄντος. τῶν δὲ κίνησιν λεγόντων οἱ μὲν πᾶσαν κίνησιν ἂν λέγοιεν, οἱ δὲ τὴν τοῦ παντός· οἱ δὲ τὸ κινούμενον λέγοντες τὴν τοῦ παντός ἂν σφαίραν λέγοιεν (cf. §1)· οἱ δὲ κινήσεώς τι ἢ διάστημα κινήσεως (cf. §2), οἱ δὲ μέτρον (cf. ch. 1.22.3, 22.7), οἱ δ' ὅλως παρακολουθοῦν (cf. ch. 1.22.6) αὐτῇ· καὶ ἢ πάσης ἢ τῆς τεταγμένης. *Enn.* 3.7[45].8.20–21 εἰ τοίνυν μηδὲ ἡ κίνησις τῆς σφαίρας (cf. §1) ὁ χρόνος, σχολῇ γ' ἂν ἡ σφαῖρα αὐτῇ, ἢ ἐκ τοῦ κινεῖσθαι ὑπενοήθη χρόνος εἶναι. **Simplicius** in *Cat.* 346.12–20 (Iamblichus fr. 104.38–46 Dalsgaard Larsen) καὶ κατὰ τὰς παλαιὰς δὲ δόξας ἢ αὐτῇ ἐννοία φαίνεται τοῦ χρόνου· ἢ γὰρ κίνησιν ἢ κινήσεώς τι ἦτοι χωριστὸν ἢ ἀχώριστον τὸν χρόνον ὑπολαμβάνουσιν. Στράτων (fr. 78 Wehrli, 33 Sharples; cf. A 1.22.5) μὲν γὰρ τὸ ποσὸν τῆς κινήσεως εἰπὼν τὸν χρόνον ἀχώριστόν τι αὐτὸν ὑπέθετο τῆς κινήσεως, Θεόφραστος (fr. 151A FHS&G) δὲ συμβεβηκὸς τι καὶ Ἀριστοτέλης (*Phys.* 4.11 219b1–2) ἀριθμὸν εἰπὼν ὡς χωριστὸν ἐθεάσαντο· ἡνίκα δὲ ἔξιν ἢ πάθος κινήσεως λέγει, ὡς ἀχωρίστῳ καὶ αὐτὸς ἐχρήσατο. ἀλλὰ τούτων μὲν ὡς διὰ τὸ ἀκριβὲς τὴν εἰσαγωγικὴν πραγματείαν ὑπερβαίνοντων οὐκ ἐφάπτεται νῦν, τὸ μέντοι συνεχὴ καὶ ποσὸν εἶναι τὸν χρόνον ὡς κοινὸν ἀξίωμα λαμβάνει. in *Cat.* 350.10–16 τὴν δὲ τοῦ χρόνου φύσιν θεωρητικώτερον παραδιδοῦς ὁ Ἰάμβλιχος (fr. 106 Dalsgaard Larsen) τὸν Ἀρχύταν (ps.Archytas *Categ.* p. 24.15–16 Thesleff) πάλιν ἡγεμόνα προΐσταται, ὅς φησιν ὅτι 'ἐστὶν ὁ χρόνος κινασίος τινος ἀριθμὸς ἢ καὶ καθόλου διάστημα τὰς τοῦ παντός φύσιος (cf. ch. 1.21.2)', οὐ τὴν Ἀριστοτέλους καὶ τῶν Στωικῶν δόξαν εἰς ταῦτὸ συλλαμβάνων, ὡς τινες οἶονται, διότι ὁ μὲν Ἀριστοτέλης (*Phys.* 4.11 219b1–2) ἀριθμὸν κινήσεως εἶναι φησι τὸν χρόνον, τῶν δὲ Στωικῶν Ζήνων (*SVF* 1.93) μὲν πάσης ἀπλῶς κινήσεως διάστημα τὸν χρόνον εἶπεν, Χρῆσιππος (*SVF* 2.510) δὲ διάστημα τῆς τοῦ κόσμου κινήσεως.

Chapter heading: Sextus Empiricus *M.* 10 pinax γ' Περί χρόνου. *M.* 10.169 tit. E1 ἔστι χρόνος. *P.* 3 pinax ιθ' Περί χρόνου. *P.* 3.136 ιθ' Περί χρόνου.

§1 Pythagoras: Plotinus *Enn.* 3.7[45].2.2–4 see above General texts.

§2 Plato: Arius Didymus fr. 26 Diels at Stob. *Ecl.* 1.8.40e + 42, pp. 104.6–11 + 105.8–106.9 Ζήνων (*SVF* 1.93) ἔφησε χρόνον εἶναι κινήσεως διάστημα, τοῦτο

δὲ καὶ μέτρον καὶ κριτήριον τάχους τε καὶ βραδύτητος, ὅπως ἔχει (ἔκαστα add. Wachsmuth prob. von Arnim) ... Ἀπολλόδωρος (SVF 3 Apoll. 8, verbatim) δ' ἐν τῇ Φυσικῇ τέχνῃ οὕτως ὀρίζεται τὸν χρόνον· 'χρόνος δ' ἐστὶ τῆς τοῦ κόσμου κινήσεως διάστημα' ... Ποσειδώνιος (F 98 E.-K., 270 Theiler): 'διάστημα κινήσεως ἢ μέτρον τάχους τε καὶ βραδύτητος, ὅπως ἔχει τὸ ἐπινοούμενον'. ... ὁ δὲ Χρυσίππος (SVF 2.509) χρόνον εἶναι κινήσεως διάστημα, καθ' ὃ ποτὲ λέγεται μέτρον τάχους τε καὶ βραδύτητος· ἢ τὸ παρακολουθοῦν διάστημα τῇ τοῦ κόσμου κινήσει, καὶ κατὰ μὲν τὸν χρόνον κινεῖσθαι τε ἕκαστα καὶ εἶναι· κτλ. **Philo of Alexandria** *Aet.* 4 λέγεται τοίνυν ὁ κόσμος ... κατὰ δὲ τρίτον, ὡς δοκεῖ τοῖς Στωικοῖς (SVF 2.621), διήκον ἄχρι τῆς ἐκπυρώσεως, οὐσία τις ἢ διακεκοσμημένη ἢ ἀδιακόσμητος, οὐ τῆς κινήσεως φασιν εἶναι τὸν χρόνον διάστημα. *Aet.* 52 μεγίστην μέντοι παρέχεται πίστιν εἰς αἰδιότητα καὶ ὁ χρόνος. εἰ γὰρ ἀγέννητος ὁ χρόνος, ἐξ ἀνάγκης καὶ ὁ κόσμος ἀγέννητος. διὰ τί; ὅτι, ἢ φησιν ὁ μέγας Πλάτων (*Tim.* 37c), ἡμέραι καὶ νύκτες μῆνες τε καὶ ἐνιαυτῶν περίοδοι χρόνον ἔδειξαν. ἀμήχανον δὲ τι τούτων συστήναι διχα ἡλίου κινήσεως καὶ τῆς τοῦ παντὸς οὐρανοῦ περιφορᾶς· ὥστ' εὐθυβόλως ἀποδεδοῖσθαι πρὸς τῶν εἰωθότων τὰ πράγματα ὀρίζεσθαι χρόνον διάστημα τῆς τοῦ κόσμου κινήσεως. *Aet.* 54 τάχα τις εὐρεσιλογῶν Στωικός (—) ἐρεῖ, τὸν χρόνον ἀποδεδοῖσθαι διάστημα τῆς τοῦ κόσμου κινήσεως οὐχὶ τοῦ νυνὶ διακεκοσμημένου μόνον ἀλλὰ καὶ τοῦ κατὰ τὴν ἐκπύρωσιν ὑπονοουμένου. **Diogenes Laertius** *V.P.* 3.73 (on Plato) χρόνον τε γενέσθαι εἰκόνα τοῦ αἰδίου. κάκεινον μὲν αἰεὶ μένειν, τὴν δὲ τοῦ οὐρανοῦ φορὰν χρόνον εἶναι· καὶ γὰρ νύκτα καὶ ἡμέραν καὶ μῆνα καὶ τὰ τοιαῦτα πάντα χρόνου μέρη εἶναι. διόπερ ἄνευ τῆς τοῦ κόσμου φύσεως οὐκ εἶναι χρόνον· ἅμα γὰρ ὑπάρχειν αὐτῷ καὶ χρόνον εἶναι. **Plotinus** *Enn.* 1.5[36].7.14–17 ὅλως δὲ τοῦ χρόνου τὸ πλεόν σκέδασιν βούλεται ἑνός τινος ἐν τῷ παρόντι ὄντος. διὸ καὶ εἰκὼν αἰῶνος εἰκότως λέγεται ἀφανίζειν βουλομένη ἐν τῷ σκιδναμένῳ αὐτῆς τὸ ἐκείνου μένον. *Enn.* 3.7[45].7.25 οἱ δὲ ... διάστημα κινήσεως. *Enn.* 3.7[45].8.54–56 εἰ δὲ τὸ διάστημα τῆς κινήσεως λέγοι τις χρόνον, οὐ τὸ αὐτῆς τῆς κινήσεως, ἀλλὰ παρ' ὃ αὐτῇ ἡ κίνησις τὴν παρὰ τασιν ἔχει οἶον συμπαράθεοσα ἐκείνῳ, τί δὲ τοῦτό ἐστιν οὐκ εἴρηται.

§2a Aristotle: Arius Didymus fr. 6 Diels at Stob. *Ecl.* 1.8.40c, p. 103.10–16 τὸν δὲ χρόνον ἀριθμὸν εἶναι κινήσεως κατὰ τὸ πρότερον καὶ τὸ ὕστερον, οὐτ' ἀρχὴν ἔχοντα οὔτε τελευτὴν, ἀλλ' αἰεὶ ὄντα καὶ αἰεὶ γιγνόμενον, εἶναι δὲ συνεχὴ καὶ διαιρετόν· λαμβάνεσθαι γὰρ αὐτοῦ τὸ μὲν πρότερον τὸ δ' ὕστερον, ὅρον δ' ὑπάρχειν ἑκατέρων τὸ νῦν· τοῦτο γὰρ νοεῖσθαι τοῦ μὲν προτέρου πέρας, τοῦ δὲ μέλλοντος ἀρχήν. fr. 7 Diels at Stob. *Ecl.* 1.8.40d, p. 103.18–104.5 οἱ Ἀριστοτελικοὶ τὸν χρόνον ἀριθμὸν τῶν κατὰ τὸ νῦν ἀφοριζομένων κινήσεων κτλ.

b Sources and Other Parallel Texts

General texts: Aristotle *Phys.* 4.10 217b29–218b1 ἐχόμενον δὲ τῶν εἰρημένων ἐστὶν ἐπελθεῖν περὶ χρόνου. ... τί δ' ἐστὶν ὁ χρόνος καὶ τίς αὐτοῦ ἡ φύσις, ... (218a32) ἔκ τε τῶν παραδεδομένων ἄδηλόν ἐστιν ... οἱ μὲν ... οἱ δὲ ... **Cicero** *ND* 1.21 *saecla nunc dico non ea quae dierum noctiumque numero annuis cursibus conficiuntur; nam fateor ea sine mundi conversione effici non potuisse; sed fuit quaedam ab infinito tempore aeternitas, quam nulla circumscriptio temporum metiebatur, spatio tamen qualis ea fuerit intellegi potest, quod ne in cogitatio-*

nem quidem cadit ut fuerit tempus aliquod nullum cum tempus esset. Seneca Ep. 88.33 magna et spatiosa res est sapientia. vacuo illi loco opus est: de divinis humanisque discendum est, de praeteritis de futuris, de caducis de aeternis, de tempore. de quo uno vide quam multa quaerantur: primum an per se sit aliquid; deinde an aliquid ante tempus sit sine tempore; cum mundo coeperit an etiam ante mundum quia fuerit aliquid, fuerit et tempus. Alexander of Aphrodisias On Time 1.1–7, p. 92.31–93.34 Théry Those who disagree with us concerning place raise a difficulty by saying that it has three dimensions; and similarly there is a difficulty to resolve in what is said by those who think concerning time that it is neither the heavenly sphere (cf. §1), nor its motion (cf. ch. 1.22.1), nor the number of its motion (cf. §2α). We have indeed already spoken at length elsewhere about time; now we will speak briefly, though we may perhaps, even while abbreviating, mention here things, which we did not mention there. What is said by those who say that time is the heavenly sphere itself (cf. §1) is empty, and the person who says this deserves to be laughed at. For there are many spheres at a single moment, but not many times at a single moment. And time includes what is past and what is future, but the spheres are not like that. And what is said by those who think that motions, that is the motions of the sphere (cf. ch. 1.22.1), are time is feeble. For the parts of time, when they are spoken of, are time, but on the other hand the parts of a circular motion, when they are spoken of, are not circular motion. And what is said by those who think that time is motion, simply (cf. ch. 1.22.7), need not be accepted; for motion is in the moving thing and in the place in which it moves, (whereas time is neither in the moving thing nor in the place in which it moves), but in every place. And again, one motion is swifter than another, since the motion of the highest sphere, which does not pause or cease, is swifter than the motion of Saturn, and the motion of Saturn is slower; but ‘swift’ and ‘slow’ are not applicable to time, but rather to motion. And similarly the motion of the sphere of the Moon is swifter than the others; but ‘swift’ and ‘slow’ are only determined in relation to time, since a swift motion is one which takes place in a small time, and a slow motion one which takes place over a great time. Some however think that time is not any of these things, nor yet the number of the motion of the heavenly sphere; they think it is a single thing that other things encounter. For they say that if we were to think of the sphere standing still, its standing still would be in time; and since its standing still would be in time, its motion would be in time; (and if its motion is in time, the attendant number of its motion is in time too). But what they say is not true; for if we were to think of the sphere standing still, time would be done away with. If time exists and is the number of the motions of the sphere, what harm does it do if it is thought of as different from that? For even if people think that the globe of the moon touches the globe of the earth, (this) does not affect it in its being and essence, which is raised above the earth and unaffected by what affects the earth. But they ask about the essence of that time (cf. ch. 1.22 tit.), and what has made it to be time, indeed,

what proof there is of its being, and whether it is not to be thought that there is some other (time) existing after time itself (trans. Sharples 1982, slightly modified). **Stobaeus** *Ecl.* 1.8.40a, p. 102.7–8 Θαλής (fr. 342 Wöhrlé) ἐρωτηθεὶς, ‘τί σοφώτατον’; ἔφη, ‘χρόνος· ἀνευρίσκει γὰρ τὰ πάντα’. **Proclus** *in Tim.* 3.8.28–35 χρόνου μὲν οὖν ἔννοϊαν καὶ συναίσθησιν καὶ οἱ πολλοὶ τῶν ἀνθρώπων ἔχουσιν, εἰς τε τὴν (τῶν) ὑπὸ σελήνην καὶ τὴν τῶν οὐρανίων κίνησιν ἀποβλέποντες καὶ κινήσεως τι τὸν χρόνον εἶναι νομίζοντες, ὅσον ἀριθμὸν ἢ παράτασιν ἢ ἄλλο τι τοιοῦτον. αἰῶνος δὲ οἱ περιττότεροι προήλθον εἰς ἐπίστασιν, κατιδόντες οὐχὶ κίνησιν ἀπλῶς, ἀλλὰ κίνησιν αἰδίου οὖσαν ἐν τῷ παντὶ καὶ τεταγμένην καὶ αἰεὶ ὡσαύτως ἀνακυκλουμένην. *in Tim.* 3.95.7–15 ἔτι δὲ κάκεινο ληπτέον ἀπὸ τῶν προειρημένων, ὅτι πολλοῦ δεῖ τοιοῦτον ὑπονοῆσαι τὸν χρόνον ὁ Πλάτων, ὅσον οἱ ἀπὸ τῆς Στοᾶς (*SVF* 2.521) ὑπέλαβον ἢ τῶν ἐκ τοῦ Περιπάτου πολλοί, οἱ μὲν κατ’ ἐπίνοιαν ψιλὴν αὐτὸν συνιστάντες ἀμενηνὸν καὶ ἔγγιστα τοῦ μὴ ὄντος (ἐν γὰρ ἦν τῶν παρ’ αὐτοῖς ἀσωμάτων ὁ χρόνος, ἃ δὴ καταπεφρόνηται παρ’ αὐτοῖς ὡς ἀδρανῆ καὶ οὐκ ὄντα καὶ ἐν ἐπινοίαις ὑφιστάμενα ψιλαῖς), οἱ δὲ συμβεβηκὸς τῆς κινήσεως λέγοντες. *Inst.Phys.* 2 “Οροι τοῦ δευτέρου p. 30.17–18 Ritzenfeld xiii. χρόνος ἐστὶν ἀριθμὸς κινήσεως οὐρανίων σωματῶν. **Simplicius** *in Phys.* 700.11–25 δείξας (sc. ὁ Ἀριστοτέλης) ... ὅτι ἀδηλὸν ἐστὶ τὸ εἶναι τὸν χρόνον, εἴπερ οὕτως εἰσὶ πιθανοὶ καὶ οἱ λέγοντες μὴ εἶναι λόγιοι, ἐφεξῆς φησὶν ὅτι καὶ τὸ ‘τί ἐστὶν ὁ χρόνος καὶ τίς ἡ φύσις αὐτοῦ’, εἴπερ τις ἐκ τῶν παραδεδομένων ἐπιχειρήσει σκοπεῖν, ὁμοίως ἀδηλὸν εὐρήσει. ... ἀδηλὸν οὖν καὶ τὸ τί ἐστὶν, εἴπερ ‘οἱ μὲν’ τὴν τοῦ ὅλου κίνησιν’ (*SVF* 2.516) καὶ περιφορὰν τὸν χρόνον εἶναι φασιν, ὡς τὸν Πλάτωνα νομίζουσιν ὁ τε Εὐδήμος (fr. 82a Wehrli) καὶ ὁ Θεόφραστος (*Phys.Op.* fr. 15 Diels, 150 FHS&G) καὶ ὁ Ἀλέξανδρος· ‘οἱ δὲ τὴν σφαῖραν αὐτὴν’ τοῦ οὐρανοῦ, ὡς τοὺς Πυθαγορείους (cf. ch. 1.21.1) ἱστοροῦσι λέγειν οἱ παρακούσαντες ἴσως τοῦ Ἀρχύτου (ps.Archytas *Categ.* p. 24.15–16 Thesleff) λέγοντος καθόλου ‘τὸν χρόνον διάστημα τῆς τοῦ παντὸς φύσεως’, ἢ ὡς τινες τῶν Στωϊκῶν (*SVF* 2.516) ἔλεγον· ‘οἱ δὲ τὴν κίνησιν ἀπλῶς· τρεῖς γὰρ ἱστορεῖ περὶ χρόνου δόξας τὰς μυθικωτέρας παρεῖς· ἐν αἷς ἐκ διαιρέσεως εἰλημμέναις πάσας συνείληφεν. ἢ γὰρ κίνησις ὁ χρόνος ἐστὶν ἢ τὸ κινούμενον πρῶτως ἢ τοῦ παντὸς σφαῖρα. *in Phys.* 702.24–703.6 ὁ δὲ Ἀλέξανδρος φιλονεικῶν δείξαι τοῦ Πλάτωνος οὖσαν δόξαν τὴν λέγουσαν χρόνον εἶναι τὴν τοῦ οὐρανοῦ φορὰν, πρῶτον μὲν τὸν Εὐδήμον (fr. 82b Wehrli) μαρτύρεται λέγοντα· ‘ἡκολούθησε δὲ καὶ Πλάτων τῇ δόξῃ ταύτῃ καὶ μάλα ἀτόπως· πρὶν γὰρ οὐρανὸν γενέσθαι, φησὶ κίνησιν εἶναι ἄτακτον (*Tim.* 30a). οὐ λῖνον δὴ λίνῳ συνάπτει, εἴπερ πᾶσα κίνησις ἐν χρόνῳ.’ ἔπειτα οὐκ ἀποδέχεται τῶν λεγόντων ὅτι καὶ ὁ Πλάτων συμφωνῶς τῷ Ἀριστοτέλει τὸν χρόνον ἀριθμὸν λέγει κινήσεως εἰπὼν· ‘κατ’ ἀριθμὸν ἰοῦσαν αἰώνιον εἰκόνα’ (*Tim.* 37d). ‘οὐ γὰρ ἀριθμὸν κινήσεως’, φησὶ, ‘λέγει τὸν χρόνον, ἀλλὰ κατὰ ἀριθμὸν κίνησιν, ὅ ἐστι κατὰ τάξιν’. ταῦτα μὲν ὁ Ἀλέξανδρος. ἐμὲ δὲ ὑποδείξει χρεῶν, πρῶτον μὲν πόθεν ὁ Εὐδήμος ὑπενόησε χρόνον λέγειν τὸν Πλάτωνα τὴν τοῦ οὐρανοῦ περιφορὰν, εἴτα ὅτι οὐκ ἀκολουθεῖ τοῦτο τὸ ἄτοπον τῷ Πλάτῳ, ὡς ὁ Ἀλέξανδρος συνελογίσαστο, τὸ χρόνον εἶναι πρὸ χρόνου. ‘εἰ γὰρ πᾶσα κίνησις’, φησὶν, ‘ἐν χρόνῳ, δῆλον ὅτι καὶ ἡ πλημμελὴς καὶ ἄτακτος κίνησις ἐν χρόνῳ. εἰ οὖν ἡ τοιαύτη κίνησις ἦν πρὶν οὐρανὸν γενέσθαι, δῆλον ὅτι καὶ χρόνος ἦν πρὸ τῆς τοῦ οὐρανοῦ περιφορᾶς. εἰ οὖν αὕτη ὁ χρόνος, εἴη ἂν χρόνος πρὸ χρόνου.’ *in Phys.* 785.12 (coroll. de tempore) τὰς δὲ τῶν προτέρων περὶ τοῦ χρόνου δόξας ἐπίσκε-

ψώμεθα. *in Cat.* 350.10–21 τὴν δὲ τοῦ χρόνου φύσιν θεωρητικώτερον παραδιδούς ὁ Ἰάμβλιχος (fr. 106 Dalsgaard Larsen) τὸν Ἀρχύταν (ps.Archytas *Categ.* p. 24.15–16 Thesleff) πάλιν ἡγεμόνα προῖσταται, ὅς φησιν ὅτι ‘ἔστιν ὁ χρόνος κινάσιός τις ἀριθμὸς ἢ καὶ καθόλου διάστημα τὰς τοῦ παντός φύσεως’, οὐ τὴν Ἀριστοτέλους καὶ τῶν Στωικῶν δόξαν εἰς ταῦτὸ συλλαμβάνων, ὥς τινες οἴονται, διότι ὁ μὲν Ἀριστοτέλης (*Cael.* 1.9 279a14–15) ἀριθμὸν κινήσεως εἶναι φησι τὸν χρόνον, τῶν δὲ Στωικῶν Ζήνων (*SVF* 1.93) μὲν πάσης ἀπλῶς κινήσεως διάστημα τὸν χρόνον εἶπεν, Χρύσιππος (*SVF* 2.510) δὲ διάστημα τῆς τοῦ κόσμου κινήσεως. οὐ γὰρ δύο ὅρους εἰς ταῦτὸν συνάπτει, ἀλλ’ ἕνα ὁρισμὸν ποιεῖται καὶ ἰδιάζοντα τοῦτον παρὰ τὰς τῶν ἄλλων ἀποφάσεις· οὐ γὰρ εἶπεν κινήσεως ἀριθμὸν τῆς πάσης, ὥσπερ Ἀριστοτέλης ἀφωρίσματο, ἀλλὰ κινήσεως τινός, οὐ τῶν ἐν μέρει, οἷον τῆς τοῦ οὐρανοῦ ἢ τῆς τοῦ ἡλίου ἢ ἄλλης τινός ἐν τοῖς καθ’ ἕκαστα διωρισμένης.

σώμα / ἀσώματον: **Philo of Alexandria** *Agr.* 139 τῶν ὄντων τὰ μὲν ἐστὶ σώματα, τὰ δ’ ἀσώματα. **Seneca** *Ep.* 58.14 ‘quod est’ in has species divido, ut sint corporalia aut incorporalia, nihil tertium est. **Sextus Empiricus** *P.* 3.2 τῶν ἐννοουμένων ἡμῖν πραγμάτων τὰς οὐσίας ἐπινοεῖν ὀφείλομεν, οἷον εἰ σώματά ἐστιν ἢ ἀσώματα. **ps.Archytas** *Cathol.* p. 5.31–32 Thesleff διαίρεται ἡ οὐσία εἰς σώμα καὶ ἀσώματον. cf. *A* 1.3.20 οὐσία ἀσώματος (on the idea).

Chapter heading: **Aristotle** *Phys.* 4.10 218a31 τί δ’ ἐστὶν ὁ χρόνος καὶ τίς αὐτοῦ ἡ φύσις *Cael.* 3.4 303a23–24 περὶ ὧν εἴρηται πρότερον ἐν τοῖς περὶ χρόνου καὶ κινήσεως. **Aristotelis Vita Menagiana** l. 190 = *Vita Aristotelis Ptolemaei* 96 Περὶ χρόνου α’. **Cleanthes** at D.L. *VP.* 7.174 (*SVF* 1.481) Περὶ χρόνου. **Strato** at D.L. *VP.* 5.59 (fr. 18.31 Wehrli, 1.40 Sharples) Περὶ χρόνου. **Porphyry** *Plot.* 26 τὸ δὲ ‘Περὶ αἰῶνος καὶ χρόνου’ διὰ τὸ περὶ τοῦ χρόνου ἐνταῦθα ἐτάξαμεν. *Plot.* 5 & 24 ~ **Plotinus** 3.7.[45].tit. Περὶ αἰῶνος καὶ χρόνου. **Suda** s.v. Φ 418 φιλόσοφος (i.e. **Philip of Opus** fr. i Tarán, F3 Lasserre) p. 4.733.28 Adler Περὶ χρόνου ἐν. **Psellus** *Op.Phil.* 1 Duffy, 41 tit. Περὶ αἰῶνος καὶ χρόνου.

§0 **Whether it exists:** **Aristotle** *Phys.* 4.10 217b30–33 πρῶτον δὲ καλῶς ἔχει διαπορῆσαι περὶ αὐτοῦ (sc. περὶ χρόνου) καὶ διὰ τῶν ἐξωτερικῶν λόγων, πότερον τῶν ὄντων ἐστὶν ἢ τῶν μὴ ὄντων, εἴτα τίς ἡ φύσις αὐτοῦ. ὅτι μὲν οὖν ἢ ὅλως οὐκ ἔστιν ἢ μόλις καὶ ἀμυδρῶς, ἐκ τῶνδὲ τις ἂν ὑποπτεύσειεν κτλ.

§1 **Pythagoras:** **Aristotle** *Phys.* 4.10 218a33–b10 οἱ μὲν γὰρ τὴν τοῦ ὅλου κίνησιν εἶναι φασιν (Pythagoreans 58B33 DK). **Simplicius** *in Phys.* 700.19–22 οἱ δὲ ‘τὴν σφαῖραν αὐτὴν τοῦ οὐρανοῦ’, ὥς τοὺς Πυθαγορείους ἱστοροῦσι λέγειν οἱ παρακούσαντες ἴσως τοῦ Ἀρχύτου (ps.Archytas *Categ.* p. 24.15–16 Thesleff) λέγοντος καθόλου τὸν χρόνον διάστημα τῆς τοῦ παντός φύσεως (cf. §2!), ἢ ὥς τινες τῶν Στωικῶν (*SVF* 2.516) ἔλεγον. *in Phys.* 700.28–30 τὸ δὲ τὴν σφαῖραν αὐτὴν τοῦ οὐρανοῦ εἶναι τὸν χρόνον ὥς ἄγαν ἀπίθανον οὐδὲ ἀντιλογίας ἡξίωσεν ὁ Ἀριστοτέλης.

§2 **Plato:** **Plato** *Tim.* 37d ἡ μὲν οὖν τοῦ ζώου φύσις ἐτύγχανεν οὐσα αἰώνιος, καὶ τοῦτο μὲν δὴ τῷ γεννητῷ παντελῶς προσάπτειν οὐκ ἦν δυνατόν· εἰκὰ δ’ ἐπενόει κινήτῳ τινι αἰῶνος ποιῆσαι, καὶ διακοσμῶν ἅμα οὐρανὸν ποιεῖ μένοντος αἰῶνος ἐν ἐνὶ κατ’ ἀριθμὸν ἰούσαν αἰώνιον εἰκόνα, τοῦτον δὲ τὸν χρόνον ὠνομάκαμεν. *Tim.* 38c ἐξ οὗ λόγου καὶ διανοίας θεοῦ τοιαύτης πρὸς χρόνον γένεσιν, ἵνα γεννηθῇ χρόνος, ἡλιος καὶ σελήνη καὶ πέντε ἄλλα ἄστρα, ἐπὶ κλῆν ἔχοντα πλανητά, εἰς διορισμὸν καὶ

φυλακὴν ἀριθμῶν χρόνου γέγονεν. **ps.Plato** (i.e. Philip of Opus) *Epin.* 991c–d ἔτι δὲ τὴν ἀκρίβειαν τοῦ χρόνου ἡμῖν ληπτέον, ὡς ἀκριβῶς ἀποτελεῖ πάντα τὰ κατ' (d) οὐρανὸν γιγνόμενα. **Eudemus** fr. 82b Wehrli. **Varro** *LL* 5.1.12 *neque unquam tempus, quin fueri{n}t motus : eius enim intervallum tempus.* *LL* 6.2.3 *tempus esse dicunt in{ter}vallum mundi {et} motus.* **Timaeus Locrus** 30, p. 215.1–6 Thesleff χρόνῳ δὲ μέρεα τάσδε τὰς περιόδῳ λέγοντι, ὃν ἐγέννασεν ὁ θεὸς σὺν κόσμῳ. οὐ γὰρ ἦν πρὸ κόσμου ἄστρα· διόπερ οὐδ' ἐνιαυτὸς οὐδ' ὥραν περίοδοι, αἷς μετρέεται ὁ γεννατὸς χρόνος οὗτος. εἰκὼν δ' ἐστὶ τῷ ἀγεννάτῳ χρόνῳ, ὃν αἰῶνα ποταγορεύομεν· ὡς γὰρ ποτ' αἰδίων παράδειγμα, τὸν ἰδανικόν κόσμον, ὃδε ὠρανὸς ἐγεννάθη, {οὕτως} ὡς ποτὶ παράδειγμα, τὸν αἰῶνα, ὃδε χρόνος σὺν κόσμῳ ἐδαμιοργήθη. **Philo of Alexandria** *Aet.* 3 ὁ κόσμος ... ὡς δοκεῖ τοῖς Στωικοῖς (*SVF* 2.621) ... οὗ τῆς κινήσεως φασιν εἶναι τὸν χρόνον διάστημα. *Aet.* 54 τάχα τις εὐρεσιλογῶν Στωικός (*SVF* 2.509) εἶρει, τὸν χρόνον ἀποδεδοῖσθαι διάστημα τῆς τοῦ κόσμου κινήσεως οὐχὶ τοῦ νυνὶ διακεκοσμημένου μόνον ἀλλὰ καὶ τοῦ κατὰ τὴν ἐκπύρωσιν ὑπονοουμένου. *Opif.* 26 (*SVF* 2.511) χρόνος γὰρ οὐκ ἦν πρὸ κόσμου, ἀλλ' ἢ σὺν αὐτῷ γέγονεν ἢ μετ' αὐτόν· ἐπεὶ γὰρ διάστημα τῆς τοῦ κόσμου κινήσεως ἐστὶν ὁ χρόνος, προτέρα δὲ τοῦ κινουμένου κινήσις οὐκ ἂν γένοιτο ... (cited Eus. *PE* 11.24.4–5). **Alcinous** *Did.* c. 14, p. 170.24–26 H. καὶ γὰρ τὸν χρόνον ἐποίησε (sc. ὁ θεός) τῆς κινήσεως τοῦ κόσμου διάστημα, ὡς ἂν εἰκόνα τοῦ αἰῶνος, ὅς ἐστι μέτρον τοῦ αἰωνίου κόσμου τῆς μονῆς. **Apuleius** *Plat.* 201 *eiusdem temporis spatiis mensuras mundanae conversionis intellegi.* **Diogenes Laertius** *VP.* 7.141 (*SVF* 2.520) ἔτι δὲ καὶ τὸν χρόνον ἀσώματον, διάστημα ὄντα τῆς τοῦ κόσμου κινήσεως. cited *Suda* s.v. χρόνος X 533, p. 4.827.15–19 Adler οἱ φιλόσοφοι ἀσώματον αὐτὸν εἶναι φασί, διάστημα ὄντα τῆς τοῦ κόσμου κινήσεως. **Basil of Caesarea** *Adv.Eun.* MPG 29.560.26–29 χρόνος δὲ ἐστὶ τὸ συμπαραεκτεινόμενον τῇ συστάσει τοῦ κόσμου διάστημα· ᾧ πάσα παραμετρεῖται κινήσις, εἴτε ἀστέρων, εἴτε ζῶων, εἴτε οὐτινοσούντων κινουμένων κτλ. **Calcidius** in *Tim.* c. 23 *'simulacrum' est enim 'tempus aevi'* (*Tim.* 37d ff.). In *Tim.* c. 105. **Simplicius** in *Phys.* 786.11–13 ὁ μέντοι θεοῖς Ἰάμβλιχος (fr. 107 Dalsgaard Larsen) ἐν τῷ πρώτῳ τῶν εἰς τὰς Κατηγορίας ὑπομνημάτων τὸν Ἀρχύταν (fr. 30a Nolle) ὀρίζεσθαι φησὶ 'τὸν χρόνον' ὡς ἔστι 'κινασίς τις ἀριθμὸς ἢ καὶ καθόλου διάσταμα τὰς τῷ παντὸς φύσιος' (*ps.Archytas Categ.* p. 24.15–16).

§2α Aristotle: *Aristotle Phys.* 4.11 219a8–10 ὥστε ἦτοι κινήσις ἢ τῆς κινήσεως τί ἐστὶν ὁ χρόνος. ἐπεὶ οὖν οὐ κινήσις, ἀνάγκη τῆς κινήσεως τι εἶναι αὐτόν. *Cael.* 1.9 279a14–16 χρόνος δὲ ἀριθμὸς κινήσεως. *GC* 2.10 337a22–24 συνεχοῦς δ' ὄντος τοῦ χρόνου ἀνάγκη τὴν κίνησιν συνεχῇ εἶναι, εἴπερ ἀδύνατον χρόνον χωρὶς κινήσεως εἶναι· συνεχοῦς ἄρα τινὸς ἀριθμὸς ὁ χρόνος, τῆς κύκλῳ ἄρα. *GA* 4.9 777b16–778a4. *Phys.* 4.14 223b21–23 δοκεῖ (sc. to others) ὁ χρόνος εἶναι ἢ τῆς σφαίρας κινήσις, ὅτι ταύτη μετροῦνται αἱ ἄλλαι κινήσεις καὶ ὁ χρόνος ταύτῃ τῇ κινήσει. **Themistius** in *Phys.* 144.23–29 δῆλον οὖν, ὡς οὐκ ἔστιν ὁ χρόνος ἄνευ κινήσεως, ἄνευ κινήσεως δὲ οὐχ ὃν τρόπον οἶεται Γαλιηνός, ἐπειδὴ κινούμενοι νοοῦμεν τὸν χρόνον· οὕτω γὰρ ὑπολαμβάνει λέγειν Ἀριστοτέλην, ἀλλ' ἐπειδὴ τῇ τῆς κινήσεως ἐννοίᾳ συνήρηται ἢ τοῦ χρόνου. τί οὖν μάτην ἤθλει πρὸς τοῦτο δῆθεν ἀντιλέγειν ἐπιχειρῶν; καὶ γὰρ τὰ ἀκίνητα, φησί, 'νοοῦμεν κινούμενοι, ὅσον τοὺς πόλους τοῦ κόσμου καὶ τὸ κέντρον τῆς γῆς, καὶ ὁμοῦς οὐκ ἔστι ταῦτα μετὰ κινήσεως'. in *Phys.* 149.4–7 Γαλιηνῷ δὲ οὐ

προσεκτέον οιομένῳ τὸν χρόνον ἀφορίζεσθαι δι' αὐτοῦ· πολλὰ γὰρ ἐξαριθμησάμενος σημαινόμενα τοῦ προτέρου τε καὶ ὑστέρου τὰ μὲν ἄλλα οὐκ ἐφαρμόζειν φησὶ τῷ ὀρισμῷ, τὸ κατὰ χρόνον δὲ μόνον, ὥστε εἶναι τὸν χρόνον 'ἀριθμὸν τῆς κινήσεως' κατὰ χρόνον. **Proclus** *Inst.Phys.* 2 def. xiii χρόνος ἐστὶν ἀριθμὸς κινήσεως οὐρανίων σωμάτων. *in Tim.* 1.295.17–19 καὶ δ' (sc. Plato) μὲν ἅμα τῇ οὐσίᾳ τοῦ οὐρανοῦ τὸν χρόνον ἀπεγέννησεν, δὲ δὲ (sc. Aristotle) ἅμα τῇ κινήσει· τὸν γὰρ ἀριθμὸν αὐτῆς εἶναι τὸν χρόνον. **Arethas** *in Cat.* §227, p. 153.14–17 Share ἡ γὰρ τῶν οὐρανίων κινήσις ἐποίει τὸν χρόνον, ὡς μηδὲν ἕτερον εἶναι τὸν χρόνον εἰ μὴ ἀριθμὸν κινήσεως τῆς σφαίρας ἢ μέτρον κινήσεως καὶ τοῦ κινεῖσθαι, ὡς Ἀριστοτέλης ἐν τῷ δ' φησι τῆς Φυσικῆς (*Phys.* 4 12.221b7–11). **Simplicius** *in Phys.* 721.9 τῆς πρώτης καὶ ἀπλῆς τοῦ οὐρανοῦ κινήσεως ἀριθμητὸν ὁ χρόνος. differently **Arius Didymus** fr. 6 Diels at Stob. *Ecl.* 1.8.40c, p. 103.10–16 (cited above Section E(a) §2a).

§3 **Eratosthenes**: cf. **ps.Plato** *Def.* 411b χρόνος ἡλίου κινήσις, μέτρον φορᾶς. ἡμέρα ἡλίου πορεία ἀπ' ἀνατολῶν ἐπὶ δυσμάς. **Eudemus** fr. 83 Wehrli at *Simp. in Phys.* 702.13–15 (verbatim) εἶτα προελθὼν καὶ ταῦτά φησιν· 'οἱ δὲ λέγοντες τὴν τοῦ ἡλίου κίνησιν τὸν χρόνον, πῶς ἐροῦσι περὶ τῶν ἄλλων ἀστέρων;' κτλ. **Euclid** *Phaen.* pr. 108–111 κόσμου περιστροφῆς χρόνος ἐστίν, ἐν ᾧ ἕκαστον τῶν ἀπλανῶν ἀστέρων ἀπ' ἀνατολῆς ἐπὶ τὴν ἐξῆς ἀνατολὴν παραγίνεται ἢ ἀφ' οὐδηποτοῦν τόπου ἐπὶ τὸν αὐτὸν τόπον. **Cicero** *Tim.* 28–29 *** *ratione igitur et mente divina ad originem temporis curriculum inventum est solis et lunae* (cf. *Tim.* 38c, above §2). **Macrobius** *Somn.* 2.10.9 *nihil aliud tempora nisi cursus solis efficiat*. **Augustine** *Conf.* 11.23.1 *audivi a quodam homine docto, quod solis et lunae ac siderum motus ipsa sint tempora, et non adnui*. **Doctrina Patrum** p. 265.22 Diekamp χρόνος ἐστὶν ἡλίου κινήσις· ἡλίου πορεία μέτρον φορᾶς.

Liber 1 Caput 22

P^B: ps.Plutarchus *Plac.* 884C; pp. 318^a8–14 Diels—**P^G**: ps.Galenus *HPh* c. 38; pp. 619.16–19 Diels—**P^Q**: Qustā ibn Lūqā pp. 130–131 Daiber
S: Stobaeus *Ecl.* 1.8.40b, pp. 102.19–21, 103.2–8 + 1.8.45, p. 109.4–5 Wachsmuth;
 cf. Phot. *Bibl.* 167, p. 112a40 Henry (titulus solus)

Titulus κβ'. Περί οὐσίας χρόνου (P,S)

- §1 Πλάτων οὐσίαν χρόνου τὴν τοῦ οὐρανοῦ κίνησιν. (P₁,S₉)
 §2 οἱ Στωικοὶ αὐτὴν τὴν κίνησιν. (P₂,S₁)
 §3 Ξενοκράτης μέτρον τῶν γενητῶν, καὶ κίνησιν αἰδίων. (S₃)
 §4 Ἑστιάιος ὁ Περίνθιος φυσικὸς φορὰν ἄστρον πρὸς ἄλληλα. (S₄) 5
 §5 Στράτων τὸ ἐν κινήσει καὶ ἡρεμίᾳ ποσόν. (S₅)
 §6 Ἐπίκουρος σύμπτωμα, τοῦτο δ' ἐστὶ παρακολούθημα, κινήσεων. (S₆)
 §7 Ἀντιφῶν καὶ Κριτόλαος νόημα ἢ μέτρον τὸν χρόνον, οὐδ' ὑπόστασιν. (S₇)
 §8 καὶ οἱ μὲν πλείους ἀγέννητον τὸν χρόνον, (P₃,S₂) 10
 §9 Πλάτων δὲ γενητὸν κατ' ἐπίνοιαν. (P₄,S₈)

§1 Plato cf. *Tim.* 37d; §2 Stoici *SVF* 2.514; §3 Xenocrates fr. 40 Heinze, 79 Isnardi Parente²;
 §4 Hestiaeus F3 Lasserre; §5 Strato fr. 78 Wehrli, 33 Sharples; §6 Epicurus fr. 294 Usener;
 §7 Antiphon 87B9 DK, F9 Pendrick; Critolaus fr. 14 Wehrli; §8 anonymi —; §9 Plato—(cf. Arist. *Cael.* 1.10 279b32–280a2, Simp. *in Cael.* 303.33–304.6)

titulus Περί ... χρόνου P : Περί χρόνου οὐσίας καὶ μερῶν καὶ πόσων εἴη αἴτιος S §1 [2] Πλάτων οὐσίαν χρόνου P^{BQ}, cf. S Πλάτων ... οὐσίαν δὲ χρόνου : τοῦ δὲ χρόνου τὴν οὐσίαν οἱ Στωικοὶ P^G || τὴν ... κίνησιν P^{BQS} (om. τοῦ S) : ἡλίου τὴν κίνησιν νομίζουσιν P^G §2 [3] οἱ Στωικοὶ S : οἱ πλείους τῶν Στωικῶν P^{BQ} || ante αὐτὴν add. S χρόνου οὐσίαν || al. (sed cf. c. 1.21.3) Πλάτων δὲ τὴν πορείαν τούτου P^G §3 [4] γενητῶν S^F : γεννητῶν S^P §4 [5] φυσικὸς transp. post Στράτων in §5 Krische §5 [6] τὸ S^{P2} Wachsmuth : τὸν S^{FPI} : τῶν edd. usque ad Diels §6 [7] post σύμπτωμα add. συμπτωμάτων Heeren ex S.E. *M.* 10.238, prob. Diels Wachsmuth §7 [8] Ἀντιφῶν S^F : Ἀντιφάνης S^P et S^{F(in marg.)}Phot §8 [10] καὶ οἱ μὲν πλείους P^{BQ} (om. καὶ P^Q ut vid.) : οἱ πλείους S prob. Diels : καὶ τινὲς μὲν P^G || ἀγέννητον P^{B(II)QG} Diels : ἀγέννητον P^{B(IIII)S} || post χρόνον add. P^G εἶναι §9 [11] Πλάτων P : ap. S 1.8.45 ante 1.21.2 + 1.22.9 + 1.22.1 || γέννητον] P^{B(IIIAE)} || κατ' ἐπίνοιαν] om. P^G

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 38 (~ tit.) Περί οὐσίας χρόνου (text Diels)

38.1 (~ P₁) τοῦ δὲ χρόνου τὴν οὐσίαν οἱ Στωικοὶ ἡλίου τὴν κίνησιν νομίζουσιν.

38.2 (~ P₂) Πλάτων δὲ τὴν πορείαν τούτου.

38.3 (~ P₃) καὶ τινὲς μὲν ἀγέννητον τὸν χρόνον εἶναι,

38.4 (~ P₄) Πλάτων δὲ γενητὸν.

*Loci Aetiani:***quaestio A 1.21** Περὶ χρόνου

§§1–4 A 2.32 tit. Περὶ ἐνιαυτοῦ, πόσος ἐκάστου τῶν πλανητῶν χρόνος. A 2.32.1 ἐνιαυτός ἐστι Κρόνου μὲν ἐνιαυτῶν περίοδος τριάκοντα, Διὸς δὲ δώδεκα, Ἄρεος δυεῖν, Ἡλίου δώδεκα μῆνες· οἱ δ' αὐτοὶ Ἑρμοῦ καὶ Ἀφροδίτης, ἰσόδρομοι γάρ· σελήνης ἡμέραι τριάκοντα· οὗτος γάρ ὁ τέλειος μῆν ἀπὸ φάσεως εἰς σύνοδον. A 2.32.2–10 τὸν δὲ γε μέγαν ἐνιαυτὸν οἱ μὲν κτλ.

§4 A 1.6.1[27–28] τό τ' ἀστερωπὸν οὐρανοῦ σέλας, / χρόνου καλὸν ποίκιλμα, τέκτο-
νος σοφοῦ.

§9 A 2.4.1 Πυθαγόρας Ἡράκλειτος γενητὸν κατ' ἐπίνοιαν τὸν κόσμον, οὐ κατὰ χρό-
νον. A 2.4.9 Πλάτων φθαρτὸν μὲν τὸν κόσμον, ὅσον ἐπὶ τῇ φύσει, αἰσθητὸν γάρ
εἶναι, διότι καὶ σωματικόν, οὐ μὴν φθαρησόμενόν γε προνοία καὶ συνοχή θεοῦ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) This chapter, which forms a diptych with the previous chapter 'On time', 1.21, has the same witnesses. In P it is severely reduced, and further garbled in G. In S a much fuller presentation of its contents is found, see at section D(b) below, and for the contents of S's chapter as a whole ch. 1.21 above at Commentary B.

(2) Sharples in his edition of the fragments of Strato (2011a) 89–91 prints what is found at S 1.8.40b, i.e. the mixture of lemmata from A 1.21 and A 1.22. His comments at p. 91, however, are not to the point, as noted above in ch. 1.21.1, Commentary A(4). It is true that Diels deviates from what is found in S, but the transmitted text of Stobaeus is a reworking of what was originally found in A and has no independent value except for those interested in the anthologist's methods.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* In the proximate tradition (Sextus Empiricus and Simplicius, cited below section E(a) General texts; cf. above ch. 1.21 section E(a) General texts) the evidence for the present chapter is blended with that for ch. 1.21. The eternity or generation of time is also discussed in Philo *Aet.* 4 and 52–54 (cf. below, E(b)§9, namely as an issue concerned with the debate about the eternity of the cosmos). See also above, ch. 1.21, Commentary D(d)§2.

(2) *Sources.* For the connection with Aristotle *Phys.* 4.10 218a31–b10 see above, ch. 1.21, at Commentary B. The final diaphonia §§8–9 between the majority and Plato derives straight from *Phys.* 8.1 251b10–19 (Πλάτων δὲ γεννᾷ

μόνος). Plato's cosmogony-in-time has been interpreted not literally as by Aristotle, but (as so often in the wake of Speusippus and Xenocrates, see below section E(b)§9) as being presented in the way it is for pedagogical reasons.

C Chapter Heading

(1) Attested in both P and S, and of the standard umbrella type 'about x ', *περὶ τοῦ δεῖναι* (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. In the present chapter we note a specialized version of the standard type through addition of the term *οὐσία*. This specification suggests some sort of meaningful difference from the umbrella heading of the previous chapter, 1.21 *Περὶ χρόνου*, but as pointed out there at Commentary C, it is not immediately clear what this is. According to Sextus the issue of the *οὐσία* of time is concerned with its being corporeal or incorporeal. We assume that this distinction plays a role here as well. For other chapters entitled *Περὶ* + substantive twinned with others entitled *Περὶ οὐσίας* + substantive see also below at chs. 1.25–26 and 1.27–28. The question type of 'what it is' can be formulated in every category. In the present chapter it clearly pertains (like at ch. 1.21.2–3) to accidents, that is, to incorporeals: here especially motion in the categories of quantity and place, then also coming to be (a species of motion), and the category of time.

The formula *Περὶ οὐσίας* plus substantive denoting a matter at hand is also found at 1.26 *Περὶ οὐσίας ἀνάγκης*, 1.28 *Περὶ οὐσίας εἰμαρμένης*, 2.20 *Περὶ οὐσίας ἡλίου*, and 2.25 *Περὶ οὐσίας σελήνης*. The first two of these parallel headings, 1.26 *Περὶ οὐσίας ἀνάγκης* and 1.28 *Περὶ οὐσίας εἰμαρμένης*, likewise serve to distinguish the chapters from their companion chapters, 1.26 *Περὶ ἀνάγκης* and 1.28 *Περὶ εἰμαρμένης*, with their umbrella headings. In the same way our chapter *Περὶ οὐσίας χρόνου* is distinguished from its predecessor 1.21 *Περὶ χρόνου*. The formula *οὐσία χρόνου* is only paralleled in late authors: Simplicius in *Cat.* 346.31 etc., Philoponus in *Phys.* 712.7–8.

(2) The parallel headings in Book 2 serve to distinguish chs. 2.20 and 2.25 on the substance (in the sense of physical substance) of sun and moon from chs. 2.21–24 and 2.26–30, which deal with sun and moon from other categorical points of view. Similar headings, all of which are about physical entities, or corporeals, are those of ch. 2.11, *Περὶ οὐρανοῦ, τίς ἢ τούτου οὐσία*, abridged to *Περὶ τῆς οὐρανοῦ οὐσίας* in S, 2.14, *Τίς ἢ οὐσία τῶν ἄστρον, πλανητῶν καὶ ἀπλανῶν*, abridged to *Περὶ οὐσίας ἄστρον* in S. The physical substance is also at issue in ch. 3.9 *Περὶ γῆς καὶ τίς ἢ ταύτης οὐσία καὶ πόσαι*, ch. 4.3 *Εἰ σῶμα ἢ ψυχὴ καὶ τίς ἢ οὐσία αὐτῆς*, on souls qua corporeals (combined with ch. 4.2 *Περὶ ψυχῆς*, on souls qua incorporeals), and ch. 5.3 *Τίς ἢ οὐσία τοῦ σπέρματος*. It is therefore

quite remarkable that here the formula $\pi\epsilon\rho\iota\ \oupsilon\sigma\acute{\iota}\alpha\varsigma$ refers to incorporeals. But as the issue concerned with the $\oupsilon\sigma\acute{\iota}\alpha$ may pertain to the distinction between corporeals and incorporeals, so that the $\oupsilon\sigma\acute{\iota}\alpha$ may be characterized as either corporeal or incorporeal, this is entirely legitimate.

D *Analysis*

a Context

For chs. 1.21–22 together see at ch. 1.21, Commentary D(a).

b Number–Order of Lemmata

(1) The relation between the evidence in the tradition of P and in S is complex. P drastically reduces the number of lemmata from nine to four, forming two contrasting pairs. For Bobzien's unnecessary suggestion that the lemmata in S not shared by P should be rejected see above, ch. 1.21 at Commentary A(5).

(2) The lemmata order can be determined with confidence if the somewhat erratic procedure followed by S is understood (see the detailed analysis in M–R 1.226–228). He includes all the lemmata in his chapter on time, proceeding as follows:

(a) He reserves the two Platonic doxai (= P₁, P₄) for his subsequent presentation of Plato's views in *Ecl.* 1.8.45, including them in his introduction to the quotation of *Tim.* 37c–38b (cf. above at ch. 1.21 Commentary D(b)).

(b) He then writes out the next lemma on the Stoics (= P₂).

(c) He then follows with the next doxa as found in P (P₃).

(d) Thereafter there is a block of six doxai commencing with Xenocrates, none of which were included by P. Of these the second deviates from the others in placing the name-label Chrysippus at the end. As Diels acutely saw, it is an interpolated quote from the long lemma in AD cited at *Ecl.* 1.8.42a, p. 106.6–7. It is inserted because both views introduce the notion of 'measure'. The remaining five doxai will have come from A and no doubt are cited in their original order.

(e) Later at 1.8.45 S then writes out the two Platonic lemmata he had earlier passed over.

(3) If this reconstruction is correct, then S deviates from the original order in A not only in his treatment of Plato, but also in placing the anonymous doxa that time is ungenerated (= P₃) *before* the block of five doxai rather than after it as in A. It is difficult to understand why he did this. The suggestion made at M–R 1.228 is that he saw a connection with Xenocrates' view that time was everlasting motion and so placed it ahead of that doxa. This explanation is not entirely satisfactory. The alternative would be to place the block of five *after* the anonymous doxa (and its twin Platonic lemma). But this would mean that

the seven views on the nature of time (§§3–7 in our text) are broken up by this couplet (§§8–9). What is certain is that Diels must be wrong in inserting the block between the first two doxai in P. This destroys the clear diaphonia between these first two views in P. For Sharples' comments see at section A(2) above, and at ch. 1.21 Commentary A(4).

c Rationale–Structure of Chapter

The chapter organises a good deal of material according to a series of criteria. It falls into four parts, of which the first three, i.e. §§1–5, §6 and §7 are on a gliding scale. See also above at ch. 1.21, Commentary D(c).

(1) §§1–5 are about time *qua* *συμβεβηκός*, but still regard it as something that subsists in reality. §6 defines time as something at several removes from physical substance but as still having some reality, but §7 defines it as something entirely conceptual.

(2) §§8–9 diaphonically address a different issue, namely whether time has come into being. Unexpectedly the majority are made to say that it has not (the implications for the Presocratics are apparently irrelevant, and the alternative that it has come into being is ignored), while Plato says it came into being only conceptually, which entails its being real (see above at section B). So the chapter ends by implicitly acknowledging the subsistence of time, thus achieving a ring composition with its Platonic ending corresponding to its Platonic beginning.

(3) On the other hand, comparing the structure of the first six paragraphs with the distinction between the first and third types of Plotinus' tripartition of traditional views on time at *Enn.* 7.2.7[45].18–20 (cf. above, ch. 1.21, Commentary B), we observe that §§1–4 are about motion (*κίνησις*) and §§5–6 about an aspect of motion (*κινησεώς τι*, 'something belonging to motion').

d Further Comments

General Points

Chs. 1.21–22 are translated in Mejer's overview of doxography at (2006) 24–26, and critically though not entirely satisfactorily discussed as representative examples of Aëtian chapters.

Individual Points

§§1–2 For the first two lemmata the text in G differs substantially from the remaining P tradition. The name-labels Stoics and Plato are reversed. The being of time according to the Stoics is said to be the motion of the sun, and for Plato in the next doxa its course. G's notion of the sun's *πορεία* is derived from the doxa of Eratosthenes in A at P 1.21.3 It is difficult to reconstruct how G could

have made these errors. On the other hand, what happened is instructive in showing how more or less bizarre doxographical lemmata may come about.

§1 The Plato doxa is *ad sententiam* the same as the (falsely attributed) second part of the doxa of ch. 1.21.2.

§2 P's οἱ πλείους (τῶν Στωϊκῶν) anticipates the οἱ μὲν πλείους of his next lemma, while S's χρόνου οὐσίαν repeats the gist of the chapter heading and was probably added by himself. AD fr. 26 Diels attests the definition of time as 'the dimension of motion (κινήσεως διάστημα), and this is also the measure and criterium of speed and slowness, how (each thing) is', for Zeno; as 'the dimension of the motion of the cosmos (τῆς τοῦ κόσμου κινήσεως διάστημα)' for Apollodorus; as 'the dimension of motion (διάστημα κινήσεως) or the measure of speed and slowness' for Posidonius; and as 'the dimension of motion (κινήσεως διάστημα), according to which it is said to be the measure of speed and slowness, or the dimension that accompanies the motion of the cosmos (τὸ παρακολουθοῦν διάστημα τῇ τοῦ κόσμου κινήσει) and according to time all things do move and exist' for Chrysippus. The Aëtian lemma, speaking of 'motion itself', appears to favour a formula that includes times of all sorts, both general cosmic time and whatever other times there may be, so is a drastic reduction of all these definitions, though a bit closer to Zeno's than to the others, which seem to be elaborations of Zeno's view, just as later formulations of the Stoic *summum bonum* are elaborations of the view of Zeno. Rist (1969) 273, following Bréhier, believes that our paragraph is a mistake. At ch. 1.21 Commentary A(5) we have seen that and possibly how the significantly Stoic phrase διάστημα τῆς τοῦ κόσμου κινήσεως came to be attributed to Plato in the world of the *Placita*.

One would have expected to be notified that time according to the Stoics is an incorporeal, cf. Sextus Empiricus *M.* 10.218 (*SVF* 2.331), Diogenes Laertius *V.P.* 7. 141 (*SVF* 2.520).

§4 Hestiaeus, who is recorded as a pupil of Plato and a member of the Academy (see Dorandi at *DPhA* 3.677), is cited elsewhere in A only at ch. 4.13.5 (on vision). The epithet φυσικός is often used of Strato by Sextus Empiricus (e.g. *P.* 3.33) and others, so Krische's suggestion to move it to the following lemma is attractive, but too speculative to be followed in our text.

§6 Heeren's suggestion to add συμπτωμάτων in order to make the doxa consistent with Epicurus' customary definition of time (cf. Sextus Empiricus *P.* 3.137, *M.* 10.219, 10.238 etc.) has been accepted by all subsequent editors. But in a simplifying doxographical lemma such meticulousness is not needed, and at Diogenes Laertius *V.P.* 10.73 we just find σύμπτωμα. For σύμπτωμα and παρακολούθημα together cf. ch. 1.29.1, παρακολούθημα καὶ σύμπτωμα.

§7 Sharples in his apparatus at (2011a) 89 is wrong in stating that Wachsmuth reads Ἀντιφᾶν. Close examination of Wachsmuth's text shows that there

is a typo, with only half of the omega showing. Physical doxai are attributed to the sophist Antiphon in the *Placita* on three further occasions (chs. 2.20.4, 2.28.4, and 2.29.3), and the name-label Ἀντιφῶν also occurs in the *Index* of Photius at *Bibl.* cod. 167, p. 115a28.

Critolaus' view may be connected with what Aristotle says about time in relation to the counting soul at *Phys.* 4.14 223a16–29 (cited section E(b)§7), but goes further.

e Other Evidence

Rich documentation concerned with later concepts of time is found in Simplicius' *Corollarium de tempore*, translated by Urmson (1992) and discussed by Meyer (1969) and Sonderegger (1982). Discussion of the doxographical material as a whole is found at Bobzien (2015) 296–321. See further the previous chapter, Commentary A(5) and D(e).

Evidence on Galen's view of time qua 'substance' in the later Greek and the Arabic tradition is discussed by Chiaradonna (2009) 54–57; also see Adamson (2012), who says more about the Arabic tradition. But, as far as we can see, it is not clear in what sense of 'substance' this was meant. For two Greek texts criticising Aristotle's definition as cited in 1.21.2a see above, ch. 1.21 section E(a)§2a.

E Further Related Texts

a Proximate Tradition

General texts: (see also above ch. 1.21 section E(a) General texts) **Aquilius**

Def. 81 Rashed χρόνος ἐστὶ μέτρον κινήσεως καὶ μονῆς ἢ ἀριθμὸς τοῦ ἐν κινήσει προτέρου καὶ ὑστέρου. **Sextus Empiricus** *M.* 10.215–219 ἐνέσται δὲ τοῦτο ἀπορεῖν καὶ ἀπὸ τῆς οὐσίας, ὥς καὶ ἀπὸ τῆς ἐννοίας προηπόρηται. αὐτίκα γὰρ τῶν δογματικῶν φιλοσόφων φασὶν οἱ μὲν σῶμα εἶναι τὸν χρόνον οἱ δὲ ἀσώματον, καὶ τῶν ἀσώματων φαμένων οἱ μὲν ὥς καθ' αὐτό τι νοούμενον πρᾶγμα, οἱ δ' ὥς συμβεβηκὸς ἐτέρῳ. (216) σῶμα μὲν οὖν ἔλεξεν εἶναι τὸν χρόνον Αἰνισίδημος (fr. B28A Polito) κατὰ τὸν Ἡράκλειτον (T 699 Mouraviev)· μὴ διαφέρειν γὰρ αὐτὸν τοῦ ὄντος καὶ τοῦ πρώτου σώματος. ... (218) ὥσθ' οὗτοι μὲν σῶμα ποιοῦσι τὸν χρόνον, οἱ δὲ ἀπὸ τῆς Στοᾶς φιλόσοφοι (*SVF* 2.331) ἀσώματον αὐτὸν ᾤθησαν ὑπάρχειν· τῶν γὰρ τινῶν φασι τὰ μὲν εἶναι σώματα, τὰ δὲ ἀσώματα, τῶν δὲ ἀσώματων τέσσαρα εἶδη καταριθμοῦνται ὥς λεκτὸν καὶ κενὸν καὶ τόπον καὶ χρόνον. ἐξ οὗ δῆλον γίνεται, ὅτι πρὸς τῷ ἀσώματον ὑπολαμβάνειν τὸν χρόνον, ἔτι καὶ καθ' αὐτό τι νοούμενον πρᾶγμα δοξάζουσι τοῦτον. (219) Ἐπικούρου δὲ κτλ. (see below, §6). *M.* 10.229–230 ὅθεν τοιαύτης οὐσης καὶ περὶ τῆς κατὰ τὸν χρόνον οὐσίας διαστάσεως, πάρεστι μὲν ἡδὴ συμβαλεῖν ἐκ τῶν προηπορημένων, ὅτι οὐδ' ἐκ ταύτης οἷόν τέ ἐστι βεβαίως τι μαθεῖν, ὅμως δὲ καὶ τὰ νῦν λεκτέον πρὸς Πλάτωνα καὶ Ἀριστοτέλην καὶ Στράτωνα τὸν φυσικὸν (—) τὰ ἐν ἀρχαῖς ἀντειρημένα (sc. 10.170 ff.), ὅτε ἐκ τῆς ἐννοίας τοῦ χρόνου συνηγόμεν τὸ μηδὲν εἶναι τὸν χρόνον. πρὸς δὲ τοὺς σωματικὴν ἀξιοῦντας εἶναι τὴν οὐσίαν τοῦ χρόνου, φημὶ δὲ τοὺς Ἡρακλειτεῖους (Aenesidemus B28B Polito), κινεῖτο προχει-

ρότατον, ὅτι εἰ χρόνος σῶμά ἐστι κτλ. *P.* 3.138 κατ' οὐσίαν τε οἱ μὲν σῶμα αὐτὸν (sc. τὸν χρόνον) ἔφασαν εἶναι, ὡς οἱ περὶ τὸν Αἰνησίδημον (fr. B28C Polito) (μηδὲν γὰρ αὐτὸν διαφέρειν τοῦ ὄντος καὶ τοῦ πρώτου σώματος), οἱ δὲ ἀσώματον. ἦτοι οὖν πᾶσαι αἱ στάσεις αὐταὶ εἰσιν ἀληθεῖς, ἢ πᾶσαι ψευδεῖς, ἢ τινὲς μὲν ἀληθεῖς, τινὲς δὲ ψευδεῖς. (cf. *P.* 3.136–137, above c. 1.21 section E(a) General texts). **Simplicius in Phys.** 700.16–25 ἄδηλον οὖν καὶ τὸ τί ἐστίν, εἴπερ οἱ μὲν 'τὴν τοῦ ὅλου κίνησιν' καὶ περιφορὰν τὸν χρόνον εἶναι φασιν, ὡς τὸν Πλάτωνα (cf. ch. 1.22.1) νομίζουσιν ὃ τε Εὐδήμος (fr. 82a Wehrli) καὶ ὁ Θεόφραστος (fr. 150 FHS&G) καὶ ὁ Ἀλέξανδρος· 'οἱ δὲ τὴν σφαῖραν αὐτὴν' τοῦ οὐρανοῦ, ὡς τοὺς Πυθαγορείους (—) ἱστοροῦσι λέγειν οἱ παρακούσαντες ἴσως τοῦ Ἀρχύτου (ps.Archytas *Categ.* p. 24.15–16 Thesleff) λέγοντος καθόλου τὸν χρόνον διάστημα τῆς τοῦ παντὸς φύσεως, ἢ ὡς τινες τῶν Στωικῶν ἔλεγον (*SVF* 2.516)· οἱ δὲ τὴν κίνησιν ἀπλῶς (cf. ch. 1.22.2)· τρεῖς γὰρ ἱστορεῖ περὶ χρόνου δόξας τὰς μυθικωτέρας παρεῖς· ἐν αἷς ἐκ διαιρέσεως εἰλημμέναις πᾶσας συνείληφεν. ἢ γὰρ κίνησις ὁ χρόνος ἐστὶν ἢ τὸ κινούμενον πρώτως ἢ τοῦ παντὸς σφαῖρα.

§2 **Stoics: Arius Didymus** fr. 26 Diels at Stob. *Ecl.* 1.8.42 see above ch. 1.21 at section E(a)§2.

§5 **Strato: Sextus Empiricus** *M.* 10.177 Στράτων ὁ φυσικός (fr. 79a Wehrli, 35 Sharples) ἀποστὰς τῆσδε τῆς ἐννοίας (sc. Aristotle's, cited *M.* 10.176) ἔλεγε χρόνον ὑπάρχειν μέτρον πάσης κινήσεως καὶ μονῆς· παρῆκει γὰρ πᾶσι τοῖς κινουμένοις, ὅτε κινεῖται, καὶ πᾶσι τοῖς ἀκινήτοις, ὅτε ἀκινήτίζει, καὶ διὰ τοῦτο πάντα τὰ γινόμενα ἐν χρόνῳ γίνεται. *P.* 3.137 Στράτων (fr. 79b Wehrli, 35 app. Sharples) δέ, ἢ ὡς τινες Ἀριστοτέλης, μέτρον κινήσεως καὶ μονῆς.

§§8–9 **The majority Plato: Sextus Empiricus** *M.* 10.203 εἰ ἔστι τι χρόνος, ἦτοι ἄφθαρτός ἐστι καὶ ἀγέννητος ἢ φθαρτός καὶ γενητός. *M.* 10.206 ἐπιχειρητέον δὲ καὶ οὕτως· εἰ ἔστι τι χρόνος, ἦτοι γενητός ἐστίν ἢ ἀγέννητος ἢ τις μὲν γενητός, τις δὲ ἀγέννητος. *P.* 3.147 λέγεται κατὰ τοῦ χρόνου ἀκάκινος ὁ λόγος· εἰ ἔστι χρόνος, ἦτοι γενητός ἐστι καὶ φθαρτός ἢ ἀγέννητος καὶ ἄφθαρτος.

§8 **The majority: ps.Plutarch Strom.** 7 (Plu. fr. 179 Sandbach) at Eus. *PE* 1.8.7 Δημόκριτος ὁ Ἀβδηρίτης (68A39 DK) ... μηδεμίαν ἀρχὴν ἔχειν τὰς αἰτίας τῶν νῦν γιγνομένων, ἄνωθεν δ' ὅλως ἐξ ἀπείρου χρόνου προκατέχεσθαι τῇ ἀνάγκῃ πάνθ' ἀπλῶς τὰ γεγονότα καὶ ἐόντα καὶ ἐσόμενα.

§9 **Plato: Diogenes Laertius** *V.P.* 3.73 (on Plato) χρόνον τε γενέσθαι εἰκόνα τοῦ αἰδίου. ἀκάκινον μὲν αἰεὶ μένειν, τὴν δὲ τοῦ οὐρανοῦ φορὰν χρόνον εἶναι· ... διόπερ ἄνευ τῆς τοῦ κόσμου φύσεως οὐκ εἶναι χρόνον· ἅμα γὰρ ὑπάρχειν αὐτῷ καὶ χρόνον εἶναι.

b Sources and Other Parallel Texts

General texts: Proclus in Tim. 3.95.7–15 ἔτι δὲ κάκεῖνο ληπτέον ἀπὸ τῶν προειρημένων, ὅτι πολλοὺ δεῖ τοιοῦτον ὑπονοῆσαι τὸν χρόνον ὁ Πλάτων, οἷον οἱ ἀπὸ τῆς Στοᾶς (*SVF* 2.521) ὑπέλαβον ἢ τῶν ἐκ τοῦ Περιπάτου πολλοί (cf. §7 and below on §7), οἱ μὲν κατ' ἐπίνοιαν ψιλὴν αὐτὸν συνιστάντες ἀμενηνὸν καὶ ἔγγιστα τοῦ μὴ ὄντος (ἐν γὰρ ἦν τῶν παρ' αὐτοῖς ἀσωμάτων ὁ χρόνος, ἃ δὴ καταπεφρόνηται παρ' αὐτοῖς ὡς ἀδρανὴ καὶ οὐκ ὄντα καὶ ἐν ἐπινοίαις ὑφιστάμενα ψιλαῖς), οἱ δὲ συμβεβηκὸς τῆς κινήσεως λέγοντες (cf. §6).

§1 Plato: *Plato Tim.* 37d διακοσμῶν ἅμα οὐρανὸν ποιεῖ μένοντος αἰῶνος ἐν ἐνὶ κατ' ἀριθμὸν ἰοῦσαν αἰώνιον εἰκόνα, τοῦτον δὲ δὴ χρόνον ὠνομάκαμεν. **Euclid Phaen.** pr. 108–111 κόσμου περιστροφῆς χρόνος ἐστίν, ἐν ᾧ ἕκαστον τῶν ἀπλανῶν ἀστέρων ἀπ' ἀνατολῆς ἐπὶ τὴν ἐξῆς ἀνατολὴν παραγίνεται ἢ ἀφ' οὐδηποτοῦν τόπου ἐπὶ τὸν αὐτὸν τόπον. **Philo of Alexandria Leg.** 1.2 λέγοιτ' ἂν οὖν ὁρθῶς, ὅτι οὐκ ἐν χρόνῳ γέγονε κόσμος, ἀλλὰ διὰ κόσμου συνέστη χρόνος· ἡ γὰρ οὐρανοῦ κινήσις χρόνου φύσιν ἔδειξεν. **Macrobius Sat.** 1.8.7 *tempus est certa dimensio quae ex caeli conversione colligitur.* **Simplicius in Phys.** 700.16–18 οἱ μὲν 'τὴν τοῦ ὅλου κίνησιν' καὶ περιφορὰν τὸν χρόνον εἶναι φασιν, ὡς τὸν Πλάτωνα νομίζουσιν ὃ τε Εὐδήμος (fr. 82a Wehrli) καὶ ὁ Θεόφραστος (*Phys.Op.* fr. 15 Diels, 150 FHS&G) καὶ ὁ Ἀλέξανδρος. *in Phys.* 702.24–703.1 ὁ δὲ Ἀλέξανδρος φιλονεικῶν δεῖξαι τοῦ Πλάτωνος οὕσαν δόξαν τὴν λέγουσαν χρόνον εἶναι τὴν τοῦ οὐρανοῦ φορὰν πρῶτον μὲν τὸν Εὐδήμον (fr. 82b Wehrli) μαρτύρεται κτλ. ... ἐμὲ δὲ ὑποδείξει χρεῶν, πρῶτον μὲν πόθεν ὁ Εὐδήμος ὑπενόησε χρόνον λέγειν τὸν Πλάτωνα τὴν τοῦ οὐρανοῦ περιφορὰν.

§4 Hestiaeus: *Plotinus Enn.* 3.7[45]12.25–28 εἰ δὲ τις λέγοι χρόνους λέγεσθαι αὐτῷ καὶ τὰς τῶν ἀστρῶν φοράς, ἀναμνησθήτω, ὅτι ταῦτά φησι γεγονέναι πρὸς δῆλῳσιν καὶ 'διορισμὸν χρόνου' καὶ τὸ ἵνα ἢ 'μέτρον ἐναργές' (*Pl. Tim.* 38c, 39b).

§5 Strato: *Plutarch Plat. Quaest.* 1007A–B 'τὸ ἐν κινήσει ποσόν' ὡς Σπεύσιππος (fr. 53 Lang, 93 Isnardi Parente, 60 Tarán). **Simplicius in Cat.** 346.14–15 Στράτων (fr. 34 Sharples, not in Wehrli) μὲν γὰρ τὸ ποσὸν τῆς κινήσεως εἰπὼν τὸν χρόνον ἀχώριστόν τι αὐτὸν ὑπέθετο τῆς κινήσεως. *in Phys.* 788.36–789.4 (coroll. de tempore) ὁ μὲντοι Λαμψακηνὸς Στράτων (fr. 75 Wehrli, 31 Sharples) αἰτιασάμενος τὸν ὑπ' Ἀριστοτέλους τε καὶ τῶν Ἀριστοτέλους ἐταίρων ἀποδοθέντα τοῦ χρόνου ὀρισμὸν αὐτὸς καίτοι Θεοφράστου (fr. 151B FHS&G) μαθητῆς ὦν τοῦ πάντα σχεδὸν ἀκολουθήσαντος τῷ Ἀριστοτέλει καινότεραν ἐβάδισεν ὁδόν· ἀριθμὸν μὲν γὰρ κινήσεως εἶναι τὸν χρόνον οὐκ ἀποδέχεται, διότι ὁ μὲν ἀριθμὸς διωρισμένον ποσόν, ἡ δὲ κινήσις καὶ ὁ χρόνος συνεχής, τὸ δὲ συνεχές οὐκ ἀριθμητόν. *in Phys.* 789.34–35 (coroll. de tempore) ὁ Στράτων (fr. 76 Wehrli, 31 Sharples) αὐτὸς τὸν χρόνον τὸ ἐν ταῖς πράξεσι ποσὸν εἶναι τίθεται.

§6 Epicurus: *Epicurus Ep.Hdt.* at D.L. 10.73 καὶ γὰρ τοῦτο οὐκ ἀποδείξεως προσδίδεται ἀλλ' ἐπιλογισμοῦ, ὅτι ταῖς ἡμέραις καὶ ταῖς νυξὶ συμπλέκομεν καὶ τοῖς τούτων μέρεσιν (sc. τὸν χρόνον), ὡσαύτως δὲ καὶ τοῖς πάθεσι καὶ ταῖς ἀπαθείαις, καὶ κινήσεσι καὶ στάσεσιν, ἴδιόν τι σύμπτωμα περὶ ταῦτα πάλιν αὐτὸ τοῦτο ἐννοοῦντες, καθ' ὃ χρόνον ὀνομάζομεν. φησὶ δὲ (frs. 26 and 79 Usener) τοῦτο καὶ ἐν τῇ δευτέρᾳ Περὶ φύσεως καὶ ἐν τῇ Μεγάλῃ ἐπιτομῇ. **Lucretius DRN** 1.456–463 ... *cetera quorum / adventu manet incolumis natura abituque, / haec soliti sumus, ut par est, eventa* (sc. συμπτώματα) *vocare. / tempus item per se non est, sed rebus ab ipsis / consequitur sensus, transactum quid sit in aevo, / tum quae res instet, quid porro deinde sequatur; / nec per se quemquam tempus sentire fatendumst / semotum ab rerum motu placidaque quiete.* **Sextus Empiricus M.** 10.219 Ἐπικούρος δὲ (cf. ch. 1.22.6, fr. 294 Usener), ὡς αὐτὸν Δημήτριος ὁ Λάκων (test. 8 Gigante at Puglia (1988) 22–23) ἐξηγεῖται, τὸν χρόνον σύμπτωμα συμπτωμάτων εἶναι λέγει, παρεπόμενον ἡμέραις τε καὶ νυξὶ καὶ ὥραις καὶ πάθεσι καὶ ἀπαθείαις καὶ κινήσεσι καὶ μοναῖς. πάντα γὰρ ταῦτα συμπτώματά ἐστι τισὶ

συμβεβηκότα, καὶ ὁ χρόνος πᾶσι τούτοις συμπαραεπόμενος εἰκότως ἂν λεχθείη σύμπτωμα συμπτωμάτων. differently *M.* 10.181 δοκεῖ δὲ καὶ εἰς τοὺς περὶ Ἐπίκουρον (fr. 294 Usener) καὶ Δημόκριτον (68A72 DK) φυσικοὺς τοιαύτη τις ἀναφέρεσθαι τοῦ χρόνου νόησις ὅτι χρόνος ἐστὶν ἡμεροειδὲς καὶ νυκτοειδὲς φάντασμα. **Plotinus** *Enn.* 3.7.[45].7.26 οἱ δ' ὅλως παρακολουθοῦν αὐτῇ. *Enn.* 3.7.[45].10.1–4 τὸ δὲ παρακολούθημα λέγειν τῆς κινήσεως, τί ποτε τοῦτό ἐστιν οὐκ ἔστι διδάσκοντος οὐδὲ εἰρηκέναι, πρὶν εἰπεῖν τί ἐστὶ τοῦτο τὸ παρακολουθοῦν· ἐκεῖνο γὰρ ἂν ἴσως εἴη ὁ χρόνος.

§7 Antiphon: Aristotle *Phys.* 4.12 220b32–221a2 ἐπεὶ δ' ἐστὶν ὁ χρόνος μέτρον (221a) κινήσεως καὶ τοῦ κινεῖσθαι, μετρεῖ δ' οὗτος τὴν κίνησιν τῷ ὀρίσαι τινὰ κίνησιν ἢ καταμετρήσει τὴν ὅλην. *Phys.* 4.14 223a16–29 ἄξιον δ' ἐπισκεψέως καὶ πῶς ποτε ἔχει ὁ χρόνος πρὸς τὴν ψυχὴν. ... πότερον δὲ μὴ οὕσης ψυχῆς εἴη ἂν ὁ χρόνος ἢ οὐ, ἀπορήσειεν ἂν τις. ἀδυνάτου γὰρ ὄντος εἶναι τοῦ ἀριθμησόντος ἀδύνατον καὶ ἀριθμητόν τι εἶναι, ὥστε δηλὸν ὅτι οὐδ' ἀριθμός. ἀριθμός γὰρ ἢ τὸ ἡριθμημένον ἢ τὸ ἀριθμητόν. εἰ δὲ μηδὲν ἄλλο πέφυκεν ἀριθμεῖν ἢ ψυχὴ καὶ ψυχῆς νοῦς, ἀδύνατον εἶναι χρόνον ψυχῆς μὴ οὕσης, ἀλλ' ἢ τοῦτο ὅ ποτε ὄν ἐστιν ὁ χρόνος, οἷον εἰ ἐνδέχεται κίνησιν εἶναι ἄνευ ψυχῆς. τὸ δὲ πρότερον καὶ ὕστερον ἐν κινήσει ἐστὶν· χρόνος δὲ ταῦτ' ἐστὶν ἢ ἀριθμητὰ ἐστίν. **Alexander of Aphrodisias** at *Them. in de An.* 120.18–20 ποιητὴν εἰπὼν τοῦ χρόνου τὸν ἀνθρώπων ὁ ἐξηγητὴς Ἀλέξανδρος οὐκ οἶεται φαύλως εἰρηκέναι, ἄντικρυς ἐπίνοιαν ἡμετέραν ποιῶν τὸν χρόνον, ὑπόστασιν δὲ οἰκείαν αὐτῷ μὴ διδούς· οὐκ ὀρθῶς οὐδὲ ἐπομένως Ἀριστοτέλει, εἴπερ τι δεῖ προσέχειν τοῖς ἐν τῇ Φυσικῇ ἀκροάσει (4.10 ff.). **Plotinus** *Enn.* 3.7.[45].7.26 οἱ δὲ μέτρον.

§§8–9 The majority Plato: Aristotle *Phys.* 8.1 251b10–19 πρὸς δὲ τούτοις τὸ πρότερον καὶ ὕστερον πῶς ἔσται χρόνου μὴ ὄντος; ἢ χρόνος μὴ οὕσης κινήσεως; εἰ δὴ ἐστὶν ὁ χρόνος κινήσεως ἀριθμός ἢ κινήσις τις, εἴπερ αἰεὶ χρόνος ἐστίν, ἀνάγκη καὶ κίνησιν αἰδῖον εἶναι. ἀλλὰ μὴν περὶ γε χρόνου ἔξω ἐνὸς ὁμονοητικῶς ἔχοντες φαίνονται πάντες· ἀγέννητον γὰρ εἶναι λέγουσιν. καὶ διὰ τούτου Δημόκριτός (68A71 DK) γε δείκνυσιν ὡς ἀδύνατον ἅπαντα γεγονέναι· τὸν γὰρ χρόνον ἀγέννητον εἶναι. Πλάτων δὲ γεννᾶ μόνος· ἅμα μὲν γὰρ αὐτὸν τῷ οὐρανῷ {γεγονέναι}, τὸν δ' οὐρανὸν γεγονέναι φησίν.

§8 The majority: Aristotle *Phys.* 8.1 251b16–17 Δημόκριτός (68A71 DK) γε δείκνυσιν ὡς ἀδύνατον ἅπαντα γεγονέναι· τὸν γὰρ χρόνον ἀγέννητον εἶναι. *Met.* Λ.6 1071b6–10 ἀδύνατον κίνησιν ἢ γενέσθαι ἢ φθαρῆναι (αἰεὶ γὰρ ἦν), οὐδὲ χρόνον. οὐ γὰρ οἷόν τε τὸ πρότερον καὶ ὕστερον εἶναι μὴ ὄντος χρόνου· καὶ ἡ κινήσις ἄρα οὕτω συνεχὴς ὥσπερ καὶ ὁ χρόνος· ἢ γὰρ τὸ αὐτὸ ἢ κινήσεώς τι πάθος. **Cicero** *ND* 1.21 *fuit quaedam ab infinito tempore aeternitas, quam nulla circumscriptio temporum metiebatur, spatio tamen qualis ea fuerit intellegi potest, quod ne in cogitationem quidem cadit ut fuerit tempus aliquod nullum cum tempus esset.*

§9 Plato: Plato *Tim.* 38b χρόνος δ' οὖν μετ' οὐρανοῦ γέγονεν, ἵνα ἅμα γεννηθέντες ἅμα καὶ λυθῶσιν, ἂν ποτε λύσις τις αὐτῶν γίγηται. **Aristotle** *Cael.* 1.10 279b17–280a2 τὸ μὲν οὖν γενέσθαι μὲν αἰδῖον δ' ὅμως εἶναι φάναι τῶν ἀδυνάτων. ... ἦν δὲ τινες (Speusippus fr. 54a Lang, F 94 Isnardi-Parente, 61a Tarán; Xenocrates fr. 54 Heinze, F 73 Isnardi-Parente²) βοήθειαν ἐπιχειροῦσι φέρειν ἑαυτοῖς

τῶν λεγόντων ἀφθαρτον μὲν εἶναι γενόμενον δέ, οὐκ ἔστιν ἀληθής· ὁμοίως γάρ φασι τοῖς τὰ διαγράμματα γράφουσι καὶ σφᾶς εἰρηκέναι περὶ τῆς γενέσεως, οὐχ ὡς γενομένου ποτέ, ἀλλὰ διδασκαλίας χάριν ὡς μᾶλλον γνωρίζοντων, ὥσπερ τὸ διάγραμμα γιγνόμενον θεασαμένους. **Philo of Alexandria Opif.** 26 (*SVF* 2.511) χρόνος γάρ οὐκ ἦν πρὸ κόσμου, ἀλλ' ἡ σὺν αὐτῷ γέγονεν ἢ μετ' αὐτόν· ἐπεὶ γάρ διάστημα τῆς τοῦ κόσμου κινήσεως ἔστιν ὁ χρόνος, προτέρα δὲ τοῦ κινουμένου κινήσις οὐκ ἂν γένοιτο, ἀλλ' ἀναγκαῖον αὐτὴν ἢ ὕστερον ἢ ἅμα συνίστασθαι, ἀναγκαῖον ἄρα καὶ τὸν χρόνον ἢ ἰσῆλικά κόσμου γεγενῆναι ἢ νῶτερον ἐκείνου· πρεσβύτερον δ' ἀποφαίνεσθαι τολμᾶν ἀφιλόσοφον. **Aet.** 52 μεγίστην μέντοι παρέχεται πίστιν εἰς ἀιδιότητα καὶ ὁ χρόνος. εἰ γάρ ἀγέννητος ὁ χρόνος, ἐξ ἀνάγκης καὶ ὁ κόσμος ἀγέννητος. διὰ τί; ὅτι, ἢ φησιν ὁ μέγας Πλάτων (*Tim.* 37e), ἡμέραι καὶ νύκτες μῆνές τε καὶ ἐνιαυτῶν περίοδοι χρόνον ἔδειξαν. ἀμήχανον δέ τι τούτων συστήναι δίχα ἡλίου κινήσεως καὶ τῆς τοῦ παντὸς οὐρανοῦ περιφορᾶς· ὥστ' εὐθυβόλως ἀποδεδόσθαι πρὸς τῶν εἰωθότων τὰ πράγματα ὀρίζεσθαι χρόνον διάστημα τῆς τοῦ κόσμου κινήσεως. **Ambrose of Milan Exam.** 1.6.20 *in principio itaque temporis caelum et terram deus fecit. tempus enim ab hoc mundo, non ante mundum.* **Simplicius in Cael.** 303.33–304.6 (ad *Cael.* 1.10 279b32) δοκεῖ μὲν πρὸς Ξενοκράτην (fr. 54 Heinze, F 74 Isnardi-Parente²) μάλιστα καὶ τοὺς Πλατωνικοὺς ὁ λόγος τείνειν, διότι ἐξ ἀτάκτου καὶ πλημμελοῦς γεγονέναι τὸν κόσμον φασί, τοῦ Πλάτωνος εἰπόντος (*Tim.* 30a)· παραλαβὼν γάρ ὁ θεὸς πᾶν, 'ὅσον ἦν ὁρατὸν, οὐχ ἡσυχίαν ἄγον, ἀλλὰ κινούμενον πλημμελῶς καὶ ἀτάκτως, εἰς τάξιν αὐτὸ ἤγαγεν ἐκ τῆς ἀταξίας'. οὗτοι οὖν γενητὸν καὶ ἀφθαρτον λέγοντες τὸν κόσμον τὴν γένεσιν οὐχ ὡς ἀπὸ χρόνου φασὶ δεῖν ἀκούειν, ἀλλ' ἐξ ὑποθέσεως εἰρημένην διδασκαλίας χάριν τῆς τάξεως τῶν ἐν αὐτῷ προτέρων τε καὶ συνετωτέρων. **John Philoponus Opif.** 1.3, p. 8.16–17 Reichardt οὐκ ἦν ἄρα χρόνος πρὶν οὐρανὸν ὑποστήναι. **Opif.** 2.21, p. 123.15–19 κα'. 'Ὅτι οὐ καθ' ὑπόθεσιν, ὡς φασιν, εὐσεβείας ἢ διδασκαλίας χάριν ὡς γινόμενον τὸν κόσμον ὁ Πλάτων εἰσηγείται, καὶ ὅτι, δι' ὧν ταῦτα λέγουσιν, ἀνασκευάζουσι τὰ πρότερα τοῦ γενητοῦ σημαινόμενα.

Liber 1 Caput 23

P^B: ps.Plutarchus *Plac.* 884D; pp. 318^a15–320^a2—P^Q: Qusṭā ibn Lūqā pp. 132–133 Daiber—P^S: Psellus *Omn.Doctr.* c. 103, p. 58 Westerink
S: Stobaeus *Ecl.* 1.19.1, p. 162.1–18 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b4 Henry (titulus solus)
Cf. Ach: Achilles *Univ.* c. 36, p. 57.18 Di Maria

Titulus κγ'. Περὶ κινήσεως (P,S)

- §1 Πυθαγόρας Πλάτων· κινήσις ἐστὶ διαφορὰ τις ἢ ἑτερότης ἐν ὕλῃ, ἣ ἔστιν ὕλη, οὗτος πάσης κινήσεως κοινὸς ὅρος. (P1,S1)
- §2 Ἀριστοτέλης· ἐντελέχεια κινήτου. (P2,S10)
- §3 Δημόκριτος· ἐν γένος κινήσεως τὸ κατὰ παλμόν. (P3,S2) 5
- §4 Ἐπίκουρος δύο εἶδη κινήσεως, τὸ κατὰ στάθμην καὶ τὸ κατὰ παραγκλισιν. (P4,S3)
- §5 εἰσὶ δέ τινες, οἱ καὶ τέταρτον εἶδος εἰσάγουσι, τὸ κατ' οὐσίαν, ὅπερ ἐστὶ τὸ κατὰ γένεσιν. (S4)
- §6 ἄλλοι δὲ καὶ τὴν διανοητικὴν προστιθέασιν, μέχρι γὰρ τῶν πέντε προὔβησαν. (S5) 10
- §7 Διόδωρος ὁ Κρόνος κεκινήσθαι μὲν τι, κινεῖσθαι δὲ μηδέν. (S6)
- §8 Ἡράκλειτος ἡρεμίαν μὲν καὶ στάσιν ἐκ τῶν ὄλων ἀνῆρει· ἐστὶ γὰρ τοῦτο τῶν νεκρῶν· κίνησιν δ' αἰδίων μὲν τοῖς αἰδίοις φθαρτὴν δὲ τοῖς φθαρτοῖς ἀπεδίδου. (P6,S7) 15
- §9 Ἡρόφιλος κινήσεως τὴν μὲν λόγῳ θεωρητὴν, τὴν δ' αἰσθητὴν. (P5,S8)
- §10 Ἀσκληπιάδης πᾶσαν κίνησιν αἰσθητὴν. (S9)

§1 Pythagoras—; Plato—; §2 Aristoteles *Phys.* cf. 3.2 202a7–8, 3.7 251a9–10, 8.5 257b8^a–9; §3 Democritus 68A47 DK; §4 Epicurus fr. 280 Usener; §§5–6 anonymi—; §7 Diodorus Cronus fr. 121 Döring, II F 11 Giannantoni; §8 Heraclitus 22A6 DK; §9 Herophilus fr. 142 Von Staden; §10 Asclepiades cf. Vallance *ANRW* 2.37.1, p. 726

§1 [2] Πλάτων P^{BQ}: om. S || διαφορὰ τις P^{BQ}(ut vid.) : διαφορότης S (corr. Heeren, S^{FP} διαφερότης) || [2–3] ἣ ... ὅρος S: om. P || [3] post ὕλῃ add. ἔφασκε S^P §2 [4] ἐντελέχεια κινήτου P, cf. P^S: ἐνέργειαν εἶναι τοῦ δυνάμει κινήτου ἢ κινήτον S fort. recte, seqq. ex Ario Didymo verisimiliter §3 [5] ante κινήσεως hab. τῆς P^B || παλμόν S: πλάγιον P^B, πληγὴν coni. Gassendi Zeller, fort. (ἀπο)παλμόν scribendum cf. c. 1.12[17], D.L. *VP.* 10.44 || post παλμόν add. ἀπεφαίνεται S §§3 [5]–[4][6] τὸ κατὰ παλμόν ... κινήσεως om. P^Q per haplographiam §4 [6] ante κινήσεως hab. τῆς P^B: κινήσεως κινήσεων S^F || [6–7] post παρέγκλισιν lemma de tertio genere excidisse statuerunt Meineke Diels (sed cf. *DG* 853b), 'additum olim fuisse' καὶ τρίτον δὲ τὸ κατὰ πληγὴν καὶ ἀποπαλμόν αὐτὸς ἐπεισήγαγε propos. Usener in app. fr. 280 §8 [13] ὄλων P^B(L,III)S: λόγων P^B(II)D, cf. P^Q (*Gestalt* Q; vid. adn. infra) || [13–14] ἐστὶ γὰρ τοῦτο τῶν νεκρῶν om. S || [14–15] αἰδίων ... φθαρτοῖς P^{BQ}: τοῖς πάσι S || [15] ἀπεδίδου S, cf. P^Q (*zukomme* Q): om. P^B §10 [17] post αἰσθητὴν add S ἀπεφῆνατο.

*Testes primi:**Traditio ps.Plutarchi:***Psellus *Omn.Doctr.*** c. 103 (~ tit.) *Περὶ κινήσεως*

δυσκατανόητόν τι πράγμα ἢ κίνησις. ἔστι δὲ εἶδος τι καὶ ἐνέργεια κινουμένου πράγματος καθ' ὃν χρόνον κινεῖται. ... ὅπερ δὴ καὶ ἐντελέχειαν Ἀριστοτέλης ὠνόμασεν (~ P2).

*Testes secundi:***Achilles *Univ.*** c. 36, p. 57.18 (~ tit.) *Περὶ κινήσεως**Loci Aetiani:*

quaestio cf. A 1.21 *Περὶ χρόνου*. A 1.22 *Περὶ οὐσίας χρόνου*. 1.24 *Περὶ γενέσεως καὶ φθορᾶς*. 2.4 *Εἰ ἀφθαρτος ὁ κόσμος*.

§1 A 1.9.1 ὕλη ἐστὶ ... A 1.10.1 ἰδέα ἐστὶν ... A 1.11.1 αἰτιὸν ἐστὶ ... ἀρκεῖ γὰρ ὑπογραφικῶς. A 1.12.1 σῶμά ἐστι ... ἢ ... ἢ ... A 1.14.1 σχῆμά ἐστιν ... A 1.15.1 χρῶμα ἐστὶ ... A 2.32.1 ἐνιαυτός ἐστι ... A 3.1.1 (γαλαξίος) κύκλος ἐστὶ ...

§2 A 1.2.2.[10–11] τὸ εἶδος ὃ καλοῦμεν ἐντελέχειαν. A 4.2.6 Ἀριστοτέλης ...· τὴν δ' ἐντελέχειαν ἀκουστέον ἀντὶ τοῦ εἶδους καὶ τῆς ἐνεργείας.

§3 A 1.12.6 Δημόκριτος τὰ πρῶτά φησι σώματα ... βάρους μὲν οὐκ ἔχειν, κινεῖσθαι δὲ κατ' ἀλληλοτυπίαν ἐν τῷ ἀπειρῷ.

§4 A 1.3.16[117–119] ὁ δ' Ἐπικούρος τούτοις ... καὶ τὸ βάρους ἐπέθηκεν· ἀνάγκη γάρ, φησί, 'κινεῖσθαι τὰ σώματα τῇ τοῦ βάρους πληγῇ'. A 1.12.5 κινεῖσθαι δὲ τὰ ἄτομα τότε μὲν κατὰ στάθμην, τότε δὲ κατὰ παρέγκλισιν· τὰ δὲ ἄνω κινούμενα κατὰ πληγὴν καὶ ἀποπαλμόν.

inter §6 et §7 (?) A 3.15.10 Πλάτων πάσης μὲν κινήσεως ἕξ εἶναι περιστάσεις κτλ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The abridged version of the chapter in the P tradition is found only in P^B and Q, with the material in Ps telling us little more than that he found the chapter in his copy of P^B. G declined to excerpt it.

(2) The chapter is basically written out in full in S at the beginning of his ch. 1.19 *Περὶ κινήσεως*, but with extensive material from AD (much too extensive to be from A) replacing A on Aristotle for almost the entire doxographical excerpt, except the name-label and the synonym ἐνέργεια for ἐντελέχεια. Thus P2 corresponds to S10, the AD fragment placed by S *ad finem*. This type of coalescence is found more often in the *Anthology*, see Diels *DG* 75 n. 2, M–R 1.249–254, and Jeremiah at M–R 4.286 and 353. Diels printed this AD material

(quoted below section E(a)§2) in the right-hand column of the Aëtian text at *DG* 319, but in the apparatus ad loc. (with backward reference to p. 75 n. and p. 215, see below at section B) said ‘addubitavi an Stobaeis Ariana admixta essent’. Wachsmuth ad loc. agrees. The fact that this same Stobaeian chapter comprises substantial abstracts from AD (frs. 22–24 Diels) on the Stoics, too, strengthens this assumption, since S often places abstracts from AD on Aristotle as well as on the Stoics in one and the same chapter. The extant Aëtian material oddly lacks a Stoic doxa about motion, while S’s version of this chapter includes three substantial AD extracts on the Stoics (one each for Chrysippus, Zeno, and Apollodorus, AD frs. 3–5 Diels). It appears that, apart from his substitution of an AD fragment for a lemma in A, S wrote out the chapter in full.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition is limited to a couple of lines in Lucretius parallel to §4, and the Stobaeian passage overgenerously parallel to §2, which Diels in spite of his doubts printed in the right-hand Aëtian column, but which we have thought better to assign to Arius Didymus.

(2) *Sources.* Without doubt most of the information percolated through the wider doxographical tradition. At *DG* 215 Diels includes §2 among his rare examples of a close reading—according to him by A, but see at section A above—of the text of Aristotle’s *pragmateiai* ([i]psius Aristotelis doctrina ... ex accurata eius lectione hausta; cf. chs. 1.9.1, 1.29.2, 4.8.6, 4.9.3, and 5.3.1 at Commentary B). He refers to *Phys.* 3.2 202a7(–8) and 8.1 251a9(–10). A’s definition ἐντελέχεια κινήτου is indeed an abridgement of *Phys.* 3.2 202a7(–8) ἡ κίνησις ἐντελέχεια τοῦ κινήτου, ἥ κινήτόν.

C *Chapter Heading*

Attested in both P and S, and of the standard umbrella type ‘about *x*’, περὶ τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. In the present chapter it comprises various categories and/or question types, viz. quantity, quality, and existence. Note moreover that there is no Aristotelian category of ‘motion’. According to Theophrastus in Book 3 of his *On Motion* ‘there are as many types of motion as there are categories’, while others are of a different opinion. Cf. above ch. 1.prooem., Commentary D (e)(3b), and see below section E (b) General texts *ad finem* for Simplicius in *Cat.* 139.34–140.6, who cites several views, among which that of Theophrastus.

D *Analysis*

a Context

The chapter comes quite naturally before 1.24 ‘On coming to be and passing away’, and equally naturally follows upon the two chapters on time, in both of which motion plays an important part. In Aristotle’s œuvre the books of *Physics* dealing with motion (referred to by him as ἐν τοῖς Περὶ κινήσεως, e.g. *Cael.* 1.5 272a30–31) are followed by *On the Heavens* and *On Coming To Be and Passing Away* (cf. *Mete.* 1.1 338a20–25).

b Number–Order of Lemmata

(1) P has 6 lemmata, S 10. Diels *DG* prints 8 lemmata because he does not give separate lemmata to Epicurus, ‘some’, and ‘others’, as we habitually do. All of P’s lemmata are paralleled in S.

(2) There is a discrepancy in order between P and S in relation to §§8–9. We have followed S, not only because he provides an apparently solid block (except the Aristotle doxa), but also because of the patent diaphonia of §9 Herophilus with §10 Asclepiades.

(3) Meineke persuasively argued that a lemma with a third genus had fallen by the wayside. Diels accepted this but later changed his mind, see *DG* 853a and Wachsmuth ad loc. He believed that §3 could count as first, §4 as second plus third, §5 as fourth, so no missing lemma. We have not followed this move, for this is not how numerical lists are constructed. What we now have is one, two (i.e., not second and third), and then a fourth i.e. one added to the triad that has dropped out, then five: a gap clearly remains. Usener’s attempt to fill this gap (see app. crit. ad loc.) is not helpful.

c Rationale–Structure of Chapter

The chapter presents much material according to a series of criteria.

(1) *Definition*. First we find a definition (§1, name-labels Pythagoras Plato) that *disertis verbis* is said to hold for every variety of motion, so is conceptual. S has preserved an important comment, namely that ‘it is the shared (or ‘common’, κοινός) definition of every (form of) motion’. (Despite its being called ‘common’ we have been unable to find a parallel for this phrase, so this is perhaps postulated because of its specific function rather than based on actual precedent.) The elucidation should be accepted as genuine A, see M–R 1.223. For the distinction between common or conceptual definition on the one hand and essential (i.e. real) definition on the other see at ch. 1.9 above, Commentary D(c) and (e)(2).

The first lemma is followed by no less than nine lemmata that provide contrasting definitions of motion, so here too the nominal definition is followed by

essential definitions that are sectarian. The first of these, in §2 with name-label Aristotle, is still fairly general too.

(2) *Order according to number.* A block of four lemmata follows, §§3–6, listing the (3) species of motion according to number on a rising scale, from one to five (as Meineke and (originally) Diels saw, a lemma for the number three has been lost; see our comment at section D(b) above). One for the number six may also have been lost, see Plato's six species of locomotion at ch. 3.15.10 below. This is a diaeresis according to the category of quantity.

(3) *Question of existence.* Four doxai, concerned with other matters than the first two plus four, conclude the chapter. The first of these, §7 Diodorus Cronus, comes close to the zero-position of stating that motion does not exist at all, as it denies its actuality and paradoxically only allows that things have moved. Apparently Diodorus represents the Eleatics, whose ban on motion to our surprise is not mentioned now but presented in the next and related chapter, 1.24.1. His doxa conflicts with that of §8, because (in the *first* half of the lemma) Heraclitus is said to have abolished rest, the perfect and traditional counterposition to the famous thesis of Parmenides and Melissus discussed by Plato, Aristotle, and others.

(4) *Intelligible vs. sensible.* The *second* half of §8 goes with §9 Herophilus and §10 Asclepiades. Heraclitus divides motion into two, eternal and perishable (category of time), Herophilus in an analogous manner likewise into two, namely into motion observable by reason and sense-perceptible motion. §10 Asclepiades, sense-perceptible motion only, conflicts with §9. We may on the other hand compare the bipartite motion of §§8–9 with that of §4, and the single motion of §10 with that of §3, although the specific differences belong with a different register. The distinction between sense-perceptible and observable by reason of §9 corresponds with that between the (sense-perceptible) motions of §§3–5 and the intelligible motion of §6.

d Further Comments

General Points

A preliminary reconstruction of the chapter and a discussion of its methodology as being typical for A were provided by Runia (1999b) 199–206 = M–R 3.525–532.

Individual Points

§1 The practice of commencing with a definition in direct speech is found more often in Book 1, but not when attributed to particular philosophers as here. Ch. 1.25.1, in direct speech too, is not a general definition. In P the direct

speech is continued for §2, but in the absence of S we do not know if this is taken over from A. Mau continues the direct speech for §§3–4, but this is unnecessary, as Diels *DG* saw, given the evidence of S.

§2 The information provided by Aristotle about the number of species of motion to be posited varies, so the doxographer's decision to cite only the present definition is probably a wise one.

§§3–4 Note that not two but three kinds of motion are attributed to Epicurus at ch. 1.12.5 above, by Lucretius *DRN* 2.284–293, and by Cicero *Fat.* 22: perpendicular through weight, spontaneous deviation, and the one absent here: by a blow (collision). We arrive at this triad if (inspired by Diels) we add the single motion attributed to Democritus in §3 to Epicurus' two, but a paragraph with a real triad is still missing. §4 can be better understood if we are allowed to consider motion by weight and spontaneous deviation as the two primary kinds, and collision as a result of the interaction of these two.

§8 S omitted the quasi-quotation ἔστι γὰρ τοῦτο (sc. στάσις) τῶν νεκρῶν. Did he do this because of the similarity between στάσις νεκρῶν and the Christian ἀνάστασις νεκρῶν?

The meaning 'standing still' for στάσις is much more rare than 'strife', though prominent in Plato's *Sophist* (e.g. 250a) as opposed to 'motion', κίνησις. Even so, the striking phrase στάσις ἔστι τῶν νεκρῶν may well go back to Heraclitus.

As Gutas (1982) 122 notes, there is a discrepancy between Daiber's translation of the Arabic equivalent of ἐκ τῶν ὄλων on p. 133 and his apparatus on p. 369. It appears that the translation *aus der Gestalt* renders the reading of the mss., whereas the apparatus gives Daiber's conjecture for the original Arabic text. However, the transmitted reading could be the ἐκ τῶν λόγων of P^B Marcianus 521.

The final verb ἀπεδίδου is missing in P and not included by its editors. But its presence in S suggests it will have stood in A. In his edition of Heraclitus, Marcovich fr. 40(*d*¹) adds it to the text of P, followed by Mouraviev T412. We revise the view of Runia (1999a) 202 = M–R 3.528.

§10 On the basis of a comparison with P (cf. app. crit. at ch. 1.7.3) it appears that S added the verb ἀπεφάνητο also here, cf. Runia (1999a) 202 = M–R 3.528.

e Other Evidence

(1) A lemma presenting the doxa of Plato (see section E(b) General texts) that there are six kinds of motion (as there are six kinds of place) is absent. The Stoic view, as pointed out at section A above, is likewise conspicuously absent.

(2) Motion is discussed at length at Sextus Empiricus *M.* 10.37–168 (including accounts of the 'place' where it occurs, and of divisibility) and *P.* 3.63–91 (also including an account of the 'place' where it occurs). Views are arranged

according to the category of quantity at *M.* 10.37–38 (in a decreasing order, from ‘Aristotle’s six’ species to ‘Aenesidemus’ two’). Only the former is listed *P.* 3.64, anonymously.

E Further Related Texts

a Proximate Tradition

Chapter heading: *Capitula Lucretiana* at *DRN* 2.62 *De motu principiorum et infinita esse*.

General texts: Photius *Bibl.* cod. 212, p. 170b3–8 (Aenesidemus fr. 8B Polito) ἐν δὲ τῷ β’ κατὰ μέρος ἤδη ἀρχόμενος ἐπεξίεναι τὰ ἐν κεφαλαίῳ εἰρημένα, περί τε ... καὶ κινήσεως ... καὶ τῶν τούτοις ἐναντίων, κατὰ πάντων αὐτῶν τὸ ἄπορόν τε καὶ ἀκατάληπτον πυκνοῖς, ὥς οἴεται, ἐπιλογισμοῖς ὑποδεικνύς. **ps.Galen** *HPH* c. 22, *DG* p. 612.10–11 τὴν κίνησιν σχεδὸν τῶν φιλοσόφων πάντες οἱ ἀκριβέστατοι γίνεσθαι νομίζουσιν.

§2 Aristotle: Stobaeus 1.20.1, pp. 162.19–163.13 (printed as A 1.19.2 Diels *DG* p. 319, but most likely to be attributed to Arius Didymus) Ἀριστοτέλης τὴν κίνησιν ἐνέργειαν εἶναι τοῦ δυνάμει κινήτου ἢ κινήτον. τῶν δὲ κινήσεων τὰς μὲν εἶναι κατὰ τὸ ποσόν, τὰς δὲ κατὰ τὸ ποιόν, τὰς δὲ κατὰ τόπον. κατὰ μὲν τὸ ποσὸν αὐξησιν καὶ μείωσιν, ἐν προσθέσει τινὶ θεωρουμένην καὶ ἀφαιρέσει· κατὰ δὲ τὸ ποιὸν ἀλλοίωσιν καὶ μεταβολήν, ὥς τὴν ἐκ θερμοῦ εἰς ψυχρόν, ἐκ γλυκέος εἰς πικρόν· κατὰ δὲ τόπον, ἣν ἰδιώτερον φορὰν ὠνόμασε (*Phys.* 8.7 260a28), καθ’ ὃν ἐξ οὗ εἰς ὃ μεταβαίνει τὰ κινούμενα. ταύτης δὲ τρεῖς εἶναι διαφοράς, ὧν δύο μὲν ἀπλᾶς, τὴν τε κατ’ εὐθείαν καὶ τὴν ἐν κύκλῳ, μίαν δὲ μικτὴν· (κατ’) εὐθείαν μὲν τὴν ἄνω καὶ κάτω κατὰ τε κουφότητα καὶ βαρύτητα τῶν σωμάτων, ἐν κύκλῳ δὲ τὴν περιφερῆ, μικτὴν δὲ τὴν κατ’ ἔγκλισιν· τῆς δὲ κατὰ τόπον κινήσεως τὴν μὲν ἀπὸ τοῦ μέσου γίνεσθαι, τὴν δὲ ἐπὶ τὸ μέσον, τὴν δὲ περὶ τὸ μέσον· πυρὸς μὲν οὖν καὶ ἀέρος ἀπὸ τοῦ μέσου, γῆς καὶ ὕδατος ἐπὶ τὸ μέσον, τοῦ πέμπτου {ὄλον} περὶ τὸ μέσον. τοῖσι δὲ πληροῦσθαι τὸν ὅλον κόσμον.

§4 Epicurus: Lucretius *DRN* 2.83–87 *nam quoniam per inane vagantur, cuncta necessest / aut gravitate sua ferri primordia rerum / aut ictu forte alterius. nam (cum) cita saepe / obvia confluxere, fit ut diversa repente / dissiliant. DRN* 2.216–224 *illud in his quoque te rebus cognoscere avemus, / corpora cum deorsum rectum per inane feruntur / ponderibus propriis, incerto tempore ferme / incertisque locis spatio depellere paulum, / tantum quod momen mutatum dicere possis. / quod nisi declinare solerent, omnia deorsum / imbris uti guttae caderent per inane profundum / nec foret offensus natus nec plaga creata / principiiis; ita nihil umquam natura creasset. DRN* 2.284–293 *quare in seminibus quoque idem fateare necessest, / esse aliam praeter plagas et pondera causam / motibus, unde haec est nobis innata potestas, / de nihilo quoniam fieri nihil posse videmus. / pondus enim prohibet ne plagis omnia fiant / externa quasi vi; sed ne res ipsa necessum / intestinum habeat cunctis in rebus agendis / et devicta quasi cogatur ferre patique, / id facit exiguum clinamen principiorum / nec regione loci certa nec tempore certo.*

b Sources and Other Parallel Texts

General texts: **Plato** *Tht.* 181d δύο δὴ λέγω τούτω εἶδει κινήσεως, ἀλλοίωσιν, τὴν δὲ φοράν. *Tim.* 43a–b τὸ μὲν ὅλον κινεῖσθαι ζῶον, ἀτάκτως μὴν ὅπη τύχοι προΐ-
 εῖναι καὶ ἀλόγως, τὰς ἐξ ἀπάσας κινήσεις ἔχον· εἷς τε γὰρ τὸ πρόσθε καὶ ὀπισθεν
 καὶ πάλιν εἰς δεξιὰ καὶ ἀριστερὰ κάτω τε καὶ ἄνω καὶ πάντη κατὰ τοὺς ἐξ τόπους
 πλανώμενα προΐειν. **Aristotle** *Cat.* 14 15a13–19 κινήσεως δὲ ἐστὶν εἶδη ἕξ· γένεσις,
 φθορά, αὐξήσις, μείωσις, ἀλλοίωσις, κατὰ τόπον μεταβολή. αἱ μὲν οὖν ἄλλαι κινήσεις
 φανερόν ὅτι ἑτεραι ἀλλήλων εἰσὶν· οὐ γὰρ ἐστὶν ἡ γένεσις φθορά οὐδὲ γε ἡ αὐξήσις
 (οὐδὲ ἡ) μείωσις οὐδὲ ἡ κατὰ τόπον μεταβολή· ὡσαύτως δὲ καὶ αἱ ἄλλαι· ἐπὶ δὲ τῆς
 ἀλλοιώσεως ἔχει τινὰ ἀπορίαν, μήποτε ἀναγκαῖον ἦ τὸ ἀλλοιούμενον κατὰ τινὰ τῶν
 λοιπῶν κινήσεων ἀλλοιοῦσθαι. τοῦτο δὲ οὐκ ἀληθές ἐστίν. (cf. **ps.Galen** *Def.Med.*
 19.366.10–12 οε'. εἰσὶ κινήσεις ἐν ἡμῖν ὡς Ἀριστοτέλης ἐκ κατηγορίας [sic, read
 ἐν Κατηγορίαις] λέγει ἕξ· γένεσις, φθορά, μείωσις, ἀλλοίωσις, αὐξήσις καὶ ἡ κατὰ
 τὸν τόπον φορά.) *Phys.* 3.1 201a8–9 κινήσεως καὶ μεταβολῆς ἐστὶν εἶδη τοσαῦτα
 ὅσα τοῦ ὄντος. *Phys.* 3.201b4–5 ἡ τοῦ δυνατοῦ, ἢ δυνατόν, ἐντελέχεια φανερόν ὅτι
 κινήσις ἐστίν. *Phys.* 3.2 201b16–202a3. *Phys.* 8.1 250b15–18 εἶναι μὲν οὖν κίνησιν
 πάντες φασὶν οἱ περὶ φύσεώς τι λέγοντες διὰ τὸ κοσμοποιεῖν καὶ περὶ γενέσεως καὶ
 φθορᾶς εἶναι τὴν θεωρίαν πᾶσαν αὐτοῖς, ἣν ἀδύνατον ὑπάρχειν μὴ κινήσεως οὔσης.
Cael. 4.3 310a23–26 ἐπεὶ γὰρ εἰσι τρεῖς αἱ κινήσεις (ἡ μὲν κατὰ μέγεθος, ἡ δὲ κατ'
 εἶδος, ἡ δὲ κατὰ τόπον), ἐν ἐκάστη τούτων τὴν μεταβολὴν ὀρώμεν γινομένην ἐκ τῶν
 ἐναντιῶν εἰς τὰ ἐναντία καὶ τὰ μεταξύ, καὶ οὐκ εἰς τὸ τυχὸν τῷ τυχόντι. *Mete.* 1.1
 338a20–25 περὶ μὲν οὖν ... καὶ περὶ πάσης κινήσεως φυσικῆς, ... καὶ περὶ γενέσεως
 καὶ φθορᾶς τῆς κοινῆς εἴρηται πρότερον. *Met.* K.12 1068a8–14 εἰ οὖν αἱ κατηγο-
 ρίαι διήρηνται οὐσίᾳ, ποιότητι, τόπῳ, τῷ ποιεῖν ἢ πάσχειν, τῷ πρὸς τι, τῷ ποσῶ,
 ἀνάγκη τρεῖς εἶναι κινήσεις, ποιῶν ποσοῦ τόπου· κατ' οὐσίαν δ' οὐ, διὰ τὸ μὴδὲν
 εἶναι οὐσίᾳ ἐναντίον, οὐδὲ τοῦ πρὸς τι (ἔστι γὰρ θατέρου μεταβάλλοντος μὴ ἀληθεύ-
 εσθαι θάτερον μὴδὲν μεταβάλλον, ὥστε κατὰ συμβεβηκὸς ἡ κίνησις αὐτῶν), οὐδὲ
 ποιοῦντος καὶ πάσχοντος. **Philo of Alexandria** *Sobr.* 34 (*SVF* 3.244) σχέσις καὶ
 κινήσις διαφέρουσιν ἀλλήλων· ἡ μὲν γὰρ ἐστὶν ἡρεμία, φορά δὲ ἡ κίνησις· ἥς εἶδη
 δύο, τὸ μὲν μεταβατικόν, τὸ δὲ περὶ τὸν αὐτὸν τόπον εἰλούμενον. **Sextus Empiri-**
cus *M.* 10.37–42 tit. εἰ ἔστι κίνησις. ὁ μὲν Ἀριστοτέλης (*Cat.* 1415a13–19) ἐξ εἶδη
 τῆς κινήσεως ἔλεγεν ὑπάρχειν, ὧν τὸ μὲν τι εἶναι τοπικὴν μετάβασιν, τὸ δὲ μετα-
 βολὴν, τὸ δὲ γένεσιν, τὸ δὲ φθοράν, τὸ δὲ αὐξήσιν, τὸ δὲ μείωσιν· οἱ δὲ πλείους, ἐν
 οἷς εἰσι καὶ οἱ περὶ τὸν Αἰνισίδημον (fr. B10 Polito), διττὴν τινὰ κατὰ τὸ ἀνωτάτω
 κίνησιν ἀπολείπουσι, μίαν μὲν τὴν μεταβλητικὴν, δευτέραν δὲ τὴν μεταβατικὴν. ...
 (42) καίτοι τινὲς τῶν φυσικῶν, ἐξ ὧν ἐστὶ καὶ ὁ Ἐπίκουρος (fr. 291 Usener), τὴν
 μεταβλητικὴν κίνησιν εἶδος ἔλεξαν εἶναι τῆς μεταβατικῆς. *M.* 10.45–46 τρεῖς γεγόν-
 νασι στάσεις κατὰ τὸ ἀνωτάτω περὶ κινήσεως. οἱ μὲν γὰρ φασι κίνησιν εἶναι, οἱ δὲ
 μὴ εἶναι, οἱ δὲ οὐ μᾶλλον εἶναι ἢ μὴ εἶναι. καὶ εἶναι μὲν ὅ τε βίος, τοῖς φαινομένοις
 προσέχων, καὶ οἱ πλείους τῶν φυσικῶν, ὥσπερ οἱ περὶ Πυθαγόραν (—) καὶ Ἐμπε-
 δοκλέα (—) καὶ Ἀναξαγόραν (—) Δημόκριτον (—) τε καὶ Ἐπίκουρον (—), οἷς
 καὶ οἱ ἀπὸ τοῦ Περιπάτου ἔτι δὲ καὶ οἱ ἀπὸ τῆς Στοᾶς (*SVF* 2.493) συναπεγρά-
 ψαντο καὶ ἄλλοι παμπληθεῖς (46) μὴ εἶναι δὲ οἱ περὶ Παρμενίδην (28A26 DK)
 καὶ Μέλισσον, οὓς ὁ Ἀριστοτέλης (*de Phil.* fr. 9 Walzer/Ross) στασιώτας τε τῆς

φύσεως καὶ ἀφυσίκοις κέκληκεν, στασιώτας μὲν ἀπὸ τῆς στάσεως, ἀφυσίκοις δὲ ὅτι ἀρχὴ κινήσεώς ἐστιν ἡ φύσις, ἣν ἀνεῖλον φάμενοι μηδὲν κινεῖσθαι· κτλ. *P.* 3.64 φασὶ τοῖνυν οἱ δοκοῦντες ἐντελέστερον περὶ κινήσεως διεληφέναι (*Arist. Cat.* 14 15a13–19) ἔξ εἰδῶν ταύτης ὑπάρχειν, τοπικὴν μετάβασιν, φυσικὴν μεταβολήν, αὔξησιν, μείωσιν, γένεσιν, φθοράν. *P.* 3.65 τρεῖς δέ, οἶμαι, γεγόνασιν αἱ ἀνωτάτω περὶ κινήσεως στάσεις. ὁ μὲν γὰρ βίος καὶ τινες τῶν φιλοσόφων εἶναι κίνησιν ὑπολαμβάνουσιν, μὴ εἶναι δὲ Παρμενίδης (—) τε καὶ Μέλισσος καὶ ἄλλοι τινές, μὴ μᾶλλον δὲ εἶναι ἢ μὴ εἶναι ἔφασαν οἱ σκεπτικοί. *Divisiones Aristoteleae* 12 διαιρεῖται ἡ κίνησις εἰς τρία. ἔστι γὰρ αὐτῆς ἐν μὲν κατὰ τόπον, ἐν δὲ κατὰ ἀλλοίωσιν, ἐν δὲ αὐτῇ καθ' ἑαυτὴν ἡ κίνησις. ἔστι δὲ ἡ μὲν κατὰ τόπον τὸ ἐξαλλάσσειν τόπον ἐκ τόπου, οἷον οἱ τρέχοντες καὶ πηδῶντες καὶ πλέοντες καὶ αἱ ἄλλαι αἱ τοιαῦται κινήσεις. ἡ δὲ κατὰ ἀλλοίωσιν, οἷον (οἱ) αὐξανόμενοι καὶ γηράσκοντες καὶ φθίνοντες καὶ ἄλλα τοιαῦτα. ἡ δὲ αὐτῇ καθ' ἑαυτὴν, οἷον οἱ τροχοὶ καὶ οἱ ἔμβικες καὶ ὁ κόσμος καὶ ἄλλα τοιαῦτα. *Eusebius PE* 15.62.13 (*Ariston SVF* 1.353) τὴν τ' αὖ διαφωνίαν παμπόλλην ὄσῃ· ... καὶ τοὺς μὲν ἀξιοῦν ἅπαντα κινεῖσθαι, τοὺς δὲ καθάπαξ μηδέν. *Simplicius in Cat.* 139.34–140.6 ἔοικεν πολλή τις ἀμφιβολία γεγονέναι περὶ τὴν κίνησιν, εἴπερ οἱ μὲν ὑπὸ τὸ πρὸς τι αὐτὴν ἀνάγεσθαι φασιν, οἱ δὲ ὑπὸ πλείονος κατηγορίας ἐν αἷς θεωρεῖται (καὶ γὰρ ἐν ποσῇ κίνησις, ὡς αὔξεσις καὶ μείωσις, καὶ ἐν ποιῇ, ὡς ἀλλοίωσις, καὶ κατὰ τόπον ἄλλη, καὶ δὴ καὶ κατ' οὐσίαν)· ἄλλοι δὲ τινες τὸ δυνάμει καὶ ἐνεργείᾳ κοινῶς ἐπὶ πάντων τῶν γενῶν θεωροῦντες τὴν κίνησιν ἐντελέχειαν οὖσαν τοῦ κινήτου, ἢ κινήτου, κατὰ τὴν Ἀριστοτέλους ἀπόδοσιν (*Phys.* 3.2 202a7–8 etc.), κοινὴν εἶναι τῶν δέκα γενῶν φασιν· οἱ δὲ ἐν τῷ ποιεῖν καὶ πάσχειν αὐτὴν κατατάττουσιν. *in Cat.* 435.17–20 πῶς δὲ αὐτὸς Ἀριστοτέλης ἐν τῷ τρίτῳ τῆς Φυσικῆς σαφῶς εἰπὼν (*Phys.* 3.1 201a8–9) 'ὥστε κινήσεως καὶ μεταβολῆς ἔστιν εἶδη τοσαῦτα ὅσα τοῦ ὄντος', ὅμως καὶ ἐν τῷ πέμπτῳ τῆς πραγματείας ἐκείνης (*Phys.* 5.1 224b35–2.226b10) καὶ ἐνταῦθα οὐκέτι δέκα ἀλλὰ τέσσαρα εἶδη κινήσεως ἀπαριθμεῖται· *in Phys.* 412.31–413.11 καὶ οἶδα μὲν ὅτι προπετέες εἶναι δοκεῖ τὸ τὴν ἐναντίαν ἀφιέναι τῷ Ἀριστοτέλει φωνήν, ἔως δ' ἂν γνῶναι δυνήθωμεν ἀκριβῶς τὴν αἰτίαν τῆς τοιαύτης αὐτοῦ διατάξεως, ἀρκοῦμεθα πρὸς παραμυθίαν τῇ τε Εὐδήμου (fr. 59 Wehrli) συνηγορίᾳ ἐπὶ τῆς ποτὲ κατηγορίας ῥηθείσῃ καὶ ἔτι μᾶλλον τῇ Θεοφράστου (fr. 153B FHS&G) σαφῶς τὴν κίνησιν καὶ μεταβολὴν ἐν πάσαις ταῖς κατηγορίαις θεωροῦντος. λέγει γοῦν ἐν τῷ δευτέρῳ τῶν Περὶ κινήσεως· 'οἵκειότερον δὲ (ὅπερ καὶ λέγομεν καὶ ἔστιν) ἐνεργείαν τοῦ δυνάμει κινήτου ἢ κινήτου κατὰ γένος ἕκαστον τῶν κατηγοριῶν οἷον οὐσίας ποιοῦ ποσοῦ φορητοῦ τῶν ἄλλων. οὕτω γὰρ ἀλλοίωσις αὔξεσις φορὰ γένεσις καὶ αἱ ἐναντίαι ταύταις· ἐν τῷ τρίτῳ δὲ ἔτι σαφέστερον οἶμαι τάδε γέγραφε· 'ἐν μὲν τῷ ἀφορισμῷ τῆς κινήσεως τοσαῦτά φαμεν αὐτῆς εἶδη, ὅσαι κατηγορίαι· τὴν γὰρ τοῦ δυνάμει ὄντος ἢ τοιοῦτον ἐντελέχειαν κίνησιν· καὶ τοῦτο δὲ ἐν τῷ αὐτῷ βιβλίῳ φησί· 'τοῦ δὲ πρὸς τι κίνησις τοῦ μὲν κατὰ λόγον οὐκ ἔστι, τοῦ δὲ κατὰ δύναμιν ἔστιν. ἡ γὰρ ἐνεργεία κίνησις τε καὶ καθ' αὐτό· ἀλλὰ ταῦτα μὲν καὶ ἐπὶ πλέον ζητητέον τὴν Ἀριστοτέλους γνώμην ἀνιχνεύοντων ἡμῶν.

Chapter heading: *Plato Parm.* 136b καὶ περὶ κινήσεως καὶ περὶ στάσεως. *Aristotle Cael.* 1.5 272a30–31 δέδεικται γὰρ τοῦτο πρότερον ἐν τοῖς περὶ κινήσεως. *Sextus Empiricus P.* 3.63 pinax θ' Περὶ κινήσεως. *P.* 3.63 tit. θ' Περὶ κινήσεως.

Themistius in Phys. 192.2–3 τοῦτο δὲ ὁ Θεόφραστος (fr. 155A FHS&G) ἀπορεῖ διαρρήδην ἐν τῷ Περὶ κινήσεως πρώτῳ. **Simplicius in Phys.** 965.10 (Strato fr. 74 Wehrli, 41 Sharples) λέγει οὖν ἐν τῷ Περὶ κινήσεως.

Species of definition: see quoted passages above, ch. 1.9, section E(b)§1.

§2 **Aristotle: Aristotle Phys.** 3.2 202a8–9 διὸ ἡ κίνησις ἐντελέχεια τοῦ κινήτου, ἢ κινήτῳ. **Phys.** 8.5 257b8–9 ἔστιν δ' ἡ κίνησις ἐντελέχεια κινήτου ἀτελής. **Alexander of Aphrodisias** (verbatim) at **Simp. in Phys.** 436.26–28 'καὶ δοκεῖ, φησὶν Ἀλέξανδρος, 'σαφέστερον νῦν (sc. **Phys.** 3.2 202a8–9) λέγειν τί ποτέ ἐστιν ἡ κίνησις ἢ περὶ ὅτε ἔλεγεν (**Phys.** 3.1 201b4–5) αὐτὴν ἐντελέχειαν τοῦ δυνατοῦ ἢ δυνατὸν'.

§4 **Epicurus: Cicero Fat.** 22 *sed Epicurus* (frs. 281, 379 Usener) *declinatione atomi vitari necessitatem fati putat. itaque tertius quidam motus oritur extra pondus et plagam, cum declinat atomus intervallo minimo (id appellat ἐλάχιστον); quam declinationem sine causa fieri si minus verbis, re cogitur confiteri. non enim atomus ab atomo pulsa declinat. nam qui potest pelli alia ab alia, si gravitate feruntur ad perpendicularum corpora individua rectis lineis, ut Epicuro placet? sequitur enim, ut, si alia ab alia numquam depellatur, ne contingat quidem alia aliam. ex quo efficitur, etiam si sit atomus eaque declinet, declinare sine causa.*

§7 **Diodorus Cronus: Sextus Empiricus M.** 10.48 συμφέρεται δὲ τούτοις τοῖς ἀνδράσι (sc. τοῖς περὶ Παρμενίδην καὶ Μέλισσον) καὶ Διόδωρος ὁ Κρόνος (fr. 122 Döring, II F 12 Giannantoni), εἰ μὴ τι ῥητέον κατὰ τοῦτον κεκινήσθαι μὲν τι, κινεῖσθαι δὲ μὴδὲ ἔν. **M.** 10.85 κομίζεται δὲ καὶ ἄλλη τις ἐμβριθὴς ὑπόμνησις εἰς τὸ μὴ εἶναι κίνησιν ὑπὸ Διοδώρου τοῦ Κρόνου (fr. 123 Döring, II F 13 Giannantoni), δι' ἧς παρίστησιν, ὅτι κινεῖται μὲν οὐδὲ ἔν, κεκίνηται δέ. καὶ μὴ κινεῖσθαι μὲν κτλ.

Liber 1 Caput 24

P^B : ps.Plutarchus *Plac.* 884D; pp. 320^a10–26 Diels—**P^G** : ps.Galenus *HPh* c. 39; pp. 619.20–620.2; pp. 125–130 Jas—**P^Q** : Qustā ibn Lūqā pp. 132–133 Daiber—**P^{Ps}** : Psellus *Omn.Doctr.* c. 91, p. 53 Westerink (titulus solus)
S: Stobaeus *Ecl.* 1.20.1a, p. 170.2–5 + 1.20.1d, p. 170.14–24 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b5 Henry (titulus solus)
Cf. Hermias *Irr.* 6.2–12 Hanson; *Scholia in Basilium I* 4, p. 196.8–10 Pasquali

Titulus κδ'. Περὶ γενέσεως καὶ φθορᾶς (P,S)

- §1 Παρμενίδης Μέλισσος Ζήνων ἀνήρουν γένεσιν καὶ φθοράν διὰ τὸ νομίζειν τὸ πᾶν ἀκίνητον. (P1,S1)
- §2 Ἐμπεδοκλῆς Ἀναξαγόρας Δημόκριτος Ἐπίκουρος καὶ πάντες, ὅσοι κατὰ συναθροισμὸν τῶν λεπτομερῶν σωμάτων κοσμοποιοῦσι, συγκρίσεις μὲν καὶ διακρίσεις εἰσάγουσι, γενέσεις δὲ καὶ φθορὰς οὐ κυρίως· οὐ γὰρ κατὰ τὸ ποιοῦν ἐξ ἀλλοιώσεως, κατὰ δὲ τὸ ποσὸν ἐκ συναθροισμοῦ ταύτας γίνεσθαι. (P2,S2) 5
- §3 Πυθαγόρας καὶ πάντες, ὅσοι παθητὴν τὴν ὕλην ὑποτίθενται, κυρίως γένεσιν καὶ φθοράν γίνεσθαι· ἐκ γὰρ ἀλλοιώσεως τῶν στοιχείων καὶ τροπῆς καὶ ἀναλύσεως γένεσ(ιν) καὶ φθορ(άν), παράθεσιν καὶ μίξιν, κρᾶσιν τε καὶ σύγχυσιν γίνεσθαι. (P3,S3) 10

§1 Parmenides 28A29 DK; Melissus 30A12 DK; Zeno —; §2 Empedocles 31A44 DK; Anaxagoras 59A65; Democritus —; Epicurus —; §3 Pythagoras etc. —

§1 [2] Παρμενίδης ... Ζήνων : P^{BQ} : Παρμενίδης καὶ Μέλισσος S Diels VS DK : οἱ περὶ Μέλισσον καὶ Ζήνωναν τὸν Ἐλεάτην καὶ Παρμενίδην P^G || ἀνήρουν : ἀνῆρχασιν P^G post φθοράν || [2–3] διὰ ... ἀκίνητον] ἀκίνητον εἶναι τὸ πᾶν ὑπολαβόντες P^G §2 [4] Ἐμπεδοκλῆς ... Ἐπίκουρος S : Ἐμπεδοκλῆς δὲ καὶ Ἐπίκουρος P || [5–6] συγκρίσεις S : καὶ συγκρίσεις P^B : σύγκρισιν P^{GQ} || διακρίσεις P^{BS} : || διάκρισιν P^{GQ} || [6] εἰσάγουσι P^{BG} : ἀγούσι S || καὶ P^{BG} : ἢ S || οὐ κυρίως P^{BS} : οὐκ οἰκείως P^G : non hab. P^Q || [7] τὸ1 S : om. P^B, rest. Diels || κατὰ ... ἀλλοιώσεως P^{BQS} : al. P^G κατὰ ποιοῦν ἀλλοίωσιν || [7–8] κατὰ2 ... συναθροισμοῦ P^{BQS} : al. P^G κατὰ παράθεσιν (ex §3[11]?) καὶ συναθροισμὸν §3 [10] ἐκ γὰρ P^{BS} (infolge Q) : καὶ περὶ P^G || τῶν S, cf. P^Q ut vid. : om. P^{BG} || [11] καὶ ἀναλύσεως S P^B : καὶ διαλύσεως P^G, om. P^Q || [11–12] γένεσιν ... σύγχυσιν S : ταῦτα P^B, cf. P^Q (das Werden Q) : om. P^G || [11] γένεσιν καὶ φθοράν coni. Mansfeld (2002b) 286, perseverationem suspicans : γενέσεως καὶ φθορᾶς S, secl. edd. ut glossema, γενέσε(ι)ς δὲ καὶ φθορᾶς coni. Van Ophuijsen || [12] γίνεσθαι P^{BQS} : om. P^G

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 39 (~ tit.) Περὶ γενέσεως καὶ φθορᾶς (text Jas)

39.1 (~ P1) οἱ περὶ Μέλισσον καὶ Ζήνωναν τὸν Ἐλεάτην καὶ Παρμενίδην γένεσιν καὶ φθοράν ἀνῆρχασιν ἀκίνητον εἶναι τὸ πᾶν ὑπολαβόντες.

- 39.2 (~ P2) Ἐμπεδοκλῆς δὲ καὶ Ἐπίκουρος καὶ ὅσοι κατὰ συναθροισμὸν τῶν λεπτομερῶν σωμάτων κοσμοποιοῦσι σύγκρισιν μὲν καὶ διάκρισιν εἰσάγουσι, γενέσεις δὲ καὶ φθορὰς οὐκ οἰκείως. οὐ γὰρ κατὰ ποιὰν ἀλλοίωσιν, ἀλλὰ κατὰ παράθεσιν καὶ συναθροισμὸν γίνεσθαι τὰ πάντα νομίζουσιν.
- 39.3 (~ P3) Πυθαγόρας δὲ καὶ ὅσοι παθητὴν (τὴν) ὕλην ὑποτίθενται, κυρίως γένεσιν καὶ φθορὰν λέγουσι γίνεσθαι· περὶ [ἐκ γὰρ corr. Diels ex P] ἀλλοιώσεως στοιχείων καὶ τροπῆς καὶ διαλύσεως (ταῦτα γίνεσθαι coni. Diels in app., non prob. Jas).

Psellus *Omn. Doctr.* c. 105 (~ tit.) Περί γενέσεως καὶ φθορᾶς

Testes secundi:

Hermias *Irr.* 6.2–12 Ἀναξαγόρας (—) ... ἄρχῃ πάντων ὁ νοῦς καὶ οὗτος αἴτιος καὶ κύριος τῶν ὅλων καὶ παρέχει τάξιν τοῖς ἀτάκτοις καὶ κίνησιν τοῖς ἀκίνητοις καὶ διάκρισιν τοῖς μεμιγμένοις καὶ κόσμον τοῖς ἀκόσμοις. ταῦτα λέγων Ἀναξαγόρας ἐστὶ μοι φίλος καὶ τῷ δόγματι πείθομαι. ἀλλ' ἀνθίσταται τούτῳ Μέλισσος (—) καὶ Παρμενίδης (—). ὁ γε μὴν Παρμενίδης καὶ ποιητικοῖς ἔπεσιν ἀνακηρύσσει τὴν οὐσίαν ἓν εἶναι καὶ αἰδίων καὶ ἄπειρον καὶ ἀκίνητον καὶ πάντῃ ὅμοιον. πάλιν οὖν εἰς τοῦτο τὸ δόγμα οὐκ οἶδ' ὅπως μεταβάλλομαι· ὁ Παρμενίδης τὸν Αναξαγόραν τῆς ἐμῆς γνώμης ἐξήλασεν (~ §1).

Scholia in Basilium I 4, p. 196.8–10 νῦν μὲν γὰρ συνιόντων ἀλλήλοις τῶν ἀμερῶν σωμάτων, νῦν δὲ μετασυγκρινομένων (= Bas. in *Hex.* 1.2.4.9 Amand de Mendieta–Rudberg)] ταύτην τὴν αἰτίαν φθορᾶς καὶ γενέσεως ἀπέδωκεν Ἐπίκουρος (~ §2).

Loci Aetiani:

quaestio A 2.4 Εἰ ἄφθαρτος ὁ κόσμος

- §1 A 1.7.17 Παρμενίδης τὸ ἀκίνητον καὶ πεπερασμένον σφαιροειδές. A 1.7.18 Μέλισσος καὶ Ζήνων τὸ ἓν καὶ πᾶν καὶ μόνον αἰδίων καὶ ἄπειρον.
- §2 A 1.4.1[2–5] ὁ τοίνυν κόσμος συνέστη ... πολλὰ σώματα συνηθροίσθη. A 1.13.1 Ἐμπεδοκλῆς πρὸ τῶν τεσσάρων στοιχείων θραύσματα ἐλάχιστα, οἷον εἰ στοιχεῖα πρὶν στοιχείων, ὁμοιομερῆ. A 1.17.2 οἱ περὶ Ἀναξαγόραν καὶ Δημόκριτον τὰς κράσεις κατὰ παράθεσιν γίνεσθαι τῶν στοιχείων. A 1.17.3 Ἐμπεδοκλῆς καὶ Ξενοκράτης ἐκ μικροτέρων ὄγκων τὰ στοιχεῖα συγκρίνει, ἅπερ ἐστὶν ἐλάχιστα καὶ οἷον εἰ στοιχεῖα στοιχείων. A 1.30.1–2 Ἐμπεδοκλῆς φύσιν μὴδὲν εἶναι, μῆξιν δὲ τῶν στοιχείων καὶ διάστασιν. γράφει γὰρ οὕτως ἐν τῷ πρώτῳ τῶν *Φυσικῶν*. ἄλλο δὲ τοι ἐρέω· φύσις οὐδενός ἐστιν ἀπάντων / θνητῶν, οὐδέ τις οὐλομένου θανάτοιο τελευτῆ, / ἀλλὰ μόνον μῆξις τε διάλλαξις τε μιγέντων / ἐστὶ, φύσις δὲ βροτοῖς ὀνομάζεται ἀνθρώποισιν'. (2) Ἀναξαγόρας ὁμοίως τὴν φύσιν σύγκρισιν καὶ διάκρισιν, τουτέστι γένεσιν καὶ φθορὰν. A 2.20.5 Ξενοφάνης, (ὥς) Θεόφραστος ἐν τοῖς *Φυσικοῖς* γέγραφε, ἐκ πυριδίων τῶν συναθροιζομένων μὲν ἐκ τῆς ὑγρᾶς ἀναθυμιάσεως συναθροιζόντων δὲ τὸν ἥλιον.
- §3 A 1.3.20 ἡ δὲ ὕλη τὸ ὑποκείμενον γενέσει καὶ φθορᾷ. A 1.9.1 ὕλη ἐστὶ τὸ ὑποκείμενον πάσῃ γενέσει καὶ φθορᾷ καὶ ταῖς ἄλλαις μεταβολαῖς. A 1.9.2 οἱ ἀπό

Θάλεω καὶ Πυθαγόρου, λέγω δὲ τοὺς μέχρι τῶν Στωικῶν καταβεβηκότας σὺν Ἡρακλείτῳ, τρεπτὴν καὶ ἀλλοιωτὴν καὶ μεταβλητὴν καὶ ῥευστὴν ὄλην δι' ὄλης τὴν ὕλην. A 1.16.1 οἱ ἀπὸ Θάλεω καὶ Πυθαγόρου παθητὰ (τὰ) σώματα καὶ τμητὰ εἰς ἄπειρον, καὶ πάντα τὰ συνεχῆ, γραμμὴν ἐπιφάνειαν στερεὸν σῶμα τόπον χρόνον. A 1.17.4 Πλάτων τὰ μὲν τρία σώματα (οὐ γὰρ θέλει κυρίως αὐτὰ εἶναι στοιχεῖα ἢ προσονομάζειν) τρεπτὰ εἰς ἄλληλα, πῦρ ἀέρα ὕδωρ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The witnesses for this chapter are the same as for the previous chapter from which it follows on, with the important difference that P^G has retained all three lemmata in a slightly revised form. For P there is the evidence of the Byzantine mss. and Q, as well as G (while Ps only uses the title).

(2) S writes out the entire chapter (as it seems) at the beginning of his chapter with the same title, but intersperses it with some other material.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition consists of a few headings and of Arius Didymus on Zeno c.s. on coming to be and passing away cited at section E(a)§2, as well as on Stoic theories of mixture cited at section E(a)§3.

(2) *Sources.* The main division derives from a combination of dialectical arguments and overviews in Aristotle's *De caelo* and *De generatione et corruptione*, passages from which are quoted below section E(b) General texts. Aristotle had of course studied the Presocratics as well as Plato and the Early Academics. See also below at ch. 1.30 'On nature', Commentary B. In the Hellenistic period Epicurus was added to Democritus and his colleagues, as has also happened elsewhere, e.g., chs. 1.18.3, 2.3.2 and 4.13.1.

C *Chapter Heading*

Attested in both P and S, and of the standard umbrella type 'about x', περὶ τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. In the present chapter it comprises the category/question type of substance and the question type of existence (see §1–2 in contrast to §3). It is rather widely paralleled (mostly in relation to Aristotle's treatise), see section E(b) Chapter heading.

D *Analysis*

a Context

The chapter follows quite naturally on from ch. 1.23 ‘On motion’, which pertains to a closely related concept, but it is also closely related to ch. 1.17 ‘On mixture and blending’, as is clear from its contents; so it would equally be at home close to 1.17. The five chapters that follow deal with a very different series of issues, namely necessity, fate, and accident. It is only with ch. 1.30 ‘On nature’, the position of which remains something of a riddle, that we return to the theme of the present chapter. In Aristotle an entire treatise entitled *On Coming to Be and Passing Away* (or a substantial part of it) follows on after the *On the Heavens*, which in its turn comes after the books of the *Physics* dealing with motion. In the *Placita* the subjects of the *On the Heavens* are for the most part to be found subsequently, in Book 2.

b Number–Order of Lemmata

(1) Both P and S have three lemmata, which are the same as to contents and listed in the same relative order, which there is no reason to modify. In S 1.20.1b a reference to Heraclitus (T 796 Mouraviev, quoted from Plato *Crat.* 402a = 22A6 DK) ‘Ἡράκλειτός φησιν, ὅτι πάντα χωρεῖ καὶ οὐδὲν μένει· καὶ ποταμοῦ ῥοῇ ἀπεικάζων τὰ ὄντα λέγει ὥς ‘δῖς ἐς τὸν αὐτὸν ποταμὸν οὐκ ἂν ἐμβαίης’, and the lemma ch. 2.4.9 have been interpolated between the first and second lemmata of the present chapter. Mansfeld in (2002b) 281–282 = M–R 3.427–430 suggests that S may have substituted (as so often) a quote from his favourite Plato for a *Placita* lemma, this time for one with name-label Heraclitus (epitomized away by P, perhaps because seen as duplicating A 1.23.8). This may have resembled the Heraclitean doxa opposed to those of the Eleatics (cf. §1 of the present chapter) and Hesiod on *genesis*, *Cael.* 3.1 289b29–32: ‘others say that all other things come to be and are in flux and that nothing is stable, and that only one thing remains underneath, from which all these (other) things derive by change of shape; this seems to be what many others and Heraclitus the Ephesian (fr. 40 (*b*²) Marcovich) want to say’. The supposition, however, is not strong enough to include something the text.

(2) There is no Stoic lemma in our chapter, though the Stoic theory of mixture is echoed in §3 *ad finem*, see below, section D(d)§3. Immediately after his abstracts from ch. 1.24 at 1.20.1d S at 1.20.1e has a short AD extract (fr. 36 Diels) on Zeno Cleanthes Chrysippus Panaetius, so may have substituted this for an Aëtian lemma omitted by P.

c Rationale–Structure of Chapter

The structure is simple and clear. The diaphonia is between §1, denial of coming-to-be and passing-away, and §§2–3, acceptance of coming-to-be and passing-away, with the subsidiary diaphonia between §2, acceptance but not ‘in the true sense’, and §3, acceptance ‘in the true sense’. This subsidiary diaphonia, which is also a sort of compromise position (cf. ch. 1.30 below) is determined by the opposition between the doctrines of matter: corpuscular in §2, continuous in §3.

d Further Comments

General Points

A preliminary reconstruction of the chapter and a discussion of its methodology is provided by Mansfeld (2002b) = M–R 3.415–445.

Individual Points

§1 Parmenides’ other follower Zeno, whose multiple arguments against motion are of course familiar but who according to our other evidence did not argue against coming to be and passing away, presumably was thrown in for good measure. This also happens elsewhere in the *Placita*, see ch. 1.7.18 and elsewhere in the tradition, see ps.Plutarch *Strom.* §6 (after §4 Xenophanes and §5 Parmenides) ‘Zeno of Elea put forward no views of his own, but argued further on these matters’, tr. Sandbach LCL (Ζήνων δ’ ὁ Ἐλεάτης ἴδιον μὲν οὐδὲν ἐξέθετο, διηπόρησε δὲ περὶ τούτων ἐπὶ πλείον). Zeno is here omitted by S, though he did include him at A 1.7.18.

§2 We note the application of the categories of quality and quantity. Remarkably, editors of Democritus, with the exception of Taylor (1999) fr. 79.b, have overlooked the present doxa.

§3 The text follows the interpretation given by Mansfeld (2002b) 284–286 (= M–R 3.433–435), in which the genitives γενέσεως καὶ φθορᾶς are explained as the result of perseveration, i.e. continuing the previous four genitives. If amended to accusatives, they are the first subjects of the verb γίνεσθαι in the accusative and infinitive construction.

The Neopythagorean Pythagoras has become the archegete of what in effect are the early monists (referred to anonymously by Aristotle as well), and of the Stoics, as is clear from the four modes of mixture according to the Porch listed *ad finem*. In ch. 1.9.2 he shares this honour with Thales, *ubi vide* Commentary D(c)(2). Note the technical terminology deriving from the Stoic theory of mixture, for which cf. Arius Didymus, and Alexander of Aphrodisias cited at section E(b)§3.

e Other Evidence

(1) Coming to be and passing away are the theme of one of Aristotle's major physical treatises, the *De generatione et corruptione*. These concepts are critically discussed at Sextus Empiricus *M.* 10.310–350, which begins with a historical overview of the physical principles from which things are generated according to the philosophers (*M.* 10.310–318, cited in full at ch. 1.3 above, section E(a) General texts), and *P.* 3.109–114 (from a different perspective). *M.* 10.310–318 is discussed and compared with *M.* 9.360–364 by Warren (2015) 368–372.

(2) Parmenides at 28B8.4–5 DK seems to derive 'being ungenerated and imperishable' from being 'entire, unique, unmoved (ἀτρεμές)', but at B8.26–28 DK he clearly derives Being's motionlessness from the successful banishment of generation and perishing. Melissus at 30B1 DK derives being ungenerated from the thesis that coming to be entails coming to be from nothing, which is impossible, and in 30B2 DK argues that having an end is entailed by having a beginning (so is also impossible). Thus he does not derive being ungenerated and imperishable from being motionless, while being motionless itself follows from Being's fullness (30B7 DK). Also cf. Melissus 30B8(1–2) DK. In our §1 the resulting immobility is not attributed to Being, but to the All into which Parmenides' and Melissus' Being have meanwhile been transposed, a move prepared by Arist. *Met.* A.5 986b16–17. The word πᾶν is applied in the verbatim fragments to the Being of Parmenides (28B8.5, B8.22, B8.25, B8.48) and to that of Melissus (30B2, B7(1), B7(4)), but as a predicate. Consequently the *Placita* lemma modifies the priorities in the Eleatic arguments, presumably because of the emphasis by Plato and esp. Aristotle of the anti-physical stance about motion of Parmenides and Melissus, see above ch. 1.5 Commentary C, and further Mansfeld (2002b) 277–281 = M–R 3.422–427, Mansfeld (2016c) 86–92, and Mansfeld (2018e). We note in passing that this anti-physical stance cannot not so easily be matched with all those lemmata in the *Placita* where Parmenides is credited with fairly standard physical tenets, for which see Mansfeld (2016a).

E Further Related Texts

a Proximate Tradition

General texts: Galen *Loc.Aff.* 8.158.11–159.2 K. ὥσπερ δ' ἐνταῦθα φιλονεικίαν αἰσχροὺς ἐπιδείκνυνται προφανῶς, οὕτως ἄνοιαν, ὅταν οἴωνται πάνθ' ἑαυτῶν σαλεύεσθαι τὰ δόγματα, καὶ ἐν ὅτι οὖν ἐλεγχοῦν τινὰ μὲν γὰρ ἀλλήλοις ἀκολουθεῖ, καθάπερ γε πάλιν ἕτερα μάχεται, τινὰ δὲ οὐτ' ἀκολουθεῖαν οὔτε μάχην ἀναγκαίαν ἔχει, καθάπερ ... καὶ περὶ γενέσεως καὶ φθορᾶς ὁμοίως. **Diogenes Laertius** *V.P.* 9.83 πέμπτος (sc. τρόπος, **Aenesidemus**—) ... ἐν τούτῳ περιέχεται ... καὶ (περὶ) γενέσεως καὶ φθορᾶς τῶν φαινομένων πάντων. **Diogenes Laertius** *V.P.* 10.30 τὸ δὲ φυσικὸν περὶ γενέσεως καὶ φθορᾶς, καὶ περὶ φύσεως (Usener p. 104). **Photius** *Bibl. cod.* 212, p. 170b3–8 (**Aenesidemus** fr. 8B Polito) ἐν δὲ τῷ β' κατὰ μέρος ἥδη ἀρχόμε-

νος ἐπεξίεναι τὰ ἐν κεφαλαίῳ εἰρημένα, περί τε ... γενέσεώς τε καὶ φθορᾶς καὶ τῶν τούτοις ἐναντίων, κατὰ πάντων αὐτῶν τὸ ἄπορόν τε καὶ ἀκατάληπτον πυκνοῖς, ὡς οἶεται, ἐπιλογισμοῖς ὑποδεικνύς.

Chapter heading: Sextus Empiricus *M.* 10 pinax ε' Περί γενέσεως καὶ φθορᾶς. *M.* 10.310 tit. ε' Περί γενέσεως καὶ φθορᾶς. *P.* 3. Pinax ις' Περί γενέσεως καὶ φθορᾶς. *P.* 3.109 tit. ις' Περί γενέσεως καὶ φθορᾶς.

§1 **Parmenides Melissus Zeno:** Sextus Empiricus *M.* 10.46–48 μὴ εἶναι (sc. τὴν κίνησιν) δὲ οἱ περὶ Παρμενίδην (28A26 DK) καὶ Μέλισσον (—), οὓς ὁ Ἀριστοτέλης (*de Phil.* fr. 9 Walzer/Ross) στασιώτας τε τῆς φύσεως καὶ ἀφυσίκοις κέκληκεν, στασιώτας μὲν ἀπὸ τῆς στάσεως, ἀφυσίκοις δὲ ὅτι ἀρχὴ κινήσεώς ἐστιν ἡ φύσις, ἣν ἀνεῖλον φάμενοι μὴδὲν κινεῖσθαι. ... (48) συμφέρεται δὲ τούτοις τοῖς ἀνδράσι καὶ Διόδωρος ὁ Κρόνος (II F 12 Giannantoni), εἰ μὴ τι ῥητέον κατὰ τοῦτον κεκινήσθαι μὲν τι, κινεῖσθαι δὲ μὴδὲ ἓν. *P.* 3.65 μὴ εἶναι δὲ (sc. τὴν κίνησιν) Παρμενίδης (—) τε καὶ Μέλισσος καὶ ἄλλοι τινές. **Diogenes Laertius** *V.P.* 9.24 ἐδόκει δὲ αὐτῷ (Melissus 30A1 DK) τὸ πᾶν ἄπειρον εἶναι καὶ ἀναλλοίωτον καὶ ἀκίνητον καὶ ἐν ὁμοίον ἑαυτῷ καὶ πλήρες· κίνησιν τε μὴ εἶναι, δοκεῖν δὲ εἶναι. **Hippolytus** *Ref.* 1.11.2 ὁ αὐτὸς (Parmenides 28A23 DK) δὲ εἶπεν αἰδίων εἶναι τὸ πᾶν καὶ οὐ γενόμενον καὶ σφαιροειδὲς καὶ ὁμοιον, οὐκ ἔχον δὲ τόπον ἐν ἑαυτῷ, καὶ ἀκίνητον καὶ πεπερασμένον. **Theodoret** *CAG* 4.5–7 (cf. ch. 1.3.12–13 Diels; not in DK or Coxon) Ξενοφάνης μὲν οὖν ὁ Ὀρθομένους ὁ Κολοφώνιος ὁ τῆς Ἑλεατικῆς αἰρέσεως ἡγήσάμενος ἐν εἶναι τὸ πᾶν ἔφησε σφαιροειδὲς καὶ πεπερασμένον, οὐ γεννητὸν ἀλλ' αἰδίων καὶ ἀάμπαν ἀκίνητον. ... καὶ Παρμενίδης δὲ ὁ Πύρρητος ὁ Ἑλεάτης Ξενοφάνους ἐταῖρος γενόμενος κατὰ μὲν τὸν πρῶτον λόγον ξύμφωνά τῷ διδασκάλῳ ξυγγέγραφεν· αὐτοῦ γὰρ δὴ τότε τὸ ἔπος εἶναι φασὶ (28B8.4 DK) 'οὐλον μουνογενές τε καὶ ἀτρεμές ἡδ' ἀγέννητον.' **ps.Plutarch** *Strom.* 4–6 at Eus. *PE* 1.8.4–6 (Plu. fr. 179 Sandbach) Ξενοφάνης δὲ ὁ Κολοφώνιος (21A32 DK) ... οὕτε γένεσιν οὕτε φθορὰν ἀπολείπει, ἀλλ' εἶναι λέγει τὸ πᾶν αἰεὶ ὁμοιον. ... (5) Παρμενίδης δὲ ὁ Ἑλεάτης (28A22 DK), ἐταῖρος Ξενοφάνους, ἅμα μὲν καὶ τῶν τούτου δοξῶν ἀντεποιήσατο. ... αἰδίων μὲν γὰρ τὸ πᾶν καὶ ἀκίνητον ἀποφαίνεται καὶ κατὰ τὴν τῶν πραγμάτων ἀλήθειαν· εἶναι γὰρ αὐτὸ (28B8.3–4 DK) 'μόονον μουνογενές τε καὶ ἀτρεμές ἡδ' ἀγέννητον'. ... (6) Ζήνων δὲ ὁ Ἑλεάτης (29A23 DK) ἴδιον μὲν οὐδὲν ἐξέθετο, διηπόρησεν δὲ περὶ τούτων ἐπὶ πλείον. (for ps.Plu. *Strom.* cf. above ch. 1.3 at *Testes primi.*)

§2 **Empedocles Anaxagoras Democritus Epicurus and all those ...** : Arius Didymus fr. 36 Diels at Stob. *Ecl.* 1.20.1e, p. 171.1–7 Ζήνωνι (*SVF* 1.107) καὶ Κλεάνθει (*SVF* 1.512) καὶ Χρυσίππῳ (*SVF* 2.596) ἀρέσκει τὴν οὐσίαν μεταβάλλειν οἶον εἰς σπέρμα τὸ πῦρ, καὶ πάλιν ἐκ τούτου τοιαύτην ἀποτελεῖσθαι τὴν διακόσμησιν οἷα πρότερον ἦν.

§3 **Pythagoras and all those ...** : Arius Didymus fr. 10 Diels at Stob. *Ecl.* 1.11.5a, p. 132.27–133.3 Ζήνωνος (*SVF* 1.87). οὐσίαν δὲ εἶναι τὴν τῶν ὄντων πάντων πρῶτην ὕλην, ταύτην δὲ πᾶσαν αἰδίων καὶ οὕτε πλείω γινομένην οὕτε ἐλάττω· τὰ δὲ μέρη ταύτης οὐκ αἰεὶ ταῦτὰ διαμένειν, ἀλλὰ διαιρεῖσθαι καὶ συγχέεισθαι. fr. 38 Diels at Stob. *Ecl.* 1.17.3, p. 153.4–6 (*SVF* 1.207) τὴν δὲ μῆξιν (καὶ add. Wachsmuth) χρᾶσιν γίνεσθαι τῇ εἰς ἄλληλα τῶν στοιχείων μεταβολῇ σώματος ὅλου δι' ὅλου τινὸς ἐτέρου διερχομένου. fr. 28 Diels at Stob. *Ecl.* 1.17.4, p. 154.5–10 ἡ τοιαύτη δὲ κίνησις

(sc. κινούν ἑαυτὸ πρὸς ἑαυτὸ καὶ ἐξ αὐτοῦ) κατὰ μόνους γίνεται τοὺς νομίζοντας τὴν οὐσίαν πάσαν μεταβολὴν ἐπιδέχεσθαι καὶ σύγχυσιν καὶ σύστασιν καὶ σύμμιξιν καὶ σύμφυσιν καὶ τὰ τούτοις παραπλήσια. διαφέρειν γὰρ ἀρέσκει τοῖς ἀπὸ τῆς Στωικῆς αἱρέσεως (*SVF* 2.471) παράθεσιν, μίξιν, κράσιν, σύγχυσιν (κτλ). **Sextus Empiricus** *M.* 10.312 ἐξ ἀποίου μὲν οὖν καὶ ἐνὸς σώματος τὴν τῶν ὄλων ὑπεστήσαντο γένεσιν οἱ Στωικοὶ (*SVF* 2.309)· ἀρχὴ γὰρ τῶν ὄντων κατ' αὐτοὺς ἐστὶν ἡ ἀποῖος ὕλη καὶ δι' ὄλων τρεπτή, μεταβαλλούσης τε ταύτης γίνεται τὰ τέσσαρα στοιχεῖα.

b Sources and Other Parallel Texts

General texts: **Plato** *Phd.* 95e–96a ὅλως γὰρ δεῖ περὶ γενέσεως καὶ φθορᾶς τὴν αἰτίαν διαπραγματεύεσθαι. *Parm.* 136b καὶ περὶ κινήσεως καὶ περὶ στάσεως καὶ περὶ γενέσεως καὶ φθορᾶς. **Aristotle** *Cael.* 3.1 298b8–299a1 ἅμα δὲ συμβήσεται περὶ τούτων λέγουσι καὶ περὶ γενέσεως καὶ φθορᾶς διασκέψασθαι· ... οἱ μὲν οὖν πρότερον φιλοσοφῆσαντες περὶ τῆς ἀληθείας καὶ πρὸς οὓς νῦν λέγομεν ἡμεῖς λόγους καὶ πρὸς ἀλλήλους διηνέχθησαν· οἱ μὲν γὰρ αὐτῶν ὅλως ἀνείλον γένεσιν καὶ φθορὰν ... [see below §1]· ... ἕτεροι δὲ τινες ὥσπερ ἐπίτηδες τὴν ἐναντίαν τούτοις ἔσχον δόξαν. εἰσὶ γὰρ τινες οἱ φασιν οὐθὲν ἀγέννητον εἶναι τῶν πραγμάτων, ἀλλὰ πάντα γίνεσθαι· ... οἱ δὲ τὰ μὲν ἄλλα πάντα γίνεσθαι φασὶ καὶ ρεῖν, εἶναι δὲ παγίως οὐθέν, ἐν δὲ τι μόνον ὑπομένειν, ἐξ οὗ ταῦτα πάντα μετασχηματίζεσθαι πέφυκεν (cf. below §3)· ... εἰσὶ δὲ τινες καὶ οἱ πᾶν σῶμα γενητὸν ποιοῦσι, συντιθέντες καὶ διαλύοντες εἰς ἐπίπεδα καὶ ἐξ ἐπιπέδων. *GC* 1.1 314a1–13 περὶ δὲ γενέσεως καὶ φθορᾶς τῶν φύσει γενομένων καὶ φθειρομένων, ὁμοίως κατὰ πάντων, τὰς τε αἰτίας διαιρετέον καὶ τοὺς λόγους αὐτῶν, ἔτι δὲ περὶ αὐξήσεως καὶ ἀλλοιώσεως, τί ἐκάτερον, καὶ πότερον τὴν αὐτὴν ὑποληπτέον φύσιν εἶναι ἀλλοιώσεως καὶ γενέσεως, ἢ χωρὶς, ὥσπερ διωρίσται καὶ τοῖς ὀνόμασιν. τῶν μὲν οὖν ἀρχαίων οἱ μὲν τὴν καλουμένην ἀπλὴν γένεσιν ἀλλοίωσιν εἶναι φασιν, οἱ δ' ἕτεροι ἀλλοίωσιν καὶ γένεσιν. ὅσοι μὲν γὰρ ἐν τὸ πᾶν λέγουσιν εἶναι καὶ πάντα ἐξ ἐνὸς γεννᾶσι, τούτοις μὲν ἀνάγκη τὴν γένεσιν ἀλλοίωσιν φάναι καὶ τὸ κυρίως γινόμενον ἀλλοιούσθαι· ὅσοι δὲ πλείω τὴν ὕλην ἐνὸς τιθέασιν, οἷον Ἐμπεδοκλῆς (—) καὶ Ἀναξαγόρας (59A52 DK) καὶ Λεύκιππος (—), τούτοις δὲ ἕτερον. *Mete.* 1.1 338a20–25 περὶ μὲν οὖν ... καὶ περὶ πάσης κινήσεως φυσικῆς, ... καὶ περὶ γενέσεως καὶ φθορᾶς τῆς κοινῆς εἴρηται πρότερον. **ps.Plato** *Def.* 411a γένεσις κινήσεις εἰς οὐσίαν· μετάληψις οὐσίας· πόρευσις εἰς τὸ εἶναι. **Dio Chrysostom** *Or.* 33.4 δοκεῖτέ μοι πολλάκις ἀκηκοέναι θείων ἀνθρώπων, οἱ πάντα εἰδέναι φασὶ καὶ περὶ πάντων ἐρεῖν ἢ διατέτακται καὶ τίνα ἔχει φύσιν ... καὶ περὶ φθορᾶς καὶ γενέσεως. **Alexander of Aphrodisias** *Mixt.* 213.15–17 οὐ γὰρ μόνον διηνέχθησαν πρὸς ἀλλήλους περὶ τοῦδε τοῦ δόγματος (sc. τῶν περὶ μίξεώς τε καὶ κράσεως λόγων) οἱ μίαν ὕλην ὑποκείσθαι πᾶσι τοῖς ἐν γένεσει σώμασιν λέγοντες πρὸς τοὺς ἐκ διωρισμένων τε καὶ κεχωρισμένων σωμάτων ποιοῦντας αὐτήν.

Chapter heading: **Aristotle** *GC* tit. Περί γενέσεως καὶ φθορᾶς. *Mete.* 1.1 338a24–25 περὶ γενέσεως καὶ φθορᾶς τῆς κοινῆς εἴρηται πρότερον. **Galen** *Elem.* c. 9.27, 1.487.15–16 K. Ἀριστοτέλης ... κἀν τοῖς Περι γενέσεως καὶ φθορᾶς. **Alexander of Aphrodisias** in *Met.* 310.16 ἐν τοῖς Περι γενέσεως καὶ φθορᾶς. **Vita Aristotelis** **Ptolemaei el-Garib** nr. 41 Stein = **Vita Aristotelis** **Hesychii** no. 149 **Moraux** Περι γενέσεως καὶ φθορᾶς β'.

§1 Parmenides Melissus Zeno: Parmenides 28B8.4–5 DK ως ἀγέννητον ἐὸν καὶ ἀνώλεθρόν ἐστιν· ἐστι γὰρ οὐλομελές τε καὶ ἀτρεμές. 28B826–828 DK αὐτὰρ ἀκίνητον μεγάλων ἐν πείρασι δεσμών / ἔστιν ἀναρχον ἄπαυστον, ἐπεὶ γένεσις καὶ ὄλεθρος / τῆλε μάλ' ἐπλάχθησαν, ἀπώσε δὲ πίστις ἀληθής. **Melissus** 30B7(1–2) DK οὕτως οὖν αἰδιόν ἐστι καὶ ἄπειρον καὶ ἐν καὶ ὁμοιον πᾶν. (2) καὶ οὐτ' ἂν ἀπόλοιτο οὔτε μείζον γίνοιτο οὔτε μετακοσμέοιτο οὔτε ἀλγεῖ οὔτε ἀνιάται. εἰ γὰρ τι τούτων πάσχοι, οὐκ ἂν ἔτι ἐν εἴῃ. εἰ γὰρ ἑτεροιοῦται, ἀνάγκη τὸ ἐὸν μὴ ὁμοιον εἶναι, ἀλλὰ ἀπόλλυσθαι τὸ πρόσθεν ἐόν, τὸ δὲ οὐκ ἐὸν γίνεσθαι. **Plato** *Tht.* 180e οἷον (edd. OCT, ἴοιον mss.) ἀκίνητον τελέθει τῷ παντὶ ὄνομ' εἶναι† καὶ ἄλλα ὅσα Μελίσσοι τε καὶ Παρμενίδαι (ad 28B8 DK) ἐναντιούμενοι πᾶσι τούτοις διισχυρίζονται. **Aristotle** *Phys.* 1.2 184b15–16 ἀνάγκη δ' ἦτοί μίαν εἶναι τὴν ἀρχὴν ἢ πλείους, καὶ εἰ μίαν, ἦτοί ἀκίνητον, ὥς φησι Παρμενίδης καὶ Μέλισσος (—) ... *Phys.* 1.2 184b25–185a1 (cited Gal. *Elem.* 1.448.9–10 K., see below) τὸ μὲν οὖν εἰ ἐν καὶ ἀκίνητον τὸ δὲ σκοπεῖν οὐ περὶ φύσεώς ἐστι σκοπεῖν. *Phys.* 4.6 213b12–13 Μέλισσος (30A8 DK) μὲν οὖν καὶ δείκνυσιν ὅτι τὸ πᾶν ἀκίνητον ἐκ τούτων. *Cael.* 3.1 298b14–17 οἱ μὲν γὰρ αὐτῶν (sc. τῶν πρότερον φιλοσοφησάντων) ὅλως ἀνείλον γένεσιν καὶ φθοράν· οὐθὲν γὰρ οὔτε γίγνεσθαι φασιν οὔτε φθείρεσθαι τῶν ὄντων, ἀλλὰ μόνον δοκεῖν ἡμῖν, οἷον οἱ περὶ Μέλισσόν τε καὶ Παρμενίδην (28A25 DK). *GC* 1.2 315a26–27 ὅλως τε δὴ περὶ γενέσεως καὶ φθορᾶς τῆς ἀπλῆς λεκτέον, πότερον ἔστιν ἢ οὐκ ἔστι καὶ πῶς ἔστιν. *GC* 1.8 325a14–15 ἐν καὶ ἀκίνητον τὸ πᾶν εἶναι φασι καὶ ἄπειρον ἔνιοι (28A25 DK) ... *Met.* A.5 986b17–19 οὗτοι δὲ ἀκίνητον εἶναι φασιν (sc. τὸ πᾶν) ... Παρμενίδης (—) ... Μέλισσος (—). **Galen** *Elem.* c. 5.2, 1.448.8–14 K. προειπὼν (sc. Ἀριστοτέλης *Phys.* 1.2 184b26–185a1) γὰρ εὐθὺς ἐν ἀρχῇ· 'τὸ μὲν οὖν εἰ ἐν καὶ ἀκίνητον τὸ δὲ σκοπεῖν οὐ περὶ φύσεώς ἐστι σκοπεῖν' εἴτ' αὐτὸ τοῦτ' ἀποδείξας καὶ διὰ τοῦτο μὴδ' ἀντιλογίας τινὸς δεῖσθαι φήσας τὸν Μελίσσου (—) τε καὶ Παρμενίδου (—) λόγον ἐναργῶς ἐκάτερον ἄτοπον ὄντα προϊόντος τοῦ συγγράμματος ἀντιλέγων αὐτοῖς εὐρίσκειται. **Simplicius** in *Phys.* 28.7–8 (Theophr. *Phys. Op.* fr. 8 Diels, 229 FHS&G) ἐκείνων (sc. Παρμενίδης (28A8 DK) καὶ Ξενοφάνης (—)) γὰρ ἐν καὶ ἀκίνητον καὶ ἀγέννητον καὶ πεπερασμένον ποιοῦντων τὸ πᾶν.

§2 Empedocles Anaxagoras Democritus Epicurus and all those ... : Plato *Sph.* 243b ὅταν τις αὐτῶν φθέγγηται λέγων ὥς ἔστιν ἢ γέγονεν ἢ γίγνεται πολλὰ ἢ ἐν ἢ δύο, καὶ θερμόν αὖ ψυχρὸν συγκεραννύμενον, ἄλλοθι πῃ διακρίσεις καὶ συγκρίσεις ὑποτιθεῖς, τούτων, ὦ Θεαίτητε, ἐκάστοτε σύ τι πρὸς θεῶν συνίης ὅτι λέγουσιν; **Aristotle** *GC* 1.1 314a11–13 ὅσοι δὲ πλείω τὴν ὕλην ἐνὸς τιθέασιν, οἷον Ἐμπεδοκλῆς (—) καὶ Ἀναξαγόρας (59A52 DK) καὶ Λεύκιππος (—), τούτοις δὲ ἕτερον (sc. τὴν ἀλλοίωσιν τῆς γενέσεως). also 314b4–6 τοῖς δὲ τὰ γένη πλείω ποιοῦσι διαφέρειν τὴν ἀλλοίωσιν τῆς γενέσεως· συνιόντων γὰρ καὶ διαλυομένων ἢ γένεσις συμβαίνει καὶ ἢ φθορά. *GC* 1.8 325a23–32 Λεύκιππος (67A7 DK) δ' ἔχειν ὥρθη λόγους οἱ τινες πρὸς τὴν αἴσθησιν ὁμολογούμενα λέγοντες οὐκ ἀναιρήσουσιν οὔτε γένεσιν οὔτε φθοράν οὔτε κίνησιν ... φησιν εἶναι τὸ κυρίως ἐν παμπλῆρες ὄν, ἀλλ' εἶναι τὸ τοιοῦτον οὐχ ἐν, ἀλλ' ἄπειρα τὸ πλῆθος καὶ ἀόρατα διὰ σμικρότητα τῶν ὄγκων. ταῦτα δ' ἐν τῷ κενῷ φέρεσθαι (κενὸν γὰρ εἶναι), καὶ συνιστάμενα μὲν γένεσιν ποιεῖν, διαλυόμενα δὲ φθοράν. **Plutarch** *Def.Or.* 424E–F δῆλον δὲ τῷ μετακοσμούμενα ταῖς οὐσίαις ἔκαστα καὶ τὰς χώρας ἅμα συμεταβάλλειν· αἱ μὲν γὰρ διακρίσεις ἀπὸ τοῦ μέσου τὴν

ῥλην αἰρομένην ἄνω κύκλῳ διανέμουσιν· αἱ δὲ συγκρίσεις (F) καὶ πυκνώσεις πιέζουσι κάτω πρὸς τὸ μέσον καὶ συνελαύνουσι. *Adh.Col.* 1113B–C ἐμοὶ μέντοι δοκεῖ μὴ τοῦτο κινεῖν τὸ ἐκ(C)φορικὸν ὁ Ἐμπεδοκλῆς, ἀλλ' ὡς πρότερον εἴρηται, πραγματικῶς διαφέρεισθαι περὶ τῆς ἐξ οὐκ ὄντων γενέσεως, ἣν φύσιν τινὲς καλοῦσι (31B8.4 DK), δηλοῖ δὲ μάλιστα διὰ τούτων τῶν ἐπῶν (31B11 DK)· ἡγήπιοι· οὐ γὰρ σφιν δολιχόφρονές εἰσι μέριμναι· / οἱ δὲ γίγνεσθαι πάρος οὐκ ἐὼν ἐλπίζουσιν / ἢ τι καταθνήσκειν τε καὶ ἐξόλλυσθαι ἀπάντη'. ταῦτα γὰρ τὰ ἔπη μέγα βοώντός ἐστι τοῖς ὦτα ἔχουσιν, ὥς οὐκ ἀναιρεῖ γένεσιν ἀλλὰ τὴν ἐκ μὴ ὄντος, οὐδὲ φθορὰν ἀλλὰ τὴν πάντη, τουτέστι τὴν εἰς τὸ μὴ ὄν ἀπολλύουσιν.

§3 Pythagoras and all those ... : Aristotle GC 1.1 314a8–11 ὅσοι μὲν γὰρ ἐν τι τὸ πᾶν λέγουσιν εἶναι καὶ πάντα ἐξ ἐνὸς γεννώσι, τούτοις μὲν ἀνάγκη τὴν γένεσιν ἀλλοιώσιν φάναι καὶ τὸ κυρίως γινόμενον ἀλλοιοῦσθαι. GC 1.2 315a29–31 Πλάτων μὲν οὖν μόνον περὶ γενέσεως ἐσκέψατο καὶ φθοράς, ὅπως ὑπάρχει τοῖς πράγμασι, καὶ περὶ γενέσεως οὐ πάσης ἀλλὰ τῆς τῶν στοιχείων. GC 2.1 328b26–30 περὶ μὲν οὖν μίξεως καὶ ἀφῆς καὶ τοῦ ποιεῖν καὶ πάσχειν εἴρηται πῶς ὑπάρχει τοῖς μεταβάλλουσι κατὰ φύσιν, ἔτι δὲ περὶ γενέσεως καὶ φθοράς τῆς ἀπλῆς, τίνος καὶ πῶς ἐστὶ καὶ διὰ τίν' αἰτίαν. ὁμοίως δὲ καὶ περὶ ἀλλοιώσεως εἴρηται, τί τὸ ἀλλοιοῦσθαι καὶ τίν' ἔχει διαφορὰν αὐτῶν. **Alexander of Aphrodisias Mixt.** 216.14–28 ἔστι δὲ ἡ Χρυσίππου (*SVF* 2.573) δόξα περὶ κράσεως ἥδε· ἡνώσθαι μὲν ὑποτίθεται τὴν σύμπασαν οὐσίαν, πνεύματός τινος διὰ πάσης αὐτῆς διήκοντος, ὅφ' οὐ συνεχεταί τε καὶ συμμένει καὶ σύμπαθές ἐστιν αὐτῷ τὸ πᾶν, τῶν δὲ μιγνυμένων ἐν αὐτῇ σωματῶν τὰς μὲν παραθέσει μίξεις γίνεσθαι λέγει, ... τὰς δὲ τινὰς συγχύσει ...· τὰς δὲ τινὰς γίνεσθαι μίξεις λέγει δι' ὅλων τινῶν οὐσιῶν τε καὶ τῶν τούτων ποιότητων ἀντιπαρεκτεινομένων ἀλλήλαις μετὰ τοῦ τὰς ἐξ ἀρχῆς οὐσίας τε καὶ ποιότητος σώζειν ἐν τῇ μίξει τῇ τοιαύτῃ, ἣντινα τῶν μίξεων κράσιν ἰδίως εἶναι λέγει. **Calcidius in Tim.** c. 317 *quod vero sit universi corporis fomes et prima subiectio, facile probatur ex elementorum in se conversione mutua et ex qualitatum inconstanti mutatione.* **Isidore of Seville Etym.** 13.3.2 *Graeci autem elementa στοιχεῖα nuncupant, eo quod sibi societatis concordia et communione quadam convenient. nam sic ea inter se naturali quadam ratione iuncta dicuntur, {ut} modo originem ab igni repetentes usque ad terram, modo a terra usque ad ignem, ut ignis quidem in aëra desinat, aër in aquam densetur, aqua in terram crassescat; rursusque terra diluatur in aquam, aqua rarescat in aëra, aër in ignem extenuetur.*

Liber 1 Caput 25

P^B: ps.Plutarchus *Plac.* 884E; pp. 321^a1–11 Diels—**P^G**: ps.Galenus *HPh* c. 40; pp. 620.3–620.8 Diels; pp. 131–134 Jas—**P^Q**: Qustā ibn Lūqā pp. 132–135 Daiber—**P^L**: Ioannes Lydus *Mens.* 4.81, p. 133.12–13 Wuensch—**P^{Ps}**: Psellus *Omn.Doctr.* c. 104 (titulus solus)
S: Stobaeus *Ecl.* 1.4.7a, p. 72.1–2 + 1.4.7c, p. 72.6–17 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112a36 Henry (titulus solus)
T: Theodoretus *CAG* 6.3–4 p. 150.9–15, 6.13, p. 153.12–17 Raeder
Cf. Nem: Nemesius *NH* c. 39, p. 112.13–26 Morani

Titulus κε'. Περί ἀνάγκης (P,S)

- §1 Θαλῆς· ἰσχυρότατον ἀνάγκη, κρατεῖ γὰρ τοῦ παντός. (P1,S1)
 §2 Πυθαγόρας ἀνάγκην ἔφη περικεῖσθαι τῷ κόσμῳ. (P2,S2,T2)
 §3 Παρμενίδης καὶ Δημόκριτος πάντα κατ' ἀνάγκην, τὴν αὐτὴν δ' εἶναι εἰμαρμένην καὶ Δαίμονα καὶ Δίῃν καὶ πρόνοιαν καὶ κοσμοποιόν. (P3,- 5
 S3,T1,3)
 §4 Λεύκιππος πάντα κατ' ἀνάγκην, τὴν δ' αὐτὴν ὑπάρχειν εἰμαρμένην· λέγει γὰρ ἐν τῷ Περί νοῦ· 'οὐδὲν χρῆμα μάτην γίγνεται, ἀλλὰ πάντα ἐκ λόγου τε καὶ ὑπ' ἀνάγκης'. (S4)
 §5 Πλάτων τὰ μὲν εἰς πρόνοιαν ἀνάγει, τὰ δ' εἰς ἀνάγκην. (P4,S5b) 10

§1 Thales frs. 154, 341, 395 Wöhrle; §2 Pythagoras —; §3 Parmenides 28A32, B12.3, B8.14 DK; Democritus frs. 23, 589 Luria; §4 Leucippus 67B2 DK; §5 Plato cf. *Tim.* 30b–c, 44c, 47e–48a

titulus Περί ἀνάγκης P : plenior S Περί ἀνάγκης θείας (θείας om. FP) καθ' ἣν ἀπαραιτήτως τὰ κατὰ τὴν τοῦ θεοῦ γίνεται βούλησιν §1 [2] Θαλῆς ... παντός P^{BQ} : al. S Θαλῆς ἐρωτηθεὶς, τί ἰσχυρότατον; εἶπεν· ἀνάγκη, κρατεῖ γὰρ πάντων || post παντός CH fr. 13 Nock–Festugière interpos. S §2 [3] περικεῖσθαι P^{BQG(Nie)}ST : περιθέσθαι P^G Diels || post κόσμῳ add. P^G τὴν ἀνάγκην ὑπολαμβάνει §3 [4] Παρμενίδης καὶ Δημόκριτος P (post Παρμενίδης add. δὲ P^G) : Παρμενίδου καὶ Δημοκρίτου οὗτοι S : cf. οἱ ἀμφὶ τὸν Δημόκριτον καὶ Χρύσιππον (ex 1.27.2 ?) καὶ Ἐπίκουρον T || post ἀνάγκην add. P^G συμβαίνειν εἰρήκασιν || inv. P^G εἶναι δὲ τὴν αὐτὴν || [5] καὶ post εἶναι add. P^{B(111)} || καὶ Δαίμονα T (cf. c. 2.7.1[7]) : om. P,S || καὶ³ om. P^{B(11)} || καὶ κοσμοποιόν om. P^G §4 om. P §5 hoc lemma ut ultimum huius capitis recte ponit P^G (prob. Wytttenbach Diels), ut primum capitis proximi per errorem P^{BQ} (add. ad 1.26.3 P^L) quod ret. Mau Lachenaud || [10] ἀνάγει P^{GS} : ἄγει P^{BQ} || ἀνάγει (ἄγει P^{BQ}) ... ἀνάγκην P^{BQS} : aliter P^G τὰ δὲ εἰς ἀνάγκην ἀνάγει τῆς οὐσίας, sed τῆς οὐσίας ut marginalia secl. Jas

Testes primi:

Theodoretus *CAG* 6.3–4 καὶ εἰμαρμένην καὶ πεπωμένην καὶ τύχην καὶ μοίρας εισάγουσι καὶ τὴν βιαιάν ἀνάγκην ἐφιστῶσιν ἐκάστῳ καὶ ταύτην φασὶ παρὰ γνῶμην ποιεῖν καὶ τοὺς ἀνδροφόνους καὶ τοὺς τοιχωρύχους καὶ τῶν γάμων τοὺς

ἐπιβούλους. φέρε τοίνυν πάλιν τὰς Ἑλληνικάς ἐξετάσωμεν δόξας, καὶ τοῖς ἀποστολικοῖς ταύτας καὶ προφητικοῖς παραθώμεν δόγμασιν (quaestio).

6.13.1 (~ §3–4) οὐ μόνον δὲ οἱ ἀμφὶ τὸν Δημόκριτον καὶ Χρύσιππον καὶ Ἐπίκουρον πάντα κατ' ἀνάγκην ἔφασαν γίνεσθαι, ἀνάγκην καλοῦντες τὴν εἰμαρμένην,

6.13.2 (~ §2) ἀλλὰ καὶ Πυθαγόρας ὁ πολυθρύλητος ἀνάγκην εἶπε περιεῖσθαι τῷ κόσμῳ.

6.13.3 (~ §3) ὁ δὲ Παρμενίδης τὴν ἀνάγκην καὶ Δαίμονα κέκληκε καὶ Δίκην καὶ πρόνοιαν.

traditio ps.Plutarchi:

Ioannes Lydus Mens. 4.81 (ad tota c. 1.25–28 pertinentia) (~ ch. 1.26.1) ὅτι ὁ Ἐμπεδοκλῆς οὐσίαν ἀνάγκης αἰτίαν χρηστικὴν τῶν ἀρχῶν καὶ τῶν στοιχείων ἐνέκρινεν (~ ch. 1.26.2) ὁ δὲ Δημόκριτος τὴν ἀντιτυπίαν καὶ πληγὴν καὶ φορὰν τῆς ὕλης. (~ chs. 1.25.5 + 1.26.3) Πλάτων γε μὴν τὰ μὲν εἰς πρόνοιαν, τὰ δὲ εἰς ἀνάγκην ἀνήγαγεν, ὅτε μὲν τὴν ὕλην, ὅτε δὲ τὴν τοῦ ποιούντος σχέσιν αἰτιώμενος. (~ ch. 1.27.1) τὴν δ' εἰμαρμένην Ἡράκλειτος τὴν αὐτὴν καὶ ἀνάγκην εἶναι βούλεται, (~ ch. 1.27.2) ὁ δὲ Πλάτων προστίθησι καὶ τὴν παρ' ἡμᾶς αἰτίαν. (~ ch. 1.27.3) οἱ μὲν οὖν Στωϊκοὶ τὴν μὲν ἀνάγκην ἀκίνητον, τὴν δὲ εἰμαρμένην φασὶ συμπλοκὴν εἶναι αἰτίων τεταγμένων· ἐν ἣ συμπλοκῇ καὶ τὰ παρ' ἡμᾶς, ὥστε τὰ μὲν εἰμάρθαι, τὰ δὲ συνειμάρθαι. (~ ch. 1.28.1) οὐσίαν δὲ εἰμαρμένην ὁ Ἡράκλειτος τὸν διὰ παντὸς ἤκοντα λόγον ἐνέκρινεν. (~ ch. 1.28.3) ὁ δὲ Χρύσιππος τάξιν τοῦ παντὸς ἢ λόγον τῶν ἐν τῷ κόσμῳ διοικουμένων. (~ ch. 1.27.5) ὁ δὲ Ποσειδώνιος τρίτην ἀπόδοσιν ποιεῖται· πρῶτην μὲν γὰρ εἶναι τὸν Δία, δευτέραν (δὲ) τὴν φύσιν, τρίτην (δὲ) τὴν εἰμαρμένην. {ὁ δὲ Πλάτων τὴν φύσιν, τρίτην τὴν εἰμαρμένην} (~ ch. 1.28.2) ὁ δὲ Πλάτων λόγον αἰδίων τῆς τοῦ παντὸς φύσεως.

ps.Galenus HPh c. 40 (~ tit.) Περὶ ἀνάγκης (text Jas)

40.1 (~ P1) τὴν ἀνάγκην Θαλῆς ἰσχυροτάτην εἶναι φησι. κρατεῖν γὰρ αὐτὴν τοῦ παντός.

40.2 (~ P2) Πυθαγόρας δὲ καὶ περιεῖσθαι τῷ κόσμῳ τὴν ἀνάγκην ὑπολαμβάνει.

40.3 (~ P3) Παρμενίδης δὲ καὶ Δημόκριτος πάντα κατὰ ἀνάγκην συμβαίνειν εἰρήκασιν· εἶναι δὲ τὴν αὐτὴν εἰμαρμένην καὶ δίκην καὶ πρόνοιαν.

40.4 (~ P4) Πλάτων δὲ τὰ μὲν εἰς πρόνοιαν, τὰ δὲ εἰς ἀνάγκην ἀνάγει {τῆς οὐσίας}.

Psellus Omn.Doctr. c. 104 (~ tit.) Περὶ ἀνάγκης

Testes secundi:

Nemesius NH c. 39, p. 112.13–26 (ad tota c. 1.25–28 pertinentia) τῶν γινομένων πάντων ἢ θεὸν φασιν αἰτίον εἶναι ἢ ἀνάγκην (cf. cc. 1.25–26) ἢ εἰμαρμένην (cf. cc. 1.27–28) ἢ φύσιν (cf. c. 1.1) ἢ τύχην ἢ τὸ αὐτόματον (cf. c. 1.29), ἀλλὰ τοῦ μὲν θεοῦ ἔργον οὐσία καὶ πρόνοια, τῆς δὲ ἀνάγκης τῶν αἰεὶ ὡσαύτως ἐχόντων ἢ κινήσις, τῆς δὲ εἰμαρμένης τὸ ἐξ ἀνάγκης τὰ δι' αὐτῆς ἐπιτελεῖσθαι (καὶ γὰρ αὕτη τῆς ἀνάγκης ἐστὶ), τῆς δὲ φύσεως γένεσις αὐξήσις φθορὰ φυτὰ καὶ ζῶα (cf. c. 1.1.2), τῆς δὲ

τύχης τὰ σπάνια καὶ ἀπροσδόκητα (cf. c. 1.29)· ὀρίζονται γὰρ τὴν τύχην σύμπτω-
σιν καὶ συνδρομῇν δύο αἰτίων ἀπὸ προαιρέσεως τὴν ἀρχὴν ἐχόντων ἄλλο τι, παρ'
ὃ πέφυκεν, ἀποτελούντων, ὡς τάφον ὀρύσσοντα θησαυρὸν εὐρεῖν· οὔτε γὰρ ὁ θεὸς
οὕτω τέθεικεν ὡς τοῦτον εὐρεῖν, οὔτε ὁ εὐρών οὕτως ὥρυξεν ὡς εὐρεῖν θησαυρόν,
ἀλλ' ὁ μὲν ἴν' ὅταν θέλῃ ἀνέλῃται, ὁ δὲ ἵνα τάφον ὀρύξῃ· συνέπεσε δὲ ἄλλο τι,
παρ' ὃ προήρηντο ἀμφοτέροι. τοῦ δὲ αὐτομάτου τὰ τῶν ἀψύχων ἢ ἀλόγων συμ-
πτώματα ἄνευ φύσεως καὶ τέχνης.

Loci Aetiani:

quaestio A 1.1.2 πάντα γὰρ τὰ ὀρώμενα, ὅσα μῆτε ὑπὸ τύχης μῆτε ὑπ' ἀνάγκης μῆτ'
ἐστὶ θεία μῆτε τοιαύτην αἰτίαν ἔχει, φυσικὰ λέγεται καὶ φύσιν ἔχει ἰδίαν.

§2 A 1.21.1 Πυθαγόρας τὴν σφαῖραν τοῦ περιέχοντος (sc. τὸν χρόνον).

§§3–4 A 1.29.4 Ἀναξαγόρας καὶ Δημόκριτος καὶ οἱ Στωικοὶ ... ἃ μὲν γὰρ εἶναι κατ'
ἀνάγκην, ἃ δὲ καθ' εἰμαρμένην.

§3 A 1.27.1 Ἡράκλειτος πάντα καθ' εἰμαρμένην, τὴν δ' αὐτὴν ὑπάρχειν καὶ ἀνάγκην.
A 1.27.5 Ζήνων ὁ Στωικός ἐν τῷ Περὶ φύσεως δύνάμιν κινήτικὴν τῆς ὕλης κατὰ
ταῦτά καὶ ὡσαύτως, ἦντινα μὴ διαφέρειν πρόνοιαν καὶ φύσιν καλεῖν. A 2.7.1[6–8]
Παρμενίδης ... τῶν δε συμμιγῶν τὴν μεσαιτάτην ἀπάσαις (ἀρχήν) τε καὶ (αἰτίαν)
πάσης κινήσεως καὶ γενέσεως ὑπάρχειν, ἦντινα καὶ δαίμονα κυβερνήτην καὶ κλη-
δοῦχον ἐπονομάζει, Δία τε καὶ Ἀνάγκην.

§5 A 2.3.1 οἱ μὲν ἄλλοι πάντες ἔμψυχον τὸν κόσμον καὶ προνοίᾳ διοικούμενον. A 1.27.5
Ζήνων ὁ Στωικός ἐν τῷ Περὶ φύσεως δύνάμιν κινήτικὴν τῆς ὕλης κατὰ ταῦτά καὶ
ὡσαύτως, ἦντινα μὴ διαφέρειν πρόνοιαν καὶ φύσιν καλεῖν. A 2.4.9 Πλάτων φθαρ-
τὸν μὲν τὸν κόσμον, ὅσον ἐπὶ τῇ φύσει, αἰσθητὸν γὰρ εἶναι, διότι καὶ σωματικόν,
οὐ μὴν φθαρησόμενόν γε προνοίᾳ καὶ συνοχῇ θεοῦ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The chapter is attested by all the major witnesses except E. For the tradition of P there are P^B, Q and a full rendering in G (Ps uses the chapter heading only). P abridged the chapter by leaving out the penultimate §4.

(2) S in his ch. 4 combines the present chapter with the next and intersperses other material. He copied out all five lemmata in succession, but interpolated a Hermetic text between §1 (where his reading interestingly differs from P's) and §2. From the next chapter he interpolated the Plato lemma ch. 1.26.3 before ch. 1.26.5, coalescing them to form a single lemma with only one name-label. At the end he added a quotation from the *Timaeus*. Wachsmuth omits to number the lemmata.

(3) T announces at the beginning of his Book 6 that he will examine the ‘Hellenic doxai’ on the concepts of fate and chance and necessity as opposed to divine providence, thus anticipating the main key words (CAG 6.4), see ch. 1.3 Commentary A(5)(a). A few pages later he cites excerpts from A, beginning at 6.13 with doxai from the present chapter. Chs. 1.25 plus 1.26–29 have been excerpted at CAG 6.13–15 in the chapter order they have in P, but not from P but from A, as is clear from the two lemmata at 1.27.4–5 shared by T and S that are absent in P. Book 6 of the CAG has the title ‘On divine providence’, so the abstracts on necessity, fate and chance belong there as a matter of course. Cf. above, *General Introduction*, section 2.5; also Mansfeld at M–R 4.178, 4.181.

B *Proximate Tradition and Sources*

(1) *Proximate tradition*. The proximate tradition is limited to a few passages in Diogenes Laertius and one in Hippolytus.

(2) *Sources*. The ultimate source for §4 is of course the *Timaeus*, while §3 echoes some of Parmenides’ own words. That according to §3, doxa of Democritus, and §4, doxa of Leucippus, necessity and fate are identical may well derive from Epicurus’ critique, *Letter to Menoeceus* at Diogenes Laertius *V.P.* 10.133–134. The doxa of §2 is related to the doxa of ch. 1.21.1 (cf. ch. 1.21 Commentary B(2)) and may derive from a similar context, see Burkert (1972) 75–76. The source of §1 is presumably a collection of sayings of the seven wise men.

C *Chapter Heading*

Attested in both P and S, and of the standard umbrella type ‘about x ’, περί τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. It forms a pair with the Περί οὐσίας ἀνάγκης of the next chapter. On this pairing of headings see above, ch. 1.22 Commentary C, and below section D(c). In the present chapter the heading comprises the question type ‘what is it?’ (so also what it is not), and the categories of quality (§1) and place (§2). Our heading is only paralleled in the descendants of A and as an interpolation (?) in Vettius Valens 4.25.48. The long version in S conflicts with A’s secular preferences.

D *Analysis*

a Context

(1) This is the first chapter of the block of five interrelated chapters dealing with necessity (ἀνάγκη, two chapters), fate (εἰμαρμένη, two chapters), and chance

(τύχη, one chapter). We have noticed above at section A that one plus three chapters have been excerpted at T CAG 6.13–15 in precisely the order they have in P.

(2) The opposition between necessity (chs. 1.25–26) and fate (chs. 1.27–28) on the one hand and chance (ch. 1.29) on the other needs no comment. Successive treatment of these issues can moreover be paralleled in for instance ps.Plutarch *De fato* and Calcidius in *Timaeum*; also cf. Maximus of Tyre, *Diss.* 5.80–144 Trapp. Tacitus *Ann.* 6.22, citing the disagreement among the wise men of old and their competitors, wonders whether our lives depend on fate and necessity or on chance, and whether there is room for a free will; the famous passage (see Theiler 1946) is cited below section E(b) General texts. In S ch. 1.4 on divine necessity and ch. 1.5 on fate are followed by ch. 1.6 on chance. A's somewhat imprecise distribution over different sets of *Placita* chapters of the related concepts of necessity and fate (occasionally inter-defined, as at chs. 1.25.3, 1.27.1) is worthy of note.

(3) An interesting distinction between this set of two chapters on necessity and that of two chapters on fate as distinguished by their headings, is that the former is concerned with the Presocratic philosophers and Plato and do not proceed beyond Plato, and that only the chapters on fate add and so contain Hellenistic doxai, though of Stoic provenance only. Presumably the explanation is that it is especially in Stoic thought that *fate* is important, whereas the concept of necessity also plays a not unimportant part in various ways in Presocratic and Platonic as well as Aristotelian contexts.

(4) Judging from the extant evidence Epicurus the anti-fatalist makes only a surprisingly late *Placita* appearance in ch. 1.29, 'On chance', where at 1.29.3 necessity is said to be one of the three types of cause he recognizes (the others being choice and chance). But as noted at section B(2) above there may be an implicit echo of an Epicurean point of view in the ascription at A 1.25.3–4 to Democritus and Leucippus of the identity of necessity and fate. On Epicurus in the *Placita* see Runia at M–R 4.377–432.

b Number–Order of Lemmata

(1) The evidence of P and S is quite straightforward. P has four doxai. Of these the last ascribed to Plato is erroneously attached to the following chapter in P^B and P^Q, but correctly placed in P^G. It is possible that it was also already misplaced in Ioannes Lydus' copy of P, for like S he coalesces it with the Platonic lemma in 1.26. There can be no doubt that it belongs in ch. 1.25. See also Lachenaud (1993) 98 n. 1, who agrees with Diels but conservatively keeps the lemma in 1.26, as in P^B and P^Q. P's four doxai are found in the same order in S, but with the extra doxa of Leucippus placed between the third and fourth doxa in P.

(2) T's evidence must also be taken into account. He records the second and third lemmata in P,S, but splits up the second of these (= P₃,S₃) into two doxai. For the former he gives three name-labels, of which only one (Democritus) occurs in P,S. Chrysippus may have been taken from 1.27.2, but there is no equivalent for Epicurus in P,S (as we saw in chs. 1.25–29 Epicurus is only mentioned at 1.29.5 on τύχη). We cannot be certain that Epicurus received a mention in A in this context, for T could have added his name. The latter part of the doxa is ascribed to Parmenides (as less clearly in P,S), and he includes Δάμωνα (paralleled in PS at ch. 2.7.1[8]!) among the concepts that are said to be equivalent to ἀνάγκη in this doxa. This most likely derives from A. The fact that extra names in T can occasionally be attributed to A would be in favour of doing so also here, but in the end we have decided to include δάμωνα in the body of the doxa, but (perhaps inadvisedly) not the name-labels Χρύσιππον and Ἐπίκουρον. See further below at section D(d)§§3–4.

c Rationale–Structure of Chapter

(1) *Conceptual definitions.* The chapter has to be studied in connection with its companion chapter (ch. 1.26) and the two chapters on fate and the οὐσία of fate (chs. 1.27–28), and even with that on chance (ch. 1.29). Here we concentrate on the distinction between ch. 1.25 ‘On necessity’ and ch. 1.26 ‘On the οὐσία of necessity’. One may be tempted to interpret the distinction between the two chapters as one between a collection of nominal, or conceptual, definitions (1.25) and one of real, or essential definitions (1.26). For nominal definitions and their role in the *Placita* see above, ch. 1.9 Commentary D(c) and (e)(2). One may also be inclined to think in terms of the distinction between actuality on the one hand and essence, or substance, on the other, advocated by ps.Plutarch and Calcidius (see below, ch. 1.27 Commentary D(a)). What is clear, however, is that the doxai of ch. 1.25 are concerned with (a preliminary impression of) the meaning and reference of the term ‘necessity’, so are indeed conceptual definitions. Note that the enigmatic, therefore typically Pythagorean doxa at §2 only tells us where to locate necessity, but not what it is or what the word means. This only becomes clear by association with the other lemmata, just as the meaning of the word in the final lemma (Plato) only becomes clear by association. This overall agreement as to sense of §§1–4 confirms that we are dealing with varieties of a conceptual definition. The three doxai of ch. 1.26, on the other hand, are all concerned with necessity as a physical entity. One should recall the distinction between incorporeals and corporeals (see e.g. ch. 1.21 at Commentary B, C, and D(c)), and note that our two chapters do not refer in any way to logical necessity, although elsewhere in the *Placita* the word ἀνάγκη is used in a logical sense, namely at chs. 1.3.16[118] (Epicurus), 1.5.4[19], and 3.5.4[4].

(2) *Diaphoniae*. The main diaphonia is between §§1–4, agreeing on and emphasizing the dominant role of Necessity, and §5, which divides the roles between Providence (mentioned first) and Necessity (mentioned second), in an order corresponding to that of the treatment one before the other of the Demiurge (whose providence is mentioned *disertis verbis* at *Tim.* 44c) and the Errant Cause, or Necessity, in Plato. A minor difference among §§1–4 is that §4 Leucippus is credited not only with the idea of Necessity but also with that of Fate (cf. chs. 1.27–28), which now is said to be the same as Necessity.

d Further Comments

Individual Points

§1 S presents the Thales doxa in the gnomic form often associated with the seven sages (also found at Plutarch *Sept.Sap.Conv.* 153D, Diogenes Laertius *V.P.* 1.35 and *Gnomologium Vaticanum* 320 Sternbach). Cf. the section on time at S 1.8.40a, with utterances attributed to Thales, Periander and the Cnidian physician Euryphon. Preference should be given to the doxa as found in P, who unusually uses *oratio recta* here to preserve the customary form of the pronouncement but significantly lacks the *verbum dicendi*. The version found here is cosmological, as befits a treatise on physics, while the poetically sounding parallel ‘it rules over all things’ at Diogenes Laertius (κρατεῖ γὰρ πάντων) and *Gnomologium Vaticanum* (κρατεῖ γὰρ ἀπάντων) has a more general purport.

§2 περιχεῖσθαι: presumably κύκλω. The verb recalls περιέχειν, familiar from early cosmological contexts, e.g. Arist. *Phys.* 3.4 203b11–12 (Anaximander 12A15 DK) περιέχειν ἅπαντα καὶ πάντα κυβερνᾶν.

§§3–4 The attribution of the quotation in §4 to Leucippus (in a treatise of which the title is also cited) necessitated the repetition in quasi-identical form of the first part of §3 πάντα κατ’ ἀνάγκην, τὴν αὐτὴν δ’ εἶναι εἰμαρμένην as §4 πάντα κατ’ ἀνάγκην, τὴν δ’ αὐτὴν ὑπάρχειν εἰμαρμένην. The word ὑπάρχειν instead of εἶναι is the only difference. As to doctrine Democritus and Leucippus could of course have been accommodated in a single lemma. An alternative arrangement of the material in §§3–4 could therefore have read:

§3[♦] Λεύκιππος Δημόκριτος πάντα κατ’ ἀνάγκην, τὴν δ’ αὐτὴν ὑπάρχειν εἰμαρμένην· λέγει γὰρ ἐν τῷ Περὶ νοῦ· ‘οὐδὲν χρήμα μάτην γίγνεται, ἀλλὰ πάντα ἐκ λόγου τε καὶ ὑπ’ ἀνάγκης’.

§4[♦] Παρμενίδης πάντα κατ’ ἀνάγκην, τὴν αὐτὴν δ’ εἶναι Δαίμονα καὶ Δίχην καὶ πρόνοιαν καὶ κοσμοποιόν.

It seems that something like this is what T did, assuming it is not what he abstracted from his source, which after all remains a definite possibility. P and

S agree in combining the name-labels Parmenides and Democritus in §3, and the doxa cited is also identical. Following T entails imputing a *folie à deux* to P and S, which is in favour of assigning their text of §3 to A as we have done, though a *non liquet* is arguable. T omits the name and quote of Leucippus. S's extra lemma derives from A in the usual way.

§3 Dührsen (1998) 117–118 argues that in T's phrase καὶ Δαίμονα κέκληκε καὶ Δίκην the word Δαίμονα is to be attributed to A as well, because it corresponds to Parm. fr. 28B12.3 DK and T says κέκληκε. We indeed also recognize Parmenides' 'logical' Δίκη (Justice) and Ἀνάγκη (Necessity) as found in 28B10.6–7 and B8.30–31 (though functioning differently in the latter), who on this hypothesis would have been combined with the cosmological Ἀνάγκη of 28B10.6–7 DK and the cosmological steering Δαίμων (Goddess) of 28B12. But the *verbum dicendi* can hardly be cited on its own in favour of authenticity, because it equally pertains to πρόνοιαν (for κέκληκε see also below, ch. 1.27 at Commentary D(d)§1). A better argument is that S at ch. 2.7.1 (where P is much shorter) reads ἦντινα καὶ Δαίμονα κυβερνήτην καὶ κληδοῦχον ἐπονομάζει, Δίκην τε καὶ Ἀνάγκην. Here the *verbum dicendi* ἐπονομάζει (not a rare word, though a hapax in the *DG*) belongs to A, and here Δαίμονα, Δίκην, and Ἀνάγκην are again identified with each other. So A would have been consistent in mentioning all three entities both at ch. 1.27.1 and in the present lemma. We have therefore included the word in our text, noting that all these divinities here have a cosmological role, just as in ch. 2.7.1 (cf. Mansfeld 1981, 266–270).

Accordingly Parmenidean motifs have been reinterpreted, and coalesced with a reinterpreted motif of Democritus. The introduction of 'fate' and even 'providence' is anachronistic, and caters to a Hellenistic audience. Still, providence as a term for what happens in Parmenides' cosmogony is not entirely off the mark, though it goes entirely against the grain for Democritus.

§4 It is not certain that the famous quotation is verbatim. What is noteworthy is that the Περὶ νοῦ is here not attributed to Democritus, as in the catalogue at Diogenes Laertius *VP*. 9.46, but to Leucippus. This has caused the attribution to be doubted, though the catalogue contains another title attributed to Democritus and then at once also to Leucippus (*VP*. 9.49 Μέγας διάκοσμος, ὃν οἱ περὶ Θεόφραστον Λευκίππου φασὶν εἶναι). This entails that some attributions were, and so are, uncertain, as after all is only normal. For Περὶ νοῦ as book title or chapter heading see below, ch. 4.5a, section E(b) Chapter heading. It would be the earliest instance if genuine.

We have found no parallel for the phrase ἐκ λόγου in the above meaning.

§5 This lemma in the mss. is placed after the chapter heading of 1.26 to be the first lemma of that chapter. Diels rightly saw that it was better placed in ch. 1.25 as in the text of G and we follow his decision. Mau and Lachenaud too

conservatively retains the order of the mss. (as noted by Jas 2016, 131, Mau's note in his app. crit. on Wytttenbach is incorrect).

e Other Evidence
Cf. chs. 1.26–28.

E Further Related Texts

a Proximate Tradition

§1 **Thales: Diogenes Laertius V.P.** 1.35 (on Thales, 11A1 DK) ἰσχυρότατον ἀνάγκη κρατεῖ γὰρ πάντων.

§2 **Pythagoras: Diogenes Laertius V.P.** 8.85 δοκεῖ δ' αὐτῷ (Philolaus 44A1 DK) πάντα ἀνάγκη καὶ ἁρμονίᾳ γίνεσθαι.

§3 **Parmenides Democritus: Diogenes Laertius V.P.** 9.45 (on Democritus, 68A1 DK, quoted *Suda* s.v. A 1827) πάντα τε κατ' ἀνάγκην γίνεσθαι, τῆς δίνης αἰτίας οὐσης τῆς γενέσεως πάντων, ἣν ἀνάγκην λέγει. **ps.Plutarch Strom.** 7 at Eus. *PE* 1.8.7 (Plu. fr. 179 Sandbach) Δημόκριτος ὁ Ἀβδηρίτης (68A39 DK) ... μηδεμίαν ἀρχὴν ἔχειν τὰς αἰτίας τῶν νῦν γιγνομένων, ἄνωθεν δ' ὅλως ἐξ ἀπείρου χρόνου προκατέχεσθαι τῇ ἀνάγκῃ πάνθ' ἀπλῶς τὰ γεγονότα καὶ ἐόντα καὶ ἐσόμενα.

§4 **Leucippus: Diogenes Laertius V.P.** 9.33 (on Leucippus, 67A1 DK) εἶναί τε ὥσπερ γενέσεις κόσμου, οὕτω καὶ αὐξήσεις καὶ φθίσεις καὶ φθοράς, κατὰ τινὰ ἀνάγκην, ἣν ὁποία ἐστὶν (οὐ) διασφαεῖ. **Hippolytus Ref.** 1.12.2 (on Leucippus, 67A10 DK) κόσμους δὲ (ᾧδε) γίνεσθαι λέγει· ὅταν εἰς μέγα κενόν ἐκ τοῦ περιέχοντος ἀθροισθῇ πολλὰ σώματα καὶ συρρυῇ, προσκρούοντα ἀλλήλοις συμπλέκεσθαι τὰ ὁμοιοσχήμονα καὶ παραπλήσια τὰς μορφάς, καὶ περιπλεχθέντων ἄστρα γίνεσθαι, αὖξιν δὲ καὶ φθίνειν διὰ τὴν ἀνάγκην. τίς δ' ἂν εἴη ἡ ἀνάγκη, οὐ διώρισεν.

b Sources and Other Parallel Texts

General texts: (NB these pertain to all of chs. 1.25–28) **Cicero Fat.** 39 *ac mihi quidem videtur, cum duae sententiae fuissent veterum philosophorum, una eorum, qui censerent omnia ita fato fieri, ut id fatum vim necessitatis adferret, in qua sententia Democritus, Heraclitus, Empedocles, Aristoteles fuit, altera eorum, quibus viderentur sine ullo fato esse animorum motus voluntarii, Chrysippus (SVF 2.974) tamquam arbiter honorarius medium ferire voluisse, sed adplicat se ad eos potius, qui necessitate motus animorum liberatos volunt; dum autem verbis utitur suis, delabitur in eas difficultates, ut necessitatem fati confirmet invit.* **Philo of Alexandria QG** 1 fr. 29 φανερώς δὲ πάλιν καὶ διὰ τούτου πᾶν τὸ ἐκούσιον καὶ ἐφ' ἡμῖν διατυποῖ, τοὺς πάντα κατ' ἀνάγκην εἶναι λέγοντας δυσωπῶν. **Gnomologium Vaticanum Epicureum** xl Usener–Wotke (Epic. p. 64 Von der Mühl, p. 112 Bailey, p. 149 Arrighetti, etc.) ὁ λέγων πάντα κατ' ἀνάγκην γίνεσθαι οὐδὲν ἐγκαλεῖν ἔχει τῷ λέγοντι μὴ πάντα κατ' ἀνάγκην γίνεσθαι· αὐτὸ γὰρ τοῦτο φησι κατ' ἀνάγκην γίνεσθαι. **Cornutus** c. 13, p. 10.9–11.17 Torres Εἰμαρμένη δὲ ἐστὶ καθ' ἣν μέμαρπται καὶ συνείληπται πάντα ἐν τάξει καὶ στοίχῳ μὴ ἔχοντι πέρας τὰ γινόμενα {... (glossema)}. Ἀνάγκη δὲ ἐστὶν ἣν ἄξει καὶ ἥς περι-

γενέσθαι οὐκ ἔστιν ἢ ἐφ' ἣν πᾶν ὃ ἂν γένηται τὴν ἀναγωγὴν λαμβάνει. κατ' ἄλλον δὲ τρόπον τρεῖς Μοῖραι παρεισάγονται κατὰ τὸ τρισσὸν τῶν χρόνων ... (p. 11.6) αὕτη δὲ ἐστὶ καὶ Ἀδράστεια, ἥτοι παρὰ τὸ ἀνέκφευκτος καὶ ἀναπόδραστος εἶναι ὠνομασμένη ἢ παρὰ τὸ αἰεὶ δρᾶν τὰ καθ' αὐτήν, ὥσάν ἀειδράστεια οὖσα, ἢ τοῦ στερητικοῦ μορίου πληθὸς νῦν ἀποδηλοῦντος ὡς ἐν τῇ 'ἄξυλῳ ὕλῃ' (Hom. *Il.* 11.155) πολυδράστεια γὰρ ἐστὶ. Νέμεσις δὲ ἀπὸ τῆς νεμήσεως προσηγόρευται—διαίρει γὰρ τὸ ἐπιβάλλον ἐκάστω—, Τύχη δὲ ἀπὸ τοῦ τεύχειν ἡμῖν τὰς περιστάσεις καὶ τῶν συμπιπτόντων τοῖς ἀνθρώποις δημιουργὸς εἶναι, "Ὅπῃς δὲ ἀπὸ τοῦ λανθάνουσα καὶ ὥσπερ παρακολουθοῦσα ὅπισθεν καὶ παρατηροῦσα τὰ πραττόμενα ὑφ' ἡμῶν κολάζειν τὰ κολάσεως ἄξια. **ps.Aristotle Mu.** 7.401b7–14 (cited S 1.5.22, p. 82.22–83.4) καὶ τὴν Ἀνάγκην οὐκ ἄλλο τι λέγεσθαι πλὴν τοῦτον [: τοῦτο S], οἷον ἐνίκητον αἰτίαν ὄντα, Εἰμαρμένην δὲ διὰ τὸ εἶρην τε καὶ χωρεῖν ἀκωλύτως, Πεπρωμένην δὲ διὰ τὸ πεπερατώσθαι πάντα καὶ μηδὲν ἐν τοῖς οὖσιν ἄπειρον εἶναι, καὶ Μοῖραν μὲν ἀπὸ τοῦ μεμερίσθαι, Νέμεσιν δὲ ἀπὸ τῆς ἐκάστω διανεμήσεως, Ἀδράστειαν δὲ ἀναπόδραστον αἰτίαν οὖσαν κατὰ φύσιν, Αἴσαν δὲ αἰεὶ οὖσαν. τὰ τε περὶ τὰς Μοῖρας καὶ τὸν ἄτρακτον εἰς ταῦτό πως νεύει· τρεῖς μὲν γὰρ αἱ Μοῖραι, κατὰ τοὺς χρόνους μεμερισμένοι, κτλ. **Plutarch An.Procr.** 1026A–C συλλαβοῦσα (sc. τὸ παθητικὸν τῆς ψυχῆς, i.e. World Soul) δὲ τὸ ταῦτόν καὶ τὸ θάτερον ὁμοιότησι καὶ ἀνομοιότησιν ἀριθμῶν (B) ἐκ διαφορᾶς ὁμολογίαν ἀπεργασαμένων ζωῇ τε τοῦ παντός ἐστιν ἔμφρων καὶ ἁρμονία καὶ λόγος ἄγων πειθοῖ μεμιγμένην ἀνάγκην (cf. ch. 1.25.5), ἣν εἰμαρμένην οἱ πολλοὶ καλοῦσιν, Ἐμπεδοκλῆς δὲ (31A45 DK) Φιλίαν ὁμοῦ καὶ Νείκος (cf. chs. 1.3.19, 1.26.1), Ἡράκλειτος δὲ (cf. 22B51 DK) 'παλίντροπον ἁρμονίην κόσμου [κόσμου added by Plut. or his source, see Heracl. fr. 27 (e³) Marcovich] ὅκωσπερ λύρης καὶ τόξου' (cf. ch. 1.27.1), Παρμενίδης δὲ (e.g. 28B9 DK) 'φῶς' καὶ 'σκότος', Ἀναξαγόρας δὲ 'Νοῦν' καὶ 'ἄπειρίαν' (—), Ζωροάστρης δὲ θεὸν καὶ δαίμονα, τὸν μὲν Ὀρομάσδην καλῶν τὸν δ' Ἀρειμάνιον. Εὐριπίδης δ' οὐκ ὁρθῶς ἀντὶ τοῦ συμπλεκτικοῦ τῷ διαζευκτικῷ κέχρηται (*Trö.* 886) 'Ζεὺς εἴτ' ἀνάγκη φύσεος εἴτε νοὺς βροτῶν' (C) καὶ γὰρ ἀνάγκη καὶ νοὺς ἐστὶν ἢ διήκουσα διὰ πάντων δύναμις (cf. ch. 1.25.5). **Tacitus Ann.** 6.22 *sed mihi ... in incerto iudicium est fatone res mortalium et necessitate immutabili an forte volvantur. quippe sapientissimos veterum quique sectam eorum aemulantur diversos reperies, ac multis insitam opinionem non initia nostri, non finem, non denique homines dis curae; ideo creberrime tristia in bonos, laeta apud deteriores esse. contra alii fatum quidem congruere rebus putant, sed non e vagis stellis, verum apud principia et nexus naturalium causarum; ac tamen electionem vitae nobis relinquunt, quam ubi elegeris, certum imminetium ordinem.* [etc.] **ps.Plutarch Fat.** 568E–F δυνάμει μὲν οὖν εἴρηται ὁποῖα χρὴ λέγεσθαι (F) περὶ τῆς κατ' οὐσίαν εἰμαρμένης· καὶ γὰρ ἥτις ἐστὶ (sc. ἡ τοῦ κόσμου ψυχὴ) καὶ πόση τις (sc. τριχῇ διανεμηθεῖσα) καὶ ὁποῖα (sc. Κλωθῶ, Ἄτροπος, Λάχεσις) καὶ ὅπως τέτακται (sc. ἀνωτάτω, μετ' αὐτήν, κατωτάτω) καὶ ὅπως ἔχει αὐτὴ τε πρὸς ἑαυτὴν (sc. Λάχεσις δεχομένη μὲν τὰς οὐρανίας τῶν ἀδελφῶν ἐνεργείας) καὶ δὴ καὶ πρὸς ἡμᾶς (sc. διαδιδούσα ταύτας εἰς τὰ ὑπ' αὐτῇ τεταγμένα τὰ ἐπίγεια) ὡς ἐν ἐπιτομῇ εἴρηται. **Marcus Aurelius** 4.3 ἥτοι πρόνοια ἢ ἄτομοι. 12.14 ἥτοι ἀνάγκη εἰμαρμένης καὶ ἀπαράβατος τάξις ἢ πρόνοια ἰλάσιμος ἢ φυρμὸς εἰκαιότητος ἀπροστάτητος. εἰ μὲν οὖν ἀπαράβατος ἀνάγκη, τὶ

ἀντιτείνεις; εἰ δὲ πρόνοια ἐπιδεχομένη τὸ ἰλάσκεσθαι, ἄξιον ἑαυτὸν ποιήσον τῆς ἐκ τοῦ θεοῦ βοήθειας. εἰ δὲ φυρμός ἀνηγεμόνευτος, ἀσμένιζε ὅτι ἐν τοιούτῳ τῷ κλύδωνι αὐτὸς ἔχεις ἐν ἑαυτῷ τινα νοῦν ἡγεμονικόν, κἂν παραφέρῃ σε ὁ κλύδων, παραφερέτω τὸ σαρκίδιον, τὸ πνευμάτιον, τᾶλλα· τὸν γὰρ νοῦν οὐ παροίσει. **Ptolemy Tetr.** 1.3.4–6 πρῶτον μὲν γὰρ δεῖ σκοπεῖν, ὅτι καὶ ἐπὶ τῶν ἐξ ἀνάγκης ἀποβησομένων τὸ μὲν ἀπροσδόκητον τοὺς τε θορύβους ἐκστατικούς καὶ τὰς χαρὰς ἐξοιστικάς μάλιστα πέφυκε ποιεῖν, τὸ δὲ προγινώσκειν ἐθίζει καὶ ρυθμίζει τὴν ψυχὴν τῇ μελέτῃ τῶν ἀπόντων ὡς παρόντων καὶ παρασκευάζει μετ’ εἰρήνης καὶ εὐσταθείας ἕκαστα τῶν ἐπερχομένων ἀποδέχεσθαι· ἐπειθ’ ὅτι μὴδ’ οὕτως ἅπαντα χρὴ νομίζειν τοῖς ἀνθρώποις ἀπὸ τῆς ἄνωθεν αἰτίας παρακολουθεῖν ὥσπερ ἐξ ἀρχῆς ἀπὸ τινος ἄλλου καὶ θεοῦ προστάγματος καθ’ ἓνα ἕκαστον νενομοθετημένα καὶ ἐξ ἀνάγκης ἀποβησόμενα, μηδεμιάς ἄλλης ἀπλῶς αἰτίας ἀντιπράξει δυναμένης, ἀλλ’ ὡς τῆς μὲν τῶν οὐρανίων κινήσεως καθ’ εἰμαρμένην θεῖαν καὶ ἀμετάπτωτον ἐξ αἰῶνος ἀποτελουμένης, τῆς δὲ τῶν ἐπιγείων ἀλλοιώσεως καθ’ εἰμαρμένην φυσικὴν καὶ μεταπτωτὴν κτλ.

(pertaining to both chs. 1.25–26) **Xenophon Mem.** 1.1.11 οὐδὲ γὰρ περὶ τῆς τῶν πάντων φύσεως, ἥπερ τῶν ἄλλων οἱ πλείστοι, διελέγετο (sc. ὁ Σωκράτης) σκοπῶν ὅπως ὁ καλούμενος ὑπὸ τῶν σοφιστῶν κόσμος ἔχει καὶ τίσιν ἀνάγκαις ἕκαστα γίγνεται τῶν οὐρανίων, ἀλλὰ κτλ.

§1 **Thales: Plutarch Sept.Sap.** 153D ‘τί ἰσχυρότατον,’ (sc. ἔφη Θαλῆς, fr. 121 Wöhrle) ‘ἀνάγκη· μόνον γὰρ ἀνίκητον.’ **Gnomologium Vaticanum** 320 Sternbach Θαλῆς (fr. 564 Wöhrle) ἐρωτηθεὶς ‘τί ... ἰσχυρότατον’ (εἶπε·) ‘ἀνάγκη· κρατεῖ γὰρ ἀπάντων’.

§2 **Pythagoras: Iamblichus Theol.Ar.** p. 81.19–22 De Falco εἰ δὲ καὶ τὴν Ἀνάγκην οἱ θεολόγοι τῇ τοῦ παντός οὐρανοῦ ἐξωτάτῃ ἄντυγι ἐπιχρῶσι διηλεκῶς ἐλαύνουσιν καὶ κατεπεύγουσιν ἀδαμαντίνῳ καὶ ἀτρυτῷ μάλιστα τὴν σύμπασαν περιδίνουσιν κτλ. cf. Parm. 28B10.6–7 DK, cited below on §3.

§§3–4 **Parmenides Democritus Leucippus: Epicurus Ep.Men.** at D.L. 10.133–134 τὴν δὲ ὑπὸ τινων δεσπότην εἰσαγομένην πάντων τ’ ἀγγέλλοντος ... (134) ἐπεὶ κρεῖττον ἦν τῷ περὶ θεῶν μύθῳ κατακολουθεῖν ἢ τῇ τῶν φυσικῶν εἰμαρμένη δουλεύειν· ὁ μὲν γὰρ ἐλπὶδα παραιτήσεως ὑπογράφει θεῶν διὰ τιμῆς, ἡ δὲ ἀπαράτητον ἔχει τὴν ἀνάγκην. **Cicero ND** 1.55 *illa fatalis necessitas, quam* εἰμαρμένην *dicitis*.

§3 **Parmenides:** 28B8.13–15 DK τοῦ εἵνεκεν οὕτε γενέσθαι / οὕτ’ ὄλλυσθαι ἀνῆκε Δίκη χαλάσασα πέδησις, / ἀλλ’ ἔχει. 28B8.30–31 DK κρατερὴ γὰρ Ἀνάγκη / πείρατος ἐν δεσμοῖσιν ἔχει. 28B8.37–38 DK ἐπεὶ τό γε Μοῖρ’ ἐπέδῃσεν / οὐλον ἀκίνητόν τ’ ἔμεναι. 28B10.6–7 DK ὥς μιν ἄγουσ(α) ἐπέδῃσεν Ἀνάγκη / πείρατ’ ἔχειν ἄστρον. 28B12.3 DK ἐν δὲ μέσῳ τούτων δαίμων ἢ πάντα κυβερνᾷ. 28B13 DK πρῶτιστον μὲν Ἐρωτα θεῶν μῆτις αὖ πάντων. **Aristotle** fr. 208 R³ (verbatim) at *Simp. in Cael.* 295.18–20 ... ἐπὶ τοσοῦτον οὖν χρόνον σφῶν αὐτῶν ἀντέχεσθαι (sc. τὰς οὐσίας) νομίζει (Democritus 68A37 DK) καὶ συμμένειν, ἕως ἰσχυροτέρα τις ἐκ τοῦ περιέχοντος ἀνάγκη παραγενομένη διασείσῃ καὶ χωρὶς αὐτὰς διασπείρῃ. **GA** 5.8 789b2–4 Δημόκριτος (68A66 DK) δὲ τὸ οὐ ἔνεκα ἀφείς λέγειν, πάντα ἀνάγει εἰς ἀνάγκην οἷς χρῆται ἢ φύσις. **Epicurus** fr. 34.30.7–15 Arrighetti at *PHerc.* 1056

(inc. lib.) (Democritus 68A6g DK) ... οἱ δ' αἰτιολ[ο]γήσαντες [ἐξ ἀρχῆς ἰκανῶς] | καὶ ο[ὗ] μόνον τ[ῶν] προ[τ]έ[ρ]ω[ν] | πολὺ διενέγκαντες ἀλλὰ καὶ τῶν | ὕστερον πολλαπλ[α]σίως, ἔλαθον | ἑαυτοῦς, κα(θὰ)περ ἐν πολλοῖς, μεγάλα κουφίσαντες ἐν τῶ(ι) τ[ῇ]ν ἀνάγκην καὶ ταυτόματον πάντα [αἰτιάσ]θαι. **Sextus Empiricus M.** 9.113 ὥστε κατ' ἀνάγκην μὲν καὶ ὑπὸ δίνης, ὡς ἔλεγον οἱ περὶ τὸν Δημόκριτον (68A83 DK), οὐκ ἂν κινοῖτο ὁ κόσμος.

§4 Leucippus: Euripides Tro. 885 Ζεὺς, εἴτ' ἀνάγκη φύσεως εἴτε **Simpli-**
cus in Phys. 330.14–15 τὸ δὲ 'καθὰπερ ὁ παλαιὸς λόγος εἶπεν ὁ ἀναιρῶν τὴν τύχην' (Arist. *Phys.* 2.4 196a14–15) πρὸς Δημόκριτον (68A68 DK) ἔοικεν εἰρησθαι.

§5 Plato: Plato Tim. 30b–c οὕτως οὖν δὴ κατὰ λόγον τὸν εἰκότα δεῖ λέγειν τόνδε τὸν κόσμον ζῶον ἔμψυχον ἔνουν τε τῇ ἀληθείᾳ διὰ τὴν τοῦ θεοῦ (c) γενέσθαι πρόνοιαν. *Tim.* 44c τὰ δὲ πρὸ τούτων, περὶ σωμάτων κατὰ μέρη τῆς γενέσεως καὶ περὶ ψυχῆς, δι' ἧς τε αἰτίας καὶ προνοίας γέγονε θεῶν, τοῦ μάλιστα εἰκότος ἀντε-
χομένοις, οὕτω καὶ κατὰ ταῦτα πορευομένοις διεξιτέον. *Tim.* 47e–48a τὰ μὲν οὖν παρεληλυθότα τῶν εἰρημένων πλὴν βραχέων ἐπιδέδεικται τὰ διὰ νοῦ δεδημιουργη-
μένα· δεῖ δὲ καὶ τὰ δι' ἀνάγκης γιγνόμενα τῷ λόγῳ παραθέσθαι. μεμειγμένη γὰρ (48a) οὖν ἡ τοῦδε τοῦ κόσμου γένεσις ἐξ ἀνάγκης τε καὶ νοῦ συστάσεως ἐγεννήθη· νοῦ δὲ ἀνάγκης ἄρχοντος τῷ πείθειν αὐτὴν τῶν γιγνομένων τὰ πλεῖστα ἐπὶ τὸ βέλ-
τιστον ἄγειν, ταύτῃ κατὰ ταῦτά τε δι' ἀνάγκης ἡττωμένης ὑπὸ πειθοῦς ἔμφρονος οὕτω κατ' ἀρχὰς συνίστατο τόδε τὸ πᾶν.

Liber 1 Caput 26

P^B: ps.Plutarchus *Plac.* 884E–F; pp. 321^a11–19 Diels—**P^G**: ps.Galenus *HPh* c. 41; pp. 620.9–13 Diels; pp. 134–138 Jas—**P^Q**: Qustā ibn Lūqā pp. 134–135 Dai-ber—**P^L**: Ioannes Lydus *Mens.* 4.81, p. 133.9–14 Wuensch
S: Stobaeus *Ecl.* 1.4.7c, pp. 73.1–2, 72.15–16 Wachsmuth
Cf. Nem: Nemesius *NH* c. 39, p. 112.13–17 Morani

Titulus κς'. Περὶ οὐσίας ἀνάγκης (P)

- §1 Ἐμπεδοκλῆς οὐσίαν ἀνάγκης αἰτίαν χρηστικὴν τῶν ἀρχῶν καὶ τῶν στοιχείων. (P1, S2)
- §2 Δημόκριτος τὴν ἀντιτυπίαν καὶ φορὰν καὶ πληγὴν τῆς ὕλης. (P2)
- §3 Πλάτων ὅτε μὲν τὴν ὕλην ὅτε δὲ τὴν τοῦ ποιοῦντος πρὸς τὴν ὕλην 5
σχέσιν. (P3, S1)

§1 Empedocles 31A45 DK; §2 Democritus 68A66 DK; §3 Plato cf. *Tim.* 47e–48a, 68e–69a

titulus Περὶ ... ἀνάγκης **P^{BQ}** : Τίς οὐσία ἀνάγκης **P^G** : S vid. supra app. crit. ad c. 1.25 §1 [2–3] Ἐμπεδοκλῆς (τὴν add. **P^G**) οὐσίαν ... στοιχείων **P^{BQ}** **P^G** (mss. Diels) : al. **P^G** Jas Nic. sec. τὴν οὐσίαν ἀνάγκης Ἐμπεδοκλῆς τῶν ἀρχῶν καὶ τῶν στοιχείων αἰτίαν χρηστικὴν ἡγεῖται || [2] οὐσίαν ἀνάγκης] om. S §2 om. S || [4] φορὰν **P^{GL}** Diels (τὴν φορὰν coni. Xylander) : φορὰν **P^{B(LID)Q}** : τὴν φορὰν **P^{B(LID)}** || πληγὴν **P^{B(LIIDD)QGL}** : τὴν πληγὴν **P^{B(LI)}** || φορὰν et πληγὴν inv. **P^L** §3 [5] post Πλάτων add. **P^L** γε μὴν τὰ μὲν εἰς πρόνοιαν, τὰ δὲ εἰς ἀνάγκην ἀνήγαγεν ex 1.25.5 || τὴν ὕλην **P^{BQS}** : αὐτὴν **P^G** || [6] post σχέσιν add. **P^L** αἰτιώμενος

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus c. 41 (~ tit.) Τίς οὐσία ἀνάγκης (text Jas)

41.1 (~ P1) τὴν οὐσίαν ἀνάγκης Ἐμπεδοκλῆς τῶν ἀρχῶν καὶ τῶν στοιχείων αἰτίαν χρηστικὴν ἡγεῖται.

41.2 (~ P2) Δημόκριτος δὲ τὴν ἀντιτυπίαν καὶ φορὰν καὶ πληγὴν τῆς ὕλης.

41.3 (~ P3) Πλάτων δὲ ὅτε μὲν τὴν ὕλην, ὅτε δὲ τὴν τοῦ ποιοῦντος πρὸς αὐτὴν σχέ-
σιν.

ioannes Lydus *Mens.* 4.81 cit. ad c. 1.25

Testes secundi:

Nemesius *NH* c. 39, p. 112.13–17 cit. ad 1.25

Loci Aetiani:

§1 A 1.7.19 (Ἐμπεδοκλῆς τὰ στοιχεῖα καὶ τὰς ἀρχὰς καὶ) τὸ ἓν (sc. εἶναι θεοῦς), καὶ τὸ μὲν ἓν τὴν ἀνάγκην, ὕλην δὲ αὐτοῦ τὰ τέσσαρα στοιχεῖα, εἶδη δὲ τὸ νείκος καὶ τὴν φιλίαν.

- §2 A 1.3.16[118–119] 'Ἐπίκουρος ... 'ἀνάγκη γάρ' φησί 'κινεῖσθαι τὰ σώματα τῇ τοῦ βάρους πληγῇ· ἐπεὶ οὐ κινήσεται.' A 1.5.5 Μητρόδωρος ... ἀνάγκη ἀπείρους εἶναι (sc. τοὺς κόσμους). A 1.12.1 σώμά ἐστι ... ὄγκος ἀντίτυπος ὅσον ἐφ' ἑαυτῷ. A 1.12.6 Δημόκριτος τὰ πρῶτά φησι σώματα ... κινεῖσθαι δὲ κατ' ἀλληλοτυπίαν ἐν τῷ ἀπείρῳ. A 1.29.5 'Ἐπίκουρος κατ' ἀνάγκην, κατὰ προαίρεσιν, κατὰ τύχην. A 3.3.3 Μητρόδωρος ... τῇ δὲ πληγῇ καὶ τῷ σχισμῷ διαυγάζει, τῇ δ' ὀξύτητι τῆς φορᾶς προσλαμβάνον κτλ.
- §3 A 1.3.3[28–29] ἀδύνατον γὰρ ἀρχὴν μίαν τὴν ὕλην τῶν ὄντων ὑποστήναι, ἀλλὰ καὶ τὸ ποιοῦν αἴτιον χρὴ ὑποτιθέναι. A 1.3.19 Πλάτων Ἀρίστωνος τρεῖς ἀρχάς, τὸν θεόν, τὴν ὕλην, τὴν ἰδέαν· ὅφ' οὐ, ἐξ οὐ, πρὸς ὅ. A 1.11.2 Πλάτων τριχῶς τὸ αἴτιον· φησί γάρ ὅφ' οὐ ἐξ οὐ πρὸς ὅ· κυριώτερον δ' ἡγείται τὸ ὅφ' οὐ· τοῦτο δ' ἦν τὸ ποιοῦν, ὅ ἐστι νοῦς. A 1.29.1 Πλάτων αἰτίαν (sc. τὴν τύχην) ... προαιρέσεως κατὰ τὴν πρὸς τὸ τέλος πρόθεσιν ἐναλλακτικὴν σχέσιν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The witnesses for this compact chapter differ from those of its companion piece ch. 1.25 in two respects. The P tradition is represented by P^B, Q and G (who copies it out almost verbatim). In addition, for chs. 1.26–28 we have the evidence of the Laurentianus manuscript, which copies out all the lemmata in P except 1.28.4 (it also cites a phrase from 1.25.5, but may have taken this from its text of 1.26; see further below section D(b)).

(2) S includes it in his chapter on necessity, but surprisingly leaves out one lemma.

(3) T passes over this chapter, in contrast to his treatment of 1.25.

B Proximate Tradition and Sources

See at ch. 1.25, Commentary B.

C Chapter Heading

Attested in both P and S, and of the standard umbrella type 'about x', περὶ τοῦ δεῖνα (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. Here we note a specialized version of the standard type through addition of the term οὐσία. It forms a pair with the Περί ἀνάγκης of the previous chapter. On this pairing of headings and the problem of finding a meaningful difference see above, ch. 1.22 Commentary C; also cf.

below section D(c). In the present chapter the heading pertains to the question type or category of substance in the physical sense.

D *Analysis*

a Context

This is the second chapter of the block of five dealing with the related subjects of necessity (ἀνάγκη, two chapters), fate (εἰμαρμένη, two chapters), and chance (τύχη, one chapter). See further ch. 1.25 above at Commentary D(a).

b Number–Order of Lemmata

(1) Unusually S has less material than P. His deletion of the Democritus lemma (= P2) is quite unusual (cf. M–R 1.234). Admittedly he cited Democritus (together with Parmenides) for ch. 1.25.3 and Leucippus for 1.25.4, but these lemmata do not give as much insight into Atomist views as the omitted doxa. The chapter is likely to be complete as transmitted by the tradition of P. The (chronological) order of P need not be changed.

(2) Ioannes Lydus combines material from several chapters, see quotation at ch. 1.25 *Testes primi* and comments at 1.25 Comm. A(1) and D(b)1.

c Rationale–Structure of Chapter

(1) *Definitions*. We have noted above (ch. 1.9 Commentary D(c) and (e)(2)) that a discussion of the οὐσία may be concerned with the distinction between nominal and real definitions. The present chapter seems to be about real definitions and (for the most part) corporeal realities. All paragraphs deal with physical forces or entities, while §2–3 include compromise positions in that both a physical entity and (incorporeal) attitudes are presented.

(2) *Diaphoniae*. In §1 necessity is superior to the principles and elements it makes use of, in §2 it is the behaviour of matter, i.e. it is on the same level as matter, in §3 it is on the one hand identified with matter and on the other (in another shape) associated with a cause (or entity) beyond matter that effectively informs it. This ‘maker’ links up with the ‘cause that makes use of the principles and elements’ of §1, so lends the chapter a sort of ring composition.

d Further Comments

Individual Points

§1 For Necessity in relation to the principles and elements and the combination of ingredients from both Empedoclean poems see above, ch. 1.3 Commentary D(d)§19.

§3 The Platonic doxa is obviously based on the *Timaeus*, as was the case for the doxa attributed to the same thinker in the previous chapter, 1.25.5. S

is right in seeing a link with *Tim.* 47e–48a (after citing A 1.26.3 and 1.25.5 in that order, he continues with the quote 47e5–48a2). The identification of *nous* with the demiurge and necessity with matter is an easy, if superficial, way of understanding the two causal factors introduced by Plato. The second view on necessity is most likely linked with the passage at *Tim.* 68e–69a, where the demiurge makes use of the secondary causes associated with necessity. Compare Cornford's often cited description (1937, xv–xviii) of Timaeus' account, distinguishing the works of reason (*Tim.* 29d–47e) from what comes about of necessity (*Tim.* 47e–69a) and from the co-operation of reason and necessity (*Tim.* 69a–92c).

e Other Evidence
See at chs. 1.25 and 27–28.

E Further Related Texts

a Proximate Tradition

§1 *Empedocles*: Cicero *Fat.* 39 *ac mihi quidem videtur, cum duae sententiae fuissent veterum philosophorum, una eorum, qui censerent omnia ita fato fieri, ut id fatum vim necessitatis adferret, in qua sententia Democritus (fr. 24 Luria), Heraclitus (T 305 Marcovich), Empedocles (—), Aristoteles fuit.* Hippolytus *Ref.* 7.29.23 τοῦτον εἶναι φησιν ὁ Ἐμπεδοκλῆς νόμον μέγιστον τῆς τοῦ παντὸς διοικήσεως, λέγων ὡδὲ πως (31B115.1–2 DK): ἔστιν Ἀνάγκης χρήμα, θεῶν ψήφισμα παλαιόν, / αἰδίων, πλατέεσσι κατεσφρηγισμένον ὄρκοις· Ἀνάγκην καλὴν τὴν ἐξ ἑνὸς εἰς πολλὰ κατὰ τὸ Νείκος καὶ ἐκ πολλῶν εἰς ἓν κατὰ τὴν Φιλίαν μεταβολήν· θεοὺς δέ, ὡς ἔφην, τέσσαρας μὲν θνητούς, πῦρ, ὕδωρ, γῆν, ἀέρα, δύο δὲ ἀθανάτους, ἀγεννήτους, πολέμιους ἑαυτοῖς διὰ παντός, τὸ Νείκος καὶ τὴν Φιλίαν.

§3 *Plato*: Diogenes Laertius *V.P.* 3.69 δύο δὲ τῶν πάντων ἀπέφηνεν (sc. Plato) ἀρχάς, θεὸν καὶ ὕλην, ὃν καὶ νοῦν προσαγορεύει καὶ αἴτιον. 3.75–76 ἐπεὶ δ' αἰτίαι εἰσὶ δύο, τὰ μὲν διὰ νοῦ εἶναι, τὰ δ' ἐξ ἀναγκαίας αἰτίας, φησί, λεκτέον. ταῦτα δ' ἐστὶν ἀήρ, πῦρ, γῆ, ὕδωρ καὶ οὐκ ὄντα μὲν στοιχεῖα κατὰ ἀκρίβειαν, ἀλλὰ δεκτικά. ταῦτα δ' ἐκ τῶν τριγώνων εἶναι συντιθεμένων καὶ διαλύεσθαι εἰς ταῦτα· στοιχεῖα δ' αὐτῶν εἶναι τό τε πρόμηκες τρίγωνον καὶ τὸ ἰσοσκελές. ἀρχάς μὲν τῶν εἶναι καὶ αἰτία τὰ λεχθέντα δύο ὧν μὲν παράδειγμα τὸν θεὸν καὶ τὴν ὕλην· ὅπερ ἀνάγκη ἄμορφον εἶναι, ὥσπερ καὶ ἐπὶ τῶν ἄλλων δεκτικῶν. Hippolytus *Ref.* 1.19.51 ἀρχάς εἶναι τοῦ παντὸς θεὸν καὶ ὕλην καὶ παράδειγμα· θεὸν μὲν τὸν ποιητὴν καὶ διακοσμήσαντα τότε τὸ πᾶν καὶ προνοούμενον αὐτοῦ· ὕλην δὲ τὴν πᾶσιν ὑποκειμένην

b Sources and Other Parallel Texts

§1 *Empedocles*: Empedocles 31B115.1–2 DK ἔστιν Ἀνάγκης χρήμα, θεῶν ψήφισμα παλαιόν, / αἰδίων, πλατέεσσι κατεσφρηγισμένον ὄρκοις. Aristotle *Phys.* 8.1 252a7–10 ὅμοιον Ἐμπεδοκλῆς (31A38 DK) ἂν εἰπεῖν, ὡς τὸ κρατεῖν καὶ κινεῖν ἐν μέρει τὴν Φιλίαν καὶ τὸ Νείκος ὑπάρχει τοῖς πράγμασιν ἐξ ἀνάγκης, ἡρμεῖν δὲ τὸν

μεταξύ χρόνον. *Met.* B.4 1000b9–13 (ad Empedocles 31B30) τοῦτ' οὖν φανερόν, ὅτι συμβαίνει αὐτῷ τὸ Νεῖκος μὴθ' ἄλλ' ὅν φθορὰς ἢ τοῦ εἶναι αἴτιον· ὁμοίως δ' οὐδ' ἢ Φιλότης τοῦ εἶναι, συνάγουσα γὰρ εἰς τὸ ἐν φθείρει τὰ ἄλλα. καὶ ἅμα δὲ αὐτῆς τῆς μεταβολῆς αἴτιον οὐθ' ἄλλ' ἢ ὅτι οὕτως πέφυκεν. *Plutarch An.Procr.* 1026B ἀνάγκην, ἣν εἰμαρμένην οἱ πολλοὶ καλοῦσιν, Ἐμπεδοκλῆς (31A45 DK) δὲ Φιλίαν ὁμοῦ καὶ Νεῖκος. *Simplicius in Phys.* 197.10–14 καὶ Ἐμπεδοκλῆς (—) γοῦν καίτοι δύο ἐν τοῖς στοιχείοις ἐναντιώσεις ὑποθέμενος θερμοῦ καὶ ψυχροῦ καὶ ξηροῦ καὶ ὕγρου εἰς μίαν τὰς δύο συνεκορύφωσε τὴν τοῦ Νεῖκος καὶ τῆς Φιλίας, ὥσπερ καὶ ταύτην εἰς μονάδα τὴν τῆς Ἀνάγκης. ἀλλ' αὕτη μὲν ὡς ἐν, τὸ δὲ Νεῖκος καὶ ἡ Φιλία ὡς δύο. *in Phys.* 465.12–14 τῆς ποιητικῆς τε καὶ τελικῆς (sc. ἀρχῆς), ἣν Ἀναξαγόρας (—) μὲν τῷ νῶ, Ἐμπεδοκλῆς δὲ τῇ Φιλίᾳ καὶ τῷ Νεῖκει καὶ τῇ Ἀνάγκῃ ἀνατίθησι. *in Phys.* 1184.5–17.

§2 *Democritus: Aristotle de An.* 2.8 419b13 πληγὴ δ' οὐ γίνεται ἄνευ φορᾶς.

§3 *Plato: Plato Tim.* 47e τὰ μὲν οὖν παρεληλυθότα τῶν εἰρημένων πλην βραχέων ἐπιδέδεικται τὰ διὰ νοῦ δεδημιουργημένα· δεῖ δὲ καὶ τὰ δι' ἀνάγκης γιγνώμενα τῷ λόγῳ παραθέσθαι. *Tim.* 68e διὸ δὴ χρὴ δὴ αἰτίας εἶδη διορίζεσθαι, τὸ μὲν ἀναγκαῖον, τὸ δὲ θεῖον. *Theophrastus Phys.Op.* fr. 9 Diels, 230 FHS&G at *Simp. in Phys.* 26.7–13 (verbatim) ὁ μέντοι Θεόφραστος τοὺς ἄλλους προϊστορήσας 'τούτοις, φησὶν, ἐπιγενόμενος Πλάτων, τῇ μὲν δόξῃ καὶ τῇ δυνάμει πρότερος τοῖς δὲ χρόνοις ὕστερος καὶ τὴν πλείστην πραγματείαν περὶ τῆς πρώτης φιλοσοφίας ποιησάμενος, ἐπέδωκεν αὐτὸν καὶ τοῖς φαινομένοις ἀψάμενος τῆς περὶ φύσεως ἱστορίας· ἐν ἧ δὴ δύο τὰς ἀρχὰς βούλεται ποιεῖν τὸ μὲν ὑποκείμενον ὡς ὕλην ὃ προσαγορεύει πανδεχὲς (*Tim.* 51a), τὸ δὲ ὡς αἴτιον καὶ κινεῖν ὃ περιάπτει τῇ τοῦ θεοῦ καὶ τῇ τοῦ ἀγαθοῦ δυνάμει.' *Timaeus Locrus* 1, p. 205.4–6 Thesleff Τίμαιος ὁ Λοκρὸς τάδε ἔφα· 'δύο αἰτίαι εἴμεν τῶν συμπάντων, νόον μὲν τῶν κατὰ λόγον γιγνομένων, ἀνάγκαν δὲ τῶν βίᾳ κατὰς δυνάμεις τῶν σωμάτων.' κτλ. *Plutarch Def.Or.* 435F–436A ἐκεῖνος γὰρ ὁ ἀνὴρ (sc. Πλάτων) Ἀναξαγόραν (—) μὲν ἐμέμψατο τὸν παλαιόν, ὅτι ταῖς φυσικαῖς ἄγαν ἐνδεδεμένος αἰτίαις καὶ τὸ κατ' ἀνάγκην τοῖς τῶν σωμάτων ἀποτελούμενον πάθεσι μετιῶν αἰεὶ καὶ διώκων, τὸ οὐ ἔνεκα καὶ ὕφ' οὐ, βελτίονας αἰτίας οὕσας καὶ ἀρχὰς, ἀφήκεν· αὐτὸς δὲ πρῶτος ἢ μάλιστα τῶν φιλοσόφων ἀμφοτέρας (sc. αἰτίας καὶ ἀρχὰς) ἐπεξήλθε, τῷ μὲν θεῷ τὴν ἀρχὴν ἀποδιδούς τῶν κατὰ λόγον ἐχόντων, οὐκ ἀποστερών δὲ τὴν ὕλην (436A) τῶν ἀναγκαίων πρὸς τὸ γιγνώμενον αἰτίων.

Liber 1 Caput 27

- P^B**: ps.Plutarchus *Plac.* 884F–885A; p. 322^a1–14 Diels—**P^Q**: Qustā ibn Lūqā pp. 134–135 Daiber—**P^L**: Ioannes Lydus *Mens.* 4.81, p. 133.14–20 Wuensch—**P^Ps** Psellus *Omn.Doctr.* c. 105, p. 58 (titulus solus)
S: Stobaeus *Ecl.* 1.5.15, p. 78.4–6, 78.10–12, 78.18–22 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112a38 Henry (titulus solus)
T: Theodoretus *CAG* 6.3–4, p. 150.9–15, 6.13–14, p. 153.17–23 Raeder
 Cf. Nem: Nemesius *NH* c. 2 p. 34.11–16, c. 35, p. 105.6–14; c. 35 p. 106.9–10; c. 38 p. 109.10–11 Morani

Titulus κζ'. Περὶ εἰμαρμένης (P,S)

- §1 Ἡράκλειτος πάντα καθ' εἰμαρμένην, τὴν δ' αὐτὴν ὑπάρχειν καὶ ἀνάγκην· γράφει γοῦν· ἔστι γὰρ εἰμαρμένη πάντως'. (P1,S2b,T1)
- §2 Πλάτων ἐγκρίνει μὲν τὴν εἰμαρμένην ἐπὶ τῶν ἀνθρωπίνων ψυχῶν καὶ βίων, συνεισάγει δὲ καὶ τὴν παρ' ἡμᾶς αἰτίαν. (P2) 5
- §3 οἱ Στωικοὶ Πλάτωνι ἐμπερῶς, καὶ τὴν μὲν ἀνάγκην ἀνίκητόν φασιν αἰτίαν καὶ βιαστικήν, τὴν δ' εἰμαρμένην συμπλοκὴν αἰτίων τεταγμένην, ἐν ᾗ συμπλοκὴ καὶ τὸ παρ' ἡμᾶς, ὥστε τὰ μὲν εἰμάρθαι τὰ δ' ἀνειμάρθαι. (P3)
- §4 Χρύσιππος μὴ διαφέρειν τοῦ εἰμαρμένου τὸ κατηναγκασμένον, τὴν δὲ εἰμαρμένην εἶναι κίνησιν αἰτίον συνεχῇ καὶ τεταγμένην κατ' ἐπιπλοκὴν τῶν μερῶν συνηρητημένην. (S1,T2) 10
- §5 Ζήνων ὁ Στωϊκὸς ἐν τῷ Περὶ φύσεως δύνάμιν κινήτικὴν τῆς ὕλης κατὰ ταῦτά καὶ ὡσάυτως, ἦντινα μὴ διαφέρειν πρόνοιαν καὶ φύσιν καλεῖν. (S5,T3) 15
- §6 Ἀντίπατρος ὁ Στωϊκὸς θεὸν ἀπεφαίνετο τὴν εἰμαρμένην. (S6)

§1 Heraclitus 22A8, 22B137 DK (dubium); §2 Plato cf. *Leg.* 10.904c; §3 Stoici *SVF* 2.976; §4 Chrysippus *SVF* 2.916; §5 Zeno *SVF* 1.176; §6 *SVF* 3 Antipater 35

titulus Περὶ εἰμαρμένης P (et cf. G c. 42 ~ P 1.28) : cf. plenior S Περὶ εἰμαρμένης καὶ τῆς τῶν γινομένων εὐταξίας §1 [2] καὶ P^{BL} : om. P^{QS}, cf. T || [3] γράφει ... πάντως S, non hab. P (fort. add. S) || εἰμαρμένη S^P Diels *DG* : εἰμαρμένα S^F Wachsmuth Diels *VS* || post πάντως lac. statuerunt edd., negat Mouraviev §2 [4] ψυχῶν] om. P^Q(ut vid.) || [5] συνεισάγει P^{B(I,III)} : συνάγει P^{B(II)} §3 [6] ἀνίκητόν P^{BQ} : ἀκίνητον P^L || ἀνίκητόν et βιαστικήν inv. P^Q || [7] τεταγμένην] τεταγμένων P^L || [8] ἡμᾶς P^{B(I,III)L} : ἡμῖν P^{B(II)} || [8–9] τὰ μὲν ... ἀνειμάρθαι : τὰ μὲν εἰμαρτά, τὰ δ' ἀνειμαρτά Diels in app. || ἀνειμάρθαι : συνειμάρθαι P^L §§4–6 om. P §4 [10] Χρύσιππος suppl. Diels ex T ubi Χρύσιππος δὲ ὁ Στωϊκός, nomen deest ap. S || μὴ S : μηδὲν T || [10–11] τὴν ... τεταγμένην deest ap. S, supplevimus ex T (pro ξυνεχῇ καὶ τεταγμένην coni. Wachsmuth τῶν ὄλων conlato Aulo Gellio 7.2.3) || [12] τῶν S^P : om. S^F Diels §5 [14] ταῦτά S^F : ταῦτα S^P || διαφέρειν corr. S^{cod.Aug.} : διάφορον S^F : διάφορον S^P

*Testes primi:***Theodoretus** CAG 6.3–4 vid. supra ad c. 1.25.

CAG 6.13–14

- 13.1 (~ §1) καὶ ὁ Ἡράκλειτος δὲ πάντα καθ' εἰμαρμένην εἴρηκε γίνεσθαι· ἀνάγκην δὲ τὴν εἰμαρμένην καὶ οὗτος ὠνόμασεν.
- 14.1 (~ §4) καὶ Χρύσιππος δὲ ὁ Στωϊκὸς μηδὲν διαφέρειν εἶπε τοῦ εἰμαρμένου τὸ κατηναγκασμένον, εἶναι δὲ τὴν εἰμαρμένην κίνησιν αἰδίου ξυνεχῆ καὶ τεταγμένην.
- 14.2 (~ §5) Ζήνων δὲ ὁ Κιτιεὺς δύναμιν κέκληκε τὴν εἰμαρμένην κινήτικὴν τῆς ὕλης, τὴν δὲ αὐτὴν καὶ Πρόνοιαν καὶ Φύσιν ὠνόμασεν. οἱ δὲ τοῦτον διαδεξάμενοι ... (vid. c. 1.28)

*Traditio ps.Plutarchi:***Ioannes Lydus** *Mens.* 4.81 vid. c. 1.26**Psellus** *Omn.Doctr.* c. 105 (~ tit.) Περὶ εἰμαρμένης*Testes secundi:*

Nemesius *NH* c. 2 p. 34.11–16 ταύτην (sc. τὴν τοῦ παντός ψυχὴν) δὲ εἶναι τὴν ψυχὴν τὴν διακυβερνώσαν τὸ πᾶν καὶ τὴν τὰς μερικὰς ψυχὰς τὰς πρότερον παρὰ τοῦ δημιουργοῦ γενομένης ἐπιπέμπουσιν, δηλαδὴ αὐτοῦ τοῦ δημιουργοῦ καὶ νόμους αὐτῇ δεδωκότος, καθ' οὓς διεξάγειν ὀφείλει τοῦτο τὸ πᾶν, οὓς καὶ εἰμαρμένην καλεῖ, καὶ χορηγούντος δύναμιν ἀρκοῦσαν πρὸς τὸ διέπειν ἡμᾶς (~ §2). c. 35, p. 105.6–14 οἱ δὲ λέγοντες ὅτι καὶ τὸ ἐφ' ἡμῖν καὶ τὸ καθ' εἰμαρμένην σῶζεται ... οἱ ταῦτα λέγοντες (εἰσὶ δὲ τῶν Στωϊκῶν Χρύσιππος (*SVF* 2.991) τε καὶ Φιλοπάτωρ καὶ ἄλλοι πολλοὶ καὶ λαμπροί) οὐδὲν ἕτερον ἀποδεικνύουσιν ἢ πάντα καθ' εἰμαρμένην γίνεσθαι. c. 35, p. 106.9–10 (*SVF* 2.991) ὁ Φιλοπάτωρ ἐν τῷ Περὶ εἰμαρμένης (~ tit.). c. 38 p. 109.10–11 Πλάτων δὲ διχῶς λέγει τὴν εἰμαρμένην, τὴν μὲν κατ' οὐσίαν, τὴν δὲ κατ' ἐνέργειαν (~ quaestio). [per continuationem vid. sequentia ap. c. 1.28 *Testes secundos*].

*Loci Aetiani:***titulus** A 1.28 Περὶ οὐσίας εἰμαρμένης

- §1 A 1.7.13 Ἡράκλειτος τὸ περιοδικὸν πῦρ αἰδίου, εἰμαρμένην δὲ λόγον ἐκ τῆς ἐναντιοδρομίας δημιουργῶν τῶν ὄντων. A 1.27.4 Λεύκιππος πάντα κατ' ἀνάγκην, τὴν δ' αὐτὴν ὑπάρχειν εἰμαρμένην. A 1.28.1 Ἡράκλειτος οὐσίαν εἰμαρμένης λόγον τὸν διὰ τῆς οὐσίας τοῦ παντός διήκοντα· αὕτη δ' ἐστὶ τὸ αἰθέριον σῶμα, σπέρμα τῆς τοῦ παντός γενέσεως καὶ περιόδου μέτρον τεταγμένης.
- §2 A 1.28.2 Πλάτων λόγον αἰδίου καὶ νόμον αἰδίου τῆς τοῦ παντός φύσεως.
- §3 A 1.28.4 οἱ ἄλλοι Στωϊκοὶ εἰρμόν αἰτιῶν, τούτεστι τάξιν καὶ ἐπισύνδεσιν ἀπαράβατον.
- §4 A 1.28.3 Χρύσιππος δύναμιν πνευματικὴν τάξει τοῦ παντός διοικητικὴν· καὶ πάλιν ἐν τοῖς Ὅροις· εἰμαρμένη ἐστὶν ὁ τοῦ κόσμου λόγος· ἢ λόγος τῶν ἐν τῷ κόσμῳ προνοίᾳ διοικουμένων· ἢ λόγος, καθ' ὃν τὰ μὲν γεγνονότα γέγονε τὰ δὲ γινόμενα γίνεται τὰ δὲ γενησόμενα γενήσεται.'

§5 A 1.1.2 φύσιν τινές εἶναι λέγουσι πνεῦμα ἔντεχνον ὁδοποιητικόν. 1.7.2 Θαλῆς νοῦν τοῦ κόσμου τὸν θεόν ...· διήκειν δὲ καὶ διὰ τοῦ στοιχειώδους ὑγροῦ δύναμιν θείαν κινητικὴν αὐτοῦ. A 1.7.24 οἱ Στωικοὶ νοερὸν θεὸν ἀποφαίνονται, πῦρ τεχνικόν, ὁδῶ βαδίζον ἐπὶ γενέσει κόσμου, ἐμπεριειληφὸς πάντας τοὺς σπερματικοὺς λόγους, καθ' οὓς ἕκαστα καθ' εἰμαρμένην γίνεται. A 1.25.5 Πλάτων τὰ μὲν εἰς πρόνοιαν ἀνάγει, τὰ δ' εἰς ἀνάγκην. A 1.27.5 Ζήνων ὁ Στωικὸς ἐν τῷ Περὶ φύσεως δύναμιν κινητικὴν τῆς ὕλης κατὰ ταῦτα καὶ ὡσαύτως, ἦντινα μὴ διαφέρειν πρόνοιαν καὶ φύσιν καλεῖν. A 1.28.3 Χρύσιππος ... εἰμαρμένη ἐστὶν ... ἢ λόγος τῶν ἐν τῷ κόσμῳ προνοίᾳ διοικουμένων. A 2.3.1 οἱ μὲν ἄλλοι πάντες ἔμψυχον τὸν κόσμον καὶ προνοίᾳ διοικούμενον. A 2.4.9 Πλάτων φθαρτὸν μὲν τὸν κόσμον, ὅσον ἐπὶ τῇ φύσει, αἰσθητὸν γὰρ εἶναι, διότι καὶ σωματικόν, οὐ μὴν φθαρησόμενόν γε προνοίᾳ καὶ συνοχῇ θεοῦ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) For this chapter in the P tradition we have to do without the evidence of G, who passes it over and gives the following chapter the title Περὶ εἰμαρμένης (§42). But this loss and the lemmata absent in S (see section A(2) immediately below) are well compensated for by the contribution of T, who includes three doxai in his brief survey of views on fate. As is the case for chs. 1.26 and 1.28 the chapter is succinctly excerpted by Ioannes Lydus. P contributes three lemmata, viz. §§1–3, of which only the first is shared with S.

P abridges the chapter by omitting the three lemmata §§4–6 *ad finem*.

(2) S interweaves material from this chapter and the next in his chapter on the same subject, *Ecl.* 1.5. He contributes four lemmata, viz. (in S's order) §4, §1, §5 and §6. See further below, section D(b).

(3) It is striking that two lemmata, §4 Chrysippus and §5 Zeno, lacking in P, are shared by S and T, which again proves that T excerpted the source shared with S, namely A. Cf. Diels *DG* 46, and see above, *General Introduction*, section 2.5; also Mansfeld at M–R 4.178, 181.

B Proximate Tradition and Sources

(1) *Proximate tradition*. The proximate tradition for this chapter and the next consists of doxographical overviews in the treatises *On Fate* of Cicero and Alexander of Aphrodisias, cited at section E(a) General texts.

(2) *Sources*. Diels *DG* 178 thought of a Stoic treatise *On Fate* similar to one purportedly used by the Peripatetic Diogenianus at Eus. *PE* 6.8, for 'singulari

quadam eruditione splendent capitula de fato'. No doubt he had in mind the doxai at chs. 1.27.5 and 1.28.3 with their book titles ἐν τῷ Περὶ φύσεως and ἐν τοῖς Ὅροις (but note that for ch. 1.28.3 he includes in A, and so prints in the right-hand column, the section that in our view is to be assigned to AD, which contains two more Chrysippean book titles). Clearly the Heraclitean and Platonic doxai of chs. 1.27–28 have been (re)formulated from a Hellenistic perspective, but we cannot now ascertain by what routes this information ended up in the *Placita* chapters.

C Chapter Heading

Attested in both P and S, and of the standard umbrella type 'about x', περὶ τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. The present chapter consists of a series of nominal definitions (cf. above, ch. 1.9 Commentary D(c) and (e)(2)) elucidating the meaning of 'fate', including its relation to necessity (§1, §3, §4), to the *liberum arbitrium* (§§2–3), and to providence (§5) or God (§6). The question type or category therefore is that of quality.

Unsurprisingly, this chapter heading is widely paralleled, namely as a book title for Xenocrates, for Epicurus, for the Stoics Chrysippus, Boethus, Posidonius, and Philopator, as the title of an extant Middle Platonist treatise attributed to Plutarch and of one partly extant by the learned Cynic Diogenianus quoted by Eusebius (and also as part of chapter headings elsewhere in Eusebius), as the title of a treatise of Alexander of Aphrodisias and of a chapter in the *Mantissa*, as part of a chapter heading in Origenes' *Philocalia*, as a title of a treatise of Plotinus, as a chapter heading in Nemesius, and as part of the collective title of six orations of John Chrysostom. For a full list see section E(b) Chapter heading.

D Analysis

a Context

For chs. 1.25–29 as a block see above ch. 1.25 at Commentary D(a). Calcidius in *Tim.* cc. 142–155 deals with fate (*fatum*) from, mainly, a Middle Platonist point of view, an account of which rather numerous passages are paralleled almost verbatim in the earlier ps.Plutarch *Fat.* c. 1, 568C–c. 6, 570E on εἰμαρμένη. Both these authors, just as Nem. *NH* c. 38 p. 109.10–18, distinguish between fate 'in actuality' (ἐνέργεια / *ex his quae agit et esse id et cuius modi vim habeat*) and 'in essence' (οὐσία / *substantia*). The οὐσία (/substantia) of fate is also the theme of ch. 1.28, but one is rather hard put to indicate anything in chs. 1.27–28 even vaguely corresponding to this ἐνέργεια, apart from ch. 1.28.2, *ubi vide*; see further

below at section D(c). In Calcidius this exposition is continued (after ch. 157 on divination) by chs. 158–159 on chance and fortune and in ps.Plutarch *de Fato* at ch. 7, 571E–572E on τύχη plus τὸ αὐτομάτον, both times in a sequential position comparable to that of A 1.29, ‘On chance’, following on after 1.27–28 on fate.

b Number–Order of Lemmata

Because of the procedure of S, who combines material from this chapter and the next, it is necessary to take the two closely linked chapters on εἰμαρμένη together. In P the two chapters show a striking parallelism, both commencing with Heraclitus, continuing with Plato and ending with Stoic doxai. The following table indicates the doxai of the two chapters in the order of the witnesses, taking P as our anchor point in the left column.

P	S	T
1.27.1 Heraclitus	1.5.15.2b Heraclitus	T1 Heraclitus
1.27.2 Plato	–	–
1.27.3 Stoics	–	–
1.28.1 Heraclitus	1.5.15.2a Heraclitus	–
1.28.2 Plato	1.5.15.3 Plato	–
1.28.3 Chrysippus	1.5.15.7 Chrysippus	T4 those after Zeno
1.28.4 other Stoics	–	T5 Stoics
1.28.5 Posidonius	1.5.15.4 Posidonius	–
–	1.5.15.1 Chrysippus	T2 Chrysippus
–	1.5.15.5 Zeno	T3 Zeno
–	1.5.15.6 Antipater	–

This table gives rise to two questions.

(1) Where should S1, S5 and S6 be placed? Diels puzzlingly located S1 (Chrysippus) as second lemma of the chapter in the right column after P for 1.27.1 (Heraclitus) in the left column, perhaps because its equation of fate and what has been necessitated is similar to the Heraclitean doxa. But it makes more sense to place it at 1.27.4, i.e. after the Stoic doxa at ch. 1.27.3 (not in S,T), which distinguishes between the two. It then forms a diaphonia by not differentiating between them. Zeno (S5) then follows on with the additional view that he too does not differentiate, but this time not between necessity and providence/nature. We note that if they are thus placed in ch. 1.27 as the final two doxai, the order of T's five doxai in relation to P is perfectly preserved. T is going down the list (of course he does not always do this).

(2) How can we explain the order in S? It is apparent that he did not follow his frequent practice of excerpting blocks of doxai (as basically happens in his

previous chapter on ἀνάγκη). Instead he weaves his own idiosyncratic dialectic, which bears little relation to that of A. It may be surmised that he starts with Chrysippus because there is a link with the previous chapter on necessity and it then includes a neat definition of what fate is. Heraclitus follows with a complementary description as given in ch. 1.28.1, after which the earlier doxa of the same thinker is coalesced with it. The Platonic doxa follows, as in ch. 1.28. It too speaks of λόγος. He then jumps to the final doxa ascribed to Posidonius, which has an interesting theological hierarchy (S is always interested in theology). In contrast to that doxa he then returns to the Zenonian doxa in ch. 1.27, which equates the three levels of hierarchy. Note however that his order for §§4–5 (lacking in P) is the same as that of T, so presumably reproduces A. The view of Antipater continues the theological theme. We have given thought to whether this lemma is better placed in ch. 1.7, but the position of θεόν before τὴν εἰμαρμένην is against this intervention (in ch. 1.7 words like θεόν invariably come after words like νοῦν). Antipater does not say that the god is fate but that fate is (a) god.

(3) Finally S presents the longest doxa of all with its interesting mythical details about the Μοῖραι at the end in order to round off the doxographical section, before moving on to no less than seven prose excerpts, including from Plato's *Republic* (1.5.21) and ps.Aristotle *De mundo* (1.5.22). This longest doxa is a combination of an excerpt from A (namely, ch. 1.28.3) with a series of excerpts from the works of Chrysippus which we should attribute to AD, see M–R 1.253–254 (= M–R 3.326) and the next chapter ad loc. For his probable motive to place this lemma in the final position see the next chapter, Commentary A(4).

On the basis of these considerations we can be reasonably certain of the basic contents and order of these two chapters.

c Rationale–Structure of Chapter

(1) *Diaphoniae*. Restricting the enquiry to ch. 1.27, we note a contrast in the first and another one in the second half of a gliding diaeretic scale. A third and complementary antithesis opposes §5 with §1. The first diaphonia holds between §1 Heraclitus: 'all things dependent on fate', and §§2–3 Plato plus the Stoics (resembling Plato): 'on the human level both what is fated and what is not'. Next we have a considerable difference of opinion among the Stoics themselves, namely from the nuanced view of §3 to the uncompromising stance of §4 (wrongly ascribed to Chrysippus) in favour of a total dominance of fate, and from there to §5, another nuanced view. According to §4 (just as according to §1) there is no difference between fate and necessity, while §5 does not mention necessity and identifies fate with providence and nature. This identification of

fate and providence is opposed to that between fate and necessity, presumably as a more mitigated view to one that is more inflexible; see below at section D(d) §§3–5.

(2) It should also be noted that the doxai have been (re)formulated and arranged the better to bring out the differences.

d Further Comments

General Points

The chapter has to be studied together with its companion piece on the οὐσία of fate, ch. 1.28. It has been pointed out above at section C that it consists of conceptual definitions. The crucial distinction between essential (i.e. real) and conceptual (i.e. nominal) definitions, for which see above ch. 1.9 at Commentary D(d)(1) and D(e)(2), fails to be mentioned in the parallel account of Calcidius, but surfaces in the pseudo-Plutarchean *De fato*. In c. 4 the author speaks of the ‘conditional’ (ἐξ ὑποθέσεως) nature of fate, which means that the consequences following from the exercise of our *liberum arbitrium* are fated and inescapable. At *Fat.* c. 4, 570B we read: ‘That fate is actually of this description is evident from its substance (οὐσία) and from its name (ἐκ τῆς προσηγορίας). It is given the name ‘fate’ (εἰμαρμένη ... προσαγορεύεται) for being a thing concatenated (εἰρομένη τις), and it exists (ὑπάρχει) qua ordinance and law, because it has laid down the consequences that follow upon occurrences, as in the legislation of a state’ (trans. after De Lacy and Einarson, LCL). This definition of the οὐσία insofar as it is to be distinguished from the meaning of its name, perhaps a more traditional one, differs considerably from the one that prevails in the *de Fato* (ch. 2, 568E–F, precisely paralleled at Calc. in *Tim.* c. 144), namely fate as the tripartite World Soul. This latter is not paralleled in A. See also below ch. 1.28 at Commentary D (d) general points.

Individual Points

§1 The phrase γράφει γούν indicates that what follows purports to be a literal quotation. This passage is the only evidence for the quote, which is regarded as a dubium in VS and DK, because the formula γράφει γούν has virtually the same function as λέγει γούν, which is quite often used by S to attach a quotation to something else (see above at ch. 1.3 Commentary D(d)§2). And though γούν occurs several times in P it never serves to introduce a purported quote. It is therefore far from certain that the Heraclitean phrase should be attributed to A. Editors from Bywater to Marcovich have regarded it as truncated, but with some hesitation we follow the suggestion of Mouraviev T416. Perhaps however we should supply ἔστι γὰρ εἰμαρμένη πάντως (sc. καθ’ ἀνάγκην) and understand ‘fate in every respect agrees with (or: occurs according to) necessity’. Cf. phrases

like ps.Plutarch *De fato* 573B καὶ ἡ μὲν εἰμαρμένη πάντως κατὰ πρόνοιαν, ἡ δὲ πρόνοια οὐδαμῶς καθ' εἰμαρμένην. Possibly something like καθ' ἀνάγκην was omitted by predecessor of A to turn the phrase in to a properly obscure utterance. If εἰμαρμένη is the same as ἀνάγκη, ἀνάγκη is the same as εἰμαρμένη; for the latter see Theophrastus on Heraclitus (22A5 DK): 'he posits a certain order and a determinate period of time for the transformation of the cosmos according to a certain fated necessity (κατὰ τινὰ εἰμαρμένην ἀνάγκην)', *Phys.Op.* fr. 1 Diels, 225 FHS&G cited below, section E(b)§1.

Dührsen (1998) 115–116 argues that T's formula CAG 6.13 ἀνάγκην δὲ τὴν εἰμαρμένην καὶ οὗτος ὠνόμασεν derives from A and is to be preferred to the virtually unanimous text in P,S εἰμαρμένην, τὴν δ' αὐτὴν ὑπάρχειν καὶ ἀνάγκην, which is confirmed by Ioannes Lydus 4.81 (not cited by him). But this is to ignore the periphrastic *variatio*, often including added *verba declarandi* that is characteristic of T's manner of dealing with these excerpts. Immediately above in the same chapter CAG 6.13 T adds κέκληκε and ὠνόμασεν to the text of another lemma of the present chapter of A, namely §5. Compare further his version of ch. 2.13.1, where P,S have exactly the same phrase Θαλῆς γεώδη μὲν, ἔμπυρα δὲ τὰ ἄστρα, and T at GAG 4.17 enlarges to καὶ τοὺς ἀστέρας δὲ Θαλῆς μὲν γεώδεις καὶ ἔμπυρους ὠνόμασεν (the paraphrase of Ach §11, p. 19.23, Θαλῆς μὲν δὴ γῆνιν ἔμπυρον εἶπε τὴν τῶν ἀστέρων οὐσίαν, inserts another *verbum declarandi*). His ὀνομασθῆναι in the Anaxagoras lemma, ch. 2.13.3 at GAG 4.17, is not paralleled in P or S either. Or take his addition of κέκληκε at CAG 6.15 to ch. 1.19.1, and at CAG 4.18 to ch. 4.2.6, and see above, ch. 1.25 Commentary D(d)§3. So ἀνάγκη should not be attributed to Heraclitus' authentic vocabulary on the basis of this evidence.

§§3–5 The complicated problem of the relation between fate and necessity in Stoic texts is discussed by e.g. Sharples (2007c), who argues that it is difficult to find out whether or not Chrysippus identified Fate and Necessity, as the evidence is far from unanimous. The present commentary is not the place for an appropriate discussion of this issue. The difference between Fate and Necessity, which leaves room for 'what is up to us' (τὸ παρ' ἡμᾶς, more familiar as τὸ ἐφ' ἡμῖν), is argued in the famous passage at Cicero *Fat.* 39–45, partly cited below section E(b)§3, where in Cicero's translation Chrysippus is quoted verbatim; see esp. Bobzien (1999) 206–218. Here in §3 of our chapter this distinction is ascribed to the Stoics in general, whereas the opposite of what he worked hard to disprove (*aestuans laboransque*, as Cic. *Fat.* at Gellius *NA* 7.2.15 has it), namely that 'what is fated does not differ from what has been necessitated', is nevertheless ascribed to Chrysippus in our §4, just as e.g. by his critics, and this identification is also found with other Stoics, e.g. Seneca *Ep.* 101.7 *inexorabilis fatorum necessitas* = ἀνάγκη εἰμαρμένης, Marcus Aurelius 12.14. Among the

critics we may cite Velleius at Cic. *ND* 1.40 and 1.55—note the formula *fatalis necessitas* (cf. Cic. *Fat.* 20 *fati necessitas*, also found elsewhere)—, Plutarch at *SR* 1056C, AD fr. 29 Diels, Gellius *NA* 7.2.1–3, and Aristocles fr. 3 Chiesara, all cited below at section E(b)§3. It should be observed that the contrast between Chrysippus and the (other) Stoics in the next chapter is the opposite of that in the present chapter, for at ch. 1.28.3 Chrysippus speaks of Logos and Providence, whereas at 1.28.4 the (other) Stoics posit the ‘inviolable concatenation of causes’ (if we may assume that being ‘inviolable’ is equivalent to ‘being necessitated’). The position of Zeno in §5 of in the present chapter is close to that of ‘the Stoics’ in §3.

§§3–4 According to Alexander of Aphrodisias *Fat.* c. 23, p. 193.4–8 (cited below at section E(b)§§3–4), the Stoic ‘weaving together’, or concatenation (συμπλοκή, ἐπιπλοκή), of causes belongs with the οὐσία τῆς εἰμαρμένης, so would be more pertinent to the next chapter, 1.28 Περί οὐσίας εἰμαρμένης (where at section E(b)§3 we cite this witness again). For the meaning of the rather rare word ἐπιπλοκή see the rhetorician Rutilius Lupus, cited section E(b)§4.

§3 For the phrase Πλάτωνι ἐμπερῶς cf. ch. 1.7.23 ὁμοίως Πλάτωνι (only in S and the only parallel for a name-label in the dative). Because of the purported similarity with Plato we have to reject Ioannes Lydus’ συνειμάρθαι, which introduces the Chrysippean doctrine of the *confatalia* (‘co-fated’, Cicero *Fat.* 30) attested in the verbatim fragment from Book 2 of his Περί εἰμαρμένης quoted by Diogenianus at Eusebius *PE* 6.8.27–30 (*SVF* 2.998).

§4 Fortunately the missing part of Chrysippus’ definition in S can be supplemented from T. Wachsmuth’s attempt to include words from the definition in Gellius *NA* 7.2.3 (note the incorrect reference in his apparatus, p. 78) is misguided. τὰ μέρη will refer to parts of the causal chain, or rope; compare ὁ καθ’ ἕκαστα διορισμός in the explanation of Atropos at *DG* p. 324a2–4 (S 1.5.15, p. 79.15–16), that is, in the latter part of 1.28.3 Diels, which as we believe derives from AD (see at 1.28 Commentary A).

§5 (1) In this paragraph we have the only mention in this chapter and the following of the often-found identification of Fate and Nature, for which see the fragment of Iamblichus’ *Letter to Sopatros* at S 1.5.18, p. 81.8–9, with the rich comments of Taormina–Piccione (2010) 196–198 and 347–349. (We have assigned the Chrysippean doxai at *DG* 323b21 ff. to AD, see at ch. 1.28 Commentary A.)

(2) Though fate is identified with Nature, we are not told in what way fate works in the world of nature; for this information we must turn to the next chapter on the οὐσία of fate. Note, however, that Alexander of Aphrodisias includes the Stoic concatenation of fate under the οὐσία of fate (see below, section D(d)§§3–4), just as happens at ch. 1.28.4 below. We have noted a similar frustrating ambiguity (with some consequences for the interpretation of

chs. 1.21–22) in Sextus' handling of the distinction between time and the οὐσία of time, see above at ch. 1.21 Commentary D(c). So perhaps we may believe that fate's moving 'matter in the same respect and in the same way' pertains to the eternal recurrence of same in the cosmic cycle, cf. Mansfeld (1979) 163–165. Zeno would have adapted a well-known Platonic formula pertaining to the Ideas.

(3) Περί φύσεως: this title does not occur in Zeno's bibliography at Diogenes Laertius *V.P.* 7.4; it is perhaps an alternative or *lectio facilior* for Περί τοῦ ὅλου (*V.P.* 7.4) or Περί οὐσίας (*V.P.* 7.134) through association with the word φύσιν *ad finem* (Mansfeld 1979, 169 n. 106).

e Other Evidence

(1) Especially the accounts in ps.Plutarch and Calcidius mentioned above at section D(a), and also a series of chapters in Nemesius, namely *NH* c. 35–40 are to be noted. Proclus in *Tim.* 3.271.29–275.23, commenting on the νόμους εἰμαρμένους of *Tim.* 41e, provides a quasi-doxographical overview of views on fate in relation to nature (cf. above, section D(d)§5), namely those of Alexander *Fat.* c. 6, Aristotle (rather forced), Theodore of Asine (test. 32 Deuse), Porphyry (—), and ps.Aristotle *Mu.* c. 7. Proclus then expounds the true doctrine and his own view (useful notes in Festugière 1968, 5.147–151). See further ch. 1.28 below, the companion piece of the present chapter. Much material is found in Pease (1955) 273–274, 339–341.

(2) The theme was *en vogue* in Hellenistic philosophy, and beyond. Calcidius in *Tim.* c. 142 speaks of 'an important and difficult matter, much discussed among the ancients and continuing even today'. As Latin equivalents we have Cicero's mutilated treatise *De fato* and a piece by Ambrosiaster. No doubt there are more examples. Of course the contents of these works are not restricted to the existence of fate.

E Further Related Texts

a Proximate Tradition

General texts: (NB: pertains to both ch. 27 and ch. 28) Cicero *Fat.* 39 *ac mihi quidem videtur, cum duae sententiae fuissent veterum philosophorum, una eorum, qui censerent omnia ita fato fieri, ut id fatum vim necessitatis adferret, in qua sententia Democritus* (68A66 DK), *Heraclitus* (T 305 Mouraviev), *Empedocles* (—), *Aristoteles* (? Anaxagoras prop. Karsten, cf. Plu. *An.Procr.* 1026B, see above ch. 1.25 section E(b) General texts) *fuit, altera eorum, quibus viderentur sine ullo fato esse animorum motus voluntarii, Chrysippus* (SVF 2.974) *tamquam arbitrer honorarius medium ferire voluisse, sed adplicat se ad eos potius, qui necessitate motus animorum liberatos volunt; dum autem verbis utitur suis, delabatur in eas difficultates, ut necessitatem fati confirmet invitus. Seneca Ep.*

16.4–6 *dicet aliquis: 'quid mihi prodest philosophia, si fatum est? quid prodest, si deus rector est? quid prodest, si casus imperat? nam et mutari certa non possunt et nihil praeparari potest adversus incerta, sed aut consilium meum occupavit deus decrevitque quid facerem, aut consilio meo nihil fortuna permittit'.*

(5) *quicquid est ex his, lucili, vel si omnia haec sunt, philosophandum est: sive nos inexorabili lege fata constringunt, sive arbiter deus universi cuncta disposuit, sive casus res humanas sine ordine inpellit et iactat, philosophia nos tueri debet. haec adhortabitur, ut deo libenter pareamus, ut fortunae contumaciter; haec docebit, ut deum sequaris, feras casum.* (6) *sed non est nunc in hanc disputationem transeundum, quid sit iuris nostri, si providentia in imperio est, aut si fatorum series inligatos trahit, aut si repentina ac subita dominantur.* **ps.Plutarch**

Fat. 570B ὅτι δὲ καὶ ἡ εἰμαρμένη τοιοῦτον (sc. ἐξ ὑποθέσεως) τυγχάνει ὄν, ἐκ τῆς οὐσίας αὐτῆς καὶ ἐκ τῆς προσηγορίας δήλον. εἰμαρμένη τε γὰρ προσαγορεύεται ὡς ἂν εἰρομένη τις· θεσμός δὲ καὶ νόμος ὑπάρχει τῷ τὰ ἀκόλουθα τοῖς γινομένοις πολιτικῶς διατετάχθαι. **Alexander of Aphrodisias** **Fat.** c. 1, p. 164.17–20 οὐ γὰρ ὁμοίως περὶ τὰς πράξεις ἔχουσιν οἱ τε πάντα ἐξ ἀνάγκης καὶ καθ' εἰμαρμένην γίνεσθαι πεπιστευκότες καὶ οἷς δοκεῖ γίνεσθαι τινα καὶ μὴ τοῦ πάντως ἔσεσθαι προκαταβεβλημένας αἰτίας ἔχοντα. **Fat.** c. 2, p. 165.14–166.22 τὸ μὲν οὖν εἶναι τι τὴν εἰμαρμένην καὶ αἰτίαν εἶναι τοῦ γίνεσθαι τινα κατ' αὐτὴν ἰκανῶς ἢ τῶν ἀνθρώπων συνίστησιν πρόληψις (οὐ γὰρ κενὸν οὐδ' ἄστοχον τάληθους ἢ κοινὴ τῶν ἀνθρώπων φύσις, καθ' ἣν περὶ τινῶν ὁμοδοξοῦσιν ἀλλήλοις, ὅσοι γε αὐτῶν μὴ διὰ τινος προκαταβεβλημένας δόξας ὑφ' αὐτῶν διὰ τὸ σῶζειν βούλεσθαι τὴν πρὸς αὐτάς ἀκολουθίαν ἄλλως ἀναγκάζονται λέγειν· δι' ἣν αἰτίαν οὐδὲ Ἀναξαγόρας ὁ Κλαζομένιος (—), καί τοι τᾶλλα ὧν ἐν τοῖς τὴν φυσικὴν φιλοσοφίαν φιλοσοφῆσασιν οὐκ ἀπερριμμένος, οὐκ ἀξιοπίστος ἀντιμαρτυρῶν τῇ κοινῇ τῶν ἀνθρώπων πίστει περὶ εἰμαρμένης· λέγει γὰρ οὗτός γε μηδὲν τῶν γινομένων γίνεσθαι καθ' εἰμαρμένην, ἀλλ' εἶναι κενὸν τοῦτο τοῦ νομα), τί δέ ποτ' ἐστὶν ἡ εἰμαρμένη καὶ ἐν τίσιν, οὐκέθ' {οὐ γὰρ μόνον οὐκ ἀλλήλοις ἅπαντες, ἀλλ' οὐδὲ} ἢ τῶν ἀνθρώπων κοινὴ πρόληψις ἰκανὴ τοῦτο μνηῦσαι. οὕτε γὰρ ἀλλήλοις ἅπαντες, ἀλλ' οὐδὲ αὐτὸς αὐτῷ τις περὶ αὐτῆς αἰεὶ αὐτῷ τὰ αὐτὰ δοξάζει. πρὸς γὰρ τοὺς καιροὺς τε καὶ τὰς περιεπτώσας τύχας καὶ τὴν περὶ τῆς εἰμαρμένης δόξαν μεταφέρουσιν. ὅσοι μὲν γὰρ αὐτῶν πάντα καθ' εἰμαρμένην γίνεσθαι λέγουσιν, τὴν εἰμαρμένην ὑπολαμβάνουσιν ἀπαράβατόν τινα αἰτίαν εἶναι καὶ ἀναπόδραστον, εἰσὶ δ' οἷς οὐ πάντα τὰ γινόμενα γίνεσθαι δοκεῖ καθ' εἰμαρμένην, ἀλλ' εἶναι τινὰς ὑπολαμβάνουσιν τῶν γινομένων καὶ ἄλλας αἰτίας· ἀλλ' οὐδὲ τὴν εἰμαρμένην αὐτὴν τὸ πάγιόν τε καὶ ἀπαράβατον ἔχειν τίθενται, ἀλλὰ γίνεσθαι τινα καὶ τῶν καθ' εἰμαρμένην γίνεσθαι πεφυκότες οὐ κατ' αὐτὴν, ἀλλὰ παρὰ μοῖραν ὡς οἱ ποιηταὶ (e.g. **Hom. Od.** 1.34–35 cited by **Chrysippus** e.g. **SVF** 2.999; **Hom. Od.** 14.509) φασιν, καὶ παρὰ τὴν εἰμαρμένην. ἔστι δ' οἷς ποτὲ πάντα γίνεσθαι τὰ γινόμενα δοκεῖ καθ' εἰμαρμένην καὶ μάλιστα ἂν αὐτοῖς τὰ τῆς τύχης ἀντιπίπτῃ, κατορθοῦντες δὲ ἐν τοῖς προκειμένοις αὐτοὺς αἰτίους εἶναι τῶν κατορθωμάτων ὑπολαμβάνουσιν, ὡς οὐκ ἂν ἀπαντησάντων τῶν ἀπνηγνόντων, εἰ μὴ αὐτοὶ τάδε μᾶλλον ἔπραξαν ἀντὶ τῶνδε, ὡς ἔχοντες καὶ τοῦ μὴ πράττειν αὐτὰ τὴν ἐξουσίαν. δι' ἣν διαφωνίαν ἀναγκαῖα τοῖς φιλοσοφοῦσιν ἢ ζήτησις ἢ περὶ τῆς εἰμαρμένης, οὐκ εἰ ἔστιν, ἀλλὰ τί ποτ' ἐστὶν καὶ ἐν τίσιν τῶν γινομένων τε καὶ ὄντων ἐστὶν ἡ τοιαύτη φύσις. ὅτι μὲν οὖν αἰτίαν τινὰ τὴν

εἰμαρμένην τοῖς γινομένοις {ὧν} εἶναι λέγουσιν πάντες οἱ περὶ εἰμαρμένης λέγοντες τι, γνώριμον (ταύτην γὰρ ἀποδιδόασιν τε καὶ φασιν αἰτίαν εἶναι τοῦ γίνεσθαι τὰ γινόμενα ὃν τρόπον γίνεται), ἐπεὶ δὲ πλεοναχῶς λέγεται τὰ αἰτία, ἀναγκαῖον τοῖς ἐν τάξει τὸ πρόβλημα μετιοῦσιν πρῶτον λαβεῖν, ὑπὸ τίνα τρόπον τῶν αἰτίων χρῆσιτιθεῖναι τὴν εἰμαρμένην· οὐδὲν γὰρ τῶν πολλαχῶς λεγομένων γνώριμον χωρὶς τῆς οἰκείας διαιρέσεως λεγόμενον. cf. partial abstract of this passage at **Alexander of Aphrodisias(?) de An.Mant.** 25, p. 179.25–180.14. (For the parallel passage *An.Mant.* c. 24, p. 176.2–10 see below ch. 1.29, section E(a) General texts.) **Galen Loc.Aff.** 8.158.11–159.4 K. ὥσπερ δ' ἐνταῦθα φιλονεικίαν αἰσχροὺς ἐπιδείκνυνται προφανῶς, οὕτως ἀνοίαν, ὅταν οἶωνται πάνθ' ἐαυτῶν σαλεύεσθαι τὰ δόγματα, καὶ ἐν ὅτιον ἐλεγχθῇ· τινὰ μὲν γὰρ ἀλλήλοις ἀκολουθεῖ, καθάπερ γε πάλιν ἕτερα μάχεται, τινὰ δὲ οὐτ' ἀκολουθεῖν οὔτε μάχην ἀναγκαῖαν ἔχει, καθάπερ αὐτὸ τοῦτο τὸ περὶ τοῦ τῆς ψυχῆς ἡγεμονικοῦ (cf. ch. 4.5). ἐάν τε γὰρ ἐν καρδίᾳ τις ἐάν τ' ἐν ἐγκεφάλῳ περιέχεσθαι τοῦτό φησι, δυνατόν ἐστίν αὐτῷ καὶ περὶ τῶν φυσικῶν στοιχείων ἢν ἂν ἐθελήσῃ δόξαν ἐλομένῳ μὴτε μάχεσθαι τοῦτ' μὴτ' ἀκολουθεῖν καὶ περὶ γενέσεως καὶ φθορᾶς (cf. ch. 1.24). ὁμοίως, ὥσπερ γε καὶ περὶ ψυχῆς οὐσίας (cf. ch. 4.2). καὶ περὶ θεῶν (cf. ch. 1.7) καὶ προνοίας καὶ εἰμαρμένης (i.e. chs. 1.27–28). **Iamblichus Ep. ad Maced.** at *Stob. Ecl.* 1.5.17, p. 81.5–6 μίαν οὖν τάξιν, πάσας τάξεις ὁμοῦ περιλαβοῦσαν ἐν αὐτῇ, τὴν εἰμαρμένην ἀφοριστέον. see also below ch. 1.28.

Chapter heading: ps.Plutarch Fat. tit. Περί εἰμαρμένης.

§1 Heraclitus: Diogenes Laertius V.P. 9.7 (Heraclitus 22A1 DK) πάντα δὲ γίνεσθαι καθ' εἰμαρμένην καὶ διὰ τῆς ἐναντιοτροπῆς [ἐναντιοδρομίας Diels] ἡρμόσθαι τὰ ὄντα. *V.P.* 9.8 γεννᾶσθαι τε αὐτὸν (sc. τὸν κόσμον) ἐκ πυρὸς καὶ πάλιν ἐκπυροῦσθαι κατὰ τινὰς περιόδους ἐναλλάξ τὸν σύμπαντα αἰῶνα· τοῦτο δὲ γίνεσθαι καθ' εἰμαρμένην.

§§2–3 Plato Stoics: Aquilius Def. 77 Rashed ἐφ' ἧμιν ἐστίν ὁ καὶ αὐτὸ δυνάμεθα ποιεῖν καὶ τὸ ἀντικείμενον.

§4 Chrysippus: Philodemus Piet. col. iv.32–v.2 Henrichs (SVF 2.1076) καὶ ο[ῦ]τω[ς] | ἀν[α]λ(ό)γον σ[υ]ν[α]γ[ε]σ[θ]αι τὸν Δία καὶ τὴν | κοινῇ[ν] πάντων | φύσιν καὶ εἰμαρμένην καὶ ἀνάγκην. **Cicero Tusc.** 5.70 *ipsa enim cogitatio ... rerum causas alias ex aliis aptas et necessitate nexas videt, quibus ab aeterno tempore fluentibus in aeternum ratio tamen mensque moderatur.* *Div.* 1.125 (SVF 2.921) *fatum autem id appello, quod Graeci εἰμαρμένην, id est ordinem seriemque causarum, cum causae causa nexa rem ex se gignat.* **Servius auctus in Aen.** 3.376, p. 409.12–14 Thilo *volvitque vices': definitio fati secundum Tullium, qui ait fatum est conexio rerum per aeternitatem se invicem tenens, quae suo ordine et lege variatur ita tamen, ut ipsa varietas habeat aeternitatem.*

§5 Zeno Stoicus: Arius Didymus fr. 20 Diels at *Stob. Ecl.* 1.11.5a, p. 133.3–5 διὰ ταύτης (sc. τῆς ὕλης) δὲ διαθεῖν τὸν τοῦ παντὸς λόγον, ὃν ἔνιοι εἰμαρμένην καλοῦσιν, οἷον περ καὶ ἐν τῇ γονῇ τὸ σπέρμα. **Epiphanius Haer.** p. 1.184.4–5 Kroll (on Stoics, SVF 1.87) εἰμαρμένην τε εἶναι καὶ γένεσιν, ἐξ ἧς τὰ πάντα διοικεῖται καὶ πάσχει.

b Sources and Other Parallel Texts

General texts: Cicero *Fat.* 1 *quod autem in aliis libris feci, qui sunt De natura deorum, itemque in iis, quos De divinatione edidi, ut in utramque partem perpetua explicaretur oratio, quo facilius id a quoque probaretur, quod cuique maxime probabile videretur, id in hac disputatione De fato casus quidam ne facerem impedivit.* Cornutus c. 13, p. 10.9–11 Torres είμαρμένη δέ έστι καθ' ήν μέμαρπται και συνείληπται πάντα έν τάξει και στοίχῳ μὴ έχοντι πέρας τὰ γινόμενα. Tacitus *Ann.* 6.22 *sed mihi haec ac talia audienti in incerto iudicium est fatone res mortalium et necessitate immutabili an forte volvantur. quippe sapientissimos veterum quique sectam eorum aemulantur diversos reperies, ac multis insitam opinionem non initia nostri, non finem, non denique homines dis curae; ideo creberrime tristia in bonos, laeta apud deteriores esse. contra alii fatum quidem congruere rebus putant, sed non e vagis stellis, verum apud principia et nexus naturalium causarum; ac tamen electionem vitae nobis relinquunt, quam ubi elegeris, certum imminantium ordinem.* Plutarch fr. 21 Sandbach at Stob. *Ecl.* 1.5.19, p. 81.19–26 έκ τοῦ Εἰ ή τῶν μελλόντων πρόγνῳσις ὠφέλιμος τὸ γάρ είμαρμένον ἄτρεπτον και ἀπαράβατον, ἡῶπερ μόνον ὀφρύσι νεύση, καρτερὰ τοῦτῳ κέκλωστ' ἀνάγκῃ (PMG lyr. adesp. fr. 99.1 Page) {και πεπρωμένη} διὰ τοῦτο τήν είμαρμένην (και Πεπρωμένην) και Ἀδράστειαν καλοῦσιν, ὅτι πέρας ταῖς αἰτίαις ήναγκασμένον ἐπιτίθησιν ἀνέκφευκτος οὔσα και ἀναπόδραστος. ps.Plutarch *Fat.* 568C πρῶτον τοῖνυν ἴσθι, ὅτι είμαρμένη διχῶς και λέγεται και νοεῖται· ή μὲν γάρ έστιν ἐνέργεια ή δ' οὐσία. Alexander of Aphrodisias in *Top.* 95.7–11 έστι δέ τινα προβλήματα και προτάσεις και έν τοῖς φυσικοῖς 'πρὸς αἵρεσιν και φυγήν' τήν ἀναφοράν έχοντα· τὸ γάρ 'πότερον πάντα καθ' είμαρμένην και κατηναγκασμένως γίνεται;' φυσικὸν ὃν τήν ἀναφοράν έχει 'πρὸς αἵρεσιν και φυγήν'· εἰ γάρ δοκεῖ βουλεύεσθαι περὶ τῶν πρακτέων ή μή, έντεῦθεν ήρτηται. Calcidius in *Tim.* c. 142–143 '*legesque immutabilis decreti*' (sc. νόμους ... τοὺς είμαρμένους, Pl. *Tim.* 41e) *docuit. hic iam magnam et difficilem rationem commovet, de qua multa disceptatio habita inter veteres perseverat etiamnunc. perfunctorium ergo tractatum haberi nunc convenit iuxta Platonicum dogma; longum est enim persequi ceterorum, quorum plerique nihil putant fato fieri, alii omnia, nec quicquam arbitrio ac voluntate, quidam alia esse quae fato nihiloque minus alia esse quae voluntate fiant.* (143) ... *fatum ergo iuxta Platonem dupliciter intellegitur et dicitur, unum, cum substantiam eius animo intuemur, alterum, cum ex his quae agit et esse id et cuius modi vim habeat recognoscimus.* in *Tim.* c. 190 *namque fato quaedam agi verum est, et quod quaedam in nostra potestate sint, hoc quoque verum esse monstratum est. quare qui omnia fato fieri dicunt, merito reprehenduntur ab his qui probant esse aliquid in nostra potestate, demum qui omnia in nostra potestate constituunt nec quicquam fato relinquunt, falli deteguntur; quis enim ignoret esse aliquid in fato et extra nostrum ius? sola igitur vera illa ratio est fixaque et stabilis sententia, quae docet quaedam fato fieri, alia porro ex hominum arbitrio et voluntate proficisci.* Proclus in *Tim.* 3.271.29–275.23.

Chapter heading: Philodemus *Piet.* 124.19–21 Gomperz (Epicurus *libr. de perd.* rel. fr. 14.1 Arrighetti) [κ]ἄν | τ[ῶι Π]ερὶ τῆς εἰ[μ]αρμένης. Cicero *Div.* 2.3

quae ut plane esset cumulateque perfecta, De divinatione ingressi sumus his libris scribere; quibus, ut est in animo, De fato si adiunxerimus, erit abunde satis factum toti huic quaestioni. **Diogenianus** at Eus. *PE* 6.7.44 πρώτα δὴ οὖν σοι παραναγνώσομαι ἀπὸ τῶν Διογενιανοῦ τὰ Περὶ εἰμαρμένης, ὧδέ πως τῷ Χρυσίππῳ (*SVF* 2.925) ἀντειρημένα. at *PE* 6.8.25 (*SVF* 2.998) ἐν μὲν οὖν τῷ πρώτῳ Περὶ εἰμαρμένης βιβλίῳ τοιαύταις τισὶν ἀποδείξεσι κέχρηται (sc. ὁ Χρυσίππος), ἐν δὲ τῷ δευτέρῳ κτλ. **Bardesan**es at Eus. *HE* 4.30.2 ὁ πρὸς Ἀντωνίνον ἱκανώτατος αὐτοῦ Περὶ εἰμαρμένης διάλογος (*Liber regionum*). **Diogenes Laertius** *V.P.* 4.12 (Xenocrates p. 157.28 Heinze, test. 2 Isnardi Parente²) Περὶ εἰμαρμένης α'. *V.P.* 7.149 Χρυσίππος (*SVF* 2.915) ἐν τοῖς Περὶ εἰμαρμένης καὶ Ποσειδωνίου (*F* 25 E.-K., 381 Theiler) ἐν δευτέρῳ Περὶ εἰμαρμένης ..., Βόηθος (*SVF* 3 Boeth. 5) δ' ἐν πρώτῳ Περὶ εἰμαρμένης. *V.P.* 10.28 (Epicurus) Περὶ εἰμαρμένης. **Alexander of Aphrodisias** Περὶ εἰμαρμένης. **Alexander of Aphrodisias**(?) *de An.Mant.* 179.24 Περὶ εἰμαρμένης. *de An.Mant.* 186.30–31 Πολύζηλος δὲ ἐν τῷ οὕτως ἐπιγραφομένῳ Περὶ εἰμαρμένης συγγράμματι. **Porphyry Plot.** 4 & 24 (*Enn.* 1.3[19]) Περὶ εἰμαρμένης. **Origen Philoc.** c. 23 tit. Περὶ εἰμαρμένης, καὶ πῶς προγνώστου ὄντος τοῦ θεοῦ τῶν ὑφ' ἑκάστου πραττομένων τὸ ἐφ' ἡμῖν σώζεται. *Philoc.* c. 23.1.5 εἰς τὸν περὶ τῆς εἰμαρμένης τόπον. **Theodoret CAG** title Book 6 Περὶ τῆς θείας προνοίας. **John Chrysostom** Περὶ εἰμαρμένης καὶ πρόνοιας λόγοι. **Nemesius NH** c. 35, p. 106.10 ὁ Φιλοπάτωρ ἐν τῷ περὶ εἰμαρμένης. **Stobaeus Ecl.** 2.8.43 ἐκ τῆς Ἰαμβλίου ἐπιστολῆς Πρὸς Μακεδόνιον Περὶ εἰμαρμένης. **Proclus De providentia et fato et eo quod in nobis est ad Theodorum mechanicum.**

§1 **Heraclitus: Simplicius in Phys.** 9.24–26 (**Theophrastus Phys.Op.** fr. 1 Diels, 225 FHS&G) ποιεῖ (sc. Heraclitus, 22A5 DK) δὲ καὶ τάξιν τινὰ καὶ χρόνον ὀρισμένον τῆς τοῦ κόσμου μεταβολῆς κατὰ τινὰ εἰμαρμένην ἀνάγκην.

§2 **Plato: Plato Resp.** 10 617d–e Ἀνάγκης θυγατὶς κόρης Λαχέσεως λόγος. 'ψυχαὶ ἐφήμεροι, ἀρχὴ ἄλλης περιόδου θνητοῦ γένους (e) θανατηφόρου. οὐχ ὑμᾶς δαίμων λήξεται, ἀλλ' ὑμεῖς δαίμονα αἰρήσεσθε. πρῶτος δ' ὁ λαχὼν πρῶτος αἰρείσθω βίον ᾧ συνέσται ἐξ ἀνάγκης. ἀρετὴ δὲ ἀδέσποτον, ἣν τιμῶν καὶ ἀτιμάζων πλέον καὶ ἔλαττον αὐτῆς ἕκαστος ἔξει. αἰτία ἐλομένου· θεὸς ἀνάιτιος'. *Tim.* 41e συστήσας (sc. ὁ δημιουργός) δὲ τὸ πᾶν διεῖλεν ψυχὰς ἰσαρίθμους τοῖς ἄστροις, ἐνείμην θ' ἑκάστην πρὸς ἕκαστον, καὶ ἐμβιβάσας ὡς ἐς ὄχημα τὴν τοῦ παντὸς φύσιν ἔδειξεν, νόμους τε τοὺς εἰμαρμένους εἶπεν αὐταῖς. **Alcinous Did.** c. 26, p. 179.1–13 H. περὶ δὲ εἰμαρμένης τοιαῦτά τινὰ τῷ ἀνδρὶ ἀρέσκει. πάντα μὲν φησιν ἐν εἰμαρμένῃ εἶναι, οὐ μὴν πάντα καθεμιάρθαι. ἢ γὰρ εἰμαρμένη νόμου τάξιν (cf. *Leg.* 904c) ἐπέχουσα οὐχ οἶον λέγει, διότι ὅδε μὲν τάδε ποιήσει, ὅδε δὲ τάδε πείσεται· εἰς ἅπειρον γὰρ τοῦτο, ἀπείρων μὲν ὄντων τῶν γεννωμένων, ἀπείρων δὲ τῶν περὶ αὐτοὺς συμβαινόντων· ἐπεὶ καὶ τὸ ἐφ' ἡμῖν οἰχῆσεται καὶ ἔπαινοι καὶ ψόγοι καὶ πᾶν τὸ τούτοις παραπλήσιον· ἀλλὰ διότι ἥτις ἂν ἔλθῃ ψυχὴ (*Phdr.* 248c) τοιοῦτον βίον καὶ τάδε τινὰ πράξει, τάδε τινὰ αὐτῇ ἔψεται (cf. *Leg.* 904b). ἀδέσποτον οὖν ἡ ψυχὴ (cf. *Resp.* 617e) καὶ ἐπ' αὐτῇ μὲν τὸ πράξει ἢ μὴ, καὶ οὐ κατηνάγκασται τοῦτο, τὸ δὲ ἐπόμενον τῇ πράξει καθ' εἰμαρμένην συντελεσθήσεται. **Hippolytus Ref.** 1.19.19 εἰμαρμένην (δέ) φησιν εἶναι, οὐ μὴν πάντα καθ' εἰμαρμένην γίνεσθαι, ἀλλ' εἶναι τι καὶ ἐφ' ἡμῖν, ἐν οἷς φησιν (*Resp.* 617e)· αἰτία ἐλομένου, θεὸς ἀνάιτιος· καὶ (*Phdr.* 248c) 'θεσμός τε Ἀδραστείας ὅδε'.

οὕτω τὸ καθ' εἰμαρμένην οἶδε καὶ τὸ ἐφ' ἡμῖν. *Calcidius in Tim.* c. 145 *sed Platonī placet neque omnia ex providentia fore, neque enim uniformem naturam esse rerum quae dispensantur; ita quaedam ex providentia tantum, quaedam ex decreto, non nulla ex voluntate nostra.*

§§3–4 *Stoics Plato Chrysippus: Alexander of Aphrodisias Fat.* c. 23, p. 193.4–8 (on Stoics, SVF 2.945) τὸ γοῦν πρῶτον εἰρημένον ὡς πάντων τῶν ὄντων αἰτίων τινῶν γινομένων τῶν μετὰ ταῦτα καὶ τοῦτον τὸν τρόπον ἐχομένων ἀλλήλων τῶν πραγμάτων τῷ δίκην ἀλύσεως τοῖς πρῶτοις συνηρτῆσθαι τὰ δευτέρα, ὁ ὥσπερ οὐσίαν τῆς εἰμαρμένης ὑποτίθενται, πῶς οὐ φανερώς ἀπᾶδει τῶν πραγμάτων;

§3 *Stoics Plato: Chrysippus in Diogenianus at Eus. PE* 4.3.1 (on Stoic, SVF 2.939) φέρει δὲ καὶ ἄλλην ἀπόδειξιν ἐν τῷ προειρημένῳ βιβλίῳ (sc. Περὶ εἰμαρμένης) τοιαύτην τινά· ‘μὴ γὰρ ἂν τὰς τῶν μάντεων προρρήσεις ἀληθεῖς εἶναι’ φησιν, ‘εἰ μὴ πάντα ὑπὸ τῆς εἰμαρμένης περιείχοντο’. at Diogenian. at Eus. *PE* 6.8.25–26 (SVF 2.998) ἐν δὲ τῷ δευτέρῳ (sc. Περὶ εἰμαρμένης βιβλίῳ) λύειν πειράται τὰ ἀκολουθεῖν δοκοῦντα ἄτοπα τῷ λόγῳ τῷ πάντα κατηναγκάσθαι λέγοντι, ἅπερ καὶ ἡμεῖς κατ’ ἀρχὰς ἐτίθεμεν· οἷον τὸ ἀναιρεῖσθαι δι’ αὐτοῦ τὴν ἐξ ἡμῶν αὐτῶν προθυμίαν περὶ ψόγους τε καὶ ἐπαίνους καὶ προτροπὰς καὶ πάνθ’ ὅσα παρὰ τὴν ἡμετέραν αἰτίαν γιγνόμενα φαίνεται. (26) φησιν οὖν ἐν τῷ δευτέρῳ βιβλίῳ τὸ μὲν ἐξ ἡμῶν πολλὰ γίνεσθαι δῆλον εἶναι, οὐδὲν δὲ ἦττον συγκαθειμάρθαι καὶ ταῦτα τῇ τῶν ὄλων διοικήσει. κέχρηται τε παραδείγμασι τοιοῦτοις τισί· κτλ. *Cicero Top.* 58–59 *causarum enim genera duo sunt; unum, quod vi sua id quod sub eam vim subiectum est certe efficit, ut: ignis accendit; alterum, quod naturam efficiendi non habet sed sine quo effici non possit, ut si quis aes statuae causam velit dicere, quod sine eo non possit effici.* (59) *huius generis causarum, sine quo non efficitur, alia sunt queta, nihil agentia, stolidia quodam modo, ut locus, tempus, materia, ferraementa, et cetera generis eiusdem; alia autem praecursionem quandam adhibent ad efficiendum et quaedam afferunt per se adiuvantia, etsi non necessaria, ut: amor congressio causam attulerat, amor flagitio. ex hoc genere causarum ex aeternitate pendendum fatum a Stoicis (—) nectitur.* *Fat. fr.* 1 Giomini at Aul.Gell. 7.2.15 *itaque M. Cicero in libro, quem De fato conscripsit, cum quaestionem istam diceret obscurissimam esse et implicatissimam, Chrysippum quoque philosophum non expedisce se in ea (ait) his verbis: ‘Chrysippus aestuans laboransque, quonam hoc modo explicet et fato omnia fieri et esse aliquid in nobis, intricatur’.* *Fat.* 41–42 *Chrysippus* (SVF 2.974) *autem cum et necessitatem inprobaret et nihil vellet sine praepositis causis evenire, causarum genera distinguit, ut et necessitatem effugiat et retineat fatum. ‘causarum enim,’ inquit, ‘aliae sunt perfectae et principales, aliae adiuvantes et proximae. quam ob rem, cum dicimus omnia fato fieri causis antecedentibus, non hoc intellegi volumus: causis perfectis et principalibus, sed causis adiuvantibus {antecedentibus} et proximis.’ itaque illi rationi, quam paulo ante conclusi, sic occurrit: si omnia fato fiant, sequi illud quidem, ut omnia causis fiant antepositis, verum non principalibus causis et perfectis, sed adiuvantibus et proximis. quae si ipsae non sunt in nostra potestate, non sequitur, ut ne adpetitus quidem sit in nostra potestate. at hoc sequeretur, si omnia perfectis et principalibus causis fieri diceremus, ut, cum eae causae non*

essent in nostra potestate, ne ille quidem esset in nostra potestate. (42) quam ob rem, qui ita fatum introducunt, ut necessitatem adiungant, in eos valebit illa conclusio; qui autem causas antecedentis non dicent perfectas neque principalis, in eos nihil valebit. (and so on until *Fat.* 42–43, where Chrysippus *revertitur ad cylindrum et ad turbinem suum, quae moveri incipere nisi pulsa non possunt. ...* (43) ... *visum obiectum imprimet illud quidem et quasi signabit in animo suam speciem, sed adsensio nostra erit in potestate.*) **Seneca** *Dial.* 11.4.1 *diutius accusare fata possumus, mutare non possumus: stant dura et inexorabilia; nemo illa convicio, nemo fletu, nemo causa movet; nihil unquam ulli parcent nec remittunt.* **ps.Aristotle** *Mu.* 7.401b7–9 οἶμαι δὲ καὶ τὴν Ἀνάγκην οὐκ ἄλλο τι λέγεσθαι πλὴν τοῦτον, οἶονεὶ ἀνίκητον αἰτίαν ὄντα, εἰμαρμένην δὲ διὰ τὸ εἶρειν τε καὶ χωρεῖν ἀκωλύτως κτλ. (cited *Stob. Ecl.* 1.5.22). differently **Plutarch** *SR* 1056C (*SVF* 2.997) τὴν δ' εἰμαρμένην αἰτίαν ἀνίκητον καὶ ἀκώλυτον καὶ ἄτρεπτον ἀποφαίνων αὐτὸς Ἀτροπον καλεῖ (sc. ὁ Χρύσιππος) καὶ Ἀδράστειαν καὶ Ἀνάγκην κτλ. **Diogenianus** at *Eus. PE* 6.8.30 πάλιν οὖν κἀνταῦθα θαυμάσειέ τις τὰνθρώπου (sc. Chrysippus, —) τὸ ἀθεώρητον καὶ ἀνεπιλόγιστον καὶ τῶν ἐναργειῶν καὶ τῆς τῶν ἰδίων λόγων ἀνακολουθίας. οἶμαι γάρ, ὅτι καθάπερ τὸ καλούμενον γλυκὺ τῷ καλούμενῳ πικρῷ ἐναντίον εἶναι συμβέβηκεν τῷ τε λευκῷ τὸ μέλαν καὶ τῷ ψυχρῷ τὸ θερμόν, οὕτωςι δὲ καὶ τὸ παρ' ἡμᾶς τῷ καθ' εἰμαρμένην, εἴ γε καθ' εἰμαρμένην μὲν ἐκεῖνα καλεῖν προειλήφαμεν, ὅσα καὶ ἐκόντων ἡμῶν καὶ ἀκόντων πάντως γίνεταί, παρ' ἡμᾶς δέ, ὅσα ἐκ τοῦ σπουδάζειν ἡμᾶς καὶ ἐνεργεῖν ἐπὶ τέλος ἔρχεται ἢ παρὰ τὸ ἀμελεῖν καὶ ῥαθυμεῖν οὐκ ἐπιτελεῖται.

§4 **Chrysippus**: [NB: pertains to both ch. 28 and ch. 27] **Cicero** *ND* 1.40 (the Epicurean Velleius speaks) *idemque* (sc. Chrysippus, *SVF* 2.1077) *etiam legis perpetuae et aeternae vim, quae quasi dux vitae et magistra officiorum sit, Iovem dicit esse, eandemque fatalem necessitatem appellat sempiternam rerum futurarum veritatem.* *ND* 1.55 (the Epicurean Velleius speaks) *hinc vobis extitit primum illa fatalis necessitas, quam εἰμαρμένην dicitis, ut quicquid accadat id ex aeterna veritate causarumque continuatione fluxisse dicatis.* **P. Rutilius Lupus** *Schem.Lex.* 1.13, p. 8.20–22 ἐπιπλοκή. *in hoc ex prima sententia secunda oritur, ex secunda tertia, atque ita deinceps complures. nam quem ad modum catenam multi inter se circuli coniuncti vinciunt, sic huius schematis utilitatem complures sententiae inter se conexae continent.* **Seneca** *Dial.* 1.5.7 *causa pendet ex causa.* **Arius Didymus** fr. 29 Diels at *Eus. PE* 15.15.6 (*SVF* 2.528) καθ' ὅσον δὲ εἰρομένῳ λόγῳ πάντα διοικεῖ (sc. Ζεὺς) ἀπαραβάτως ἐξ αἰδίου, προσονομάζεσθαι εἰμαρμένην Ἀδράστειαν δέ, ὅτι οὐδὲν ἔστιν αὐτὸν ἀποδιδράσκειν· πρόνοιαν δ', ὅτι πρὸς τὸ χρήσιμον οἰκονομεῖ ἕκαστα. **Aulus Gellius** *NA* 7.2.1–3, *fatum, quod εἰμαρμένην Graeci vocant, ad hanc ferme sententiam Chrysippus (SVF 2.1000), Stoicae princeps philosophiae, definit: 'fatum est' inquit 'sempiterna quaedam et indeclinabilis series rerum et catena volvens semetipsa sese et implicans per aeternos consequentiae ordines, ex quibus apta nexaque est.' ipsa autem verba Chrysippi, quantum valui memoria, ascripsi, ut, si cui meum istud interpretamentum videbitur esse obscurius, ad ipsius verba animadvertat. in libro enim Περὶ προνοίας quarto εἰμαρμένην esse dicit 'φυσικὴν τινὰ σύνταξιν τῶν ὅλων ἐξ*

αἰδίου τῶν ἐτέρων τοῖς ἐτέροις ἐπακολουθούντων καὶ μεταπολουμένων ἀπαραβάτου οὔσης τῆς τοιαύτης ἐπιπλοκῆς'. **Aristocles** fr. 3 Chiesara at Eus. *PE* 15.14.2 (*SVF* 1.98, verbatim) τὸ μέντοι πρῶτον πῦρ εἶναι καθαπερεὶ τι σπέρμα, τῶν ἀπάντων ἔχον τοὺς λόγους καὶ τὰς αἰτίας τῶν γεγονότων καὶ τῶν γιγνομένων καὶ τῶν ἐσομένων· τὴν δὲ τούτων ἐπιπλοκὴν καὶ ἀκολουθίαν εἰμαρμένην καὶ ἐπιστήμην καὶ ἀλήθειαν καὶ νόμον εἶναι τῶν ὄντων ἀδιάδραστόν τινα καὶ ἄφυκτον. **Marcus Aurelius** 10.5 ὃ τι ἂν σοι συμβαίῃ, τοῦτό σοι ἐξ αἰῶνος προκατεσκευάζετο καὶ ἡ ἐπιπλοκὴ τῶν αἰτίων συνέκλωθε τὴν τε σὴν ὑπόστασιν ἐξ αἰδίου καὶ τὴν τούτου σύμβασιν. **Alexander of Aphrodisias** *Fat.* c. 22, pp. 191.32–192.11 (on Stoics, *SVF* 2.945) ἔχειν τὴν τῶν ὄντων διοίκησιν αἰδίου κατὰ εἰρμόν τινα καὶ τάξιν προοιούσαν, τῶν πρῶτων τοῖς μετὰ ταῦτα γινομένοις αἰτίων γινομένων καὶ τούτῳ τῷ τρόπῳ συνδεομένων ἀλλήλοις ἀπάντων, καὶ μήτε οὕτως τινὸς ἐν αὐτῷ γινομένου, ὥς μὴ πάντως ἐπακολουθεῖν αὐτῷ καὶ συνήφθαι ὡς αἰτίῳ ἕτερόν τι, μήτ' αὐτῶν ἐπιγιγνομένων τινὸς ἀπολελύσθαι δυναμένου τῶν προγεγονότων, ὥς μὴ τινι ἐξ αὐτῶν ἀκολουθεῖν ὥσπερ συνδεόμενον, ἀλλὰ παντὶ τε τῷ γενομένῳ ἕτερόν τι ἐπακολουθεῖν, ἡρτημένον (ἐξ) αὐτοῦ ἐξ ἀνάγκης ὡς αἰτίου, καὶ πᾶν τὸ γινόμενον ἔχειν τι πρὸ αὐτοῦ, ὃ ὡς αἰτίῳ συνήρτηται. μηδὲν γὰρ ἀναιτίως μήτε εἶναι μήτε γίνεσθαι τῶν ἐν τῷ κόσμῳ διὰ τὸ μηδὲν εἶναι τῶν ἐν αὐτῷ ἀπολελυμένων τε καὶ κεχωρισμένων τῶν προγεγονότων ἀπάντων. **Alexander of Aphrodisias**(?) *An.Mant.* 185.1–5 (*SVF* 2.920) ἀλλὰ μὴν ὁμολογεῖται πάντα τὰ καθ' εἰμαρμένην γιγνόμενα κατὰ τάξιν καὶ ἀκολουθίαν γίνεσθαι τινα καὶ τι ἐφεξῆς ἔχειν ἐν αὐτοῖς. ... τὸ δὲ καθ' εἰμαρμένην πᾶν τοῦναντίον· εἰρμόν γοῦν αἰτίων αὐτὴν φασιν εἶναι. **Plotinus** *Enn.* 3.1[3].2.30–36 (on Stoics, *SVF* 2.946) καὶ μὴν καὶ τὴν τῶν αἰτίων ἐπιπλοκὴν πρὸς ἀλλήλα καὶ τὸν ἄνωθεν εἰρμόν καὶ τὸ ἔπεσθαι τοῖς προτέροις αἰεὶ τὰ ὕστερα καὶ ταῦτα ἐπ' ἐκεῖνα ἀνιέναι δι' αὐτῶν γενόμενα καὶ ἄνευ ἐκείνων οὐκ ἂν γενόμενα, δουλεύειν δὲ τοῖς πρὸ αὐτῶν τὰ ὕστερα, ταῦτα εἴ τις λέγοι, εἰμαρμένην ἕτερον τρόπον εἰσάγων φανεῖται. *Enn.* 3.1[3].7.1–4 (*SVF* 2.986) λοιπὸν δὲ ἰδεῖν τὴν ἐπιπλέκουσαν καὶ οἶον συνείρουσαν ἀλλήλοις πάντα καὶ τὸ πῶς ἐφ' ἐκάστου ἐπιφέρουσαν ἀρχὴν τιθεμένην μίαν, ἀφ' ἧς πάντα κατὰ λόγους σπερματικούς περαίνεται.

§5 **Zeno Stoicus**: **Lactantius** *Inst.* 4.9.2 Heck–Wlosok *hunc sermonem divinum ne philosophi quidem ignoraverunt, siquidem Zenon* (*SVF* 1.160) *rerum naturae dispositorem atque opificem universitatis* Λόγον *praedicat, quem et 'fatum' et 'necessitatem rerum' et 'deum' et 'animum Iovis' nuncupat, ea scilicet consuetudine, qua solent Iovem pro Deo accipere.* **Diogenes Laertius** *VP.* 7.135 (on Stoics, *SVF* 1.102) ἔν τε εἶναι θεὸν καὶ νοῦν καὶ εἰμαρμένην καὶ Δία πολλὰς τε ἐτέραις ὀνομασίαις προσονομάζεσθαι. **Tertullian** *Apol.* 21 *apud vestros quoque sapientes* Λόγον, *id est sermonem atque rationem, constat artificem videri universitatis. hunc enim Zeno* (*SVF* 1.160) *determinat factitorem, qui cuncta in dispositione formaverit; eundem et fatum vocari et deum et animum Iovis et necessitatem omnium rerum. haec Cleanthes* (*SVF* 1.533) *in spiritum congerit, quem permeatorem universitatis affirmat.*

Liber 1 Caput 28

P^B : ps.Plutarchus *Plac.* 885A–B; pp. 323^{a1}–324^{a7} Diels—**P^G** : ps.Galenus *HPh* c. 42; pp. 620.14–22 Diels—**P^Q** : Qustā ibn Lūqā pp. 134–137 Daiber—**P^L** : Ioannes Lydus *Mens.* 4.81, p. 133.20–143.2 Wuensch
S: Stobaeus *Ecl.* 1.5.15, pp. 78.7–10, 78.13–14, 79.1–8 Wachsmuth
T: Theodoretus *CAG* 6.14, p. 153.24–154.2 Raeder
Cf. Nem.: Nemesis *NH* c. 37, p. 108.15–17; c. 38 p. 109.10–18 Morani

Titulus κη'. Περὶ οὐσίας εἰμαρμένης (P)

- §1 Ἡράκλειτος οὐσίαν εἰμαρμένης λόγον τὸν διὰ τῆς οὐσίας τοῦ παντὸς διήκοντα· αὕτη δ' ἐστὶ τὸ αἰθέριον σῶμα, σπέρμα τῆς τοῦ παντὸς γενέσεως καὶ περιόδου μέτρον τεταγμένης. (P₁,S_{2a})
- §2 Πλάτων λόγον αἰδίων καὶ νόμον αἰδίων τῆς τοῦ παντὸς φύσεως. (P₂,S₃) 5
- §3 Χρύσιππος δύναμιν πνευματικὴν τάξει τοῦ παντὸς διοικητικὴν· καὶ πάλιν ἐν τοῖς Ὅροις· 'εἰμαρμένη ἐστὶν ὁ τοῦ κόσμου λόγος· ἢ λόγος τῶν ἐν τῷ κόσμῳ προνοία διοικουμένων· ἢ λόγος, καθ' ὃν τὰ μὲν γεγρονότα γέγονε τὰ δὲ γινόμενα γίνεται τὰ δὲ γενησόμενα γενήσεται.' (P₃,S₇,T₄)
- §4 οἱ ἄλλοι Στωικοὶ εἰρμόν αἰτιῶν, τουτέστι τάξιν καὶ ἐπισύνδεσιν ἀπαρά- 10 βατον. (P₄,T₅)
- §5 Ποσειδώνιος τρίτην ἀπὸ Διὸς· πρῶτον μὲν γὰρ εἶναι τὸν Δία, δεύτερον δὲ τὴν φύσιν, τρίτην δὲ τὴν εἰμαρμένην. (P₅,S₄)

§1 Heraclitus 22A8 DK; §2 Plato —; §3 cf. Chrysippus *SVF* 2.913; §4 Stoici *SVF* 2.917; §5 Posidonius *F* 103 E.-K., 382a Theiler

titulus Περὶ οὐσίας εἰμαρμένης **P^{BQ}** : Περὶ εἰμαρμένης **P^G** : cf. S Περὶ εἰμαρμένης καὶ τῆς τῶν γινομένων εὐταξίας §1 [2] post εἰμαρμένης hab. S ἀπεφαίνετο || τὸν **P^G** mss. Jas per litt., om. Diels per accidens || τῆς οὐσίας **P^{BQ}** (ut vid.) : τῆς om. S : τῆς οὐσίας om. **P^{GL}** || [4] καὶ ... τεταγμένης S : om. P §2 [5] post αἰδίων¹ hab. S τὴν οὐσίαν τῆς εἰμαρμένης §3 [6] post πνευματικὴν hab. S τὴν οὐσίαν τῆς εἰμαρμένης || τάξει **P^{BS}** : τάξιν **P^{GLQ}** (nisi leg. καὶ τάξιν **P^Q** cf. *und eine ... Ordnung* Q) : τάξεως coni. Meineke || [6–7] καὶ πάλιν ἐν τοῖς Ὅροις P : τοῦτο μὲν οὖν ἐν τῷ δευτέρῳ Περὶ κόσμου, ἐν δὲ τῷ δευτέρῳ Περὶ ὄρων καὶ ἐν τοῖς Περὶ τῆς εἰμαρμένης καὶ ἐν ἄλλοις σποράδην πολυτρόπως ἀποφαίνεται λέγων· post διοικητικὴν interpol. S verisimiliter ex AD || καὶ πάλιν **P^{BGQ}** (πάγην **P^{B(1)}**) : om. S || [7–9] post Ὅροις al. **P^G** λέγει τὴν εἰμαρμένην, καθ' ἣν τὰ μὲν ... || [7] ὁ τοῦ κόσμου om. **P^Q** || λόγος ἢ λόγος τῶν S : λόγος τῶν **P^{LQ}**, cf. T : λόγος ἢ νόμος τῶν ὄντων **P^{B(1,111)}**, ὄντων del. Diels *DG* Mau Lachenaud : κόσμος ἢ λόγος ἢ νόμος τῶν ὄντων **P^{B(11)}** || [9] post γενήσεται Diels *DG* 323b22–324b10 add. text. ex p. 79.12–20 Wachsmuth verisimiliter ex AD, vid. comm. infra §4 [10] ἄλλοι scripsimus e **P^G** δὲ ἄλλοι, cf. Beck : non hab. **P^{BQ}** || [10–11] τουτέστι ... ἀπαράβατον om. **P^G** || [10] ἐπισύνδεσιν **P^{B(1,111)}** cf. Nem : ἐπίδεσιν **P^{B(11)}** §5 [12] post Ποσειδώνιος add. **P^{B(11)G}** δὲ || c τρίτην) τρίτον **P^G** || δεύτερον) δεύτεραν dub. Diels, cf. **P^L** || [13] δέ¹ om. **P^{B(111)}** || τρίτον **P^B** : τρίτην S, cf. **P^L**

*Testes primi:***Theodoretus** CAG 6.3–4 vid. supra ad c. 1.25.

CAG 6.14

6.14.3 (~ §§3–4) οἱ δὲ τοῦτον διαδεξάμενοι τὴν εἰμαρμένην λόγον ἔφασαν εἶναι τῶν ἐν τῷ κόσμῳ προνοίᾳ διοικουμένων, καὶ πάλιν ἐν ἑτέροις ξυγγράμμασιν εἰρμόν αἰτιῶν τὴν εἰμαρμένην κεκλήκασιν.

*Traditio ps.Plutarchi:***ps.Galenus** HPh c. 42 (~ tit.) Περὶ εἰμαρμένης (text Diels)

42.1 (~ P1) Ἡράκλειτος οὐσίαν εἰμαρμένης λόγον διὰ παντὸς διήκοντα. ἡ δὲ εἰμαρμένη ἐστὶ τὸ αἰθέριον σῶμα, σπέρμα τῆς τῶν πάντων γενέσεως.

42.2 (~ P2) Πλάτων λόγον ἢ νόμον αἰδίων τῆς τοῦ παντὸς φύσεως.

42.3 (~ P3) Χρύσιππος δύνανται πνευματικὴν, τάξιν τοῦ παντὸς διοικητικὴν. καὶ πάλιν ἐν τοῖς Ὅροις λέγει τὴν εἰμαρμένην, καθ' ἣν τὰ μὲν γεγονότα γέγονε, τὰ δὲ γινόμενα γίνεται, τὰ δὲ γενησόμενα γενήσεται.

42.4 (~ P4) οἱ δὲ ἄλλοι Στωικοὶ εἰρμόν.

42.5 (~ P5) Ποσειδώνιος δὲ τρίτον ἀπὸ Διὸς· πρῶτον μὲν γὰρ εἶναι τὸν Δία, εἶτα τὴν φύσιν, εἶτα τὴν εἰμαρμένην.

Ioannes Lydus Mens. 4.81 cit. ad c. 1.25.*Testes secundi:*

Nemesius NH c. 38 p. 109.10–18 Πλάτων δὲ διχῶς λέγει τὴν εἰμαρμένην, τὴν μὲν κατ' οὐσίαν, τὴν δὲ κατ' ἐνέργειαν (~ quaestio)· κατ' οὐσίαν μὲν τὴν τοῦ παντὸς ψυχὴν, κατ' ἐνέργειαν δὲ θεῖον νόμον ἀπαράβατον δι' αἰτίαν ἀναπόδραστον· καλεῖ δὲ τοῦτον 'θεσμὸν Ἀδρασθείας' (*Phdr.* 248c). τοῦτον δὲ τὸν νόμον δεδόσθαι παρὰ τοῦ πρῶτου καὶ ἀνωτάτου θεοῦ τῇ τοῦ παντὸς ψυχῇ εἰς διακόσμησιν τῶν ὄλων, καθ' ὃν διεξάγεται τὰ γινόμενα· ταύτην δὲ τὴν κατ' ἐνέργειαν εἰμαρμένην καὶ κατὰ πρόνοιαν λέγει. ἀπὸ γὰρ τῆς προνοίας ἐμπεριέχεσθαι τὴν εἰμαρμένην· πᾶν γὰρ τὸ καθ' εἰμαρμένην καὶ κατὰ πρόνοιαν γίνεσθαι, οὐ μὴν πᾶν τὸ κατὰ πρόνοιαν καὶ καθ' εἰμαρμένην εἶναι (~ §2). *NH* c. 37, p. 108.15–17 (*SVF* 2.918) ἡ δὲ εἰμαρμένη εἰρμός τις οὐσα αἰτιῶν ἀπαράβατος (del. Morani) (οὕτω γὰρ αὐτὴν οἱ Στωικοὶ ὀρίζονται, τουτέστι τάξιν καὶ ἐπισύνδεσιν ἀπαράλλακτον [ἀπαράβατον Morani]) οὐ κατὰ τὸ συμφέρον, ἀλλὰ κατὰ τὴν οἰκείαν κίνησιν καὶ ἀνάγκην ἐπάγει τὰ τέλη (~ §4).

*Loci Aetiani:***titulus** A 1.27 Περὶ εἰμαρμένης

§1 A 1.3.21 Ἀριστοτέλης ... πέμπτον δέ τι σῶμα αἰθέριον. A 1.7.13 Ἡράκλειτος τὸ περιοδικὸν πῦρ αἰδίων, εἰμαρμένην δὲ λόγον ἐκ τῆς ἐναντιοδρομίας δημιουργόν τῶν ὄντων. A 1.7.23 Ἀριστοτέλης ... τῇ σφαίρᾳ τοῦ παντὸς, ἥτις ἐστὶν αἰθέριον σῶμα, ..., σφαίρας ..., ὧν τὸ μὲν σῶμά ἐστιν αἰθέριον. A 1.12.4 οἱ Στωικοὶ ... τὸ μὲν περιγίγει φῶς κατ' εὐθείαν, τὸ δ' αἰθέριον περιφερώς κινεῖται. A 1.27.1 Ἡράκλειτος πάντα καθ' εἰμαρμένην, τὴν δ' αὐτὴν ὑπάρχειν καὶ ἀνάγκην. A 2.7.5

Ἀριστοτέλης πρῶτον αἰθέρα ἀπαθή, πέμπτον τι σῶμα. A 4.4.6 οἱ δέ γε Πυθαγόρου διάδοχοι ἐκ πέντε στοιχείων τὸ σῶμα κραθῆναι φάντες—τοῖς γὰρ τέτταρσι ξυνέταξαν τὸ αἰθέριον

§2 A 1.27.2 Πλάτων ἐγκρίνει μὲν τὴν εἰμαρμένην ἐπὶ τῶν ἀνθρωπίνων ψυχῶν καὶ βίων, συνεισάγει δὲ καὶ τὴν παρ' ἡμᾶς αἰτίαν.

§3 A 1.25.5 Πλάτων τὰ μὲν εἰς πρόνοιαν ἀνάγει, τὰ δ' εἰς ἀνάγκην. A 1.27.4 Χρύσιππος μὴ διαφέρειν τοῦ εἰμαρμένου τὸ κατηναγκασμένον, τὴν δὲ εἰμαρμένην εἶναι κίνησιν αἰδίων συνεχῆ καὶ τεταγμένην κατ' ἐπιπλοκὴν τῶν μερῶν συνηρητημένην. A 1.27.5 Ζήνων ὁ Στωικός ἐν τῷ Περὶ φύσεως δύνάμιν κινητικὴν τῆς ὕλης κατὰ ταῦτά καὶ ὡσαύτως, ἦντινα μὴ διαφέρειν πρόνοιαν καὶ φύσιν καλεῖν. A 2.3.1 οἱ μὲν ἄλλοι πάντες ἔμψυχον τὸν κόσμον καὶ προνοίᾳ διοικούμενον. A 2.4.9 Πλάτων φθαρτὸν μὲν τὸν κόσμον, ὅσον ἐπὶ τῇ φύσει, αἰσθητὸν γὰρ εἶναι, διότι καὶ σωματικόν, οὐ μὴν φθαρησόμενόν γε προνοίᾳ καὶ συνοχῇ θεοῦ.

§4 A 1.7.24 οἱ Στωικοὶ νοερὸν θεὸν ἀποφαίνονται, πῦρ τεχνικόν, ὃδῶ βαδίζον ἐπὶ γενέσει κόσμου, ἐμπεριειληφὸς πάντας τοὺς σπερματικούς λόγους, καθ' οὓς ἕκαστα καθ' εἰμαρμένην γίνονται. A 1.27.3 οἱ Στωικοὶ Πλάτωνι ἐμφερώς, καὶ τὴν μὲν ἀνάγκην ἀνίκητόν φασιν αἰτίαν καὶ βιαστικήν, τὴν δ' εἰμαρμένην συμπλοκὴν αἰτίων τεταγμένην, ἐν ᾗ συμπλοκὴ καὶ τὸ παρ' ἡμᾶς, ὥστε τὰ μὲν εἰμάρθαι τὰ δ' ἀνειμάρθαι.

§5 A 1.11.7 οἱ Στωικοὶ τὸ πρῶτον αἴτιον ὥρισαντο κινητόν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The witnesses are the same as for the preceding chapter, which is its companion piece; with the important exception that G includes the present chapter as his single one on fate (so ch. 1.27 is lacking) and retains all five doxai. For the P tradition we have P^B, Q, G and the paraphrase of Ioannes Lydus (complete except for P₄).

(2) In addition S has all doxai except P₄ (now §4 in A), viz. in his order §1, §2, §5, and §3. See further section A(4) below.

(3) Of this chapter T records a phrase of §3 plus §4, which are his nos. 4 and 5.

(4) §3: The doxa of Chrysippus in S is considerably longer than its equivalent in P and is not corroborated by T. At M–R 1.253–254 (= M–R 3.326) we have argued that the final lines of the doxa, S 1.5.15 p. 79.8–20 (quoted below at section E(b)§3) printed by Diels as part of the paragraph in the b-column of *DG*, with their interesting etymological content, are more likely for stylistic reasons to have been excerpted from AD than A, so we do not include them in our

reconstruction of A. This type of coalescence is found more often in the *Anthology*, see Diels *DG* 75 n. 2, M–R 1.249–254, and Jeremiah at M–R 4.286 and 353. (Von Arnim at *SVF* 2.913 assigns the whole of S p. 79.1–20 to S only, neglecting the parallel of the first section in P, so goes too far in the other direction.) This section of the paragraph has much in common with Diogenianus at Eus. *PE* 6.8.8–10 (*SVF* 2.914, see section E(b)§3), a text copied *from Eusebius* by T at CAG 6.11–12—that is, interpolated by him a little before his excerpts from A 1.25–29 at CAG 6.13–15, while it would have been much easier to copy from A if it had been there! So one has to acknowledge that he did *not* find it in A. When this is added to the stylistic peculiarities of the text, the argument for exclusion from A may be considered settled. By placing the Chrysippus lemma at the end of his series of excerpts from chs. 1.28–29, he facilitated the coalescence of material from A with material from AD. The quotation from Chrysippus *On Definitions* in A may have inspired him to look for similar evidence elsewhere, though in other cases he did not need such prompting.

(5) A similar conclusion may be suggested for the beginning of §3; perhaps, for we cannot be certain, as S's ἀποφαίνεται (two more instances in S: at p. 232.35 for A 3.3.10 and p. 472.12 for A 4.8.3) is paralleled at p. 79.5 in P for A 4.8.3, and the section μεταλαμβάνει ... ἐτέρας ἐπιβολάς (p. 79.8–12) is not incompatible with A's manner. But instead of P's single brief reference 'and again in *On Definitions*' followed by three definitions shared by both sources, S attributes the definition with which the lemma begins in both sources at §3[2] to 'Book 2 of the *On the Cosmos*', and the three definitions that come next at §3[2–5] to 'Book 2 of the *On Definitions*', the '*On Fate*', and 'other works'. This seems to be excessive for A and more germane to AD's mode of presentation, cf. M–R 1.253–254, Mansfeld (2002a) 61 = M–R 3.408, n. 111. So S presumably coalesced A and AD already at the beginning of 1.5.15, p. 79.1–8 too; cf. above, critical apparatus to §3.

(6) §4. The lemma, preserved in both P and T, is missing in S, this time without compensation from AD. Instead he adds the final two lemmata from ch. 1.27 (Zeno, Antipater). He may have thought that he had enough Stoic doxai with specific name-labels, and so decided to delete the general doxa §4. Whatever the reason, this is one of the five significant cases of P and T in agreement against S (see *Introduction*, section 2.5 with n. 42).

B Proximate Tradition and Sources

See at ch. 1.27 above at Commentary B.

C Chapter Heading

Attested in both P and S, and of the standard umbrella type 'about x', περὶ τοῦ δεῖναι (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30)

on the foundational concepts of physics are without exception introduced by headings of the umbrella type. In the present chapter we note a specialized version of the standard type through addition of the term οὐσία. The precise heading Περί οὐσίας εἰμαρμένη should denote some sort of meaningful distinction from that of the previous chapter, 1.27 Περί εἰμαρμένης. Compare ch. 1.22 at Commentary C, on the distinction between 1.22 Περί οὐσίας χρόνου and 1.21 Περί χρόνου (with a preliminary account of parallel *Placita* headings). The distinction between fate according to ‘activity’ (ἐνέργεια) and fate according to ‘substance’, or ‘essence’ (οὐσία), which is of prime importance in the Platonizing expositions of both ps.Plutarch *De fato* and Calcidius, cannot easily be reconciled with that between the previous chapter and the present one; see below, section D(d) general points. What we have here, rather, is a distinction between nominal definitions of fate in ch. 1.27 and of fate qua physical entity in ch. 1.28 (esp. §1 σπέρμα, §2 λόγος, §3 δύναμις πνευματική); see at ch. 1.27 Commentary C.

D Analysis

a Context

See above ch. 1.25 at Commentary D(a).

b Number–Order of Lemmata

(1) See above ch. 1.27 at Commentary D(b) for the problems thrown up by the witnesses and S in particular. For the present chapter the number and order of the lemmata are hardly in dispute, although §3 could perhaps also have been accommodated in ch. 1.27. For reasons that we try to explain at section A(4) above, S postpones the long Chrysippean doxa combined from A and AD until the final place in his doxographical excerpts. Otherwise all three witnesses agree in their ordering of the five doxai to the extent that they retain them (only P, it seems, is complete).

(2) It is worth noting that there is a sort of correspondence between chs. 1.27 and 1.28 in that both end with a theological doxa.

c Rationale–Structure of Chapter

(1) *Diaphoniae*. The three doxai assembled in §§1–3 are also concerned with fate as *logos*, or *Logos*, on a gliding scale and in chronological sequence. In contrast §§4–5 not only are not explicit about the physical role of fate, but also no longer include *logos*. Furthermore §2 is opposed to §1 in that this *logos* is said to be eternal for Plato, whereas it is, in the guise of fire, the origin of cosmogony for Heraclitus. There is no reference to cosmogony in §§3–5 either, so these paragraphs too are opposed to §1, although the eternity of the equiva-

lents of fate is not mentioned. Finally there are differences of opinion among the Stoics of §§3–5, though what is in §4 is an addendum to §3 rather than a critical response to it.

(2) The view of Posidonius in §5 is the maverick and so is appropriately listed at the end, as in contrast to the others he is said to locate fate not in the primary and dominating position, but only as a third factor, after Zeus and nature.

d Further Comments

General Points

(1) *Nominal definitions.* At ch. 1.27, Commentary C, we pointed out that the definitions found there have a general and conceptual character. The first three paragraphs of the present chapter are about the role of fate in the universe (§1, §2, §3), or the cosmos (§3 again), so clearly belong with *physics*. This may be thought to imply that we are faced with what the other ps.Plutarch and Calcidius call the ‘activity’ of fate, and not with what these other authors understand its οὐσία to be (cf. at section C above). §§3–4 lack this physical application, but perhaps this is implied after what has been expressed in the previous three paragraphs. On the other hand, while Plato on fate as the eternal *logos* and law of the nature of the universe is located at §2 of our present chapter on the οὐσία, this same Plato on the ‘laws applying to the nature of the All’ belongs with the ἐνέργεια of fate according to ps.Plutarch *Fat.* c. 1, 568C. Plato’s view, moreover, is said to have been ‘roughly sketched’ by him (τὸ πω ὑπέγραψεν); accordingly, this first account of the actuality of fate, a cento of Platonic citations, is of a conceptual nature, and the exposition of the real nature of this actuality is still to follow. This characterization is not found in Calcidius’ parallel version, or in Nemesius. For nominal definitions and their role in the *Placita* see above, ch. 1.9 Commentary D(c) and (e)(2).

(2) As noted before, this distinction between fate in actuality and its οὐσία, which prevails both in the ps.Plutarchean *De fato* and the account of Calcidius and could be a later development, is not paralleled in A. Finally, according to ps.Plutarch and Calcidius the οὐσία of fate is the tripartite World Soul consisting of (1) the sphere of the fixed stars, (2) the spheres of the planets, and (3) the sphere below the moon. Of this view there is no trace whatsoever in our *Placita* chapters either. Accordingly, just as with chs. 1.21–22 and the parallels in Sextus Empiricus, so also with chs. 1.27–28 and the parallels in ps.Plutarch and Calcidius there is no overall agreement as to structure, some shared features notwithstanding.

See also above ch. 1.27 at Commentary D(d) general points.

Individual Points

§1 In the description of the activity of the *logos* the phrase τῆς οὐσίας is omitted by G and Ioannes Lydus and might seem unnecessary. But S records οὐσίας without the article and the awkward repetition of οὐσία in a different sense makes it the *lectio difficilior*.

αἰθέριον σῶμα as a rule pertains to the so-called fifth element. The fire of this thoroughly Stoicized Heraclitus is called αἰθέριον σῶμα, which is not unparalleled in a Stoic context though more usual as a formula for Aristotle's fifth (or first) element. The circular movement of the fire, or aether, is transposed into one directing the cosmic cycle. The divine seed responsible for the cosmic cycle is of Stoic provenance.

§§3–4 The present contrast between Chrysippus and the other Stoics is the opposite of that in the previous chapter. Chrysippus now speaks of *Logos* and Providence, while 'the (other) Stoics' posit the 'inviolable concatenation of causes'. But at 1.27.3–4 'the Stoics' were said to hold that 'some things are fated (for us) and others not fated', while Chrysippus was said to identify 'what is fated' with 'what has been necessitated'. The phrase λόγος τῶν ἐν τῷ κόσμῳ προνοία διοικουμένων, shared by P, S, and T (and paralleled in Nem) certainly goes back to A.

§3[6] τάξει in the dative with διοικητικὴν is awkward, but must be retained. τάξιν in G and Ioannes Lydus smoothes the text but slightly alters its meaning, while Meineke's emendation τάξεως is otiose. Q may have read καί between the two nouns, but it may also be part of a smoothing process on his part.

§3[7–9] There is considerable variation in the mss. in relation to the triple description of fate here. It is best to take all three as based on the role of λόγος, as found in S, with the variant νόμος in P^{B(I,111)} perhaps introduced under the influence of §2, with the different reading in P^{B(11)} being the result of confusion.

§4 G reads οἱ ἄλλοι Στωικοί here, whereas all the other witnesses read οἱ Στωικοί. Given that the previous doxa was attributed to the celebrated Stoic Chrysippus, the reading in G makes excellent sense and was adopted by Beck (1787) 36 for P, though he places ἄλλοι in square brackets. It is a difficult decision. There is only one real parallel for a named member of a school being contrasted with other members of a school, but it is imperfect: at ch. 2.15.1–2, where Xenocrates (not a Stoic, but claimed to be an inspiration for them at ch. 1.7.21) is followed by οἱ ἄλλοι Στωικοί in P,S. The phrase (οἱ μὲν) ἄλλοι as name-label is rather common in G (10 cases), compared with P (8), S (11), and T (3). So he may have easily added the qualification himself. Since S omits the second doxa and T is too skimpy to help, sound methodology dictates that we must record what we deem to be the correct reading in P. Given that G regularly has superior readings to P^B and Q and his reading makes superior sense, it is justified to follow

G, as we have done in our text above. A further argument in favour is that in the previous chapter (not excerpted by G), namely at ch. 1.27.3–4, Chrysippus is contrasted with οἱ Στωϊκοί, although there the word ἄλλοι is lacking.

§5 A different order is found in the parallel at Cicero *Div.* 1.125, see Theiler (1982) 2.300.

e Other Evidence

Especially the accounts in ps.Plutarch *De fato* cc. 1–6 and Calcidius *in Tim.* cc. 142–190, and also Nemesius *NH* cc. 35–40, are valuable parallels. As to the differences with those sources concerned with the οὐσία of fate that have been pointed out above, one should bear in mind that A and his tradition are earlier than the lost source of the others. It is only natural that views about the activity and substance of fate underwent a further development. This apparently helped to overcome the unsatisfactory ambiguities of the situation represented by our chs. 1.27–28 (and 1.25–26).

Also compare our comments on the companion piece of the present chapter, ch. 1.27.

E Further Related Texts

a Proximate Tradition

General texts: (NB: pertains to both ch. 28 and ch. 27) Cicero *Div.* 1.125 (on Stoics, *SVF* 2.921) *quocirca primum mihi videtur, ut Posidonius* (F 107 E.-K, 377 Theiler) *facit, a deo, de quo satis dictum est, deinde a fato, deinde a natura vis omnis divinandi ratioque repetenda. fieri igitur omnia fato ratio cogit fateri. fatum autem id appello, quod Graeci εἰμαρμένην, id est ordinem seriemque causarum, cum causae causa nexa rem ex se gignat. ea est ex omni aeternitate fluens veritas sempiterna. quod cum ita sit, nihil est factum, quod non futurum fuerit, eodemque modo nihil est futurum, cuius non causas id ipsum efficientes natura contineat. ex quo intellegitur, ut fatum sit non id, quod superstitiose, sed id, quod physice dicitur, causa aeterna rerum, cur et ea, quae praeterierunt, facta sint et, quae instant, fiant et, quae sequuntur, futura sint.* ps.Plutarch *Fat.* 568C πρῶτον τοίνυν ἴσθι, ὅτι εἰμαρμένη διχῶς καὶ λέγεται καὶ νοεῖται· ἡ μὲν γάρ ἐστιν ἐνέργεια ἡ δ' οὐσία.

Chapter heading: see ps.Plutarch *Fat.* c. 1, 568C and Calcidius §§143–144 below §2

§1 **Heraclitus:** Arius Didymus fr. 20 Diels at Stob. *Ecl.* 1.11.5a, p. 133.3–5 (on Zeno, *SVF* 1.87) διὰ ταύτης (sc. τῆς ὕλης) δὲ διαθεῖν τὸν τοῦ παντὸς λόγον, ὃν ἔνιοι εἰμαρμένην καλοῦσιν, οἷον περ καὶ ἐν τῇ γονῇ τὸ σπέρμα. fr. 36 Diels at Stob. *Ecl.* 1.20.1e, p. 171.2–5 Ζήνωνι (*SVF* 1.107) καὶ Κλεάνθει (*SVF* 1.512) καὶ Χρυσίππῳ (*SVF* 2.596) ἀρέσκει τὴν οὐσίαν μεταβάλλειν οἷον εἰς σπέρμα τὸ πῦρ, καὶ πάλιν ἐκ τοῦτου τοιαύτην ἀποτελεῖσθαι τὴν διακόσμησιν, οἷα πρότερον ἦν = at Eus. *PE* 15.18.3 ἀρέσκει γὰρ τοῖς Στωϊκοῖς φιλοσόφοις (*SVF* 2.596) τὴν ὅλην οὐσίαν εἰς πῦρ μετα-

βάλλειν, οἷον εἰς σπέρμα, καὶ πάλιν ἐκ τούτου αὐτὴν ἀποτελεῖσθαι τὴν διακόσμησιν, οἷα πρότερον ἦν. καὶ τοῦτο τὸ δόγμα τῶν ἀπὸ τῆς αἰρέσεως οἱ πρῶτοι καὶ πρεσβύτεροι προσήκοντο, Ζήνων (SVF 1.107) τε καὶ Κλεάνθης (—) καὶ Χρύσιππος.

§2 **Plato: ps.Plutarch Fat.** 568C–D πρῶτον τοίνυν ἴσθι, ὅτι εἰμαρμένη διχῶς καὶ λέγεται καὶ νοεῖται· ἡ μὲν γάρ ἐστιν ἐνέργεια ἡ δ' οὐσία. πρῶτον μὲν οὖν ἐνέργειαν τύπῳ ὑπέγραψεν ὁ Πλάτων ἔν τε τῷ Φαίδρῳ (248c) λέγων 'θεσμός τε Ἀδραστείας ὁδε, ἥτις ἂν (ψυχῇ) θεῷ ξυνοπαδὸς γενομένη', ἐν τε τῷ Τιμαίῳ (cf. *Tim.* 41e) 'νόμους' οὓς ἐπὶ τῇ τοῦ παντὸς φύσει ὁ θεὸς εἶπε ταῖς ἀθανάτοις (D) ψυχαῖς· ἐν δὲ τῇ Πολιτείᾳ (*Rep.* 617d) 'Ἀνάγκης θυγατρὸς κόρης Λαχέσεως λόγον' φησὶν εἶναι τὴν εἰμαρμένην, οὐ τραγικῶς ἀλλὰ θεολογικῶς τὸ ἀρέσκον αὐτῷ ἀποφαινόμενος. εἰ δὲ κοινότερον ἐθέλοι τις ταῦτα μεταλαβὼν ὑπογράψαι, ὥς μὲν ἐν Φαίδρῳ, λέγοιτ' ἂν ἡ εἰμαρμένη λόγος θεῖος ἀπαράβατος δι' αἰτίαν ἀνεμπόδιστον, ὥς δ' ἐν τῷ Τιμαίῳ, νόμος ἀκόλουθος τῇ τοῦ παντὸς φύσει, καθ' ὃν διεξάγεται τὰ γινόμενα, ***. *Fat.* 568F πάλιν γε μὴν τὴν κατ' ἐνέργειαν εἰμαρμένην ἀναλαβόντες λέγωμεν· περὶ γὰρ ταύτην τὰ πολλὰ ζητήματα φυσικὰ τε καὶ ἠθικὰ καὶ διαλεκτικὰ τυγχάνει ὄντα. τίς μὲν οὖν ἐστίν, ἐπιεικῶς ἀφώρισται· ὅποια δ' ἐστίν, ἐξῆς ῥητέον, εἰ καὶ πολλοῖς ἄτοπον φαίνεται. **Calcidius in Tim.** cc. 143–144 *fatum ergo iuxta Platonem dupliciter intellegitur et dicitur, unum, cum substantiam eius animo intuemur, alterum, cum ex his quae agit et esse id et cuius modi vim habeat recognoscimus. idem fatum in Phaedro* (248c) *quidem 'scitum inevitabile', in Timaeo* (cf. *Tim.* 41e) *'leges quas deus de universae rei natura dixerit caelestibus animis', porro in Politia* (*Resp.* 617d) *'Lacheseos' appellat 'orationem', non tragice sed more theologorum.* (144) *possumus ergo inevitabile quidem 'scitum' interpretari legem minime mutabilem ex inevitabili causa, 'leges' vero, quas 'de universa natura dixit animis' deus, legem quae mundi naturam sequitur et qua reguntur mundana omnia, Lacheseos vero, hoc est Necessitatis (filiae), orationem divinam legem, qua prae-teritis et item praesentibus conectuntur futura.* in *Tim.* c. 147 *ipsae vero 'leges' quae 'dictae' sunt fatum est idque divina lex est mundi animae insinuata, salubre rerum omnium regimen.* in *Tim.* c. 148 *nunc iam de fato, quod in munere atque actu positum est, loquemur, quippe de hoc plurimae disceptationes habentur morales naturales logicae.* in *Tim.* c. 149–150 *'scitum' porro dei lex est, quam inexcusabilem fore asseruimus ob inevitabilem causam.* (150) *haec porro lex et 'oratio' est et 'sanctio' (Tim. 41a), quam sanxit deus animae mundi (i.e., fato in substantiam posito) ad perpetuam rerum omnium gubernationem, neque enim ut esset mundus modo, sed ut aeternus et indissolubilis esset, curaverat.* in *Tim.* c. 152 *est igitur universae rei anima fatum in substantia positum; est item data huic informatio rem omnem recte gerendi lex, quae in munere atque actu positum fatum continet.* in *Tim.* c. 189 *lex porro ipsum fatum est, ut saepe diximus.*

§3 **Chrysippus: Cicero Div.** 1.125–126 (SVF 2.921) *ex quo intellegitur, ut fatum sit ... quod physice dicitur, causa aeterna rerum, cur et ea, quae praeterierunt, facta sint et, quae instant, fiant et, quae sequuntur, futura sint.* **Diogenes Laertius V.P.** 7.149 (SVF 2.915) ἔστι δ' εἰμαρμένη αἰτία τῶν ὅλων εἰρομένη ἢ λόγος καθ' ὃν ὁ κόσμος διεξάγεται.

§5 *The other Stoics: Cicero Div. 1.125 quocirca primum mihi videtur, ut Posidonius (F 107 E.-K., 377 Theiler) facit, a deo, ... , deinde a fato, deinde a natura vis omnis divinandi ratioque repetenda.*

b Sources and Other Parallel Texts

§1 **Heraclitus:** Plutarch *An.Procr.* 1026B ἀνάγκην, ἣν εἰμαρμένην οἱ πολλοὶ καλοῦσιν, Ἐμπεδοκλῆς δὲ (cf. section E(b) for 1.26.1) ..., Ἡράκλειτος δὲ (cf. 22B51 DK) παλίντροπον ἁρμονίην κόσμου (κόσμου added by Plutarch or his source, see Heracl. fr. 27 (e³) Marcovich) ὁκωσπερ λύρης καὶ τόξου. **Clement of Alexandria Strom.** 5.14.89.2–3 (quoted at Eus. *PE* 13.13.1) φασὶ γὰρ σῶμα εἶναι τὸν θεὸν οἱ Στωϊκοὶ (*SVF* 2.1035) καὶ πνεῦμα κατ' οὐσίαν, ... ἀλλ' οἱ μὲν διήκειν διὰ πάσης τῆς οὐσίας τὸν θεὸν φασιν, ἡμεῖς δὲ κτλ. **ps.Galen Qual.Inc.** 19.478.1–2 K. (*SVF* 2.327) τὸ αἰθέριον δὴ ἐκεῖνο πῦρ, ὃ φ' οὐ φασιν (*SVF* 2.327) τὰ τε στοιχεῖα καὶ τὸν κόσμον γεγενῆσθαι. **Diogenes Laertius V.P.** 9.7 (on Heraclitus, 22A1 DK) πάντα δὲ γίνεσθαι καθ' εἰμαρμένην καὶ διὰ τῆς ἐναντιοτροπῆς [ἐναντιοδρομίας Diels] ἡρμόσθαι τὰ ὄντα. *V.P.* 9.8 (on Heraclitus, 22A1 DK) γεννᾶσθαι τε αὐτὸν (sc. τὸν κόσμον) ἐκ πυρὸς καὶ πάλιν ἐκπυροῦσθαι κατὰ τινὰς περιόδους ἐναλλάξ τὸν σύμπαντα αἰῶνα· τοῦτο δὲ γίνεσθαι καθ' εἰμαρμένην. **Porphyrus** (Περὶ ἀγαλμάτων) F359.106–110 Smith at Eus. *PE* 3.11.42 τοῦ δὲ λόγου τοῦ πάντων ποιητικοῦ τε καὶ ἐρμηνευτικοῦ ὁ Ἑρμῆς παραστατικός. ὁ δὲ ἐντεταμένος Ἑρμῆς δηλοῖ τὴν εὐτονίαν· δείκνυσι δὲ καὶ τὸν σπερματικὸν λόγον τὸν διήκοντα διὰ πάντων. **Simplicius in Phys.** 24.4–6 (**Theophrastus Phys.Op.** fr. 1 Diels, 225 FHS&G) πυρὸς γὰρ ἀμοιβὴν εἶναι φησιν Ἡράκλειτος (22A5 DK) πάντα· ποιεῖ δὲ καὶ τάξιν τινὰ καὶ χρόνον ὠρισμένον τῆς τοῦ κόσμου μεταβολῆς κατὰ τινὰ εἰμαρμένην ἀνάγκην.

§2 **Plato:** **Plato Tim.** 41d–e διεῖλεν ψυχὰς ἰσαρίθμους τοῖς ἄστροις, ἔνειμέν θ' ἐκάστην πρὸς ἕκαστον, καὶ ἐμβιβάσας ὡς ἐς ὄχημα τὴν τοῦ παντός φύσιν ἔδειξεν, νόμους τε τοὺς εἰμαρμένους εἶπεν αὐταῖς. *Leg.* 10 904c μεταβάλλει μὲν τοῖνυν πᾶνθ' ὅσα μέτοχά ἐστιν ψυχῆς, ἐν ἑαυτοῖς κεκτημένα τὴν τῆς μεταβολῆς αἰτίαν, μεταβάλλοντα δὲ φέρεται κατὰ τὴν τῆς εἰμαρμένης τάξιν καὶ νόμον. **Alcinous Did.** c. 16, p. 172.8–11 H. ἐμβιβάσας τε ὡς εἰς ὄχημα ἄστρον τὸ σύννομον (cf. *Tim.* 41d–e, 42b) ἀπάσας (sc. τὰς ψυχὰς) 'νόμους τοὺς εἰμαρμένους εἶπεν αὐταῖς' (cf. *Tim.* 41d) νομοθέτου τρόπον, ὅπως αὐτὸς 'ἀναίτιος' ἦ (cf. *Rep.* 617c). *Did.* c. 26, p. 179.3–4 H. ἡ γὰρ 'εἰμαρμένη νόμου τάξιν' (cf. *Leg.* 904c) ἐπέχουσα. **ps.Plutarch Fat.** 568E–F ἡ (δὲ) κατ' οὐσίαν (sc. εἰμαρμένη) ἔοικεν εἶναι σύμπας· ἡ τοῦ κόσμου ψυχὴ τριχῇ διανεμηθεῖσα, εἰς τε τὴν ἀπλανῆ μοῖραν καὶ εἰς τὴν πλανᾶσθαι νομιζομένην καὶ τρίτην εἰς τὴν ὑπουράνιον τὴν περὶ γῆν ὑπάρχουσαν· ὣν ἡ μὲν ἀνωτάτω Κλωθῶ προσαγορεύεται, ἡ δὲ μετ' αὐτὴν Ἀτροπος, ἡ κατωτάτω δ' αὖ Λάχεσις, δεχομένη μὲν τὰς οὐρανίας τῶν ἀδελφῶν ἐνεργείας, συμπλέκουσα δὲ καὶ διαδιδοῦσα ταύτας εἰς τὰ ὑπ' αὐτῇ τεταγμένα τὰ ἐπίγεια. δυνάμει μὲν οὖν εἴρηται, ὅποια χρὴ λέγεσθαι (F) περὶ τῆς κατ' οὐσίαν εἰμαρμένης· καὶ γὰρ ἥτις ἐστὶ (sc. ἡ τοῦ κόσμου ψυχὴ) καὶ πόση τις (sc. τριχῇ διανεμηθεῖσα) καὶ ὅποια (sc. Κλωθῶ, Ἀτροπος, Λάχεσις) καὶ ὅπως τέτακται (sc. ἀνωτάτω, μετ' αὐτὴν, κατωτάτω) καὶ ὅπως ἔχει αὐτὴ τε πρὸς ἑαυτὴν (sc. Λάχεσις δεχομένη μὲν τὰς οὐρανίας τῶν ἀδελφῶν ἐνεργείας) καὶ δὴ καὶ πρὸς ἡμᾶς (sc. διαδιδοῦσα ταύτας εἰς τὰ ὑπ' αὐτῇ τεταγμένα τὰ ἐπίγεια) ὡς ἐν ἐπιτομῇ εἴρηται.

Calcidius in Tim. c. 144 at vero in substantia positum fatum mundi anima est, tripartita in aplanem sphaeram inque eam quae putatur erratica et in sublunarem tertiam; quarum elatam quidem ad superna dici Atropon, mediam Clotho, imam Lachesin.

§§3–5 *Chrysippus, the other Stoics, Posidonius: Diogenes Laertius V.P. 7.149* καθ' εἰμαρμένην δέ φασι τὰ πάντα γίνεσθαι Χρύσιππος (SVF 2.915) ἐν τοῖς Περὶ εἰμαρμένης καὶ Ποσειδώνιος (F 25 E.-K., 381 Theiler) ἐν β' Περὶ εἰμαρμένης καὶ Ζήνων (SVF 1.175), Βόηθος (SVF 3 Boeth. 5) δ' ἐν α' Περὶ εἰμαρμένης. ἔστι δὲ εἰμαρμένη αἰτία τῶν ὄντων εἰρομένη ἢ λόγος καθ' ὃν ὁ κόσμος διεξάγεται.

§3 *Chrysippus: Chrysippus SVF 2.937 at Plu. SR 1050C–D* (verbatim; ἐν τῷ πρώτῳ περὶ Φύσεως?) ἔτι δὲ καὶ ταῦθ' ὅρα τὰ κατὰ λέξιν οὕτως ἔχοντα· 'τῆς γὰρ κοινῆς φύσεως εἰς πάντα διατεινούσης δεήσει πᾶν τὸ ὅπως οὖν γινόμενον ἐν τῷ ὄλῳ καὶ τῶν μορίων ὁπωσὺν κατ' ἐκείνην γενέσθαι καὶ τὸν ἐκείνης λόγον κατὰ τὸ ἐξῆς ἀκωλύτως διὰ τὸ μήτ' ἔξωθεν εἶναι τὸ ἐνστησόμενον τῇ οἰκονομίᾳ μήτε τῶν μερῶν μηδὲν ἔχειν ὅπως κινήσεται ἢ σχήσει ἄλλως (ἢ) κατὰ τὴν κοινὴν φύσιν'. *Diogenianus at Eus. PE 6.8.8–10* (cf. *Theodoret CAG 6.11–12*) τεκμήριον δὲ καὶ ἄλλο ἰσχυρὸν φέρειν Χρύσιππος (SVF 2.914) οἶται τοῦ ἐν ἅπασιν εἰμαρμένην τὴν θέσιν τῶν τοιούτων ὀνομάτων. τὴν τε γὰρ πεπωμένην πεπερασμένην τινὰ φησιν εἶναι καὶ συντετελεσμένην διοίκησιν, τὴν τε εἰμαρμένην εἰρομένην τινὰ εἶτε ἐκ θεοῦ βουλήσεως εἶτε ἐξ ἧς δὴ ποτε αἰτίας. (9) ἀλλὰ καὶ τὰς Μοῖρας ὀνομάσθαι ἀπὸ τοῦ μεμερίσθαι καὶ κατανεμερίσθαι τινὰ ἡμῶν ἐκάστω. οὕτως δὲ καὶ τὸ χρεῶν εἰρησθαι τὸ ἐπιβάλλον καὶ καθήκον κατὰ τὴν εἰμαρμένην. τὸν τε ἀριθμὸν τῶν Μοιρῶν τοὺς τρεῖς ὑποβάλλει χρόνους ἐν οἷς κυκλεῖται τὰ πάντα καὶ δι' ὧν ἐπιτελεῖται. (10) καὶ Λάχεσιν μὲν κεκληθῆναι παρὰ τὸ λαγχάνειν ἐκάστω τὸ πεπωμένον, Ἀτροπον δὲ κατὰ τὸ ἄτρεπτον καὶ ἀμετάθετον τοῦ μερισμοῦ, Κλωθῶ δὲ παρὰ τὸ συγκεκλωσθαι καὶ συνείρεσθαι τὰ πάντα καὶ μίαν αὐτῶν τεταγμένην τινὰ εἶναι διέξοδον. ταῦτα γὰρ καὶ τὰ τούτοις παραπλήσια φλυαρῶν ἀποδεικνύει τὴν ἐν ἅπασιν ἀνάγκην νομίζει. also at Eus. PE 6.8.20 (—) ὅ τε γὰρ τῶν Μοιρῶν ἀριθμὸς καὶ τὰ ὀνόματα αὐτῶν καὶ ὁ τῆς Κλωθῆς ἄτρακτος καὶ τὸ ἐπειλημένον αὐτῷ νῆμα καὶ τὸ ἐπικλωσμα τούτου καὶ ὅσα τοιαῦτα ἄλλα λέγεται ἐν ἐκείνοις, ἐνδείκνυται τὸ ἀπαράβατον καὶ ἐξ αἰῶνος καθήκον τῶν αἰτιῶν, ὅσα οὕτωςι κατηνάγκασται γενέσθαι καὶ ὅσα ἄλλως ἔχειν κεκώλυται. *Arius Didymus fr. 29 Diels at Eus. PE 15.15.6* (SVF 2.527) διὸ δὴ καὶ Ζεὺς λέγεται ὁ κόσμος καθ' ὅσον δὲ εἰρομένῳ λόγῳ πάντα διοικεῖ ἀπαράβατως ἐξ αἰδίου προσονομάζεσθαι Εἰμαρμένην· Ἀδράστειαν δὲ, ὅτι οὐδὲν ἔστιν αὐτὸν ἀποδιδράσκειν. *Stobaeus 1.5.15, p. 79.8–20* (SVF 2.913—probably *Arius Didymus fr. 29 Diels*, see above section A) μεταλαμβάνει (sc. Χρύσιππος) δ' ἀντὶ τοῦ λόγου τὴν ἀλήθειαν, τὴν αἰτίαν, τὴν φύσιν, τὴν ἀνάγκην, προστιθεὶς καὶ ἐτέρας ὀνομασίας, ὡς ἐπὶ τῆς αὐτῆς οὐσίας τασσομένης καθ' ἐτέρας καὶ ἐτέρας ἐπιβολάς. Μοῖρας δὲ καλεῖσθαι ἀπὸ τοῦ κατ' αὐτάς διαμερισμοῦ, Κλωθῶ καὶ Λάχεσιν καὶ Ἀτροπον. Λάχεσιν μὲν, ὅτι ὃν κλήρον λελόγησιν ἕκαστοι κατὰ τὸ δίκαιον ἀπονέμεται· Ἀτροπον δὲ, ὅτι ἀμετάτρεπτος καὶ ἀμετάβλητός ἐστιν ὁ καθ' ἕκαστα διορισμὸς ἐξ αἰδίων χρόνων· Κλωθῶ δὲ, ὅτι ἢ κατὰ τὴν εἰμαρμένην διανέμησις καὶ τὰ γεννώμενα τοῖς κλωθομένοισι παραπλησίως διεξάγεται, κατὰ τὴν ἐτυμολογικὴν ἐξήγησιν τῶν ὀνομάτων ἅμα καὶ τῶν πραγμάτων συμπαρισταμένων εὐχρήστως.

§4 *The other Stoics: Seneca Prov. 5.7 causa pendet ex causa. Alexander of Aphrodisias* *Fat.* c. 22, p. 191.32–192.11 (on Stoics, *SVF* 2.945) ἔχειν τὴν τῶν ὄντων διοίκησιν αἰδίων κατὰ εἰρμόν τινα καὶ τάξιν προϊοῦσαν κτλ. *Fat.* c. 23, p. 193.4–8 (*SVF* 2.945) τὸ γοῦν πρῶτον εἰρημένον ὡς πάντων τῶν ὄντων αἰτίων τινῶν γινομένων τῶν μετὰ ταῦτα καὶ τοῦτον τὸν τρόπον ἐχομένων ἀλλήλων τῶν πραγμάτων τῷ δίκῃν ἀλύσεως τοῖς πρώτοις συνηρτησθαι τὰ δεύτερα, ὃ ὥσπερ οὐσίαν τῆς εἰμαρμένης ὑποτίθενται, πῶς οὐ φανερώς ἀπάδει τῶν πραγμάτων; *Fat.* c. 25, p. 195.1–4 (on Stoics, *SVF* 2.948) θαυμάσειεν ἂν τις αὐτοὺς τὴν τῶν αἰτίων ἀπόδοσιν τοῦτον ποιοῦμένους τὸν τρόπον ὡς αἰεὶ τὸ πρῶτον γεγονὸς αἰτιάσθαι τοῦ μετὰ τοῦτο καὶ ποιεῖν ἐπισυνδεσθῆναι τινα καὶ συνέχειαν τῶν αἰτίων, καὶ ταύτην τοῦ μηδὲν ἀναιτίως γίνεσθαι φέρονται τὴν αἰτίαν. *Alexander of Aphrodisias(?) de An.Mant.* 105.5 εἰρμόν γοῦν αἰτίων αὐτὴν φασιν (*SVF* 2.920) εἶναι. *Corpus Hermeticum* fr. 13 Nock–Festugière at Stob. *Ecl.* 1.4.7b, p. 72.4–5 ἀνάγκη ἐστὶ κρίσις βεβαία καὶ ἀμετάτρεπτος δύναμις προνοίας. fr. 14 Nock–Festugière at Stob. *Ecl.* 1.5.16, pp. 79.23–80.3 εἰμαρμένη δὲ ἄγει καὶ περιάγει πάντα καταναγκάζουσα (φύσις γάρ ἐστιν αὐτῆς τὸ ἀναγκάζειν), αἰτία γενέσεως καὶ φθοράς. καὶ ἡ μὲν διακρατοῦσα τὸν ὅλον κόσμον πρόνοιά ἐστιν, ἡ δὲ συνέχουσα καὶ περιέχουσα ἀνάγκη ἐστίν.

§5 *Posidonius*: Cf. Numenius fr. 22 Des Places.

Liber 1 Caput 29

PB: ps.Plutarchus *Plac.* 885C–D; pp. 324^a7–326^a8 Diels—**PG:** ps.Galenus *HPh* c. 43; p. 620.23–27 Diels—**PQ:** Qusṭā ibn Lūqā pp. 136–137 Daiber—**PPs:** Psel-lus *Omn.Doctr.* c. 106, p. 59 Westerink
S: Stobaeus *Ecl.* 1.6.17a, p. 87.17–22, 87.9–16 + 1.6.17c, p. 89.6–7 + 1.7.9a, p. 92.12–17 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112a39 Henry (titulus solus)
T: Theodoretus *CAG* 6.3–4, p. 150.9–15; 6.15, p. 154.2–9 Raeder
Cf. Nem: Nemesius *NH* c. 39, p. 112.13–113.1 Morani

Titulus καθ'. Περὶ τύχης (P,S)

- §1 Πλάτων αἰτίαν ἐν προαιρετικοῖς κατὰ συμβεβηκός καὶ παρακολούθημα καὶ σύμπτωμα, καὶ προαιρέσεως κατὰ τὴν πρὸς τὸ τέλος πρόθεσιν ἐναλλακτικὴν σχέσιν. (P1,S2,T1)
- §2 Ἀριστοτέλης αἰτίαν κατὰ συμβεβηκός ἐν τοῖς καθ' ὁρμὴν ἕνεκά τινος γιγνομένοις ἀδηλον καὶ ἄστατον. διαφέρειν δὲ τῆς τύχης τὸ αὐτόματον· τὸ μὲν γὰρ ἀπὸ τύχης καὶ τοῦ αὐτομάτου εἶναι ἐν τοῖς πρακτέοις πάντως· τὸ δ' αὐτόματον οὐκ ἀπὸ τύχης, ἐν γὰρ τοῖς ἔξω πράξεως· καὶ τὴν μὲν τύχην τῶν λογικῶν, τὸ δ' αὐτόματον καὶ τῶν λογικῶν καὶ τῶν ἀλόγων ζώων καὶ ἀψύχων σωμάτων· καὶ τὴν μὲν τύχην προαιρέτως συμβαίνειν, τὸ δ' ἀπροαιρέτως· καὶ τὴν μὲν τινος ὑπάρχοντος γίνεσθαι, τὸ δὲ ἀλόγως, μηδενὸς ἔξω βουλευθέντος. (P2,S3–S1,T2)
- §3 Ἐπίκουρος ἄστατον αἰτίαν προσώποις χρόνοις τόποις· (καὶ πάντα) κατ' ἀνάγκην κατὰ προαίρεσιν κατὰ τύχην (γίνεσθαι). (P3,S4–S5)

§1 Plato —; §2 Aristoteles cf. *Phys.* 2.5 197a5–10, 2.6 197a33–b32, *Met.* K.8 1065a30–1065b4;
 §3 Epicurus frs. 380, 375 Usener

titulus Περὶ τύχης ^{PBQG} : Περὶ τύχης καὶ αὐτομάτου ^{PPs} : Περὶ τύχης ἢ αὐτομάτου S (et cf. tit. S 1.7 ὅτι ἀλόγιστος ἢ φορὰ τῆς τύχης) §1 [2] ante αἰτίαν add. τὴν τύχην ἀπεφάνετο S || ἐν προαιρετικοῖς P : ἀπροαιρέτοις S || καὶ ^{PBQS} : om. ^{PG} || [3–4] καὶ¹ ... σχέσιν S (cf. T), om. P || [3–4] κατὰ ... σχέσιν S : om. T || [3] καὶ σύμπτωμα καὶ S : καὶ πάλιν ξύμπτωμα φύσεως ἢ T ('fortasse recte' Diels) §2 [6] ἀδηλόν (τε T) καὶ ἄστατον ^{PBQT} : ἄστατον καὶ ἀδηλόν S || δὲ ^{PBQ}(ut vid.) : om. S || [7] γὰρ om. ^{PB(II)} || ἀπὸ ^{PBQ}(ut vid.)^{SF} : ἐκ ^{SP} || [9] τῶν³ om. ^{SP} || [10] ζώων om. S, secl. Diels ap. P ut glossema || σωμάτων om. S, secl. Diels ap. P ut glossema || [9–11] καὶ ... βουλευθέντος S, om. PT §3 [13] ἄστατον ^{PB(II)QS} : ἀσύστατον ^{PB(III)} || τῶποις ^{PB(II)Q} : τῆροις ^{PB(III)} S, corr. Wachsmuth || [13–14] καὶ (πάντα) ... (γίνεσθαι) scripsimus, Usener secuti : κατ' ἀνάγκην κατὰ προαίρεσιν κατὰ τύχην S, om. ^{PB}

§4 Ἀναξαγόρας καὶ Δημόκριτος καὶ οἱ Στωικοὶ ἄδηλον αἰτίαν ἀνθρωπίνῳ 15
λογισμῷ· ἃ μὲν γὰρ εἶναι κατ' ἀνάγκην, ἃ δὲ καθ' εἰμαρμένην, ἃ δὲ
κατὰ προαίρεσιν, ἃ δὲ κατὰ τύχην, ἃ δὲ κατὰ τὸ αὐτόματον. (P4,S6,T3)

§4 Anaxagoras 59A66 DK; Democritus 68A70; Stoici SVF 2.966

§4 [15] Ἀναξαγόρας ... Στωικοὶ scripsimus : Ἀναξαγόρας (δὲ P^G) καὶ οἱ Στωικοὶ P^{BQGS} : Ἀναξα-
γόρας δὲ καὶ Δημόκριτος καὶ οἱ ἐκ τῆς Ποικίλης T || [15–16] ἀνθρωπίνῳ λογισμῷ P^{BQS} : ἀνθρω-
πίνῳ λόγῳ T : ἀνθρωπίνους λογισμοὺς P^{G(Nic)} ἀνθρωπίνων λογισμῶν P^{G(mss.)} sec. Jas per litt. ||
[16–17] ἃ μὲν ... ἃ δὲ κτλ.] τὰ μὲν ... τὰ δὲ κτλ. P^G

Testes primi:

Theodoretus CAG 6.3–4 vid. supra ad c. 1.25.

- 6.15 καὶ τὴν τύχην δὲ ὡσαύτως οἱ μὲν θεὸν ὑπέλαβον καὶ ὡς θεὸν ἐσεβάσθησαν·
15.1 (~ §1) ὁ δὲ Πλάτων αἰτίαν εἶναι εἶπε κατὰ τι ξυμβεβηκὸς γινομένην, καὶ πάλιν
ξύμπτωμα φύσεως ἢ προαιρέσεως κέκληκεν.
15.2 (~ §2) καὶ ὁ Ἀριστοτέλης δὲ ὡσαύτως αἰτίαν ἔφη κατὰ ξυμβεβηκὸς ἐν τοῖς καθ'
ὁρμὴν ἔνεκέν τινος γινομένοις ἄδηλόν τε καὶ ἄστατον.
15.3 (~ §4) Ἀναξαγόρας δὲ καὶ Δημόκριτος καὶ οἱ ἐκ τῆς Ποικίλης ὠνομασμένοι ἄδη-
λον αἰτίαν ἀνθρωπίνῳ λόγῳ.

Traditio ps.Plutarchi:

ps.Galenus HPh c. 43 (~ tit.) Περὶ τύχης (text Diels)

- 43.1 (~ P1) Πλάτων αἰτίαν ἐν προαιρετικοῖς κατὰ συμβεβηκὸς παρακολούθημα.
43.2 (~ P4) Ἀναξαγόρας δὲ καὶ οἱ Στωικοὶ αἰτίαν ἄδηλον ἀνθρωπίνῳ λογισμῷ (sed
in app. suo ἀνθρωπίνων et ἀνθρωπίνους λογισμοὺς, vid. app. supra). καὶ τὰ μὲν
εἶναι κατὰ ἀνάγκην, τὰ δὲ κατὰ προαίρεσιν, τὰ δὲ κατὰ τύχην, τὰ δὲ κατὰ τὸ
αὐτόματον.

Psellus *Omn.Doctr.* c. 106 Περὶ τύχης (~ tit.) καὶ αὐτομάτου

τὴν τύχην οὐχ, ὡς νομίζουσι τινές, οἱ ἀκριβέστεροι τῶν φιλοσόφων ἐδέξαντο οἶον ἄλο-
γον τινὰ φύσιν καὶ μὴ ἔχουσαν τάξιν μὴδὲ εἰρμόν, ἀλλὰ παρακολούθημα ταύτην
ἀόριστον ἐν τοῖς κατὰ προαίρεσιν καὶ ἔνεκα τινὸς γινομένοις ὠρίσαντο (cf. P1) ...
τὸ μέντοι γε αὐτόματον καὶ ἐν τοῖς λογικοῖς καὶ ἐν τοῖς ἀλόγοις τιθέασιν (cf. P2).
ἐν μὲν τοῖς λογικοῖς ...

Testes secundi:

Nemesius NH c. 39, p. 112.19–113.1 τῶν γινομένων πάντων ... ἡ τύχην ἢ τὸ αὐτόμα-
τον, τῆς δὲ τύχης τὰ σπάνια καὶ ἀπροσδόκητα (sc. φασιν αἴτιον εἶναι)· ὀρίζονται
γὰρ τὴν τύχην σύμπτωσιν καὶ συνδρομὴν δύο αἰτίων ἀπὸ προαιρέσεως τὴν ἀρχὴν
ἐχόντων ἄλλο τι, παρ' ὃ πέφυκεν, ἀποτελούντων, ὡς τὰ φρονέοντα ὁρῶσιν τῆς θησαυ-
ρὸν εὐρεῖν· οὐτε γὰρ ὁ θεὸς οὕτω τέθεικεν ὡς τοῦτον εὐρεῖν, οὐτε ὁ εὐρὼν οὕτως
ὠρύξεν ὡς εὐρεῖν θησαυρόν, ἀλλ' ὁ μὲν ἴν' ὅταν θέλῃ ἀνέλθῃται, ὁ δὲ ἵνα τάφον
ὁρύξῃ· συνέπεσε δὲ ἄλλο τι, παρ' ὃ προήρηντο ἀμφοτέρω. τοῦ δὲ αὐτομάτου τὰ
τῶν ἀψύχων ἢ ἀλόγων συμπτώματα ἀνευ φύσεως καὶ τέχνης (~ §2).

Loci Aetiani:

quaestio A 1.1.2 πάντα γὰρ τὰ ὀρώμενα, ὅσα μήτε ὑπὸ τύχης μήτε ὑπ' ἀνάγκης μήτ' ἐστὶ θεία μήτε τοιαύτην αἰτίαν ἔχει, φυσικὰ λέγεται καὶ φύσιν ἔχει ἰδίαν. A 5.12.1 οἱ μὲν πλείστοι τῶν ἱατρῶν τυχικῶς καὶ αὐτομάτως (sc. ἄλλοις γίνονται ὅμοιοι οἱ γεννώμενοι).

§1 A 1.22.6 Ἐπίκουρος σύμπτωμα, τοῦτο δ' ἐστὶ παρακολούθημα κινήσεων.

§2 A 1.2.3 ἔστιν οὖν κατὰ τὸν Ἀριστοτέλην φύσις ἀρχὴ κινήσεως καὶ ἡρεμίας, ἐν ᾗ πρῶτως ἐστὶ καὶ οὐ κατὰ συμβεβηκός. A 1.11.3 Πυθαγόρας Ἀριστοτέλης τὰ μὲν πρῶτα αἴτια ἀσώματα, τὰ δὲ κατὰ μετοχὴν ἢ κατὰ συμβεβηκός τῆς σωματικῆς ὑποστάσεως.

§4 A 2.8.1 Διογένης Ἀναξαγόρας μετὰ τὸ συστήναι τὸν κόσμον καὶ τὰ ζῶα ἐκ τῆς γῆς ἐξαγαγεῖν ἐγκλιθῆναι πῶς τὸν κόσμον ἐκ τοῦ αὐτομάτου εἰς τὸ μεσημνηβρινὸν αὐτοῦ μέρος κτλ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The chapter is quite well attested in all three major witnesses, but there are complications in the evidence of S. In the P tradition G only preserves two of the four lemmata found in P^B and Q, while Ps takes over only snippets. S spreads the material he drew from A over two short chapters, namely §§1–2 (plus a Theophrastus lemma) in ch. 6 'On chance or the spontaneous' and §§3–4 in ch. 7 'That the course of chance is not calculable'.

(2) T includes limited but valuable material from A's chapter in his broad-brush survey of Hellenic views on necessity, fate and chance; cf. above, *General Introduction*, section 2.5, and also Mansfeld at M–R 4.78, 181.

(3) Difficulties are caused by S, who cites rather more than P and in so doing includes material, the origin of which is difficult to determine. His evidence must be examined in detail. In part our present conclusions are different from our earlier efforts.

(a) At ch. 1.6.17a, p. 87.17–20, S cites the Platonic doxa (P₁S₂) in a fuller form than is found in P, followed by the first two lines of the Aristotelian doxa (P₂S₃), in exactly the same order as in P, so these two texts are clearly lifted from A as a block.

(b) The second part of this Aristotelian doxa (S₁P₂) is inserted at p. 87.9–16 by S *before* the Platonic doxa (P₁S₂), with a necessary addition of the name-label. This too is quoted in a fuller form than is found in P. Since he has called his chapter 'On chance or the spontaneous' and has already introduced the terms

in the poetic quotes in his ch. 6.1–16, S apparently wished first to clarify the difference between them, for his coalesced section of doxai from A 1.29 now begins with διαφέρειν δὲ τῆς τύχης τὸ αὐτόματον instead of the Plato doxa on τύχη alone. His addition of τὴν τύχην ἀπεφαίνετο to the Plato doxa (S2) shows that from now on he no longer deals with the αὐτόματον.

(c) After the first two lines of the Aristotelian doxa (P2,S3), he appends another eight lines (p. 87.23–88.6, καὶ ὑποθέσεις ... τεταγμένοις) on principles and causes not in P that cannot be regarded as certainly derived from A. This type of coalescence is found more often in the *Anthology*, see Diels *DG* 75 n. 2, M–R 1.249–254, and Jeremiah at M–R 4.286 and 353. Diels, however, prints them in §2. At M–R 1.254 and 3.326–327 we argued that they more likely reflect the more discursive approach of AD, and still believe that this is the more likely attribution. We have thus excluded them from our text. The inverted order of the final words of the first two lines of the Aristotelian doxa (P2,S3) in S (ἄστατον καὶ ἄδηλον) as compared with P's ἄδηλον καὶ ἄστατον betrays the seam.

(d) After a quote from Plato *Leg.* 4 709a–c at 1.6.17b, S continues at 1.6.17c p. 89.2–5 with a doxa attributed to Theophrastus, which commences with the words Θεόφραστος προσδιαρθροῖ ταῖς αἰτίαις τὴν κατὰ προαίρεσιν. The rare verb προσδιαρθρέω is also found in S at 2.7.6a, p. 2.76.1 in an ethical doxography from AD, and elsewhere in extant Greek literature before the fourth cent. CE only at Anon. in *Theaetetus* p. 56.36 Bastianini–Sedley. There are no other doxai in A directly reporting Theophrastus' views (if our reconstruction of ch. 2.20 is accepted; at A 1.prooem. 3 his name is conjoined with that of Aristotle). It is very likely, therefore, that this brief report is taken from AD, who is excerpted a few pages later in the chapter on time. Departing from Diels *DG*, we have not included it in our text. See further M–R 1.254 and 3.327.

(e) After the Theophrastean report there is a very brief and no doubt incomplete doxa attributed to Epicurus, but differing from the doxa cited later at S 1.7.9a. Since its contents are unexceptionally doxographical and run parallel to the doxa of Anaxagoras etc. at §5, a place must be found for them in our reconstruction. There are two possibilities. (i) The words can be attached to the Epicurean doxa §3. Its two parts would then be parallel to those in the following doxa §4. (ii) They can be added as a further doxa after §4. They would then make a contrast with the second part of that doxa. Although it is not uncommon for two doxai to be ascribed to the same philosopher in a single chapter (cf. e.g. chs. 2.13, 2.20, 2.24), we have chosen the former and simpler option, deviating from Diels *DG*, who simply juxtaposes them in the order found (in separate chapters) in S, see immediately below at section A(f). We have filled out the doxa following the suggestion of Usener (1887) 253, although the verb γίγνεσθαι may be unnecessary as the formulations at chs. 1.25.2 and 1.25.4 indicate.

(f) In the next chapter 1.7.9a S then cites a brief doxa ascribed to Epicurus, similar in form to the first parts of the other three doxai in P. It certainly derives from A.

(g) Next S cites the final lemma in P in an identical form to that in P. A difficulty here is that P and S both independently of each other have just the name-labels Anaxagoras and the Stoics, whereas T adds the name of Democritus between the two others. We follow Diels and Luria in accepting the additional attribution. The doxa is certainly compatible with Atomist thought (cf. Aristotle *Phys.* 2.4 196b6–7 (68A70 DK); *Met.* Γ.5 1009b7–10 (68A112 DK), note ἄδηλον at b10).

(h) Finally S cites a brief aphoristic description of chance: τύχη ἀτάκτου ἐνεργείας ἐστὶ προσηγορία. Lacking a name-label, this sentence does not fit in the chapter and should be set aside. It may be related to the Hermetic definition at S 1.41.1, l. 118 τύχη φορὰ ἀτακτος, ἐνεργείας εἰδωλον, δόξα ψευδής.

(4) We may conclude that, although S adds some material to P in three of the four doxai, P has preserved the basic structure and thought of the chapter. It is very likely he had no more than the four doxai preserved in P.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The proximate tradition is particularly rich. It consists of the largely parallel accounts in ps.Plutarch *Fat.* c. 8 and Calcidius in *Tim.* cc. 158–159, to some extent paralleled in Nemesius *NH* c. 33 (cited as a *testis secundus*) and Alexander of Aphrodisias *Fat.* cc. 7–8. The final note of §4 is also paralleled in the proximate tradition. See Gercke (1886).

(2) *Sources.* §2 has been abstracted from two successive chapters belonging to the argument dealing with τύχη and τὸ αὐτόματον in Aristotle's *Physics*, as Diels already noted (for additions to this material by S see above, at section A). At *DG* 215 Diels includes ch. 1.29.2 (29.2–3 in his numbering, including the section we attribute to AD) among his sparse examples of a close reading—according to him by A—of the text of Aristotle's *pragmateiai* ('[i]psius Aristotelis doctrina ... ex accurata eius lectione hausta', cf. chs. 1.9.1, 1.23.2, 4.8.6, 4.9.3, and 5.3.1 at Commentary B), and next refers to *Phys.* 2.5 197a5–10 and 2.6 197a36. It is at least clear that §2[5–6] Ἀριστοτέλης αἰτίαν κατὰ συμβεβηκός ἐν τοῖς καθ' ὁρμήν ἕνεκά τινος γιγνομένοις ἄδηλον καὶ ἄστατον has been literally abstracted from *Phys.* 2.5 197a5–10 δῆλον ἄρα ὅτι ἡ τύχη αἰτία κατὰ συμβεβηκός ἐν τοῖς κατὰ προαίρεσιν τῶν ἕνεκά του. ... ὅθεν καὶ ἡ τύχη τοῦ ἀορίστου εἶναι δοκεῖ καὶ ἄδηλος ἀνθρώπῳ. The substitution of ὁρμήν for προαίρεσιν is interesting, but note that the word προαιρέτως follows a few lines further down.

The extremely terse §3 on Epicurus derives from passages in the *Letter to Menoeceus* or similar expositions in one or more lost works.

C Chapter Heading

Attested in both P and S (but see below), and of the standard umbrella type 'about x', *περὶ τοῦ δεῖναι* (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 (plus 1.30) on the foundational concepts of physics are without exception introduced by headings of the umbrella type. In the present chapter it allows for the question type/category of substance and the question type of cause. It is widely paralleled as a book title. The longer umbrella heading *Περὶ τύχης ἢ αὐτομάτου* as in S (and the parallel embedded headings in the related accounts of ps.Plutarch *Fat.* c. 7, 571E and Calcidius *in Tim.* c. 158), though more accurately reflecting the contents of the chapter, should not be favoured, because *τύχη* and not *τὸ αὐτόματον* is to be understood as the grammatical subject of the first sentences of all four lemmata (in §1 S has to add *τὴν τύχην ἀπεφαίνετο*).

D Analysis

a Context

This is the last chapter of the block of five interrelated chapters dealing with necessity, fate, and chance. Treatment of chance after fate can be paralleled in for instance ps.Plutarch *De fato* and Calcidius *In Timaeum*. In S ch. 1.5 'On fate and the spontaneous' is followed by 1.6 'On chance'. With the chapter *Περὶ τύχης* the presentation of the important theoretical concepts of physics ends for all practical purposes, since ch. 1.30 *Περὶ φύσεως* is an appendix to ch. 1.24, and is also associated with ch. 1.1 *Τί ἐστιν ἡ φύσις*.

b Number–Order of Lemmata

(1) The four doxai in P can all be located in S and three of the four are also cited by T in the same order as in P (the exception is the Epicurean doxa).

(2) S has split up the Aristotle doxa, citing a first part before and a second part after the Plato doxa, which makes the repetition of the name-label Aristotle unavoidable. Diels gives a separate paragraph (his §2 and §3) to each of these, presumably also inspired by the fact that they have been abstracted from successive chapters in Aristotle's *Physics*, see above at section B. Thus, P₁ = S₂ and P₂ = S₁ + S₃. Adapting P's single original paragraph to the arrangement in S, he distributes P's Aristotle doxa over the two paragraphs §2 and §3. S also appears to have added more material to the Aristotelian material, see above at A. We have not followed Diels' rearrangement.

c Rationale–Structure of Chapter

Diaphoniae. The structure is not very clear, and the oppositions are not very pronounced. The doxai are listed on several gliding scales. §1 Plato and §2 Aris-

total are in agreement that chance is an accidental cause, §2 Aristotle and §3 Epicurus that it is unstable, though according to the first in the context of purposeful action, and according to the second under several kinds of circumstances. Again, §2 Aristotle and §4 Anaxagoras Democritus the Stoics are agreed in distinguishing between chance and the spontaneous, while §1 Plato and §3 Epicurus do not mention the latter. Furthermore, §4 Anaxagoras Democritus the Stoics distinguish necessity (cf. chs. 1.25–26) and fate (cf. chs. 1.27–28) on the one hand from chance and the voluntary and the spontaneous on the other; §3 Epicurus distinguishes from each other necessity, the voluntary, and chance; while §1 Plato includes chance in the realm of the voluntary and does not mention necessity (which presumably implies that he is made to distinguish it from chance, but see ch. 1.27.2).

d Further Comments

Individual Points

§1 Diels ad loc. is correct in preferring P's ἐν προαιρετικοῖς to ἐν ἀπροαιρέτοις in S, as the rest of the doxa shows. Diels gives as parallel the discussion at ps.Plutarch *Fat.* c. 7, 571E–572C, which shows that the treatment of chance in Platonist interpretations emphasizes its role in human action (digging in order to plant a tree and fortuitously finding gold). Note that κατὰ συμβεβηκός goes with ἐν προαιρετικοῖς only, but even the term σύμπτωμα appears to refer to human action only. A similar approach is found in the Aristotelian doxa, lines [8–12], where the contrast with τὸ αὐτόματον is made explicit. We note that S (σύμπτωμα, καὶ προαιρέσεως) and T (ξύμπτωμα φύσεως ἢ προαιρέσεως) have preserved words not found in P's lemma; these must go back to A, another instance of the significance of agreement between S and T against P.

Diels ad loc. further argues that T's καὶ πάλιν ξύμπτωμα φύσεως ἢ προαιρέσεως may be correct. But the addition of ἢ προαιρέσεως makes the sentence grammatically awkward, if not impossible. We follow Wachsmuth in placing a comma after σύμπτωμα and taking προαιρέσεως with the final word σχέσιν.

§3 On the second part of the doxa see above section D(b). The combination persons times places is originally rhetorical, see Nem c. 31, p. 31.14–17, quoted section E(b)§3.

§4 Diels ad loc. places the name Anaxagoras in parentheses because he believes that it is not found in the mss. of S. However, as indicated by Wachsmuth ad loc., the Presocratic's name is found in an abbreviated form in the margin of the ms. P and fully written out in the margin of F a little higher on the page.

e Other Evidence

Aristotle discusses chance and the spontaneous at *Phys.* 2.4–6. The substantial accounts of ps.Plutarch, Nemesius and Calcidius have been mentioned above at section B.

E Further Related Texts

a Proximate Tradition

General texts: ps.Plutarch *Fat.* 571E περί δὲ τῆς τύχης καὶ τοῦ αὐτομάτου καὶ εἴ τι παρὰ ταῦτα θεωρεῖται, νῦν ἡμῖν λεκτέον. αἷτιον μὲν δὴ τι ἡ τύχη. **Calcidius in Tim.** c. 158 *nunc, quoniam quid rerum sit providentia quidve fatum in substantia positum et item quod in munere atque actu invenitur quidve in hominis potestate sit, quid item quod iuxta fati decretum provenit, prosecuti sumus, de fortuna deque his quae casu proveniunt disseremus.*

Chapter heading: see above General texts

§1 Plato: ps.Plutarch *Fat.* 572A–B κατὰ δὲ τοὺς ἀπὸ Πλάτωνος, ἔγγιον ἔτι προσιόντας αὐτῆς τῷ λόγῳ, οὕτως ἀφώρισται ἡ τύχη· αἰτία κατὰ συμβεβηκὸς τῶν ἔνεκά του ἐν τοῖς κατὰ προαίρεσιν (but the definition is Aristotelian, see *Phys.* 2.5 197.5–6 δῆλον ἄρα ὅτι ἡ τύχη αἰτία κατὰ συμβεβηκὸς ἐν τοῖς κατὰ προαίρεσιν τῶν ἔνεκά του). **Calcidius in Tim.** cc. 158–159 *fortuna quidem inrationabilis et cum admiratione proventus inopinus ex hominum proposito* (sc. ἀπὸ προαιρέσεως) *sumit originem. ... (159) ... sic etiam fortuna recte definiri potest: fortuna est concursus simul cadentium causarum duarum originem ex proposito trahentium, ex quo concursu provenit aliquid praeter spem cum admiratione.*

§2 Aristotle: ps.Plutarch *Fat.* 572D–E τὸ δὲ ὅλον, ὡς τὸ ἐφ' ἡμῖν μέρος τοῦ ἐνδεχομένου, οὕτως ἡ τύχη τοῦ αὐτομάτου. ἔστι τε ἐκατέρου ἐκάτερον σύμπτωμα, τὸ μὲν αὐτόματον τοῦ ἐνδεχομένου, ἡ δὲ τύχη τοῦ ἐφ' ἡμῖν, καὶ τούτου οὐχ ἅπαντος, ἀλλ' ὅπερ ἂν καὶ κατὰ προαίρεσιν ᾗ, ὡς προεῖρηται. διὸ καὶ τὸ μὲν αὐτόματον κοινὸν ἐμφύχων τε καὶ ἀψύχων, ἡ δὲ τύχη ἀνθρώπου ἤδη πράττειν δυναμένου. **Calcidius in Tim.** c. 158 *fortuna potestatem omnem in rebus hominum dicit esse* [sc. Plato, but in fact a view of Aristotle, cf. *Phys.* 2.6 179b6–8, see below at section E(b)§2], *casus aliam quandam iurisdictionem. quae enim vel rebus vita carentibus vel sine ratione viventibus animalibus accidunt non ex natura vel arte, haec omnia casu facta dicuntur, quae vero hominibus accidunt vel faventia negotiis eorum vel adversantia, fortuita et ex fortunae arbitrio putantur.*

§3 Epicurus: Stobaeus *Ecl.* 1.6.17.c, pp. 87.23–88.6 (printed by Diels as 1.29.2, *DG* 325^b3–15, but possibly to be attributed to AD, see section A(3)(c)) καὶ ὑποθέσεις μὲν δύο ταῖς ἀρχαῖς ἐνυπάρχειν (sc. Ἀριστοτέλης ἀπεφάνετο), τάξιν τε καὶ ἀταξίαν, αἰτίας δὲ τέτταρας ἐν τοῖς ὅλοις καθ' ἃς ἅπαντα συνίσταται, νοῦν φύσιν ἀνάγκην τύχην (*EN* 3.4 112a30–34)· καὶ τούτων διπλὴν ἐκάστην, τὴν μὲν ἐν τοῖς ἀνθρωπίνοις πράγμασι τὴν δ' ἐν ἄλλοις· τελεῖσθαι δὲ τὰ μὲν πάντως τὰ δὲ κατὰ τὸ πλείστον τὰ δ' ἄλλοτε ἄλλως. τὴν δ' εἰμαρμένην οὐκ αἰτίαν μὲν, τρόπον δὲ τινα αἰτίας, συμβεβηκότα πως τοῖς τῆς ἀνάγκης τεταγμένοις. *Ecl.* 1.6.17c, p. 89.2–5 (printed by Diels as 1.29.4, *DG* 325^b29–326^b2, but probably to be attributed to AD, see section A(3)(d)) Θεόφραστος (fr. 503 FHS&G) προσδιαιροῖ ταῖς αἰτίαις τὴν κατὰ προαίρεσιν· φέρεται δὲ πως εἰς τὸ εἰμαρμένην εἶναι τὴν ἐκάστου φύσιν·

ἐν ᾗ τόπον τεττάρων αἰτιῶν ποικίλων, προαιρέσεως (φύσεως add. Heeren prob. Wachsmuth) τύχης καὶ ἀνάγκης.

§4 *Anaxagoras Democritus*: ps.Plutarch *Fat.* 572A διὸ καὶ ἀπρονόητον αἰτίαν καὶ ἄδηλον ἀνθρωπίνῳ λογισμῷ τὴν τύχην ἀπέδωσαν τῶν παλαιῶν ἔνιοι.

b Sources and Other Parallel Texts

General texts: Aristotle *Phys.* 2.4 195b31–196a3 λέγεται δὲ καὶ ἡ τύχη καὶ τὸ αὐτόματον τῶν αἰτιῶν, καὶ πολλὰ καὶ εἶναι καὶ γίνεσθαι διὰ τύχην καὶ διὰ τὸ αὐτόματον· τίνα οὖν τρόπον ἐν τούτοις ἐστὶ τοῖς αἰτίοις ἡ τύχη καὶ τὸ αὐτόματον, καὶ πότερον τὸ αὐτὸ ἡ τύχη καὶ τὸ αὐτόματον ἢ ἕτερον, καὶ ὅπως τί ἐστὶν ἡ τύχη καὶ τὸ αὐτόματον, ἐπισκεπτέον. ἔνιοι (Democritus fr. 24 Luria) γὰρ καὶ εἰ ἔστιν ἡ μὴ ἀποροῦσιν· οὐδὲν γὰρ δὴ γίνεσθαι ἀπὸ τύχης φασίν, ἀλλὰ πάντων εἶναι τι αἴτιον ὠρισμένον ὅσα λέγομεν ἀπὸ ταυτομάτου γίνεσθαι ἢ τύχης. *Phys.* 2.4 196a24–25. **Alexander of Aphrodisias(?)** *An.Mant.* c. 24, p. 176.2–10 ἡ τύχη καὶ τὸ αὐτόματον, ὅτι μὲν ἐστὶν ἐν τοῖς οὖσιν, ἱκανὴ περὶ αὐτῶν ἡ κοινὴ τῶν ἀνθρώπων πρόληψις μαρτυροῦσα, τί δὲ ποτὲ ἐστὶν ἑκάτερον αὐτῶν καὶ περὶ τίνα τῶν ὄντων, οὐκέθ' οἱ πολλοὶ τῆς τῶν δεδογμένων διδασκαλίας κύριοι. οὔτε γὰρ ἑαυτοῖς οὔτε ἀλλήλοις συμφωνοῦσιν περὶ τῶνδε, συμφωνοῦντες ἐν τῇ περὶ τοῦ εἶναι ἑκάτερον αὐτῶν δόξῃ. ἄξιον τοίνυν ἐπιστήσαι, τίς ποθ' ἡ φύσις αὐτῶν καὶ περὶ τίνα τῶν ὄντων γίνεται. δοκεῖ τοίνυν ἐν τοῖς {αὐτοῖς} αἰτίοις καὶ ταῦτα καταριθμείσθαι· καὶ γὰρ ἡ τύχη αἰτία δοκεῖ τῶν γιγνομένων ἀπὸ τύχης, καὶ τὸ αὐτόματον τῶν τοιοῦτων [cf. above ch. 1.29, section E(a) General texts]. **Basil of Caesarea** *Hexaem.* 2.5 αἰεὶ γὰρ τῶν γινομένων τὰ μὲν ἐκ φύσεως ἡμῖν ἐπιγίνεται, οἷον γῆρας καὶ ἀσθένεια· τὰ δὲ ἀπὸ ταυτομάτου, οἷον αἱ ἄλλοι περιπτώσεις ἀλλοτρίαις ἀρχαῖς ἐπισυμβαίνουσιν, σκυθρωπῶν τινων πολλάκις ἢ καὶ τῶν φαιδροτέρων· ὥς τῷ φρέαρ ὀρύσσοντι ἢ τοῦ θησαυροῦ εὗρεσις, ἢ τῷ πρὸς τὴν ἀγορὰν ὠρμημένῳ ἢ τοῦ λυσσάντος κυνὸς ἔντευξις· τὰ δὲ ἐφ' ἡμῖν τυγχάνει, ὥς τὸ κρατῆσαι τῶν ἐπιθυμιῶν, ἢ μὴ κολάσαι τὰς ἡδονάς· ὥς τὸ κατασχεῖν ὀργῆς, ἢ χεῖρας ἐπαφεῖναι τῷ παροξύναντι· ἀληθεύειν, ἢ ψεύδεσθαι· ἐπεικῆ τὸ ἦθος εἶναι καὶ μέτριον, ἢ ὑπέρογκον καὶ ἀλαζονεῖαις ὑπεραιρόμενον. **Boethius** *in de Int. ed. sec.* p. 193.26–194.24 Meiser *Peripatetici enim, quorum Aristoteles princeps est ... et casum quidem esse in physicis probant: quotiens aliquid agitur et non id evenit, propter quod res illa coepta est quae agebatur, id quod evenit ex casu evenisse putandum est, ut casus quidem non sine aliqua actione sit, quotiens autem aliud quiddam evenit per actionem quae geritur quam speratur, illud evenisse casu Peripatetica probat auctoritas. si quis enim terram fodiens vel scrobem demittens agri cultus causa thesaurum reperiat, casu ille thesaurus inventus est, non sine aliqua quidem actione (terra enim fossa est, cum thesaurus inventus est), sed non illa erat agentis intentio, ut thesaurus inveniretur. ... Stoici (—) autem omnia quidem ex necessitate et providentia fieri putantes id quod ex casu fit non secundum ipsius fortunae naturam, sed secundum nostram ignorantiam metiuntur. id enim casu fieri putant, quod cum necessitate sit, tamen ab hominibus ignoretur.*

Chapter heading: Demetrius of Phaleron fr. 74 Wehrli, fr. 1 Stork–van Ophuisen–Dorandi at D.L. *V.P.* 5.81 no. 27 Περί τύχης α'. **Diogenes Laertius** *V.P.*

2.85 (Aristippus IV A 144 Giannantoni) *Περὶ τύχης*. **Diodorus Siculus** 31.10.1 Δημήτριος ὁ Φαληρεὺς ἐν τῷ *Περὶ Τύχης*. **Sphaerus** *SVF* 1.620 at D.L. *V.P.* 7.178 *Περὶ τύχης*. **Plutarch** *Περὶ τύχης*. **Dion Chrysostom** *Or.* 63 *Περὶ τύχης* πρῶτος λόγος. *Or.* 64 *Περὶ τύχης* δεύτερος. *Or.* 65 *Περὶ τύχης* τρίτος. **Alexander of Aphrodisias**(?) *de An.Mant.* 171.1 *Περὶ τύχης*. **Macrobius** *Sat.* 3.18.5 *meminit Varro in logistorico qui inscribitur Marius de fortuna*.

§2 Aristotle: Aristotle *APo.* 2.11 94b36–95a6 ἡ μὲν γὰρ ἕνεκά του ποιεῖ φύσις, ἡ δ' ἐξ ἀνάγκης. ἡ δ' ἀνάγκη διττὴ· ἡ μὲν γὰρ κατὰ φύσιν καὶ τὴν ὁρμὴν, ἡ δὲ βίᾳ ἡ παρὰ τὴν ὁρμὴν, ὥσπερ λίθος ἐξ ἀνάγκης καὶ ἄνω καὶ κάτω φέρεται, ἀλλ' οὐ διὰ τὴν αὐτὴν ἀνάγκην. ἐν δὲ τοῖς ἀπὸ διανοίας τὰ μὲν οὐδέποτε ἀπὸ τοῦ αὐτομάτου ὑπάρχει, οἷον οἰκία ἢ ἀνδριάς, οὐδ' ἐξ ἀνάγκης, ἀλλ' ἕνεκά του, τὰ δὲ καὶ ἀπὸ τύχης, οἷον ὑγίεια καὶ σωτηρία. *Phys.* 2.5 197a5–10 δῆλον ἄρα ὅτι ἡ τύχη αἰτία κατὰ συμβεβηκὸς ἐν τοῖς κατὰ προαίρεσιν τῶν ἕνεκά του. διὸ περὶ τὸ αὐτὸ διάνοια καὶ τύχη· ἡ γὰρ προαίρεσις οὐκ ἄνευ διανοίας. ἀόριστα μὲν οὖν τὰ αἰτία ἀνάγκη εἶναι ἀφ' ὧν ἂν γένοιτο τὸ ἀπὸ τύχης. ὅθεν καὶ ἡ τύχη τοῦ ἀορίστου εἶναι δοκεῖ καὶ ἀδηλος ἀνθρώπῳ. *Phys.* 2.6 197a36–b20 διαφέρει δ' ὅτι τὸ αὐτόματον ἐπὶ πλείον ἐστι· τὸ μὲν γὰρ ἀπὸ τύχης πᾶν ἀπὸ ταυτομάτου, τοῦτο δ' οὐ πᾶν ἀπὸ τύχης. ἡ μὲν γὰρ τύχη καὶ τὸ ἀπὸ τύχης ἐστὶν ὅσοις καὶ τὸ εὐτυχεῖσθαι ἂν ὑπάρξειεν καὶ ὅλως πράξις. ... ὥσθ' ὅποσοις μὴ ἐνδέχεται πράξαι, οὐδὲ τὸ ἀπὸ τύχης τι ποιῆσαι. καὶ διὰ τοῦτο οὔτε ἄψυχον οὐδὲν οὔτε θηρίον οὔτε παιδίον οὐδὲν ποιεῖ ἀπὸ τύχης, ὅτι οὐκ ἔχει προαίρεσιν· οὐδ' εὐτυχία οὐδ' ἀτυχία ὑπάρχει τούτοις, εἰ μὴ καθ' ὁμοιότητα. ... τὸ δ' αὐτόματον καὶ τοῖς ἄλλοις ζώοις καὶ πολλοῖς τῶν ἀψύχων, οἷον ὁ ἵππος αὐτόματος, φαμέν, ἦλθεν, ὅτι ἐσώθη μὲν ἐλθὼν, οὐ τοῦ σωθῆναι δὲ ἕνεκα ἦλθε· καὶ ὁ τρίπους αὐτόματος κατέπεσεν· ἔσθη μὲν γὰρ τοῦ καθῆσθαι ἕνεκα, ἀλλ' οὐ τοῦ καθῆσθαι ἕνεκα κατέπεσεν. ὥστε φανερόν ὅτι ἐν τοῖς ἀπλῶς ἕνεκά του γιγνομένοις, ὅταν μὴ τοῦ συμβάντος ἕνεκα γένηται ὧν ἕξω τὸ αἷτιον, τότε ἀπὸ τοῦ αὐτομάτου λέγομεν· κτλ. *GC* 2.6 333b4–7 τὰ γὰρ γινόμενα φύσει πάντα γίνεται ἢ αἰεὶ ἢ ὥς ἐπὶ τὸ πολὺ, τὰ δὲ παρὰ τὸ αἰεὶ καὶ ὥς ἐπὶ τὸ πολὺ ἀπὸ ταυτομάτου καὶ ἀπὸ τύχης. **Philo of Alexandria** at *Eus. PE* 8.14.34 τὸ ἄστατον τῆς τύχης. **ps.Plutarch** *Cons.* 103F τὸ τῆς τύχης ἄστατον καὶ ἀβέβαιον. **ps.Aristotle** *Ep.* 4.4 Hercher θεωροῦντες τὸ τῆς τύχης ἄστατον. **Simplicius in Phys.** 345.6–26 μετὰ τὸν περὶ τύχης λόγον ἀκόλουθον ἦν περὶ τοῦ αὐτομάτου διδάξαι λοιπόν, τί τέ ἐστι καὶ τί τῆς τύχης διαφέρει. πρῶτον δὲ τὴν κοινωνίαν αὐτῶν παραδίδωσιν, ὅτι ἔστιν ἄμφω κατὰ συμβεβηκὸς αἷτια· ... εἰπὼν τὴν κοινωνίαν τῆς τύχης καὶ τοῦ αὐτομάτου τὴν διαφορὰν αὐτῶν ἐφεξῆς παραδίδωσιν, ἐπὶ πλέον λέγων τὸ αὐτόματον τῆς τύχης, διότι τὸ μὲν ἀπὸ τύχης πᾶν καὶ ἀπὸ ταυτομάτου, τὸ δὲ ἀπὸ ταυτομάτου οὐ πᾶν ἀπὸ τύχης. ἡ μὲν γὰρ τύχη ἐν μόνοις ἐστὶ τοῖς πρακτοῖς, ἅπερ ἐστὶ κατὰ προαίρεσιν, ... διὸ καὶ ἔλεγε τὴν τύχην ἐν τοῖς ἀπὸ διανοίας εἶναι καὶ προαιρέσεως, τὸ δὲ αὐτόματον καὶ ἐν τούτοις καὶ ἐν τοῖς ἄλλοις, ὅσα ἕνεκά του γινόμενα μάτην μὲν ὅσον ἐπ' ἐκείνῳ ἐγένετο, ἄλλο δὲ τι τέλος ἔσχε τοῖς προηγησαμένοις ἀκολουθοῦν, εἴτε ἐν φυσικοῖς εἴτε ἐν ἀλόγοις εἴτε ἐν προαιρετικοῖς τοῦτο συμβαίη.

§3 Epicurus: Epicurus *Ep.Men.* at D.L. 10.131 τὸ συνεθίζειν οὖν ἐν ταῖς ἀπλαῖς ... διαίταις ... πρὸς τὴν τύχην ἀφόβους παρασκευάζει. *Ep.Men.* at D.L. 10.133–134 τὴν δὲ ὑπὸ τινων δεσποτῶν εἰσαγομένην πάντων † ἀγγέλλοντος †, ἃ δὲ ἀπὸ

τύχης, ἃ δὲ παρ' ἡμᾶς, διὰ τὸ τὴν μὲν ἀνάγκην ἀνυπεύθυνον εἶναι, τὴν δὲ τύχην ἄστατον ὄραν, τὸ δὲ παρ' ἡμᾶς ἀδέσποτον, ᾧ καὶ τὸ μεμπτὸν καὶ τὸ ἐναντίον παρακολουθεῖν πέφυκεν. (134) (ἐπεὶ κρεῖττον ἦν τῷ περὶ θεῶν μύθῳ κατακολουθεῖν ἢ τῇ τῶν φυσικῶν εἰμαρμένη δουλεύειν· ὁ μὲν γὰρ ἐλπίδα παραιτήσεως ὑπογράφει θεῶν διὰ τιμῆς, ἡ δὲ ἀπαραίτητον ἔχει τὴν ἀνάγκην), τὴν δὲ τύχην οὕτε θεόν, ὥς οἱ πολλοὶ νομίζουσιν, ὑπολαμβάνων ... οὔτε ἀβέβαιον αἰτίαν, (οὐκ) οἶεται μὲν γὰρ ἀγαθὸν ἢ κακὸν ἐκ ταύτης πρὸς τὸ μακαρίως ζῆν ἀνθρώποις διδασθαι, ἀρχὰς μέντοι μεγάλων ἀγαθῶν ἢ κακῶν ὑπὸ ταύτης χορηγεῖσθαι. **Philodemus Sign.** (*PHerc.* 1065) col. xxxiv.54.1–6 De Lacy–De Lacy διαπίπτουσιν δὲ καὶ καθόσον οὐ συν|βλέπουσιν τὸ λαμβάνειν ἡμᾶς | ὅτι οὐδὲν ἀντιπίπτει διὰ τῶν | φαινομένων. οὐ γὰρ ἰκανὸν εἰς | τὸ προσδέξασθαι τὰς ἐπ' ἑλάχι|στον παρεγκλίσεις τῶν ἀτόμων | διὰ τὸ τυχερὸν καὶ τὸ παρ' ἡμᾶς, | ἀλλὰ δε[ι] προσεπιδείξα[ι] καὶ τ[ὸ] | μηδ' ἄλλ[ο] ἐ[ν] τούτ[ω] μάχεσθ[αι] | τῶν ἐνα[ρ]γ[ῶν]. **Philo of Alexandria Conf.** 114 ἢ ὥς ὁ κόσμος οὐποτε γενέσεως ἔλαβεν ἀρχήν, ἢ ὥς γενόμενος ἀστάτοις αἰτίαις ὥς ἂν τύχῃ φέρεται. **Nemesius NH** c. 31, p. 97.14–17 τούτων οὕτω διωρισμένων ἐξῆς ῥητέον, ποῖά ἐστι τὰ καθ' ἕκαστα· ταῦτα δὲ ἐστὶν ἃ καλεῖται παρὰ τοῖς ῥήτορσι περιστατικά μόρια· τίς τίνα τί τίνι ποῦ πότε πῶς διὰ τί, οἷον πρόσωπον πρᾶγμα ὄργανον τόπος χρόνος τρόπος αἰτία.

§4 Anaxagoras Democritus: Aristotle Phys. 2.4 196b5–7 εἰσὶ δὲ τινες οἷς δοκεῖ εἶναι μὲν αἰτία ἡ τύχη, ἄδηλος δὲ ἀνθρωπίνῃ διανοίᾳ ὥς θεῖόν τι οὖσα καὶ δαιμονιώτερον. **Phys.** 2.5 197a910 ἡ τύχη τοῦ ἀορίστου εἶναι δοκεῖ καὶ ἄδηλος ἀνθρώπῳ. **ps.Plato Def.** 411b τύχη φορὰ ἐξ ἀδήλου εἰς ἄδηλον, καὶ ἡ ἐκ τοῦ αὐτομάτου αἰτία δαιμονίας πράξεως. **ps.Plutarch Fat.** 572A ἀπρονόητον αἰτίαν καὶ ἄδηλον ἀνθρωπίνῳ λογισμῷ τὴν τύχην ἀπέδωσαν τῶν παλαιῶν ἔνιοι. **Alexander of Aphrodisias Fat.** c. 8, p. 174.1–3 τί γὰρ ἄλλο ποιοῦσιν οἱ τὴν τύχην καὶ τὸ αὐτόματον ὀριζόμενοι αἰτίαν ἄδηλον ἀνθρωπίνῳ λογισμῷ, (ἢ) τύχης τι σημαίνονμενον ἴδιον εἰσάγουσιν τε καὶ νομοθετοῦσιν; **Fat.** c. 8, p. 179.6–9 (*SVF* 2.967) τὸ δὲ λέγειν τὴν τύχην αἰτίαν ἄδηλον ἀνθρωπίνῳ λογισμῷ οὐκ ἔστι φύσιν τινὰ τύχης τιθεμένων, ἀλλ' ἐν τῇ τῶν ἀνθρώπων πρὸς τὰ αἰτία ποιᾶ σχέσει τὴν τύχην εἶναι λεγόντων. **Simplicius in Phys.** 333.1–5 τινὲς δὲ καὶ αὐτόθεν ὁμολογοῦσιν εἶναι τὴν τύχην καὶ αἰτίαν αὐτὴν εἶναι λέγουσι· τί δὲ ἐστίν, οὐκ ἔχουσι λέγειν ἄδηλον αὐτὴν ἀνθρωπίνῃ διανοίᾳ νομίζοντες ὥς θεῖόν τι οὖσαν καὶ δαιμόνιον καὶ διὰ τοῦτο τὴν ἀνθρωπίνην γνῶσιν ὑπερβαίνον, ὥσπερ οἱ Στωικοὶ (*SVF* 2.965) δοκοῦσι λέγειν.

Liber 1 Caput 30

P^B : ps.Plutarchus *Plac.* 885D; pp. 326^a9–23 Diels—**P^G** : ps.Galenus *HPh* c. 20; pp. 611.16–18 Diels—**P^Q** : Qustā ibn Lūqā pp. 136–139 Daiber—cf. **P^{Sy}**: Symeon Seth *CRN* 4.59, p. 62.12 Delatte (titulus solus)
S : Stobaeus *Ecl.* 1.41, p. 273.1–2 Wachsmuth (titulus solus e Phot. *Bibl.* 167, p. 112b24–25 Henry)

Titulus λ'. Περί φύσεως (P,cf.S)

- §1 Ἐμπεδοκλῆς φύσιν μηδεν(ός) εἶναι, μίξιν δὲ τῶν στοιχείων καὶ διάστασιν. γράφει γὰρ οὕτως ἐν τῷ πρώτῳ τῶν Φυσικῶν·
ἄλλο δὲ τοι ἐρέω· φύσις οὐδεν(ός) ἐστὶν ἀπάντων
θνητῶν, οὐδὲ τις οὐλομένου θανάτοιο τελευτῇ,
ἀλλὰ μόνον μίξις τε διάλλαξις τε μιγέντων
ἐστί, φύσις δὲ βροτοῖς ὀνομάζεται ἀνθρώποισιν. (P1)
§2 Ἀναξαγόρας ὁμοίως τὴν φύσιν σύγκρισιν καὶ διάκρισιν, τουτέστι γένεσιν καὶ φθοράν. (P2)

5

§1 Empedocles 31B8 DK; §2 Anaxagoras cf. 59B17 DK

titulus Περί φύσεως **P^{BQ}G**, cf. Περί φύσεως καὶ τῶν συμβαινόντων ἐξ αὐτῆς **S^{Phot}** §1 [2] μηδενός Stein prob. Diels : μηδέν **P^{BQ}** prob. Mau Lachenaud || τῶν στοιχείων] om. **P^Q** || τῶν **P^{B(11)Q}** : om. **P^{B(1,111)}** || [3] Φυσικῶν **P^{B(1,11)Q}** : Φυσικῶ **P^{B(111)}** || [4] οὐδενός coni. Stein Diels ex Plu. *Adv. Col.* 1111F et Arist. *Met.* Δ.4 1015a1 prob. edd. : οὐδέν **P** || [6] post τε¹ hab. **P^{B(111)}** καὶ §2 [8] Ἀναξαγόρας ὁμοίως] al. **P^G** ἄλλοι δὲ || καὶ διάκρισιν] om. **P^Q**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 20 (~ tit.) Περί φύσεως (text Diels)

20.2 (~ P2) ἄλλοι δὲ τὴν τῶν σωμάτων σύγκρισιν εἶναι καὶ διάκρισιν τὴν φύσιν ὑπολαμβάνουσιν.

Symeon Seth CRN 4.59 (~ tit.) Περί φύσεως

Loci Aetiani:

quaestio cf. A 1.1

titulus A 1.1 Τί ἐστὶ φύσις. A 1.3.11 Ξενοφάνης ... γράφει γὰρ ἐν τῷ Περί φύσεως. A 1.27.5 Ζήνων ὁ Στωϊκὸς ἐν τῷ Περί φύσεως.

§§1–2 A 1.13.1 Ἐμπεδοκλῆς πρὸ τῶν τεσσάρων στοιχείων θαυύσματα ἐλάχιστα, οἰοῖται στοιχεῖα πρὶν στοιχείων, ὁμοιομερῆ. A 1.17.2 οἱ περὶ Ἀναξαγόραν καὶ Δημόκριτον τὰς κράσεις κατὰ παράθεσιν γίνεσθαι τῶν στοιχείων. A 1.24.2 Ἐμπεδοκλῆς Ἀναξαγόρας Δημόκριτος Ἐπίκουρος καὶ πάντες, ὅσοι κατὰ συναθροισμὸν τῶν

λεπτομερῶν σωμάτων κοσμοποιούσι, συγκρίσεις μὲν καὶ διακρίσεις εἰσάγουσι, γενέσεις δὲ καὶ φθοράς οὐ κυρίως· οὐ γὰρ κατὰ τὸ ποιὸν ἐξ ἀλλοιώσεως, κατὰ δὲ τὸ πὸς ἓκ συναθροισμοῦ ταύτας γίνεσθαι.

§1 A 5.25.4 Ἐμπεδοκλῆς τὸν θάνατον γεγενῆσθαι διαχωρισμὸν τοῦ (γεώδους καὶ ὑδατώδους καὶ ἀερώδους καὶ) πυρρώδους, ἐξ ὧν ἡ σύγκρισις τῷ ἀνθρώπῳ συν-εστάθη. A 5.28.1 (de dolore) Ἐμπεδοκλῆς ... τὰς δ' ὀχλήσεις κατὰ τὰς τῶν ἐναντίων συγκρίσεις καὶ κράσεις.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) This chapter is very poorly attested, being found only in P^B and Q, with in §2 of G's ch. 20, with the same title, a terse and generalized abstract (there is no chapter Περὶ φύσεως in Ps). G combined this abstract from the present chapter (his §2) with two others, one from ch. 1.1 (his §3) and another (his §1) from elsewhere. See ch. 1.1 above, Commentary A(4).

(2) It is not entirely to be excluded that the title of S 1.41 Περὶ φύσεως καὶ τῶν συμβαινόντων ἐξ αὐτῆς includes a reference to our present chapter (cf. M–R 3.416), but it does not record any of its contents. The other witnesses may have regarded it as doubling up on the earlier chapters 1.1, 1.17 and 1.24.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There is no proximate tradition apart from that reflected at ch. 1.24.2, q.v.

(2) *Sources.* The ultimate sources are the works of Anaxagoras and Empedocles, but the combination of the doctrines of these philosophers with the focus on combination and separation of (parts of) elements derives from Aristotle *GC* 1.1 and *Met.* A.3. This is also the case for Theophrastus in *Phys.Op.* frs. 3 and 4 Diels (227A and 228A FHS&G) preserved in Simplicius. Elsewhere too Aristotle provides comparisons of Anaxagoras and Empedocles. This focus on combination and separation is combined with the related treatment of φύσις at *Met.* Δ.4, where Anaxagoras is not explicitly mentioned but the Empedocles fragment is quoted. We note that only a small section of the discussion of *Met.* Δ.4 is reflected in our chapter. Moreover Aristotle's different treatment of the Empedocles fragment has not been taken into account, namely what appears to be his interpretation of φύσις in the sense of οὐσία, 'substance'. The interpretative introduction to the fragment in §1, in other words, does not derive from

Aristotle, but anticipates the views of Plutarch and (if this treatise is to be dated later) ps.Aristotle *MXG*; see at section E(b)§1.

C Chapter Heading

Attested in P (and perhaps S), and of the standard umbrella type ‘about *x*’, *περὶ τοῦ δεῖναι* (cf. above, ch. 1.3 Commentary C). The series of chapters 1.9–29 on the foundational concepts of physics are without exception introduced by headings of the umbrella type and so is 1.30. In the present chapter it allows for existence, the question at issue here. But we should not forget that the quotation of Empedocles is first found in Aristotle’s philosophical lexicon at *Met.* Δ.4, which deals with the various meanings of φύσις. This reference may be more to the point than the parallel with the ubiquitous book title *Περὶ φύσεως*, ‘On nature’, in the sense of ‘On philosophy of nature’, which is attributed to the Presocratics in general and first used by Aristotle himself to refer to his own *Physics*, e.g. *Met.* A.2 983b1, A.4 985a12, A.5 986b31, and A.8 989a24. The parallel titles and headings at section E(b) Chapter heading have been cited below for the sake of completeness.

D Analysis

a Context

The chapter is found in an isolated position at the end of the book, after the set of chs. 1.25–29 dealing with fate and related issues, and at quite a distance from ch. 1.24 to which it can be regarded as a sort of sequel, as it takes up the theme of the compromise doxa of 1.24.2 in different terms. It is an appendix (‘mantissa’, Diels *DG* 57) to ch. 1.1 ‘What is nature’, as it raises a point absent in the earlier chapter. So there is a return to φύσις, although a peculiar one. And it can also be regarded as an appendix to the Book as a whole, for as we leave the chapters on necessity, fate, and chance, the last of the theoretical chapters, and return, at least formally, to nature qua process, a transition is achieved to the next Book, on cosmology. Lachenaud (1993) 239–240 adduces ch. 1.24.2 and gives some information about the discussion in the secondary literature.

b Number–Order of Lemmata

(1) Two doxai are preserved in P, the former including four lines quoted from Empedocles’ poem (also found at Aristotle *Met.* Δ.4 1015a1–3 (slightly abridged), Plutarch *Adv.Col.* 1111F). Though the Atomists are lacking and no doxa that would create a diaphonia is included, the chapter may well be complete. But in the absence of S we have no proof.

(2) The order, first Empedocles and then Anaxagoras—though we learn in *Met.* A.4 984a8–11 and Theophrastus *Phys.Op.* fr. 3 Diels, 227A FHS&G, that

Anaxagoras was earlier—, is determined by the fact that the quotation of the Empedoclean lines is inspired by *Met.* Δ.4 1015a1–3, a chapter that fails to mention Anaxagoras, who was added at a later stage of the tradition. His verbatim fragment has been preserved by the conscientious Simplicius alone.

c Rationale–Structure of Chapter

The not very strong diaphonia, exceptionally and interestingly, is not between the lemmata themselves but between the heading ‘On nature’ and the contents of the lemmata. The heading at the very least suggests a treatment of some aspect of the philosophy of nature in line with what is mentioned in ch. 1.1, ‘What is φύσις’ and with the sort of work that provides an account of the *physikos logos*. But the lemmata reproduce the unanimous denial of the reality of φύσις qua ‘origin’ at §§1–2 by Empedocles and Anaxagoras. Unlike Aristotle at *Met.* Δ, later interpreters preferred to interpret φύσις in Empedocles and Anaxagoras as γένεσις, ‘origin’, in the sense of one element changing into another, or of *genesis ex nihilo*, both of which are of course denied by Anaxagoras and Empedocles.

d Further Comments

Individual Points

§1 In the first line Diels follows Stein in emending the mss. (φύσιν) μηδὲν το (φύσιν) μηδενός on the basis of the poetic quote. This genitive, likely enough in itself, finds further confirmation in the balancing genitive τῶν στοιχείων in the contrasting phrase μίξιν δὲ τῶν στοιχείων καὶ διάστασιν. Mau and Lachenaud follow the mss., though μηδὲν as attribute of φύσιν cannot be paralleled. The English ‘no such thing as nature’ would attempt to translate this bizarre construction. Lachenaud translates as ‘il n’y a en rien naissance’. A’s poetic quote has also been emended, and rightly so, from mss. οὐδὲν, on the basis of the quotation in Aristotle and Plutarch. Nevertheless A (as so often happens) may have written a non-metrical version of the quote and anticipated this in the introductory sentence, and our task is in the first place to find out what A and not what Empedocles wrote, so doubts remain. The differences in meaning between these different readings are unsubstantial.

e Other Evidence

See chs. 1.1 and 1.24.2 above.

E Further Related Texts

b Sources and Other Parallel Texts

General texts: Aristotle *Phys.* 2.1 193a28–30 ἓνα μὲν οὖν τρόπον οὕτως ἡ φύσις λέγεται, ἢ πρώτη ἐκάστω ὑποκειμένη ὕλη τῶν ἐχόντων ἐν αὐτοῖς ἀρχὴν κινήσεως καὶ μεταβολῆς. *Met.* Δ 4 1014b16–37 φύσις λέγεται ἓνα μὲν τρόπον ἡ τῶν φυομένων γένεσις ... ἔτι δ' ἄλλον τρόπον λέγεται ἡ φύσις ἡ τῶν φύσει ὄντων οὐσία, οἷον οἱ λέγοντες τὴν φύσιν εἶναι τὴν πρώτην σύνθεσιν, ἢ ὥσπερ Ἐμπεδοκλῆς (31B8 DK) λέγει ὅτι 'φύσις οὐδενὸς ἔστιν ἐόντων' [ἀπάντων Aët.] κτλ.

Chapter heading: Aristotle *Met.* A.3 983a33–b1 τεθεώρηται μὲν οὖν ἰκανῶς περὶ αὐτῶν ἡμῖν ἐν τοῖς Περὶ φύσεως (cf. Diogenes Laertius *V.P.* 5.25 Περὶ φύσεως α' β' γ'). Epicurus *Ep.Pyth.* at D.L. 10.91 ὅπερ ἐν τοῖς Περὶ φύσεως βιβλίοις δείκνυμεν. Plutarch *SR* 1038C (on Chrysippus, *SVF* 3.526) ἐν τῷ τρίτῳ Περὶ φύσεως. Diogenes Laertius *V.P.* 3.60 (on Plato) Τίμαιος ἡ περὶ φύσεως, φυσικός. 4.11 (on Xenocrates, p. 157.1 Heinze, test. 2 Isnardi Parente²) Περὶ φύσεως α' β' γ' δ' ε' ζ'. 5.45 (on Theophrastus, fr. 137 no. 3 FHS&G) Περὶ φύσεως α' β' γ', cf. 5.50 Περὶ φύσεως. 5.87 (on Heraclides, fr. 22 Wehrli, 1 Schütrumpf) Περὶ φύσεως. 6.17 (on Antisthenes, fr. V A 41 Giannantoni) Περὶ φύσεως α' β'. 7.148 Βόηθος (*SVF* 3 Boeth. 3) δὲ ἐν τῇ Περὶ φύσεως. 8.77 (on Empedocles, 31A1 DK) τὰ μὲν οὖν Περὶ φύσεως αὐτῷ. 9.5 (Heraclitus fr. 22A1 DK) τὸ δὲ φερόμενον αὐτοῦ βιβλίον ἐστὶ μὲν ἀπὸ τοῦ συνέχοντος περὶ φύσεως. 9.12 (on Heraclitus, fr. 22A1 DK) ἐπιγράφουσι δ' αὐτῷ ... οἱ δὲ Περὶ φύσεως. 9.46 (on Democritus, 68B5c DK) 4.1. Περὶ φύσεως πρῶτον. 10.27 Περὶ φύσεως (sc. Epicuri), λζ'. Porphyry *Plot.* 25 τὸ δὲ 'Περὶ φύσεως καὶ θεωρίας καὶ τοῦ ἐνός' (*Enn.* 3.8[30]) διὰ τὸ περὶ φύσεως κεφάλαιον ἐνταῦθα τέτακται. Themistius *in de An.* 32.3–4 ... Ξενοκράτης (fr. 61 Heinze, F 180 Isnardi Parente²) ... ἐκ τοῦ πέμπτου τῶν Περὶ φύσεως τάνδρῃ γεγραμμένων. *Suda* s.v. T 601, p. 4.553.25–26 Adler Τίμαιος Λοκρός (49.1a DK) ... Περὶ φύσεως.

§§1–2 *Empedocles Anaxagoras*: Aristotle *GC* 1.1 314a6–14. *Met.* A.3 984a8–16 Ἐμπεδοκλῆς (31A28 DK) δὲ τὰ τέτταρα, πρὸς τοῖς εἰρημένοις γῆν προστιθεὶς τέταρτον· ταῦτα γὰρ αἰεὶ διαμένειν καὶ οὐ γίγνεσθαι ἀλλ' ἢ πληθεῖ καὶ ὀλιγότῃ, συγκρινόμενα καὶ διακρινόμενα εἰς ἓν τε καὶ ἐξ ἑνός, Ἀναξαγόρας (59A43 DK) ... σχεδὸν γὰρ ἅπαντα τὰ ὁμοιομερῆ καθάπερ ὕδωρ ἢ πῦρ οὕτω γίγνεσθαι καὶ ἀπόλλυσθαι φησι, συγκρίσει καὶ διακρίσει μόνον, ἄλλως δ' οὔτε γίγνεσθαι οὔτ' ἀπόλλυσθαι ἀλλὰ διαμένειν αἰδία.

§1 *Empedocles*: Aristotle *GC* 1.1 314b4–8 τοῖς δὲ τὰ γένη πλείω ποιοῦσι διαφέρειν τὴν ἀλλοίωσιν τῆς γενέσεως· συνιόντων γὰρ καὶ διαλυομένων ἡ γένεσις συμβαίνει καὶ ἡ φθορά. διὸ λέγει τοῦτον τὸν τρόπον καὶ Ἐμπεδοκλῆς (31B8.1 + 8.3 DK), ὅτι 'φύσις οὐδενὸς ἔστιν, ... ἀλλὰ μόνον μίξις τε διάλλαξις τε μιγέντων'. *GC* 2.6 333b13–15 οὐδ' ἡ Φιλία καὶ τὸ Νεῖκος· συγκρίσεως γὰρ (τὸ μὲν), τὸ δὲ διακρίσεως αἴτιον. τοῦτο δ' ἔστιν ἡ οὐσία ἡ ἐκάστου, ἀλλ' οὐ μόνον 'μίξις τε διάλλαξις τε μιγέντων' (31B8.3 DK), ὥσπερ ἐκεῖνός φησιν. *Met.* Δ 4 1014b35–1015a3 ἔτι δ' ἄλλον τρόπον λέγεται ἡ φύσις ἡ τῶν φύσει ὄντων οὐσία, οἷον οἱ λέγοντες τὴν φύσιν εἶναι τὴν πρώτην σύνθεσιν, ἢ ὥσπερ Ἐμπεδοκλῆς λέγει ὅτι (31B8.1 + 8.3–4 DK follow). Theophrastus *Phys.Op.* fr. 3 Diels (227A FHS&G) at Simp. *in Phys.* 25.19–23 Ἐμπεδοκλῆς (31A28 DK) ... οὗτος δὲ τὰ μὲν σωματικά στοιχεῖα ποιεῖ τέτταρα, πῦρ

καὶ ἀέρα καὶ ὕδωρ καὶ γῆν αἰδία μὲν ὄντα, μεταβάλλοντα δὲ πλήθει καὶ ὀλιγότητι κατὰ τὴν σύγκρισιν καὶ διάκρισιν. **Plutarch** *Adv.Col.* 111F–112A (**Empedocles** 31B9 DK, fr. 54b Primavesi, 2011) ‘οἱ δ’ ὅτε μὲν κατὰ φῶτα μιγνύντ’ φῶς αἰθέριον (βῆι), / ἢ κατὰ θηρῶν ἀγροτέρων γένος ἢ κατὰ θάμνων / ἢ κατ’ οἰωνῶν, τό γε μὲν (καλέουσι) γενέσθαι, / εὖτε δ’ ἀποκρινθῶσι, τὸ δ’ αὖ δυσδαίμονα πότμον / ἢ θέμις (οὐ) καλέουσι, νόμῳ δ’ ἐπίφημι καὶ αὐτός’. ταῦτ’ ἐγὼ μὲν οὐχ ὁρῶ καθ’ ὃ τι πρὸς τὸ ζῆν ὑπεναντιοῦται τοῖς ὑπολαμβάνουσι μήτε γένεσιν τοῦ μὴ ὄντος εἶναι μήτε φθορὰν τοῦ ὄντος, ἀλλ’ ὄντων τινῶν συνόδῳ πρὸς ἄλληλα τὴν γένεσιν διαλύσει δ’ ἀπ’ ἀλλήλων τὸν θάνατον ἐπονομάζεσθαι. ὅτι γὰρ ἀντὶ τῆς γενέσεως εἴρηκε τὴν φύσιν, ἀντιθεῖς τὸν θάνατον αὐτῇ δεδήλωκεν ὁ Ἐμπεδοκλῆς. *Adv.Col.* 1113C ἐμοὶ μέντοι δοκεῖ μὴ τοῦτο κινεῖν τὸ ἐκφορικόν ὁ Ἐμπεδοκλῆς, ἀλλ’ ὥς πρότερον εἴρηται, πραγματικῶς διαφέρεσθαι περὶ τῆς ἐξ οὐκ ὄντων γενέσεως, ἣν φύσιν τινὲς καλοῦσι (31B8.1 DK) δηλοῖ δὲ μάλιστα διὰ τούτων τῶν ἐπῶν (31B11 DK)· ‘νήπιοι· οὐ γὰρ σφιν δολιχόφρονές εἰσι μέριμναι, / οἱ δὲ γίγνεσθαι πάρος οὐκ ἐὼν ἐλπίζουσιν / ἢ τι καταθνήσκειν τε καὶ ἐξόλλυσθαι ἀπάντη’. ταῦτα γὰρ τὰ ἔπη μέγα βωόντός ἐστι τοῖς ὦτα ἔχουσιν, ὥς οὐκ ἀναιρεῖ γένεσιν ἀλλὰ τὴν ἐκ μὴ ὄντος, οὐδὲ φθορὰν ἀλλὰ τὴν ἀπάντη, τουτέστι τὴν εἰς τὸ μὴ ὄν ἀπολλύουσιν. **ps.Aristotle** *MXG* 5.975b5–7 οὐδεμία γὰρ ἑτέρα, ὥς οἶεται, γένεσις ἐστὶ τοῖς οὖσιν, ‘ἀλλὰ μόνον μίξις τε διάλλαξις τε μιγνύντων ἐστὶ· φύσις δ’ ἐπὶ τοῖς ὀνομάζεται ἀνθρώποισιν’ (31B8.3–4 DK).

§2 **Anaxagoras**: **Anaxagoras** 59B17 DK at *Simp. in Phys.* 163.19–24 (verbatim) σαφῶς δὲ Ἀναξαγόρας ἐν τῷ πρώτῳ τῶν Φυσικῶν τὸ γίνεσθαι καὶ ἀπόλλυσθαι συγκρίνεσθαι καὶ διακρίνεσθαι λέγει γράφων οὕτως· ‘τὸ δὲ γίνεσθαι καὶ ἀπόλλυσθαι οὐκ ὁρθῶς νομίζουσιν οἱ Ἕλληνες· οὐδὲν γὰρ χρῆμα γίνεται οὐδὲ ἀπόλλυται, ἀλλ’ ἀπὸ ἐόντων χρημάτων συμμίσγεται τε καὶ διακρίνεται. καὶ οὕτως ἂν ὁρθῶς καλοῖεν τό τε γίνεσθαι συμμίσγεσθαι καὶ τὸ ἀπόλλυσθαι διακρίνεσθαι’. **Theophrastus** *Phys.Op.* fr. 4 Diels (228A FHS&G) at *Simp. in Phys.* 27.2–7 Ἀναξαγόρας (59A41 DK) ... πάντα γὰρ τὰ ὁμοιομερῆ, οἷον ὕδωρ ἢ πῦρ ἢ χρυσόν, ἀγέννητα μὲν εἶναι καὶ ἄφθαρτα, φαίνεσθαι δὲ γινόμενα καὶ ἀπολλύμενα συγκρίσει καὶ διακρίσει μόνον.

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Contents

PART 1

Preface IX

Sigla and Abbreviations XII

General Introduction 1

BOOK 1 The Principles of Nature: Text and Commentary 101

PART 2

Sigla and Abbreviations IX

User's Guide to the Edition and Commentary 719

BOOK 2 Cosmology: Text and Commentary 727

Introduction to Book 2 729

Title and Index 739

Prooemium 743

1 On the Cosmos 746

2 On the Shape of the Cosmos 768

3 Whether the Cosmos Is Ensouled and Administered by
Providence 780

4 Whether the Cosmos is Indestructible 794

5 Where the Cosmos Obtains Its Nourishment From 816

5a Where the Cosmos Has Its Regent Part 826

6 From What Kind of First Element the God Began to Make the
Cosmos 833

7 On the Order of the Cosmos 845

8 What the Cause of the Cosmos Having Been Tilted Is 858

9 On What is Outside the Cosmos, Whether There Is a Void 864

10 What the Right Parts of the Cosmos Are and What the Left 876

11 On the Heaven, What Its Substance Is 883

12 On the Division of Heaven, into How Many Circles It Is Divided 896

13 What the Substance of the Heavenly Bodies Is, Both Planets and Fixed
Stars 903

- 14 On the Shapes of the Stars 920
- 15 On the Ordering of the Heavenly Bodies 927
- 16 On the Conveyance and Movement of the Heavenly Bodies 938
- 17 From Where the Heavenly Bodies Obtain Their Illumination 949
- 18 On the Stars Called the Dioscuri 957
- 19 On Signs of the Seasons Produced by the Heavenly Bodies 962
- 20 On the Substance of the Sun 970
- 21 On the Size of the Sun 992
- 22 On the Shape of the Sun 1005
- 23 On the Turnings of the Sun 1012
- 24 On the Eclipse of the Sun 1024
- 25 On the Substance of the Moon 1034
- 26 On the Size of the Moon 1049
- 27 On the Shape of the Moon 1056
- 28 On the Illuminations of the Moon 1065
- 29 On the Eclipse of the Moon 1078
- 30 On Its Appearance and Why It Appears to Be Earthy 1090
- 31 On the Distances of the Moon 1103
- 32 On the Year, How Great the Time of the Revolution of Each of the Planets Is, and What the Great Year Is 1113

BOOK 3 Meteorology and the Earth: Text and Commentary 1129

- Introduction to Book 3 1131
 - Title and Index 1140
 - Prooemium 1144
- 1 On the Circle of the Milky Way 1149
- 2 On Comets and Shooting Stars and Beams 1168
- 3 On Thunders, Lightnings, Thunderbolts, Firewinds and Typhoons 1182
- 4 On Clouds, Mist, Rains, Dew, Snow, Hoar-Frost, Hail 1203
- 5 On the Rainbow 1214
- 5a (Formerly 18) On the Halo 1235
- 6 On Rods 1241
- 7 On Winds 1245
- 8 On Winter and Summer 1254
- 9 On the Earth, and What Its Substance Is and How Many There Are 1259
- 10 On the Shape of the Earth 1265
- 11 On the Location of the Earth 1272
- 12 On the Inclination of the Earth 1280
- 13 Whether the Earth Is at Rest or Moves 1283

- 14 On the Division of the Earth, How Many Zones There Are 1292
- 15 On Earthquakes 1300
- 16 On the Sea, How It Came to Be and How Bitter It Is 1320
- 17 How Low and High Tides Occur 1330

PART 3

Sigla and Abbreviations IX

User's Guide to the Edition and Commentary 1347

BOOK 4 Psychology: Text and Commentary 1355

BOOK 5 Physiology: Text and Commentary 1739

PART 4

English Translation of the *Placita* 2059

User's Guide to the English Translation 2061

BOOK 1 The Principles of Nature 2063

BOOK 2 Cosmology 2089

BOOK 3 Meteorology and the Earth 2108

BOOK 4 Psychology 2120

BOOK 5 Physiology 2137

Appendix: List of Chapter Headings in the Translation of Qusṭā ibn
Lūqā 2153

Bibliography 2158

Index of Primary and Secondary Witnesses 2283

Index of Name-Labels and Other Names 2291

Index of Fragment Collections and Extant Sources 2296

Index of Ancient and Modern Names 2309

Sigla and Abbreviations

1 Abbreviations Relating to Aëtius and His Tradition

A	Aëtius
Ach	Achilles
AD	Arius Didymus
Ath	Athenagoras
C	Cyril of Alexandria
E	Eusebius
G	ps.Galen
J	ps.Justin
L	Ioannes Lydus
Nem	Nemesius
Nic	Nicolaus, translator of ps.Galen
P	ps.Plutarch, <i>Placita philosophorum</i> and his tradition (EGQ etc.)
Ps	Psellus
Q (or Qustā)	Qustā ibn Lūqā
S	Ioannes Stobaeus
T	Theodoret of Cyrrhus

2 Sigla Relating to the Apparatus Criticus of the Edition

a *Primary Witnesses*

P	tradition of ps.Plutarch		
P ^P	papyrus, edited by J.W. Barns and H. Zilliacus (1960–1967), <i>The Antinoopolis Papyri Parts II & III</i> , London		
P ^B	Byzantine manuscripts		
	Family	Manuscript	Date
	I	Mosquensis 339	12th century
	II	Marcianus 521	13th/14th century
	III	(Planudean family)	
	α	Ambrosianus 859	shortly before 1296
	A	Parisinus 1671	1296
	γ	Vaticanus 139	shortly after 1296
	E	Parisinus 1672	shortly after 1302
	Laur.	Laurentianus 31,37	14th century

- p^B** *Plutarchi Epitome*, edited by H. Diels (1879 and unaltered reprints), *Doxographi Graeci*, Berlin, 273–444; also edited by J. Mau (1971), *Plutarchus Placita Philosophorum*, *Plutarchi Moralia* Vol. 5.2.1, X oratorum vitae; Placita philosophorum, Leipzig (Bibliotheca Teubneriana); edited by G. Lachenaud (1993), *Plutarque Œuvres morales* T. 12.2, *Opinions des Philosophes*, Paris (Collection Budé); (for earlier editions see below §4 Works frequently cited)
- p^{Ph}** *Philo of Alexandria*, edited by J.-B. Aucher (1822), *Philonis Judaei sermones tres hactenus inediti, I. et II. De Providentia et III. De animalibus, ex Armena versione antiquissima ab ipso originali textu Graeco ad verbum stricte excerpta, nunc in Latium (sic!) fideliter translati*, Venice; see also M. Hadas-Lebel (1973), *De Providentia I et II*, *Les œuvres de Philon d'Alexandrie* 35, Paris
- p^{Ath}** *Athenagoras*, edited by M. Marcovich (1990), *Athenagoras Legatio pro Christianis*, Berlin (abbr. *Leg.*)
- p^E** *Eusebius Praeparatio Evangelica*, edited by K. Mras (1956), *Eusebius Werke, Bd. VIII, Die Praeparatio Evangelica*, 1982–1983², Vol. 2, Berlin (abbr. *PE*)
- p^G** *Ps. Galen Historia philosopha*, edited by H. Diels (1879 and later unaltered reprints), *Doxographi Graeci*, Berlin, 595–648 (abbr. *HPh*); partially edited by M. Jas (2018a), *Nicolaus Rheginus als Übersetzer der pseudo-Galenischen Schrift De historia philosopha: ein Beitrag zur lateinischen Überlieferung des Corpus Galenicum*, Wiesbaden
- p^{G(Nic)}** text of p^G based on 1341 Latin translation of Nicolaus of Rhegium
- p^J** *Ps. Justinus Cohortatio ad Graecos*, edited by M. Marcovich (1990), *Pseudo-Justinus, Cohortatio ad Graecos, De monarchia, Oratio ad Graecos*, Berlin; edited by C. Riedweg (1994), *Ps.-Justin (Markell von Ankyra?) Ad Graecos de vera religione (bisher "Cohortatio ad Graecos")*, 2 Vols., Basel
- p^{Jln}** *Julianus Arianista*, edited by D. Hagedorn (1973), *Der Hiobkommentar des Arianers Julian*, Berlin
- p^C** *Cyrillus Contra Julianum*, edited by C. Riedweg (2015), *Kyrrill von Alexandrien I Gegen Julian*, Berlin (abbr. *Juln.*)
- p^L** *Ioannes Lydus De mensibus*, edited by R. Wuensch (1898), *Ioannis Laurentii Lydi Liber de mensibus*, Leipzig (abbr. *Mens.*)
- p^Q** *Qusṭā ibn Lūqā Arabic translation of ps. Plutarch Placita philosophorum*, edited by H. Daiber (1980), *Aetius Arabus. Die Vorsokratiker in arabischer Überlieferung*, Wiesbaden
- p^{Sch}** *Scholia Platonica*, edited by G.C. Greene (1938), Haverford PA
- p^{Ps}** *Michael Psellus De omnifaria doctrina*, edited by L.G. Westerink (1948), Utrecht (abbr. *Omn.Doctr.*); other works: *Michaelis Pselli Oratoria minora* (abbr. *Or.Min.*), edited by A.R. Littlewood (1985), Leipzig; *Michaelis Pselli Theologica*, Vol. 1 (abbr. *Op.Theol.* 1), edited by P. Gautier (1989), Leipzig;

- Michaelis Pselli Philosophica minora*, Vol. 1: *Opuscula logica, physica, allegorica, alia*, Leipzig (abbr. *Phil.Min.* 1), edited by J.M. Duffy (1992), Leipzig; *Michaelis Pselli Philosophica minora*, Vol. 2 *Opuscula psychologica, theologica, daemonologica* (abbr. *Phil.Min.* 2), edited by D.J. O'Meara (1989), Leipzig; *Michaelis Pselli Theologica*, Vol. 2 (abbr. *Op.Theol.* 2), edited by Westerink, L.G.–Duffy, J.M. (2002), Leipzig; 'Επιλύσεις ποικίλων ἐρωτημάτων, *Michael Psellus De operatione daemonum cum notis Gaulmini: accedunt inedita opuscula Pselli* (abbr. *Epi.*), edited by J.F. Boissonade (1838), Nuremberg (repr. Amsterdam 1964)
- P^{Sy} *Symeon Seth Conspectus rerum naturalium*, edited by A. Delatte (1939), *Anecdota Atheniensia et alia*, T. 2: *Textes relatifs à l'histoire des sciences*, Liège (abbr. *CRN*)
- P^{Tz} *Ioannes Tzetzes Exegesis in Homeri Iliadem*, edited by G. Hermann (1812) in *Draconis Stratonicensis Liber de metris poeticis; Ioannis Tzetzes Exegesis in Homeri Iliadem*, Leipzig; 'Εξήγησις Ἰωάννου Γραμματικοῦ τοῦ Τζέτζου εἰς τὴν Ὀμήρου Ἰλιάδα, edited by M. Papat homopoulos (2007), Athens
- P^{Ars} *Arsenius Paroemiographus Apothegmata*, edited by E.L. von Leutsch (1851), *Corpus Paroemiographorum Graecorum*, Vol. 2, Göttingen (repr. Hildesheim 1958), 240–744
- S *Ioannes Stobaeus Eclogae*, edited by C. Wachsmuth (1884 and unaltered reprints), *Ioannis Stobaei Anthologii libri duo priores qui inscribi solent Eclogae physicae et ethicae*, 2 Vols., Berlin (abbr. *Ecl.*), with the following sigla:
- | Manuscripts | Date |
|-----------------------|--------------|
| F Farnesinus III D 15 | 14th century |
| P Parisinus 2129 | 15th century |
| L Laurentianus 8.22 | 14th century |
- Ioannes Stobaeus Florilegium*, edited by O. Hense (1894–1916 and unaltered reprints), *Ioannis Stobaei Anthologii libri duo posteriores*, 3 Vols., Berlin (abbr. *Flor.*) (for ch. 5.30)
- S^{L-ind} index in ms. Laurentianus (where deviates from title in text), edited by C. Wachsmuth (1882), *Studien zu den griechischen Florilegien*, Berlin, pp. 5–37
- S^{P(m.s.)} manus secunda, where Wachsmuth has P², e.g. at *Ecl.* 1.24.2d
- S^{Phot} index of Photius, edited by R. Henry (1960 and unaltered reprints), *Photius Bibliothèque*, Vol. 2, Paris
- S^{Cod.Vat.} codex Vaticanus gr. 201 (according to Wachsmuth 1882, 71 derived from F)
- S^{Cod.Mon.} codex Monacensis gr. 396 (also named codex Augustinus, according to Wachsmuth 1882, 71 derived from F)
- T Theodoretus, edited by J. Raeder (1904), *Theodoreti Graecarum Affectionum Curatio*, Leipzig (abbr. *CAG*)

In principle the manuscripts of all witnesses except P^B and S are not cited; significant variation between manuscript readings is expressed through numbers, e.g. P^{G1}, P^{G2} etc.

b *Secondary Witnesses*

- Ach *Achilles*, edited by G. Di Maria (1996), *Achillis quae feruntur astronomica et in Aratum opuscula: De universo, De Arati vita, De Phaenomenorum interpretatione*, Palermo
- Aratus/Aratea *Commentaria in Aratum*, edited by E. Maass (1898), *Commentariorum in Aratum reliquiae*, Berlin. Anonymus I, pp. 87–98 (abbr. Anon. I); Anonymus II 1, pp. 102–133 (abbr. Anon. II);
- Ath *Athenagoras Legatio*, edited by M. Marcovich (1990), *Athenagoras Legatio pro Christianis*, Berlin (abbr. *Leg.*); (2000) *Athenagorae qui fertur De resurrectione mortuorum*, Leiden (abbr. *de Res.*)
- Epiphanius *Epiphanius Ancoratus und Panarion*, edited by K. Holl–H. Lietzmann (1915–1933), 3 Vols., Leipzig (citing 3rd ed. 1985–2013)
- Hermias *Hermias Satire des philosophes païens*, edited by R.P.C. Hanson (1993), SC 388, Paris
- Isidore of Pelusium *Isidore de Péluse Lettres* (nos. 1214–1700), edited by P. Éviéux (1997–2000), SC 422, 454, Paris; MPG Vol. 78, edited by F. Morel (1638)
- Nem *Nemesius*, edited by M. Morani (1987), *Nemesii Emeseni De natura hominis*, Leipzig (abbr. *NH*)
- Ps. Justinus see above (a) Primary witnesses
- Scholia in Aratum* *Scholia in Aratum vetera*, edited by J. Martin, Stuttgart 1974; *Prolegomena* (in Parisino Suppl.Gr. 607A servata), pp. 23–31 (abbr. *Proleg.*); *Scholia in Aratum*, pp. 37–527
- Scholia in Basilium* *Scholia in Basilii Hexaameron I*, edited by G. Pasquali (1910) ‘Doxographica aus Basilioscholien’, *Nachrichten der Akademie der Wissenschaften in Göttingen, phil.-hist.Kl.* (1910) 194–228 (reprinted in *Scritti Filologici*, Vol. 1 (Florence 1986) 539–574); *Scholia in Basilii Hexaameron II*, edited by Th. Poljakov (1982–1983), ‘The unpublished doxographical scholia on St. Basil’s *Hexaameron*’, *Revue d’Histoire des Textes* 12–13: 1982–1983, pp. 367–369

3 Latin Abbreviations in the Apparatus Criticus (and Elsewhere)

< >	litterae additae
{ }	litterae deletae
x] y	x lectio omnium testium sola y excepta (app. crit.)
] [	litterae qui non extant (papyri)
. (sub lineam)	litterae dubiae (papyri)
***	lacuna
~	approximat, aequivalet
♦	lemma per hypothesin
abiud.	abiudicavit
add.	addidit
ad fin.	ad finem
adn.	adnotatio
al.	aliter
ap.	apud
app.	apparatus
append.	appendix
Byz.	Byzantium
c., cc.	caput, capita
cf.	confer
confirm.	confirmat
coni.	coniecit
conl.	conlato
contam.	contaminatus
corr.	correx[it]/corrector
c.q.	casu quo
crit.	criticus
crucif.	crucifixit
dub.	dubitanter, dubitat
duce	primus
ed.	editor, editio
edd.	editores
emend.	emendavit
exh.	exhibet, exhibuit
fort.	fortasse
fr.	fragmentum, fragmenta
gloss.	glossa, glossema
hab.	habet, habent
i.q.	idem quod

ind.	indicavit
init.	initium
inv.	invertit
l., ll.	linea, lineae
lac.	lacuna
leg.	legit, legunt
mal.	maluit
marg.	margo, in margine
ms., mss.	manuscriptum, manuscripta
n., nn.	nota, notae
om.	omittit, omisit
p., pp.	pagina, paginae
pap.	papyrus
paraphr.	paraphrasit
per litt.	per litteras
prob.	probat, probavit
procem.	procœmium
prop.	proposuit
put.	putat, putavit
recc.	recentiores
reiec.	reiecit
rest.	restituit
ret.	retinuit
schol.	scholion
sc.	scilicet
scr.	scripsit
sec.	secundum
secl.	seclusit
seqq.	et sequentia
sim.	simile, similia
s.l.	supra lineam
subst.	substituit
suppl.	supplevit
susp.	suspicit
s.v.	sub voce
t.	tomus
t.a.q.	terminus ante quem
tit.	titulus
t.p.q.	terminus post quem
transcr.	transcribit

transp.	transposuit
verb.	verbum, verba
verisim.	verisimiliter
vert.	vertit
ut vid.	ut videtur
vid.	vide
v.l.	varia lectio
Voss.	mss. Vossii in bibliotheca Lugd.Bat.

4 Works Frequently Cited

This section lists authors and works that are cited by name of the author in the apparatus criticus. (Full details on editions and collections of fragments cited in the first apparatus below the Greek text are to be found in the Bibliography in Part four.)

Beck	C.D. Beck (1787), <i>Plutarchi De Physicis philosophorum decretis libri quinque</i> , Leipzig
Bollack	J. Bollack (1969), <i>Empédocle</i> . Vol. II: <i>Les Origines. Édition et traduction des fragments et des témoignages</i> , Paris
Canter	W. Canter (1575), <i>Ioannis Stobaei Eclogarum libri duo</i> , Antwerp
Corsinus	E. Corsinus (1750), <i>Plutarchi De placitis philosophorum libri V</i> , Florence
Coxon	A.H. Coxon, (1986), <i>The Fragments of Parmenides. A Critical Text with Introduction and Translation, the Ancient Testimonia and a Commentary</i> , Assen (revised and expanded edition with new translation by R. McKirahan, and new preface by M. Schofield, Las Vegas, 2009)
Daiber	H. Daiber (1980), <i>Aetius Arabus. Die Vorsokratiker in arabischer Überlieferung</i> , Wiesbaden
Diels DG	H. Diels (1879 and unaltered reprints), <i>Doxographi Graeci</i> , Berlin
Diels PPF	H. Diels (1901a), <i>Poetarum Philosophorum Fragmenta</i> , Berlin
Diels VS	H. Diels (1903), <i>Die Fragmente der Vorsokratiker</i> , 1st edition, Berlin
DK, Vors.	H. Diels and W. Kranz (1951–1952 and unaltered reprints), <i>Die Fragmente der Vorsokratiker</i> , 6th edition, Berlin
Gemelli Marciano	M.L. Gemelli Marciano (2007–2010), <i>Die Vorsokratiker</i> Bd. 1, <i>Thales Anaximander Anaximenes Pythagoras und die Pythagoreer Xenophanes Heraklit</i> ; Bd. 2, <i>Parmenides Zenon Empedokles</i> ; Bd.

- 3, *Anaxagoras Melissos Diogenes von Apollonia Die antiken Atomisten: Leukipp und Demokrit. Griechisch-lateinisch-deutsch*, Düsseldorf
- Graham D.W. Graham (2010), *The Texts of Early Greek Philosophy. The Complete Fragments and Selected Testimonies of the Major Presocratics*, 2 Vols., Cambridge
- Heeren A.H.L. Heeren (1792–1801), *Ioannis Stobaei Eclogarum Physicarum et Ethicarum libri duo*, 2 Vols., Göttingen
- Jas M. Jas (2018a), *Nicolaus Rheginus als Übersetzer der pseudo-Galenischen Schrift De historia philosopha: ein Beitrag zur lateinischen Überlieferung des Corpus Galenicum*, Wiesbaden
- Lachenaud G. Lachenaud (1993), *Plutarque Œuvres morales T. 12.2, Opinions des Philosophes*, Paris
- Laks–Most A. Laks–G.W. Most (2016), *Early Greek Philosophy*, 9 Vols., Loeb Classical Library, Cambridge, MA; *Les débuts de la philosophie*, Paris
- Mansfeld R¹ J. Mansfeld (1983–1986), *Die Vorsokratiker Griechisch / Deutsch*, 2 Vols., Stuttgart
- Mansfeld R², Primavesi R² J. Mansfeld and O. Primavesi (2011), *Die Vorsokratiker Griechisch / Deutsch*, Stuttgart
- Mau J. Mau (1971), *Plutarchus Placita Philosophorum*, Leipzig
- M–R J. Mansfeld–D.T. Runia (1997–2018), *Aëtiana*, 4 Vols.
- M–R 1 J. Mansfeld–D.T. Runia (1997), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 1: *The Sources*, Leiden
- M–R 2 J. Mansfeld–D.T. Runia (2009), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 2: *The Compendium, Part I: Macrostructure and Microcontext, Part II: Aëtius Book II: Specimen Reconstructionis*, Leiden
- M–R 3 J. Mansfeld–D.T. Runia (2010), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 3, *Studies in the Doxographical Traditions of Greek Philosophy*, Leiden
- M–R 4 J. Mansfeld–D.T. Runia eds. (2018), *Aëtiana IV: Papers of the Melbourne Colloquium on Ancient Doxography*, Leiden
- Mras K. Mras (1982–1983), *Eusebius Die Praeparatio Evangelica*, 2nd ed., 2 Vols., Berlin
- Meineke A. Meineke (1855–1857), *Ioannis Stobaei Florilegium*, 4 Vols., Leipzig
- Primavesi see above under Mansfeld R²
- Raeder J. Raeder (1904), *Theodoreti Graecarum Affectionum Curatio*, Leipzig

Reiske	J. Reiske (1778), <i>Plutarchi Quae supersunt omnia, Graece et Latine; principibus ex editionibus castigavit, virorumque doctorum suisque annotationibus</i> , Vol. 9, Leipzig
Vítek	T. Vítek (2006), <i>Empedoklés. II Zlomky</i> , Prague
Vors.	see above DK
Wachsmuth	C. Wachsmuth (1884), <i>Ioannis Stobaei Anthologii libri duo priores qui inscribi solent Eclogae physicae et ethicae</i> , 2 Vols., Berlin
Westerink	L.G. Westerink (1948), <i>Michael Psellus De omnifaria doctrina</i> , Utrecht
Wytttenbach	D. Wytttenbach (1797), <i>Plutarchi Chaeronensis Scripta Moralia</i> , Vol. 4, Oxford
Xylander	G. Xylander (Holzmann) (1574), <i>Plutarchi Chaeronensis Moralia</i> , Vol. 2, Basel

5 Further Abbreviations

Names of authors and their works are generally abbreviated in accordance with LSJ, *OLD* and *PGL* (see below).

The works of Galen are abbreviated in accordance with the list of R.J. Hankinson ed. (2008), *The Cambridge Companion to Galen*, Cambridge, pp. 391–397.

The works of Plutarch are abbreviated in accordance with the listing in F. Montanari ed. (2015), *The Brill Dictionary of Ancient Greek*, Leiden, pp. xlvii–xlviii.

BAGD	W. Bauer, W.F. Arndt, F.W. Gingrich, and F.W. Danker (1979), <i>A Greek-English Lexicon of the New Testament and Other Early Christian Literature</i> , 2nd ed., Chicago
CErc	<i>Cronache Ercolanesi</i>
CMG	Corpus Medicorum Graecorum
CPF	Corpus dei Papiri Filosofici Greci e Latini
CPG	M. Geerard (1974–1987), <i>Clavis Patrum Graecarum</i> , Turnhout
DPhA	R. Goulet (1989–2018), <i>Dictionnaire des philosophes antiques</i> , 7 Vols. and Suppl. Vol., Paris
FDS	K.-H. Hülser ed. (1987–1988), <i>Die Fragmente zur Dialektik der Stoiker</i> , 4 Vols., Stuttgart-Bad Cannstatt
FGrH	F. Jacoby & alii (1923–), <i>Die Fragmente der griechischen Historiker</i> , Berlin & Leiden (later repr. Leiden; also Brill online)
GCS	Die griechischen christlichen Schriftsteller
LCL	Loeb Classical Library, ed. by J. Henderson
LLT	Latin Library of Texts (Brepols)

- LSJ H.G. Liddell, R. Scott and H.S. Jones eds. (1996), *A Greek-English Lexicon with a Revised Supplement*, 9th edition, Oxford
- MPG Migne Patrologia Graeca
- MPL Migne Patrologia Latina
- OLD P.G.W. Glare ed. (1982), *Oxford Latin Dictionary*, Oxford
- PGL G.W.H. Lampe ed. (1961), *A Patristic Greek Lexicon*, Oxford
- RE Pauly-Wissowa *Realencyclopädie der classischen Altertumswissenschaft*, ed. G. Wissowa and K. Ziegler (1894–1980)
- SC Sources Chrétiennes
- SVF J. ab Arnim (1903–1924), *Stoicorum Veterum Fragmenta*, 4 Vols., Leipzig (repr. Stuttgart 1964)
- TLG Thesaurus Linguae Graecae: A Digital Library of Greek Literature, University of California at Irvine

User's Guide to the Edition and Commentary

1 Introduction

The aim of this user's guide is to assist the reader in making use of the present Edition and Commentary on the *Placita*. It is a pared down version of section 6 of the General Introduction. For references to further discussion of details see the notes to the General Introduction in Volume One.

2 The Division into Four Parts

The sequence of the Edition and Commentary is based on the insight that ps.Plutarch's *Epitome* of the original no longer extant work by and large preserves the structure of Aëtius' compendium. Part One contains the necessary preliminaries, including the General Introduction, followed by the Edition and Commentary on Book 1 on the principles of nature. Part Two comprises Book 2 on cosmology and the heavens and Book 3 on meteorology and the earth. Part Three treats Book 4 on the psychology of the human being and Book 5 on the physiology of the human being and other animals. For each of the five books, the edition of its chapters is preceded by a compact introduction giving an overview of its transmission, subject-matter, name-labels of philosophers and schools, method and sources. Part Four presents an English translation of the edited text of all five books, together with the bibliography and the indices.

For all the 135 chapters of the entire work, the Edition and Commentary use an identical method and layout. Only the chapters on the pinakes and the four procœmia to Books 1–4 differ in a few respects. The essential features of this method and layout will now be explained in detail, commencing with the edition.

3 The Edition

Following the conventions of classical scholarship, the edition of the Greek text and all its accompanying apparatus are formulated in Latin. The many abbreviations and sigla that we use are set out at the beginning of Parts One to Three.

For each chapter we begin with a list of the relevant *testes* (witnesses). First in this list are the passages from the *testes primi* (primary witnesses) and the name of the editor of the text edition used. These witnesses are: ps.Plutarch

(abbreviated P) and his tradition, Stobaeus (S) and Theodoret (T). Below them on the next line, passages from the *testes secundi* (secondary witnesses) are listed when available, again including their abbreviation and the name of the editor used. They are always introduced with the capitalised Latin abbreviation Cf. (abbreviation of *confer*, i.e. 'compare' or 'see also').

The text of the chapter then follows. It begins with the *titulus* (chapter heading), followed by the numbered lemmata, each consisting of one or more name-labels (sometimes unspecified) plus a doxa. The lines of the text are continuously numbered, as indicated in the margin, beginning with the chapter heading. Following the heading and each lemma of the chapter the primary sources for its text are indicated by the sigla (P,S,T), or (P,S) when T is lacking, or (S,T) when P is lacking, or (P,T) when S is lacking, or only one of these when only one primary source is available. The numbers after the siglum in each case indicate the number of the doxa in the sequence of the text of the primary witness as indicated in the text used.¹ This system gives the crucial information on the attestation of the lemmata at a single glance.

Beneath the text we first list the references to the collections of fragments of Presocratics, Academics, Peripatetics, Stoics and others where individual lemmata can be located. In the case of the Presocratics we refer only to the sixth edition of Diels-Kranz (abbreviated DK), not to collections of individual authors. Similarly for the Stoics we use where possible Von Arnim's collection (*SVF*). For other authors we use the most recent collections.² In the case of authors whose original writings survive, we refer to passages from which the doxa is derived, whether directly or indirectly.

Next we present the apparatus criticus to the text. Its aim is to give full and detailed insight into all the relevant variants of the primary and secondary witnesses. It is therefore not a *negative* but a *positive* apparatus.³ This is necessary because we are not editing a single text from manuscripts and indirect quotations, but rather are *reconstructing* our text from a multiplicity of witnesses both direct (*primi*) and indirect (*secundi*), each of which has its own relation to the lost original *Placita* as collected by Aëtius.⁴ Some of these, such as the frag-

1 These numbers are not found in the texts of Mau, Wachsmuth and Raeder. They have been supplied by us.

2 Rarely we list two collections when they are both current or complementary, e.g. for Strato (Wehrli, Sharples) and Posidonius (Edelstein-Kidd, Theiler).

3 Contrary to our previous practice in the *specimen reconstructionis* of Book 2 in M–R vol. 2.2; see General Introduction, section 2.8.

4 For detailed accounts of these witnesses and the editions used see General Introduction, section 4.2–4.

ments of ps.Plutarch in the Antinoopolis papyrus, the Arabic version of ps.Plutarch by Qusṭā ibn Lūqā translated into German by Hans Daiber, and the new critical edition of a large part of ps.Galen by Mareike Jas, have become available only quite recently. In addition we pay due attention to a variety of earlier editions and also note significant readings, conjectures and emendations when the texts of individual doxai are included in collections of fragments. In general, it is only in the case of the primary witnesses ps.Plutarch and Stobaeus (but not Theodoret) that we give the variants of the main manuscripts. For other texts we give the preferred reading of the relevant critical edition, only mentioning manuscript variants on rare occasions. The Arabic translation of Qusta is cited in Daiber's German version. Based on these principles, the apparatus criticus not only strives to shed light on our choices, but also to inform the user about the peculiarities of the widespread tradition. Because this apparatus is necessarily often rather extensive, it proved impossible to allocate room for the translation next to the Greek text in a synoptic format without chopping up text, translation, and apparatus and creating a succession of blank spaces. For this reason the translations of the Greek text of all 135 chapters, forming a continuous English version of the treatise as a whole, have been printed in the final part, *Aëtiana* 5.4.

Three more sections of the edition remain. First we print the texts of the *testes primi* (primary witnesses) for the reconstruction. In first place is always Theodoret when he has cited this text, followed—with its own sub-heading—by the *traditio ps.Plutarchi*, i.e. the bevy of representatives of the tradition of the *Epitome* available for the relevant chapter. First when available is the Antinoopolis papyrus. This is followed by the text of ps.Galen, the most important of the witnesses to this tradition. We also include texts from ps.Justin, Cyril, Lydus, Psellus, Symeon Seth and others, all of whom excerpted ps.Plutarch. For reasons of space the texts of ps.Plutarch and Stobaeus themselves (and also Eusebius' verbatim excerpts) are not quoted separately. They can be readily found elsewhere. But it is important to note that our debts to and differences from Diels' *DG* edition of Aëtius and to other editions of the primary witnesses are fully accounted for in the apparatus criticus to the Greek text, and often also further discussed in the Commentary.

Next is a section setting out the *testes secundi* (secondary witnesses) who can also offer some assistance for the reconstruction and analysis of the text.⁵ They represent the doxographical traditions closest to Aëtius. Some of these, namely

5 For detailed accounts of these witnesses and the editions used see above General Introduction, section 4.5.

Athenagoras, Achilles, and Nemesius were included by Diels in his apparatus among the *aliorum ex Aetio excerpta*. Because, unlike in the case of Theodoret, it is not certain that these authors actually did excerpt Aëtius, we have preferred to group them together with other passages in the *Aratea*, Hermias, and Scholia to various authors, regarding them as a collection of writings that are closest to the Aëtian tradition without being part of it. They are closer than the texts that we have placed in the proximate tradition.⁶ It should be noted that the distinction is somewhat fuzzy. Texts very close to Aëtius such as in Varro, Philodemus, Cicero and Philo of Alexandria could have been included. The difference is that these texts antedate Aëtius, whereas the *testes secundi* are all later than he is and so could have used his work, whereas this was impossible for the writers just mentioned.

The final sub-section of the edition is a collection of parallel passages quoted from the reconstructed text of other chapters of Aëtius, which we have given the title *Loci Aetiani*. These passages contain various kinds of similarities: to name-label(s) plus doxa, or to parts of doxai, or to particular formulations of doxai or name-labels. They thus provide detailed information about such uniformities as are present in the *Placita* as a whole. Parallels in chapter headings or in the quaestiones (questions or topics) being treated, are generally placed first, followed by those relating to particular lemmata.

4 The Commentary

The second main section of each chapter contains the Commentary. It too follows a fixed and identical schema of treatment, as indicated by alphabetically numbered sections, some of which are further divided into sub-sections and sometimes even further sub-divided. By consistently using this system of divisions, we aim to organise the mass of material involved with a maximum of clarity. Each of these sections and sub-sections will now be explained in turn.

A: Witnesses. In this section we present the evidence as preserved in the primary and secondary witnesses and discuss issues that it might raise. We generally commence with (1) ps.Plutarch and his tradition, since the *Epitome* mostly preserves the general structure of the work and its lemmata best. Sad to say, in the case of Book 5 this tradition is virtually all that we still have. Thereafter follows an analysis of the evidence as presented in (2) Stobaeus and (3)

⁶ See the explanation of the distinction in the General Introduction, sections 4.1 and 5.1.

Theodoret. In this section we often engage in a first sifting of the evidence for the reconstruction of the chapter, followed by further details in section D(b) below.

B: Proximate tradition and sources. This section gives an overview of the texts that can shed light on the subject and contents of the chapter. The first sub-section (1) discusses the proximate texts, i.e. the doxographical tradition which resembles the *Placita* in its focus on questions of the φυσικὸς λόγος, on philosophers and the answers they gave to those questions. These texts can be earlier than Aëtius and represent the anterior tradition from which he drew his material (though the evidence for the early period is rather thin). They can be contemporaneous with him or much later, even as late as Isidore of Seville and (rarely) authors writing in Arabic. The passages discussed may relate to the chapter as a whole or to individual lemmata within it.

The second sub-section (2) turns the attention to the ultimate sources of the subject-matter of the chapter. For the doxai of some philosophers it is sometimes possible to pin down the exact texts on which the doxai are based, e.g. in the extant works of Plato, Aristotle and Epicurus. More often other comparative material will need to be brought to bear, again from Plato and Aristotle, but also from Hellenistic, early Imperial and late ancient texts. Here too, passages discussed may relate to the chapter as a whole or to individual lemmata within it.

For both sub-sections it is the case that many or even most of the texts discussed will be printed in the third main section Further related texts below, to which we frequently cross-refer. Given the large quantity of texts involved, it is not possible to discuss all this material in great detail, but rather we will draw attention to the salient points to which it gives rise.

C: Chapter heading. In this section we give detailed discussions of the type and significance of the chapter heading, including how it relates to the standard question-types that were developed on the basis of the Aristotelian example and were used throughout antiquity. We note, where applicable, the variant readings for the heading in the witnesses and motivate our choice for the chosen formulation. We also give an overview of parallel headings that are embedded in texts or book titles elsewhere. These too are cited below in the section Further related texts.

D: Analysis. This section, which contains our interpretation of the contents of the chapter, consists of five sub-sections (though not all of these are always required for every chapter).

D(a) context. Here we briefly discuss the place of the particular chapter within the group of chapters of which it is a member and the position of this

group in the context of the Book as a whole. We also note possible analogies with the way other books of the *Placita* are structured and point out particular links that a chapter might have with chapters elsewhere and sometimes also with ancient traditions such as the Peripatos and the Stoa.

D(b) *number–order of lemmata*. In this sub-section we return to the witnesses for the contents of the chapter and determine where possible the number of doxai originally present and the order in which they were listed. For this we depend largely on the evidence of the witnesses themselves, as informed by the understanding that we have gained of their methods, but are sometimes assisted by the secondary witnesses and indeed also by texts in the proximate tradition and beyond. For determining the sequence of the doxai it is also important to understand the argumentative structure of the chapter, often revealed in its diaereses or diaphoniae (see also the following sub-section D(c)). Here we also note how our sequence compares with that established by Diels. Often the result is the same, but there are also many cases where we reach a substantially different result, which of course is fully explained and justified.

D(c) *rationale–structure of chapter*. This sub-section contains the nucleus of our interpretation of a chapter. It is a distinctive feature of the *Placita* that its chapters have an argumentative structure which is determined by the contents and position of the individual lemmata but at the same time (at least to some extent) determines their selection. The task of this section is to elucidate that structure. It may involve a listing of doxai in order of decreasing or increasing similarity according to the method of diaeresis, or it may involve a contrasting of doxai or groups of doxai in order to emphasize the conflict between them. There is much variety among the 135 chapters. It should be emphasized that the examples used above will not apply at all to monolemmatic chapters and not necessarily to other chapters with a plurality of doxai.

D(d) *further comments*. This sub-section is divided into General points, pertaining to the chapter as a whole (if pertinent), and individual points pertaining to individual lemmata. These latter, presented in order of the place of the doxa/doxai in the chapter, may relate to the constitution of the text, and/or may enter into detailed discussions of the interpretation of the philosophical or scientific view portrayed by the contents of the lemma concerned. It will be understood that, in the light of the astonishing breadth of topics and thinkers broached in the *Placita*, we have had to be necessarily selective in making such comments. References are frequently made to the secondary literature, but here too we have needed to be selective.

D(e) *other evidence*. This final sub-section of the Commentary follows on from section B above. It embarks on more substantial discussions of evidence in the wider doxographical or anterior philosophical and scientific traditions,

including some of the secondary witnesses (especially Achilles). These can be either of a textual or of a content-related nature, depending on what is relevant for the interpretation of the chapter and/or some of its individual lemmata.

5 Further Related Texts

Our presentation of each chapter ends with a third and final section entitled E: *Further Related Texts*. It too is further sub-divided into two parts.

E(a) *Proximate tradition*. Here, as the name indicates, we present an extensive collection of texts drawn from the proximate doxographical tradition, as outlined in the General Introduction, section 5.1. We print the texts in the original Greek and Latin (with occasionally some texts translated into German or English, for we have no Arabic). These texts link up with the discussion in the earlier section B(1) of the Commentary. The selection begins with General texts dealing with the subject in question and/or covering the views of a plurality of thinkers. The next section lists, where available, the texts that contain or illustrate the chapter headings or sometimes the quaestio posed by that heading. Thereafter texts are listed under the individual lemmata of the chapter. In order to facilitate the reader's orientation, the name-labels of the relevant lemma are printed in bold italics. For all three listings the texts are most often printed in full and are presented in approximate chronological order.

E(b) *Sources and other parallel texts*. In this sub-section we link up with the discussion in the earlier section B(2) of the Commentary and print a collection of texts relating to the wider tradition of ancient philosophical and scientific tradition, including those texts that shed light on the sources that the doxographers may have used to formulate the doxai collected in the *Placita*. These follow the same basic method as in the previous sub-section. They are usually printed in full in the original Latin and Greek, are divided into the same three groups in an approximately chronological sequence, and are highlighted in the same way. In the case of some texts, either very well-known or somewhat tangential to the matter at hand, we give references only.

For further discussion of the texts collected in section E of the Commentary, including a justification of their extent and the method of citing them in the ancient languages only, see the General Introduction, section 6.5.

Aetius Placita
Book 2 Cosmology:
Text and Commentary



Introduction to Book 2

1 Transmission

Book 2 is the best attested part of A's compendium. P, whose abridged version best preserves the work's original structure, has 32 chapters. It is almost certain that he coalesces two original chapters into a single chapter (2.5 and 2.5a), so there will have been 33 in all. S, using the different method of the anthologist, takes up most of the book in his cosmological chapters 21–27, although he also includes some material in the chapters on first principles (11–20, see A 2.7–8). T in his paraphrasing way uses material from 14 of the chapters (2.1–5, 13–14, 20–22, 26–27, 29, 31), most valuably confirming that there must be a common source behind the three witnesses. However, to our knowledge, he does not in this book bear witness to any doxai not preserved by P or S (with the exception of some stray doxai of which it is not wholly certain that they originally derived from A, see ch. 2.2 Appendix). The reason that this book is so well attested is that S is best preserved for the material of this book and he appears to have been very thorough in his excerpting. Of the 217 doxai in the book,¹ as far as we can tell, he records all but 18 of them (= 91%), of which 5 are Platonic or Aristotelian doxai replaced by excerpts from AD and a further 6 are anonymous doxai that do not fit well into his schemes of coalescence. In contrast P retains 148 doxai (= 69%), while T draws on only 46 (= 21%). At this point we can add the conclusions drawn by Edward Jeremiah on the basis of his statistical analysis of the *Placita*. If all the chapters are taken individually (with the exceptions noted above), since they are all witnessed by both P and S, they would be 'most likely complete' (M–R 4.286, 373). However, if we aim to determine the maximum likelihood size for the work as a whole and the conclusion is reached that there are 'in the order of 42 doxai missing from chapters where we have multiple witnesses' (M–R 4.295), then it is likely that there may be a very small number of doxai that are missing entirely. It may be concluded, therefore, that the book is *as good as complete* and it was for this reason that in a previous volume we chose this book for our *specimen reconstructionis* in order to see whether a single-column edition of A was feasible and justifiable (M–R 2.295–654).

The transmission of P is also excellent for this book. Aside from P^B and Q, which are complete (except one chapter missing through haplography in Q, 2.27), there are many other partial witnesses. The oldest, the Antinoopolis

1 For these statistics see Appendix 3 to the General Introduction in Part One.

papyrus, has only two snippets (2.23, 2.25), but E faithfully copies out 26 of the 32 chapters, while G is generous in his epitomisation, reducing P to 112 doxai which amount to 75 % of the total (though some lemmata are reduced further). Evidence is also supplied by Cyril (chs. 1–4), Lydus (chs. 25, 28, 31) and a group of other witnesses (chs. 11, 12, 22, 24, 31). Finally, Psellus and Symeon Seth utilise the majority of the book's chapter headings (23 and 22 respectively), but almost none of the contents of the doxai.

The secondary witnesses—'cousin writings' that share the same narrower doxographical tradition—also provide valuable evidence. Chs. 4–23 of the manual of Ach cover exactly the same ground as Book 2 and provide comparative material for no less than 22 chapters. The doxai it contains are particularly valuable for chapters on the substance, shape and size of the various cosmic bodies, but also for other topics. On Achilles and the *Placita* see further M–R 2.126–134. The various Aratean prolegomena and scholia also contribute material, including an important diaphonia on the substance of the sun (ch. 2.20).

2 Subject Matter and Macrostructure

The subject matter of the book is indicated prospectively in its Preface (ch. 2.proœm.) and retrospectively in the Preface to Book 3 (ch. 3.proœm.). Moving from the principles and the elements (i.e. Book 1), it turns to the 'products' (ἀποτελέσματα), beginning with the most comprehensive, i.e. the cosmos. Looking back (ch. 3.proœm.), the compiler refers to the book as 'the account of the things in the heavens' (ὁ περὶ τῶν οὐρανίων λόγος). The book thus focuses on cosmology as it relates to the cosmos as a whole and to its heavenly realm. In most Greek philosophical systems there is a strong connection between cosmology and cosmogony (and sometimes also cosmophthory), but there is surprisingly little evidence of this in our book. Cosmogony predominates in chs. 1.4, 2.4 and 2.6, but occurs elsewhere in this book only in order to explain the origin of certain cosmological phenomena (e.g. ch. 2.8 on how the cosmos came to be tilted).

The structure of the book's subject matter treated in its 33 chapters is straightforward and clear. Its contents are divided into five clusters of subjects, with a final chapter connecting some of the clusters at the end. The first cluster focuses on the cosmos as a totality (chs. 1–10), the second and briefest on the heaven (chs. 11–12), the remainder on parts of the heaven (chs. 13–19 on the heavenly bodies, chs. 20–24 on the sun, 25–31 on the moon) and a final chapter (ch. 32) on the lengths of time of the heavenly bodies' movements.

This sequence moves from the whole to the parts, and from the outside of the cosmos to the inside, a process that is germane to the work as a whole (see M–R 2.1.40–41, 50–59 and *passim*), and will be continued in Book 3 (see its Introductory remarks).

The clusters follow a recurrent pattern in the way they treat their subjects which is adapted to suit the particular features of each. The treatment involves answering topics relating to the question types of substance (chs. 1, 3, 11, 13, 20, 25) and of quality (chs. 2, 4, 14, 22, 27), and then further in the categories of quantity (chs. 1, 12, 21, 26, 31, 32), of relative position (chs. 7, 15, cf. 10), of place (ch. 9) and—relating to all the categories—on motion (chs. 16, 23, perhaps also a missing chapter on the cosmos, see the appendix to ch. 2). In addition, there are question-types on cause or origin (chs. 4, 6, 8, cf. 5, 17, 23, 28, 30), as well as a number of chapters linked to individual aspects of the subjects treated, such as the Dioscuri (ch. 18), heavenly signs (ch. 19) and eclipses (chs. 24, 29).

The subjects treated are generally well indicated in the chapter headings. The vast majority of these follow the umbrella type Περὶ x (25 out of 33), which sometimes explicitly indicates the category involved (e.g. οὐσία, μέγεθος, σχῆμα, τάξις, κίνησις), but also can conceal it (e.g. περὶ τροπῶν, περὶ τοῦ ἑκτός). But other formulas are also used involving interrogatives (τίς, πόθεν), conjunctions (εἰ) and other prepositions (ἀπό), all of which follow the familiar patterns of the *Placita*.

3 Name-Labels

The vast majority of the name-labels, which are an intrinsic component of every doxa, refer to philosophers in the ancient sense of the term, in this context philosophers engaged in physics or natural philosophy. A number of other thinkers and writers are mentioned—scientists (Aristarchus ch. 2.24, Eratosthenes 2.31, Eudoxus 2.19, Seleucus 2.1), a scholar (Apollodorus of Athens ch. 2.16), a geographer (Seleucus ch. 2.1), a poet (Aratus ch. 2.19)—but their number is very restricted. No doctors are included (Alcmaeon is clearly regarded as a natural philosopher for the purposes of this book). Book 2 also has a number of interesting indefinite group names (the physicists ch. 2.6, the astronomers chs. 2.15, 2.16, 2.29, 2.31). There are also more wholly anonymous name-labels than in any other book (15 out of 37; see the listing at M–R 4.359).

In Book 2 the name-labels extend from Thales in the sixth century to the late Hellenistic Stoic Posidonius who is the most recent philosopher to be referred to (died ca. 50 BCE). An impressive range of 53 thinkers and groups are considered to have had opinions worth recording on cosmological subjects (see

Jeremiah's table at M–R 4.307 and listing at 4.354–361). The philosophers most often cited are the *χορυφαῖοι* of the classical age, Plato and Aristotle, both with 18 doxai, together with the Presocratic Empedocles (also 18), closely followed by the Stoics (17 doxai, but 30 in total if we add all the individuals). For the top 15 philosophers see the table at M–R 4.327. However, a closer examination of the name-labels will show that there is a predominance of names from the early Presocratic period of Greek philosophy. This is a feature of the entire work, with the exception of Book 1, as can be seen in the graph at M–R 4.324. But it is especially pronounced in Book 2. The reason is hardly surprising: not only is the history of the earliest period of Greek philosophy dominated by natural philosophy, but there was also a strong diversity of opinions on cosmological subjects, a matter of considerable interest to our doxographer, who throughout Book 2 shows a marked penchant for unusual views. Interestingly, however, Jeremiah has shown that this book shows less diversity of name-labels in relation to its doxai than the others, for which he gives the credible explanation that the standard cosmological model developed in the fourth century superseded the variety of views explored by the Presocratics in the preceding centuries (M–R 4.309).

A feature of Book 2 that strikes the eye is the prevalence of multiple name-labels. In actual fact, when all such name-labels are taken into account, it does not have proportionately more than other books, as shown in the table at M–R 4.329 (about 19% of the whole). But it has a disproportionate number of long strings of name-labels. Thus the very first doxa on the unicity or plurality of the cosmos illustrates the main diaphonia with strings of 11 and 9 name-labels respectively (2.1.2–3). Of the 14 doxai in the work with four name-labels or more, 7 are found in Book 2 (also 2.3.2, 2.4.7, 2.11.4, 2.28.6, 2.29.7). There are also 8 cases of triple name-labels, which too is more than elsewhere (13). On the other hand, we also find in Book 2 the practice of using representative name-labels, particularly in the case of the Stoics, who in chs. 2.2, 14, 22, 26–27 are selected to represent views on the size and shape of heavenly bodies that were generally accepted in Greek philosophy from Plato and Aristotle onwards. These features of the use of name-labels have to do with the method used by the doxographer.

4 Method and Micro-structure

The individual chapters of the book range from three very long chapters on the substance of the three main heavenly bodies (2.13 stars: 16 doxai; 2.20 sun: 15 doxai; 2.25 moon: 15 doxai) to a number of chapters with two lemmata only (2.8,

2.10, 2.12). The majority of chapter are between 4 and 8 lemmata in length, and there are no monolemmatic chapters. The basic order of the lemmata within chapters is seldom in dispute, with those doxai retained by P usually a sound guide. The fullest material, however, is found in S and his particular methods of anthologising sometimes make it difficult to be wholly certain of A's original order (e.g. in chs. 2.4, 2.20, 2.25). But in the case of five chapters we are fortunate that S appears to simply write out a stretch of A's original text (chs. 2.28–32). See further the discussion on his methods in the General Introduction, section 2.4.

Speaking in general terms, the contents of all the chapters in Book 2 are systematically structured. This is achieved by the consistent use of the characteristic dialectical method of the *Placita*, involving extensive use of the techniques of diaphonia (two opposed views) and diaeresis (two views with often a compromise view in between, or an organised list of differing views). These basic structural schemes, which underlie the ordering of the lemmata, are analysed and set out in section D(c) of our Commentary on each chapter. On these strategies of presentation see further M–R 2.3–10. They are present in virtually every chapter, often intelligently and flexibly applied, though it is true that some chapters are less systematic and their rationale is not so easily discernible (e.g. chs. 2.24, 2.30). (In contrast to the analyses in our previous reconstruction of this book in M–R vol. 2 part 2, we have not tried to illustrate them with schematic diagrams, which may have had the danger of making the structures appear too rigid and sometimes a little forced.)

But it would be wrong to conclude that the systematic nature of the presentation of doxai leaves no room for historiographical considerations. Our author has already made it quite clear in Book 1 that he is sensitive to chronology and to the importance of the key successions and sects of philosophers. At the outset of the book (ch. 2.1), he introduces Pythagoras as the one who first used the term *κόσμος* for that which contains all things, followed by two long lists of philosophers espousing the view of a single cosmos and multiple kosmoi respectively, the one starting with Thales and Pythagoras, archegetes of the Ionian and Italian successions respectively, opposed to another list commencing with Thales' pupil Anaximander and containing a bevy of Eleatics and atomists. It is also no coincidence that the two lists end with the four founders of the Hellenistic schools (with the addition of Epicurus' teacher Metrodorus). On 19 occasions, as can be seen at M–R 2.95, chapters display foundational name-labels (from the historical point of view) in their first lemmata. Moreover, key early figures are frequently associated with key doxai in the systematic structures mentioned above. In all three elaborate diaereses on the substance of the stars, sun and the moon, Thales represents the main view that they are 'earthy' (2.13.1, 2.20.9, 2.25.9). Examples could be multiplied. There

is indubitably a tension between the two approaches, systematic and historical. An important result of Jeremiah's research is that, when all five books are compared, Book 2 is the most dialectical and the least historical in its ordering of the doxai. See his analyses at M–R 4.310–319.

Not only does Book 2 have the most chapters (33) and lemmata (217) of any of the books. It is also marked by the brevity of many of its doxai, some of which are so short that they have single word predicates (e.g. A 2.2.2–3, 2.20.9, 2.25.9, 2.27.3–6). On average its doxai are the shortest of any of the five books (16.9 words, compared to the overall average of 25.8). There are only two long descriptive doxai in the book, both on the ordering of the cosmos, attributed to Parmenides (2.7.1) and Philolaus (2.7.6) respectively (cf. also 2.20.12–13). These two important passages give rise to many textual and interpretative problems.

Contributing to the brevity of the doxai in Book 2 is a further feature of the *Placita* method. The compiler makes consistent and heavy use of ellipsis at the beginning of the lemmata, i.e. the suppression of verbs of saying or thinking, often together with the subject and the question being asked (which is assumed from the chapter heading). This practice poses difficulties for the reconstruction of the text, for quite often our witnesses (esp. S) reinsert such verbs and subjects in their excerpts. Research has shown that the first two books are most elliptical, but that Book 2 comes out on top in this regard. No less than 196 of the 214 labelled lemmata have initial elliptical predicates, i.e. 92%. See further Jeremiah's analyses at M–R 4.319–323. For a further conclusion that might be drawn from these analyses, see the next section below *ad finem*.

5 Sources: Proximate Tradition

There is a surfeit of evidence to show that the doxai which A has collected in this book stand for the most part in a long doxographical tradition which we have labelled 'proximate'. Perhaps the most valuable witness to this tradition for Book 2 is a number of passages in Philo *De somniis* (and also the previous treatise *De mutatione nominum*). Though containing no name-labels, when describing the heavens they use many of the same diaereses and doxai that appear in A (esp. chs. 2.11, 2.13, 2.15, 2.21, 2.28). In preparing for the writing of these treatises Philo must have had at his disposal a doxographical handbook very similar to that of A. At least seven other authors reveal similar doxai on cosmological themes, also containing many of the name-labels that are common in Book 2: aside from Achilles and Arius Didymus, there are the brief doxographies on the Presocratics in Hippolytus *Refutatio* and ps.Plutarch *Stromateis*, important parallels in Cicero *Lucullus* and *De natura deorum*,

copious doxographical material in Diogenes Laertius, and some valuable evidence found in authors that have made use of source material from Varro (chs. 2.4, 2.32). In some cases the questions and the diaereses have been preserved, in others the doxai have been wrenched, it would appear, from their doxographical contexts and reassembled in order to make author-based rather than topic-based compilations. A striking example of how close this narrow proximate tradition can be is found in doxai on the substance of the moon. Both Diogenes Laertius and Hippolytus attribute to Anaxagoras the view that the moon has an irregular surface, on each occasion using the same uncommon word *φάραγγες* (ravines) as A does in 2.25.10 (cf. also 2.30.3 *ταπεινά*). Moreover, Cicero *Luc.* 123 attributes lunar plains and mountains to Xenophanes, again in the same terms as we find in A. In Philo *Somn.* 1.22 there is talk of *ἄγχεα καὶ νάπας* (dells and vales) on the heavenly bodies, exactly the same words used of Democritus' view in 2.30.4. It can hardly be doubted that these views all go back to a very specific common tradition.

Other, mostly later authors also offer many further parallels to the doxai in this book, notably Plutarch (esp. in his work *De facie*), Sextus Empiricus, Censorinus, Macrobius and the Patristic authors Tertullian, Basil, Isidore of Pelusium, Augustine and Isidore of Seville. It shows that they utilise the same traditions, though not always at first hand. Of special interest are the texts in Galen and Seneca, showing how the *quaestiones* and diaeretic schemata fundamental to the *Placita* were widely known and utilised (see on chs. 2.1, 2.4, 2.13, 2.15). Further information on the background to A's use of *quaestiones* or *θέσεις* is provided by texts in the rhetors Hermagoras, Theon, Quintilian and Marius Victorinus (see on chs. 2.1, 2.3, 2.4, 2.21, 2.27). These texts show that certain cosmological topics were not just of scientific interest, but had a wider dissemination, if only as illustrations.

A special case is formed by the philosopher Epicurus (341–271), founder of one of the main Hellenistic schools of thought. Epicurus' views are quite well represented in Book 2, with ten doxai to his credit. But what is particularly interesting in the present context is that he demonstrably has used collections of *placita* to illustrate possible views on questions that he regards as beyond scientific certainty. On five topics—the turnings of the sun (ch. 2.23), the eclipses of the sun and moon (chs. 2.24, 2.29), the illumination of the moon (ch. 2.28) and the face of the moon (ch. 2.30) he includes among his explanations doxai that are the same as or similar to what we find in A. Further convergences occur in his treatment of meteorological subjects set out in Book 3. In a detailed analysis (M–R 4.406–413) we have concluded (p. 413) that 'Epicurus in drawing up his treatment of cosmology, and in particular his listings of multiple explanations, made use of doxographical material that was taken up into the tradition

of the *Placita* and three centuries later had found its way into the distillation of this tradition in Aëtius' compendium'. His pupil Lucretius in the first cent. BCE continues the practice of using doxographical material, which leads to deviations from the narrow example of the master (M–R 4.399).

What, then, can be said about the nature and origin of this anterior proximate tradition as evidenced by the contents of Book 2? There is a uniformity of method and content which encouraged Diels, though unaware of the Philonic texts, to postulate a work called the *Vetusta placita* to be dated to the early first century BCE which organised material going back to Theophrastus and the Peripatos. But the evidence for this kind of work goes back earlier, at least to the time of Chrysippus; see M–R 3.125–157. It is more likely that there were a plurality of doxographical works in circulation by A's time (M–R 2.35). Two significant clues are found in Book 2 through rare references to the sources of A's information. Both refer to Theophrastus, in the former case (2.20.4, Xenophanes on the sun's οὐσία) to what he wrote ἐν τοῖς Φυσικοῖς, in the latter case (2.29.8, Anaxagoras on lunar eclipses) without specific reference to a work. But we cannot even be sure which work is being referred to here. It is also possible, based on the contents of ch. 2.31, to consider Eudemus' account of astronomical researches as a source for some of A's material (cf. M–R 3.473). Jeremiah on the basis of his analyses of style and method concludes that in comparison with other books Book 2 has features—more diaereses, less historical ordering—which make it likely that 'its contents underwent a greater degree of reorganisation and compression in the course of its transmission' (M–R 4.316). We can be certain that much of the often bizarre cosmological material from early Greek philosophy found in Book 2 has been sluiced through the researches of Peripatos, and that the method of dealing with this material owes much to methods developed by Aristotle and his successors. But precise details on how these processes took place are simply not available. On the question of A's sources see further the General Introduction, section 5.

6 Other Source Material

For the Presocratic lemmata, which form the bulk of the book's material, we do not have access to any of the original texts. This includes the case for the poems of Parmenides and Empedocles, of which we have reasonably extensive remains—a clear indication that their doxai have been well worked over by intermediate sources (an exception is the reference to the δαίμων at 2.7.1 drawn from fr. 28B12 DK). The first philosopher for whom we can examine the original source is Plato. Given the book's cosmological contents, the chief

source for his 18 doxai would be expected to be the *Timaeus*. But the doxai are clearly not taken from it directly. In almost all cases they have passed through an early Middle Platonist or Neopythagorean filter prevalent throughout the entire work (cf. M–R 2.51). This is most obvious in ch. 2.6, starting with its title ‘From what kind of first element did the god make the cosmos’ which hints at the Platonic demiurge, then using the non-Platonic term νοητὸς κόσμος in relation to the model, and ending with a comment that for the elemental shapes Plato is ‘Pythagorising’. Plato’s association with Pythagoras (also in 2.10.1, 2.23.8) is also a Middle Platonist trait. But also in most other Platonic doxai modifications and additions to the *Timaeus* are made, and in some cases there is no precedent for the view at all, e.g. on the five regions of the cosmos in 2.7.4 and the lunar eclipse in 2.29.7. Exceptionally a Stoic filter is visible in 2.5a.1, where the cosmological use of the term ἡγεμονικόν is neither Platonic nor Platonist (unless this expression had entered into the philosophical *koine* by A’s time). Middle Platonist handbook writers such as Alcinous and Apuleius offer insight into these adaptations, but by the time of the commentator Proclus in the fifth century the amount that we can learn about the doxographical tradition is restricted.

Aristotle plays a significant role in Book 2, though less than in Books 3–5. The structure of his cosmology in *De caelo* exerts a general influence in chs. 1–17 (as does the *Timaeus*), but there is an important difference in that the Stagirite hardly pays any attention to the sun and the moon, in contrast to A who devotes 12 of his 33 chapters to them. Although the number of doxai attributed to Aristotle is large, they are almost all very short (only 2.3.4 is a little longer) and rather uninformative. There is some evidence of the use of works that are no longer extant (e.g. 2.5.1 on the cosmos’ (lack of) nourishment) or of later interpretations (e.g. 2.3.4 on restricted providence). But for some doxai there is no evidence at all (e.g. 2.26.3, 2.28.2, both on the moon). Later commentators such as Alexander and Simplicius offer many general parallels, but do not appear to make use of the *Placita* tradition themselves. In an important text in his commentary on the *Posterior Analytics* John Philoponus shows how the kinds of questions asked in the *Placita* relate to the categories (see on chs. 2.1–4, 2.9, 2.11), but he too does not make direct use of the doxographical tradition.

For Epicurus we are fortunate to have more original writings, both complete and fragmentary, than for any other Hellenistic philosopher and the first two of his extant letters in Diogenes Laertius have substantial sections on cosmogony and cosmology. Summaries of doctrine such as these letters were attractive for doxographers when formulating their doxai. In one case, A 2.7.3 on the boundaries of kosmoi, it is possible that A has drawn directly on the *Letter to Pythocles* (M–R 4.395); in another case there is a strong convergence with a

scholion preserved by Diogenes (2.2.5). In three doxai A includes the key model term ἐνδέχασθαι, which will certainly have been derived from Epicurus himself, either directly or indirectly (2.2.5, 2.13.15, 2.22.4, cf. 2.4.13). In other cases the doxai are closer to texts in later sources, notably Lucretius and Diogenes of Oenoanda (see 2.20.14 on the sun, M–R 4.398). There will be some filtering here that occurred via either scholastic or doxographical traditions in the Hellenistic period, about which we do not know a great deal (Philodemus is as good as silent on cosmology except in his doxography on theology, on which see ch. 1.7).

The Stoa is the youngest school to be explicitly included in the *Placita* and it is heavily represented in Book 2. The subject-matter of the book is identified as part of the Stoic φυσικὸς λόγος as set out in the Stoic doxography at Diogenes Laertius *V.P.* 7.132–133. As already noted, there are no less than 17 doxai with the school name-label, as well as five members mentioned by name (Zeno 2×, Cleanthes 7×, Diogenes 1×, Boethus 1×, Posidonius 2×, but not Chrysippus). These 30 doxai are uniformly very brief. The impression gained, also when comparing them with the extensive doxography in Diogenes Laertius, is that their contents are derived from earlier doxographies rather from original writings, but we have no way of checking. Later evidence on Stoic cosmological views, such as we find in Cicero, Seneca and Cleomedes, offers useful parallels, but is generally more discursive and presents the arguments that are missing in A. It would be gratifying to have access to source material which would allow us to explain how such odd views have been attributed to Cleanthes in A 2.14.2 and 2.27.4.

Liber 2 Titulus et index

T: Theodoretus *CAG* 4.31 Raeder, cf. 2.95, 5.16 (titulus)—**P^B**: ps.Plutarchus *Plac.* 885E–886A; p. 268 Diels—**P^Q**: Qustā ibn Lūqā p. 139 Daiber (titulus), pinax in ms. Damascenus fol. 7^v (ineditus)—**P^E**: Eusebius *PE* 15.32.8, p. 406.6–18 Mras—**P^C**: Cyrillus. *Juln.* 2.14, p. 105.10–12 Riedweg—**P^{Sy}**: Symeon Seth *CRN* praef., p. 18.10–12 Delatte

Titulus ΑΕΤΙΟΥ ΠΕΡΙ ΤΩΝ ΑΡΕΣΚΟΝΤΩΝ ΤΟ Β', ἐν ᾧ κεφάλαια τάδε·

Index

α'.	Περὶ κόσμου	
β'.	Περὶ σχήματος κόσμου	
γ'.	Εἰ ἔμψυχος ὁ κόσμος καὶ προνοία διοικούμενος	5
δ'.	Εἰ ἄφθαρτος ὁ κόσμος	
ε'.	Πόθεν τρέφεται ὁ κόσμος	
⟨ε+⟩.	Ποῦ ἔχει τὸ ἡγεμονικὸν ὁ κόσμος	
ς'.	Ἀπὸ ποίου πρώτου στοιχείου ἤρξατο ὁ θεὸς κοσμοποιεῖν	
ζ'.	Περὶ τάξεως τοῦ κόσμου	10
η'.	Τίς ἢ αἰτία τοῦ τὸν κόσμον ἐγκλιθῆναι	
θ'.	Περὶ τοῦ ἐκτὸς τοῦ κόσμου, εἰ ἔστι κενόν	
ι'.	Τίνα δεξιὰ τοῦ κόσμου καὶ τίνα ἀριστερά	
ια'.	Περὶ οὐρανοῦ, τίς ἢ τοῦτου οὐσία	
ιβ'.	Περὶ διαιρέσεως οὐρανοῦ, εἰς πόσους κύκλους διαιρεῖται	15
ιγ'.	Τίς ἢ οὐσία τῶν ἀστρων πλανητῶν καὶ ἀπλανῶν	
ιδ'.	Περὶ σχημάτων ἀστέρων	

titulus : scripsimus, cf. T 4.31 et M–R 1.326 : Πλουτάρχου φιλοσόφου Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν δογμάτων ἐπιτομῆς τὸ β', ἐν ᾧ κεφάλαια τάδε **P^{B(1)}** : Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν ἐπιτομῆς βιβλίον β' **P^{B(III:E)}** : βιβλίον δεύτερον **P^{B(II)}**: deest in **P^{B(III:α)}** qui hab. pro titulo Περὶ τῶν ἀποτελεσματικῶν : ἐν ... τάδε om. **P^{B(III:E)}** : *Die zweite Abhandlung aus dem Buch des Plutarchos* Q

index : indicem totum om. **P^{B(III:α)}** : exstat in **P^Q** ms. Z sed hactenus ineditus (habemus versionem Daiberi; vid. append. infra t. 4) [5] Εἰ ... διοικούμενος **P^{B(IIID)}**Q, cf. tit. c. 2.3 : καὶ προνοία διοικούμενος om. **P^{B(III)}** || [7] πόθεν **P^{B(IIID)}**Q, cf. tit. c. 2.4 : εἰ **P^{B(II)}** || [8] coniecimus; vid. c. 2.5a infra || [9] Ἀπὸ ... κοσμοποιεῖν tit. c. 2.6 : πρώτου om. **P^{B(III)}** : ὁ θεὸς κοσμοποιεῖν **P^B** || [10] τοῦ κόσμου **P^{B(II-ID)}**Q, cf. tit. c. 2.6 : τοῦ om. **P^{B(1)}** || [11] Τίς ... ἐγκλιθῆναι **P^{B(IIID)}**Q, cf. tit. c. 2.8 : Περὶ τοῦ ante τίς **P^{B(I-ID)}** : om. τοῦ **P^{B(I-ID)}** || [12] Περὶ ... κενόν **P^B**, cf. tit. c. 2.9 : *Gibt es ausserhalb ein Vakuum* Q || [14] Περὶ ... οὐσία **P^B**, cf. tit. c. 2.11 : *Über die Substanz des Himmels* Q || [15] Περὶ ... διαιρεῖται **P^B**, cf. tit. c. 2.12 : *Über die Einteilung des Himmels* Q || [16] Τίς ἢ οὐσία ... ἀπλανῶν tit. c. 2.13 : om. ἢ **P^{B(I-ID)}** : πλανητῶν καὶ ἀπλανῶν om. **P^{B(III)}** : post ἀπλανῶν add. καὶ πῶς συνέστη **P^{B(I-ID)}** : συνεστήκασιν **P^{B(III)}** : *Was ist die Substanz der Sterne* Q

ιε'.	Περὶ τάξεως ἀστέρων	
ις'.	Περὶ τῆς τῶν ἀστέρων φορᾶς καὶ κινήσεως	
ιζ'.	Πόθεν φωτίζονται οἱ ἀστέρες	20
ιη'.	Περὶ τῶν ἄστρον τῶν καλουμένων Διοσκούρων	
ιθ'.	Περὶ ἐπισημασίας ἀστέρων	
κ'.	Περὶ οὐσίας ἡλίου	
κα'.	Περὶ μεγέθους ἡλίου	
κβ'.	Περὶ σχήματος ἡλίου	25
κγ'.	Περὶ τροπῶν ἡλίου	
κδ'.	Περὶ ἐκλείψεως ἡλίου	
κε'.	Περὶ οὐσίας σελήνης	
κς'.	Περὶ μεγέθους σελήνης	
κζ'.	Περὶ σχήματος σελήνης	30
κη'.	Περὶ φωτισμῶν σελήνης	
κθ'.	Περὶ ἐκλείψεως σελήνης	
λ'.	Περὶ ἐμφάσεως σελήνης καὶ διὰ τί γεώδης φαίνεται	
λα'.	Περὶ τῶν ἀποστημάτων τῆς σελήνης	
λβ'.	Περὶ ἐνιαυτοῦ, πόσος ἐκάστου τῶν πλανητῶν χρόνος, καὶ τίς ὁ μέγας ἐνιαυτός	35

[19] Περὶ ... κινήσεως P^B, cf. tit. 2.16: *Über die Fortbewegung der Sterne* Q || [21] Περὶ ... Διοσκούρων P^{B(I,II)}: τῶν¹ om. P^{B(III)} || [22] Περὶ ἐπισημασίας ἀστέρων tit. c. 2.19 et cf. *Über die (Wetter-) Konstellationen der Jahreszeiten* Q: καὶ πῶς γίνεται χειμῶν καὶ θέρος add. P^B || [23] Περὶ οὐσίας ἡλίου P^{B(III)Q}: καὶ ὅτι δύο καὶ τρεῖς εἰσὶν add. P^{B(I,II)} || [30] Περὶ σχήματος σελήνης P^B, cf. tit. c. 2.27: *Über die Gestalt und die Erleuchtung des Mondes* Q (confl. c. 27 et 28) || [32] Περὶ ἐκλείψεως σελήνης P^{B(I,III)}, cf. tit. 2.29: ἐγκλίσεως sive ἐγκλείψεως P^{B(II)} || [33] Περὶ ... φαίνεται cf. tit. c. 2.30: αὐτῆς pro σελήνης P^{B(I,II)Q}: καὶ om. P^{B(III)} || [34] Περὶ ... σελήνης tit. c. 2.31: post σελήνης add. πόσον (δ P^{B(III)}) ἀφέστηκε τοῦ ἡλίου P^{BQ} || [35–36] Περὶ ... ἐνιαυτός P^{B(I,II)}, cf. tit. c. 2.32: πλανητῶν P^{B(I,II)}: πλανωμένων P^{B(III)}: χρόνος καὶ τίς om. P^{B(III)}: καὶ τίς ὁ μέγας ἐνιαυτός om. P^Q

Testes primi:

Theodoretus CAG 4.31 vid. lib. 1. titulus et index

Eusebius PE 15.32.8 vid. lib. 1. titulus et index

Cyrillus *Juln.* 2.14 vid. lib. 1. titulus et index

Symeon Seth *CRN Praef.* p. 18.10–12 Delatte vid. lib. 1. titulus et index

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

As discussed in the equivalent chapter of Book 1, for the title of the entire work and its individual books we must rely on the evidence of T, the only witness to cite the title of the original work and give the name of its author. The titles in P and those witnesses dependent on its tradition are expanded versions of the original title. For the title at the head of P's Book 2 only the evidence in P^B is available, supplemented by a reference to the book's title in Cyril's extracts from it. Q does not appear to have translated the title, but only indicated the number of the book and its author. On these titles see further Book 1.titulus et index Commentary C.

For the index of chapters P^B is the chief witness, though not all mss. contain it. One of the mss. of Q, Zāhirīya (Damascenus) 4871 contains a translation of the list and thus provides valuable additional evidence on the manuscript tradition. Daiber did not include it in his edition, but he has kindly provided the editors with a translation (see Appendix in vol. 4). On this translation and its source see further the Book 1.titulus et index Commentary A.

Eusebius provides us with two pieces of evidence. The chapters that he writes out from P Book 2 are all in Book 15 of his *Praeparatio Evangelica*. This book, following his usual practice, has itself a pinax which contains the headings of all the chapters he quotes. In addition, he gives a summary of some of the chapters he is going to quote at 15.32.8–10, including most of the chapter headings of chs. 2.1–11. It cannot be considered certain that this represents the pinax of his copy of P, since he might also have based it on the chapters he had written out. But there is likely to have been very little difference. Similarly Symeon Seth in his Preface gives a summary of the headings of many of the chapters in his compendium. This takes the place, as it were, of a pinax. Texts above under *testes primi*.

C *Book Title*

As emphasised in our discussion in Book 1.titulus et index Commentary A, the title for the entire work and each of its books must be based on the evidence of T. The titles in the tradition of P are secondary. P's title in the ms. Mosquensis for Book 2 is very full and uniquely speaks of ἐπιτομή in the genitive, i.e. as if it was part of the title in the nominative (Books 3 and 5 have ἐν ἐπιτομῇ, which must qualify τῶν ἀρεσκόντων). On how this title relates to the title of the original work see Book 1.titulus et index Commentary C.

D *Analysis of the Index*

(1) For a discussion giving the reasons why we are convinced that A's original compendium contained these indices at the beginning of each book, see M-R 2.196–204 and Book 1.titulus et index Commentary D(6) and D(e).

(2) For the methodology of the reconstruction of the index see Book 1.titulus et index Commentary D(3). We argue that priority must be given to the chapter headings in the text of the chapters themselves, since A will have based his index on these when he compiled the work. It is thus to be assumed that the list of chapter headings in the index accurately reflects the chapter headings in the text of the Book. In the index of this book the discrepancies between the pinax and the headings transmitted in within the book itself is greater than elsewhere, there being no less than five chapters where they diverge: chs. 2.5a (not in P), 2.6, 2.13, 2.19, 2.30. In the remaining cases the intra-textual chapter heading has differing degrees of support in the Index list in the manuscripts. The reader is advised to study the apparatus criticus both to the above list and to the headings of individual chapters.

(3) For discussion of chapter headings in P^B, who often opts for the longer variants, see the comments in our Commentary on individual chapters below (section C). It is interesting to note that in the case of eight chapters (9, 11, 12, 13, 16, 19, 20, 32) Q records a shorter chapter title compared with what is found in P^B. He has also conflated the titles of chs. 27 and 28, caused by the omission of the contents of ch. 27 (but not its title) in the main body of the book. This may suggest that he derived his list from the contents of the book rather than translating the index in the ms. he was translating (which would make it less valuable from the textual point of view), but this cannot be considered certain. After all, the mistake may have been in the text on which he based his translation (and so also in its pinax).

D(e) *Other Evidence*

For further discussion on the use of pinakes (tables of contents) in ancient works see Book 1.titulus et index Commentary D(e).

E *Further Related Texts*

For an extensive list of parallel texts relating to the compilation and use of pinakes (tables of contents) or indices of chapter headings, see Book 1.titulus et index Commentary E.

Liber 2 <Procœmium>

P^B: Plutarchus 886B; p. 327^a2–6 Diels—P^Q: pp. 138–139 Daiber

τετελεκώς τοίνυν τὸν περὶ ἀρχῶν καὶ στοιχείων καὶ τῶν συνεδρευόντων αὐτοῖς λόγον τρέψομαι πρὸς τὸν ἐπὶ τῶν ἀποτελεσμάτων, ἀπὸ τοῦ περιεκτικωτάτου πάντων ἐνστησάμενος. (P)

procœmium non hab. S || [2] ἐπὶ : περὶ coni. corrector ms. Vossiani, Diels

Loci Aetiani:

A 1.2 tit. Τὴν διαφέρει ἀρχὴ καὶ στοιχεῖα. A 1.2.2 τὰ μὲν γὰρ στοιχεῖα ἐστὶ σύνθετα, τὰς δ' ἀρχὰς φαμεν εἶναι οὔτε συνθέτους οὔτ' ἀποτελέσματα. A 1.3 tit. Περὶ τῶν ἀρχῶν τί εἰσιν. A 1.5.4 ὅπου γὰρ ἀπέραντα τὰ αἷτια, ἐκεῖ καὶ τὰ ἀποτελέσματα. A 1.11.1 αἷτιόν ἐστι δι' ὃ τὸ ἀποτέλεσμα κτλ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The brief introductory authorial statement preceding the chapters of Book 2 is only found in P^B and the translation of the closely related P^Q. This is also the case for the similar comments at the beginning of Books 1, 3, 4 and at 3.8.2.

B *Proximate Tradition and Sources*

The distinction between principles and effects goes back at least as far as Plato's *Timaeus* (cf. 27a, 27d–29d, 47e), without using the same terminology as our text (cf. also the summary of early Pythagorean accounts of the derivation of the cosmos from higher principles at D.L. 8.25). Aristotle also clearly distinguishes between the two in his opening remarks in the *De caelo* and the *Meteorology* (texts below section E(a)). Here too there are no verbal similarities with A. The Stoic distinction between an eidetic and a generic list of topics in the φυσικὸς λόγος at D.L. 7.132 also shows some resemblances to the difference in contents between Books 1 and 2.

Evidence for the specific distinction between principle/cause/element and resultant product first appears in Philo of Alexandria and Plutarch (texts below section E(a)). It occurs a number of times in G in the first part of the work

not derived from A, where it is related to the thought of Plato and Aristotle. In the Middle Platonist tradition the transition from principles to the genesis of the cosmos occurs very clearly in paraphrases or summaries of the *Timaeus* at Tim.Locr. 7 and Alcinous *Did.* 8 (texts below), but the term ἀποτέλεσμα is not used. It would appear that the movement from principles to effects has a Platonic background, but that the terminology used is likely to have been derived from the Stoa.

C Chapter Heading

The introductory remarks have no title but are placed under the general title of the Book, as is the case for the other four passages noted above.

D Analysis

a Context and Rationale

The sentence effectuates the transition from Book 1 on the *principia* to the remaining books on the *realia* of the cosmos and its contents. Further transitions are made at the beginning of Book 3, at 3.8.2 and at the beginning of Book 4. Although these passages are only found in P, it can be considered virtually certain that they were originally present in its source, A. The words περὶ ἀρχῶν καὶ στοιχείων recall the prefatory chapter 1.2, Τὶνι διαφέρει ἀρχή καὶ στοιχεῖα, most of which is taken up by S in his chapter 1.10 entitled Περί ἀρχῶν καὶ στοιχείων τοῦ παντός. On the authorial comments in A see further M–R 2.43–59, on this passage 2.52.

In chapter 1.2 which has as its purpose the distinguishing marks between principles and elements, ἀποτελέσματα are distinguished from ἀρχαί (A 1.2.2), but no explanation is given of how this is the case.

b Further Comments

General Points:

(1) As noted in M–R 2.52, συνεδρευόντων can also be translated ‘what belongs to the same company as,’ ‘is attendant upon’. It implies a group of topics subordinate, or at least consequent upon the principles and elements, i.e. the topics treated in chs. 1.11 to 1.29.

(2) In the phrase πρὸς τὸν ἐπὶ τῶν ἀποτελεσμάτων Diels replaces ἐπὶ with πρὸς, taking over the emendation of the corrector of the Leiden ms. Vossianus Q 2 (a copy in the Planudean tradition, i.e. family III), but this move is unnecessary and has been rejected by subsequent editors. ἐπὶ here literally means ‘in the case of’; cf. Smyth (1956) §1689c. Its use is prompted by the wish to vary the expression used in the previous clause.

E Further Related Texts

a Proximate Tradition

General texts: *Philo Opif.* 28 τάξις δ' ἀκολουθία καὶ εἰρμός ἐστι προηγουμένων τινῶν καὶ ἐπομένων, εἰ καὶ μὴ τοῖς ἀποτελέσμασιν, ἀλλὰ τοι ταῖς τῶν τεκταινομένων ἐπινοίαις. *Opif.* 129 ἄρ' οὐκ ἐμφανῶς τὰς ἀσωμάτους καὶ νοητὰς ιδέας παρίστησιν, ἃς τῶν αἰσθητῶν ἀποτελεσμάτων σφραγίδας εἶναι συμβέβηκε; *Her.* 209 καὶ τὰλλα δὲ ἐναντία προϋπτα, σώματα ἀσώματα, ἔμψυχα ἄψυχα, λογικὰ ἄλογα, θνητὰ ἀθάνατα, αἰσθητὰ νοητὰ, καταληπτὰ ἀκατάληπτα, στοιχεῖα ἀποτελέσματα ... *Fug.* 133 ἰδοὺ τὸ δρῶν αἷτιον, τὸ πῦρ· ἰδοὺ καὶ τὸ πάσχον, ἡ ὕλη, τὰ ξύλα· ποῦ τὸ τρίτον, τὸ ἀποτελέσμα; οἷον ἰδοὺ ὁ νοῦς, ἔνθερμον καὶ πεπυρωμένον πνεῦμα. **ps.Galen HPh** ch. 17, p. 610.3–6 Diels Πλάτων δὲ καὶ τὰς ιδέας εἰσήγαγεν, αἷς ἴσα μὲν ἀπεργάσασθαι δύνανται· εἰσάγουσι δὲ καὶ τὴν ἅποιον ὕλην, ὅσοι οὐκ ἂν ἴσα τὰ καθ' ἕκαστα συντελεῖσθαι διδῶσιν, ἀλλὰ † ταύτης τε ὑπ' αὐτῆς τὰ ἀποτελέσματα γίνεσθαι. *HPh* ch. 19, p. 611.5–7 ἀρχὴν δὲ καὶ αἰτίαν τινὲς μὲν ὥήθησαν μηδὲν ἀλλήλων διαφέρειν, τινὲς δὲ τὴν ἀρχὴν καθηγγητικὴν πάντων εἶναι νομίζουσιν οὐκ αἰτίαν οὔσαν τοῦ παντός ἀποτελέσματος. **Plutarch Anim.Procr.** 1023C ὁ θεὸς τῆς μὲν ιδέας ὡς παραδείγματος γέγονε μιμητής, τῆς δὲ ψυχῆς ὥσπερ ἀποτελέσματος δημιουργός.

b Sources and Other Parallel Texts

General texts: *Aristotle Cael.* 1.1 268a1–6 ἡ περὶ φύσεως ἐπιστήμη σχεδὸν ἡ πλείστη φαίνεται περὶ τε σώματα καὶ μεγέθη καὶ τὰ τούτων οὐσα πάθη καὶ τὰς κινήσεις, ἔτι δὲ περὶ τὰς ἀρχάς, ὅσαι τῆς τοιαύτης οὐσίας εἰσὶν· τῶν γὰρ φύσει συνεστῶτων τὰ μὲν ἐστὶ σώματα καὶ μεγέθη, τὰ δ' ἔχει σῶμα καὶ μέγεθος, τὰ δ' ἀρχαὶ τῶν ἐχόντων εἰσὶν. *Mete.* 1.1 338a20–25 περὶ μὲν οὖν τῶν πρώτων αἰτίων τῆς φύσεως καὶ περὶ πάσης κινήσεως φυσικῆς, ἔτι δὲ περὶ τῶν κατὰ τὴν ἄνω φορὰν διακεκοσμημένων ἄστρον καὶ περὶ τῶν στοιχείων τῶν σωματικῶν ... εἴρηται πρότερον. **Stoics ap.** D.L. 7.132 τὸν δὲ φυσικὸν λόγον διαιροῦσιν εἰς τε τὸν περὶ σωμάτων τόπον καὶ περὶ ἀρχῶν καὶ στοιχείων καὶ θεῶν καὶ περάτων καὶ τόπου καὶ κενοῦ. καὶ οὕτω μὲν εἰδικῶς, γενικῶς δ' εἰς τρεῖς τόπους, τὸν τε περὶ κόσμου καὶ τὸν περὶ τῶν στοιχείων καὶ τρίτον τὸν αἰτιολογικόν ... **Clement of Alexandria Strom.** 8.27.2 (attributed to Chrysippus, *SVF* 2.347) τὸ δὲ αὐτὸ ἄρα αἷτιον καὶ ποιητικὸν καὶ δι' ὃ καὶ εἰ μὲν τί ἐστὶν αἷτιον καὶ ποιητικόν, τοῦτο πάντως ἐστὶ καὶ δι' ὃ, εἰ δὲ τί ἐστὶ δι' ὃ, οὐ πάντως τοῦτο καὶ αἷτιον. πολλὰ γοῦν ἐφ' ἧν ἀποτέλεσμα συντρέχει, δι' ἃ γίνεται τὸ τέλος, ἀλλ' οὐκ ἔστι πάντα αἷτια. **Timaeus Locrus** ch. 7 πρὶν ὦν ὥρανὸν λόγῳ γενέσθαι ἡστην ιδέα τε καὶ ὕλα καὶ ὁ θεός ... **Alcinous Did.** 8, p. p. 162.24–28 H. μετὰ δὲ τοῦτα ἐπομένως περὶ τῶν ἀρχῶν τε καὶ τῶν θεολογικῶν λέγωμεν θεωρημάτων, ἄνωθεν ἀπὸ τῶν πρώτων ἀρχόμενοι καὶ ἀπ' αὐτῶν κατιόντες καὶ ἐπισκοποῦντες τὴν τοῦ κόσμου γένεσιν, τελευτῶντες δὲ εἰς ἀνθρώπων γένεσιν καὶ φύσιν. **Simplicius in Phys.** 285.5 Diels ἀλλὰ πῶς τὸ σύνθετον ἀρχὴ ἂν εἴη καὶ αἷτια ἀποτέλεσμα μόνον ὑπάρχον;

Liber 2 Caput 1

- P^B**: ps.Plutarchus *Plac.* 886B–C; pp. 327^a7–328^a11 Diels—**P^G**: ps.Galenus *HPh* c. 44; p. 621.1–8 Diels; pp. 138–148 Jas—**P^Q**: Qustā ibn Lūqā pp. 138–139 Daiber—**P^C**: Cyrillus *Juhn.* 2.14.10–22, p. 105, cf. 2.16, 5–6, p. 107 Riedweg—**P^{Sy}**: Symeon Seth *CRN* 3.27, p. 35.7–10 Delatte—**P^{Ath}**: Athenagoras *Leg.* 7.2.13–14 Marcovich (titulus solus)
S: Stobaeus *Ecl.* 1.21, p. 181.16 (tit.) + 1.21.3ab, p. 182.17–183.1 + 6c, p. 186.15–16 + 1.22.3bcd, p. 199.10–22 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b5 Henry (titulus solus)
T: Theodoretus *CAG* 4.15, p. 104.8–15; cf. 4.8, p. 102.14–17 Raeder
Cf. Ach: Achilles *Univ.* c. 5, pp. 15.10–13, 16.8–9; c. 8, cf. p. 17.21–22 Di Maria; *Commentaria in Aratum*, Anon. I 3, pp. 92.34–93.2 Maass; Hermias *Irr.* 18, p. 118.1–4 Hanson

Titulus α'. Περὶ κόσμου (P,S)

- §1 Πυθαγόρας πρῶτος ὠνόμασε τὴν τῶν ὅλων περιοχὴν κόσμον ἐκ τῆς ἐν αὐτῷ τάξεως. (P1,S5)
§2 Θαλῆς Πυθαγόρας Ἐμπεδοκλῆς Ἐκφαντος Παρμενίδης Μέλισσος Ἡράκλειτος Ἀναξαγόρας Πλάτων Ἀριστοτέλης Ζήνων ἓνα τὸν κόσμον. (P2,S6,T1)
§3 Ἀναξίμανδρος Ἀναξίμενης Ἀρχέλαος Ξενοφάνης Διογένης Λεύκιππος Δημόκριτος, Ἐπίκουρος καὶ ὁ τούτου καθηγητὴς Μητρόδωρος ἀπείρους κόσμους ἐν τῷ ἀπείρῳ κατὰ πᾶσαν περίστασιν. (P3,S7,T2)

5

§1 Pythagoras 14.21 DK; §2 Thales 11A13b DK; Pythagoras —; Empedocles —; Ecphantus 51.3 DK; Parmenides 28A36 DK; Melissus 30A9 DK; Heraclitus 22A10 DK; Anaxagoras 59A63 DK; Plato cf. *Tim.* 31a; Aristoteles cf. *Cael.* 1.8; Zeno *SVF* 1.97; §3 Anaximander 12A17 DK; Anaximenes 13A10 DK; Archelaus 60A13 DK; Xenophanes 21A37 DK; Diogenes 64A10 DK; Leucippus —; Democritus fr. 352 Luria; Epicurus fr. 301 Usener; Metrodorus 70A7 DK

titulus Περὶ κόσμου S vid. infra c. 2.2 §1 [2] post κόσμον add. Q *Ihr Sinn ist in der Sprache der Griechen 'Ordnung'* || [2–3] ἐν αὐτῷ ἐν αὐτῇ **P^B**(111:Laur.31.37) §2 [4–5] Θαλῆς ... Ζήνων S : Θαλῆς καὶ οἱ ἄπ' αὐτοῦ **P^{B,C,Q}** : Θαλῆς **P^G** || Θαλῆς μὲν καὶ Πυθαγόρας καὶ Ἀναξαγόρας καὶ Παρμενίδης καὶ Μέλισσος καὶ Ἡράκλειτος καὶ Πλάτων καὶ Ἀριστοτέλης καὶ Ζήνων T §3 [7–8] Ἀναξίμανδρος ... Ἐπίκουρος S : Ἀναξίμανδρος δὲ καὶ Ἀναξίμενης καὶ Ἀρχέλαος καὶ Ξενοφάνης καὶ Διογένης καὶ Λεύκιππος καὶ Δημόκριτος καὶ Ἐπίκουρος T : Δημόκριτος καὶ Ἐπίκουρος P || [8] post Ἐπίκουρος add. **P^C** Wyttenbach Diels καὶ ὁ τούτου καθηγητὴς Μητρόδωρος (cf. Ach. 5, 16.9 καὶ ὁ διδάσκαλος αὐτοῦ Μητρόδωρος) : ὁ τούτων μαθητὴς Μητρόδωρος **P^B** Beck : ὁ τούτων καθηγητὴς Μητρόδωρος **P^Q** : ὁ τούτων καθηγητὴς Λεύκιππος **P^G** : om. ST, ut additamentum P ex 1.5.5 haustum secl. Diels || [8–9] ἀπείρους κόσμους **P^{B,C,G,S}** : πολλοὺς εἶναι καὶ ἀπείρους T : *daß die Welt ein Unendliches ist* Q || [9] κατὰ τὴν περίστασιν **P^{B,C,Q}** : κατὰ τὴν περιαγωγήν S : om. **P^G**

- §4 τῶν ἀπείρους ἀποφνημαμένων τοὺς κόσμους Ἀναξίμανδρος τὸ ἴσον 10
αὐτοὺς ἀπέχειν ἀλλήλων, (S8)
- §5 Ἐπίκουρος ἄνισον εἶναι τὸ μεταξὺ τῶν κόσμων διάστημα. (S9)
- §6 Ἐμπεδοκλῆς τὸν τοῦ ἡλίου περιδρομον εἶναι περιγραφὴν τοῦ πέρατος 20
τοῦ κόσμου. (P4,S1)
- §7 Σέλευκος ὁ Ἐρυθραῖος καὶ Ἡρακλείδης ὁ Ποντικὸς ἄπειρον τὸν κόσμον. 15
(P5,S2)
- §8 Διογένης καὶ Μέλισσος τὸ μὲν πᾶν ἄπειρον, τὸν δὲ κόσμον πεπεράνθαι.
(P6,S3)
- §9 οἱ Στωικοὶ διαφέρειν τὸ πᾶν καὶ τὸ ὅλον· πᾶν μὲν γὰρ εἶναι τὸ σὺν τῷ
κενῷ τῷ ἀπείρῳ, ὅλον δὲ χωρὶς τοῦ κενοῦ τὸν κόσμον· ὥστε τὸ αὐτὸ 20
εἶναι τὸ ὅλον καὶ τὸν κόσμον. (P7,S4)

§4 Anaximander 12A17 DK; §5 Epicurus fr. 301a Usener; §6 Empedocles 31A50 DK; §7 Seleucus Babylonius test. 5 Russo; Heraclides fr. 112 Wehrli, fr. 74 Schütrumpf; §8 Diogenes 64A10 DK; Melissus —; §9 Stoici SVF 2.522

§§4–5 non hab. P, §§6–7 non hab. G §6 [13] τὸν ... περιδρομον ^{PB(I,II)Q(ut vid.)C}; τὴν ... περιδρομὴν ^{PB(III)}: δρόμον ^{P^G} || [13–14] τοῦ πέρατος τοῦ κόσμου ^{P^{QGCST}Diels}: τοῦ κόσμου καὶ τοῦ πέρατος αὐτοῦ ^{PB(I,II)}: τοῦ κόσμου καὶ τοῦτο πέρας αὐτοῦ ^{PB(III)} §7 [15] Σέλευκος ... Ποντικὸς S || Σέλευκος ^{P^{BCQ}} (add. δὲ ^{PB(III)}) || de additamentis Rhazis de Seleuco vid. comm. infra §8 [17] Διογένης καὶ Μέλισσος S: Διογένης ^{P^{BCQ}} §9 [19] τὸ πᾶν καὶ τὸ ὅλον ^{P^{BGS}}, cf. Ach. c. 5 15.11: τὸν κόσμον καὶ πρὸς τὸ ὅλον ^{P^{C1}}, τὸ ὅλον καὶ πρὸς τὸν κόσμον ^{P^{C2}}, emend. edd.: τὸ ὅλον καὶ τὸ πᾶν ^{P^Q} || πᾶν (ἅπαν ^{P^C}) μὲν γὰρ ^{P^{BQS}}: τὸ μὲν γὰρ ἅπαν ^{P^G} || [19–20] τὸ σὺν τῷ κενῷ τῷ ἀπείρῳ ^{P^{CS}Diels} (τὸ om. S): σὺν τῷ κενῷ ἀπείρῳ ^{P^G}: τὸ σὺν κενῷ ἄπειρον ^{P^{BQ}} || [20] τὸν κόσμον] εἶναι ^{P^G} (quod fort. lac. antecedit) || [20–21] ὥστε ... κόσμον ^{PB(I,II)CQ}: τὸ ὅλον (πόλον mss., emend. Diels Jas) καὶ κόσμον ^{P^G}: om. ^{PB(III)S}, ut additamentum P secl. Diels || [20] ὥστε ^{P^{CQ}Reiske Mau Lachenaud}: ὥστε οὐ ^{PB(I,II)Diels} || [21] τὸ ὅλον καὶ τὸν κόσμον ^{PB(I,II)C}, *die Welt und das Ganze* (τὸ πᾶν) Q

Testes primi:

Theodoretus CAG 4.15

4.15 (quaestio) οὐ μόνον δὲ ἐν τούτοις διαφωνίᾳ γε πλείστη, ἀλλὰ καὶ τοῖς ἄλλοις ἐχρήσαντο.

4.15.1 (~ §2) καὶ γὰρ δὴ τὸν κόσμον Θαλῆς μὲν καὶ Πυθαγόρας καὶ Ἀναξαγόρας καὶ Παρμενίδης καὶ Μέλισσος καὶ Ἡράκλειτος καὶ Πλάτων καὶ Ἀριστοτέλης καὶ Ζήνων ἓνα εἶναι ξυνωμολόγησαν·

4.15.2 (~ §3) Ἀναξίμανδρος δὲ καὶ Ἀναξίμενης καὶ Ἀρχέλαος καὶ Ξενοφάνης καὶ Διογένης καὶ Λεύκιππος καὶ Δημόκριτος καὶ Ἐπίκουρος πολλοὺς εἶναι καὶ ἀπείρους ἐδόξασαν.

Traditio ps.Plutarchi:

Cyrillus Juln. 2.14

2.14 (quaestio) Πλούταρχος τοῖνυν, ἀνὴρ τῶν παρ' αὐτοῖς οὐκ ἄσημος γεγονώς, ἐν τῷ δευτέρῳ βιβλίῳ τῆς τῶν Φυσικῶν δογμάτων συναγωγῆς, οὕτω φησὶ περὶ τοῦ κόσμου·

- 2.14.1 (~ P1) Πυθαγόρας πρῶτος ὠνόμασε τὴν τῶν ὄλων περιοχὴν κόσμον ἐκ τῆς ἐν αὐτῷ τάξεως.
- 2.14.2 (~ P2) Θαλῆς καὶ οἱ ἀπ' αὐτοῦ ἕνα τὸν κόσμον.
- 2.14.3 (~ P3) Δημόκριτος καὶ Ἐπίκουρος καὶ ὁ τοῦτου καθηγητῆς Μητρόδωρος ἀπείρους κόσμους ἐν τῷ ἀπείρῳ κατὰ πάσαν περίστασιν.
- 2.14.4 (~ P4) Ἐμπεδοκλῆς τὸν τοῦ ἡλίου περίδρομον εἶναι περιγραφὴν τοῦ πέρατος τοῦ κόσμου.
- 2.14.5 (~ P5) Σέλευκος ἄπειρον τὸν κόσμον.
- 2.14.6 (~ P6) Διογένης τὸ μὲν πᾶν ἄπειρον, τὸν δὲ κόσμον πεπεράνθαι.
- 2.14.7 (~ P7) οἱ Στωϊκοὶ διαφέρειν τὸ πᾶν καὶ τὸ ὅλον· ἅπαν μὲν γὰρ εἶναι τὸ σὺν τῷ κενῷ τῷ ἀπείρῳ, ὅλον δὲ χωρὶς τοῦ κενοῦ τὸν κόσμον· ὥστε τὸ αὐτὸ εἶναι καὶ τὸ ὅλον καὶ τὸν κόσμον.
- cf. 2.16 οἱ μὲν γὰρ ἕνα τὸν κόσμον, οἱ δὲ πολλοὺς (~ P2–3)

ps.Galenus *HPh* c. 44 (~ tit.) Περὶ κόσμου (text Jas)

- 44.1 (~ P1) Πυθαγόρας πρῶτος ὠνόμασε τὴν τῶν ὄλων περιοχὴν κόσμον ἐκ τῆς ἐν αὐτῷ τάξεως.
- 44.2 (~ P2) Θαλῆς ἕνα τὸν κόσμον.
- 44.3 (~ P3) Δημόκριτος καὶ Ἐπίκουρος καὶ ὁ τοῦτων καθηγητῆς Λεύκιππος ἀπείρους κόσμους ἐν τῷ ἀπείρῳ κενῷ.
- 44.4 (~ P4) Ἐμπεδοκλῆς τὸν τοῦ ἡλίου δρόμον εἶναι περιγραφὴν τοῦ πέρατος τοῦ κόσμου.
- 44.5 (~ P7) οἱ Στωϊκοὶ διαφέρειν τὸ πᾶν καὶ τὸ ὅλον· τὸ μὲν γὰρ ἅπαν εἶναι σὺν τῷ κενῷ ἀπείρῳ, ὅλον δὲ χωρὶς τοῦ κενοῦ [...] εἶναι τὸ ὅλον καὶ (τὸν) κόσμον.

Symeon Seth *CRN* 3.27 (Λόγος τρίτος. Περὶ τῶν οὐρανίων.) Περὶ κόσμου (~ tit.)

3.27 (~ P3) Τινὲς τῶν φιλοσόφων ἐδόξασαν ἀπείρους εἶναι κόσμους ...

Testes secundi:

Athenagoras *Leg.* 7.2.13–14 ἄλλος ἄλλως ἐδογματίσεν αὐτῶν ... καὶ περὶ κόσμου (~ tit.)

Achilles *Univ.* c. 5 Τίς οὐσία οὐρανοῦ (~ tit.)

- 15.10–13 τὸ δὲ πᾶν κόσμον Πυθαγόρας ἐκάλεσεν ἐκ τῆς διακοσμήσεως, οὐδεὶς δὲ πρὸ αὐτοῦ (~ §1). τὸ δὲ πᾶν τοῦ ὅλου παρὰ τοῖς Στωϊκοῖς (*SVF* 2.523) διαφέρει· ὅλον μὲν γὰρ λέγουσι τὸν κόσμον, πᾶν δὲ (τὸ) μετὰ τοῦ κενοῦ (~ §9).
- 16.8–9 Ἐπίκουρος (fr. 301 Usener) δὲ πολλοὺς κόσμους ὑποτίθεται καὶ ὁ διδάσκαλος αὐτοῦ Μητρόδωρος (~ §3).
- cf. c. 8 17.21–22 οἱ μὲν εἶναι τι ἐκτὸς φασιν, ὥσπερ καὶ Ἐπίκουρος (fr. 301 Usener), ὅς καὶ ἀπείρους κόσμους ὑποτίθεται ἐν ἀπείρῳ κενῷ (~ §3).

Commentaria in Aratum, Anon. I 3, p. 92.34–93.2 Maass εἰ δὲ ἔστί τι κενὸν ἔξωθεν τοῦ οὐρανοῦ, οὐ περιεργος ἡμῖν ἡ ζήτησις (cf. A 2.9). πλὴν οἱ Στωϊκοὶ λέγουσιν εἶναι (ταύτη γὰρ διαφέρειν τὸ ὅλον τοῦ παντός (~ §9)), ἀλλ' οὐκ ἄπειρον, ὥς Ἐπίκουρος καὶ οἱ λοιποὶ (cf. §3).

Hermias *Irr.* 18, p. 118.1–4 ἀμφὶ μὲν δὴ ταῦτα μέχρι νῦν ἐσπούδακεν ἡ ψυχὴ μου τῶν ὅλων ἄρχειν. προκύψας δέ μοί φησιν Ἐπίκουρος· σὺ μὲν δὴ κόσμον ἓνα μεμέτρηκας (§2), ὦ φιλότης, εἰσὶ δὲ κόσμοι πολλοὶ καὶ ἄπειροι (§3).

Loci Aetiani:

quaestio A 1.proœm. ζητεῖται εἰ ζῶν ἢ μὴ ζῶν ὁ ἥλιος, εἴ πε(ύ)ρ, (εἴ τηλικούτος ἡλικίος) ὁράται· ὁ τοῦτο δὲ ζητῶν θεωρητικός ἐστίν· οὐδὲ γάρ τι πλέον θεωρεῖται ἢ τὸ ὄν. ζητεῖται ὁμοίως εἰ ἄπειρος ὁ κόσμος ἐστὶ καὶ εἰ ἔξω τι τοῦ κόσμου ἐστί (~ A 2.9). A 1.5 Εἰ ἓν τὸ πᾶν

§1 A 1.3.7 Πυθαγόρας Μνησάρχου Σάμιος, ὁ πρῶτος φιλοσοφίαν τούτῳ τῷ ῥήματι προσαγορεύσας ... A 2.12.2 Πυθαγόρας πρῶτος ἐπινενοηκέναι λέγεται τὴν λόξωσιν τοῦ ζῶδιακου κύκλου ...

§2 A 1.5.1 οἱ μὲν ἀπὸ τῆς Στοᾶς ἓνα κόσμον ἀπεφήναντο, ὃν δὴ καὶ τὸ πᾶν ἔφασαν εἶναι τὸ σωματικόν. A 1.5.2 Ἐμπεδοκλῆς δὲ κόσμον μὲν ἓνα, οὐ μέντοι τὸ πᾶν εἶναι τὸν κόσμον ἄλλ’ ὀλίγον τι τοῦ παντός μέρος, τὸ δὲ λοιπὸν ἀργὴν ὕλην. A 1.5.3 Ἰππασος καὶ Ἡράκλειτος ἓν εἶναι τὸ πᾶν ἀ(ει)κίνητον καὶ πεπερασμένον. A 1.5.4 Πλάτων δὲ τεκμαίρεται τὸ δοκοῦν, ὅτι εἰς ὁ κόσμος καὶ ἓν τὸ πᾶν ...

§3 A 1.3.2 (de Anaximandro) διὸ καὶ γεννᾶσθαι ἀπείρους κόσμους (cf. 1.7.3). A 1.5.5 Μητρόδωρος ὁ καθηγητῆς Ἐπικούρου φησιν ἄτοπον εἶναι ἐν μεγάλῳ πεδίῳ ἓνα στάχυν γεννηθῆναι καὶ ἓνα κόσμον ἐν τῷ ἀπείρῳ. ὅτι δ’ ἄπειροι κατὰ τὸ πλήθος, δῆλον ...

§6 A 2.23.4 Ἐμπεδοκλῆς ὑπὸ τῆς περιεχούσης αὐτὸν σφαίρας κωλυομενον ἄχρι παντός εὐθυπορεῖν καὶ ὑπὸ τῶν τροπικῶν κύκλων. A 2.23.8 ἄλλοι δὲ ἐπ’ εὐθείας αὐτὸν κινεῖσθαι τὴν ἑλικά οὐ περὶ σφαῖραν ποιοῦντα, περὶ δὲ κύλινδρον.

§§8–9 vid. A 1.5.2, 1.5.4 ad §2 supra cit. 1.18.5 Ζήνων καὶ οἱ ἀπ’ αὐτοῦ ἐντὸς μὲν τοῦ κόσμου μηδὲν εἶναι κενόν, ἔξω δ’ αὐτοῦ ἄπειρον. A 2.9.2 οἱ δὲ Στωικοὶ εἶναι κενόν, εἰς δὲ κατὰ τὴν ἐκπύρωσιν ἀναλύεται, ἄπειρον.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

For the opening chapter of Book 2 all three major witnesses provide evidence.

(1) P is well-attested, with four witnesses, P^B, C, G and Q. E does not include this chapter or the next because has an agenda of his own that he announces at *PE* 15.22.68. He first highlights the views on those parts of the cosmos regarded by the ancients as ‘visible gods’ before moving on to more religiously neutral cosmological subjects. Thus P chs. 2.20–22, 25–28 and 13–14 are cited first, followed by chs. 1.4–5 and 2.3–11. In this scheme the first two chapters of book 2

(and the preceding prefatory remark) are regarded as superfluous. E's absence is compensated for by Cyril, who quotes the entire chapter verbatim. P^{BCQ} retain seven lemmata, but G drops two of these (§5 Seleucus, §6 Diogenes). The early witness Athenagoras refers only to the title, which he may have derived from either A or P (or indeed elsewhere).

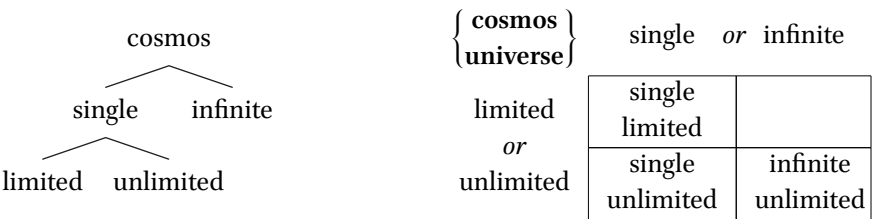
(2) All seven of P's lemmata can be located in S, spread out over two chapters. His procedure here is somewhat curious. In S 1.21, which combines material from A 2.1–6, he first writes out the final four lemmata in P (3ab), followed later by the first lemma in a cluster of material relating to Pythagoras (6c). In the following chapter S 1.22, after writing out A 2.7 (which gives the chapter its title), he recalls that there was a chapter in Book 1 which is relevant to the theme of the cosmos, namely A 1.5 Εἰ ἔν τὸ πᾶν. It is only after he has written out this chapter (without the lemma on Plato) that he returns to P's second and third lemma, which he supplies in a much fuller form with no less than 11 and 8 name-labels respectively (3b). Thereafter he adds (3c) two more lemmata not in P which, given the subject matter, must belong to the present chapter (although presented as one sentence we prefer to divide it up into two separate lemmata, each with a name-label, because of the clear antithesis involved). In sequence the lemmata are thus: S1 at S 1.21.3a, Empedocles (= P4); S2 at 1.21.3a2, Seleucus (= P5); S3 at 1.21.3a3, Diogenes (= P6); S4 at 1.21.3b1, Stoics (= P7); S5 at 1.21.6c2, Pythagoras (= P1); S6 at 1.22.3b1, Thales etc. (= P2); S7 at 1.22.3b2, Anaximander etc. (≈ P3); S8 at 1.22.3c1, infinitists–Anaximander (not in P); S9 at 1.22.3c2, Epicurus (not in P).

(3) T records only the main antithesis in P2–3 = S 1.22.3b1–2. The information he gives, with the copious supply of name-labels for both lemmata, stands much closer to S and confirms that P has drastically shortened his source in these two lemmata. It confirms that the source used by P and S and by T and S was the same document; see Mansfeld (2018a) 185–186. However, the earlier remark at T 4.8 about Melissus, namely that he holds that the cosmos is ἄπειρος, contradicts the statement in §8 and is most likely drawn from another tradition; see M–R 1.274 and above, ch. 1.3 Commentary D(b).

B Proximate Tradition and Sources

(1) *Proximate tradition.* Numerous texts in both rhetorical and philosophical authors reveal that this chapter focuses on one of most popular dialectical *quaestiones* in the φυσικὸς λόγος. See the lengthy list of texts cited below in section E(a). The most instructive texts are those in Philo (*Abr.* 162), Lucian (*Icar.* 8) and Galen (*Loc.Aff.* 3.5 8.159.5–6 Kühn, *HVA* 1.12), which show that A in this chapter is in fact combining two related but separate θέσεις, (a) whether there is a single cosmos or there are infinite kosmoi, and (b) whether the universe

encompassing the whole of physical reality is limited or infinite. The dialectical possibilities of the interaction of these two questions can be shown in at least two ways:



The left diagram shows the diaeretic structure that is used in the chapter; the right diagram with its grid shows how one of the theoretical possibilities (infinite kosmoi and limited universe) is not represented since it does not make sense. A further complication is the link to the question of the void, introduced in §§3 and 9, which can coexist with both a single cosmos and an infinite universe. This theme is also treated in chs. 1.18 and 2.9. Against this background the material on these questions preserved in the proximate tradition is extremely rich, with many of the doxai in this chapter (esp. in §§1–3) paralleled elsewhere.

(2) *Sources.* The question of whether there is a single cosmos or infinite kosmoi is first explicitly stated in Plato’s *Timaeus* and further developed in Aristotle’s *Physics* and *De caelo*. But it is implicit in much Presocratic cosmology and can also be connected with the questions of unity and plurality (see the texts of Gorgias and Xenophon cited below in section E(b)) and also the more general question of whether the cosmos is the result of intelligent design or simply part of a larger universe that is subject to physical necessity; see the studies of Furley (1987), Graham (2006), and Sedley (2007). By the Hellenistic period the opposition between the closed cosmos and the open universe, represented by Plato–Aristotle–Stoa on the one side and atomists–Epicurus on the other becomes quite standard and is found in numerous doxographical summaries. It is then projected back to earlier Presocratic authors such as the Milesians and Pythagoreans (see below section D(d)§4).

It should be noted that the systematic connections between the questions treated in this chapter were already convincingly set out by Aristotle in *Cael.* 1.8–9, to which in the following chapter he adds the question of the destructibility or indestructibility of the single cosmos. In a note at the end of 1.10 (280a23–28) he adds that the answer would change if (successive) infinite kosmoi were admitted, a position against which he has already argued in preceding chapters.

This possibility is not taken into account in the present chapter. He does not refer to any predecessors by name in the discussions on unicity and infinity in 1.8–9. It is only when he starts to discuss the question of destructibility at 1.10 279b12 that names are mentioned. In the later tradition the questions of unicity/infinity and destructibility/indestructibility are often linked and names added. See the detailed doxographies of Philo and Alexander of Aphrodisias discussed in our analysis of ch. 2.4.

C Chapter Heading

The chapter heading is of the most common umbrella type *Περὶ x*, already used in the earlier tradition by philosophers such as the Stoics Chrysippus and Posidonius (but not by Zeno who wrote a work *Περὶ ὅλου*) and ps.Aristotle (but not Aristotle, whose title is *Περὶ οὐρανοῦ*; as argued by Johnson (2019) 79 this should be taken to refer to the ‘heaven’, i.e. the universe, rather than to ‘the heavens’ as usually translated); on the history of this title see further Mansfeld (1992c). The question type ‘what is it’ in the category of substance is treated in §1 and §9, ‘how is it’ in §§2–8. The category of place is touched on in §§3–5. But the most prominent place is taken up in the chapter by the category of quantity, being referred to in §2–3 with regard to number and in §§4–9 with regard to size (§§4–5 equal–unequal, §§6–7 limited–unlimited, §§8–9 unlimited–limited). We note that Philoponus, in outlining the questions related to the various categories, explicitly uses the pair unlimited vs. limited as applied to the cosmos to illustrate the category of quantity (*τὸ ποσόν*); text below in section E(a) General texts.

There are no variants on the chapter heading as confirmed by P^{BGQS} (but note *περὶ τοῦ κόσμου* in C’s introductory words). S gives the chapter’s heading as part of the longer heading of S 1.21 which combines the headings of chs. 2.1, 2.3, 2.5a and 2.5: *Περὶ κόσμου καὶ εἰ ἔμψυχος καὶ προνοία διοικούμενος καὶ ποῦ ἔχει τὸ ἡγεμονικὸν καὶ πόθεν τρέφεται*.

D Analysis

a Context

The chapter follows on from the authorial comment in the Preface to Book 2, where its subject matter is announced (*περιοχήν* in §1 picks up *περιεκτικωτάτου* in 2.prooem.). Much mention has been made of the cosmos in Book 1, particularly in the initial chapters chs. 3–5 and 7. Indeed, as S saw, the subject matter of this chapter overlaps considerably with ch. 1.5 *Εἰ ἔν τὸ πᾶν*. The doxai in A 1.5.1–2, discussing the extent of the cosmos in relation to the universe, are close to 2.1.9 in subject matter. For A 1.5.3 see 2.1.2 (but without mentioning that the single cosmos is finite). The final two lemmata A 1.5.4–5 introduce

argumentation that is wholly missing in ch. 2.1 and is typical of the opening chapters of the work. On these chapters and the overlap between Books 1 & 2 see above on ch. 1.5 and also M–R 2.1.22–24, 52–54. Only in Book 2 does A begin to treat the subject of the cosmos both as a whole and as having constituent parts.

b Number–Order of Lemmata

There are two tell-tale blocks where P and S correspond: P2–3 = S 1.22.3b1–2, P4–7 = S 1.21.3a1–3 & b1. The remaining lemma P1 is separated in the cluster of tenets attributed to Pythagoras at S1.21.6c2. It is natural to follow P and take it as the opening lemma, since it introduces and quasi-defines, by means of the *πρῶτος εὔρετής* motif, the chapter's subject (cf. the definitions in chs. 1.9–12). On this motif see section D(d) §1 below. But the initial position cannot be confirmed from S. There remain the two lemmata found only in S, §§4–5. Diels' reconstruction places them at the end of the chapter for reasons he does not explain. In S they follow on directly from the small block of two lemmata at S 1.22.3b1–2. This encourages the view that they followed on from these same lemmata in A. But the internal logic of the chapter must also be taken into account.

c Rationale–Structure of Chapter

As the numerous doxographical and dialectical parallels demonstrate (see texts cited below), the simple chapter heading is deceptive. It was already noted in section B above that the chapter combines two fundamental questions relating to the cosmos (or universe) as a whole: (1) whether there is but a single cosmos or whether there are infinite kosmoi, and (2) whether the universe (whether to be identified with the cosmos or not) is limited or infinite in extent. It is important to note that the latter is given as a question of physics according to Aristotle and his school in 1.proœm. 3.

The first lemma attributed to Pythagoras, as already remarked, serves to introduce the cosmos, presenting for the purpose a nominal definition. On this see further below section D(d) General points. Next §§2–3 give a diaeresis on whether the cosmos is single or infinite in number. For the former view S gives a long list of eleven name-labels, nine of which reappear in T (missing are Empedocles and Ecphantus; Anaxagoras has been placed third in the list, whereas in S he is eighth). T thus confirms that P has abridged his source with the common formula *καὶ οἱ ἄπ' αὐτοῦ* (also found in P 2.28.2, 3.9.1, 3.10.1, 4.16.4, as well as at S 1.17.1a, 1.18.1d1, where in both cases P preserves a different name-label; see the comment on A 1.17.1 at ch. 1.17 Commentary D(d)§1). G has abridged even further to the name-label Thales only. A occasionally uses such long lists

of name-labels to emphasise widely held points of view (cf. chs. 2.4.7, 2.11.4, 4.5a.1). For the infinitist point of view S gives eight name-labels beginning with the two Milesians Anaximander and Anaximenes (standing in contrast to their archegete Thales who heads the other list). Exactly the same list is found in T. P retains only two of these names, Democritus and Epicurus, but also adds Metrodorus (of Chius). On this name-label and whether it should be retained see section D(d) §3 below. In principle the expression ἄπειροι κόσμοι on its own is ambiguous, since it could refer unlimited successive worlds or unlimited co-existing worlds. The addition of the words ἐν τῷ ἀπείρῳ κατὰ πᾶσαν περίστασιν makes it quite clear that the second alternative is meant, i.e. the atomist position. See further comments at section D(d)§§3–4. It is noteworthy that with his diaeresis A has not taken into account a third possibility, namely that there are a finite number of multiple kosmoi. Plato toys with the possibility of five kosmoi at *Tim.* 55c–d and Plutarch records the view of a certain Petron of Himera that there are 183 arranged in a triangle (on this ‘curious doctrine’ see West (1992) and Zhmud (2015), who argues that the doctrine is Platonizing and its author probably fictional). The three theoretical possibilities are outlined by Philo and Dionysius of Alexandria (cf. also Hermias on Epicurus and Augustine). A then adds the obvious point that an infinite number of kosmoi entails an infinite amount of space in which they are located.

The next two lemmata §§4–5 (found only in S), if placed here as proposed above, expand the second half of the diaeresis and introduce a further distinction among the infinitists, i.e. whether the infinite worlds are equidistant from each other or not. There are no parallels in A for a genitive plural phrase to pick up a previous position, so the initial words τῶν ἀπείρους ἀποφνηαμένων τούς κόσμους may be an addition of S. But in the absence of further evidence they must be retained. Elsewhere A also shows interest in questions involving symmetry and stereometrical location, e.g. at 2.15.1–2. The information provided on Anaximander’s view is not found elsewhere.

The next two lemmata §§6–7 also form an obvious pair. They introduce a further division between a limited and an unlimited single cosmos. The structure is thus chiasmic, returning to the position of §2 after the treatment of the infinitists in §3 and §§4–5. The name-label Empedocles already occurred in the list in §2. Those of Seleucus (only here and at A 3.17.9 where he is called ὁ μαθηματικός) and Heraclides are new. P has abridged here too, deleting Seleucus’ epithet and the name of Heraclides. The doxa of Empedocles is surprising in that it has the revolution of the sun, and not the sphere of the fixed stars as the cosmos’ outer limit. A has a fondness for such exotic Presocratic views; cf. also 2.15.6 attributed to Anaximander–Metrodorus–Crates, where the sun is ἀνωτάτῳ πάντων τετάχθαι. See further section D(d)§6.

The final two lemmata import a new element of terminological precision by introducing the new terms τὸ πᾶν (the universe) and τὸ ὅλον which have so far not occurred in the chapter (but the former is found in the earlier chapter 1.5). §8 follows on from §7 by splitting its two terms, taking ἄπειρος now with the universe, while κόσμος is regarded as limited, as implied in §2 and made explicit in §6. The distinction between πᾶν and ὅλον in §9 turns on the additional factor of the void, which was already briefly introduced as part of the infinitist position in §3. The void has already been introduced in ch. 1.18 and its cosmological role will be further explored in ch. 2.9.

The structure of the chapter is complex not only because it combines two questions and does not treat just one (the same will occur in ch. 2.4), but also because it combines two ways of working with doxai. The three chiastically arranged diaereses (A–B, B₁–B₂, A₁–2) clearly play a central role. The final two lemmata do not form a diaeresis, but add terminological precision to what has preceded. At the same time there are linkages between the doxai that move the chapter along:

- §1 sets the scene by introducing the concept of cosmos.
- §2 develops this in terms of a single cosmos.
- §3 introduces the alternative of infinite kosmoi.
- §§4–5 adds a further distinction in the views of the infinitists.
- §6 by adding the aspect of limit qualifies the position in §2.
- §7 gives the opposed alternative to §6.
- §8 introduces the notion of the universe, which allows a fresh distinction.
- §9 develops the previous view into a more sophisticated position.

The chapter thus has a progressive movement through its doxai that André Laks has aptly called ‘vectorisation’ (cf. M–R 2.317 n. 84 and also the arrows at Laks 1997a, 258). The final words which emphasise the cosmos as a whole also return the chapter to its beginning where it was described as the ‘container’ of all things.

Leszl (2002) 176 (taken over by Bottler (2014) 280) argues on the basis of a comparison with Galenic texts that ‘even an ancient author would have recognized that the organisation of the material in the *Epitomé* is unsound on various points.’ This conclusion is quite erroneous. There is admittedly some overlap between chs. 1.5 and 2.1, but the contexts differ. The former chapter is part of the section introducing the φυσικὸς λόγος. The latter introduces the cosmos as the sum total of physical reality in our world, but allows for the possibility that there are more worlds than ours and that it can be surrounded by a void. The combination of questions goes back to Aristotle and is confirmed by texts such

as those of Philo and Alexander. Bottler (2014) 280 points to the summary of E at *PE* 15.32.8 from which she draws the drastic and wholly unjustified conclusion that E's *Vorlage* here does not correspond to the version of the text in the mss. of P. In fact E shows that he understands the connection between chs. 1.5 and 2.1. E has altered the diaeresis from one vs. infinite to one vs. many, but this alteration is basically trivial, since it does not imply a second diaeresis between multiple and infinite kosmoi recognized by the authors cited above in our discussion of §§2–3. Similarly the phrase πολλούς ... καὶ ἀπείρους at T 4.15 gives an expansion of A's text rather than evidence of a different structure. It would not have been different if he had written ἦ instead of καί, since T is not a slavish copier of A's text. It is worth noting that Ach on successive pages ascribes to Epicurus the view that many kosmoi and that infinitely many kosmoi exist (§5, p. 16.11; §8, p. 17.21 Di Maria). Strictly speaking only the latter is correct.

d Further Comments

Individual Points

§1 The book opens with the πρῶτος εὐρετής motif already used at A 1.3.7 (Pythagoras) and 1.3.17 (Ecphantus); see above on ch. 1.3 Commentary D(d)§7. It recurs in Book 2 at 2.12.2 (Pythagoras), 2.24.1, 2.28.5 (both Thales). A text at D.L. 8.48 (text below section E(a)) shows that the attribution was disputed, with Theophrastus giving the honour to Parmenides, but Zeno the Stoic to the poet Hesiod. Ach records the same tradition as A. See further A 2.12 Commentary B.

This doxa gives a nominal definition of the term κόσμος, the purpose of which is to present a preliminary notion of the subject on which the chapter will focus. Such definitions occur regularly in Book 1. See further the discussion at the Commentary on ch. 1.9, D(d) General points.

For περιοχή used in definitions of the cosmos see esp. Epicurus' definition of κόσμος in *Ep.Pyth.* at D.L. 10.88 (text below section E(a)§1), a text with a likely doxographical background (see further on ch. 2.2). The term later yields ground to σύστημα, but the phrase κατὰ περιοχὴν or the verb περιέχω often still forms part of the definition; for examples in ps.Aristotle and Philo see section E(a)§1 below. On the various meanings of the terms κόσμος and οὐρανός see also the discussion above on §1[7–25] and §1[14–16] in our Commentary on ch. 1.6 D(d).

Sprache der Griechen (app. crit.): Q explains the connotation of the Greek word κόσμος as indicating order (*Ordnung*), which he deems necessary because this connotation is not present in the Arabic term used to translate it. The same phrase is used for similar cases at chs. 3.7.2[6], 4.11.1[17], 4.12.1[9], and 4.19.3[7];

cf. also his adaptation of the chapter heading of 1.8 *Über die hohen Kräfte, welche die Griechen 'Daimones' und 'Heroes' nennen*.

§3 P's addition of the name-label Metrodorus, not found in S or T, gives rise to problems. All four witnesses have a different reading (see apparatus above):

- P^B 'and their (i.e. Democritus' and Epicurus') pupil Metrodorus (of Lampsacus)'
- C 'and his (i.e. Epicurus') teacher Metrodorus (of Chius)'
- Q 'and their teacher Metrodorus'
- B 'and their teacher Leucippus'

Additionally Ach, who follows the same tradition here, supports C (using the word διδάσκαλος instead of καθηγητής). C's reading must be the right one. P^B appears to have confused the two homonymic philosophers. It is worth noting that in his recent edition of C Riedweg records that the lost ms. Capnionius used by Oecolampadius in his 1528 Latin translation must have read μαθητής just like P^B (did contamination occur from P^B to C?), which may explain Diels' reading in the apparatus of *DG* ad loc.

The question remains: was this additional phrase originally present in A? There are arguments *pro et contra*. Arguments for its absence: (i) it is found in neither S nor T; (ii) P could have added it from A 1.5.4 (= S 1.22.3a3); (iii) it interrupts both the list of unadorned names and the chronological sequence. Arguments for its presence: (i) it is not to be expected that P as epitomator would leave it out at 1.5.4 only to insert it here (as suggested by Diels *DG* 62); (ii) it is, on the other hand, quite possible that S moved the phrase to the earlier passage in ch. 1.5 when he cites it in S 1.22.3a3, especially since the two texts are juxtaposed in 1.22.3ab; (iii) the similar phrase in Ach, who reflects the same tradition (and is not directly dependent on the tradition of P). The matter cannot be definitively resolved and it is safest to preserve P's evidence.

It is difficult to choose which of the readings should be followed for the final phrase. S's alternative reading κατὰ πᾶσαν περιαγωγὴν ('throughout the entire revolution') appears to make less sense cosmologically than P's κατὰ πᾶσαν περίστασιν ('throughout the entire surrounding area') since there is no general revolutionary movement in an infinite universe. But, as Alex Mourelatos has reminded us, the turning here could refer to the movement of the head, i.e. in whichever direction one turns one's head.

On T's alternative reading πολλοὺς ... καὶ ἀπείρους see the comment above under section C.

Anaximander's prominent position at the head of the list of 'infinetists' is likely to derive from Theophrastus' report cited by Simplicius, fr. 12A9 DK and especially the phrase (not part of the famous quotation) ἐξ ἧς (sc. ἑτέρα τις φύσις ἀρχή) ἅπαντας γίνεσθαι τοὺς οὐρανούς καὶ τοὺς ἐν αὐτοῖς κόσμους. Kahn (1960) 46–48 plausibly argues that the ascription of 'infinite kosmoi' to Anaximander may be the result of an assimilation of Milesian cosmology to the later cosmology of the atomists. This was already argued by Cornford (1934), whose argument against Burnet—though based on a now wholly outdated interpretation of the doxographical evidence—that this doctrine commenced with the atomists has been generally accepted. However, the latest examination of Theophrastus' evidence is more cautious: Mansfeld (2011a, 25) 'As to "all the world-systems" I do not know how one is to decide between successive ones on the one hand and contemporaneous ones as well as successive ones on the other.'

The other non-atomists on the list are Anaximenes, Archelaus, Xenophanes and Diogenes. Anaximenes and Diogenes are reported by Simplicius as among those who regard the cosmos as subject to genesis and destruction, but in an eternalist sense in terms of successive worlds. Such a view may lie behind the attribution of the doctrine of κόσμοι ἄπειροι to Xenophanes and Diogenes in Diogenes Laertius 9.19 and 9.57 respectively; cf. on Diogenes Laks (2008) 200. On Simplicius' text see further Section D(e) below. It is very unlikely that Archelaus has a rightful place in the list, given that he was a follower of Anaxagoras in his cosmogonical thought. It may be suggested that A or his source wished to balance out the two lists and so placed as many names as he could justify on whatever grounds to the second list.

§4 It is possible that Cicero's phrase *longis intervallis* in relation to Anaximander at *ND* 1.25 reflects the doxa on distance between kosmoi in §4 as suggested by Heath (1913) 29.

§6 Couprie (2020) links this cryptic lemma up with information about the sun's movement at A 2.23.4. In this doxa the sun at the solstices bumps into the crystalline heaven and can go no further. Thus its revolution is equivalent to the circumference of the heaven, and so is the same as that of the entire cosmos. See further ch. 2.23 Commentary D(c)(2).

§7 On this lemma Russo (1995) 148 rightly notes that its doctrine is consistent with the heliocentric theory attributed to Seleucus by Plutarch at *QPlat.* 8.1 1006C and perhaps implied by the doxa at A 3.17.9. But consistent with the method of the *Placita*, the argument underlying the position is not given. Daiber ad loc. notes additional material on Seleucus furnished by Abū Bakr ar-Rāzī (Rhazes): 'Er (sc. Plutarch who has just been cited with a quote from A 1.5.4) berichtet von Seleukos, er habe bei seiner Behauptung, diese Welt sei unendlich, damit argumentiert, daß er sagte: Wenn die Welt begrenzt ist, wird

sie dann durch etwas oder durch nichts begrenzt? Falls sie nun durch etwas begrenzt wird, entspricht das meiner Behauptung. Wenn sie aber durch nichts (begrenzt wird), ist es möglich, daß sie sich dem Nichts anpaßt und daß sie das Nichts berührt, ebenso wie sie durch Nichts begrenzt wird.' The source of this material is unclear. The presentation of an argument is foreign to the rest of what we find in 2.1, so *pace* Bottler (2014) 288 it is not so likely to derive from a richer version of either A or P.

§8 Here S reveals that P has removed the additional name-label of Melissus. Both here and in §2 Diogenes is most likely the Presocratic, not the Stoic. It is to be noted that Diogenes' name occurs in §3 (infinetists), Melissus' name in §2 (unicists). But κόσμος here refers only to 'this cosmos in which we live' (and so introduces a new distinction which is further developed in §9). Therefore there does not need to be a contradiction with §3 (and it is the doxa that counts).

§9 S leaves out the final phrase for which there is ample evidence in P. The right reading without οὐ is preserved by C and Q. G has a lacuna at this point; the transmitted πᾶσιν conceals the original τὸ ὅλον, as argued by Jas ad loc.

e Other Evidence

A special case in the proximate tradition is Achilles. Although his chapter on the being of the heaven (where οὐρανός is taken for the most part as equivalent to κόσμος) is in general quite different from A 2.1 (and also contains material parallel to chs. 2.5–6 and 2.11), it does include three brief sections which are closely parallel to §§1, 3 and 9. These sections must derive from a doxographical tradition much closer to A than in other parallel texts. We can speak of a *traditio proxissima* (on Ach as a cousin-text of A see M–R 1.305). Verbal equivalences are, however, limited.

Quite recently Rashed (2011) 487 has published an important scholion (no. 539) from the lost Commentary of Alexander of Aphrodisias on Aristotle's *Physics* (text below section E(a) General texts). It comments on 250b18 and demonstrates that the well-known text in Simplicius' Commentary 1121.5–1122.1 derives essentially from the earlier commentary. The doxographical schema set out in this text combines the question of the number of kosmoi, whether single or unlimited, and the question of its/their coming into being and destructibility. It thus combines the treatment of questions that A separates into chs. 2.1 and 2.4 and shows a clear resemblance to the schema in Philo *Aet.* 7–19, though including more complexity and more name-labels. The main discussion of this text must be reserved for the Commentary on 2.4. But at this point a comparison can be made with the name-labels listed by A in §§2–3. We can set out the differences as follows, making reference to the five groups into which the scholiast's schema is divided:

(1) In group 1 the scholiast agrees with A §3 that Democritus, Anaximander and Epicurus (in that order!) posit infinite kosmoi;

(2) The scholiast's group 2, consisting of those who posit a single cosmos that undergoes cyclical generation and destruction, has five members; of these (a) Anaximenes and Diogenes are located among the infinitists in A §3, whereas (b) Empedocles, Heraclitus, and the Stoa have a place among the unicist group in §2 (but with the name-label Zeno instead of the Stoa).

(3) But two of A's infinitists are included by the scholiast among the unequivocal unicists; (a) Archelaus is placed with Anaxagoras in group 3, and (b) Xenophanes is placed in group 5.

(4) Metrodorus in A is the atomist from Chios, whereas—as noted by Rashed (2011) 490, who corrects Diels 70A5 DK on this point—the one to whom the scholiast refers in group 3 as a unicist must be the follower of Anaxagoras from Lampsacus.

This comparison shows that Alexander's schema as preserved by the scholiast reaches a quite different result than A's diaeresis in ch. 2.1. The reason for this is that its main focus is on the question of the coming into being and destruction of the cosmos/kosmoi, which A will treat in ch. 2.4, whereas A concentrates on the opposition between one and infinitely many. See further our discussion in the Commentary on that chapter, section D(e). The comparison also reinforces our suggestion above at section D(d)§3 that A wished to shift as many names to §3 in order to balance out the multiple listing of name-labels.

E Further Related Texts

a Proximate Tradition

General texts: Epicurus *Ep.Hdt.* at D.L. 10.45 Dorandi ἀλλὰ μὴν καὶ κόσμοι ἄπειροί εἰσιν, οἳ θ' ὅμοιοι τούτῳ καὶ ἀνόμοιοι. αἱ τε γὰρ ἄτομοι ἄπειροι οὖσαι, ὡς ἄρτι ἀπεδείχθη, φέρονται καὶ πορρωτάτω. οὐ γὰρ κατανήλωνται αἱ τοιαῦται ἄτομοι ἐξ ὧν ἂν γένοιτο κόσμος ἢ ὑφ' ὧν ἂν ποιηθείη, οὐτ' εἰς ἓνα (sc. κόσμον) οὐτ' εἰς πεπερασμένους οὐθ' ὅσοι τοιοῦτοι οὐθ' ὅσοι διάφοροι τούτοις. ὥστε οὐδὲν τὸ ἐμποδοσατήσόν ἐστι πρὸς τὴν ἀπειρίαν τῶν κόσμων. *Ep.Pyth.* 10.89 ὅτι δὲ καὶ τοιοῦτοι κόσμοι εἰσιν ἄπειροι τὸ πλῆθος ἔστι καταλαβεῖν ... **Lucretius** *DRN* 2.1048–1057 *principio nobis in cunctas undique partis / et latere ex utroque supra subterque per omne / nulla est finis; uti docui, res ipsaque per se / vociferatur, et elucet natura profundis. / nullo iam pacto veri simile esse putandumst, / undique cum vorsum spatium vacet infinitum / seminaque innumero numero summaque profunda / multimodis volitent aeterno percita motu, / hunc unum terrarum orbem caelumque creatum, / nil agere illa foris tot corpora materiai.* **Cicero** *Ac.* 2.12 *cuique adsentiar deligam—quem potissimum? ... et cum in uno mundo ornatus hic tam sit mirabilis, innumerabilis supra infra, dextra sinistra, ante post, alios dissimiles, alios eiusdem modi mundos esse?* *Div.* 2.11, *quae a dialecticis aut*

a physicis tractantur, num quid eorum divinari potest? unusne mundus sit an plures ... Ep. ad. fam. 9.26.3 *te quaesiturum unum caelum esset an innumerabilia.* Philo of Alexandria Abr. 162, ἡ δὲ (sc. διάνοια) ... εἰς σκέψιν ἦλθε ... καὶ πότερον ἄπειρα ἢ πεπερασμένα καὶ πότερον εἰς ἢ πλείονές εἰσι κόσμοι ... (cf. also Spec. 3.189 ὁ δὲ (sc. νοῦς) λογισμὸν εἰκότα ἐλάμβανεν ... ὅτι οὐκ ἔστιν ἄπειρα, πεπεράσται δὲ ἐνὸς κόσμου περιγραφῇ ...). Ebr. 199 οἱ γὰρ ἄπειρον τὸ πᾶν εἰσηγούμενοι τοῖς πεπερασμένον εἶναι λέγουσιν. Opif. 171 τέταρτον δ' ὅτι καὶ εἰς ἔστιν ὁ κόσμος ... εἰσὶ γὰρ οἱ πλείους ὑπολαμβάνοντες εἶναι κόσμους, οἱ δὲ καὶ ἀπείρους ... Aet. 8 Δημόκριτος (fr. 351 Luria) μὲν οὖν καὶ Ἐπίκουρος (fr. 304 Usener) καὶ ὁ πολὺς ὄμιλος τῶν ἀπὸ τῆς Στοᾶς φιλοσόφων γένεσιν καὶ φθορὰν ἀπολείπουσι τοῦ κόσμου, πλὴν οὐχ ὁμοίως· οἱ μὲν γὰρ πολλοὺς κόσμους ὑπογράφουσιν ... οἱ δὲ Στωικοὶ (SVF 2.620) κόσμον μὲν ἓνα ... (see further on 2.4). Seneca Dial. 8.4.2, *ut quaeramus ... unum sit hoc, quod maria terrasque et mari ac terris inserta complectitur, an multa eiusmodi corpora deus sparserit.* Pliny Nat. 1 p. 11.1–6 (table of contents) Libro II. *continentur: an finitus sit mundus et an unus. de forma eius. de motu eius. cur mundus dicatur.* Nat. 2.1, *furor est ... alios innumerabiles tradidisse mundos ... aut, si una omnes incubaret, totidem tamen soles totidemque lunas ...* ps.Plutarch Hom. 2.103 Kindstrand ἐκ δὲ τῶν προειρημένων ἅμα καὶ τοῦτο ὑποδεικνὺς Ὁμηρος φαίνεται, ὅτι εἰς ἔστιν ὁ κόσμος καὶ πεπερασμένος. εἰ γὰρ ἄπειρος ἦν, οὐκ ἂν εἰς ἀριθμὸν πέρας ἔχοντα (τὰ πάντα) διηρέιτο. Quintilian Inst. 7.2.6 (on general questions) *quaeritur per coniecturam et qualitatem circa modum speciem numerum: 'an sol maior quam terra, luna globosa an plana an acuta, unus mundus an plures'.* see also Inst. 7.4.1. Lucian Icar. 8 καὶ γὰρ αὖ καὶ αὕτη νεανικὴ αὐτοῖς ἡ μάχη, τοῖς μὲν τέλει τὸ πᾶν περιγράφουσιν, τοῖς δὲ ἀτελές τοῦτο εἶναι ὑπολαμβάνουσιν; οὐ μὴν ἀλλὰ καὶ παμπόλλους τινὰς εἶναι τοὺς κόσμους ἀπεφάνοντο καὶ τῶν ὥς περὶ ἐνὸς αὐτῶν διαλεγόμενων κατεγίνωσκον. Par. 11 (on Epicurus), ὁ γὰρ ζητῶν περὶ σχήματος γῆς καὶ κόσμων ἀπειρίας καὶ μεγέθους ἡλίου καὶ ἀποστημάτων καὶ πρώτων στοιχείων καὶ περὶ θεῶν, εἴτε εἰσὶν εἴτε οὐκ εἰσὶ ... οὐ μόνον ἐν ἀνθρωπίναις, ἀλλὰ καὶ ἐν κοσμικαῖς ἔστιν ὀχλήσεσιν. Galen Loc.Aff. 3.5, p. 8.159.5–6 Kühn ἄπειρόν τε τὸ πᾶν ἢ πεπερασμένον, ἢ πολλοὺς εἶναι κόσμους ἢ ἀπεριλήπτους κατὰ τὸν ἀριθμὸν ἢ ἓνα μόνον. HVA 1.12, p. 125.12 Helmreich οὐτ' εἰ ἄπειρος οὐτ' εἰ μόνος οὗτος εἰς ἔστιν οὐτ' εἰ πλείους οὐτ' πόσοι τὸν ἀριθμὸν, εἴπερ πλείους, οὐτ' εἰ πλῆθος ἀπεριλήπτων ἢ ἄπειρον αὐτῶν. Aff.Dig. 3.4, p. 46.24 De Boer οὐδὲ εἰ πεπερασμένον ἢ ἄπειρον τὸ πᾶν. PHP 9.7.9 De Lacy καὶ εἰ ὁ κόσμος οὗτος ἐν ἑαυτῷ περιέχεται καὶ εἰ πλείους ἐνὸς καὶ εἰ πάμπολύ τι πλῆθος. Alexander of Aphrodisias in Top. 171.15–16 ὁ δὲ περὶ τοῦ ἢ ἓνα ἢ πολλοὺς εἶναι τοὺς κόσμους διαλέγοιτο. In Phys. lib. 8 schol. 539 Rashed (on 250b18) ἀπείρους κόσμους γενητούς καὶ φθαρτούς· Δημόκριτος, Ἀναξίμανδρος, Ἐπίκουρος.—ἓνα κόσμον γενητὸν καὶ φθαρτὸν ἄλλον καὶ ἄλλον· Ἐμπεδοκλῆς, Ἀναξίμανδρος, Διογένης, Ἡράκλειτος, ἢ Στοά.—ἓνα κόσμον γενητὸν καὶ φθαρτὸν (emend. Rashed ἄφθαρτον) ἐξ ἡσυχίας· Ἀναξαγόρας, Ἀρχέλαος, Μητροδώρος.—ἓνα κόσμον γενητὸν καὶ φθαρτὸν (emend. Rashed ἄφθαρτον) ἐξ ἀταξίας· Πλάτων ὥς δοκεῖ.—ἓνα κόσμον γενητὸν (ἀγέννητον Rashed) καὶ ἄφθαρτον (φθαρτὸν Rashed; Laks 2018, 418–419 retains the original

reading and adds the conjecture (Πλάτων καθ' ἀλήθειαν) or (Πλάτων)).—ἓνα κόσμον ἀγένητον καὶ ἀφθαρτον· Ξενοφάνης, Παρμενίδης. **ps.Hermogenes Prog.** 11.4.6 Patillon εἰ πολλοὶ κόσμοι (thesis). **Aphthonius Prog.** 13.1.2–9 Patillon τῶν δὲ θέσεων αἱ μὲν εἰσι πολιτικάι, αἱ δὲ θεωρητικάι ... θεωρητικάι δὲ αἱ μόνῳ τῷ νῷ θεωρούμεναι, οἷον εἰ σφαιροειδὴς ὁ οὐρανός, εἰ κόσμοι πολλοί· ταῦτα γὰρ εἰς πείραν μὲν ἀνθρώποις οὐκ ἔρχεται, μόνῳ δὲ θεωρεῖται τῷ νῷ. **Dionysius of Alexandria** Περί φύσεως at Eus. *PE* 14.23.1 πότερον ἓν ἐστὶ συναφές τὸ πᾶν, ὡς ἡμῖν τε καὶ τοῖς σοφωτάτοις Ἑλλήνων Πλάτωνι καὶ Πυθαγόρᾳ καὶ τοῖς ἀπὸ τῆς Στοᾶς καὶ Ἡρακλείτῳ φαίνεται, ἢ δύο, ὡς ἴσως τις ὑπέλαβεν, ἢ καὶ πολλὰ καὶ ἄπειρα, ὡς τισιν ἄλλοις ἔδοξεν ... **Eusebius PE** 15.32.8 τοιαύτη καὶ ἡ θαυμάσιος αὐτῶν κοσμογονία. συνήπται (δὲ) τούτοις ἄλλη τις πλείστη λογομαχία, παντοίων πέρι προτάσεων ἀπορησάντων· εἰ χρὴ τὸ πᾶν ἓν ἢ πολλὰ ἡγεῖσθαι καὶ εἰ ἓνα τὸν κόσμον ἢ πλείους ... **Basil of Caesarea in Hexaem.** 3.3, p. 41.7–21 Amand de Mendieta–Rudberg δευτέρον ἐστὶν ἐξετάσαι, εἰ ἕτερον παρὰ τὸν ἐν ἀρχῇ πεποιημένον οὐρανὸν τὸ στερέωμα τοῦτο, ὃ καὶ αὐτὸ ἐπεκλήθη οὐρανός, καὶ εἰ ὅλως οὐρανοὶ δύο· ὅπερ οἱ τὰ περὶ οὐρανοῦ φιλοσοφῆσαντες ἔλουντ' ἂν μᾶλλον τὰς γλώσσας προέσθαι, ἢ ὡς ἀληθὲς παραδέξασθαι. ἓνα γὰρ ὑποτίθενται οὐρανόν, καὶ οὐκ ἔχειν αὐτῷ φύσιν, δεύτερον, ἢ τρίτον, ἢ πολλοστὸν προσγενέσθαι, πάσης τῆς οὐσίας τοῦ οὐρανοῦ σώματος εἰς τὴν τοῦ ἐνὸς σύστασιν ἀπαναλωθείσης, ὡς οἶονται. ... ἡμεῖς δὲ ἀξιούμεν τοὺς τῶν Ἑλλήνων σοφοὺς, μὴ πρότερον ἡμᾶς καταχλευάζειν πρὶν τὰ πρὸς ἀλλήλους διαθῶνται. εἰσὶ γὰρ ἐν αὐτοῖς οἱ ἀπείρους οὐρανούς καὶ κόσμους εἶναι φασιν ... **Ambrose of Milan Hexaem.** 1.1.4 ... *quamvis de ipso mundo non mediocris inter eos quaestio sit. nam Pythagoras (—) unum mundum adserit, alii innumerabiles dicunt esse mundos, ut scribit Democritus* (fr. 358 Luria), *cui plurimum de physicis auctoritatis vetustas detulit; see also Hexaem.* 2.2.5, *De fide* 4.4.43, *Ep.* 45.15. **Augustine Acad.** 3.23 Jolivet *quomodo enim inter Democritum et superiores physicos de uno mundo et innumerabilibus item diiudicabimus. ... tamen ego qui longe adhuc absun vel a vicinitate sapientis, in istis physicis nonnihil scio. certum enim habeo, aut unum esse mundum, aut non unum; et si non unum, aut finiti numeri, aut infiniti.* *C.D.* 12.12 Dombart–Kalb *alii vero, qui mundum istum non existimant sempiternum, sive non eum solum, sed innumerabiles opinentur, sive solum quidem esse, sed certis saeculorum intervallis innumerabiliter oriri et occidere ... C.D.* 18.41 *pro sua quisque opinione certabant, alii adserentes unum, alii innumerabiles mundos ... Proclus in Tim.* 1.437.25 περὶ δὲ τῆς λέξεως ἀμφισβητοῦσιν οἱ ἐξηγηταί· τοῖς μὲν γὰρ δοκεῖ δύο εἶναι τὰ διαιρούμενα νῦν ὑπὸ τοῦ Πλάτωνος (*Tim.* 31a), τὸ τε ἓν καὶ τὸ πλήθος πᾶν, ... τοῖς δὲ τρία εἶναι τὰ διαιρούμενα, καταφαίνεται τὸ ἓν τὸ πεπερασμένον πλήθος καὶ τὸ ἄπειρον. **John Philoponus in APo.** 239.2 ὅταν δὲ (πότερον) ἄπειρος ἢ πεπερασμένος, τὸ ποσόν (ζητοῦμεν). **Simplicius in Cael.** 202.11–18 διὰ ταύτην γὰρ οἱ μὲν ἓνα κόσμον καὶ πεπερασμένον ἔλεγον, ὅσοι μὴ ἐδέχοντο τὸ ἄπειρον ἐν ἀρχῇ, ὡς Ἀριστοτέλης καὶ Πλάτων, οἱ δὲ ἓνα ἄπειρον, ὡς Ἀναξίμενης (—), ἄερα ἄπειρον τὴν ἀρχὴν εἶναι λέγων, οἱ δὲ καὶ τῷ πλήθει ἀπείρους κόσμους, ὡς Ἀναξίμανδρος (—) μὲν ἄπειρον τῷ μεγέθει τὴν ἀρχὴν θέμενος ἀπείρους ἐξ αὐτοῦ τῷ πλήθει κόσμους ποιεῖν δοκεῖ, Λεύκιππος δὲ καὶ Δημόκρι-

τος (fr. 345 Luria) ἀπείρους τῷ πλήθει τοὺς κόσμους ἐν ἀπείρῳ τῷ κενῷ καὶ ἐξ ἀπείρων τῷ πλήθει τῶν ἀτόμων συνίστασθαι φησι ... *in Phys.* 1121.5–15 (from Alexander of Aphrodisias) οἱ μὲν γὰρ ἀπείρους τῷ πλήθει τοὺς κόσμους ὑποθέμενοι, ὡς οἱ περὶ Ἀναξίμανδρον (—) καὶ Λεύκιππον (—) καὶ Δημόκριτον (—) καὶ ὕστερον οἱ περὶ Ἐπικούρου (fr. 306 Usener) γινομένους αὐτοὺς καὶ φθειρομένους ὑπέθεντο ἐπ' ἄπειρον ἄλλων μὲν αἰεὶ γινομένων ἄλλων δὲ φθειρομένων ... τῶν δὲ ἓνα μόνον κόσμον λεγόντων ... γενητόν δὲ καὶ φθαρτόν τὸν ἓνα κόσμον ποιούσιν, ὅσοι αἰεὶ μὲν φασιν εἶναι κόσμον, οὐ μὴν τὸν αὐτὸν αἰεὶ, ἀλλὰ ἄλλοτε ἄλλον γινόμενον κατὰ τινὰς χρόνων περιόδους, ὡς Ἀναξίμενης (13A11 DK) τε καὶ Ἡράκλειτος (T 269 Mouraviev) καὶ Διογένης (fr. 23c Laks) καὶ ὕστερον οἱ ἀπὸ τῆς Στοᾶς (SVF 2.576). also *in Phys.* 331.18 (fr. 345 Luria), 701.30 (fr. 346 Luria), and see further on A 2.4. **Isidore of Seville** *Nat.* 13 *utrum enim unum sit caelum an plures contentio est.* **Symeon Seth** *CRN* 3.27 τινὲς τῶν φιλοσόφων ἐδόξασαν ἀπείρους εἶναι κόσμους καὶ ἐν ἐκάστῳ γῆν ὁμοίαν ταύτῃ καὶ ἀνθρώπους καὶ ζῶα.

Chapter heading: Philo of Alexandria *Aet.* 4 νῦν δ' ἐστὶν ἡ σκέψις περὶ κόσμου τοῦ κατὰ τὸ πρῶτον σημαίνόμενον, ὃς ἐξ οὐρανοῦ καὶ γῆς καὶ τῶν ἐν αὐτοῖς ζώων συνέστηκε.

§1 **Pythagoras: Diogenes Laertius** *VP.* 8.48 (on Pythagoras) ἀλλὰ μὴν καὶ τὸν οὐρανὸν πρῶτον ὀνομάσαι κόσμον καὶ τὴν γῆν στρογγύλην· ὡς δὲ Θεόφραστος (fr. 227E FHS&G), Παρμενίδην· ὡς δὲ Ζήνων (SVF 1.226), Ἡσίοδον. cf. **Epicurus** *Ep.Pyth.* at D.L. 10.88 κόσμος ἐστὶ περιχώρητις οὐρανοῦ, ἄστρα τε καὶ γῆν καὶ πάντα τὰ φαινόμενα περιέχουσα ... (see further on A 2.2). **ps.Aristotle** *Mu.* 2 391b9–10 κόσμος μὲν οὖν ἐστὶ σύστημα ἐξ οὐρανοῦ καὶ γῆς καὶ τῶν ἐν τούτοις περιεχομένων φύσεων. **Philo of Alexandria** *Aet.* 4 λέγεται τοίνυν ὁ κόσμος καθ' ἐν μὲν {πρῶτον} σύστημα ἐξ οὐρανοῦ καὶ ἄστρον κατὰ περιχώρην {καὶ} γῆς καὶ τῶν ἐπ' αὐτῆς ζώων καὶ φυτῶν.

§2 **Pythagoras: Ambrose of Milan** *Hexaem.* 1.1.4 see General texts above. **Empedocles: ps.Aristotle** *MXG* 2 976b23–27 Ἐμπεδοκλῆς ... λέγων (31B13 DK) ὡς 'τοῦ παντός οὐδὲ κενεόν. πόθεν οὖν τί κ' ἐπέλθοι'; ὅταν δὲ εἰς μίαν μορφήν συγκριθῇ, ὡς ἐν εἶναι, οὐδέν φησι (31B14 DK) τό γε 'κενεὸν πέλει οὐδὲ περισσόν'. **Parmenides: Hippolytus** *Ref.* 1.11.1 (28A23 DK) καὶ γὰρ καὶ Παρμενίδης ἐν μὲν τὸ πᾶν ὑποτίθεται αἰδιόν τε καὶ ἀγέννητον καὶ σφαιροειδές. **Plato: Diogenes Laertius** *VP.* 3.71–72 κόσμον τε εἶναι ἓνα γεννητόν ... ἓνα τε αὐτὸν καὶ οὐκ ἄπειρον κατεσκευάσθαι. **Zeno (and the Stoa): Arius Didymus** fr. 29 Diels at Eus. *PE* 15.15.1 (SVF 2.528) ὅλον δὲ τὸν κόσμον σὺν τοῖς ἑαυτοῦ μέρεσι προσαγορεύουσι θεόν· τοῦτον δὲ ἓνα μόνον εἶναι φασὶ καὶ πεπερασμένον καὶ ζῶον καὶ αἰδὶον καὶ θεόν. **Diogenes Laertius** *VP.* 7.140 ἓνα τὸν κόσμον εἶναι καὶ τοῦτον πεπερασμένον ... καθά φησι Ποσειδώνιος ἐν ε' τοῦ Φυσικοῦ λόγου καὶ οἱ περὶ Ἀντίπατρον ἐν τοῖς περὶ κόσμου (Posidonius F 8 E.-K., 260 Theiler, SVF III Ant. 43). *VP.* 7.143 ὅτι τε εἰς ἐστὶν (sc. ὁ κόσμος) Ζήνων (SVF 1.97) φησὶν ἓνα τῷ περὶ τοῦ ὅλου. **Sextus Empiricus** *M.* 7.434 (on Chrysippus, SVF 3.657) εἰ δ' οὐδ' αὐτὸ τοῦτο ᾗδε τὸ ὅτι πάντα ἀγνοεῖ, πῶς περὶ πολλῶν δογματίζει, τιθεὶς τὸ ἓνα εἶναι κόσμον (for continuation see on ch. 2.3).

§3 Anaximander: Cicero ND 1.25 *Anaximandri* (12A17 DK) *autem opinio est nativos esse deos longis intervallis orientis occidentisque, eosque innumerabilis esse mundos.* **ps.Plutarch Strom.** 2 (fr. 179 Sandbach) μεθ' ὃν (sc. Thales) Ἀναξίμανδρον (12A10 DK) ... τὸ ἄπειρον φάναι τὴν πᾶσαν αἰτίαν ἔχειν τῆς τοῦ παντός γενέσεώς τε καὶ φθοράς· ἐξ οὗ δὴ φησι τοὺς τε οὐρανοὺς ἀποκεκρίσθαι, καὶ καθόλου τοὺς ἅπαντας ἀπείρους ὄντας κόσμους. **Irenaeus Haer.** trans. Rufini 2.14.2 *Rousseau–Doutreleau Anaximander autem hoc quod immensum est omnium initium subiecit, seminaliter habens in semetipso omnium genesim, ex quo immensos mundos constare ait ... Hippolytus Ref.* 1.6.1 Ἀναξίμανδρος Πραξιᾶδου Μιλήσιος (12A11 DK) οὗτος ἀρχὴν ἔφη τῶν ὄντων φύσιν τινὰ τοῦ ἀπείρου, ἐξ ἧς γίνεσθαι τοὺς οὐρανοὺς καὶ τοὺς ἐν αὐτοῖς κόσμους. ταύτην δὲ αἶδιον εἶναι καὶ ἀγήρω, ἣν καὶ πάντας περιέχειν τοὺς κόσμους. **Augustine C.D.** 8.2 (12A17 DK) *et innumerabiles mundo gignere et quaecumque in eis oriuntur.* **Anaximenes:** see **Simplicius in Cael.** 202.13 cited above under General texts. **Xenophanes:** **Diogenes Laertius V.P.** 9.19 (21A1 DK) φησί ... κόσμους δὲ ἀπείρους, οὐ παραλλακτοὺς δέ. **Diogenes:** **ps.Plutarch Strom.** 12 (fr. 179 Sandbach) Διογένης ὁ Ἀπολλωνιάτης (64A6 DK) ἀέρα ὑφίσταται στοιχεῖον· κινεῖσθαι δὲ τὰ πάντα ἀπείρους τ' εἶναι τοὺς κόσμους. **Diogenes Laertius V.P.** 9.57 (64A1 DK) ἐδόκει δὲ αὐτῷ τάδε· στοιχεῖον εἶναι τὸν ἀέρα, κόσμους ἀπείρους καὶ κενὸν ἄπειρον. **Leucippus:** **Diogenes Laertius V.P.** 9.30–31 (67A1 DK) ἤρεσκε δ' αὐτῷ ἄπειρα εἶναι τὰ πάντα καὶ εἰς ἄλληλα μεταβάλλειν, τὸ τε πᾶν εἶναι κενὸν καὶ πλήρες σωμαμάτων. τοὺς τε κόσμους γίνεσθαι σωμαμάτων εἰς τὸ κενὸν ἐμπιπτόντων καὶ ἀλλήλοις περιπλεκομένων ... τὸ μὲν πᾶν ἄπειρόν φησιν, ὡς προεῖρηται· τοῦτου δὲ τὸ μὲν πλήρες εἶναι, τὸ δὲ κενόν, (ἃ) καὶ στοιχεῖά φησι. κόσμους τε ἐκ τούτων ἀπείρους εἶναι καὶ διαλύεσθαι εἰς ταῦτα. **Democritus:** Cicero *Fin.* 1.21 (fr. 350 Luria) *innumerabiles mundi.* **Luc.** 55 (fr. 350 Luria) *et ais Democritum dicere innumerabiles esse mundo.* **Philo Aet.** 8 (fr. 351 Luria) οἱ μὲν γὰρ πολλοὺς κόσμους ὑπογράφουσιν. **Diogenes Laertius V.P.** 9.44 (68A1 DK) δοκεῖ δ' αὐτῷ τάδε· ... ἀπείρους τε εἶναι κόσμους καὶ γεννητοὺς καὶ φθαρτοὺς. **Hippolytus Ref.** 1.13.2 (Democritus fr. 349 Luria) ἀπείρους δὲ εἶναι κόσμους καὶ μεγέθει διαφέροντας. **Epicurus:** **Philo of Alexandria** (fr. 304 Usener) see above under Democritus. **Epicurus Ep.Hdt.** at D.L. 10.45 and **Ep.Pyth.** at D.L. 10.89 cited above under General texts. **Hermias Irr.** 18 118.1–4 Hanson ἀμφὶ μὲν δὴ ταῦτα μέχρι νῦν ἐσπούδακεν ἡ ψυχὴ μου τῶν ὄλων ἄρχειν. προκύψας δὲ μοί φησιν Ἐπίκουρος· σὺ μὲν δὴ κόσμον ἓνα μεμέτρηκας, ὦ φιλότης, εἰσι δὲ κόσμοι πολλοὶ καὶ ἄπειροι. **Simplicius in Phys.** 1121.5–15 cited above under General texts.

§5 Epicurus: cf. **Epicurus D.L. Ep.Pyth.** at D.L. 10.89 (follows from text cited above under General texts) καὶ ὅτι καὶ ὁ τοιοῦτος δύναται κόσμος γίνεσθαι καὶ ἐν κόσμῳ καὶ μετακοσμίῳ ὃ λέγομεν μεταξύ κόσμων διάστημα, ἐν πολυκένῳ τόπῳ καὶ οὐκ ἐν μεγάλῳ εἰλικρινεῖ καὶ κενῷ καθάπερ τινὲς φασιν ...

§8 Melissus: **Theodoret CAG** 4.8 Μέλισσος δὲ ὁ Ἰθαγένης ὁ Μιλήσιος τοῦτου μὲν ἐταῖρος ἐγένετο, τὴν δὲ παραδοθεῖσαν διδασκαλίαν κήρατον οὐκ ἐτήρησεν· ἄπειρον γὰρ οὗτος ἔφη τὸν κόσμον, ἐκείνων φάντων πεπερασμένον (~ §8).

§9 Stoics: **Sextus Empiricus P.** 1.332–334 καὶ δὴ οἱ μὲν ἀπὸ τῆς Στοᾶς φιλόσοφοι (*SVF* 2.524) διαφέρειν ὑπολαμβάνουσι τὸ ὅλον καὶ τὸ πᾶν· ὅλον μὲν γὰρ εἶναι

λέγουσι τὸν κόσμον, πᾶν δὲ τὸ σὺν τῷ κόσμῳ ἔξωθεν κενόν, καὶ διὰ τοῦτο τὸ μὲν ὅλον πεπερασμένον εἶναι (πεπέρασται γὰρ ὁ κόσμος), τὸ δὲ πᾶν ἄπειρον (τοιοῦτον γὰρ τὸ ἐκτὸς τοῦ κόσμου κενόν). ὁ δὲ Ἐπίκουρος ἀδιαφόρως τήν τε τῶν σωμάτων καὶ τήν τοῦ κενοῦ φύσιν ὅλον τε καὶ πᾶν προσαγορεύειν εἰώθεν· ... οἱ δὲ φάμενοι μὴδ' ὅλως εἶναι κενόν, ὥς οἱ ἐκ τοῦ Περιπάτου, τὸ ὅλον καὶ τὸ πᾶν τῶν σωμάτων μόνον, οὐχὶ δὲ καὶ τοῦ κενοῦ ἐπικατηγοροῦσιν. cf. **Ocellus Lucanus** ch. 13 ἐκτὸς γὰρ τοῦ παντός οὐδέν, τὰ γὰρ ἄλλα πάντα ἐν τῷ παντί, καὶ τὸ ὅλον καὶ τὸ πᾶν ὁ κόσμος.

b Sources and Other Parallel Texts

General texts: **Gorgias** 82B3(73) DK καὶ ἄλλως, εἰ ἔστιν, ἦτοι ἔν ἐστιν ἢ πολλὰ· οὔτε δὲ ἔν ἐστιν οὔτε πολλὰ, ὥς παρασταθήσεται· οὐκ ἄρα ἔστι τὸ ὄν. εἰ γὰρ ἔν ἐστιν, ἦτοι ποσόν ἐστιν ἢ συνεχές ἐστιν ἢ μέγεθος ἐστιν ἢ σῶμά ἐστιν. **Plato** *Tim.* 31a–b πότερον οὖν ὀρθῶς ἓνα οὐρανὸν προσειρήκαμεν, ἢ πολλοὺς καὶ ἀπείρους λέγειν ἢν ὀρθότερον; ἓνα, εἴπερ κατὰ τὸ παράδειγμα δεδημιουργημένος ἔσται. ... ἵνα οὖν τόδε κατὰ τήν μόνωσιν ὅμοιον ἦ τῷ παντελεῖ ζῶν, διὰ ταῦτα οὔτε δύο οὔτ' ἀπείρους ἐποίησεν ὁ ποιῶν κόσμους, ἀλλ' εἰς ὅδε μονογενῆς οὐρανὸς γεγενῶς ἔστιν καὶ ἔτ' ἔσται. 55c ἃ δὴ τις εἰ πάντα λογιζόμενος ἐμμελῶς ἀποροῖ πότερον ἀπείρους χρῆ κόσμους εἶναι λέγειν ἢ πέρας ἔχοντας, τὸ μὲν ἀπείρους ἡγήσασιν· ἂν ὄντως ἀπείρου τινὸς εἶναι δόγμα ὧν ἔμπειρον χρεῶν εἶναι, πότερον δὲ ἓνα ἢ πέντε αὐτοὺς ἀληθεῖα πεφυκότας λέγειν ποτὲ προσήκει, μᾶλλον ἂν ταύτῃ στάς εἰκότως διαπορήσαι. τὸ μὲν οὖν δὴ παρ' ἡμῶν ἓνα αὐτὸν κατὰ τὸν εἰκότα λόγον πεφυκότα μὴνύει θεόν, ἄλλος δὲ εἰς ἄλλα πη βλέψας ἕτερα δοξάσει. 92c8–9 γέγονεν εἰς οὐρανὸς ὅδε μονογενῆς ὦν. **Xenophon** *Mem.* 1.1.14 τῶν τε περὶ τῆς τῶν πάντων φύσεως μεριμνώντων τοῖς μὲν δοκεῖν ἐν μόνον τὸ ὄν εἶναι, τοῖς δ' ἄπειρα τὸ πλήθος. **Aristotle** *Phys.* 8.1 250b18–23 ἀλλ' ὅσοι μὲν ἀπείρους τε κόσμους εἶναι φασιν, καὶ τοὺς μὲν γίνεσθαι τοὺς δὲ φθεῖρεσθαι τῶν κόσμων, αἰεὶ φασιν εἶναι κίνησιν (ἀναγκαῖον γὰρ τὰς γενέσεις καὶ τὰς φθοράς εἶναι μετὰ κινήσεως αὐτῶν)· ὅσοι δ' ἓνα (αἰεὶ) ἢ μὴ αἰεὶ καὶ περὶ τῆς κινήσεως ὑποτίθενται κατὰ λόγον (goes on in 250b23–252b7 to discuss Anaxagoras and Empedocles as by implication belonging to the second group). **Cael.** 1.1 268b11–13 περὶ μὲν οὖν τῆς τοῦ παντός φύσεως, εἴτ' ἄπειρός κατὰ τὸ μέγεθος εἴτε πεπέρανται τὸν σύνολον ὄγκον, ὕστερον ἐπισκεπτέον. **Cael.** 1.5 271b2–4 καὶ πρῶτον πότερον ἔστι τι σῶμα ἄπειρον, ὥσπερ οἱ πλείστοι τῶν ἀρχαίων φιλοσόφων ᾤθησαν, ἢ τοῦτ' ἐστὶν ἔν τι τῶν ἀδυνάτων. **Cael.** 1.7 276a16–17 ὅτι μὲν τοῖνυν οὐκ ἔστι τὸ σῶμα τοῦ παντός ἄπειρον, ἐκ τούτων φανερόν. **Cael.** 1.8 276a18–22 διότι δ' οὐδὲ πλείους οἶόν τ' οὐρανούς εἶναι, λέγωμεν· τοῦτο γὰρ ἔφαμεν ἐπισκεπτέον, εἴ τις μὴ νομίζει καθόλου δεδεῖχθαι περὶ τῶν σωμάτων ὅτι ἀδύνατον ἐκτὸς εἶναι τοῦ κόσμου τοῦδε ὅτι οὖν αὐτῶν, ἀλλὰ μόνον ἐπὶ τῶν ἀορίστως κειμένων εἰρησθαι τὸν λόγον. **Cael.** 1.9 277b27–29 ὅτι δ' οὐ μόνον εἰς ἐστίν, ἀλλὰ καὶ ἀδύνατον γενέσθαι πλείους, ἔτι δ' ὥς αἰθῖος ἄφθαρτος ὦν καὶ ἀγέννητος, λέγωμεν, πρῶτον διαπορήσαντες περὶ αὐτοῦ. **Cael.** 1.9 278a21–23 ἐκ μὲν οὖν τούτων ὑπολάβοι τις ἂν καὶ εἶναι καὶ ἐνδέχεσθαι πλείους εἶναι οὐρανούς. σκεπτέον δὲ πάλιν τί τούτων λέγεται καλῶς καὶ τί οὐ καλῶς. **Cael.** 1.10 280a23–27 τὸ δ' ὅλως γενόμενον φθαρῆναι καὶ μὴ ἀνακάμπτειν ὄντος μὲν ἑνὸς ἀδυνάτον ἐστίν· πρὶν γὰρ γενέσθαι αἰεὶ ὑπῆρχεν ἢ πρὸ αὐτοῦ σύστασις, ἢν μὴ γενομένην οὐχ οἶόν τ' εἶναι φάμεν μεταβάλλειν· ἀπείρων δ' ὄντων

ἐνδέχεται μάλλον. *Divisiones Aristoteleae* ch. 42, p. 56.1 Mutschmann φυσικὸν (sc. πρόβλημα) δέ, οἷον εἰς κόσμος ἐστὶν ἢ πλείους ... *Plutarch Def.Or.* 421E–423D τοῦ δ' Ἑρακλέωνος πυθομένου πῇ ταῦτα προσήκει Πλάτῳ καὶ πῶς ἐκεῖνος τὸ ἐνδόσιμον τῷ λόγῳ τούτῳ παρέσχε, ὁ Κλεόμβροτος 'εὐ μνημονεύεις' εἶπεν 'ὅτι τὴν μὲν ἀπειρίαν αὐτόθεν ἀπέγνω τῶν κόσμων, περὶ δὲ (422A) πλήθους ὠρισμένου διηπόρησε, καὶ μέχρι τῶν πέντε τοῖς ὑποτιθεμένοις κατὰ στοιχεῖον ἓνα κόσμον ἐπιχωρήσας τὸ εἰκὸς αὐτὸς ἑαυτὸν ἐφ' ἐνὸς ἐτήρησεν. καὶ δοκεῖ τοῦτο Πλάτωνος ἴδιον εἶναι, τῶν ἄλλων σφόδρα φοβηθέντων τὸ πλῆθος, ὡς τοὺς ἐνὶ τὴν ὕλην μὴ ὀρίσαντας ἄλλ' ἐκβάντας εὐθὺς ἀόριστου καὶ χαλεπῆς ἀπειρίας ὑπολαμβανούσης'. 'ὁ δὲ ξένος' ἔφη ἐγὼ 'περὶ πλήθους κόσμων ὥριζεν ἢ Πλάτῳ ἢ, ὅτε συνεγένου τῷ ἀνδρὶ τούτῳ, οὐδὲ διεπειράθης', 'ἀλλ' οὐκ ἔμελλον' εἶπεν ὁ Κλεόμβροτος 'εἰ μὴ δὲν ἄλλο, τῶν περὶ ταῦτα λιπαρῆς εἶναι καὶ πρόθυμος ἀκροατῆς ἐνδιδόντος ἑαυτὸν ἵλεων καὶ παρέχοντος; ἔλεγε δὲ μήτ' ἀπείρους μήτ' ἓνα μήτε πέντε κόσμους, ἀλλὰ τρεῖς καὶ ὀγδοήκοντα καὶ ἑκατὸν εἶναι συντεταγμένους κατὰ σχῆμα τριγωνοειδές, οὐ πλευρὰν ἐκάστην ἐξήκοντα κόσμους ἔχειν· τριῶν δὲ τῶν λοιπῶν ἕκαστον ἰδρῦσθαι κατὰ γωνίαν, ἅπτεσθαι δὲ τοὺς ἐφεξῆς ἀλλήλων ἀτρέμα περιούτας ὥσπερ ἐν χορείᾳ ...' (423A) ... καὶ ὁ Δημήτριος 'Ὁμηρον' ἔφη 'τί κινούμεν ἐν τῷ παρόντι; μύθων γὰρ ἄλις. Πλάτῳ δὲ πολλοὺ δεῖ τὰς πέντε τοῦ κόσμου διαφορὰς πέντε κόσμους προσαγορεύειν, ἐν οἷς τε μάχεται τοῖς ἀπείρους κόσμους ὑποτιθεμένοις, αὐτὸς ἤδη φησὶ δοκεῖν ἓνα τοῦτον εἶναι μονογενῆ τῷ θεῷ καὶ ἀγαπητόν, ἐκ τοῦ σωματοειδοῦς παντὸς ὅλον καὶ τέλειον καὶ αὐτάρκη γεγεννημένον. ὅθεν ἂν τις καὶ θαυμάσειεν, ὅτι ἀληθὲς εἰπὼν αὐτὸς ἐτέροις ἀπιθάνου καὶ λόγον οὐκ ἐχούσης ἀρχὴν παρέσχε διανομῆς, τὸ μὲν γὰρ ἓνα μὴ φυλάξαι κόσμον εἶχεν ἀμωσγέπως ὑπόθεσιν τὴν τοῦ παντὸς ἀπειρίαν, τὸ δ' ἀφωρισμένως ποιῆσαι τοσοῦτους καὶ μήτε πλείους τῶν πέντε μήτ' ἐλάττους κομιδῇ παρὰ λόγον καὶ πάσης πιθανότητος ἀπηρητημένον ...'

Chapter heading: *ps.Aristotle* Περὶ κόσμου. *Chrysippus* at *Alex.Aphr. in Apr.* 180.31 Wallies ὡς ἐν τοῖς Περὶ κόσμου Χρύσιππος (*SVF* 1.624) λέγει (see also *Stob. Ecl.* 1.5.15, p. 79.3, very likely from Arius Didymus). *Antipater of Tyre* at *D.L.* 7.139 ἐν τῷ ὀγδόῳ Περὶ κόσμου (also *D.L.* 7.142). *Posidonius* at *D.L.* 7.142 ἐν πρώτῳ Περὶ κόσμου. *Sphaerus* at *D.L.* 7.177 Περὶ κόσμου δύο. but cf. *Plato Tim.* 27c4 περὶ τοῦ παντός, *Aristotle* Περὶ οὐρανοῦ, *Zeno* Περὶ ὅλου (*D.L.* 7.142).

§2 Empedocles: *Empedocles* fr. B26.8–12 (= B17.9–13) DK cited at *Arist. Phys.* 8.1 250b27–251a3 ἢ ὡς Ἐμπεδοκλῆς ἐν μέρει κινεῖσθαι καὶ πάλιν ἡρεμεῖν, κινεῖσθαι μὲν ὅταν ἡ φιλία ἐκ πολλῶν ποιῇ τὸ ἐν ἢ τὸ νεῖκος πολλὰ ἐξ ἐνός, ἡρεμεῖν δ' ἐν τοῖς μεταξὺ χρόνοις, λέγων οὕτως, 'ἢ μὲν ἐν ἐκ πλεόνων μεμάθηκε φύεσθαι, / ἢ δὲ πάλιν διαφύντος ἐνός πλεόν' ἐκτελέθουσιν, / τῇ μὲν γίνονται τε καὶ οὐ σφισιν ἔμπεδος αἰών· / ἢ δὲ τὰ δ' ἀλλάσσοντα διαμπερές οὐδαμὰ λήγει, ταύτῃ δ' αἰὲν ἔασιν ἀκίνητοι κατὰ κύκλον'. *Plato: Tim.* 32a2–b3, 55d4–5, 92c8 see above under General texts. *Aristotle: Cael.* 1.7 276a18–19, 1.9 277b27–28 see above under General texts.

§3 Anaximander: *Simplicius in Phys.* 24.13–18 = *Theophrastus Phys.Op.* fr. 2 Diels (226A FHS&G, 12Ag DK) λέγει δ' αὐτὴν μήτε ὕδωρ μήτε ἄλλο τι τῶν καλουμένων εἶναι στοιχείων, ἀλλ' ἐτέραν τινὰ φύσιν ἄπειρον, ἐξ ἧς ἅπαντας γίνεσθαι τοὺς οὐρανούς καὶ τοὺς ἐν αὐτοῖς κόσμους. *Xenophanes: Simplicius in Phys.*

22.26 = **Theophrastus** *Phys.op.* fr. 5 Diels, fr. 224 FHS&G (different view, 21A31 DK) μίαν δὲ τὴν ἀρχὴν ἦτοι ἓν τὸ ὄν καὶ πᾶν καὶ οὔτε πεπερασμένον οὔτε ἄπειρον οὔτε κινούμενον οὔτε ἡρεμοῦν Ξενοφάνην τὸν Κολοφώνιον τὸν Παρμενίδου διδάσκαλον ὑποτίθεσθαι φησιν ὁ Θεόφραστος ὁμολογῶν ἑτέρας εἶναι μᾶλλον ἢ τῆς περὶ φύσεως ἱστορίας τὴν μνήμην τῆς τούτου δόξης· ...

Liber 2 Caput 2

P^B : Plutarchus 886C–D; p. 329^a1–8 Diels—**P^G** : ps.Galenus *HPh* c. 45; p. 621.9–11 Diels;—**P^Q**: Qustā ibn Lūqā pp. 140–141 Daiber—**P^C** : Cyrillus *Juln.* 2.15.1–5, pp. 105–106 Riedweg—**P^{Sy}** : Symeon Seth *CRN* 3.28, p. 36.1–2 Delatte
S : Stobaeus *Eclogae* 1.15.6b, pp. 146.22–147.2 Wachsmuth; cf. 1.15, p. 1.144.16 (~ tit.)
T : Theodoretus *CAG* 4.16, p. 104.16–17 Raeder
Cf. Ach: Achilles *Univ.* c. 6, p. 16.10–16 Di Maria; *Scholia in Basilium I* 23, p. 200.19–20 Pasquali

Titulus β'. Περὶ σχήματος κόσμου (P,cf.S)

- §1 οἱ μὲν Στωικοὶ σφαιροειδῆ τὸν κόσμον, (P1,S1,T1)
§2 ἄλλοι δὲ κωνοειδῆ, (P2,cf.T2)
§3 οἱ δ' ὦροειδῆ. (P3,cf.T2)
§4 Λεύκιππος καὶ Δημόκριτος σφαιροειδῆ τὸν κόσμον, (S2,T2) 5
§5 Ἐπίκουρος δ' ἐνδέχεσθαι μὲν εἶναι σφαιροειδεῖς τοὺς κόσμους, ἐνδέχεσθαι δὲ καὶ ἑτέροις σχήμασι κεχρῆσθαι. (P4)

§1 Stoici *SVF* 2.547; §§2–3 anonymi —; §4 Leucippus–Democritus 67A22 DK, fr. 385 Luria;
§5 Epicurus fr. 302 Usener

titulus Περὶ σχήματος κόσμου P^{BQ}, cf. P^C : Περὶ σχήματος P^G : Περὶ σχήματος οὐρανοῦ P^{Sy} : add. in marg. P^{B(III^a)} εἰ σφαιροειδεῖς ὁ κόσμος ἢ κυμβοειδεῖς (sic) : cf. Περὶ σχήματων S (c. 1.15) §1 [2] οἱ μὲν P : μὲν om. S || σφαιροειδῆ τὸν κόσμον inv. P^G || post κόσμον add. S ἀπεφῆναντο §2 lemma non hab. S || [3] ἄλλοι δὲ P^{B^{CQ}} : δὲ om. P^G §3 lemma non hab. S || [4] οἱ δ' ὦροειδῆ P^{B(IIII^a)CQ}, cf. Ach ὦροειδῆς : οἱ δ' ὦνοειδῆ P^{B(II)} : ἄλλοι κυκλοειδῆ P^G §5 [6–7] Ἐπίκουρος ... κεχρῆσθαι] al. P^G Ἐπίκουρος ἐνδέχεσθαι τούτων ἕκαστον (δὲ post Ἐπίκουρος Jas per litt. ex Nicolao) || [7] σχήμασι P^B : σχηματισμοῖς P^C

Testes primi:

Theodoretus *CAG* 4.16

4.16.1 (~ §1, §4) καὶ οἱ μὲν σφαιροειδῆ τοῦτον εἶναι,

4.16.2 (~ §§2–3) οἱ δὲ ἑτεροειδῆ.

Traditio ps.Plutarchi:

Cyrillus *Juln.* 2.15

2.15 (quaestio) εἶτα περὶ τοῦ σχήματος τοῦ κόσμου ὧδε πάλιν φησὶν

2.15.1 (~ P1) οἱ μὲν στωϊκοὶ σφαιροειδῆ τὸν κόσμον,

2.15.2 (~ P2) ἄλλοι δὲ κωνοειδῆ,

2.15.3 (~ P3) οἱ δὲ ὦροειδῆ

2.15.4 (~ P4) Ἐπίκουρος δὲ ἐνδέχεσθαι μὲν εἶναι σφαιροειδεῖς τοὺς κόσμους, ἐνδέχεσθαι δὲ καὶ ἑτέροις σχηματισμοῖς κεχρῆσθαι.

ps.Galenus *HPH* c. 45 (~ tit.) Περὶ σχήματος (text Diels)

45.1 (~ P1) οἱ μὲν Στωικοὶ τὸν κόσμον σφαιροειδῆ,

45.2 (~ P2) ἄλλοι κωνοειδῆ,

45.3 (~ P3) ἄλλοι κυκλοειδῆ.

45.4 (~ P4) Ἐπίκουρος ἐνδέχεται τούτων ἕκαστον.

Symeon Seth *CRN* 3.28 Περὶ σχήματος οὐρανοῦ (~ tit.)

3.28 (~ P1) ὁ δὲ οὐρανός ἐστι σφαιροειδής ...

Testes secundi:

Achilles *Univ.* c. 6, p. 16.10 Περὶ σχήματος κόσμου (tit.)

p. 16.11–16 σχῆμα δὲ κόσμου οἱ μὲν κωνοειδές (§2), οἱ δὲ σφαιροειδές (§1), οἱ δὲ ὦοειδές (§3), ἥς δόξης ἔχονται οἱ τὰ Ὀρφικά μυστήρια τελούντες. ἄμεινον δὲ σφαίρας ἐκδέχεται σχῆμα ἔχειν τὸν οὐρανὸν καὶ τὰ ἐν αὐτῷ κατὰ τὸν Ἐμπεδοκλέα, ὅς ἐφη οὕτως· σφαῖρος κυκλοτερής, μονίῃ περιηγεί χαίρων'.

Scholia in Basilium I 26 σχῆμα οὐρανοῦ· οἱ μὲν σφαιροειδές (§1), οἱ δὲ κωνοειδές (§2), (οἱ δὲ ὦοειδές) (§3), ἥς ἔχονται δόξης οἱ Ὀρφικοί.

Loci Aetiani:

titulus cf. A 1.14 Περὶ σχημάτων; A 2.14 Περὶ σχημάτων ἀστέρων; A 2.22 Περὶ σχήματος ἡλίου; A 2.27 Περὶ σχήματος σελήνης; A 3.10 Περὶ σχήματος γῆς.

§1 A 1.4 [1] ὁ τοῖνον κόσμος συνέστη περικεκλασμένῳ σχήματι ἐσχηματισμένος τὸν τρόπον τοῦτον. A 1.6 [10] σφαιροειδής γὰρ ὁ κόσμος, ὃ πάντων σχημάτων πρωτεύει. A 2.14.1 οἱ Στωικοὶ σφαιρικοὺς τοὺς ἀστέρας, καθάπερ τὸν κόσμον καὶ ἥλιον καὶ σελήνην. A 2.22.3 οἱ Πυθαγόρειοι οἱ Στωικοὶ σφαιροειδῆ, ὡς τὸν κόσμον καὶ τὰ ἄστρα. A 2.27.1 οἱ Στωικοὶ σφαιροειδῆ εἶναι ὡς τὸν ἥλιον. A 3.10.1 Θαλῆς καὶ οἱ Στωικοὶ σφαιροειδῆ τὴν γῆν.

§3 A 2.31.4 Ἐμπεδοκλῆς τοῦ ὕψους τοῦ ἀπὸ τῆς γῆς εἰς τὸν οὐρανόν, ἥτις ἐστὶν ἄφ' ἡμῶν ἀνάτασις, πλείονα εἶναι τὴν κατὰ τὸ πλάτος διάστασιν, κατὰ τοῦτο τοῦ οὐρανοῦ μάλλον ἀναπεπταμένου διὰ τὸ ὧφ παραπλησίως τὸν κόσμον κείσθαι.

§4 A 1.7.7 Δημόκριτος νοῦν τὸν θεὸν ἐν πυρὶ σφαιροειδεῖ.

§5 A 2.22.4 Ἐπίκουρος ἐνδέχεται τὰ προειρημένα πάντα. cf. 2.13.15

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

All three major witnesses testify to this chapter.

(1) P has the same four witnesses as in ch. 2.1, P^B, C, G and Q, with E again omitting the chapter. All four preserve the same four lemmata, with G mak-

ing various abridgements (including the chapter heading) and alterations. On a possible fleeting reference to P's text of this chapter in Julian the Arian see A 2.12 Commentary A.

(2) S does not include material from this chapter in his cosmological chapters (1.21–26), but had earlier added it to his chapter 1.15 *Περὶ σχημάτων*, which is part of the section of his work dealing with principles and foundational physical concepts (1.10–20). P's first lemma is located at 1.15.6b1, followed by another identical view but with the name-labels Leucippus–Democritus. The anonymous lemmata in P are left out. More surprisingly S also omits the Epicurean lemma in P, perhaps because it spoils the transition to the subject of the cosmos' inclination (see M–R 1.219, 234). There is no more material in S's chapter that can attributed to this chapter with any certainty (the brief introductory lemma on Plato at 1.15.4 is best regarded as S's own addition). Thus S adds only one lemma to P, making five in total.

(3) T reduces the chapter to a single diaeresis between two views, the former corresponding to P's first lemma and the two in S, the other summarizing the remaining lemmata in P. Each view is represented by a single adjectival term, *σφαιροειδής* and *έτεροειδής* respectively.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* By the time that A compiled his work in the first cent. CE the standard cosmological model was completely dominant and the question of the shape of the cosmos (and the heaven) was regarded as proven; see for example Strabo 2.5.2 (cited below Section E(b) General texts). However, the question of the cosmos' shape was retained as a standard *quaestio infinita* in the area of natural philosophy, as numerous dialectical and rhetorical texts listed below testify. Cicero develops the opposition as part of his argument between Epicurean and Stoic cosmo-theology in *De natura deorum* Books 1 and 2. In Patristic authors (including T) a sceptical position is adopted, since the Bible is not concerned with such matters. Views are recorded on this question for the atomists and Stoics, but not for other early Greek philosophers.

For this chapter too the evidence in Ach forms a special case. He (and the paraphrase based on him in the *Scholia in Basilium*) records the same list of three options as in §§1–3 and must go back to a closely related *Placita* tradition. Of particular interest is his identification of the second lemma with the view of the Orphics. See further D(d) and (e) below.

(2) *Sources.* The antithesis between the standard cosmological model, in which there is a single spherical cosmos, and the atomist model with an infinite diversity of kosmoi as was developed in the period up to the fourth century BCE also forms the main background for this chapter. In the latter model a dis-

inction is made between *our* cosmos and other kosmoi. Our cosmos, with its heavenly bodies apparently moving in circles, is regarded as basically spherical in shape; see the key text at Diogenes Laertius 9.31 cited below Section E(a)§4. The atomist description of the origin of the cosmos in ch. 1.4 also assumes sphericity, although it is not made explicit. Why this should be the case, given the atomist vortex model, is quite a puzzle (Furley (1987) 143). The earth is not regarded as spherical; cf. A 3.10.4–5. Other kosmoi can of course have all manner of possible shapes.

But what are the sources for the alternative shapes of the cosmos given in §§2–3? Interestingly these are found in various texts which explore alternative shapes for the cosmos in order to demonstrate by a *reductio ad absurdum* that the shape of the cosmos must be spherical. This commences with Aristotle, who uses as alternatives the shapes *ῥοειδής* and *φακοειδής*, while in Euclid we find *κωνοειδής* and *κυλινδροειδής* (also references to conic shape in Adrastus and the astronomers cited by Simplicius); for all these texts see below Section B(b) General texts. For Epicurus, however, these shapes are not just theoretical, but are actually likely to occur somewhere in the infinite space of the universe (see D.L. 10.74; he too suggests ‘egg-like’ kosmoi). We note here that A’s predilection for adjectives ending in *-ειδής* builds on terminology developed in these earlier texts. To express this terminology we have translated such terms literally in the translation above, including ‘like a ball’ for the key term *σφαιροειδής* (the Dutch term ‘balvormig’ is even better, but has no equivalent in English, cf. also ‘ballförmig’ in German).

C Chapter Heading

The heading of the standard umbrella type *Περὶ x*, as found in the majority of texts in the P tradition (and the index at the beginning of the Book), corresponds to parallel headings elsewhere in the work (see the list under *loci Aetiani* above). The quaestio involved belongs to the category of quality, as clearly formulated by Philoponus at *in APo.* 239.1, *ὅταν δὲ πότερον σφαιροειδής (ὁ κόσμος) ἐστὶν ἢ ποῖον ἕτερον ἔχει σχῆμα, τὸ ποῖον (ζητούμεν)*; cf. also Ambrose *Hexaem.* 1.6.21 *de qualitate caeli*. S alludes to the heading with his more general *Περὶ σχήματων* at *Ecl.* 1.15, where he combines doxai from this chapter with those from A 1.14.

The abridged heading in P^G reflects his occasional practice elsewhere, leaving the precise contents of the chapter unclear (cf. §§54, 57, 68). It certainly does not represent P’s original title. An interesting alternative heading is given in a marginal gloss in P^B Ambrosianus C 126, *εἰ σφαιροειδεῖς (sic) ὁ κόσμος ἢ κυμβοειδεῖς (sic)*. The second adjective (‘cup-shaped’) is likely a scribal error (it is not otherwise found in extant ancient Greek literature according to the TLG).

It may be a corruption of κυβοειδής ('like a cube'), which is sometimes used of the earth, e.g. at Cleomedes 1.5.15 & 98, but suggested for the cosmos at Marius Victorinus *in Rhet.* 1.8, p. 31.20–24 Riesenweber (on Cic. *Inv.* 1.8 *quae sit mundi forma?*) '*quae sit mundi facies*' ... *multi quadrata*. This shape is not, however, used of the earth in A 3.10.

Titles commencing with εἰ are quite common in A (cf. chs. 1.5, 2.3–4, 4.4–5 etc.), taking over the typical formulation of a θέσις (see, for example, Alex. Aphr. *in Top.* 40.19–23). But there are no examples containing alternative views in the actual title of a chapter.

D Analysis

a Context

After introducing the cosmos and discussing its numerical and spatial aspects in ch. 2.1, the views on its shape are now presented. The same sequence is found at 2.13–14 on the stars, but not at 2.20–22 on the sun and 2.25–27 on the moon, where a chapter on size is interposed. The Aristotelian categories of essence and quality can be recognized. On this background see further M–R 2.1.10–14.

b Number–Order of Lemmata

As noted above, there are five lemmata in all. S has one lemma in addition to the four in P, so the question must be answered as to where it should be placed. As well seen by Diels, the only logical place is after the first three lemmata in P and preceding the Epicurean lemma at the chapter's end. The particle δ(έ) in the final lemma thus forms an antithesis with the lemma that P omitted. It is to be noted that §4 is the only lemma without a connecting particle, but one may have been omitted by S (e.g. μὲν).

c Rationale–Structure of Chapter

The first three lemmata explore the shape of a single cosmos by means of a diaeresis in the form of a list with three alternatives. The Stoics represent the spherical option. Interestingly they play the same role in subsequent chapters on the shape of various cosmic bodies, i.e. 2.14, 2.27 and 3.10 (but not 2.22). On the third option, an 'egg-like' shape, see further below (d). It may seem odd that §4 appears to repeat the same doxa as §1. The only plausible reason that can be given for this move is that it must be linked with the basic division between unicists and infinitists in 2.1. The Stoics represent the former, the two atomists Leucippus and Democritus the latter. Since the doxa speaks of the cosmos in the singular, they must be speaking about the cosmos we inhabit. In contrast to their view is the doxa attributed to Epicurus, which speaks of κόσμοι in the plural and emphasizes the possibility of other shapes. In total, therefore, the

chapter is structured through no less than four diaereses (see the diagram at M–R 2.327). We note that the final diaeresis introduces an additional element into the chapter which is not anticipated in its heading. The antithesis which it records is rather artificial or even unsatisfactory, since there is no evidence to suggest that the thought of Leucippus and Democritus on this matter differed from their later fellow-Atomist Epicurus. It cannot be agreed with Luria (2007) 1127 that Epicurus is polemicizing with his predecessors; it is the doxographer who establishes the contrast.

It must be observed, however, that in the final doxa A indicates the possibility of multiple kosmoi with differing shapes with the term ἐνδέχασθαι, used here for the first time in the work. In three other texts it is used of Epicurus (2.13.15, 2.22.4, 3.15.11), all in the final position as here; it is also attributed to Plato in 3.15.10 (not in final position) and to Diocles in 5.14.3. There can be no doubt that for A it is a *vox Epicurea*, taken by the doxographical tradition from texts such as Epicurus' *Letters*, where it is used very frequently to convey the doctrine of multiple explanations and/or causes. (The term is not recorded in the surviving fragments of Democritus or in reports of his doctrines.) The direct source of the doxa could be *Ep.Pyth.* 88, but it would then have to be an extrapolation since this text speaks of our cosmos and gives various shapes which are possible because there is no direct perception of its outer boundary. Earlier in the letter at §74 he speaks about multiple shapes of kosmoi, giving ball-like, egg-like and 'other-shaped' as examples, but here the term ἐνδέχασθαι is not used as it is in the subsequent text.

Epicurus in fact occupies a special and almost unique place in the history of the *Placita*. His views are frequently recorded throughout the five books, often in combination with other members of the atomist tradition but also no less often on their own. However, a close study of his extant writings—especially the *Letters*—shows that he also made use of early literature related to the *Placita* in order to find examples of multiple explanations and/or causes as attributed to earlier philosophers and scientists. (The only other philosopher who occurs in the *Placita* but also made use of *Placita* material is Chrysippus; see below at ch. 4.5 Commentary D(e).) On Epicurus' presence in the *Placita* and his use of the *Placita* tradition see further Introduction to Book 2 section 5, and also the detailed analysis in Runia (2018). On the connection between multiple explanations and doxography see *ibid.* 400–403, and also Bakker (2016) 58–62.

d Further Comments

Individual Points

§3 The additional comment given by Ach is of great interest: ἡς δόξης ἔχονται οἱ τὰ Ὀρφικά μυστήρια τελούντες. It could be the work of Ach himself. But the

Orphics are also mentioned at A 2.13.14, so the information here was probably present in the *Placita* tradition, but was left out by A. The reading of P^G, κυκλοειδῆ, is best explained as a *Verschlimmbesserung*, the result of regarding the reading ὠρειδῆ as implausible (he would thus be unaware of the tradition attributing this view to the Orphics). It is possible, however, that the doxa may implicitly refer to Empedocles, since at A 2.31.4 the cosmos is portrayed as lying on its side like an egg. On the translation of ὠρειδῆς see the comment ad loc., Commentary D(d)§4.

§5 It is possibly that Cyril's σχηματισμοῖς preserves an authentic reading since the term σχηματισμός is in general much rarer than the corresponding σχῆμα, but is used by A on four occasions (1.4.1[23], 1.15.6, 3.2.6, 5.13.1).

e Other Evidence

After citing the comment on the Orphics Ach continues as follows (§6, p. 16.12–15): σαφηνείας δὲ ἕνεκα πιθανῆς παρελήφθη τοῦ ὥου ἢ εἰκῶν. ἄμεινον δὲ σφαίρας ἐκδέχεσθαι σχῆμα ἔχειν τὸν οὐρανὸν καὶ τὰ ἐν αὐτῷ κατὰ τὸν Ἐμπεδοκλέα, ὃς ἔφη οὕτως: 'σφαῖρος κυκλοτερὴς μονίῃ περιγέει χαίρων'. The adjudication between doxai is unusual in the *Placita* (but see ch. 1.2.2, 1.3.1–2). The same verse of Empedocles (31B27.4, 28.2) is cited in S at 1.15.2b. Both S and Ach read χαίρων for the last word as against γαίωv in the quote from Simplicius preferred by Diels VS (Wachsmuth wrongly emends). It is just possible that S derived the verse from A and that Ach reflects the same tradition. This would mean that the quote was given to illustrate the first doxa, a method also used in 1.18.2 (Empedocles again). Could the reading of P^G in §3, κυκλοειδῆ, be a remnant of this verse? But such an inserted verse does not fit in well with the μέν ... δέ construction in §§1–3. The possibility is far too uncertain to warrant inclusion in the reconstruction of the text.

E Further Related Texts

a Proximate Tradition

General texts: Hermagoras fr. 6a Matthes, T 14 Woerther at Cic. *Inv.* 1.6.8 *quaestionem eam appellat quae habet in se controversiam in dicendo positam sine certarum personarum interpositione, ad hunc modum: 'ecquid sit bonum praeter honestatem?' 'verine sint sensus?' 'quae sit mundi forma?' 'quae sit solis magnitudo?' Cicero ND 2.48 (Balbus the Stoic) nec enim hunc ipsum mundum pro certo rotundum esse dicitis, nam posse fieri ut sit alia figura, innumera-bilesque mundos alios aliarum esse formarum. cf. ND 1.24 (Velleius the Epicur-ean) at mihi vel cylindri vel quadrati vel conii vel puramidis videtur esse formo-sior (sc. forma conlata Platonis sphaera). **ps.Hermogenes Prog.** 11.4.5 Patillon (thesis) οἶον εἰ σφαιροειδῆς ὁ κόσμος. **Sceptics** at D.L. 9.104 οὐ γὰρ εἰσιν (sc. αἱ φωναί) ὅμοιοι τῷ λέγειν ὅτι σφαιροειδῆς ἐστὶν ὁ κόσμος. **Demonax** at Stob. *Ecl.**

2.1.11, p. 5.10–13 ἐξεταζόντων τινῶν, εἰ ὁ κόσμος ἔμψυχος, καὶ αὐθις εἰ σφαιροειδής, ὑμεῖς, ἔφη, περὶ μὲν τοῦ κόσμου πολυπραγμονεῖτε, περὶ δὲ τῆς αὐτῶν ἀκοσμησίας οὐ φροντίζετε. **Alexander of Aphrodisias** in *Top.* 40.19–23 τῆς γὰρ ἀντιφάσεως ἂν μὲν τὸ ‘πότερον’ προτάξωμεν οἷον ‘πότερον ὁ κόσμος σφαιροειδής ἐστίν ἢ οὐ’; ἂν δὲ τὸ ‘ἄρα’, πρότασις, οἷον ‘ἄρα γε ὁ κόσμος σφαιροειδής ἐστίν ἢ οὐ’; 76.10–15 (on dialectics), οἷον ὅτι αἰδῖος ὁ κόσμος ἢ ὅτι σφαιροειδής. ἐπιχειρήσαι γὰρ ἂν τις διαλεκτικῶς εἰς τοῦτο ὅτι τῷ τελειοτάτῳ τῶν σωμάτων οἰκεῖον τὸ τελειότατον σχῆμα, ὃ δὲ κόσμος τελειότατον τῶν σωμάτων· πάντα γὰρ τὰ ἄλλα ἐν ἑαυτῷ ἔχει· τῷ κόσμῳ ἄρα τὸ τελειότατον τῶν σχημάτων οἰκεῖον· ἀλλὰ μὴν τελειότατον ἡ σφαῖρα τῶν σχημάτων· οὐτε γὰρ προσθήκη οὐτε ἀφαίρεσις δέχεται· οἰκεῖον ἄρα τὸ σφαιρικόν σχῆμα τῷ κόσμῳ; cf. 171.15, 294.12 etc.; also at *Simp. in Cael.* 409.32–410.15. **Tertullian** ad *Nat.* 2.4.13–14 *sed quid ego cum argumentationibus physiologicis? sursum mens ascendere debuit de statu mundi, non in incerta descendere. rotunda mundo Platonica forma; quadratum eum angulatumque commentum ab aliis, credo, circino rotundo ita collegit, quod sine capite solum credi laborat.* **Marius Victorinus** in *Rhet.* 1.8, p. 31.20–24 Riesenweber (on *Cic. Inv.* 1.8 *quae sit mundi forma?*) ‘*quae sit mundi facies*’: *multi dicunt mundum in modum sphaerae esse collectum, multi oblonga rotunditate esse formatum, multi plana facie, multi quadrata, multi in camerae modum* (cf. *Is.* 40:22), *scilicet ut sub terra non sit similis, ac supra caput est, mundi facies.* **Aphthonius** *Prog.* 13.1.6–7 Patillon οἷον εἰ σφαιροειδής ὁ οὐρανός (see further on ch. 2.1 Section E(a) General texts). **Sopater Schol.** ad *Hermogenis Status* 5.3.10–11 Walz φιλόσοφον οὖν τὸ ζήτημα, ζητούμεν γὰρ, εἰ κύκλος ὁ κόσμος ... **Proclus** in *Tim.* 2.76.3 εἰ γὰρ μὴ σφαιροειδής ἦν ὁ οὐρανός, ἀλλὰ κύλινδρος ἢ τι ἄλλο σχῆμα τοιοῦτον ... **Nicolaus the Sophist** *Prog.* 76.18–20 Felten τῶν δὲ θέσεων αἱ μὲν εἰσι φυσικαί, οἷον εἰ σφαιροειδής ὁ οὐρανός, ἢ εἰ τις ἐτέρα τοιαύτη θειοτέραν ἔχουσα ζητήσιν, αἱ δὲ πολιτικά. **John Philoponus** in *APo.* 239.1 (on the cosmos) ὅταν δὲ πότερον σφαιροειδής ἐστίν ἢ ποῖον ἕτερον ἔχει σχῆμα, τὸ ποῖον (ζητούμεν).

Chapter heading: *Pliny Nat.* 1, p. 11 (table of contents) see on ch. 2.1. **Basil of Caesarea** in *Hexaem.* 1.8, p. 14.23 Amand de Mendieta-Rudberg καὶ περὶ τοῦ σχήματος δὲ ἱκανὰ ἡμῖν τὰ παρ’ αὐτοῦ, εἰπόντος ἐν δοξολογίᾳ θεοῦ· ‘ὁ στήσας τὸν οὐρανὸν ὥσει καμάραν’ (*Is.* 40:22), translated by **Ambrose of Milan** *Exam.* 1.6.21, p. 17.15 Schenkl as *de qualitate ... et substantia caeli.*

§1 Stoics: **Diogenes Laertius** *V.P.* 7.140 (on the Stoics, *SVF* 2.547) σχῆμα ἔχοντα (sc. τὸν κόσμον) σφαιροειδές ... καθά φησι Ποσειδώνιος ἐν ἐ’ τοῦ Φυσικοῦ λόγου καὶ οἱ περὶ Ἀντίπατρον ἐν τοῖς περὶ κόσμου (*Posidonius F* 8 E.-K., *Theiler* 260, *SVF* III Ant. 43). **Cicero** *ND* 2.45–48.

§4 Leucippus Democritus: **Diogenes Laertius** *V.P.* 9.31 (on Leucippus, 67A1 DK) ἰσορρόπων δὲ διὰ τὸ πλῆθος μηκέτι δυναμένων περιφέρεισθαι, τὰ μὲν λεπτὰ χωρεῖν εἰς τὸ ἔξω κενόν, ὥσπερ διαττώμενα· τὰ δὲ λοιπὰ συμμένειν καὶ περιπλεκόμενα συγκατατρέχειν ἀλλήλοις καὶ ποιεῖν πρῶτόν τι σύστημα σφαιροειδές. cf. **Lucretius** *DRN* 5.510 *magnus caeli ... orbis.*

§5 Epicurus: **Epicurus** *Ep.Hdt.* at D.L. 10.74 (and scholion) (fr. 82 Usener) ἔτι δὲ καὶ τοὺς κόσμους οὕτε ἐξ ἀνάγκης δεῖ νομίζειν ἓνα σχηματισμὸν ἔχοντας (

... } (τὰλλά καὶ διαφόρους αὐτοὺς ἐν τῇ ἰβ' *Περὶ αὐτοῦ φησιν*· οὓς μὲν γὰρ σφαιροειδεῖς, καὶ ῥοειδεῖς ἄλλους, καὶ ἀλλοιοσχήμονας ἐτέρους· οὐ μέντοι πᾶν σχῆμα ἔχειν ...). also at *Ep.Pyth.* at D.L. 10.88 (on a single cosmos) κόσμος ἐστὶ περιοχὴ τις οὐρανοῦ, ἄστρα τε καὶ γῆν καὶ πάντα τὰ φαινόμενα περιέχουσα, οὗ λυομένου πάντα τὰ ἐν αὐτῷ σύγχυσιν λήψεται, ἀποτομὴν ἔχουσα ἀπὸ τοῦ ἀπείρου καὶ καταλήγουσα ἐν πέρατι ἢ ἀραιῷ ἢ πυκνῷ καὶ οὗ λυομένου πάντα τὰ ἐν αὐτῷ σύγχυσιν λήψεται—καὶ λήγουσαν ἢ ἐν περιγομένῳ ἢ ἐν στάσιν ἔχοντι καὶ στρογγύλῃν ἢ τρίγωνον ἢ οἶαν δήποτε ἔχουσα περιγραφὴν· πανταχῶς γὰρ ἐνδέχεται· τῶν γὰρ φαινομένων οὐδὲν ἀντιμαρτυρεῖ (ἐν) τῷδε τῷ κόσμῳ, ἐν ᾧ λήγον οὐκ ἔστι καταλαβεῖν. **Lucretius** *DRN* 2.1052–1057, cited on ch. 2.1 under Section E(a) General texts.

b Sources and Other Parallel Texts

General texts: **Aristotle** *Phys.* 2.1 193b26–30 εἰ γὰρ τοῦ φυσικοῦ τὸ τί ἐστὶν ἥλιος ἢ σελήνη εἰδέναι, τῶν δὲ συμβεβηκότων καθ' αὐτὰ μηδέν, ἄτοπον, ἄλλως τε καὶ ὅτι φαίνονται λέγοντες οἱ περὶ φύσεως καὶ περὶ σχήματος σελήνης καὶ ἡλίου, καὶ δὴ καὶ πότερον σφαιροειδὴς ἢ γῆ καὶ ὁ κόσμος ἢ οὐ. *Cael.* 2.4 286b10–12 σχῆμα δ' ἀνάγκη σφαιροειδὲς ἔχειν τὸν οὐρανόν· τοῦτο γὰρ οἰκειότατόν τε τῇ οὐσίᾳ καὶ τῇ φύσει πρῶτον. εἰπώμεν δὲ καθόλου περὶ τῶν σχημάτων, τὸ ποῖόν ἐστι πρῶτον ... *Cael.* 287a11–22 ἔτι δὲ ἐπεὶ φαίνεται καὶ ὑπόκειται κύκλῳ περιφέρεισθαι τὸ πᾶν, δέδεικται δ' ὅτι τῆς ἐσχάτης περιφορᾶς οὔτε κενόν ἐστὶν ἔξωθεν οὔτε τόπος, ἀνάγκη καὶ διὰ ταῦτα σφαιροειδῆ εἶναι αὐτόν. εἰ γὰρ ἔσται εὐθύγραμμος ... ὁμοίως δὲ καὶ εἴ τι ἄλλο σχῆμα γένοιτο μὴ ἴσας ἔχον τὰς ἐκ τοῦ μέσου γραμμάς, οἷον φακοειδὲς ἢ ῥοειδὲς· ἐν ἅπασι γὰρ συμβήσεται καὶ τόπον ἔξω καὶ κενόν εἶναι τῆς φορᾶς, διὰ τὸ μὴ τὴν αὐτὴν χώραν κατέχειν τὸ ὅλον. **Euclid** *Phaen.* pr. 50–51 διὰ δὴ τὰ προειρημένα πάντα ὁ κόσμος ὑποκείσθω σφαιροειδὴς· εἴτε γὰρ ἦν κυλινδροειδὴς ἢ κωνοειδὴς ... **Strabo** 2.5.2 τὰ μὲν οὖν παρὰ τῶν φυσικῶν δεικνύμενα τοιαῦτά ἐστι· σφαιροειδὴς μὲν ὁ κόσμος καὶ ὁ οὐρανός ... **Adrastus in Theon** *Expos.* 120.10–15, 23–27 ὅτι γὰρ σφαιρικός ὁ κόσμος καὶ ἡ γῆ σφαιρική ... δῆλον ... κωνικὸν γὰρ ἢ κυλινδρικόν ἢ πυραμοειδὲς ἢ τι ἕτερον στερεὸν σχῆμα παρὰ τὸ σφαιρικόν τοῦ παντός ἔχοντος, κατὰ τῆς γῆς οὐκ ἂν ταῦτα ἀπὴντα ... cf. **Astronomers at Simp.** in *Cael.* 410.25–29 οἱ δὲ ἀστρονόμοι συγχωροῦντές τισι τῶν σχημάτων, οἷον κυλινδρῶ καὶ κῶνῳ καὶ τῷ φακοειδεῖ καὶ ῥοειδεῖ καὶ τῷ ῥομβοειδεῖ καλουμένῳ στερεῶ, οὕτως ἔχειν τοὺς πόλους, ὥς αἰετὸν αὐτὸν κατέχειν τόπον, ἐκ τῶν φαινομένων δεικνύουσι μηδὲν ἄλλο σχῆμα τὸν οὐρανὸν ἔχειν δυνάμενον πλὴν τοῦ σφαιρικοῦ. **Theophilus of Antioch** *ad Aut.* 2.32 ταῦτα δὲ μὴ ἐπιστάμενοι οἱ συγγραφεῖς βούλονται τὸν κόσμον σφαιροειδῆ λέγειν καὶ ὥσπερ εἰ κύβῳ συγκρίνειν αὐτόν.

Chapter heading: —

§1 Stoics: **Plato** *Tim.* 33b σχῆμα δὲ ἔδωκεν αὐτῷ τὸ πρέπον καὶ τὸ συγγενές. τῷ δὲ τὰ πάντα ἐν αὐτῷ ζῶα περιέχειν μέλλοντι ζῶω πρέπον ἂν εἴη σχῆμα τὸ περιειληφὸς ἐν αὐτῷ πάντα ὅποσα σχήματα· διὸ καὶ σφαιροειδὲς, ἐκ μέσου πάντη πρὸς τὰς τελευτὰς ἴσον ἀπέχον, κυκλοτερές αὐτὸ ἐτορνεύσατο, πάντων τελεώτατον ὁμοιότατόν τε αὐτὸ ἐαυτῷ σχημάτων ... **Philo of Alexandria** *Prov.* 2.56 *Aucher figura autem muni, sicut et mundus ipse ... per providentiam globi in formam facta fuit. primum, quia omnia figura velocius mobilis est ... occurrunt autem in Timaeo*

Platonis (33b), qui mirifice laudent figuram perfecte sphaericam cum sua utilitate, atque commendent, ita ut nullo praeterea indigeat laudis additamento.

Cleomedes *Cael.* 1.5.6–9 Todd ἂν τοίνυν ἐπιδείξωμεν ὅτι τὸ στερεώτατον αὐτοῦ (sc. ὁ κόσμος) καὶ πυκνότατον μέρος, ἡ γῆ, σφαιρικῶς κέχρηται τῷ σχήματι, ῥαδίως ἂν ἀπὸ τούτου ἐπὶ τὰ λοιπὰ τῶν μερῶν αὐτοῦ μετιόντες καταμάθοιμεν ὅτι πάντα σφαιρικά ἐστί καὶ οὕτως καὶ ὁ σύμπας τοιοῦτον ἔχει τὸ σχῆμα.

Appendix: A Missing Chapter Περὶ κινήσεως κόσμου?

At CAG 4.16 a section of T's summary of A's chapters on the cosmos reads (p. 104.15–20 Raeder):

καὶ οἱ μὲν σφαιροειδῆ τοῦτον εἶναι, οἱ δὲ ἑτεροειδῆ· καὶ οἱ μὲν μυλοειδῶς, οἱ δὲ τροχοῦ δίκην περιδινεῖσθαι· καὶ οἱ μὲν ἔμψυχόν τε καὶ ἔμπνουν, οἱ δὲ παντάπασιν ἄψυχον· καὶ οἱ μὲν κατ' ἐπίνοιαν γενητόν, οὐ κατὰ χρόνον, οἱ δὲ ἀγέννητον παντελῶς καὶ ἀνάτιον· καὶ οὔτοι μὲν φθαρτόν, ἐκείνοι δὲ ἀφθαρτον.

The summaries of A 2.2 and A 2.3–4 can immediately be recognised. But in between them are the words in italics which have no equivalent in the remains of A found in P or S. Undoubtedly what we have here is what we have called an Aëtian 'enclave' (see General Introduction, section 2.4–5). This was already recognized by Diels, who regarded them as derived from A and placed them (*DG* 329) beneath the text of 2.2, numbering them as 2.2.4. Four additional considerations point to the fact that Diels was on the right track.

(1) It is apparent that in his chapters on the cosmos, the stars, the sun, the moon and the earth A follows a fixed sequence of topics, which we have argued go back to question-types first formulated by Aristotle and loosely based on his theory of the categories: cf. Mansfeld (1990a) 3193–3208; (1992a) 93; M–R 2.5–6, 112. For example for the earth we have in ch. 3.9–13 Περὶ γῆς καὶ τίς ἡ ταύτης οὐσία καὶ πόσαι (substance and quantity), Περὶ σχήματος γῆς (quality), Περὶ θέσεως γῆς and Περὶ ἐγκλίσεως γῆς (place), Περὶ κινήσεως γῆς (motion relating to all the categories). A chapter Περὶ κινήσεως κόσμου would fit in very well in a parallel sequence of chapters on the cosmos. Similar chapters on other heavenly bodies are ch. 2.16 Περὶ τῆς τῶν ἀστέρων φορᾶς καὶ κινήσεως, 2.23 Περὶ τροπῶν ἡλίου, 2.24 Περὶ ἐκλείψεως ἡλίου, 2.27 Περὶ φωτισμῶν σελήνης, and 2.28 Περὶ ἐκλείψεως σελήνης. In addition there is a chapter on motion in Book 1, 1.23 Περὶ κινήσεως, which precedes a chapter on generation and destruction, 1.24 Περὶ γενέσεως καὶ φθορᾶς. A similar sequence would occur in Book 2 on the cosmos, if a chapter Περὶ κινήσεως κόσμου preceded 2.4 Εἰ ἀφθαρτος ὁ κόσμος.

We may also compare the sequence in Book 4 on the soul: 4.6 Περὶ κινήσεως ψυχῆς, 4.7 Περὶ ἀφθαρσίας ψυχῆς.

(2) The early chapters on the cosmos in Ach, a ‘cousin-writing’ of A, show a similar sequence: §5 Τίς οὐσία οὐρανοῦ (= κόσμου), §6 Περὶ σχήματος κόσμου, §7 Περὶ περιφορᾶς. Since Ach and A share common earlier doxographical traditions, it is likely that A would have dealt with the subject of the cosmos’ revolution as well.

(3) There is a fine parallel for alternative views on the motion of the cosmos in Epicurus *Ep.Pyth* at D.L. 10.88 (text above, section E(a)§5), where the outer edge of the cosmos is described as either ‘in revolution or in rest’. It is very likely that Epicurus here made use of a very early doxographical tradition; cf. Runia (1997), Bakker (2016), Runia (2018) 406.

(4) There is a striking linguistic parallel between T’s text which speaks of a whirling movement τροχοῦ δίκην and the description of the earth’s movement at A 3.13.3 Ἡρακλείδης ὁ Ποντικός καὶ Ἐκφαντος ὁ Πυθαγόρειος κινουσι μὲν τὴν γῆν, οὐ μὴν γε μεταβατικῶς, ἀλλὰ τρεπτικῶς, τροχοῦ δίκην ἐνηξονισμένην ἀπὸ δυσμῶν ἐπ’ ἀνατολὰς περὶ τὸ ἴδιον αὐτῆς κέντρον. Exactly the same phrase is used, which suggests that T will have derived it from A, but from another text than 3.13.3.

The layout presented by Diels in the *DG* suggests that these doxai should be added to the present chapter. In our view, however, it is more likely that they point to the possibility of an additional chapter in A with the heading Περὶ κινήσεως κόσμου that was passed over by P in the process of epitomisation and not utilised by S. If this is correct, it will be one of the very few chapters not included by P (see the discussion at M–R 1.186). S may have passed over the diaeresis because it is anonymous and he often leaves out such lemmata which are difficult to include in his coalesced clusters.

Diels suggested that the two alternative kinds of motion—like a millstone and like a cartwheel—might go back to the thought of the Milesians Anaximenes and Anaximander respectively, his inspiration being the description of Anaximander’s view on the motion of the sun in terms of a cartwheel (referred to A 2.20.1, cf. 2.25.1 on the moon). He included the former in *VS* (3A12 = 13A12 DK), but not the latter. See now Anaximander fr. 135, Anaximenes fr. 112 Wöhrle. It is very difficult, however, to determine how the contrast between the two kinds of motion might be explained. For some suggestions see the discussion at M–R 2.334. Couprie (2018) 123 rightly notes that in this text it is the cosmos that is moving, not the heavenly bodies as in the reports on the Milesians. In a private communication he also points out that in the archaic period the millstone was not horizontal as it became later, but stood vertically. This makes the contrast between horizontal and vertical movement suggested at M–R 2.334 less persuasive.

Another fragment that might possibly be assigned to this missing chapter is found at S 1.21.3b. It is the second of a cluster of three Stoic doxai (p. 183.1–2 Wachsmuth): μήτε αὔξεσθαι δὲ μήτε μειοῦσθαι κόσμον, τοῖς δὲ μέρεσιν ὅτε μὲν παρεκτείνεσθαι πρὸς πλείονα τόπον, ὅτε δὲ συστέλλεσθαι. Diels placed this as part of 2.4, but no reason can be given why it should be placed in a chapter on the cosmos' genesis and destruction. On the other hand, increase and diminution are types of motion in the Aristotelian scheme (mentioned as such at S 1.19.1, almost certainly from AD). We think it possible that it derived from the chapter on the cosmos' motion. On the Stoic doctrine involved (expansion and contraction, but no increase or diminution because the amount of matter remains the same) see Hahm (1977) 32 and n. 16.

In our *Specimen reconstructionis* we included this postulated missing chapter with its three doxai as part of our reconstruction, naming it ch. 2.2a: see M–R 2.331–336. The matter remains speculative, however, and we have decided not to include hypothetical chapters of this kind in the present edition. See further General Introduction, section 2.8 and n. 83.

Liber 2 Caput 3

P^B: ps.Plutarchus 886D–E; pp. 329^a9–330^a12 Diels—**P^E**: Eusebius *PE* 15.34, p. 408.14–20 Mras, cf. 7.11.13, pp. 385.24–386.3; 15.32.8, p. 406.8–9—**P^G**: ps.Galenus *HPh* c. 46; p. 621.13–19 Diels; pp. 148–155 Jas—**P^C**: Cyrillus *Juhn.* 2.15.6–15, p. 106, cf. 2.16. 8–12 p. 107 Riedweg—**P^Q**: Qustā ibn Lūqā pp. 140–141 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 156, p. 80 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.29, pp. 36.11–37.1 Delatte
S: Stobaeus *Ecl.* 1.21, p. 181.16–17 (tit.) + 1.21.3c, p. 183.6–11 + 6ab, p. 186.1–11 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b5–6 Henry (titulus solus)
T: Theodoretus *CAG* 4.16, p. 104.17–18 Raeder
Cf. Ach: Achilles *Univ.* c. 5, p. 14.3–6 Di Maria

Titulus γ'. Εἰ ἔμψυχος ὁ κόσμος καὶ προνοία διοικούμενος (P,S)

- §1 οἱ μὲν ἄλλοι πάντες ἔμψυχον τὸν κόσμον καὶ προνοία διοικούμενον. (P₁,S₁,T₁)
- §2 Λεύκιππος δὲ καὶ Δημόκριτος καὶ Ἐπίκουρος οὐδέτερα τούτων, φύσει δὲ ἀλόγῳ ἐκ τῶν ἀτόμων συνεστῶτα. (P₂,S₂,T₂) 5
- §3 Ἐκφαντος ἐκ μὲν τῶν ἀτόμων συνεστάναι τὸν κόσμον, διοικεῖσθαι δὲ ὑπὸ προνοίας. (S₃)
- §4 Ἀριστοτέλης οὐτ' ἔμψυχον ὅλον δι' ὅλου, οὔτε μὴν αἰσθητικὸν οὔτε λογικὸν οὔτε νοερὸν οὔτε προνοία διοικούμενον· τὰ μὲν γὰρ οὐράνια τούτων πάντων κοινωνεῖν, σφαίρας γὰρ περιέχειν ἐμψύχους καὶ ζωτικὰς, τὰ δὲ περίγεια μηδενὸς αὐτῶν, τῆς δ' εὐταξίας κατὰ συμβεβηκὸς οὐ προηγουμένως μετέχειν. (P₃,S₄) 10

§1 anonymi —; §2 Leucippus 67A22 DK; §2 Democritus fr. 23, 589 Luria; §2 Epicurus fr. 382 Usener; §3 Echphantus 51.4 DK; §4 Aristoteles cf. *Cael.* 2.3 285a29, 286a9–12, AD fr. 9 Diels

titulus Εἰ ... διοικούμενος ^{PB(1,1)DEQSy} : καὶ προνοία διοικούμενος om. ^{PB(11)DGPs}, cf. ^{PC} 2.15 εἰ ἔμψυχος ὁ κόσμος ἢ μή : cf. S qui conflat tit. Περί κόσμου (2.1) καὶ εἰ ἔμψυχος καὶ προνοία διοικούμενος (2.3) καὶ ποῦ ἔχει τὸ ἡγεμονικόν (2.5a) καὶ πόθεν τρέφεται (2.5) §1 non hab. ^{PE} || [2] post ἔμψυχον hab. τε ^{PG} || καὶ] om. S ins. Wachsmuth §2 [4] Λεύκιππος δὲ καὶ Δημόκριτος καὶ Ἐπίκουρος S : Δημόκριτος δὲ καὶ Ἐπίκουρος ^{PBGC} (δὲ om. ^{PE}, cf. Q) || [4–5] οὐδέτερα ... συνεστῶτα S : καὶ ὅσοι τὰ ἄτομα εἰσηγούνται καὶ τὸ κενὸν οὐτ' ἔμψυχον οὔτε προνοία διοικεῖσθαι ^{PBEICQ} (φύσει ... ἀλόγῳ om. ^{PE2}) : al. ^{PG} ὅσοι τὸ αὐτόματον εἰσάγουσιν, οὐδέτερον τούτων συγχωροῦσι, φύσει δὲ τινι ἀλόγῳ διοικεῖσθαι §3 [7] ὑπὸ S corr. cod. Aug. Diels Wachsmuth : ἀπὸ ^{SFP} §4 [8] δι' ὅλου ^{PGS} Diels : δι' ὅλων ^{PBEC} || post ἔμψυχον hab. εἶναι ^{PG} || [8–9] οὔτε² ... νοερὸν ^{PB} : οὔτε μὴν αἰσθητικὸν om. ^{PECS} : οὔτε λογικὸν om. ^{PQ} || οὔτε μὴν αἰσθητικὸν (οὔτε) αἰσθητὸν ^{PG} (ins. οὔτε Diels) || [10] κοινωνεῖν ^{PBECSP2} : κοινωνεῖ ^{SFPI} Diels Wachsmuth : μετέχειν ^{PG} || [10–11] ζωτικὰς ^{PBCEGSP2} : ζωτικὰ ^{SFPI} || [11] αὐτῶν τούτων μετεπιληφέναι ^{PG} || [11–12] τῆς ... μετέχειν al. ^{PG} μήτε προηγουμένως μήτε κατὰ συμβεβηκὸς

*Testes primi:***Theodoretus CAG 4.16**

4.16.1 (~ §1) καὶ οἱ μὲν ἔμψυχόν τε καὶ ἔμπνουν,

4.16.2 (~ §2) οἱ δὲ παντάπασιν ἄψυχον.

cf. 1.63 καὶ οἱ μὲν ἔμψυχον εἶναι τὸ πᾶν (~ §1), οἱ δὲ ἄψυχον (~ §2).

Traditio ps.Plutarchi:

Eusebius PE 7.11.13 (de theologia Graeca, cf. c. 1.7) ... καὶ τῶν μὲν μὴ προνοίᾳ θεοῦ διοικεῖσθαι τὸν κόσμον, φύσει δὲ τινι ἀλόγῳ, τῶν δὲ τὰ μὲν οὐράνια μόνᾳ ὑπὸ θεοῦ διοικεῖσθαι, οὐ μὴν καὶ τὰ ἐπὶ γῆς, καὶ πάλιν ἀγέννητον εἶναι τὸν κόσμον καὶ μὴθ' ὅλως ὑπὸ θεοῦ γενέσθαι, αὐτομάτως δὲ καὶ συντυχικῶς ὑφεστάναι, τῶν δὲ ἐξ ἀτόμων καὶ λεπτῶν σωμάτων ἀψύχων τινῶν καὶ ἀλόγων τὴν τοῦ παντός σύστασιν γεγενέναι;

ps.Galenus HPh c. 46 (~ tit.) Εἰ ἔμψυχος ὁ κόσμος (text Jas)

46.1 (~ P1) Οἱ μὲν ἄλλοι πάντες ἔμψυχόν τε τὸν κόσμον καὶ προνοίᾳ διοικούμενον.

46.2 (~ P2) Δημόκριτος δὲ καὶ Ἐπίκουρος καὶ ὅσοι τὸ αὐτόματον εἰσαγοῦσιν, οὐδέτερον τούτων συγχωροῦσι, φύσει δὲ τινι ἀλόγῳ διοικεῖσθαι.

46.3 (~ P3) Ἀριστοτέλης οὕτε ἔμψυχον εἶναι ὅλον δι' ὅλου (οὔτε) αἰσθητὸν οὔτε προνοίᾳ διοικούμενον. τὰ μὲν γὰρ οὐράνια τούτ(ων) πάντ(ων) μετέχειν. σφαίρας γὰρ περιέχειν ἐμψύχους καὶ ζωτικὰς, τὰ δὲ περιγεία μηδενὸς τούτων μετεκληφέναι μήτε προηγουμένως μήτε κατὰ συμβεβηκός.

Cyrillus Juln. 2.15–16

2.15 (quaestio) ἔφη δὲ πάλιν τὰς τῶν παρ' Ἑλλήσι φιλοσόφων δόξας εἰς ἐξήγησιν προτιθεῖς εἰ ἔμψυχος ὁ κόσμος ἢ μὴ, οὕτως·

2.15.1 (~ P1) οἱ μὲν ἄλλοι πάντες ἔμψυχον τὸν κόσμον καὶ προνοίᾳ διοικούμενον εἶπον·

2.15.2 (~ P2) Δημόκριτος δὲ καὶ Ἐπίκουρος καὶ ὅσοι τὰ ἄτομα εἰσηγοῦνται καὶ τὸ κενόν, οὔτε ἔμψυχον οὔτε προνοίᾳ διοικεῖσθαι, φύσει δὲ τινι ἀλόγῳ·

2.15.3 (~ P3) Ἀριστοτέλης οὕτ' ἔμψυχον ὅλον δι' ὅλων οὔτε λογικὸν οὔτε νοερὸν οὔτε προνοίᾳ διοικούμενον· τὰ μὲν γὰρ οὐράνια τούτων πάντων κοινωνεῖν· σφαίρας γὰρ περιέχειν ἐμψύχους καὶ ζωτικὰς, τὰ δὲ περιγεία μηδενὸς αὐτῶν, τῆς δὲ εὐταξίας κατὰ συμβεβηκός, οὐ προηγουμένως, μετέχειν.

cf. 2.16 καὶ οἱ μὲν προνοίᾳ Θεοῦ διοικούμενον (P1), οἱ δὲ καὶ προνοίας δίχα καὶ τὴν τῶν στοιχείων εὐτακτικὴν κίνησιν αὐτοματισμοῖς καὶ συμβεβηκόσιν ἐκνεμεμήκασιν (P2)· καὶ οἱ μὲν ἐψυχωσθῆαι φασιν αὐτόν (P1), οἱ δὲ οὔτε ἔμψυχον οὔτε νοερὸν (P2).

Psellus Omn.Doctr. c. 156 Εἰ ἔμψυχος ὁ κόσμος (~ tit.)**Symeon Seth CRN 3.29** Εἰ ἔμψυχος ὁ κόσμος καὶ προνοίᾳ διοικούμενος (~ tit.)

οἱ μὲν Ἑλληνες τὰς τε σφαίρας τοῦ οὐρανοῦ ἐμψύχους ἐδόξαζον, πρὸς δὲ καὶ τοὺς ἀστέρας, λέγοντες εἰ τὰ ἐνταῦθα γεώδη σώματα ψυχῆς οὐκ ἡμοίρησε, πόσῳ γε μᾶλλον τὰ οὐράνια. ἡμεῖς δὲ λέγομεν ὡς ἡ κίνησις τούτων φυσικὴ ἐστὶ καὶ οὐ ψυχικὴ ... (cf. c. 2.16)

Testes secundi:

Achilles *Univ.* c. 5, p. 14.3–6 ζῶον δὲ φασιν εἶναι τὸν κόσμον (§1)· τὸ γὰρ αὐτοκίνητον εἶναι αὐτὸν καὶ κατὰ τὰ αὐτὰ τὴν περιφορὰν αἰεὶ ποιεῖσθαι καὶ ἀπὸ τῶν αὐτῶν σημείων ἐπὶ τὰ αὐτὰ περιδινεῖσθαι νοῦν ἔχοντός ἐστι, φησὶν ὁ Πλάτων. ἀλλὰ καὶ ὡς ζῶον ζωογονεῖ.

Loci Aetiani:

quaestio A 1.4 Πῶς συνέστηκεν ὁ κόσμος. A 1.25 Περὶ ἀνάγκης (de necessitate et providentia).

§1 A 1.7.2 Θαλῆς νοῦν τοῦ κόσμου τὸν θεόν, τὸ δὲ πᾶν ἔμψυχον ἅμα καὶ δαιμόνων πλήρες. A 1.25.4 Πλάτων τὰ μὲν εἰς πρόνοιαν ἀνάγει, τὰ δ' εἰς ἀνάγκην. A 1.26.4 Χρύσιππος δύναμιν πνευματικὴν τάξει τοῦ παντός διοικητικὴν καὶ πάλιν ἐν τοῖς "Οροις 'εἰμαρμένη ἐστὶν ὁ τοῦ κόσμου λόγος· ἡ λόγος τῶν ἐν τῷ κόσμῳ προνοίᾳ διοικουμένων. A 1.27.5 (de fato) Ζήνων ὁ Στωικὸς ἐν τῷ Περὶ φύσεως δύναμιν κινήτικὴν τῆς ὕλης κατὰ ταῦτα καὶ ὡσαύτως, ἦντινα μὴ διαφέρειν πρόνοιαν καὶ φύσιν καλεῖν'.

§2 A 1.25.3–4 Παρμενίδης καὶ Δημόκριτος πάντα κατ' ἀνάγκην, τὴν αὐτὴν δ' εἶναι εἰμαρμένην καὶ δαίμονα καὶ Δίκην καὶ πρόνοιαν καὶ κοσμοποιόν. Λεύκιππος πάντα κατ' ἀνάγκην, τὴν δ' αὐτὴν ὑπάρχειν εἰμαρμένην· λέγει γὰρ ἐν τῷ Περὶ νοῦ· "οὐδὲν χρῆμα μᾶτην γίγνεται, ἀλλὰ πάντα ἐκ λόγου τε καὶ ὑπ' ἀνάγκης'.

§3 A 1.3.17 "Εκφαντος Συρακούσιος, εἰς τῶν Πυθαγορείων, πάντων τὰ ἀδιάρετα σώματα καὶ τὸ κενόν. τὰς γὰρ Πυθαγορικὰς μονάδας οὗτος πρῶτος ἀπεφήνατο σωματικὰς.

§4 A 2.4.10 Ἀριστοτέλης τὸ ὑπὸ τὴν σελήνην μέρος τοῦ κόσμου παθητικόν, ἐν ᾧ καὶ τὰ περίγεια κηραίνονται. A 4.6.2 Ἀριστοτέλης ἀκίνητον τὴν ψυχὴν πάσης κινήσεως προηγουμένην, τῆς δὲ κατὰ συμβεβηκὸς μετέχειν, καθάπερ τὰ σχήματα καὶ τὰ πέρατα καὶ καθάπαξ τὰ περὶ τοῖς σώμασιν εἶδη.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) P is well attested, with seven witnesses in all. P^{BQC} preserve three lemmata, with only minor differences. Oddly, E omits the first lemma, perhaps because of its similarity to the title (but he had referred to it earlier in Book 7 when in contrasting Hebrew and Greek theology he anticipated the contents of this chapter, as well as chs. 1.7, 2.4). G retains all three lemmata but introduces significant alterations (τὸ αὐτόματον instead of τὰ ἄτομα, μήτε προηγουμένης μήτε κατὰ συμβεβηκὸς instead of κατὰ συμβεβηκὸς οὐ προηγουμένης). Ps retains only the title in the shorter form. Sy writes it out in full but in the chapter itself he

immediately turns to the question of whether the heavenly spheres are ensouled, which is not explicitly broached in A or P; but see further on ch. 2.16.

(2) S provides four lemmata that must be assigned to this chapter. They are all found in 1.21, the title of which alludes to the Aëtian source (see section C below). In 3c the first two lemmata in P are written out. The name-label of Leucippus added to the second and the wording of this doxa differs significantly from P. P's third lemma is found at 6b. It is preceded by the Ecphantus lemma in 6a, which given its contents and wording must come from 2.3.

(3) T paraphrases with extreme concision, so is of no value for the text. But he does retain the chapter's main distinction, which he formulates with the terms ἐμψυχόν τε καὶ ἔμπνοον and παντάπασιν ἄψυχον, and thus makes more explicit than does A. He gives an even briefer formulation of the same distinction at 1.63, οἱ μὲν ἔμπσυχον ..., οἱ δὲ ἄψυχον.

For the evidence of Ach in the tradition close to A see section D(e) below.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The subject of this chapter, with its antithesis between a teleological view of the cosmos' formation and/or structure and the non-teleological view that it is the result of forces to be attributed to necessity or chance is very common in the anterior and later doxographical traditions, with numerous texts in Lucretius, Cicero, Philo, Plutarch, Galen, Plotinus, Augustine and others; see the texts cited below in Section B(a). A number of rhetorical texts show that the themes of the chapter are also used as illustrations of *quaestiones generales* or θέσεις. A text in Quintilian *Inst.* 5.7.35 is particularly revealing, formulating the *quaestio* in the form of the classic antithesis 'whether the world is brought about through a coming together of atoms or is ruled by providence,' reversing the order that we find in A. Sopater gives as a *quaestio* (ζήτημα) the other theme of the chapter, 'whether the cosmos is living'. The same *quaestio* in the form found in A's title is mentioned in a Stobaeian excerpt from the Imperial Cynic philosopher Demonax when he is upbraiding certain people for inquiring about cosmological themes while ignoring their own indecorous behaviour (the subject of A 2.2 is also mentioned).

The link with the theme of providence is made in numerous texts, nowhere more succinctly than in Marcus Aurelius 4.3.2 ἤτοι πρόνοια ἢ ἄτομοι. Many of these, however, have an explicit theological formulation wholly missing in A. A very full example is found at Epictetus 1.12.1–2, with five positions (denial of God's existence, denial of providence *tout court*, providence only of the heavens (cf. §4 in our chapter), providence of earthly regions too, providence of individuals). On these doxographies see Runia (1996) 564 = M–R 3.362. In contrast A's approach in this chapter is cosmological and not theological. The ques-

tion of providence is scarcely noted in the chapter on theology 1.7 (only briefly at A 1.7.1[35–41]); cf. also 1.25.5 (on Plato). There is no separate chapter *Περὶ προνοίας*. The theological formulation, as given for example in Theon rhetor, *εἰ προνοοῦσι θεοὶ τοῦ κόσμου*, was more common than the cosmological one found in Quintilian and discussed above. The formulation *προνοία διοικούμενος* in the chapter heading is plainly indebted to Stoic philosophy, in which it is a common phrase, attributed to Chrysippus for example by Arius Didymus fr. 31 Diels and Sextus Empiricus *M.* 7.432 (the latter text plainly influenced by doxographical texts).

(2) *Sources*. The view that the cosmos is animate and ensouled is by no means foreign to early Greek thought but not explicitly formulated (it is anachronistically attributed to Thales and Pythagoras in doxographies preserved in Diogenes Laertius *V.P.* 1.27 and 8.25). Implicit is the macrocosm–microcosm relation first formulated by Democritus (68B34 DK, cf. also Arist. *Phys.* 8.2 254b24–28). But for the later tradition it is first placed on the map through Plato's emphatic presentation of the cosmos as a ζῶον ἐμψυχον ἔννοον τε which comes into being διὰ τὴν τοῦ θεοῦ ... πρόνοιαν (*Tim.* 30b8–c1). This cosmobiology is taken over and developed further by the Stoa; see Hahm (1977) 57–90. In the important formulation of the topics of physics in D.L. 7.132–133 the subject of whether the cosmos is ensouled or not and whether it is administered by providence are joined together with the question of its destructibility (cf. ch. 2.4). The contrast of this teleological approach to the cosmos' development with the non-teleological view of the atomist tradition was already emphasised by Plato in Book 10 of the *Laws* (esp. 889b–c; text below Section B(b) General texts). A special position is taken by Strato, who is not an atomist but is linked with them in denying that the cosmos is animate (Plu. *Adv.Col.* 115B = fr. 35 Wehrli, 20 Sharples; cf. Lact. *De ira Dei* 10.1 = fr. 19C Sharples). He attributes the cosmos' rational structure to the unconscious workings of nature. This subtlety is not picked up by A.

C Chapter Heading

The chapter heading is composite, combining the two subjects dealt with in the chapter. It departs from the standard umbrella type used so far in the book and denotes the two *quaestiones* explicitly by commencing with the conjunction *εἰ*. The only previous instance has been at ch. 1.5 *εἰ ἔν τὸ πᾶν*, one of the three 'cosmological' chapters at 1.4–6. As noted above, these two *quaestiones* are common in rhetorical texts. They fall under the categories of substance and quality.

Most witnesses agree on the longer heading, which combines the two subjects dealt with in the chapter. The exceptions are G, Ps and the Planudean

mss. of P^B, who omit the second half. The longer title is also attested by S, who includes it in his composite heading for *Ecl.* 1.21, which combines the headings of chs. 2.1, 2.3, 2.5a and 2.5: *Περὶ κόσμου καὶ εἰ ἔμψυχος καὶ προνοία διοικούμενος καὶ ποῦ ἔχει τὸ ἡγεμονικὸν καὶ πόθεν τρέφεται*. It must certainly be retained.

D *Analysis*

a Context

The continuity of the themes relating to the cosmos is better preserved if indeed there was a chapter on the cosmos' motion has fallen out or epitomised away after ch. 2.2 (see the Appendix to ch. 2.2 above). Implicit is the further question: how is that motion caused? The topic is approached through the question of whether the cosmos is ensouled, i.e. is it a living being or not. The question of its providential administration is linked in as a related theme. The connection derives from the implications of its having a soul, which given the cosmos' regular movement and teleological structure, must be rational. The answers will have important implications for the following chs. 2.4–8.

b Number–Order of Lemmata

The witnesses yield four lemmata in total. There is no reason to conclude that the chapter is not complete. The order of the doxai in P and S correspond, with the doxa of Ecphantus added between the second and the third in P. It may be assumed that S preserves the original order, into which he has inserted additional material in his 1.21.4–5.

c Rationale–Structure of Chapter

As the title indicates, the chapter combines two separate subjects on the cosmos: A whether the cosmos is ensouled (A₁) or not ensouled (A₂); and B whether it is administered by providence (B₁) or is constituted by a non-rational natural force (B₂). In theory these can be combined to yield four doxai. The method is reminiscent of ch. 2.1, where two subjects are also combined.

The first two doxai plainly form a strong diaphonia, giving opposed views on the two subjects of the chapter, i.e. A₁–B₁ and A₂–B₂. Both oppositions are well-attested in the doxographical, philosophical and rhetorical traditions (see above section B). The formula *οἱ μὲν ἄλλοι πάντες ... Λεύκιππος δέ κτλ* indicates a majority–minority division of opinion (a similar method is found in ch. 1.14 *Περὶ κενοῦ*).

The final two views are best seen as compromise views, rather than mechanically filling out the two remaining views of the grid (i.e. A₁–B₂ and A₂–B₁). Ecphantus is an atomist, just like the proponents of the second doxa, but he believes in the cosmic role of providence. It is to be noted that the doxa attrib-

uted to him does not explicitly state that the cosmos is not ensouled. The parallel text in Hippolytus (see below under Section E(a)§3) confirms that his atomic bodies 'are moved by a divine force which he also calls intellect and soul'.

The final doxa attributed to Aristotle is also a kind of compromise view. The heavens are ensouled and providentially administered (i.e. A1–A2), the earthly regions are not (A2–B2). This view is consistent with a doxographic tradition in which for Aristotle divine providence is exercised directly in the heavenly realm and only indirectly in the regions below the moon; see the collection of texts in listed in Moraux (1984) 571 n. 33 (who thinks the doctrine is a doxographical invention), Runia (1989) 27, and a selection below Section E(a)§4. The Aristotelian doxography in Diogenes Laertius is a good parallel, but with a more theological emphasis. It uses the Stoic (and non-Aristotelian) term *συμπάθεια* to explain the rule of order on earth, for which A uses the more Aristotelian expression *κατὰ συμβεβηχός*. See also the related view in the next chapter, A 2.4.12. It differs from the classic Aristotelian position expounded in *Met.* A 7. Alexander *Quaest.* 2.21 argues that providence is not accidental (*κατὰ συμβεβηχός*) according to Aristotle, claiming at the end of the discussion that the subject is not easy and that none of his predecessors have developed an adequate analysis of it within the context of Aristotle's doctrine. He also promises to argue against the Platonists, but his positive arguments are not preserved. On his likely views see Sharples (1994) 121 n. 119; on the controversy between Aristotelians and Platonists, Boys-Stones (2018) 325–326, 333.

The structure of the chapter is thus a strong diaphonia followed by two compromise views, both closer to the first alternative than the second, but qualifying it in different ways.

d Further Comments

Individual Points

§2 The texts in P and S cannot be reduced to each other. S adds the name-label of Leucippus, but does not read after the name-label Epicurus the words in P *καὶ ὅσοι τὰ ἄτομα εἰσηγούνται καὶ τὸ κενόν*. Laks (forthcoming) suggests that this formula might have been introduced by P to cover up his shortening the list of name-labels and that it might also include the name of Ecphantus, who, as will be revealed in the next doxa, is an atomist (and then would have been left out by S in his list of names to avoid repetition). The difficulty with this suggestion is that it obscures the clear diaeretic structure, in which Ecphantus represents a compromise view between the two views in the diaphonia of §§1–2. A further difficulty occurs in the final phrase of §2. P's words *φύσει δέ τινη ἀλόγῳ* must be in apposition to *προνοίᾳ*, but the retention of the verb *διοικεῖσθαι* is

then rather awkward. So there is something to be said for S's version φύσει δὲ ἀλόγῳ ἐκ τῶν ἀτόμων συνεστῶτα, which describes the composition of the atomist cosmos rather than its administration. But then it might seem otiose that in the next doxa S repeats the phrase ἐκ μὲν τῶν ἀτόμων συνεστάναι. However, A might have done this on purpose to emphasise the partial agreement with the previous position. All in all we now agree with Laks that it is more likely that S preserves the original text in A. There is indeed very little reason why he should have changed it when inserting the material in his anthology. Our text therefore deviates from what we published in our *specimen reconstructionis* at M–R 2.344. We do not, however, agree with Laks' suggestion that Ecphantus might have been included in the list of names in §2. A further point is that the words οὐδέτερα τούτων in S are very similar to G's paraphrase οὐδέτερον τούτων συγχωροῦσι, but this must be a coincidence; cf. M–R 2.344, with which Jas (2018a) 149 is in agreement. See further Runia (2020).

§3 On Ecphantus and the diaeresis with Epicurus see above A 1.3.16–17, where their views are also juxtaposed, and our Commentary ad loc. at section D(d)§§16–17.

§4 The doxa begins with five phrases connected with οὔτε. Only P^B has all five. E, C and S do not have οὔτε μὴν αἰσθητικὸν (G has αἰσθητόν), Q leaves out οὔτε λογικόν. Diels *DG* 16 argued that the former deleted phrase was interpolated. However, the (near) convergence of P^B, G and Q invalidate this conclusion. As Jas (2018a) 154 convincingly argues, the differing texts are the result of haplography caused by the sequence of multiple instances of οὔτε and adjectives ending in -ον. Moreover it is more likely that they were deleted by some sources than that they were added later. For the view that the cosmos as a whole is an οὐσία ἔμψυχος αἰσθητικὴ see the Stoic doxography at D.L. 7.143. The Homeric verse *Il.* 3.277 (= *Od.* 11.109, 12.323) is cited in Arist. fr. 903 Gigon (= Procl. cited by Olymp. in *Phd.* 4.8–9, 85.1–20 Westerink) to show that the heavens have sight and hearing only (the same verse in Ach §5, p. 14.11 and ps.Plut. *Vit.Hom.* 105 is used of the sun). This view is too subtle for the doxographer.

The final phrase of the doxa uses the appropriate Peripatetic (though not Aristotelian) terminology for this question, as is apparent from a text in the *Quaestiones* of Alexander of Aphrodisias(?) (2.21, cited below Section E(b)§4). Alexander argues that according to Aristotle divine providence does occur in relation to mortal beings, but it does so neither κατὰ συμβεβηκός nor προηγουμένως. This position is more subtle than that taken in A, who states that being providentially administered applies to the heavenly bodies, but not to the earthly realm that obtains its ordered state contingently rather than as a primary and direct result of (divine) providential activity. G may have been influenced by such a text when he writes μήτε προηγουμένως μήτε κατὰ συμ-

βεβηχός, but this reading contradicts the earlier part of the doxa and does not make good sense, especially when the phrase τῆς δ' εὐταξίας is omitted.

e Other Evidence

The 'cousin-writing' Ach very briefly states that the cosmos is a living being as part of his chapter on the substance of the heaven. He gives a Platonic doxa that differs from A. It draws attention to the self-moved nature of the cosmos (i.e. explicating that it is ἔμψυχος, though the term νοῦς is used rather than ψυχή). Of course it is possible that a similar doxa was originally present in A if there was a missing chapter on the cosmos' motion; see the Appendix to ch. 2.2. But Ach returns to the narrower tradition when he discusses whether the cosmos requires food a few lines further (see on ch. 2.5).

E Further Related Texts

a Proximate Tradition

General texts: Cicero *ND* 1.18 (Velleius the Epicurean) *audite ... non futilis commenticiasque sententias ..., nec anum fatidicam Stoicorum Pronoeam, quam Latine licet Providentiam dicere, neque vero mundum ipsum animo et sensibus praeditum ... ND* 1.23 *qui vero mundum ipsum animantem sapientemque esse dixerunt, nullo modo viderunt animi natura intellegentis in quam figuram cadere posset. ND* 2.45 (Balbus the Stoic) *hunc ipsum mundum ... animantem esse et deum. Ac. 2.119–121 quamcumque vero sententiam probaverit eam sic animo comprehensam habebit ut ea quae sensibus ... quoniam Stoicus est, hunc mundum esse sapientem ... Philo of Alexandria Prov. 1.22 Aucher nec tamen ut alii quidam sapientum, animal esse mundus censendus est. QG 4.188 itidem universum caelum et mundus, quoniam animal est et rationale et animans virtute praeditus et natura philosophus ... Ebr. 199, οἱ χωρὶς ἐπιστάτου καὶ ἡγεμόνος ἀλόγου καὶ ἀπαιτοματιζούσης ἐξάψαντες φορὰς τοῖς ὑπολαμβάνουσι πρόνοιαν καὶ ἐπιμέλειαν ὅλου καὶ τῶν μερῶν θαυμαστήν τιν' εἶναι ἡνιοχούντος καὶ κυβερνώντος ἀπταιστώως καὶ σωτηρίως θεοῦ πῶς ἂν δύναιντο τὰς αὐτὰς καταλήψεις τῶν ὑποκειμένων ποιεῖσθαι πραγμάτων; Plutarch *Isid.* 369A οὐτε γὰρ ἐν ἀψύχοις σώμασι τὰς τοῦ παντὸς ἀρχὰς θετέον, ὡς Δημόκριτος (—) καὶ Ἐπίκουρος (—), οὐτ' ἀποίου δημιουργὸν ὕλης ἓνα λόγον καὶ μίαν πρόνοιαν, ὡς οἱ Στωικοί (*SVF* 2.1108), περιγινόμενῃν ἀπάντων καὶ κρατοῦσαν· ἀδύνατον γὰρ ἢ φλαῦρον ὅτιοῦν, ὅπου πάντων, ἢ χρηστόν, ὅπου μηδενὸς ὁ θεὸς αἴτιος, ἐγγενέσθαι. Galen *Inst. log.* 2.1, p. 5.1 Kalbfleisch (τῶν δὲ προτάσεων) ἔναι μὲν ὑπὲρ ἀπλῆς ὑπάρξεως ἀποφαινονται, καθάπερ ὁπόταν εἴπῃς 'πρόνοια ἔστιν' ἱπποκένταυρος οὐκ ἔστιν'. *Inst.Log.* 14.1, p. 32.6 Kalbfleisch δ' δ' ἐστὶ μέγιστόν τε καὶ πρῶτον ἐφ' ἐκάστου τῶν μὴ φαινομένων αἰσθῆσει, τὸ κατὰ τὴν ὑπαρξιν ἥτοι οὐσίαν † γίγνεται μὴ εἶναι ζητήμ' ἐστίν, ἐν ᾧ γε τὰ τοιαῦτα προβάλλεται ... ἀρὰ γε πρόνοια ἔστιν. *Med.Exp.* 19.2–3 Walzer 'The theory which holds it to be unacceptable that the substance should be dissolved and the separation of its parts brought about holds also that those who say that composite bodies are conjoined with each other by being placed*

in juxtaposition must not be regarded as reliable. For the exponents of the former view assert that whoever says this must inevitably be led to deny the existence of God and His providence for His creation.’ **ps.Galen** *An.Ut.* 1.3–10 Wagner cited below on ch. 5.15 Section E(a) General texts (on whether cosmos is a living being or not); also *An.Ut.* 2.17–3.9 (*SVF* 2.638) ἴδωμεν οὖν εἰ ζῶν ἐστὶν ὁ κόσμος καὶ εἴτε τὴν ἀρχὴν ἐγένετο εἴτ’ αὖ πάλιν τὴν ὁλόκληρον ἐπέσχε φύσιν. κόσμος τοίνυν ἐστὶ σύστημα ἐξ οὐρανοῦ καὶ γῆς καὶ τῶν μεταξὺ φύσεων καὶ ὕδατος καὶ ἀέρος, καὶ τὸ διήκον (ἔχον) διὰ πάντων αὐτῶν ἀρχηγόν καὶ πρωτόγονον πνεῦμα, ὅπερ καλοῦσι παῖδες φιλοσόφων ἢ ψυχὴν ἢ μονάδα ἢ ἄτομον ἢ πῦρ ἢ (3) ὁμνύμωσ τῷ γένει πνεῦμα πρῶτον. ... ἐξ ὧν οὖν ὁ κόσμος ὅλος ἡρμостаὶ καὶ ἐκ τελείων τέλειος καὶ ἐξ αὐτοτελῶν ἀνεκδοκῆς, καὶ ἦν καὶ ἔσται κινούμενον ζῶν. **Lucian** *Icar.* 9 εἶτα καὶ προνοεῖν τῶν καθ’ ἡμᾶς πραγμάτων οὐ πᾶσιν ἐδόκουν οἱ θεοί, ἀλλ’ ἦσαν τινες οἱ τῆς συμπάσης ἐπιμελείας αὐτοὺς ἀφιέντες ... ἔνιοι δὲ ταῦτα πάντα ὑπερβάντες οὐδὲ τὴν ἀρχὴν εἶναι θεοὺς τινὰς ἐπίστευον, ἀλλ’ ἀδέσποτον καὶ ἀνηγεμόνευτον φέρεσθαι τὸν κόσμον ἀπελίμπανον; cf. **Zeus trag.** 17, 35. **Aelius Theon** *Prog.* 121.7–9 ἐπεὶ δὲ τῶν θέσεων αἱ μὲν εἰσι θεωρητικαί, ὅσα θεωρίας ἔνεκα καὶ γνώσεως μόνον ζητοῦνται, οἷον εἰ θεοὶ προνοοῦνται τοῦ κόσμου ... *Prog.* 126.3–4 ἔστω δ’ οὖν ἡμᾶς ζητεῖν, εἰ προνοοῦσι θεοὶ τοῦ κόσμου—followed by a long list of arguments *pro* and *contra*, including the following two *pro*, 126.16–20 ὅτι καὶ τοῖς σοφοῖς δοκεῖ, οἷον Πλάτῳνι Ἀριστοτέλει Ζήνωνι (—), εἰθ’ ὅτι τοῖς νομοθέταις· οὐ γὰρ ἂν ἀσεβείας ἦσαν γραφαί. εἰθ’ ὅτι ἔνδοξοι εἰσι μάλιστα οἱ ἡγούμενοι προνοεῖν ἡμῶν τοὺς θεοὺς. **Sextus Empiricus** *P.* 1.151 δογματικὰς δὲ ὑπολήψεις ἀλλήλαις ἀντιτίθεμεν, ὅταν λέγωμεν ... τοὺς μὲν προνοοῖα θεῶν διοικεῖσθαι τὰ καθ’ ἡμᾶς, τοὺς δὲ ἀπρονοήτως; cf. 1.32, 222. *P.* 3.9 ἔτι καὶ τοῦτο λεκτέον. ὁ λέγων εἶναι θεὸν ἥτοι προνοεῖν αὐτὸν τῶν ἐν κόσμῳ φησὶν ἢ οὐ προνοεῖν, καὶ εἰ μὲν προνοεῖν, ἥτοι πάντων ἢ τινῶν. **Origen** *Cels.* 1.21, p. 22.21–26 Marcovich ὡς εἶθε καὶ Ἐπίκουρος (—) καὶ ὁ ἑλαττων αὐτοῦ εἰς τὴν πρόνοιαν ἀσεβῶν Ἀριστοτέλης καὶ οἱ σῶμα εἰπόντες τὸν θεὸν Στωϊκοί (*SVF* 2.1053) τοῦ λόγου τούτου (sc. Moses) ἤκουσαν· ἵνα μὴ πληρωθῇ ὁ κόσμος λόγου ἀθετοῦντος πρόνοιαν ἢ διακόπτοντος αὐτὴν ἢ ἀρχὴν φθαρτὴν εἰσάγοντος τὴν σωματικὴν, καθ’ ἣν καὶ ὁ θεὸς τοῖς Στωϊκοῖς ἐστὶ σῶμα ... **Nemesius** c. 43, pp. 125.19–127.19 (part of an extensive doxography) Περὶ τοῦ τίνων ἐστὶ πρόνοια. ... ὅτι μὲν οὖν ἔστι πρόνοια καὶ τί ἐστίν, εἴρηται· λείπεται δὲ εἰπεῖν, τίνων ἐστὶ πρόνοια, πότερον τῶν καθ’ ὅλου ἢ τῶν καθ’ ἕκαστα ἢ καὶ τῶν καθ’ ὅλου καὶ τῶν καθ’ ἕκαστα. Πλάτων μὲν οὖν καὶ τὰ καθ’ ὅλου καὶ τὰ καθ’ ἕκαστα πρόνοιαν διοικεῖν βούλεται, διαιρῶν τὸν τῆς προνοίας λόγον εἰς τρία κτλ. (126) ... οἱ δὲ Στωϊκοὶ φιλόσοφοι τὴν εἰμαρμένην καὶ τὸ ἐφ’ ἡμῖν πρᾶττοντες οὐδεμίαν χώραν τῇ προνοίᾳ καταλείπουσιν, ἀλλὰ ταῖς ἀληθείαις καὶ τὸ ἐφ’ ἡμῖν ἀναίρουσιν. (127) Δημόκριτος (68A66 DK) δὲ καὶ Ἡράκλειτος (22A30 DK) καὶ Ἐπίκουρος (—) οὔτε τῶν καθ’ ὅλου οὔτε τῶν καθ’ ἕκαστα πρόνοιαν εἶναι βούλονται· οὗτοι μὲν οὖν ἀκολουθοῦσι ταῖς ἰδίαις ἀρχαῖς· ἐξ αὐτομάτου γὰρ ἡγούμενοι τὸ πᾶν τοῦτο συστήναι, εἰκότως ἀπρονοήτα φάσκουσιν εἶναι τὰ πάντα· ὧν γὰρ οὐδεὶς ἐστὶ δημιουργός, τούτων τίς ἂν εἴη προνοητής; δῆλον γὰρ ὡς αὐτομάτως ἀνάγκη φέρεσθαι τὰ τὴν ἀρχὴν αὐτομάτως γινόμενα. καὶ γὰρ Ἀριστοτέλης ὑπὸ τῆς φύσεως μόνῃς διοικεῖσθαι βούλεται τὰ κατὰ μέρος ... ταύτην γὰρ θεῖαν οὖσαν καὶ τοῖς γενητοῖς πᾶσιν

ένυπάρχουσιν ἐκάστῳ φυσικῶς ὑποτίθεσθαι τὴν τῶν συμφερόντων αἵρεσιν καὶ τὴν τῶν βλαπτόντων φυγὴν. **Sopater Schol. ad Hermogenis Status** 5.3.10–12 Walz, φιλόσοφον οὖν τὸ ζήτημα, ζητοῦμεν γάρ, εἰ κύκλος ὁ κόσμος, καὶ εἰ ὁ κόσμος ζῶν. **Ambrose of Milan de Off.** 1.13.47–48 Testard *sed revertamur ad propositum ... qua occurrimus opinioni eorum qui ... putant vel nihil Deum curare de nobis, ut Epicurei dicunt, vel nescire actus hominum ...* (48) ... *proclive aestimo ut refellam cetera et primo eorum adsertionem, qui Deum putant curam mundi nequaquam habere, sicut Aristoteles adserit usque ad lunam eius descendere providentiam.* cf. **Lactantius Ir.D.** 1.9–10 Ingremeau. **Augustine Acad.** 3.10.56–57 Green *item scio mundum istum nostrum, aut natura corporum, aut aliqua providentia sic esse dispositum.* **C.D.** 18.41.46 Dombart–Kalb *alii* (sc. *mundum*) *mente divina, alii fortuito et casibus agi.* **Theodoret Prov.** 1, PG 83.560B καὶ οἱ μὲν, μηδὲ εἶναι παντελῶς τὸ θεῖον· οἱ δέ, εἶναι μὲν, οὐδενὸς δὲ τῶν ὄντων ἐπιμελεῖσθαι· οἱ δέ, ἐπιμελεῖσθαι μὲν ἔφασαν, σμικρολόγως δὲ τοῦτο ποιεῖν, καὶ τῇ σελήνῃ περιορίζειν τὴν πρόνοιαν, τὸ δὲ λοιπὸν τοῦ κόσμου μέρος ὡς ἔτυχε φέρεσθαι, τῇ τῆς εἰμαρμένης ἀνάγκῃ δουλεύειν ἡναγκασμένον. cf. also CAG 6.6–7.

Chapter heading: Quintilian Inst. 5.7.35 *generalem alterum* (sc. *tractatum*), *in quo inter Stoicos* (SVF 2.1195) *et Epicuri* (—) *sectam secutos pugna perpetua est, regaturne providentia mundus.* **Inst.** 2.2 *ut in generalibus 'an atomorum concursu mundus sit effectus, an providentia regatur ...'* **Demonax** at **Stob. Ecl.** 2.1.11, p. 5.10–13 ἐξεταζόντων τινῶν, εἰ ὁ κόσμος ἔμψυχος ... (see rest of text at A 2.2 Section E(a) General texts). **Eusebius PE** 15.32.8 (ὁ κόσμος) καὶ εἴτε ἔμψυχος οὗτος καὶ προνοία τυγχάνει θεοῦ διοικούμενος εἴτε καὶ τάναντία.

§1 Others: Arius Didymus fr. 31 Diels at **Stob. Ecl.** 1.21.5, p. 185.4–8 (SVF 2.527 on Chrysippus on the heavens) τὸ δὲ περιφερόμενον αὐτῷ ἐγκυκλίως αἰθέρα εἶναι, ἐν ᾧ τὰ ἄστρα καθίδρυται, τὰ τε ἀπλανῆ καὶ τὰ πλανώμενα, θεία τὴν φύσιν ὄντα καὶ ἔμψυχα καὶ διοικούμενα κατὰ τὴν πρόνοιαν. **Diogenes Laertius VP.** 1.27 (on Thales, 11A1 DK) ἀρχὴν δὲ τῶν πάντων ὕδωρ ὑπεστήσατο, καὶ τὸν κόσμον ἔμψυχον καὶ δαιμόνων πλήρη. **VP.** 3.71 (on Plato) κόσμον ... ἔμψυχόν τε εἶναι διὰ τὸ κρεῖττον εἶναι τοῦ ἀψύχου τὸ ἔμψυχον. **VP.** 7.139 (on the Stoics, SVF 2.634) οὕτω δὴ καὶ τὸν ὅλον κόσμον ζῶν ὄντα καὶ ἔμψυχον καὶ λογικόν. **VP.** 7.142–143 (SVF 2.633, 3 Boeth. 6) ὅτι δὲ καὶ ζῶν ὁ κόσμος καὶ λογικὸν καὶ ἔμψυχον καὶ νοερὸν καὶ Χρύσιππος ἐν α' φησὶν Περὶ προνοίας (SVF 2.633) καὶ Ἀπολλόδωρος φησὶν ἐν τῇ Φυσικῇ (SVF 3 Apoll. 10) καὶ Ποσειδώνιος (F 99A E.-K., 304 Theiler)· ζῶν μὲν οὕτως ὄντα, οὐσίαν ἔμψυχον αἰσθητικήν. τὸ γὰρ ζῶν τοῦ μὴ ζώου κρεῖττον· οὐδὲν δὲ τοῦ κόσμου κρεῖττον· ζῶν ἄρα ὁ κόσμος. Βόηθος (SVF 3 Boethus 6) δὲ φησὶ οὐκ εἶναι ζῶν τὸν κόσμον. **VP.** 8.25 (on Pythagoras, 58B1 DK) καὶ γίνεσθαι ἐξ αὐτῶν (sc. στοιχείων) κόσμον ἔμψυχον, νοερόν. **Philodemus Piet.** (PHerc. 1428) col. iv.26–28 Henrichs (on Chrysippus, SVF 2.1076) τόν τε κόσμον | ἔμψ[υ]χον εἶναι καὶ | θεόν. **Sextus Empiricus M.** 7.434 (on Chrysippus, SVF 3.657) εἰ δ' οὐδ' αὐτὸ τοῦτο ᾗδε τὸ ὅτι πάντα ἀγνοεῖ, πῶς περὶ πολλῶν δογματίζει, τιθεὶς τὸ ἓνα εἶναι κόσμον καὶ προνοία τοῦτον διοικεῖσθαι καὶ διόλου τρεπτὴν εἶναι τὴν οὐσίαν καὶ ἄλλα παμπληθῆ; **M.** 9.104 (on Zeno, SVF 1.111) νοερὸς ἄρα καὶ ἔμψυχός ἐστιν ὁ κόσμος.

§2 Leucippus Democritus Epicurus: Lucretius DRN 5.144 (on the parts of the world) *haud igitur constant divino praedita sensu, / quandoquidem neque-*

unt vitaliter esse animata. **Plutarch** *Adv.Col.* 1115B Στράτων (fr. 35 Wehrli, 20 Sharples) οὐτ' Ἀριστοτέλει κατὰ πολλὰ συμφέρεται καὶ Πλάτωνι τὰς ἐναντίας ἔσχηκε δόξας περὶ κινήσεως ... καὶ τελευτῶν τὸν κόσμον αὐτὸν οὐ ζῶν εἶναι φησι, τὸ δὲ κατὰ φύσιν ἔπεσθαι τῷ κατὰ τύχην ... **Josephus** *Ant.* 10.277 (on the reader of the book Daniel) καὶ τοὺς Ἐπικουρείους (—) ἐκ τούτων εὐρίσκειν πεπλανημένους, οἱ τὴν τε πρόνοιαν ἐκβάλλουσι τοῦ βίου καὶ θεὸν οὐκ ἀξιοῦσιν ἐπιτροπεύειν τῶν πραγμάτων, οὐδ' ὑπὸ τῆς μακαρίας καὶ ἀφθάρτου πρὸς διαμονὴν τῶν ὄλων οὐσίας κυβερνᾶσθαι τὰ σύμπαντα, ἅμοιρον δὲ ἡνιόχου καὶ ἀφρόντιστον τὸν κόσμον αὐτομάτως φέρεσθαι λέγουσιν. **Eusebius** *PE* 15.5.7 (from Atticus the Platonist) see below §4.

§3 Ecphantus: Hippolytus *Ref.* 1.15 Diels (51.1 DK) τὰ μὲν πρῶτα ἀδιαίρετα εἶναι σώματα καὶ παραλλαγὰς αὐτῶν τρεῖς ὑπάρχειν, μέγεθος σχῆμα δύναμις, ἐξ ὧν τὰ αἰσθητὰ γίνεσθαι· εἶναι δὲ τὸ πλῆθος αὐτῶν, ὠρισμένων κατὰ τοῦτο, ἀπειρον. κινεῖσθαι δὲ τὰ σώματα μῆτε ὑπὸ βάρους μῆτε πληγῆς, ἀλλ' ὑπὸ θείας δυνάμεως, ἣν νοῦν καὶ ψυχὴν προσαγορεύει. τούτου μὲν οὖν τὸν κόσμον εἶναι ιδέαν, δι' ὃ καὶ σφαιροειδῆ ὑπὸ θείας δυνάμεως γεγονέναι. τὴν δὲ γῆν μέσον κόσμου κινεῖσθαι περὶ τὸ αὐτῆς κέντρον ὡς πρὸς ἀνατολήν.

§4 Aristotle: Arius Didymus at *Stob. Ecl.* 1.22.1c, latter part also cited at 1.23.2 (on Aristotle, AD fr. 9 Diels) περιέχεσθαι δὲ ταῦτα ὑπὸ τοῦ αἰθέρος, ἔνθα τὰ θεῖα διανενημεμένα κατὰ σφαίρας ἴδρυται τῶν λεγομένων ἀπλανῶν τε καὶ πλανωμένων ἀστέρων. ὅσας δὲ εἶναι τὰς σφαίρας, τοσούτους ὑπάρχειν καὶ τοὺς κινούντας θεοὺς ταύτας, ὧν μέγιστον τὸν πάσας περιέχοντα, ζῶν ὄντα λογικὸν καὶ μακάριον, συνεκτικὸν καὶ προνοητικὸν τῶν οὐρανίων. συνεστάναι δὲ τὰ ἄστρα καὶ τὸν οὐρανὸν ἐκ τοῦ αἰθέρος, τοῦτον δὲ οὔτε βαρὺν οὔτε κοῦφον, οὔτε γενητὸν οὔτε φθαρτὸν, οὔτε αὐξόμενον οὔτε μειούμενον ἐς αἰεὶ διαμένειν ἄτρεπτον καὶ ἀναλλοίωτον πεπερασμένον καὶ σφαιροειδῆ καὶ ἑμψυχον κινούμενον περὶ τὸ μέσον ἐγκυκλίως. **Diogenes Laertius** *VP.* 5.32 (on Aristotle) διατείνειν δὲ αὐτοῦ (sc. τοῦ θεοῦ) τὴν πρόνοιαν μέχρι τῶν οὐρανίων καὶ εἶναι ἀκίνητον αὐτόν· τὰ δ' ἐπίγεια κατὰ τὴν πρὸς ταῦτα συμπάθειαν οἰκονομεῖσθαι. **Athenagoras** *Leg.* 25.18–20 Marcovich τοῦτο (i.e. the activities of demons) καὶ τὸν Ἀριστοτέλη ἀπρονόητα εἰπεῖν τὰ κατωτέρω τοῦ οὐρανοῦ ἐποίησεν, καίτοι τῆς αἰδίου ἐπ' ἴσης ἡμῖν μενούσης προνοίας τοῦ θεοῦ. **Ori-gen** *Sel. in Psalmos* MPG 12.1316A ἐντεῦθεν τινες ἀπαθηθέντες τὰ ὑπὸ τὴν σελήνην ἀπρονόητα ἀπεφῆναντο εἶναι· ὧν ἔστι καὶ ὁ Ἀριστοτέλης. **Eusebius** *PE* 15.5.1 πάλιν Μωσέως καὶ τῶν παρ' Ἑβραίοις προφητῶν, οὐ μὴν ἀλλὰ καὶ Πλάτωνος ἐν τούτοις συμφώνως τὸν περὶ τῆς τῶν ὄλων προνοίας λόγον εὐκρινῶς διατεθειμένων, ὁ Ἀριστοτέλης μέχρι σελήνης στήσας τὸ θεῖον τὰ λοιπὰ τοῦ κόσμου μέρη περιγράφει τῆς τοῦ θεοῦ διοικήσεως. *PE* 15.5.7 (from Atticus, fr. 3 Des Places) τί οὖν, φῆσαι τις ἂν, ἐν ταῦτ' ἀτάττει Ἀριστοτέλην καὶ Ἐπίκουρον; ... ἀλλ' οὔτε τοῦτον οὔτε ἐκείνον δίκαιον ἐν προνοίᾳ ἀριθμεῖσθαι λόγῳ. εἴπερ γὰρ καὶ κατ' Ἐπίκουρον τὸ τῆς προνοίας οἴχεται, καίτοι τῶν θεῶν κατ' αὐτὸν πᾶσαν κηδεμονίαν ὑπὲρ τῆς σωτηρίας τῶν οἰκείων ἀγαθῶν εἰσφερομένων, οὕτως ἂν οἴχοιτο καὶ κατ' Ἀριστοτέλην τὸ τῆς προνοίας, εἰ καὶ τὰ κατ' οὐρανὸν ἐν τάξει τινὶ καὶ κόσμῳ διοικεῖται. πρόνοιαν γὰρ ζητοῦμεν ἡμῖν διαφέρουσιν, ἥς οὐ μέτεστι τῷ μῆτε δαίμονας μῆτε ἥρωας μῆτε ὄλων ἐπιδιαμένειν δύνασθαι τὰς ψυχὰς συγκεχωρηκότι. **Ambrose of Milan** *de Off.* 1.13.48 see under

General texts above. **Epiphanius** *Pan.* 3.508.2–7 *Holl* Ἀριστοτέλης ὁ Νικομάχου ... ἔλεγε δὲ δύο ἀρχὰς εἶναι, θεὸν καὶ ὕλην καὶ τὰ μὲν ὑπεράνω τῆς σελήνης θείας προνοίας τυγχάνειν, τὰ δὲ κάτωθεν τῆς σελήνης ἀπρονόητα ὑπάρχειν καὶ φορᾷ τινι ἀλόγῳ φέρεσθαι ὡς ἔτυχεν.

b Sources and Other Parallel Texts

General texts: **Plato** *Leg.* 10.889b–c πῦρ καὶ ὕδωρ καὶ γῆν καὶ ἀέρα φύσει πάντα εἶναι καὶ τύχῃ φασίν, τέχνη δὲ οὐδὲν τούτων, καὶ τὰ μετὰ ταῦτα αὖ σώματα, γῆς τε καὶ ἡλίου καὶ σελήνης ἄστρον τε πέρι, διὰ τούτων γεγενῆσθαι παντελῶς ὄντων ἀψύχων· τύχῃ δὲ φερόμενα τῇ τῆς δυνάμεως ἕκαστα ἐκάστων, ἥ συμπέπτωκεν ἀρμόττοντα οἰκείως πως, θερμὰ ψυχροῖς ἢ ξηρὰ πρὸς ὑγρὰ καὶ μαλακὰ πρὸς σκληρὰ, καὶ πάντα ὅποσα τῇ τῶν ἐναντίων κράσει κατὰ τύχην ἐξ ἀνάγκης συνεκεράσθη, ταύτη καὶ κατὰ ταῦτα οὕτως γεγεννηκέναι τὸν τε οὐρανὸν ὅλον καὶ πάντα ὅποσα κατ' οὐρανόν, καὶ ζῶα αὖ καὶ φυτὰ σύμπαντα, ὥρων πασῶν ἐκ τούτων γενομένων, οὐ δὲ διὰ νοῦν, φασίν, οὐδὲ διὰ τινα θεὸν οὐδὲ διὰ τέχνην ἀλλὰ, ὃ λέγομεν, φύσει καὶ τύχῃ.

Chapter heading: **Stoics** at D.L. 7.133 (not in *SVF*) ἐτέραν δ' αὐτοῦ (sc. κόσμου) σκέψιν εἶναι ἥτις μόνοις τοῖς φυσικοῖς ἐπιβάλλει, καθ' ἣν ζητεῖται ... καὶ εἰ ἔμψυχος ἢ ἄψυχος ...

§1 Others: **Plato** *Tim.* 30b–c οὕτως οὖν δὴ κατὰ λόγον τὸν εἰκότα δεῖ λέγειν τόνδε τὸν κόσμον ζῶον ἔμψυχον ἔνουν τε τῇ ἀληθείᾳ διὰ τὴν τοῦ θεοῦ γενέσθαι πρόνοιαν. **Stoics** (dialectics, *SVF* 2.221 at S.E. *M.* 8.244) ἀπὸ μὲν οὖν ἀληθοῦς ἀρχόμενον ἐπ' ἀληθὲς λήγει τὸ 'εἰ εἰσὶ θεοί, προνοία θεῶν διοικεῖται ὁ κόσμος' **Philo of Alexandria** *Prov.* 2.74 *Aucher* ... *ita movente providentia, quae, ut dicit Chrysippus* (*SVF* 2.1150) *et Cleanthes* (*SVF* 1.548), *nihil praetermisit pertinentium ad certiore utilioemque dispensationem*. **Epictetus** 1.12.1–2 περὶ θεῶν οἱ μὲν τινὲς εἰσιν οἱ λέγοντες μὴδ' εἶναι τὸ θεῖον, οἱ δ' εἶναι μὲν, ἀργὸν δὲ καὶ ἀμελὲς καὶ μὴ προνοεῖν μηδενός, τρίτοι δ' οἱ καὶ εἶναι καὶ προνοεῖν, ἀλλὰ τῶν μεγάλων καὶ οὐρανίων, τῶν δ' ἐπὶ γῆς μηδενός· τέταρτοι δὲ οἱ καὶ τῶν ἐπὶ γῆς καὶ τῶν ἀνθρωπίνων, εἰς κοινὸν δὲ μόνον καὶ οὐχὶ καὶ κατ' ἰδίαν ἐκάστου· πέμπτοι δ', ὧν ἦν καὶ Ὀδυσσεὺς καὶ Σωκράτης ... **Marcus Aurelius** 4.3.2 ἀνανεωσάμενος τὸ διεξευγμένον τό· ἦτοι πρόνοια ἢ ἄτομοι. 6.10 ἦτοι κυκεῶν καὶ ἀντεμπλοκῇ καὶ σκεδασμός ἢ ἔνωσις καὶ τάξις καὶ πρόνοια. cf. 4.27, 9.28, 12.14. **Plotinus** *Enn.* 3.2[47].1.1–10 H.-S. τὸ μὲν τῷ αὐτομάτῳ καὶ τύχῃ διδόναι τοῦδε τοῦ παντὸς τὴν οὐσίαν καὶ σύστασιν ὡς ἄλογον καὶ ἀνδρὸς οὔτε νοῦν οὔτε αἴσθησιν κεκτημένου, δῆλόν που καὶ πρὸ λόγου καὶ πολλοὶ καὶ ἱκανοὶ καταβέβληνται δεικνύντες τοῦτο λόγοι· τὸ δὲ τίς ὁ τρόπος τοῦ ταῦτα γίνεσθαι ἕκαστα καὶ πεποιῆσθαι, ἐξ ὧν καὶ ἐνίων ὡς οὐκ ὀρθῶς γινομένων ἀπορεῖν περὶ τῆς τοῦ παντὸς προνοίας συμβαίνει, καὶ τοῖς μὲν ἐπὶ ἡλθε μὴδὲ εἶναι εἰπεῖν, τοῖς δὲ ὡς ὑπὸ κακοῦ δημιουργοῦ ἐστὶ γεγεννημένος, ἐπισκέψασθαι προσήκει ἄνωθεν καὶ ἐξ ἀρχῆς τὸν λόγον λαβόντας.

§2 Leucippus Democritus Epicurus: **Epicurus** *Ep.Hdt.* at D.L. 10.76 καὶ μὴν ἐν τοῖς μετεώροις φορὰν καὶ τροπὴν καὶ ἔκλειψιν καὶ ἀνατολὴν καὶ δύσιν καὶ τὰ σύστοιχα τούτοις μήτε λειτουργούντος τινος νομίζειν δεῖ γίνεσθαι καὶ διατάττοντος ἢ διατάξαντος καὶ ἅμα τὴν πᾶσαν μακαριότητα ἔχοντος μετὰ ἀφθαρσίας ... **Galen** *UP* 11.8 ὃ δὲ δὴ πάντων μάλιστ' ἂν τις θαυμάσειε καὶ συγχωρήσας ἅπασαν

ταῖς τ' Ἐπικουρείοις (fr. 382 Usener) ἀτόμοις καὶ τοῖς Ἀσκληπιαδαίοις (cf. Val-lance *ANRW* 2.37.1, p. 717) ὄγκοις τὴν ἔμπροσθεν εἰρημένην εὐτυχίαν τοῦτ' οὐκ ἂν ἔτι συγχωρήσειεν, ἀλλ' ἀπιστήσεϊ τε καὶ τινος ἐπιστάτου δικαίου μάλλον ἢ κινή-σεως εὐτυχούς ἔργον εἶναι φήσειεν, ἢ τῶν ὁδόντων ἰσότης ἐστίν. **Plotinus** *Enn.* 2.9[33].15.8 ὁ Ἐπικουρος τὴν πρόνοιαν ἀνελών. **Lactantius** *Ir.D.* 10.47 *Ingremeau cum constet divina providentia mundum regi ... nec ist quisquam, qui ... Leucippi inane commentum, vel Democriti Epicurique levitatem praeferre audeat.*

§4 Aristotle: Aristotle *Cael.* 2.2 285a29–30 ὁ δ' οὐρανὸς ἔμψυχος καὶ ἔχει κινήσεως ἀρχήν. *Cael.* 2.3 286a9–12 θεοῦ δ' ἐνέργεια ἀθανασία· τοῦτο δ' ἐστὶ ζωὴ αἰδῖος. ὥστ' ἀνάγκη τῷ θεῷ κίνησιν αἰδῖον ὑπάρχειν. ἐπεὶ δ' ὁ οὐρανὸς τοιοῦτος (σῶμα γάρ τι θεῖον), διὰ τοῦτο ἔχει τὸ ἐγκύκλιον σῶμα, ὃ φύσει κινεῖται κύκλῳ αἰεῖ. **Alexander of Aphrodisias(?)** *Quaest.* 2.21, p. 65.17–25 Ὅτι μὴ κατὰ συμβεβη-κὸς ἡ πρόνοια κατὰ Ἀριστοτέλη (tit.). πρῶην ἡμῖν γινομένων πρὸς τοὺς ἐταίρους περὶ προνοίας λόγων, καὶ πειρωμένου μου δεικνύναι, ὅτι τέ ἐστι κατὰ Ἀριστοτέλη ἀπὸ τῶν θείων τῶν θνητῶν ἐπιμέλειά τις καὶ πρόνοια, καὶ τίς, καὶ τίνα γινομένη τὸν τρόπον ὄντος ἐτοίμου λέγειν, εἶπέ τις τῶν παρόντων πρώτον ἄξιον εἶναι μαθεῖν, πῶς ἀποκρίνασθαι δεῖ πρὸς τοὺς ἐρωτῶντας, πότερα χρὴ προηγουμένως λέγειν τὰ θεῖα τῶνδε προνοεῖσθαι καθ' ἡμᾶς, ἢ κατὰ συμβεβηκός. οἱ γὰρ οὐ φάσκοντες εἶναι κατὰ Ἀριστοτέλη πρόνοιαν τὴν ὑφ' ἡμῶν λεγομένην γίνεσθαι, πρόνοιαν κατὰ συμβεβηκός φασὶ γίνεσθαι λέγεσθαι. *Quaest.* 2.21, p. 68.12–22 ἀγῶ πρὸς αὐτόν· δῆλον τοίνυν, εἶπον, ἐκ τῶν ὠμολογημένων, ὅτι καθ' ὃν ἂν τις τῶν ὕστερον ῥηθέντων τρόπον τὴν πρόνοιαν γίνεσθαι λέγῃ, οὔτε προηγουμένως οὔτε κατὰ συμβεβηκός ἂν αὐτὴν γίνε-σθαι λέγοι. ... τοῦτου δῆλου γεγονότος δῆλον, ὡς ... οὐθ' ὁ κατὰ τίνα τούτων τῶν τρόπων τὴν πρόνοιαν γίνεσθαι λέγων ἀναιρεῖ τὴν πρόνοιαν, ὡς δοκεῖ ποιεῖν ὁ κατὰ συμβεβηκός αὐτὴν γίνεσθαι λέγων. τὸ γὰρ ἀφεμένους τούτων τινὶ τῶν τρόπων ἀνα-τιθέναι τὴν ἐκ τῶν θείων τῶν ἐν γενέσει τε καὶ θνητῶν πρόνοιαν τοὺς θεοὺς λέγειν διὰ τὴν τῶν θνητῶν σωτηρίαν τὰς οἰκείας ἐνεργείας ἐνεργεῖν παντελῶς ἀλλότριον θεῶν. *Quaest.* 2.21, p. 70.24–71.2 ἔστι μὲν, εἶπον, οὐ ῥάδιος ὁ περὶ τῶν τοιούτων λόγος, καὶ μάλιστ' ἐπεὶ μὴ τῶν πρὸ ἡμῶν ἔργον τις ἐποίησατο τοῦτο δεῖξαι· οὐδεὶς γοῦν δόξει, ὅσα κάμει εἰδέναι μὴ προηγουμένως, τῶν προαγόντων τὸν Ἀριστοτέλους λόγον περὶ τούτου τοῦ προβλήματος διειληφέναι, ὡς δεῖξαι τοῖς ὑφ' αὐτοῦ λεγομένοις συνά-δοντα (τὰ) ὑπ' Ἀριστοτέλους εἰρημένα. ... πειράσομαι δ' ὁμοῦ τῷ περὶ τούτων λόγῳ καὶ τοὺς τὰ Πλάτωνα μὲν ὑπισχνουμένους, σφόδρα δὲ πεπεικότας ἑαυτοὺς ὡς μὴδὲν Ἀριστοτέλους περὶ προνοίας εἰρηκότος, δεικνύναι ὅτι μὴδὲν μετ' ἐπιστάσεώς τε καὶ φροντίδος λέγουσιν.

Liber 2 Caput 4

P^B: ps.Plutarchus 886E–F; pp. 330^a13–332^a5 Diels—**P^E**: Eusebius *PE* 15.35, p. 409.1–8 Mras, cf. 15.32.8, p. 406.9–10, cf. 7.11.13, p. 386.1–3—**P^G**: ps.Galenus *HPH* c. 47; p. 621.20–26 Diels; pp. 156–161 Jas—**P^C**: Cyrillus *Juln.* 2.15.16–25, 2.16.6–8, pp. 106–107 Riedweg—**P^Q**: Qustā ibn Lūqā pp. 140–141, 143 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 157, p. 8 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.30, p. 37.7 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.20.1c, p. 170.10–12 + 1.20.f, pp. 171.9–172.4 + 1.21.6c, p. 186.14–15 + 1.21.6f, p. 187.9–13 Wachsmuth
T: Theodoretus *CAG* 4.16, p. 104.18–20; cf. 1.63, p. 21.5–6 Raeder

Titulus δ'. Εἰ ἄφθαρτος ὁ κόσμος (P)

- §1 Πυθαγόρας Ἡράκλειτος γενητὸν κατ' ἐπίνοιαν τὸν κόσμον, οὐ κατὰ χρόνον. (S10–11, T1)
 §2 οἱ Στωικοὶ ὑπὸ θεοῦ (γεγενῆσθαι τὸν κόσμον). (P1)
 §3 Ἐπίδικος ὑπὸ φύσεως γεγενῆσθαι τὸν κόσμον. (S12) 5
 §4 Ἀρχέλαος ὑπὸ θερμοῦ καὶ ἐμπυχίας συστήναι τὸν κόσμον. (S13)
 §5 Ξενοφάνης Παρμενίδης Μέλισσος ἀγέννητον καὶ αἰδῖον καὶ ἄφθαρτον τὸν κόσμον. (P3, S3, T2, 4)
 §6 οἱ φάμενοι δὲ τὴν διακόσμησιν αἰώνιον ὑπάρχειν περιοδευτικούς εἶναι φασὶ χρόνους, καθ' οὓς κατὰ ταῦτά καὶ ὡσαύτως γίγνεσθαι πάντα καὶ τὴν αὐτὴν διασφῆζεσθαι τοῦ κόσμου διάταξιν τε καὶ διακόσμησιν. (S4) 10

§1 Pythagoras —; Heraclitus 22A10 DK; §2 Stoici *SVF* 2.575; §3 Epidicus —; §4 Archelaus 60A14 DK; §5 Xenophanes 21A37 DK; Parmenides 28A36 DK; Melissus 30A9 DK; §6 anonymi cf. *SVF* 2.597

titulus εἰ ... κόσμος ^{P^{BEGQSY}} : εἰ γεννητὸς ὁ κόσμος ἢ ἀγέννητος· εἰ φθαρτὸς ἢ ἄφθαρτος ^{P^{B(III)}}
 α) in marg. : εἰ ἀγέννητος ὁ κόσμος καὶ ἄφθαρτος ^{P^S} : om. S, sed vid. tit. c. 1.21 Περὶ γενέσεως καὶ φθορᾶς §1 [2–3] Πυθαγόρας ... χρόνον scripsimus, cf. S 1.21.6cf, T; vid. §2 [4] et comm. infra || [2] Ἡράκλειτος Ἡρακλείδης dub. Usener §2 [4] οἱ Στωικοὶ ὑπὸ θεοῦ (γεγενῆσθαι τὸν κόσμον) coniecimus e P : Πυθαγόρας καὶ οἱ Στωικοὶ γενητὸν ὑπὸ θεοῦ τὸν κόσμον ^{P^{B^CQ}} (καὶ γεννητὸν leg. ^{P^C}; post Πυθαγόρας coni. Diels *DG* Mau Lachenaud (et Riedweg in ed. Cyr.) καὶ Πλάτων ex E, cf. G) : Πυθαγόρας καὶ Πλάτων καὶ οἱ Στωικοὶ γενητὸν ὑπὸ θεοῦ τὸν κόσμον ^{P^E} : al. ^{P^G} τὸν Πυθαγόραν τε καὶ Πλάτωνα ὑπὸ θεοῦ γεγονέναι τὸν κόσμον (καὶ πάντας τοὺς διαδεγμένους τούτους) (del. Jas Nic secutus) ὑπολαμβάνειν εἰρήκασιν || continuat P καὶ φθαρτὸν μὲν κτλ ex §9 §3 [5] Ἐπίδικος ^{S^F} : Ἐπίδεκτος ^{S^P} (et Ἐπίδίκτου in marg.) §4 [6] θεοῦ S, corr. Heeren Diels Wachsmuth, prob. Laks–Most || ἐμπυχίας S, ἐμπυχρίας conj. Meineke, quem secuti Diels *DG* et Wachsmuth, reiecit VS, DK §5 non hab. ^{P^G} || [7] Ξενοφάνης Παρμενίδης Μέλισσος S : Ξενοφάνης ^{P^{B^EC^Q}} || ἀγέννητον ^{P^{B^E1}} : ἀγέννητον ^{P^{E2^CS^P}}, δὲ γέννητον ^{S^F} || καὶ αἰδῖον P : εἶναι αἰδῖον ^{S^{F^P}} || [8] τὸν κόσμον ^{P^{B^CS}} : τὸν om. ^{P^E} §6 [9] ante οἱ habet καὶ S, secl. Heeren Diels Wachsmuth || [10] ταῦτα ^{S^{F^P}}, corr. Heeren || [11] αὐτὴν : αὐτοῦ ^{S^{F^P}}, corr. Diels

- §7 Ἀναξίμανδρος Ἀναξίμενης Ἀναξαγόρας Ἀρχέλαος Διογένης Λεύκιππος
φθαρτὸν τὸν κόσμον. (S5,T3)
- §8 καὶ οἱ Στωικοὶ φθαρτὸν τὸν κόσμον, κατ' ἐκπύρωσιν δέ. (S6,cf.P1)
- §9 Πλάτων φθαρτὸν μὲν τὸν κόσμον, ὅσον ἐπὶ τῇ φύσει, αἰσθητὸν γὰρ εἶναι, 15
διότι καὶ σωματικόν, οὐ μὴν φθαρησόμενόν γε προνοίᾳ καὶ συνοχῇ θεοῦ.
(P1,S1)
- §10 Ἀριστοτέλης τὸ ὑπὸ τὴν σελήνην μέρος τοῦ κόσμου παθητικόν, ἐν ᾧ καὶ
τὰ περίγεια κηραίνεται. (P4,S2)
- §11 Ἐμπεδοκλῆς τὸν κόσμον φθεῖρεσθαι κατὰ τὴν ἀντεπικράτειαν τοῦ 20
Νείκου καὶ τῆς Φιλίας. (S7)
- §12 Δημόκριτος φθεῖρεσθαι τὸν κόσμον τοῦ μείζονος τὸν μικρότερον νικῶν-
τος. (S8)
- §13 Ἐπίκουρος πλείστοις τρόποις τὸν κόσμον φθεῖρεσθαι· καὶ γὰρ ὡς ζῶον
καὶ ὡς φυτὸν καὶ πολλαχῶς. (P2,S9) 25

§7 Anaximander 12A17 DK; Anaximenes fr. 121 Wöhrlé; Anaxagoras 59A65 DK; Archelaus 60A14 DK; Diogenes 64A10 DK, T23d Laks; Leucippus 67A22 DK, fr. 353 Luria; §8 Stoici SVF 2.585; §9 Plato cf. *Tim.* 28b–c, 41a–b; §10 Aristoteles cf. ps.Arist. *Mu.* 2 392a32–35; §11 Empedocles 31A52 DK; §12 Democritus 68A84 DK; §13 Epicurus fr. 305 Usener

§7 [12] post Λεύκιππος add. δὲ S^F §8 [14] καὶ] secl. Diels §9 [15] Πλάτων ex P^{EGS}: deest in P^{BCQ}, vid. supra §§1[2], 2[4] || ante nomen hab. P^E καὶ || φθαρτὸν ... κόσμον] εἶναι μὲν ὅσον ἐπὶ τῇ φύσει φθαρτὸν P^G || εἶναι P^{BEC}: ὑπάρχειν P^G || [16] διότι καὶ σωματικόν S Diels: διότι καὶ σωματικόν P^C: διότι σωματικόν P^{B(IEQ)} (σωματικὸς P^{B(III:Laur.31.37)}): διὰ τοῦτο καὶ σωματικόν P^{B(II)}: διὰ τὸ σωματικόν P^{B(III)}: om. P^G §10 [18] post nomen hab. δὲ P^G || μέρος τοῦ κόσμου P^{CQ(ur vid.)} S Diels: τοῦ κόσμου μέρος P^{BE}: τοῦ κόσμου om. P^G || παθητικόν S: παθητὸν P^{BEC}: παθητὸν καὶ φθαρτὸν P^G || [19] κηραίνεται P^{BES} (κορέννυται P^{B(III:Laur.31.37)}): κεράννυται P^Q (nisi mendum interpr.): περαίνεται P^C: om. P^G §11 [20] (γίνεσθαι καὶ) φθεῖρεσθαι perperam con. Sturz, secuti Diels DG (sed om. in VS, DK) Wachsmuth || ἀντεπικράτειαν S^F: ἐπικράτειαν S^P §13 [24–25] Ἐπίκουρος ... πολλαχῶς S (τοὺς κόσμους con. Meineke): Ἐπίκουρος φθαρτὸν, ὅτι καὶ (om. P^{EQ}) γενητὸν (γεννητὸς P^C), ὡς ζῶον ὡς φυτὸν P^{BECQ}: al. P^G Ἐπίκουρος δὲ καὶ οἱ Στωικοὶ φθαρτὸν νομίζουσιν εἶναι, ὅτι γενητὸν

Testes primi:

Theodoretus CAG 4.16

- 4.16.1 (~ §1) καὶ οἱ μὲν κατ' ἐπίνοιαν γενητὸν, οὐ κατὰ χρόνον,
4.16.2 (~ §5) οἱ δὲ ἀγένητον παντελῶς καὶ ἀνάιτιον·
4.16.3 (~ §7) καὶ οὗτοι μὲν φθαρτὸν,
4.16.4 (~ §5) ἐκεῖνοι δὲ ἀφθαρτον.
cf. 1.63 καὶ τὰ ὁρώμενα οἱ μὲν ἀγένητα, οἱ δὲ γενητά.

Traditio ps.Plutarchi:

Eusebius PE 7.11.13 (de theologia Graeca, cf. c. 1.7) καὶ πάλιν ἀγένητον εἶναι τὸν
κόσμον καὶ μὴθ' ὅλως ὑπὸ θεοῦ γενέσθαι, αὐτομάτως δὲ καὶ συντυχικῶς ὑφιστα-

ναι, τῶν δὲ ἐξ ἀτόμων καὶ λεπτῶν σωμάτων ἀψύχων τινῶν καὶ ἀλόγων τὴν τοῦ παντὸς σύστασιν γεγονέναι.

ps.Galenus HPh c. 47 (~ tit.) Εἰ ἄφθαρτος ὁ κόσμος (text Jas)

47.1 (~ P1) τὸν Πυθαγόραν τε καὶ Πλάτωνα ὑπὸ θεοῦ γεγονέναι τὸν κόσμον {καὶ πάντας τοὺς διαδεδεγμένους τούτους} ὑπολαμβάνει εἰρήκασιν. καὶ εἶναι μὲν ὅσον ἐπὶ τῇ φύσει φθαρτὸν, αἰσθητὸν γὰρ ὑπάρχειν, οὐ μὴν φθαρησόμενον προνοίᾳ τοῦ πεποιηκότος.

47.2 (~ P2) Ἐπίκουρος δὲ καὶ οἱ Στωϊκοὶ φθαρτὸν νομίζουσιν {εἶναι}, ὅτι γενητὸν.

47.3 (~ P4) Ἀριστοτέλης δὲ τὸ ὑπὸ τὴν σελήνην μέρος παθητὸν καὶ φθαρτὸν, ἐν ᾧ καὶ περιγία.

Cyrillus Juln. 2.15.16–25

2.15 (quaestio) ἐπειδὴ δὲ σκοπὸς ἦν αὐτοῖς βασανίσαι πάλιν τὸ πότερόν ποτε φθαρτὸς ἂν εἴη κατὰ φύσιν ὁ κόσμος ἢ μή, δεδοξάκασιν ὧδε καὶ περὶ τούτου·

2.15.1 (~ P1) Πυθαγόρας καὶ οἱ Στωϊκοὶ καὶ γενητὸν ὑπὸ θεοῦ τὸν κόσμον, καὶ φθαρτὸν μὲν ὅσον ἐπὶ τῇ φύσει· αἰσθητὸν γὰρ εἶναι διότι καὶ σωματικός, οὐ μὴν δὴ φθαρησόμενόν γε, προνοίᾳ καὶ συνοχῇ θεοῦ·

2.15.2 (~ P2) Ἐπίκουρος φθαρτὸν ὅτι καὶ γεννητός, ὡς ζῶν, ὡς φυτὸν·

2.15.3 (~ P3) Ξενοφάνης ἀγέννητον καὶ ἄϊδιον καὶ ἄφθαρτον τὸν κόσμον·

2.15.4 (~ P4) Ἀριστοτέλης τὸ ὑπὸ τὴν σελήνην μέρος τοῦ κόσμου παθητὸν, ἐν ᾧ καὶ τὰ ἐπίγεια κηραίνεται.

cf. 2.16.6–8 ἕτεροι δὲ γενητὸν, εἰσι δὲ οἱ τούτοις εἰσάπαν ἀνθεστηκότες καὶ διάφοροι τὰς γνώμας ἀφθαρτὸν τε καὶ ἀγέννητον εἶναι λέγουσιν αὐτόν.

Psellus Omn.Doctr. c. 157 Εἰ ἀγέννητος ὁ κόσμος καὶ ἀφθαρτος (~ tit.)

Symeon Seth CRN 3.30 Εἰ ἄφθαρτος ὁ κόσμος (~ tit.)

Loci Aetiani:

titulus cf. A 5.19 Περὶ ζώων γενέσεως, πῶς ἐγένοντο ζῶα καὶ εἰ φθαρτά

quaestio A 1.1.2 πάντα γὰρ τὰ ὀρώμενα, ὅσα μήτε ὑπὸ τύχης μήτε ὑπ' ἀνάγκης μήτ' ἐστὶ θεία μήτε τοιαύτην αἰτίαν ἔχει, φυσικὰ λέγεται καὶ φύσιν ἔχει ἰδίαν· οἷον γῆ πῦρ ὕδωρ ἄλλ' ἄρ' φυτὰ ζῶα· ἔτι δὲ ταῦτα τὰ γινόμενα, ὁμβροὶ χάλαζαι κεραυνοὶ πρηστήρες ἄνεμοι· ταῦτα γὰρ ἔχει ἀρχὴν τινα· οὐ γὰρ ἐξ αἰῶνος ἕκαστον τούτων ἐστὶν ἀλλ' ἀπὸ τίνος ἀρχῆς γίνεται· καὶ ταῦτα μέντοι, οἷον ζῶα φυτὰ, ἀρχὴν γενέσεως ἔχει. A 1.4 Πῶς συνέστηκεν ὁ κόσμος. A 1.24 Περὶ γενέσεως καὶ φθορᾶς. A 4.7 Περὶ ἀφθαρσίας ψυχῆς.

§1 A 1.3.9 Ἡράκλειτος καὶ Ἰππασος ὁ Μεταποντῖνος ἀρχὴν τῶν πάντων τὸ πῦρ· ἐκ πυρὸς γὰρ τὰ πάντα γίνεσθαι καὶ εἰς πῦρ πάντα τελευτᾶν λέγουσι· τούτου δὲ κατασβεννυμένου κοσμοποιεῖσθαι τὰ πάντα. ... πάλιν δὲ τὸν κόσμον καὶ πάντα τὰ σώματα ὑπὸ πυρὸς ἀναλῶσθαι ἐν τῇ ἐκπυρώσει. ἀρχὴ οὖν τὸ πῦρ, ὅτι ἐκ τούτου τὰ πάντα· τέλος δέ, ὅτι καὶ εἰς τοῦτο ἀναλύεται τὰ πάντα. A 1.22.8–

9 καὶ οἱ μὲν πλείους ἀγένητον τὸν χρόνον, Πλάτων δὲ γενητὸν κατ' ἐπίνοιαν. A 1.23.3 Ἡράκλειτος ... κίνησιν δ' αἰδίου μὲν τοῖς αἰδίοις φθαρτὴν δὲ τοῖς φθαρτοῖς ἀπεδίδου. A 5.19.1 καθ' οὗς μὲν γενητὸς ὁ κόσμος, γενητὰ τὰ ζῶα καὶ φθαρτὰ εἰσιν.

§5 A 1.24.1 Παρμενίδης Μέλισσος Ζήνων ἀνήρουν γένεσιν καὶ φθοράν διὰ τὸ νομίζειν τὸ πᾶν ἀκίνητον.

§7 A 1.3.2 Ἀναξίμανδρος ... φησι τῶν ὄντων τὴν ἀρχὴν εἶναι τὸ ἄπειρον· ἐκ γὰρ τούτου πάντα γίνεσθαι καὶ εἰς τοῦτο πάντα φθείρεσθαι· διὸ καὶ γεννᾶσθαι ἀπείρους κόσμους, καὶ πάλιν φθείρεσθαι εἰς τὸ ἐξ οὗ γίνονται. A 1.3.4 (de Anaxagora) ἄρχεται δ' οὕτως· ὁμοῦ πάντα χρήματα ἦν, νοῦς δ' αὐτὰ διήρκε καὶ διεκόσμησε.

§9 cf. A 1.5.4 Πλάτων δὲ τεκμαίρεται τὸ δοκοῦν ... ἐκ τοῦ μὴ ἔσεσθαι αὐτὸν ἄφθαρτον, ἐὰν ᾗ τι ἐξωτέρω αὐτοῦ. ... ἄφθαρτος δ' οὐκ ἔστιν οὐδὲ δύναται εἶναι, γενητὸς ὢν. A 1.22.8–9 cit. supra ad §1.

§10 A 2.3.4 Ἀριστοτέλης οὐτ' ἔμψυχον (sc. τὸν κόσμον) ὅλον δι' ὅλου, οὔτε μὴν αἰσθητικὸν οὔτε λογικὸν οὔτε νοερὸν οὔτε προνοίᾳ διοικούμενον· τὰ μὲν γὰρ οὐράνια τούτων πάντων κοινωνεῖν, σφαῖρας γὰρ περιέχειν ἐμψύχους καὶ ζωτικὰς, τὰ δὲ περίγεια μηδενὸς αὐτῶν, τῆς δ' εὐταξίας κατὰ συμβεβηκὸς οὐ προηγουμένως μετέχειν. A 2.17.5 Ἀριστοτέλης μὴ δεῖσθαι τὰ οὐράνια τροφῆς· οὐ γὰρ φθαρτὰ ἀλλ' αἰδία.

§11 A 1.3.19 Ἐμπεδοκλῆς Μέτwnος Ἀκραγαντίνος τέσσαρα μὲν λέγει στοιχεῖα, πῦρ ἀέρα ὕδωρ γῆν, δύο δ' ἀρχικὰς δυνάμεις, φιλίαν τε καὶ νεῖκος.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

This chapter is unusual in the considerable discrepancies between the two main witnesses P and S. Its reconstruction is therefore difficult and the resultant text more speculative than one would wish.

(1) The tradition of P is well represented with five witnesses. All of them record four doxai except G who has reduced them to three in his usual freer adaptation. In the first doxa P^E has three name-labels (Pythagoras–Plato–Stoics), but Plato is missing in P^{BCQ}. G has Pythagoras and Plato, but combines the Stoics with Epicurus in his second doxa. The first doxa begins by relating that the cosmos is γενητὸς ὑπὸ θεοῦ, which suggests that the subject of the chapter is broader than what the title suggests, i.e. dealing with both the createdness and the indestructibility of the cosmos. As it stands P's chapter gives four coherent options on its subject, but comparison with S shows that the original in A has been reorganized and drastically reduced.

(2) S has divided the lemmata that relate to this subject between his chapters 1.20 and 1.21, combining them with material from A 1.24 and AD. They form four groups:

- (a) S1: 1.20.1c, name-label Plato = second half of lemma 1 in P, treating the cosmos' destructibility only, not whether it is generated.
- (b) S2–9: 1.20.1f = a block of eight doxai including P's lemmata 2–3–4 in places 1–2–8, mainly treating whether the cosmos is destructible or indestructible (but the question of its origin is brought in for the 'eternalist' view).
- (c) S10: 1.21.6c, name-label Pythagoras = first half of lemma 1 in P, describing the cosmos as γενητός κατ' ἐπινόειαν, i.e. discussing whether it is generated.
- (d) S11–13: 1.21.6f = a block of three doxai, of which the first (name-label Heraclitus) is almost identical to the previous one (Pythagoras), i.e. continuing the discussion on whether it is generated.

If these last-mentioned doxai of Pythagoras and Heraclitus are reduced to one, there are 12 doxai in all. As will emerge below, there are good grounds for thinking that one doxa originally present in A was not preserved by S.

(3) T gives a very concise summary of the contents of the chapter through two sets of diaereses. In the first set the doxai of Pythagoras–Heraclitus in S can clearly be recognized in the first alternative, the doxa of Xenophanes in P (with more name-labels in S) less clearly in the second. In the second set the question of the cosmos' destructibility or indestructibility is outlined. The order is thus: γενητός, ἀγέννητος, φθαρτός, ἀφθαρτός. It is surprising that he does not mention the 'mixed' view of Plato (cf. P1 and S1).

B Proximate Tradition and Sources

(1) *Proximate tradition.* The question of the cosmos' generation and destructibility is frequently cited in both rhetorical and philosophical works as a *quaestio generalis* (e.g. Quintilian, Marius Victorinus) or key philosophical topic in the domain of physics (e.g. Philo, Galen, Tertullian). Standard doxographical schemata were developed on the basis of analyses of the question that go back to the Peripatetic tradition as will be discussed below. A fine example is found in the introductory section of Philo's *De aeternitate mundi* (text below; on this text see the detailed analysis in Runia (1981), also (2008b) 35–37 = M–R 3.293–296). It can be summarized as follows (cf. M–R 2.355):

- | | | | | |
|------|----|----|---------------|----------------------|
| (1a) | +A | +B | many kosmoi | Democritus, Epicurus |
| (1b) | | | single cosmos | Stoa |
| (2) | –A | –B | | Aristotle, Ocellus |
| (3) | +A | –B | | Plato, Hesiod, Moses |
- where A = subject to γένεσις, B = subject to φθορά.

This is the same kind of schema that underlies the doxographies in chs. 2.1 and 2.3, where two questions are combined in a grid. Similar doxographies using this schema are found throughout antiquity, with early examples in Varro (preserved by Servius) and Cicero *Luc.* 118–119. Many of these texts must be regarded as proximate to the tradition of the *Placita*; see the listing in section E(a). On the rich continuation of the tradition in Christian texts see the overview by Pépin (1964) 79–100, taking the doxography in Ambrose's *Exameron* as starting-point. Philo adds the distinction between pluralists and unicists (cf. ch. 2.1), which is already implicit in Aristotle and recurs in doxographies in Alexander, Augustine and Simplicius. He has also updated the name-labels so that Democritus is the only remaining Presocratic philosopher. This continues in most subsequent doxographies, unless they are commenting on earlier texts in Aristotle. On the highly interesting schema contained in the recently discovered scholion to Alexander's Commentary on Aristotle's *Physics* see further below at section D(e).

(2) *Sources*. The question of the origin and ultimate destiny of the whole of the physical reality that we experience is one of the key questions of Greek philosophy and its discussion goes back to the very beginnings of the philosophical tradition, as famously stated by Aristotle in his overview in *Met. A.2* 982b12–17 (text below section E(b) General texts). The same author cites it twice as a key dialectical πρόβλημα in the domain of natural philosophy (*Top.* 1.11 104b8, 1.14 105a24) and presents key dialectical-doxographical passages in his *Physics* (8.1 250b11–251a8) and *De caelo* (1.10, 3.1 298b12–299a2) with numerous references to earlier thinkers. These include Plato (*Cael.* 1.10 280a29–32), whose account of the cosmos' genesis in the *Timaeus* (explicit references to the question of whether the cosmos has come into being or not at 27c4–5 and 28b4–7) became a seminal text in the later tradition beginning already with Theophrastus; see the reference to his views in the discussion in the Platonist Taurus recorded by John Philoponus; text below in section E(a) General texts. Philo *Aet.* 117–149 also records four arguments of Theophrastus against those who posit that the cosmos has both a genesis and will perish, which could go back to his Φυσικαὶ δόξαι. This text has excited a vast amount of scholarly discussion; see Sharples (1998b) 131–136, (2008) 57–59; Sedley (1998a). It was also frequently discussed in atomistic sources as a key defining doctrine in their natural philosophy, as can be seen in the remains of Leucippus–Democritus and later Epicurus. See further our remarks above at ch. 2.1 Commentary B and the references to the studies of Furley (1987), Graham (2006) and Sedley (2007).

C Chapter Heading

The heading reveals continuity with the previous chapter. It too has the form of the quaestio, commencing with the conjunction εἰ, and deals with the category of quality. Just as in ch. 2.3, the formulation of the quaestio invites a diaeresis giving a positive and a negative answer, with compromise positions always a possibility. §§2–4 also touch on the question of the cosmos' cause or origin, which will be taken up again in §6.

The heading represents the majority position in the tradition of P. (In S 1.20 it is subsumed under the more general heading taken from A 1.24, Περὶ γενέσεως καὶ φθορᾶς. There is no reference to it in the heading of S 1.21.) A marginal note in a Planudean ms. of P (Ambr. 859) records: εἰ γεννητὸς ὁ κόσμος ἢ ἀγέννητος· εἰ φθαρτὸς ἢ ἄφθαρτος. The scribe has perceived that the title does not cover the chapter's contents well (the same can be said for Ps who gives a less expanded version). The options he uncovers follow the same order as in T. A philosophical treatise by Philo of Alexandria is entitled Περὶ ἀφθαρσίας κόσμου, but in the opening doxography he commences ἄξιον οὖν τοὺς ζητοῦντας εἰ ἀφθαρτος ὁ κόσμος (text below under section E(a) General texts), i.e. exactly the same formulation of the quaestio as in the heading of this chapter. The doxography in the chapter itself covers the questions related to both the cosmos' generation and its destruction, but the treatise focuses mostly on the latter. In the absence of evidence from S, however, the title cannot be considered wholly certain. Like Philo, A may have chosen just one of the four options for his title. But it is possible that he may also have chosen two, e.g. Εἰ γεννητὸς καὶ εἰ ἀφθαρτος ὁ κόσμος. One might compare the title of ch. 5.19 Περὶ ζώων γενέσεως, πῶς ἐγένοντο ζῶα, καὶ εἰ φθαρά. In the absence of further evidence, however, P's title must be retained. We note that a similarly incomplete title is found in the chapter on the indestructibility of the soul at A 4.7.

D Analysis

a Context

The next question to be asked of the cosmos is its origin and its destiny. The question can be asked in terms of time, is it generated and will it come to an end, and in terms of causation, by whom or out of what was it generated, and how or by what will it be destroyed. Both approaches will be taken in this chapter. The question was already raised in the introductory chapter 1.4, Πῶς συνέστηκεν ὁ κόσμος. There is also a clear link with ch. 1.24, Περὶ γενέσεως καὶ φθορᾶς, as *de facto* noted by S. As just noted above, there is also a parallel chapter for living beings as microcosms, ch. 5.19. This chapter refers explicitly to the views of philosophers (without name-labels) on the same questions relating to the cosmos.

b Number–Order of Lemmata

The order of the lemmata in P and S does not correspond, as can be seen in the following table:

P₁ = S₁
 P₂ = S₉
 P₃ = S₃
 P₄ = S₂

Diels in his reconstruction gave priority to the order in P. However, it is very likely that S preserves the order in his two main blocks (see the examples given in M–R 1.226–231). Our reconstruction preserves the order of these two blocks with two exceptions: (i) the Aristotelian doxa at the beginning of the first block (S₂, cf. P₄) seems out of place; (ii) an explanation must be given for the name-label of the Stoics in P₁, which cannot be explained through its occurrence in S₆ as part of the first block.

It is important to recognize, as noted above in section B, that the subject of the chapter is exceedingly common in doxographical texts. Through his knowledge of this tradition P may have been encouraged to deviate from A in his abridgement. The attribution to the Stoics of a view on the cosmos' destructibility that is patently Platonic gives rise to suspicions that P has joined together doxai that were originally separate. It is to be noted that G moves the name-label of the Stoics to the next doxa of Epicurus, which, as the doxographies of Philo and Alexander show, is in fact more accurate (but incomplete since it does not take the difference between multiple kosmoi and a single cosmos into account). This too may have been an initiative of the epitomator based on knowledge of the doxographical tradition (there can no question of G deriving this insight from S).

c Rationale–Structure of Chapter

The structure of the chapter can be understood as follows.

(i) The first doxa presents the view that the cosmos is conceptually, not temporally generated (there does not appear to have been a doxa that it was generated in an unqualified sense). This doxa attributed to Heraclitus is the first of the three doxai in S's second block. As we saw, it should be linked to the Pythagorean doxa cited just a little earlier.

(ii) The next two doxai in S's block move to the question of the cosmos' causal origin. The two views are that it was caused by nature (attributed to the obscure Epidicus; see further under D(d)§3) and by heat and ensoulment (Archelaus). However, there is also a causal view in P's first lemma that the cosmos is γενητὸς

ὕπὸ θεοῦ which is unaccounted for. We propose that it was linked to the name-label of the Stoics preserved by P and represents a third view on the cosmos' causal origin. It is logical to place it first as the overtly theological view, followed by two others that are more 'physical'. P will have combined it with §1 and §9 in our reconstruction. S will have left it out because he thought the views of the Stoa had already been sufficiently accounted for at S 1.20.1e and 1.21.5 (both extracts from AD).

(iii) A then turns to the view that the cosmos is everlasting *a parte ante et post*. S's first block can be integrally taken over, except that its first lemma with the name-label Aristotle (last in P) does not appear to fit in well. It is better left to later in the chapter, where the cosmos' passibility is discussed (S must have seen a link with the cosmic generation and decay taken from 1.24 and AD, and so brought it forward). The assignment of the view that the cosmos has no beginning or end to the Eleatic tradition goes back to Aristotle *Cael.* 3.1 (where only Melissus and Parmenides are mentioned, not Xenophanes), who accuses them of not speaking *φυσικῶς* (text below). In later tradition this view is associated with Aristotle himself; cf. Cic. *Luc.* 119 and Philo *Aet.* 10–11 (but the earlier view is still found at *Prov.* 2.48). The second view in §6 is not given a name-label. The view of an eternal succession of kosmoi is outlined by Aristotle in *Cael.* 1.10 and 3.1 with reference to Empedocles and Heraclitus (texts below). But he does not specify the exact repetition of worlds, a doctrine which later comes to be associated with the Stoa (explicitly in Philo). Von Arnim includes this section as a Stoic fragment in his collection (*SVF* 2.597), but it is far from certain that A had the Stoics in mind, given their reappearance in §8.

(iv) From the fourth doxa in S's block onwards the subject of the cosmos' destructibility is treated, beginning with the unqualified view. As in ch. 2.1, S reveals a lengthy list of Presocratic name-labels which are deleted by P and replaced by the name-label of Epicurus, which he takes over from the final doxa §13. Thereafter there are three views are given in which the destructibility of the cosmos is qualified: Stoics, Plato and then the Aristotelian doxa. The Stoic view is truncated because it does not mention the cyclical nature of the cosmos' destruction (this also occurs in Cic. *Luc.* 119). The Platonic view is presented in the standard Middle Platonist formulation based ultimately on the *Timaeus*. See for example Philo *Aet.* 13, who cites *Tim.* 41a. This interpretation goes back to Aristotle. See further the texts cited in section E below. Aristotle is not given his usual role of defending the cosmos' eternity (cf. Cic. *Luc.* 119, Philo *Aet.* 10–11), but represents a third qualified view, admitting passibility for part of the cosmos (but presumably not the whole).

(v) The last three doxai in S's block treat the cosmos' destruction from the causal viewpoint. Empedocles' view is placed here, rather than with the eter-

nalists (as in Arist. *Cael.* 1.10). Democritus illustrates the atomist viewpoint (hence his name was left out in the list in §7). The final doxa with the name-label Epicurus differs in that it emphasizes the various possibilities of cosmic destruction. On four other occasions Epicurus is placed last with a doxa emphasizing multiple possibilities (which we have called a ‘modal’ view, cf. M–R 2.326): see also chs. 2.2.5, 2.13.15, 2.22.4, 3.15.11. Unlike in these other texts, however, the key term ἐνδέχασθαι is not used. For the divergence of the doxa attributed to Epicurus in P see below D(d)§13.

If this reconstruction is accepted, it emerges that the chapter presents a symmetrical arrangement, as also suggested by T’s very brief summary. It can be summarised as follows (see also the diagram at M–R 2.362):

- A cosmos γενητός
 - 1 with regard to time
 - a but not in time (= §1)
 - 2 with regard to cause
 - a by God (= §2)
 - b by nature (= §3)
 - c by heat/ensoulment (= §4)
- B cosmos αἰδιος
 - 1 unconditionally (= §5)
 - 2 conditionally, i.e. periodically (= §6)
- C cosmos φθαρτός
 - 1 unconditionally (= §7)
 - 2 conditionally
 - a in ἐκπύρωσις (= §8)
 - b φθαρτόν/οὐ φθαρησόμενον (= §9)
 - c partial γένεσις/φθορά (= §10)
 - 3 with regard to cause
 - a through νεῖκος/φιλία (= §11)
 - b through collision (= §12)
 - c through diverse ways (= §13)

The symmetry of the structure is very striking and must surely have been the result of deliberate planning. The result is that the chapter diverges quite markedly from other treatments of the subject. See further our remarks in B above and D(e) below.

d Further Comments

Individual Points

§1 The two formulas at S 1.20.6c & 6f, γενητὸν κατ' ἐπίνοιαν τὸν κόσμον, οὐ κατὰ χρόνον (Pythagoras) and οὐ κατὰ χρόνον εἶναι γενητὸν τὸν κόσμον, ἀλλὰ κατ' ἐπίνοιαν (Heraclitus) amount to the same. Preference is to be given to the former on account of T's evidence. The attribution of the view to Pythagoras can be understood through his connection to the later Platonic tradition, in which the interpretation of Plato's presentation of the genesis of the cosmos was discussed from Aristotle onwards. See the discussion of this text in Burkert (1972) 71, Baltes (1976) 94–96. Both scholars see a significant role for the early Academy (Speusippus, Xenocrates) in this development. The phrase κατ' ἐπίνοιαν occurs in various doxographical texts, including Stob. *Ecl.* 1.11.4, p. 132.10 (Arius Didymus on Aristotle), D.L. 7.135 (Posidonius), Alc. *Did.* 9.1 (Plato). It often introduces a contrast, the precise nature of which is determined by the context. Here the contrast is between 'in thought' and 'in reality' (cf. κατὰ ἀλήθειαν at Proclus in *Tim.* 1.290.7 cited below in section E(b)§1). In Tertullian *Apol.* 11.5 a contrast is made between Pythagoras for whom the cosmos is uncreated and Plato for whom it is created.

The attribution to Heraclitus, on the other hand, is puzzling and runs counter to his usual place in the tradition, as indicated by texts commencing with Arist. *Cael.* 1.10 279b16. Usener's suggestion that the name-label may have been Heraclides is thus understandable but far too risky to be taken over (it is considered plausible by Cherniss 1944, 423 n. 356).

§2 The verb in the conjecture has to remain uncertain. From P the supplement ὑπὸ θεοῦ γενητὸν τὸν κόσμον is possible, but in the light of §§3–4 a verb is to be preferred above an adjective.

§3 The name-label Epidicus is unknown from elsewhere and must be regarded as suspect. But it occurs in Photius' list at *Bibl.* 167 155.35 Henry, so must have been present in his copy of S. This evidence confirms that the reading Ἐπίδικος in ms. F should be preferred above that of Ἐπέδεκτος in ms. P (and Ἐπιδίκτου in the margin).

§4 The doxa has been theologized in the mss. of S. Our text follows Heeren in emending θεοῦ to θερμοῦ. But we do not make the further step of emending to ἐμψυχρίας, as conjectured by Meineke (and initially accepted by Diels and Wachsmuth) because this noun occurs nowhere in Greek literature.

§5 The variants ἀγέννητον/γεννητόν in P^C and S are not so likely in the light of §1.

§7 Of the six name-labels here only one does not occur in the list of thinkers who subscribe to an infinite number of kosmoi in A 2.1.3. But no link is made with that question here. See the comment further below D(e).

It is not impossible that S preserves an additional name-label from this doxa at S 21.2, p. 172.9: Φιλόλαος ἄφθαρτον τὸν κόσμον εἶναι. λέγει γοῦν οὕτως ἐν τῷ Περὶ ψυχῆς κτλ. For this to be the case he must have deleted it when writing out the doxa earlier because he knew he would be citing a text from Philolaus a little later. However, it seems more likely that he writes out Philolaus' view in the standard terminology of this question as an introduction to the text he is about to cite.

§9 We note that at the end of A 1.5.4 in a Platonic doxa on the unicity of the universe, A himself presents the counter argument that the cosmos cannot be ἄφθαρτος because it is γενητός.

§10 This doxa can be linked to Aristotle's doctrine that natural catastrophes only occur in the sublunary realm; cf. *Mete.* 1.14, *Met.* Λ. 8 1074a38–b14, *De philosophia* fr. 8 Ross.

§11 Sturz's conjecture (γίνεσθαι καὶ) φθείρεσθαι must be rejected because he has not taken the structure of the chapter into account. The doxai in this final part of the chapter treat the aspect of destruction only. For other considerations against the conjecture see O'Brien (2000).

§13 There is a considerable divergence between the formulation of the doxa attributed to Epicurus as found in P and in S. In S's block of eight lemmata the doxa follows neatly from the previous one (in fact the words τὸν κόσμον φθείρεσθαι may have been added by S). The text in P, Ἐπικούρος φθαρτόν, ὅτι καὶ γενητόν, ὡς ζῶν ὡς φυτόν, shares only the name-label and the two illustrations. On the basis of its content, which is perfectly acceptable, it would have to be placed after §7. However, a choice has to be made between the two and it would seem much easier to explain how P might have altered the original than how S did it. Because P has drastically reduced this chapter he needed a representative for the destructionist view and the fact that Epicurus held this view was well known. As noted above in section B, this doxography was among the best known in the entire φυσικὸς λόγος. It must be agreed with Bottler (2014) 307, however, that if we are correct, this chapter is a (rare) case where P has not just shortened his original but considerably reworded and restructured it.

e Other Evidence

It would not be difficult in the least to devote an entire monograph to the variations and vicissitudes of this doxography alone, particularly if the links with the related doxographies on the first principles (ch. 1.3), theology (ch. 1.7) and the number and extent of the cosmos (ch. 2.1) are further explored. A's doxography stands squarely within a broad and complex tradition, but also reveals various particular features of its own. We have already mentioned above the symmetrical structure of the chapter. Two further aspects deserve comment.

(1) Unlike Alexander and Simplicius (and to a lesser extent Philo), A does not link up his treatment with the aspect of single and multiple worlds discussed in ch. 2.1. Though not made explicit, the term κόσμος clearly refers to the world we experience. Only the final Epicurean doxa appears to deviate from this (unless the verb φθείρεσθαι in §§12–13 is taken in a future sense).

(2) A striking aspect of the chapter as we have reconstructed it is the inclusion of the aspect of causation for both the cosmos' genesis and its destruction, which looks back to the chapters on principles, cosmology and theology in chs. 1.3–7, but also anticipates the theme of demiurgic creation in 2.6. Brief texts in Quintilian and Galen *PHP* 9.7.9 demonstrate that this aspect was seen as intrinsic to the *quaestio*, as is the aspect of time in other formulations. The theme of causation is also prominent in the Philonic doxography, as we might expect from such a theologically preoccupied thinker. We note that it is also prominent in G's untitled chapter 17, which is not drawn directly from the *Placita* tradition, but shares many themes with it. Here it is the renewed cosmos after the *ecpyrosis* that occurs ὑπὸ τοῦ θεοῦ (p. 609.20 Diels, text below section B(a) General texts).

It is also to be observed that Achilles and the other Aratea do not contain any traces of this doxography, only discussing the ἀρχαί in chs. 1 and 3. This is because the commentator regards Aratus' cosmos as a given and is not concerned with its genesis or possible subsequent fate. One might compare the *De mundo*, but this work does refer to the difference between the supra-lunary and the sub-lunary world (text below section E(b)§10) and clearly assumes the Aristotelian doctrine of the everlasting cosmos.

Of particular interest is the recently discovered fragment from Alexander's Commentary on Aristotle's *Physics* (fr. 539 Rashed) which we have already discussed in relation to A 2.1.2–3; see ch. 2.1 Commentary D(e). The text consists of six different tenets involving both generation and destruction in combination with multiple kosmoi and a single cosmos. It has been thoroughly studied first by its editor Rashed (2011) 488–491 and very recently by Laks (2018). As can be seen from the text cited below in section E(a) General texts, they disagree markedly on its interpretation. Rashed wishes to emend the text in the third, fourth and fifth tenet. Laks shows that these emendations are based on a faulty understanding of its systematics, and argues convincingly that the fourth and fifth belong together as a single view if a second reference to Plato was added. The overlap of Alexander's schema with A's chapter is limited, primarily because it exclusively deals with the combination of generation and destruction, whereas A with the exception of §5 treats them separately (it is closer to, though richer than, Philo's in *Aet.* 7–19). The one Eleatic tenet that they hold in common is in the middle of A 2.4 but occurs at the end of the scholion while

the atomist view of multiple kosmoi begins the scholion's list but in A brings up the rear. Of most interest is the Platonic doxa at §9 where the double formulation (μὲν ... οὐ μὴν) sheds light on the difference between the fourth and fifth tenet—or as Laks argues, tenets 4a and 4b—and is used to justify his conjecture; see (2018) 414, 419. The overlap of name-labels is much greater: only Metrodorus is missing in A, Leucippus and Melissus in Alexander. Ultimately both doxographies derive from Aristotle, but take differing paths.

E Further Related Texts

a Proximate Tradition

General texts: Varro see the text of Servius cited below. **Cicero** *Luc.* 118–119 *princeps Thales* (fr. 71 Wöhrle) ... *ex aqua dixit constare omnia. at hoc Anaximander* (12A9 DK) *populari et sodali suo non persuasit; is enim infinitatem naturae dixit esse e qua omnia gignerentur. post eius auditor Anaximenes* (13A9 DK) ... *Anaxagoras* (59A49 DK) ... *Xenophanes* (21A4 DK) *paulo etiam antiquior unum esse omnia, neque id esse mutabile, et id esse dei neque natum umquam et sempiternum conglobata figura* ... *Melissus* (30A9 DK) *hoc quod esset infinitum et immutabile et fuisse semper et fore. Plato ex materia in se omnia recipiente mundum factum esse censet a deo sempiternum. Pythagorei* (—) *ex numeris et mathematicorum initiis proficisci volunt omnia. ...* (119) *erit ei* (sc. the Stoic) *persuasum ... fore tamen aliquando ut omnis hic mundus ardore deflagret. ... cum enim tuus iste Stoicus Pythagorei* (—) *sapiens syllabatim tibi ista dixerit, veniet flumen orationis aureum fundens Aristoteles* (de *Phil.* fr. 20 Ross) *qui illum desipere dicat; neque enim ortum esse umquam mundum quod nulla fuerit novo consilio inito tam praeclari operis inceptio, et ita esse eum undique aptum ut nulla vis tanto queat motus mutationemque moliri, nulla senectus diuturnitate temporum exsistere ut hic ornatus umquam dilapsus occidat.* **Philo of Alexandria** *Aet.* 3–19 ἄξιον οὖν τοὺς ζητοῦντας εἰ ἄφθαρτος ὁ κόσμος ... §7 τριταὶ δὲ περὶ τοῦ ζητουμένου γεγόνاسι δόξαι, τῶν μὲν αἰδίων τὸν κόσμον φαμένων, ἀγένητόν τε καὶ ἀνώλεθρον, τῶν δὲ ἐξ ἐναντίας γενητόν τε καὶ φθαρτόν· εἰσὶ δ' οἱ παρ' ἑκατέρων ἐκλαβόντες, τὸ μὲν γενητόν παρὰ τῶν ὑστέρων παρὰ δὲ τῶν προτέρων τὸ ἄφθαρτον, μικτὴν δόξαν ἀπέλιπον, γενητόν καὶ ἄφθαρτον οἰηθέντες αὐτὸν εἶναι. (8) Δημόκριτος (fr. 351 Luria) μὲν οὖν καὶ Ἐπικούρος (fr. 304 Usener) καὶ ὁ πολλὸς ὅμιλος τῶν ἀπὸ τῆς Στοᾶς φιλοσόφων γένεσιν καὶ φθορὰν ἀπολείπουσι τοῦ κόσμου, πλὴν οὐχ ὁμοίως· οἱ μὲν γὰρ πολλοὺς κόσμους ὑπογράφουσι, ὧν τὴν μὲν γένεσιν ἀλληλοτυπίας καὶ ἐπιπλοκαῖς ἀτόμων ἀνατιθέασιν, τὴν δὲ φθορὰν ἀντικοπαῖς καὶ προσράξεσι τῶν γεγονότων· οἱ δὲ Στωικοὶ (SVF 2.620) κόσμον μὲν ἓνα, γενέσεως δ' αὐτοῦ θεὸν αἴτιον, φθορᾶς δὲ μηκέτι θεόν, ἀλλὰ τὴν ὑπάρχουσαν ἐν τοῖς οὐσι πυρὸς ἀκαμάτου δύναμιν χρόνων μακραῖς περιόδοις ἀναλύνουσιν τὰ πάντα εἰς ἑαυτήν, ἐξ ἧς πάλιν ἀναγέννησιν κόσμου συνίστασθαι προμηθεῖα τοῦ τεχνίτου. (9) δύναται δὲ κατὰ τοὺς ὁ μὲν τις κόσμος αἰδῖος, ὁ δὲ τις φθαρτὸς λέγεσθαι, φθαρτὸς μὲν ὁ κατὰ τὴν διακόσμησιν, αἰδῖος δὲ ὁ κατὰ τὴν ἐκπύρωσιν παλιγγενεσίαις καὶ περιόδοις

ἀθανατιζόμενος οὐδέποτε ληγούσαις. (10) Ἀριστοτέλης (*de Phil.* fr. 18 Ross) δὲ μήποτ' εὐσεβῶς καὶ ὁσίως ἐνιστάμενος ἀγέννητον καὶ ἄφθαρτον ἔφη τὸν κόσμον εἶναι ... (12) ἔνιοι δ' οὐκ Ἀριστοτέλην τῆς δόξης εὐρετὴν λέγουσιν ἀλλὰ τῶν Πυθαγορείων τινάς ... (13) γενητὸν δὲ καὶ ἄφθαρτὸν φασιν ὑπὸ Πλάτωνος ἐν Τιμαίῳ δηλοῦσθαι ... (17) πατέρα δὲ τοῦ Πλατωνείου δόγματος ἔνιοι νομίζουσι τὸν ποιητὴν Ἡσίοδον, γενητὸν καὶ ἄφθαρτον οἰόμενοι τὸν κόσμον ὑπ' ἐκείνου λέγεσθαι ... (19) μακροῖς δὲ χρόνοις πρότερον ὁ τῶν Ἰουδαίων νομοθέτης Μωϋσῆς γενητὸν καὶ ἄφθαρτον ἔφη τὸν κόσμον ἐν ἱεραῖς βίβλοις. cf. *Ebr.* 199 οἱ τὸν κόσμον ἀγέννητον τοῖς γενητὸν ἀποφαινομένοις. *Her.* 246 ὥσπερ οἱ ἀγέννητον εἶναι λέγοντες τὸ πᾶν τοῖς γένεσιν εἰσηγουμένοις αὐτοῦ, καὶ πάλιν οἱ φθαρῆσθαι τοῖς φθαρτὸν μὲν εἶναι φύσει, μηδέποτε δὲ φθαρησόμενον διὰ τὸ κραταιοτέρῳ δεσμῷ, τῇ τοῦ πεποιηκότος βουλῇ, συνεχέσθαι. *Seneca De otio, Dial.* 8.4.2 (*quaeramus*) ... *inmortalis sit mundus an inter caduca et ad tempus nata numerandus. Quintilian Inst.* 7.2.2 *ut in (sc. quaestionibus) generalibus 'an atomorum concursu mundus sit effectus, an providentia regatur, an sit aliquando casurus'.* *Theophilus of Antioch ad Autol.* 2.8 ἀλλὰ καὶ περὶ τῆς κοσμογονίας ἀσύμφωνα ἀλλήλοις καὶ φαῦλα ἐξεῖπον. πρῶτον μὲν ὅτι τινὲς ἀγέννητον τὸν κόσμον ἀπεφώνησαν, καθὼς καὶ ἔμπροσθεν ἐδηλώσαμεν, καὶ οἱ μὲν ἀγέννητον αὐτὸν καὶ αἰδίων φύσιν φάσκοντες οὐκ ἀκόλουθα εἶπον τοῖς γενητὸν αὐτὸν δογματίσασιν. εἰκασμῷ γὰρ ταῦτα καὶ ἀνθρωπίνῃ ἐννοίᾳ ἐφθέρξαντο, καὶ οὐ κατὰ ἀλήθειαν. *Galen Propr.Plac.* 2, p. 172.31–32 Boudon-Millot πότερον ἀγέννητός ἐστιν ὁ κόσμος ἢ γεννητός ... (ἀγνοεῖν φημι). *Med.exper.* 19.3 Walzer 'Let us ... reflect upon that which concerns the universe, and consider what may be said about it, whether it is originated or not originated.' *Loc.Aff.* 3.5, p. 8.159.2–6 Kühn καὶ περὶ γενέσεως καὶ φθορᾶς ὁμοίως, ὥσπερ γε καὶ περὶ ... τοῦ γεννητὸν εἶναι τὸν κόσμον, ἢ ἀγέννητον. *Pecc.Dig.* 3.4, p. 46.23 De Boer οὐ μὴν εἰ γέγονεν ἢ ἀγέννητος ὁ κόσμος ἐστὶ, δύναται τὸ πρᾶγμα αὐτὸ μαρτυρῆσαι. *PHP* 9.7.9 ὁμοίως δὲ καὶ εἰ γεννητός ἢ ἀγέννητος ὅδε ὁ κόσμος, ὥσπερ γε καὶ εἰ γεγονότος αὐτοῦ θεὸς τις ἐγένετο δημιουργὸς ἢ θεὸς μὲν οὐδεὶς, αἰτία δὲ τις ἄλογός τε καὶ ἄτεχνος εἰργάσατο κατὰ τύχην οὕτως καλὸν αὐτόν. *Alexander of Aphrodisias at Simp. in Cael.* 293.10–23 (on Aristotle, cf. 279b12) καὶ γὰρ περὶ μὲν τὸ γεγονέναι τὸν κόσμον πάντας ὁμογενωμονεῖν φησι τοὺς τε θεολόγους καὶ τοὺς φυσικούς· τῶν δὲ γεγενῆσθαι λεγόντων αὐτὸν οἱ μὲν αἰδίων λέγουσιν, ὥσπερ Ὀρφεὺς καὶ Ἡσίοδος καὶ μετ' αὐτοὺς ὁ Πλάτων, ὡς φησιν Ἀλέξανδρος· τινὲς δὲ τῶν γενητὸν λεγόντων φθαρτὸν λέγουσι, διχῶς δὲ τοῦτο· οἱ μὲν γὰρ οὕτως φθαρτὸν, ὥσπερ ὅτι οὐδὲν ἄλλο τῶν συνισταμένων ἀτόμων, ... οἱ δὲ ἐναλλάξ γίνεσθαι καὶ φθεῖρεσθαι τὸν αὐτὸν καὶ πάλιν γενόμενον πάλιν φθεῖρεσθαι λέγουσι, καὶ αἰδίων εἶναι τὴν τοιαύτην διαδοχὴν, ὥσπερ Ἐμπεδοκλῆς τὴν Φιλίαν λέγων καὶ τὸ Νεῖκος παρὰ μέρος ἐπικρατοῦντα τὴν μὲν συνάγειν τὰ πάντα εἰς ἓν καὶ φθεῖρειν τὸν τοῦ Νεῖκος κόσμον καὶ ποιεῖν ἐξ αὐτοῦ τὸν σφαῖρον, τὸ δὲ Νεῖκος διακρίνειν πάλιν τὰ στοιχεῖα καὶ ποιεῖν τὸν τοιοῦτον κόσμον. *In Phys. lib.* 8 scholion 539 Rashed (on 250b18), see text above on ch. 2.1 section E(a) General texts. *Tertullian Apol.* 47.8 Dekkers *sic et de ipso mundo, natus innatusve sit, decessurus mansurusve sit, variant.* *Minucius Felix Oct.* 34.1–4 Kytzler *ceterum de incendio mundi aut*

*improvisum ignem cadere aut diffindi caelum non credere vulgaris erroris est. (2) quis enim sapientium dubitat, quis ignorat omnia, quae orta sunt, occidere, quae facta sunt, interire? caelum quoque cum omnibus quae caelo continentur, ita ut coepisse desinere fontium dulcis aqua maria nutrire, in vim ignis abiturum Stoicis (SVF 2.595) constans opinio est, quod consumpto umore mundus hic omnis ignescat; (3) et Epicureis (—) de elementorum conflagratione et mundi ruina eadem ipsa sententia est. (4) (—) loquitur Plato: partes orbis nunc inundare, dicit nunc alternis vicibus ardescere et, cum ipsum mundum perpetuum et insolubilem diceret esse fabricatum, addit tamen ipsi artificii deo soli et solubilem et esse mortalem. ita nihil mirum est, si ista moles ab eo, quo exstructa est, destruat. ps.Galen HPh ch. 17, pp. 609.12–610.1 Diels τὸν κόσμον οἱ μὲν γενητὸν εἶναι νομίσαντες τὸν θεὸν ἔφασαν γενονέναι τοῦτου δημιουργόν. ἀλλ' οἱ μὲν γενητὸν εἶναι συγκεχωρηκότες οὐχ ὁμοίως περὶ τοῦ τέλους κεκρίκασιν. ἀλλὰ Πλάτων μὲν ἀνώλεθρον εἶναι νομίζει καὶ ἀθάνατον διὰ τὴν εὐτεχνίαν τοῦ πεποιηκότος. Στωικοὶ (—) δὲ φθορὰς ἐπιδεκτικὸν εἶναι (καὶ) διὰ πυρὸς γίνεσθαι τοῦτου τὴν μεταβολὴν εἰς τὸ ἄπειρον χρομένου κατὰ τινα χρόνον τῆς ὕλης ἀναπαυομένης καὶ τῆς ἐνεργείας λῆξιν λαμβανούσης. αὐθις δὲ τῶν ὄντων ἀνανεουμένων ἐκ πυρὸς καὶ μεταβαλλόντων κατ' ἀρχὰς εἰς τὴν τῶν ἄλλων στοιχείων φύσιν καὶ πάλιν συγκρινομένων καὶ σωματοποιουμένων ὑπὸ τοῦ θεοῦ καὶ τῶν πάντων ἐκ νέας κοσμοποιουμένων. **Commenta Bernensia in Lucanum** p. 220 Usener (on *Phars.* 7.1) *potest secundum Platonem intellegi qui natum quidem tradit esse mundum, sed non interiturum. diverse Stoici (SVF 2.586) et Epicurei (fr. 304 Usener), qui et natum esse et periturum afirmant. Arnobius of Sicca Adv.Nat. 2.56, p. 131.16–24 Marchesi mundum quidam ex sapientibus aestimant neque esse natum neque ullo esse in tempore periturum; immortalem nonnulli, quamvis eum conscribant esse gnatum et genitum; tertiis vero conlubitum dicere est, et esse natum et genitum et ordinaria necessitate periturum. et cum ex istis opinionibus trinis unam esse necesse sit veram, cunctis tamen argumenta non desunt quibus et sua decreta confirment et aliorum subripiant et labefaciant scita. Lactantius Inst. 2.10.17–25 Monat Aristoteles autem labore se ac molestia liberavit dicens semper fuisse mundum: itaque et humanum genus et cetera quae in eo sunt initium non habere, sed fuisse semper ac semper fore ... (25) quae si vera sunt, non poterit defendere Aristoteles (?) quominus habuerit et mundus ipse principium. quod si Aristoteli Plato et Epicurus (fr. 304 Usener) extorquent, et Platoni et Aristoteli qui semper fore mundum putaverunt, licet sint eloquentes, ingratis tamen idem Epicurus eripiet quia sequitur ut habeat et finem. Inst. 7.1.7–10 Brandt nam Aristoteles (de Phil. fr. 20 Ross) ... semper ait fuisse mundum ac semper futurum ... (9) sed et omne quod sub visum oculorum venit, et corporale, ut ait Plato, et solubile sit necesse est. (10) unus igitur Epicurus (fr. 304 Usener) auctore Democrito veridicus in hac re fuit, qui ait et ortum aliquando et aliquando esse periturum. Marius Victorinus 1.46, p. 114.22–28 Riesenweber ergo ... ex his, quae in opinione sunt posita, probabile colligitur argumentum, si dicas ... mundum natum, mundum non esse natum. {istae opiniones δόγματα dicuntur; δοκῶ**

enim Graece opinor et δόγμα opinio nuncupatur}[del. Orelli Riesenweber, perhaps wrongly]. *adeo manifestum est omnia, quae in mundo aguntur, argumentis probabilibus persuaderi, quando etiam philosophorum professionibus ex opinione nomen inpositum est, ut δόγματα dicantur.* **Scholium in Basilium** I 15 Pasquali Πυθαγορικοί Πλατωνικοί Ἀριστοτελικοί μάλιστα· οὔτοι γὰρ πάντες οὐ φθείρουσι κόσμον· οἱ ἀπὸ τῆς Στοᾶς (—), φθείροντες ἐν τῇ ἐκπύρῳσει τὴν διακόσμησιν (καθάπερ πρότερον καὶ ὁ σκοτεινὸς Ἡράκλειτος (—)), οὐκ ἂν ἡμᾶς διασύροιεν· ἀλλ' οὐδὲ οἱ Ἐπικούρειοι (—)· καὶ γὰρ οὔτοι λύεσθαι φασὶ τὸν κόσμον, τῆς τῶν ἀτόμων ἀντεμπλοκῆς τῷ χρόνῳ διάστασιν δεχομένης. **Anon.** (Porphyry?) **in Categorias**, Archimedes-palimps. fol. 78^v + 75^r10–18 ἢ γὰρ γενητός ἐστι καὶ φθαρτός ὡς τοῖς ἀπὸ Ζήνωνος (—) ἔδοκει, ἢ οὔτε γενητός οὔτε φθαρτός ὡς τῷ Ἀριστοτέλει ἔδοξεν, καὶ τῷ Πλάτῳ ὡς τινες οἴονται, ἢ γενητός μὲν ἀφθαρτος δέ, ὡς ἔνιοι τῶν Πυθαγορείων, καὶ Πλάτωνα δέ τινες οὕτω φέρεσθαι νομίζουσιν, ἢ ἀγένητος ἐστὶ φθαρτός δέ. καὶ γὰρ εἰ μηδεὶς ταύτης προέστη τῆς αἰρέσεως, ἀλλ' ἢ γε πρότασις ἔστιν, ὥστε εἶναι ἀπάσας τέσσαρας. **Ambrose of Milan Exam.** 1.1.3–4 *Schenkl ipsumque mundum semper fuisse et fore Aristoteles usurpat dicere: contra autem Plato non semper fuisse et semper fore praesumit adstruere, plurimi vero non fuisse semper nec semper fore scriptis suis testificantur. inter has dissensiones eorum quae potest veri esse aestimatio ...* **Augustine Acad.** 3.10.56–58 *Green, item scio mundum istum nostrum ... aut semper fuisse et fore, aut coepisse esse minime desitutum; aut ortum ex tempore non habere, sed habiturum esse finem; aut et manere coepisse et non perpetuo esse mansurum. C.D.* 12.12.1–4 *Dombart–Kalb alii vero, qui mundum istum non existimant sempiternum, sive non eum solum, sed innumerabiles opinentur, sive solum quidem esse, sed certis saeculorum intervallis innumerabiliter oriri et occidere ... cf. C.D.* 18.41.42–46 *pro sua quisque opinione certabant, ... ipsum autem unum (sc. mundum) alii ortum esse, alii vero initium non habere; alii interitum, alii semper futurum.* **Servius auctus in Georg.** 2.336, p. 3.1.248 *Thilo si crescit (sc. mundus), deficit: in quo videtur secutus Epicurum, qui ait: omnia, quae orta, occidunt et aucta senescunt. Varro autem in satira quae scribitur de salute (Sat. Menipp. fr. 84 Astbury) ait mundum haud natum esse neque mori. Plato autem non natum aut mori. Metrodorus (—) autem neque natum neque mori. Zenon (—) ex hoc mundo quamvis aliqua intereant, tamen ipsum perpetuo manere quia inhaereant ei elementa e quibus generantur materiae ut dixit crescere quidem sed ad interitum non pervenire manentibus elementis a quibus revalescant.* **John Philoponus in APo.** 238.28 οἶον ὅταν μὲν ζητῶμεν, εἰ τύχοι, περὶ οὐρανοῦ ... ὅταν δὲ πότερον αἰδίδιος ἢ οὐ, τὸ ποτέ. **Simplicius in Phys.** 1121.2–1122.3 (*on Phys.* 8.1 250b18–23 doxography on motion and cosmology; from Alexander of Aphrodisias) πάλιν ὅτι ἀναγκαῖα ἢ περὶ τῆς αἰδιότητος ζήτησις παραδείκνυσιν λέγων, τίνες μὲν τῶν φυσικῶν αἰδίδιον ὑπέθεντο τὴν κίνησιν, τίνες δὲ οὐκ αἰδίδιον, πρὸς τὰς περὶ τῶν κόσμων ὑποθέσεις καὶ τὰ περὶ τῆς κινήσεως προσαρμόσαντες. οἱ μὲν γὰρ ἀπείρους τῷ πλήθει τοὺς κόσμους ὑποθέμενοι, ὡς οἱ περὶ Ἀναξίμανδρον (12A17 DK) καὶ Λεῦκιππον (—) καὶ Δημόκριτον (fr. 300 Luria) καὶ ὕστερον οἱ περὶ Ἐπίκουρον (fr. 306 Usener) γινομένους αὐτοὺς καὶ φθειρομένους ὑπέθεντο ἐπ' ἀπει-

ρον ἄλλων μὲν αἰεὶ γινομένων ἄλλων δὲ φθειρομένων, καὶ τὴν κίνησιν αἰδίου ἔλεγον· ἄνευ γὰρ κινήσεως οὐκ ἔστι γένεσις ἢ φθορά. τῶν δὲ ἓνα μόνον κόσμον λεγόντων οἱ μὲν ἀγέννητόν τε ἀπὸ χρόνου καὶ ἄφθαρτον αὐτὸν λέγοντες αἰδίου καὶ τὴν κίνησιν ὑπετίθεντο, ὥσπερ Πλάτων καὶ Ἀριστοτέλης· γενητόν δὲ καὶ φθαρτὸν τὸν ἓνα κόσμον ποιοῦσιν, ὅσοι αἰεὶ μὲν φασιν εἶναι κόσμον, οὐ μὴν τὸν αὐτὸν αἰεὶ, ἀλλὰ ἄλλοτε ἄλλον γινόμενον κατὰ τινας χρόνων περιόδους, ὡς Ἀναξίμενης (13A11 DK) τε καὶ Ἡράκλειτος (T 269 Mouraviev) καὶ Διογένης (fr. 23c Laks) καὶ ὕστερον οἱ ἀπὸ τῆς Στοᾶς (SVF 2.576). καὶ δῆλον ὅτι καὶ περὶ κινήσεως οὗτοι τὴν αὐτὴν ἔχουσι δόξαν· ὅτε γὰρ κόσμος ἦν, τότε κίνησιν ἀναγκαῖον εἶναι. Ἐμπεδοκλῆς (—) δέ, εἰ μὲν κατὰ τὸ σχῆμά τις ἀκούει τοῦ λόγου, ὡς ποτὲ μὲν σφαῖρον ποτὲ δὲ κόσμον λέγοντος, δῆλον ὅτι καὶ τὴν κίνησιν ἐν τῇ γενέσει τοῦ κόσμου θεωρῶν γινομένην καὶ φθειρομένην ὑπετίθετο αἰεὶ, εἰ δὲ καὶ τὸν σφαῖρον εἶναι βούλεται καὶ τὸν κόσμον αἰεὶ, καὶ κίνησιν ἐνόμιζεν ἐν τῷ κόσμῳ (αἰεὶ) εἶναι. ἀπ' ἀρχῆς δὲ χρόνου δοκοῦσι λέγειν γεγονέναι τὸν κόσμον Ἀναξαγόρας (59A64 DK)) τε καὶ Ἀρχέλαος (—) καὶ Μητρόδωρος ὁ Χίος (70A5 DK)· οὗτοι δὲ καὶ τὴν κίνησιν ἄρξασθαι φασιν· ἡρεμούντων γὰρ τὸν πρὸ τοῦ χρόνου τῶν ὄντων κίνησιν ἐγγενέσθαι φασιν ὑπὸ τοῦ νοῦ, ὅφ' ἥς γεγενέσθαι τὸν κόσμον. φαίνονται δὲ καὶ οὗτοι τάξεως ἕνεκα διδασκαλικῆς ἀρχῆς τῆς κοσμοποιίας ὑποθέμενοι. καὶ ὁ γε Ἀναξαγόρας σαφῶς ἀπὸ τῆς νοητῆς ἐνώσεως, ἐφ' ἥς ἦν 'ὁμοῦ πάντα χρήματα', ὡς φησι, τὴν κοσμικὴν διάκρισιν ὑποστήσαι τὸν νοῦν λέγει. ὁ μόντοι Ἀλέξανδρος καὶ τὸν Πλάτωνα φησιν ἀπ' ἀρχῆς χρόνου τὸν κόσμον ὑφιστάνειν, πλην ὅτι καὶ πρὸ τῆς τοῦ κόσμου γενέσεως κίνησιν ἐν τοῖς οὐσί πλημμελῇ καὶ ἄτακτον (1122) ἔλεγε. 'παρὰ λαβὼν γάρ, φησίν, ὁ θεὸς πᾶν ὅσον ἦν ὁρατὸν οὐχ ἡσυχίαν ἔχον, ἀλλὰ κινούμενον πλημμελῶς καὶ ἀτάκτως αὐτὸ ἦγαγεν ἐκ τῆς ἀταξίας.' see also the similar passage at *in Cael.* 293.11–295.29. Symeon Seth *CRN* 3.30, p. 37.8–9 ὁ μὲν Ἀριστοτέλης τὸν κόσμον δοξάζει ἀγέννητόν τε καὶ ἄφθαρτον, ὁ δὲ Πλάτων γεννητόν μὲν, ἄφθαρτον δέ. ἡμεῖς δὲ λέγομεν ...

Chapter heading: Philo of Alexandria Aet. 3, ἄξιον οὖν τοὺς ζητοῦντας εἰ ἄφθαρτος ὁ κόσμος. Eusebius *PE* 15.32.8 (ὁ κόσμος) καὶ εἰ ἄφθαρτος ἢ φθαρτός.

§1 Pythagoras Heraclitus: Tertullian Apol. 11.5 *totum enim hoc mundi corpus sive innatum et infactum secundum Pythagoram, sive natum et factum secundum Platonem, semel utique in ipsa conceptione dispositum et instructum et ordinatum cum omnis rationis gubernaculo inventum est.* On Heraclitus see below on §6.

§2 Stoics: Diogenes Laertius V.P. 7.142 (SVF 2.581) γίνεσθαι δὲ τὸν κόσμον ὅταν ἐκ πυρὸς ἢ οὐσίας τραπῇ δι' ἀέρος εἰς ὑγρότητα ... περὶ δὲ οὖν τῆς γενέσεως καὶ φθορᾶς τοῦ κόσμου φησὶ Ζήνων (SVF 1.102) μὲν ἐν τῷ Περὶ ὄλου, Χρύσιππος (SVF 2.581) δ' ἐν τῷ πρώτῳ τῶν Φυσικῶν καὶ Ποσειδώνιος (F 13 E.-K., 304 Theiler) ἐν πρώτῳ Περὶ κόσμου καὶ Κλεάνθης (—) καὶ Ἀντίπατρος (SVF 3 Ant. 45) ἐν τῷ δεκάτῳ Περὶ κόσμου. Παναίτιος (fr. 132 Alesse) δ' ἄφθαρτον ἀπεφίηνατο τὸν κόσμον. Clement of Alexandria *Strom.* 5.92.4 γενητόν δὲ καὶ οἱ Στωικοὶ (SVF 2.574) τίθενται τὸν κόσμον. see also on §8 below.

§5 Xenophanes Parmenides Melissus: Philo of Alexandria Prov. 2.48 Aucher *age, interim ponamus inter nos universum ingenitum ac sempiternum,*

iuxta illud quod suggerit sermo celeberrimorum philosophantium, sicut conscribunt Parmenides (—), Empedocles (—), Zeno (—), Cleanthes (SVF 1.509) aliique divi homines, ac velut verus quidam proprieque sacer coetus. **ps.Plutarch Strom.** 4 (fr. 179 Sandbach) Ξενοφάνης (21A32 DK) ... οὔτε γένεσιν οὔτε φθοράν ἀπολείπει, ἀλλ' εἶναι λέγει τὸ οὔτε γένεσιν οὔτε φθοράν ἀπολείπει, ἀλλ' εἶναι λέγει τὸ πᾶν αἰεὶ ὁμοιον· εἰ γὰρ γίγνοιτο τοῦτο, φησίν, ἀναγκαῖον πρὸ τοῦτου μὴ εἶναι· τὸ μὴ ὂν δ' οὐκ ἂν γένοιτο οὐδ' ἂν τὸ μὴ ὂν ποιῆσαι τι οὔτε ὑπὸ τοῦ μὴ ὄντος γένοιτ' ἂν τι. also **Hippolytus Ref.** 1.14.2 (21A33 DK); **Cicero Luc.** 118 (21A34 DK) cited above. **ps.Plutarch Strom.** 5 (fr. 179 Sandbach) Παρμενίδης (28A22 DK) ... αἰδίων μὲν γὰρ τὸ πᾶν καὶ ἀκίνητον ἀποφαίνεται. **Hippolytus Ref.** 11 καὶ γὰρ καὶ Παρμενίδης (28A23 DK) ἔν μὲν τὸ πᾶν ὑποτίθεται αἰδίων τε καὶ ἀγέννητον. **Cicero Luc.** 118 (30A9 DK) cited above (on Melissus).

§6 Anonymi: Alexander of Aphrodisias at **Simp. in Cael.** 293.18–23 cited above General texts. also 294.4–23 καὶ Ἡράκλειτος (22A10 DK) δὲ ποτὲ μὲν ἐκπυροῦσθαι λέγει τὸν κόσμον, ποτὲ δὲ ἐκ τοῦ πυρὸς συνίστασθαι πάλιν αὐτὸν κατὰ τινὰς χρόνων περιόδους, ἐν οἷς φησι· 'μέτρα ἀπτόμενος καὶ μέτρα σβεννύμενος' ταύτης δὲ τῆς δόξης ὕστερον ἐγένοντο καὶ οἱ Στωϊκοί (SVF 2.617). ἀλλ' οὗτοι μὲν ἑσθλῶσαν· ... πλὴν ὅτι ὁ Ἀλέξανδρος βουλόμενος τὸν Ἡράκλειτον (T 555 Mouraviev) γεννητὸν καὶ φθαρτὸν λέγειν τὸν κόσμον ἄλλως ἀκούει τοῦ κόσμου νῦν. 'οὐ γὰρ μαχόμενα, φησί, λέγει ὡς ἂν τῷ δόξαι· κόσμον γὰρ, φησίν, ἐνταῦθα οὐ τήνδε λέγει τὴν διακόσμησιν, ἀλλὰ καθόλου τὰ ὄντα καὶ τὴν τούτων διάταξιν, καθ' ἣν εἰς ἑκάτερον ἐν μέρει ἢ μεταβολὴ τοῦ παντός, ποτὲ μὲν εἰς πῦρ, ποτὲ δὲ εἰς τὸν τοιόνδε κόσμον· ἢ γὰρ τοιαύτη τούτων ἐν μέρει μεταβολὴ καὶ ὁ τοιοῦτος κόσμος οὐκ ἤρξατό ποτε, ἀλλ' ἦν αἰεί.' **Clement of Alexandria Strom.** 5.104.1–105.1 σαφέστατα (δ') Ἡράκλειτος ὁ Ἐφέσιος (T 642 Mouraviev) ταύτης ἐστὶ τῆς δόξης, τὸν μὲν τινα κόσμον αἰδίων εἶναι δοκιμάσας, τὸν δὲ τινα φθειρόμενον, τὸν κατὰ τὴν διακόσμησιν εἰδῶς οὐχ ἕτερον ὄντα ἐκείνου πως ἔχοντος. ἀλλ' ὅτι μὲν αἰδίων τὸν ἐξ ἀπάσης τῆς οὐσίας ἰδίως ποιὸν κόσμον ᾗδει, φανερόν ποιεῖ λέγων οὕτως (22B30 DK) ... ὅτι δὲ καὶ γεννητὸν καὶ φθαρτὸν αὐτὸν εἶναι ἐδογματίζεν, μὴνύει τὰ ἐπιφερόμενα (fr. 22B31 DK) ... ὅπως δὲ πάλιν ἀναλαμβάνεται καὶ ἐκπυροῦται, σαφῶς διὰ τούτων δηλοῖ (ibid.) ... ὁμοίως καὶ περὶ τῶν ἄλλων στοιχείων τὰ αὐτά. παραπλήσια τούτῳ καὶ οἱ ἐλλογισμῶτατοι τῶν Στωϊκῶν (SVF 2.590) δογματίζουσι περὶ τε ἐκπυρώσεως διαλαμβάνοντες καὶ κόσμου διοικήσεως ... cf. also **Philo of Alexandria Aet.** 8–9 cited above under General texts.

§7 Anaximander Anaximenes Anaxagoras Archelaus Diogenes Leucippus: Simplicius in Phys. 1121.5–8 Diels (on Anaximander, Leucippus, 12A17 DK, cited above); 1121.14–15 (on Anaximenes, Diogenes, cited above). **Diogenes Laertius V.P.** 9.31 (on Leucippus = 67A1 DK) κόσμους τε ἐκ τούτων (sc. τὸ πλήρες καὶ τὸ κενόν) ἀπείρους εἶναι καὶ διαλύεσθαι εἰς ταῦτα.

§8 Stoics: Philo Aet. 8–9, *Prov.* 2.48 cited above General texts. **Scholia in Basilii Hexaemeron I** 15 cited above General texts.

§9 Plato: Cicero ND 1.20 (on Plato) *sed illa palmaris, quod, qui non modo natum mundum introduxerit sed etiam manu paene factu, is eum dixerit fore sempiternum.* **Philo Aet.** 13 cited above General texts. **Alexander of Aphro-**

disias at *Simp. in Cael.* 293.13 cited above **General texts.** **Diogenes Laertius** *V.P.* 3.72 (on Plato) ἀλλὰ μὴν καὶ ἄφθαρτον διαμένειν τὸν κόσμον διὰ τὸ μὴ διαλύεσθαι εἰς τὸν θεόν. **Plutarch** *QPlat.* 3 1002C (Platonic doctrine) διὸ καὶ φθαρτὸς ἡμῶν εἰς ἑκαστὸς ἐστίν, ὁ δὲ κόσμος οὐ φθαρησόμενος· ἡμῶν μὲν γὰρ ἐκάστου τὴν ζωτικὴν δύναμιν ἐντὸς περιέχει τὸ θνητοειδὲς καὶ διαλυτόν, ἐν δὲ τῷ κόσμῳ τοῦναντίον ὑπὸ τῆς κυριωτέρας ἀρχῆς καὶ κατὰ τὰ αὐτὰ ὡσαύτως ἐχοῦσης αἰεὶ σῶζεται τὸ σωματικόν ἐν μέσῳ περιεχόμενον. **Apuleius** *Plat.* 1.8, p. 97.8–12 Moreschini *et hunc quidem mundum nunc sine initio esse dicit, alias originem habere natumque esse: nullum autem eius exordium atque initium esse ideo quod semper fuerit; nativum vero videri, quod ex his rebus substantia eius et natura constet, quae nascendi sortitae sunt qualitatem. hinc et tangitur et videtur sensibusque corporeis est obvius. sed quod ei nascendi causam deus praestitit, ideo immortalī perseverantia est semper futurus.* **Tertullian** see above on §1. **Contrast Epiphanius** *Haer.* 3.2.22, p. 507.3 Holl Πλάτων Ἀθηναῖος ... τὸν κόσμον δὲ γενητὸν καὶ φθαρτὸν ὑπάρχειν.

§10 **Aristotle:** **Diogenes Laertius** *V.P.* 5.32 (on Aristotle) τὰ δ' ἐπίγεια κατὰ τὴν πρὸς ταῦτα συμπάθειαν οἰκονομεῖσθαι.

§11 **Empedocles:** **Philo of Alexandria** *Prov.* 2.48 cited above §5. **Alexander of Aphrodisias** at *Simp. in Cael.* 293.20–23 cited above. cf. **Clement of Alexandria** *Strom.* 5.103.6 οὐ παραπέμπομαι καὶ τὸν Ἐμπεδοκλέα (—), ὃς φυσικῶς οὕτως τῆς τῶν πάντων ἀναλήψεως μέμνηται, ὥς ἐσομένης ποτὲ εἰς τὴν τοῦ πυρὸς οὐσίαν μεταβολῆς (for continuation see above §6).

§12 **Democritus:** **Lucretius** *DRN* 5.92–96 *principio maria ac terras caelumque tuere: / quorum naturam triplicem, tria corpora, Memmi, / tris species tam dissimilis, tria talia texta, / una dies dabit exitio, multosque per annos / sustentata ruet moles et machina mundi.*

§13 **Epicurus:** **Scholia in Epicurum** *Ep.Hdt.* at D.L. 10.74 (scholion) Dorandi δῆλον οὖν ὡς καὶ φθαρτοὺς φησι τοὺς κόσμους, μεταβαλλόντων τῶν μερῶν.

b Sources and Other Parallel Texts

General texts: **Gorgias** fr. 82B3(68) DK καὶ μὴν οὐδὲ τὸ ὄν ἔστιν. εἰ γὰρ τὸ ὄν ἔστιν, ἦτοι αἰδιὸν ἔστιν ἢ γενητὸν ἢ αἰδιὸν ἅμα καὶ γενητὸν· οὐτε δὲ αἰδιὸν ἔστιν οὐτε γενητὸν οὐτε ἀμφοτέρω, ὥς δεῖξομεν ... **Plato** *Tim.* 27c4–5 ἡμᾶς δὲ τοὺς περὶ τοῦ παντὸς λόγους ποιείσθαι πῇ μέλλοντας, εἰ γέγονεν ἢ καὶ ἀγενὲς ἔστιν. *Tim.* 28b4–7 σκεπτέον δ' οὖν περὶ αὐτοῦ (sc. κόσμου) ... πότερον ἦν αἰεὶ, γενέσεως ἀρχὴν ἔχων οὐδεμίαν, ἢ γέγονεν, ἀπ' ἀρχῆς τινος ἀρξάμενος. **Aristotle** *Met.* A.2 982b12–17 διὰ γὰρ τὸ θαυμάζειν οἱ ἄνθρωποι καὶ νῦν καὶ τὸ πρῶτον ἤρξαντο φιλοσοφεῖν, ἐξ ἀρχῆς μὲν τὰ πρόχειρα τῶν ἀτόπων θαυμάσαντες, εἶτα κατὰ μικρὸν οὕτω προϊόντες καὶ περὶ τῶν μεζόνων διαπορήσαντες, οἷον ... περὶ τῆς τοῦ παντὸς γενέσεως. *Top.* 1.11 104b7–8 ἔνια (sc. τῶν προβλημάτων) δὲ πρὸς τὸ εἰδέναι μόνον, οἷον πότερον ὁ κόσμος αἰδιὸς ἢ οὐ. *Top.* 1.14 105b24–25 φυσικαὶ (sc. προτάσεις) δὲ οἷον πότερον ὁ κόσμος αἰδιὸς ἢ οὐ. *Phys.* 8.1 250b11–251a8 (dialectical overview on motion). *Cael.* 1.10 279b4–17 λέγωμεν ... πότερον ἀγένητος ἢ γενητὸς καὶ ἄφθαρτος ἢ φθαρτός, διεξεληθόντες πρότερον τὰς τῶν ἄλλων ὑπολήψεις ... γενόμενον μὲν οὖν ἅπαντες

εἶναι φασιν, ἀλλὰ γενόμενον οἱ μὲν αἰδίων, οἱ δὲ φθαρτὸν ὥσπερ ὅτι οὖν ἄλλο τῶν φύσει συνισταμένων, οἱ δ' ἐναλλάξ ὅτε μὲν οὕτως ὅτε δὲ ἄλλως ἔχειν φθειρόμενον, καὶ τοῦτο αἰεὶ διατελεῖν οὕτως, ὥσπερ Ἐμπεδοκλῆς ὁ Ἀκραγαντίνος καὶ Ἡράκλειτος ὁ Ἐφέσιος (22A10 DK). cf. *Cael.* 2.1 283b31–32, καὶ διὰ τῆς δόξης τῆς παρὰ τῶν ἄλλως λεγόντων καὶ γεννώντων αὐτόν. also *Phys.* 1.10 280a23–27 cited above on ch. 2.1 section E(b) General texts. **Theophrastus** at **Philoponus** *Aet.* 6.8, p. 145.6–25 αὐτὰ τὰ τοῦ Πλατωνικοῦ Ταύρου (fr. 22B Lakmann) παραθήσονται ῥήματα· πλεῖστα γὰρ οὗτος ὁ ἀνὴρ τοῦ γεννητοῦ ἐπινενόηκε σημαινόμενα· λέγει γοῦν ἐν τοῖς εἰς τὸν Τίμαιον ὑπομνήμασιν ἐπὶ λέξεως ταῦτα ‘ζητουμένου δέ, εἰ κατὰ Πλάτωνα ἀγέννητός ἐστιν ὁ κόσμος, διαφόρως περὶ τοῦτου οἱ φιλόσοφοι ἠνέχθησαν. Ἀριστοτέλης μὲν οὖν φησιν λέγειν τὸν Τίμαιον γεννητὸν εἶναι τὸν κόσμον, τοῦ Τιμαίου λέγοντος γεγενῆσθαι· καὶ γὰρ φέρεται αὐτοῦ σύγγραμμα περὶ τοῦ παντὸς ὡς γεννητοῦ. ἴσως δὲ τοιοῦτόν τι λέγων ὁ Πλάτωνος Τίμαιος γεννητὸν φησιν τὸν κόσμον. καὶ Θεόφραστος (*Phys.Op.* fr. 11 Diels, 241A FHS&G) μέντοι ἐν τῷ περὶ τῶν φυσικῶν δοξῶν κατὰ Πλάτωνα φησιν γεννητὸν τὸν κόσμον καὶ οὕτως ποιεῖται τὰς ἐνστάσεις, παρεμφαίνει δέ, ὅτι ἴσως σαφηνείας χάριν γεννητὸν αὐτὸν ὑποτίθεται. καὶ ἄλλοι δὲ τινες οὕτως ἠνέχθησαν, ὅτι κατὰ Πλάτωνα γεννητός, οἱ δέ, ὅτι ἀγέννητος ...’ cf. *Aet.* 6.21, p. 188.9–13. **Philo of Alexandria** *Aet.* 117 Θεόφραστος (*Phys.Op.* fr. 12 Diels, 184 FHS&G) μέντοι φησὶ τοὺς γένεσιν καὶ φθορὰν τοῦ κόσμου κατηγοροῦντας ὑπὸ τεττάρων ἀπατηθῆναι τῶν μεγίστων, γῆς ἀνωμαλίας, θαλάττης ἀναχωρήσεως, ἐκάστου τῶν τοῦ ὅλου μερῶν διαλύσεως, χερσαίων φθορᾶς κατὰ γένη ζώων (arguments presented and refuted in §§118–149).

Chapter heading: **Aristotle** *Cael.* 1.10 279b4, λέγωμεν ... πότερον ἀγέννητος ἢ γεννητός καὶ ἀφθαρτος ἢ φθαρτός. **Stoics** at D.L. 7.133, καθ’ ἣν ζητεῖται ἡ τ’ οὐσία αὐτοῦ (sc. κόσμου) ... καὶ εἰ γεννητός ἢ ἀγέννητος ... καὶ εἰ φθαρτός ἢ ἀφθαρτος ...

§1 Pythagoras Heraclitus: Proclus in Tim. 1.290.3–7 οὐ μὴν οὐδὲ ἐκεῖναι (sc. ἐξηγήσεις) χώραν ἔχουσιν, ὅσαι λογικώτερον ἀποδίδονται, οἷον ὅτι κατ’ ἐπίνοιαν μόνην ἢ γένεσιν ἐπὶ τοῦ κόσμου λέγεται—οὕτω γὰρ ἂν καὶ ὅτι δημιουργός ἐστι τοῦ παντὸς κατ’ ἐπίνοιαν συλλογισαίμεθα καὶ οὐ κατὰ ἀλήθειαν. but cf. **Clement of Alexandria** *Strom.* 5.104.1–3 σαφέστατα (δ’) Ἡράκλειτος ὁ Ἐφέσιος (fr. 22B30 DK) ταύτης ἐστὶ τῆς δόξης, τὸν μὲν τινα κόσμον αἰδίων εἶναι δοκιμάσας, τὸν δὲ τινα φθειρόμενον, τὸν κατὰ τὴν διακόσμησιν εἰδῶς οὐχ ἕτερον ὄντα ἐκεῖνον πως ἔχοντος. ἀλλ’ ὅτι μὲν αἰδίων τὸν ἐξ ἀπάσης τῆς οὐσίας ἰδίως ποιὸν κόσμον ᾗδει, φανερόν ποιεῖ λέγων οὕτως· ‘κόσμον τὸν αὐτὸν ἀπάντων οὔτε τις θεῶν οὔτε ἀνθρώπων ἐποίησεν, ἀλλ’ ἦν αἰεὶ καὶ ἔστιν καὶ ἔσται πῦρ αἰείζων ἀπτόμενον μέτρα καὶ ἀποσβεννύμενον μέτρα.’ ὅτι δὲ καὶ γεννητὸν καὶ φθαρτὸν αὐτὸν εἶναι ἐδογματίζεν, μηνύει τὰ ἐπιφερόμενα (fr. 22B31 DK) ‘πυρὸς τροπαὶ πρῶτον θάλασσα, θαλάσσης δὲ τὸ μὲν ἥμισυ γῆ, τὸ δὲ ἥμισυ πρηστήρ’ ...

§5 Xenophanes Parmenides Melissus: Aristotle *Cael.* 3.1 298b14–18 (28A25 DK) οἱ μὲν γὰρ αὐτῶν ὅλως ἀνεῖλον γένεσιν καὶ φθορὰν· οὐθέν γὰρ οὔτε γίγνεσθαι φασιν οὔτε φθεῖρεσθαι τῶν ὄντων, ἀλλὰ μόνον δοκεῖν ἡμῖν, οἷον οἱ περὶ Μελισσόν (—) τε καὶ Παρμενίδην (28A25 DK), οὓς, εἰ καὶ ἄλλα λέγουσι καλῶς, ἀλλ’ οὐ φυσικῶς γε δεῖ νομίσαι λέγειν.

§6 Anonymi: Aristotle Cael. 1.10 279b14–16 cited above General texts. *Cael.* 3.1 298b30–33 οἱ δὲ τὰ μὲν ἄλλα πάντα γίνεσθαι φασὶ καὶ ρεῖν, εἶναι δὲ παγίως οὐθέν, ἐν δὲ τι μόνον ὑπομένειν, ἐξ οὗ ταῦτα πάντα μετασχηματίζεσθαι πέφυκεν· ὅπερ εἰκόασι βούλεσθαι λέγειν ἄλλοι τε πολλοὶ καὶ Ἡράκλειτος ὁ Ἐφέσιος (22A10 DK).

§7 Anaximander Anaximenes Anaxagoras Archelaus Diogenes Leucippus: Aristotle Cael. 1.10 280a23–27 τὸ δ' ὅλως γενόμενον φθαρῆναι καὶ μὴ ἀνακάμπτειν ὄντος μὲν ἐνὸς ἀδύνατόν ἐστιν· πρὶν γὰρ γενέσθαι αἰεὶ ὑπῆρχεν ἢ πρὸ αὐτοῦ σύστασις, ἢν μὴ γενομένην οὐχ οἶόν τ' εἶναι· φαμεν μεταβάλλειν· ἀπείρων δ' ὄντων ἐνδέχεται μᾶλλον.

§9 Plato: Plato Tim. 28b–d ὁ δὴ πᾶς οὐρανὸς—ἡ κόσμος ἢ καὶ ἄλλο ὅτι ποτὲ ὀνομαζόμενος μάλιστα· ἂν δέχοιτο, τοῦθ' ἡμῖν ὀνομάσθω—σκεπτέον δ' οὖν περὶ αὐτοῦ πρῶτον, ὅπερ ὑπόκειται περὶ παντὸς ἐν ἀρχῇ δεῖν σκοπεῖν, πότερον ἢν αἰεὶ, γενέσεως ἀρχὴν ἔχων οὐδεμίαν, ἢ γέγονεν, ἀπ' ἀρχῆς τινος ἀρξάμενος. γέγονεν· ὅρα· τὸς γὰρ ἀπτός τέ ἐστιν καὶ σῶμα ἔχων, πάντα δὲ τὰ τοιαῦτα αἰσθητά, τὰ δ' αἰσθητά, δόξη περιληπτά μετ' αἰσθήσεως, γιγνόμενα καὶ γεννητὰ ἐφάνη. *Tim.* 41a–b θεοὶ θεῶν, ὧν ἐγὼ δημιουργὸς πατήρ τε ἔργων, δι' ἐμοῦγενόμενα ἅλута ἐμοῦ γε μὴ ἐθέλοντος. τὸ μὲν οὖν δὴ δεθὲν πᾶν λυτόν, τό γε μὴν καλῶς ἀρμοσθὲν καὶ ἔχον εὐ λύειν ἐθέλειν κακοῦ· δι' ἃ καὶ ἐπείπερ γεγένησθε, ἀθάνατοι μὲν οὐκ ἔστε οὐδ' ἅλυτοι τὸ πάμπαν, οὐτι μὲν δὴ λυθήσεσθε γε οὐδὲ τεύξεσθε θανάτου μοίρας, τῆς ἐμῆς βουλήσεως μείζονος ἔτι δεσμοῦ καὶ κυριωτέρου λαχόντες ἐκείνων οἷς ὅτ' ἐγίγνεσθε συνεδείσθε. **Aristotle Cael.** 1.10 280a28–32 εἰσὶ γάρ τινες οἷς ἐνδέχεσθαι δοκεῖ καὶ ἀγέννητόν τι ὃν φθαρῆναι καὶ γενόμενον ἀφθαρτον διατελεῖν, ὥσπερ ἐν τῷ Τιμαίῳ· ἐκεῖ γὰρ φησὶ τὸν οὐρανὸν γενέσθαι μὲν, οὐ μὴν ἄλλ' ἔσσεσθαι γε τὸν λοιπὸν αἰεὶ χρόνον.

§10 Aristotle: Aristotle Mete. 1.2 339a19–21 ὁ δὴ περὶ τὴν γῆν ὅλος κόσμος ἐκ τούτων συνέστηκε τῶν σωμάτων· περὶ οὗ τὰ συμβαίνοντα πάθη φαμέν εἶναι ληπτέον. **ps.Aristotle Mu.** 2 392a31–34 μετὰ δὲ τὴν αἰθέριον καὶ θείαν φύσιν, ἥντινα τεταγμένην ἀποφαίνομεν, ἔτι δὲ ἄτρεπτον καὶ ἀνετεροίωτον καὶ ἀπαθῆ, συνεχὴς ἐστὶν ἢ δι' ὅλων παθητὴ τε καὶ τρεπτὴ, καί, τὸ σύμπαν εἰπεῖν, φθαρτὴ τε καὶ ἐπίκληρος.

§12 Democritus: Aristotle Cael. 1.10 279b13–14 οἱ δὲ φθαρτὸν ὥσπερ ὅτιοῦν ἄλλο τῶν φύσει συνισταμένων.

Liber 2 Caput 5

P^B: Plutarch 886F–887A; pp. 332^a6–333^a12 Diels—**P^E**: Eusebius *PE* 15.36, p. 409.9–16 Mras, cf. 15.32.8, p. 406.10—**P^G**: ps.Galenus *HPh* c. 48; p. 622.1–6 Diels—**P^Q**: Qustā ibn Lūqā pp. 142–143 Daiber—**P^S**: Psellus *Omn. Doctr.* c. 158, p. 81 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.31, p. 37.17 Delatte (titulus solus)

S: Stobaeus, *Eclogae* 1.20.1g, p. 172.6–8 + 1.21.6b, p. 186.10–11 + 1.21.6d, p. 186.24–26 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b7 Henry (titulus solus)

Cf. Ach: Achilles c. 5, p. 14.13–15 Di Maria

Titulus ε'. Πόθεν τρέφεται ὁ κόσμος (P,S)

- §1 Ἀριστοτέλης· εἰ τρέφεται ὁ κόσμος, καὶ φθαρήσεται· ἀλλὰ μὴν οὐδεμιὰς ἐπιδείτῃ τροφῇ· διὰ τοῦτο καὶ αἰδῖος. (P₁,S₂)
- §2 Πλάτων αὐτὸν αὐτῷ τὸν κόσμον ἐκ τοῦ φθίνοντος κατὰ μεταβολὴν τὸ τρέφον παρέχεσθαι. (P₂)
- §3 Φιλόλαος διττὴν εἶναι τὴν φθοράν, τὸ μὲν ἐξ οὐρανίου πυρὸς ῥυέντος, τὸ δ' ἐξ ὕδατος σεληνιακοῦ περιστροφῇ τοῦ ἀστέρος ἀποχυθέντος· καὶ τούτων εἶναι τὰς ἀναθυμιάσεις τροφὰς τοῦ κόσμου. (P₃,S_{1,3})

5

§1 Aristoteles —; §2 Plato cf. *Tim.* 33c–d; §3 Philolaus 44A18 DK

titulus πόθεν ^{PB(LIIEGQP^S} S : εἰ ^{PB(LIIP^S} Sy || κόσμος ^{PBEQP^S} : οὐρανός ^{PSy} : cf. S qui ap. c. 1.21 conflat tit. Περί κόσμου (2.1) καὶ εἰ ἔμψυχος καὶ προνοία διοικούμενος (2.3) καὶ ποῦ ἔχει τὸ ἡγεμονικὸν (2.5a) καὶ πόθεν τρέφεται (2.5) §1 [2] εἰ P : δέ S || ὁ κόσμος] om. P^G || οὐδεμιὰς ^{PS} Diels : add. τινός ^{PB} || [2–3] καὶ ... αἰδῖος] al. P^G φθαρήσεσθαι νενόμικεν, οὐδέτερον δὲ τούτων τῷ κόσμῳ συμβεβηκέναι (καὶ ante φθαρήσεσθαι P^{G(O)} sec. Jas per litt.) || [3] ἐπιδείτῃ ^{PB} : ἐπιδέεται ^{PE} : δείτῃ S §2 lemma non hab. S || [4] αὐτὸν ... κόσμον] om. P^G || κατὰ μεταβολὴν ^{PBEG} : om. P^Q || [4–5] τὸ τρέφον παρέχεσθαι ^{PBE} : τρέφεσθαι τοῦτον φησιν P^G, cf. *sich von dem ernährt* Q §3 [6–8] lemma S insolenter bis scripsit : 1.20g = S¹, 1.21d = S² || [6] Φιλόλαος Φιλόλαος ὁ Πυθαγόρειος P^G || post nomen add. S² ἔφησε || διττὴν ... φθοράν om. S² || τὴν φθοράν ^{PBE} : τὴν τροφήν P^G Reiske : τὴν φθοράν τοῦ κόσμου S¹ P^Q (ut vid.) || οὐρανίου coni. Corsinus : οὐρανοῦ PS² edd. Laks–Most : ὕγρου S¹ || [6–7] τὸ μὲν ... τὸ δὲ ^{PGS²} Diels Wachsmuth Huffman Laks–Most : τότε μὲν ... τότε δὲ ^{PBEQS¹} Mau Lachenaud || [7] ἐξ ὕδατος] ἐξ del. Usener dub. Diels || περιστροφῇ ... ἀποχυθέντος] al. P^G περὶ τοὺς ἀστέρας ἀποχεομένους || ἀστέρος ^{PB(LI)}, cf. ἀστέρος ῥυέντος S¹, *infolge des Mondwechsels* Q, prob. Burkert : ἀέρος ^{PB(LIIEG^S} edd. || [7–8] καὶ ... κόσμου ^{PBEQS²} (καὶ τούτων om. S², τούτων om. P^Q, τούτου coni. Capelle) : om. P^{GS¹}

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 48 (~ tit.) Πόθεν τρέφεται ὁ κόσμος (text Diels)

48.1 (~ P₁) Ἀριστοτέλης· εἰ τρέφεται, φθαρήσεσθαι νενόμικεν, οὐδέτερον δὲ τούτων τῷ κόσμῳ συμβεβηκέναι.

- 48.2 (~ P2) Πλάτων ἐκ τοῦ φθίνοντος κατὰ μεταβολὴν τρέφεσθαι τοῦτόν φησιν.
 48.2 (~ P3) Φιλόλαος ὁ Πυθαγόρειος διττὴν εἶναι τὴν τροφὴν ὑπέλαβεν· τὸ μὲν ἐξ οὐρανοῦ πυρὸς ρυέντος, τὸ δ' ἐξ ὕδατος σεληνιακοῦ περὶ τοὺς ἀστέρας ἀποχεομένου.

Psellus *Omn.Doctr.* c. 158 Εἰ τρέφεται ὁ κόσμος (~ tit.)

Symeon Seth *CRN* 3.31 Εἰ τρέφεται ὁ οὐρανός (~ tit.)

Testes secundi:

Achilles *Univ.* c. 5, p. 14.13–15 τροφὴ δὲ χρήται, ὡς μὲν τινες, παρ' ἑαυτοῦ (§2), ἄλλοι δὲ ἀναθυμιάσει τῇ περὶ αὐτόν, τινὲς δὲ τῇ τοῦ ὕδατος σφαίρᾳ (cf. §1). Ἀριστοτέλης (—) δὲ μὴ δεῖσθαι τροφῆς αὐτόν λέγει (τὸ γὰρ δεόμενον φθαρτόν), αἰδῖος δὲ ἐστὶ κατ' αὐτόν (§1).

Loci Aetiani:

quaestio A 5.27 Περὶ τροφῆς καὶ αὐξήσεως.

titulus cf. A 5.16 Πῶς τρέφεται τὰ ἔμβρυα. cf. A 2.17 Πόθεν φωτίζονται οἱ ἀστέρες.

§1 A 2.17.5 Ἀριστοτέλης μὴ δεῖσθαι τὰ οὐράνια τροφῆς· οὐ γὰρ φθαρτὰ ἄλλ' αἰδία.

§2 A 2.17.6 Πλάτων κοινῶς ὅλον τὸν κόσμον καὶ τὰ ἄστρα ἐξ αὐτῶν τρέφεσθαι.

§3 A 1.3.1 (de Thalete) ὅτι καὶ αὐτὸ τὸ πῦρ τὸ τοῦ ἡλίου καὶ τὸ τῶν ἄστρον ταῖς τῶν ὑδάτων ἀναθυμιάσει τρέφεται καὶ αὐτὸς ὁ κόσμος. A 1.3.9[1–4] Ἡράκλειτος καὶ Ἰππασος ὁ Μεταποντίνος ἀρχὴν τῶν πάντων τὸ πῦρ· ἐκ πυρὸς γὰρ τὰ πάντα γίνεσθαι καὶ εἰς πῦρ πάντα τελευτᾶν λέγουσι· τούτου δὲ κατασβεσνυμένου κοσμοποιεῖσθαι τὰ πάντα. A 2.6.3 Ἐμπεδοκλῆς τὸν μὲν αἰθέρα πρῶτον διακριθῆναι, δεῦτερον δὲ τὸ πῦρ ἐφ' ᾧ τὴν γῆν, ἐξ ἧς ἄγαν περισφιγγομένης τῇ ῥύμῃ τῆς περιφορᾶς ἀναβλύσαι τὸ ὕδωρ· ἐξ οὗ ἀναθυμιαθῆναι τὸν ἀέρα καὶ γενέσθαι τὸν μὲν οὐρανὸν ἐκ τοῦ αἰθέρος ... A 2.17.4 Ἡράκλειτος καὶ οἱ Στωικοὶ τρέφεσθαι τοὺς ἀστέρας ἐκ τῆς ἐπιγείου ἀναθυμιάσεως. A 2.20.5 Ξενοφάνης, (ὡς) Θεόφραστος ἐν τοῖς Φυσικοῖς γέγραπεν, ἐκ πυριδίων τῶν συναθροιζομένων μὲν ἐκ τῆς ὑγρᾶς ἀναθυμιάσεως συναθροιζόντων δὲ τὸν ἥλιον. A 2.23.6 οἱ Στωικοὶ κατὰ τὸ διάστημα τῆς ὑποκειμένης τροφῆς διέρχεσθαι τὸν ἥλιον· ὡκεανὸς δ' ἐστὶν ἡ γῆ, ἧς τὴν ἀναθυμίασιν ἐπινέμεται.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

- (1) P is attested by the four main witnesses, each recording the same three doxai. G as so often paraphrases, resulting in various alterations.

(2) As in ch. 2.4, S divides the material between his chapters 1.20 and 1.21. His treatment shows some unusual and interesting features.

(a) The Aristotelian doxa is grouped with the doxa from ch. 2.3 in a small cluster at S 1.21.6c.

(b) The Platonic doxa is not copied out, but replaced at S 1.21.1 by a brief summary of this doxa and two others from chs. 2.3 and 2.5a, followed by the quotation of *Tim.* 30a2–c1. Then immediately following at S 1.21.2 he cites the text on which A's doxa in this chapter is based, *Tim.* 33c6–d1.

(c) The Philolaus doxa is cited in both S 1.20 and 1.21, the only time that he copies out a doxa twice (see M–R 1.223, 2.2.369). The reason for this is because its contents relate to the subject-matter of both chapters. The two texts can be compared as follows:

S 1.20.1g, p. 172.6–8

Φιλόλαος διττὴν εἶναι τὴν φθορὰν τοῦ
κόσμου, τὸ μὲν ἐξ οὐρανοῦ πυρὸς ῥυέντος,
τὸ δὲ ἐξ ὕδατος σεληνιακοῦ περιστροφῇ τοῦ
ἀέρος ἀποχυθέντος.

S 1.21.6d, p. 186.24–26

Φιλόλαος ἔφησε τὸ μὲν ἐξ οὐρανοῦ πυρὸς
ῥυέντος, τὸ δὲ ἐξ ὕδατος σεληνιακοῦ περι-
στροφῇ τοῦ ἀέρος ἀποχυθέντος εἶναι τὰς
ἀναθυμιάσεις τροφὰς τοῦ κόσμου.

It is apparent that there is considerable divergence between the text of the two citations. Details will be discussed below in section D(d).

(3) For the first time in his use of Book 2 in CAG Book 4, T does not use the material provided in this chapter.

(4) The evidence in Ach is important for it clearly comes from the same doxographical tradition but is configured differently. He does not devote a separate chapter to this question, but includes it in a chapter entitled Τίς οὐσία οὐρανοῦ (i.e. κόσμου). There are four doxai, i.e. one more than in A: (1) the same as Plato in A but presented anonymously; (2) an anonymous view that the cosmos has an external source of nourishment (this option missing in A, but it recalls the Pythagorean doxa in A 1.18.6); (3) an example of internal nourishment that is reminiscent of the Philolaic doxa in A; (4) the Aristotelian doxa in A, again presented in the form of an argument. We discuss this evidence further below.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The evidence of Ach demonstrates that the subject of this chapter belonged to the proximate tradition on which A depends. However, apart from A and Ach there is very little evidence to show that it was discussed

in a dialectical or doxographical context. We have found no texts in which it is presented as a *quaestio* in the realm of physics.

(2) *Sources*. The absence in the doxographical tradition is surprising given that the question was certainly raised in earlier Greek sources. Plato's emphatically mentions the theme when discussing the body of the cosmos in the *Timaeus*, to which Aristotle may have responded in one of his lost works (see below section D(d)§1). References to the doctrine of exhalations in earlier philosophers, e.g. the attribution to Heraclitus at D.L. 9.9, refer to the (feeding of the) stars and not the cosmos as a whole (on this subject in the context of the treatment of the heavenly bodies Heraclitus is aligned with the Stoa at A 2.17.4). In the background there is also the extensive debate on the Stoic theory of ἐκπύρωσις, in which exhalations play a key role. Plutarch accuses Chrysippus of contradiction in taking over Plato's language of the self-sufficiency of the cosmos and still speaking of the cosmos' growth (as occurs in the ἐκπύρωσις); text below in section E(b)§2, and see also the polemical discussions in Philo *Aet.* 85–103. But the Stoics are conspicuously absent in this chapter. It is also worth noting that, unlike all the chapters in Book 2 so far, there is no reference to philosophers who have a non-teleological conception of the universe. But this is to be expected, since the whole idea of the cosmos feeding itself only makes sense in the teleological framework of the macrocosm–microcosm relation.

C Chapter Heading

This is the first heading in Book 2 that asks the question 'whence' (πόθεν, *unde*). The only previous example was a ch. 1.6. Others will follow at chs. 2.17 (where does light of the stars come from), 4.21, 5.11 and 5.28. On the question *unde* see the note at ch. 1.6 Commentary C. The *quaestio* at 2.17 on the light of the stars implicitly involves nourishment, since light very often entails fire, which needs to be fed; cf. *doxai* at A 2.17.4–6 and our comments *ad loc.* The nourishment of the microcosm is dealt with in Book 5: chs. 5.16 (the embryo) and 5.27 (in general).

The heading is almost wholly undisputed in the main P tradition (the variant in a ms. of P^B is clearly drawn from the Aristotelian *doxa* that immediately follows and the same may have influenced Ps). The exception is Symeon Seth, who changes the title to refer to the heaven because he focusses his attention on the heavenly bodies and adopts the viewpoint that they are only subject to locomotive change and do not undergo the change involved in nourishment.

S refers to the heading in an abridged form in the composite title he devises for his ch. 1.21, Περὶ κόσμου καὶ εἰ ἐμπύχως καὶ προνοίᾳ διοικούμενος καὶ τοῦ ἔχει τὸ ἡγεμονικὸν καὶ πόθεν τρέφεται.

D *Analysis*

a Context

The chapter's theme follows on directly from the theme of ch. 2.3: if the cosmos is a living being, then it must need some kind of nourishment. But the subject discussed in ch. 2.4 adds complications. If it is subject to generation, one may assume nourishment and growth, followed by decline. But if it is everlasting, then nourishment must be combined with a homeostatic equilibrium. The stage is thus set for the answers given in the present chapter. There are parallels with the subject of the source of food for the heavenly bodies, ch. 2.17, and for the microcosm when it starts its life, ch. 5.17 Πῶς τρέφεται τὰ ἔμβρυα.

b Number and Order of Lemmata

There is evidence for only three doxai in the tradition of A and there is no reason to think that these were in a different sequence from that found in P. There may, however, have originally been more lemmata, such as the one preserved by Ach or the one that is obviously missing, on which see the following sub-section.

c Rationale–Structure of Chapter

The first doxa, which unusually takes the form of an argument in the form of a hypothetical syllogism rather than the usual bald assertion, represents the view that the cosmos needs no food at all. The argument is imperfectly expressed. It would be more persuasive to argue that *because* it is everlasting, it therefore needs no nourishment. But this leaves open the possibility that it does have nourishment, but this is internal to itself. This is the second option attributed to Plato and clearly based on *Tim.* 33c4–d1 (esp. c7, αὐτὸ γὰρ ἑαυτῷ τροφήν φθίσιν παρέχον). The third doxa also focuses on internal sources, but this time it is specified as provided by a double source food supply provided through destruction (φθορά), one from heavenly fire, the other from lunar water.

The chapter is thus structured by means of a diaphonia between no nourishment and nourishment, and the latter is divided into two kinds of internal nourishment based on decay, the one general, the other more specified. It is surprising that the possibility of external nourishment is not explored, as occurs in Ach (see below D(e)). If it was originally present in A, it must have not only been epitomized away by P, but also overlooked by S.

d Further Comments

Individual Points

§1 The form of the doxa, starting with the name-label followed by a separate sentence in *oratio recta*, is quite unusual. It is found elsewhere only at

A 1.25.1 (Thales) and 4.8.2 (Epicurus), if we exclude definitions such as at 1.23.1 (Pythagoras and Plato) and 5.3.1 (also Aristotle). It is also unusual to have a compact argument in the form of a syllogism. However, the argument should have been presented: if the cosmos obtains nourishment, it will also be destructible; but it is everlasting, therefore it does not obtain nourishment. Then it would have been logically valid. G impressively avoids the fallacy by paraphrasing the second part and stating that nothing of this kind happens to the cosmos. He thus leaves it to his reader to draw the conclusion that the cosmos does not undergo nourishment.

No argument like this is found in Aristotle's extant works. It is not present in the *De Caelo*, though it might be felt that the arguments against the cosmos's generation and destruction in *Cael.* 1.10–11 prepare the ground for it. The present passage has been claimed for his lost *De philosophia*; see Effe (1970) 19. It is indeed similar to Peripatetic arguments in favour of the eternity of the cosmos in Philo *Aet.* 20–44, which have often been thought ultimately to derive from that work (= fr. 19 Ross). Effe also notes the analogous argument attributed to Critolaus at Philo *Aet.* 74 on the self-sufficiency of the cosmos: it is subject to neither κένωσις or πλήρωσις, both of which are intrinsic to the process of nourishment (despite the explicit attribution to Critolaus, the text is omitted in Wehrli's edition, whose treatment of the entire section *Aet.* 55–75 is unsatisfactory; see further Mansfeld (1979) 186, Sharples (2008) 59–61). However, Effe himself goes far beyond the evidence when he claims: 'Aetios und Kritolaus schöpfen aus dem Aristotelische dialog.'

Aristotle himself has a theory of exhalations in his extant works. It plays a key role in his *Meteorology*, see 1.4 341b6–12 and passim; Wilson (2013) 51–72. They are of two kinds and relate to the sub-lunary world only, so are not discussed in relation to the nourishment of the cosmos as a whole. He is highly critical of predecessors who extend the theory of exhalation to the heavens; see his excursus at *Mete.* 2.2 354b33–355a32.

§2 The doxa's formulation is clearly based on the wording of *Tim.* 33c7–8 αὐτὸ γὰρ ἑαυτῷ τροφήν τὴν ἑαυτοῦ φθίσιν παρέχον. But the phrase κατὰ μεταβολήν is a Peripatetic addition; cf. AD at Stob. *Ecl.* 1.19.1, p. 163.1–2 (not A as printed by Diels *DG* 319 with reservations), where it represents qualitative change.

§3 For this doxa there are three differing versions, P 2.5.3 & S¹ at 1.20.1g and S² in 1.21.6b. On the basis of the evidence it is not easy to determine exactly what stood in A. In determining our text we have benefited from the excellent discussion of Huffman (1993) 261–266. S has clearly adapted his two citations to their anthological context. In general the readings of P and S² are to be preferred. We note the following problematical aspects of the text.

(a) The addition of τοῦ κόσμου at the beginning of S¹ is caused by the anthological context, since he has decided to add the lemma to his citations from chs. 1.24 and 2.4 on genesis and destruction in general and of the cosmos. It is out of place in the present chapter, where φθορά is linked to φθίσις, i.e. as a kind of cosmic digestion. It might also be possible to take τὴν φθορὰν τοῦ κόσμου as meaning ‘the perishing that takes place in the cosmos’. That S took it to mean this might be deduced from the fact that straight after this doxa he writes out another doxa of ‘Philolaus the Pythagorean’ purportedly taken from his work Περὶ ψυχῆς (44A21 DK) which he precedes with the words Φιλόλαος ἀφθαρτον τὸν κόσμον εἶναι. He then quotes a text which ascribes eternity to the cosmos with the same argument found at Philo *Aet.* 20–24 (both Diels ad loc. and Huffman 1993, 343 regard this text as spurious). It is to be agreed with Huffman (1993) 262–265 that Philolaus is best taken to be referring to major cosmic cataclysms, but not to universal destruction such as in the later Stoic doctrine of ἐκπύρωσις, hence supporting the reading of P as against S¹; see also Mansfeld 2020C (n. 27).

(b) It is difficult to choose between τότε μέν ... τότε δέ and τὸ μέν ... τὸ δέ which are about equally represented in the tradition. In the doxographic context, however, an emphasis on classification is more likely than on temporality, so it is best to follow Diels and Huffman and opt for the readings τὸ μέν ... τὸ δέ.

(c) Stylistically it is preferable to have a similar grammatical construction in both the clauses introduced by τὸ μέν ... τὸ δέ (*contra* Huffman). We therefore accept Corsinus’ conjecture ἐξ οὐρανίου πυρός.

(d) The reading περιστροφῇ τοῦ ἀέρος is better attested in the mss. but, as pointed out by Burkert (1983) 242 n. 23, the variant ἀστέρος makes better sense, i.e. the destruction being caused by the revolution of the moon itself as heavenly body. Burkert also claims that the reading of G περὶ τοὺς ἀστέρας ἀποχέομένου supports this preference for ἀστέρος, but this must be considered doubtful. He notes that the doxa appears to formulate in a naïve way the general assumption of early thinkers such as Anaximander, Heraclitus and Empedocles, namely that cosmic destruction occurs through both fire and water, but that there is also a process of self-renewal.

(e) Capelle’s emendation of τούτων to τούτου (cf. *Vors.* 1.404.3) is motivated by the difficulty that fire rushing down from heaven can hardly be an exhalation. Huffman (1993) 265 suggests that, ‘the exhalations need not be directly from heavenly fire and lunar water, but more probably arise from the earth as a result of their destructive effect’, but the formulation remains odd.

e Other Evidence

It is to be agreed with Huffman (1993) 265–266 that the attribution of a theory of exhalations to Philolaus is plausible. As he notes, other Presocratics had developed similar theories: Heraclitus at D.L. 9.9 (= 22A1, from the earth and the sea); Xenophanes at A 2.20.5 (formation of the sun); Hippocrates of Chios at Alex.Aphr. in *Mete.* 38.28–32 (42A6 DK, on the origin of the Milky Way). The doxa is also reminiscent of the theory of periodic natural disasters developed by Plato in *Tim.* 22c–d (note *φοραί* at 22c1), who relates it to ancient myths. As already noted above on §1, the theory of dry and wet exhalations is further developed by Aristotle, but he confines it to the sublunary world and vigorously denies any interaction with the heavenly realm (as in Philolaus). For the connection of the moon with moisture Huffman cites Plutarch *Fac.Lun.* 940A–B, but it is doubtful whether the doxai on Xenophanes at A 2.25.3 and Empedocles A 2.25.6 (cf. also ps.Plu. *Strom.* 10 = 31A30 DK) can help us understand Philolaus' view of the role of air.

The additional doxa in Ach indicating the possible ingestion of nourishment by the cosmos through 'the exhalation that surrounds it' can be linked to the doxa at A 2.9.1 οἱ μὲν ἀπὸ Πυθαγόρου ἐκτὸς εἶναι τοῦ κόσμου κενόν, εἰς δ' ἀναπνεῖ ὁ κόσμος καὶ ἐξ οὗ (cf. also A 1.18.6). The analogy is with a living being who breathes and thus takes in air or πνεῦμα from the outside, which can be regarded as a kind of nourishment. It may have been omitted in A (if indeed it was) because there was already a Pythagorean view via Philolaus. But the omission remains surprising.

E Further Related Texts

a Proximate Tradition

General texts: Philo of Alexandria *Aet.* 74 πρὸς δὲ τούτοις φησὶ (sc. Critolaus, not in Wehrli) τριττὰς αἰτίας δίχα τῶν ἔξωθεν ὑποβεβλησθαι ζώοις τελευτῆς, νόσον, γήρας, ἔνδειαν, ὧν οὐδεμιᾶ τὸν κόσμον ἄλωτὸν εἶναι ... αὐταρκέστατον τε αὐτὸν αὐτῷ καὶ ἀνεπιδεᾶ παντὸς γεγονέναι, μηδενὸς τῶν εἰς διαμονὴν ὑστερίζοντα, τὰς κενώσεως καὶ πληρώσεως ἐν μέρει διαδοχὰς ἀπώσάμενον, αἷς διὰ τὴν ἄμουσον ἀπληστίαν τὰ ζῶα χρῆσθαι ... cf. *Aet.* 85–103 (against the Stoics), esp. 85 ἐκεῖνο δ' οὐκ ἀνάξιον διαπορῆσαι, τίνα τρόπον ἔσται παλιγγενεσία, πάντων εἰς πῦρ ἀναλυθέντων· ἐξαναλωθείσης γὰρ τῆς οὐσίας ὑπὸ πυρός, ἀνάγκη καὶ τὸ πῦρ οὐκέτ' ἔχον τροφήν ἀποσβεσθῆναι. μένοντος μὲν οὖν, ὁ σπερματικὸς τῆς διακοσμήσεως ἐσφάζετ' (ἂν) λόγος, ἀναιρεθέντος δὲ συνανήρηται. τὸ δ' ἐστὶν ἔκθεσμον καὶ ἀσέβημα ἥδη διπλοῦν, μὴ μόνον φθορὰν τοῦ κόσμου κατηγορεῖν ἀλλὰ καὶ παλιγγενεσίαν ἀναιρεῖν, ὥσπερ ἐν ἀκοσμίᾳ καὶ ἀπραξίᾳ καὶ τοῖς πλημμελέσι πᾶσι χαίροντος θεοῦ. *Aet.* 91 (against Chrysippus) ἀλλ' εἴ γε φλὸξ γίνεται, τραπομένη πρὸς σβέσιν ἅπαξ οὐκ ἐκ μέρους ἀλλ' ἅθροα σβεσθήσεται· συνυπάρχει γὰρ τῇ τροφῇ· διὸ πολλῆς μὲν οὐσης ἐπιδίδωσι καὶ χεῖται, στελλομένης δὲ μειοῦται. τεκμηριώσαιτο δ' ἂν τις ἀπὸ τῶν παρ' ἡμῖν τὸ γινόμενον.

Chapter heading: Eusebius *PE* 15.32.8 (ὁ κόσμος) καὶ πόθεν τρέφεται.

§1 *Aristotle*: see above under General texts.

§3 *Philolaus*: cf. *Heracitus* at D.L. 9.9 (22A1 DK) γίνεσθαι δ' ἀναθυμιάσεις ἀπὸ τε γῆς καὶ θαλάττης, ἃς μὲν λαμπρὰς καὶ καθαράς, ἃς δὲ σκοτεινάς. αὖξεσθαι δὲ τὸ μὲν πῦρ ὑπὸ τῶν λαμπρῶν, τὸ δὲ ὕγρὸν ὑπὸ τῶν ἐτέρων ...

b Sources and Other Parallel Texts

General texts: *Cleomedes Cael.* 1.8.79–82 Todd (Stoic doctrine = *SVF* 2.572, Posidonius fr. 289 Theiler) οὐ χρὴ δὲ ἀπορεῖν ἐνταῦθα, πῶς ἢ γῆ στιγμαία οὖσα πρὸς τὸ μέγεθος τοῦ κόσμου ἀναπέμπει τροφήν τῷ τε οὐρανῷ καὶ τοῖς ἐμπεριεχομένοις ἐν αὐτῷ ἄστροις, τοσοῦτοις καὶ τὸ πλῆθος καὶ τὸ μέγεθος οὖσι.

Chapter heading: —

§1 *Aristotle*: cf. *Ocellus Lucanus* ch. 1.10, p. 12.23–13.4 Harder, 127.17–24 Thesleff τὰ μὲν οὖν ἐμπεριεχόμενα τῷ κόσμῳ πρὸς τὸν κόσμον ἔχει τὴν συναρμογήν, ὁ δὲ κόσμος πρὸς οὐδὲν ἕτερον ἄλλ' αὐτὸς πρὸς αὐτόν. τὰ μὲν γὰρ ἄλλα πάντα τὴν φύσιν οὐκ αὐτοτελῆ ἔχοντα συνέστηκεν, ἄλλ' ἐπιδείνεται τῆς πρὸς τὰ {ἐκτός} ἐχόμενα συναρμογῆς, ζῶα μὲν πρὸς ἀναπνοήν, ὄψεις δὲ πρὸς τὸ φῶς, αἶ δὲ ἄλλα αἰσθήσεις πρὸς τὸ οἰκεῖον αἰσθητόν, τὰ δὲ φυτὰ πρὸς τὸ φύεσθαι, ἥλιος δὲ καὶ σελήνη καὶ οἱ πλάνητες καὶ οἱ ἀπλανεῖς κατὰ τὸ μέρος μὲν τῆς κοινῆς διακοσμήσεως· αὐτοὺς δὲ πρὸς οὐδὲν ἕτερον ἄλλ' αὐτοὺς πρὸς αὐτόν.

§2 *Plato*: *Plato Tim.* 33c–d οὐδ' αὖ τις ἐπιδεῖς ἦν ὀργάνου σχεῖν ᾧ τὴν μὲν εἰς αὐτοῦ τροφήν δέξοιτο, τὴν δὲ πρότερον ἐξικμασμένην ἀποπέμψοι πάλιν. ἀπῆει τε γὰρ οὐδὲν οὐδὲ προσήειν αὐτῷ ποθεν—οὐδὲ γὰρ ἦν—αὐτὸ γὰρ ἑαυτῷ τροφήν τὴν ἑαυτοῦ φθίσιν παρέχον καὶ πάντα ἐν ἑαυτῷ καὶ ὑφ' ἑαυτοῦ πάσχον καὶ δρῶν ἐκ τέχνης γέγονεν· ἡγήσατο γὰρ αὐτὸ ὁ συνθεὶς αὐταρκες ὃν ἄμεινον ἔσεσθαι μᾶλλον ἢ προσδεῖς ἄλλων. *Plutarch SR* 1052C–E (on *Chrysippus*, *SVF* 2.604) τίς ἂν οὖν ἐναντιώτερα λέγων ἑαυτῷ φανείη τοῦ τὸν αὐτὸν θεὸν νῦν μὲν αὖξεσθαι νῦν δὲ μὴ τρέφεσθαι λέγοντος; καὶ τοῦτ' οὐ δεῖ συλλογίζεσθαι· σαφὲς γὰρ αὐτὸς ἐν τῷ αὐτῷ γέγραπεν· 'αὐτάρκης δ' εἶναι λέγεται μόνος ὁ κόσμος διὰ τὸ μόνος ἐν αὐτῷ πάντ' ἔχειν ὧν δεῖται, καὶ τρέφεται ἐξ αὐτοῦ καὶ αὖζεται, τῶν ἄλλων μορίων εἰς ἀλλήλα καταλλαττομένων.' οὐ μόνον οὖν ἐν ἐκείνοις τοῖς ἄλλοις θεοῖς ἀποφαίνων τρεφομένους πλὴν τοῦ κόσμου καὶ τοῦ Διὸς ἐν τούτοις δὲ καὶ τὸν κόσμον λέγων τρέφεσθαι μάχεται πρὸς αὐτόν ἄλλ' ἔτι μᾶλλον ὅτι τὸν κόσμον αὖξεσθαι φησιν ἐξ αὐτοῦ τρεφόμενον. τοῦναντίον δ' εἰκὸς ἦν τοῦτον μόνον μὴ αὖξεσθαι τὴν αὐτοῦ φθίσιν ἔχοντα τροφήν τοῖς δ' ἄλλοις θεοῖς ἔξωθεν τρεφομένοις ἐπίδοσιν γίνεσθαι καὶ αὔξῃσιν καὶ μᾶλλον εἰς τούτους καταναλίσκεσθαι τὸν κόσμον, εἰ γ' ἐκείνῳ μὲν ἐξ αὐτοῦ τούτοις δ' ἄπ' ἐκείνου λαμβάνειν αἰεὶ τι καὶ τρέφεσθαι συμβέβηκε. *Galen HNH* 50.6 Mewaldt (δῆλον οὖν ὅτι) τὰ τοῦ κόσμου στοιχεῖα τὴν τροφήν ἐξ ἀλλήλων ἔχοντά ἐστι, καὶ διὰ τοῦτο καὶ ὁ Πλάτων εἶπεν· 'αὐτὸ γὰρ ἑαυτῷ τροφήν τὴν ἑαυτοῦ φθίσιν παρέχον καὶ πάντα ἐν αὐτῷ καὶ ὑπ' αὐτοῦ καὶ πάσχον καὶ δρῶν ἐκ τέχνης γέγονεν.' *Epictetus* fr. 13 Oldfather (= *Stob. Ecl.* 1.3.50), καὶ τίς, ὦ κακοδαίμων, αὐτὸς ἐξ ἑαυτοῦ τρέφεται ἄλλος γε ἢ ὁ κόσμος; *Proclus in Tim.* 2.87.17–23 Diehl (commenting on *Tim.* 33c–d) ὁ δὲ κόσμος οὐ δεῖται τροφῆς ἔξωθεν, ἀλλ' αὐτὸς ἑαυτῷ παρέχεται τροφήν καὶ αὔξων ἑαυτὸν καὶ φθίσιν ἑαυτῷ παρέχων· πρῶτον μὲν, εἰ βού-

λει, κατὰ τὴν εἰς δύο διαίρεσιν, αὐξωντος μὲν πάντα τοῦ οὐρανοῦ καὶ μεταβάλλοντος, αὐξομένων δὲ καὶ φθινόντων τῶν ὑπὸ σελήνην· ἡ γὰρ ἄλλου γένεσις ἄλλου φθορά ἐστίν, ἑκατέρας δὲ ἐστὶ τοῦ οὐρανοῦ κίνησις αἰτία.

§3 Philolaus: Plato *Tim.* 55c–d πολλαὶ κατὰ πολλὰ φθοραὶ γεγόνασιν ἀνθρώπων καὶ ἔσονται, πυρὶ μὲν καὶ ὕδατι μέγισται, μυρίοις δὲ ἄλλοις ἕτεροι βραχυτέροι. τὸ γὰρ οὖν καὶ παρ' ὑμῖν λεγόμενον, ὥς ποτε Φαέθων Ἡλίου παῖς τὸ τοῦ πατρὸς ἄρμα ζεύξας διὰ τὸ μὴ δυνατὸς εἶναι κατὰ τὴν τοῦ πατρὸς ὁδὸν ἐλαύνειν τὰ τ' ἐπὶ γῆς συνέκαυσεν καὶ αὐτὸς κεραυνωθείς διεφθάρη, τοῦτο μύθου μὲν σχῆμα ἔχον λέγεται, τὸ δὲ ἀληθές ἐστὶ τῶν περὶ γῆν κατ' οὐρανὸν ἰόντων παράλλαξις καὶ διὰ μακρῶν χρόνων γιγνομένη τῶν ἐπὶ γῆς πυρὶ πολλῷ φθορά. ... ὅταν δ' αὖ θεοὶ τὴν γῆν ὕδασι καθαίροντες κατακλύζωσιν ... **Aristotle *Mete.* 1.4 341b6–12** θερμαινομένης γὰρ τῆς γῆς ὑπὸ τοῦ ἡλίου τὴν ἀναθυμίασιν ἀναγκαῖον γίνεσθαι μὴ ἀπλήν, ὥς τινες οἴονται, ἀλλὰ διπλήν, τὴν μὲν ἀτμιδωδεστέραν τὴν δὲ πνευματωδεστέραν, τὴν μὲν τοῦ ἐν τῇ γῇ καὶ ἐπὶ τῇ γῇ ὑγροῦ ἀτμίδα, τὴν δ' αὐτῆς τῆς γῆς οὐσης ξηρὰς καπνώδη· καὶ τούτων τὴν μὲν πνευματώδη ἐπιπολάζειν διὰ τὸ θερμόν, τὴν δὲ ὑγροτέραν ὑφίστασθαι διὰ τὸ βάρος. ***Mete.* 2.4 354b33–355a1** διὸ καὶ γελοῖοι πάντες ὅσοι τῶν πρότερον ὑπέλαβον τὸν ἥλιον τρέφεσθαι τῷ ὑγρῷ· καὶ διὰ τοῦτ' ἔνιοί γε φασιν καὶ ποιεῖσθαι τὰς τροπὰς αὐτόν ... **Plutarch *Fac.Lun.* 940A–B** κινδυνεύει γὰρ ... πρὸς τὸν ἥλιον ἀντιπαθεῖ φύσιν ἔχειν, εἴγε μὴ μόνον, ὅσα πυκνοῦν καὶ ξηραίνειν ἐκείνος, αὕτη μαλάσσειν καὶ διαχεῖν πέφυκεν, ἀλλὰ καὶ τὴν ἀπ' ἐκείνου θερμότητα καθυγραίνειν καὶ καταψύχειν προσπίπτουσιν αὐτῇ καὶ συμμιγνυμένην. **Alexander of Aphrodisias in *Mete.* 38.28–32 (on 1.8 345a11)** τρίτην δὲ φησι δόξαν (Hippocrates of Chios 42A6 DK) εἶναι περὶ τοῦ γάλακτος τὴν λέγουσαν ἀνάκλασιν εἶναι τὸ γάλα τῆς ἡμετέρας ὀψεως ἀπὸ τινος ἀναθυμιάσεως, ἢ τις εἶναι δοκεῖ τὸ γάλα, ἐπὶ τὸν ἥλιον, ἔνοπτρον γινόμενον τῇ ὀψει τῷ ἀπὸ τοῦ ἡλίου ὑπ' αὐτῆς ὁρωμένῳ φωτί, ὥς ἔλεγον οἱ περὶ Ἰπποκράτην καὶ τὸν κομήτην γίνεσθαι.

Liber 2 Caput 5a

S: Stobaeus, *Eclogae* 1.21.1, p. 181.21–22 + 1.21. 6de, pp. 186.27–187.7 Wachsmuth;
Diels *DG* 332^b18–27; cf. Phot. *Bibl.* 167, p. 112b6 Henry (titulus solus)

Titulus <ε+'. Ποῦ ἔχει τὸ ἡγεμονικὸν ὁ κόσμος> (S)

§1 Πλάτων τὸ ἡγεμονικὸν τοῦ κόσμου ἐν οὐρανῷ. (S1)

§2 Κλέανθης ὁ Στωικός ἐν ἡλίῳ. (S3)

§3 Ἀρχέδημος ἐν γῇ. (S4)

§4 Φιλόλαος ἐν τῷ μεσαιτάτῳ πυρί, ὅπερ τρόπεως δίκην προυπεβάλλετο 5
τῆς τοῦ παντός <σφαίρας> ὁ δημιουργὸς θεός. (S2)

§1 Plato *Tim.* 36e–37c; §2 Cleanthes *SVF* 1.499; §3 Archedemus *SVF* fr. 15; §4 Philolaus 44A17 DK

lemmata non hab. P **titulum** addidimus ex tit. Stob. c. 1.21 et ap. Phot. qui legunt καὶ ποῦ ἔχει τὸ ἡγεμονικὸν (vid. supra cc. 2.1, 2.3, 2.5) || ὁ κόσμος add. Diels §1 [2] Πλάτων ... οὐρανῷ coniecimus ex S §2 [3] Κλέανθης ὁ Στωικός ἐν ἡλίῳ scripsimus ex S : ἔφησεν εἶναι τὸ ἡγεμονικὸν τοῦ κόσμου add. S §3 [4] Ἀρχέδημος ἐν γῇ scripsimus ex S : τὸ ἡγεμονικὸν τοῦ κόσμου ὑπάρχειν ἀπεφῆνατο add. S §4 [5] post Φιλόλαος hab. τὸ δὲ ἡγεμονικὸν S || [6] τῆς τοῦ παντός <σφαίρας> Diels VS Huffman : τῆς τοῦ παντός S : τῇ τοῦ παντός <σφαίρα> Heeren Diels *DG* Wachsmuth || θεός om. S^p

loci Aetiani:

titulus A 4.5 Τί τὸ τῆς ψυχῆς ἡγεμονικὸν καὶ ἐν τίνι ἐστίν. A 4.21 Πόθεν αἰσθητικὴ γίνεται ἡ ψυχὴ καὶ τί αὐτῆς τὸ ἡγεμονικόν.

quaestio A 4.21.5 (de Stoicis) αὐτὸ δὲ τὸ ἡγεμονικὸν ὥσπερ ἐν κόσμῳ <ὁ θεός> κατοικεῖ ἐν τῇ ἡμετέρᾳ σφαιροειδεῖ κεφαλῇ.

§4 A 1.7.23 ... τῇ σφαίρᾳ τοῦ παντός ... A 3.14.1 ... τῇ τοῦ παντός {οὐρανοῦ} σφαίρᾳ ... A 5.17.1–3 τί πρῶτον τελεσιουργεῖται ἐν τῇ γαστρὶ. οἱ Στωικοὶ ἅμα ὅλον γίνεσθαι. Ἀριστοτέλης πρῶτον τὴν ὀσφὺν ὡς τρόπιν νεώς. Ἀλκμαίων τὴν κεφαλὴν, ἐν ᾗ ἔστι τὸ ἡγεμονικόν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The only witness for this chapter is S. Both in the heading of ch. 1.21 and in its contents he records material on the question of the cosmos' ruling part which can come from nowhere else other than A. Diels *DG* 62 rightly observed that P

in the process of epitomization must have skipped a chapter originally present in A. See further M–R 1.186. But he did not wish to introduce a separate chapter in his reconstruction, and so misleadingly placed the material at the end of ch. 2.4. This move was no doubt motivated by the placement of its heading in the title of S 1.21 (see next section). In his apparatus at 333b19, however, he recognizes that it comes after ch. 2.5.

The three doxai at S 1.21.6de, in all of which the term τὸ ἡγεμονικόν occurs, clearly should be assigned to this chapter. We should note, however, that the term and the topic also occur at the beginning of S 1.21, when S gives a summary of Platonic doctrine. It is highly probable that this refers to another doxa in the original chapter, particularly since it covers an important option that is otherwise unrepresented.

There is a parallel chapter for the ἡγεμονικόν of the microcosm and its location at ch. 4.5. Remarkably P also deleted a subsequent chapter on the νοῦς and where it comes from; see below ch. 4.7a.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The reports on the question of the cosmos' ruling part in doxographical texts are more or less confined to reports of divergences in Stoic views: see Cicero *ND* 1.39, *Luc.* 126, Arius Didymus fr. 29 Diels at Eus. *PE* 15.15.7–8 and D.L. 7.139 (texts below section E(a) General texts). The question is then retrospectively applied to the cosmology of Plato's *Timaeus*; see texts in Theon of Smyrna and Proclus cited below in section E(b§1). As in ch. 2.3, the question is not relevant for atomist cosmology.

(2) *Sources.* The question dealt with in this chapter has a double origin. Firstly it follows on from the view that the cosmos is animate and ensouled (cf. ch. 2.3). This allows the analogy between macrocosm and microcosm, which is central to Plato's cosmology in the *Timaeus* and finds its focus especially in the conception of the World Soul. (As we saw, this analogy is also the basis for the question posed in ch. 2.5.) The second step is when the Stoics develop a psychology in which the νοῦς is called τὸ ἡγεμονικόν, and this notion is then also applied to the cosmos; cf. Hahm (1977) 150. The precise location of this cosmic 'ruling part' then became a source of controversy.

Not surprisingly there is no mention of the 'ruling part' in Presocratic texts (except the Philolaus text here, on which see below D(c) below). But the question is raised by Aristotle in a discussion on what is the 'centre' (τὸ μέσον) of the universe, which according to his report the Pythagoreans regarded as the dominant part (τὸ κυριώτατον, *Cael.* 2.13 293b3). This led them to posit their doctrine of a central fire, as outlined in A 2.7.6 (Philolaus). In his own cosmology the Unmoved mover may be regarded as having the role of the 'ruling part'. It

is mentioned A 1.7.23 as the ‘highest god’ and a ‘separate form’, which based on the account in *Met.* Λ.7, but there is no mention of it in *Cael.* and also not here.

C Chapter Heading

The chapter’s heading, missing of course in P’s pinax, can be derived from the heading S gives to 1.21, namely *Περὶ κόσμου καὶ εἰ ἔμψυχος καὶ προνοία διοικούμενος καὶ ποῦ ἔχει τὸ ἡγεμονικὸν καὶ πόθεν τρέφεται* (confirmed by Photius). In reconstructing the title Diels was right to add the words *ὁ κόσμος*, as the formulation of the headings in chs. 2.3–5 show.

This is the only chapter heading to use the formula *ποῦ ἔχει* in asking the question of location. The parallel chapter for the microcosm is A 4.7 *Τί τὸ τῆς ψυχῆς ἡγεμονικὸν καὶ ἐν τίνι ἐστίν*. On headings that use prepositions or phrases to ask questions see ch. 1.1. Commentary C.

D Analysis

a Context

If the cosmos is a living being, as is assumed in the questions asked in chs. 2.3–5 (even if the option that it is not is also taken into account in ch. 2.3), then it is logical to ask where the source of its rational motions is.

The analogy between macrocosm and microcosm, which goes back to Plato’s *Timaeus* and even earlier in Greek philosophy, is crucial to the way the *Placita* are organized (cf. M–R 2.1.40). The same subject is examined in relation to the microcosm at A 4.5 *Τί τὸ τῆς ψυχῆς ἡγεμονικὸν καὶ ἐν τίνι ἐστίν* and 4.21 *Πόθεν αἰσθητικὴ γίνεται ἡ ψυχὴ καὶ τί αὐτῆς τὸ ἡγεμονικόν*.

b Number–Order of Lemmata

It is likely that the Platonic lemma, which gives the most general and commonly held view on the subject, would be presented first. It is equivalent to the view attributed to Chrysippus in the doxographies noted above, in which the ‘ruling part’ is the aether. The other three doxai do not necessarily have to follow the order found in S, because the first (Philolaus) has been clustered with an earlier doxa (A 2.5.3). As the most unusual doxa, it most likely came last. See the next section.

c Rationale–Structure of Chapter

Of the four doxai the first two place the cosmos’ ruling part at the periphery of the cosmos, either in the heaven (aether) or more specifically in the sun. The second two place it in the centre, either in the earth or in the Pythagorean central fire. The chapter thus consists of a main diaeresis, with each of the options again divided into two. In addition there is a movement from the outer peri-

meter to the very centre of the cosmos. In the Philolaic cosmology recorded in the final doxa the central fire is even more central than the earth. However, it is unlikely that the specific statement in terms of a ‘ruling part’ (as distinct from the cosmology that lies behind it) is derived from Philolaus himself. We agree with the conclusion of Huffman (1993) 401: ‘the whole testimonium is not so much a report of Philolaus’ views as a description of the role of the central fire in terms of later philosophical conceptions’.

d Further Comments

Individual Points

§1 As argued above, the Platonic doxa in the summary of doctrine at ch. 1.21.1 replaces the doxa in A. Its wording may be close to what stood in A, but there can be no certainty. We assume that the question asked in the chapter’s heading is understood in the first and subsequent doxai.

Plato nowhere speaks of a cosmic ‘ruling part’, but its existence could be deduced from *Tim.* 36e–37c where the intellective powers of the World Soul are concentrated in the heavens and it is credited with both δόξαι καὶ πίστεις βέβαιοι καὶ ἀληθεῖς and νοῦς ἐπιστήμη τε (37b8–c2). By implication the location of the World Soul is stated to be the heaven in 36e5. An example of how the Stoics equated the soul of the cosmos and its ἡγεμονικόν is found in a quote from Chrysippus in Plu. *SR* 1053B (but it is corporeal in agreement with Stoic materialism); see Reydamas-Schils (1999) 59, who argues that ‘as to corporeality, the *Timaeus* itself has given some impetus to the development of subsequent views on this question’.

§2 It is probable that the verb of saying and the repetition of the chapter’s subject were added by S in accordance with his usual practice (cf. M–R 1.231). If these are removed, the resultant ‘bald’ style is similar to what is found in chapters such as 2.2, 2.22, 2.27, and also tellingly in the parallel chapter on the human ἡγεμονικόν, 4.5.

§3 Here too the additional phraseology will have been added by S. It seems odd, given the assumptions on which the doctrine is based, that the ‘ruling part’ should be ‘in the earth’. But Archedemus may have pointed out that volcanic activity shows that there is fire inside the earth and so at the very centre of the universe. This minor Stoic is not mentioned anywhere else in the *Placita*. The view is reported anonymously by AD at Eus. *PE* 15.15.8, so it is definitely not just made up by A.

§4 The phrase τῆς (or τῇ) τοῦ παντός needs a noun that is missing in the mss. Since it seems that the verb προὔποβάλλω can take either the genitive or the dative it is preferable to retain τῆς as transmitted and supply σφαίρας as the missing noun (with Huffman, *contra* M–R 2.2.379). Remarkably, as Diels *DG* 186 noted,

the same image of the keel of a ship is found in Arist. *Met.* Δ.1 1013a5, where it is followed by the example of the human heart, i.e. the ἡγεμονικόν in later Hellenistic terminology. This will not be a coincidence. The image reappears in ch. 5.17, where the view is attributed to Aristotle that the loins are the first part of the embryo to be formed (5.17.2). See further our discussion there, Commentary B.

e Other Evidence

This brief chapter is an excellent example of how the *Placita* tradition underwent various phases. The general schema of macrocosm and microcosm goes back to early Greek philosophy and exerts an influence on Plato (and also on Aristotle, but more on the structure of his writings than his actual doctrine; see M–R 2.1.40). There is a Stoic overlay which imports some specific Stoic terminology, which is then retroactively applied to Plato and a Pythagorean thinker such as Philolaus. Finally, it is worth noting that the concept of the cosmos' ἡγεμονικόν is absent in Achilles or the Aratea.

E Further Related Texts

a Proximate Tradition

General texts: Stoics at D.L. 7.139 (*SVF* 2.644) οὕτω δὴ καὶ τὸν ὅλον κόσμον ζῶον ὄντα καὶ ἔμψυχον καὶ λογικόν, ἔχειν ἡγεμονικόν μὲν τὸν αἰθέρα, καθά φησιν Ἀντίπατρος ὁ Τύριος ἐν τῷ ὀγδόῳ Περὶ κόσμου (—). Χρύσιππος δ' ἐν τῷ πρώτῳ Περὶ προνοίας καὶ Ποσειδώνιος ἐν τῷ Περὶ θεῶν (F 39 E.-K., 347 Theiler) τὸν οὐρανὸν φασὶ τὸ ἡγεμονικόν τοῦ κόσμου, Κλεάνθης δὲ τὸν ἥλιον (*SVF* 1.499). ὁ μὲντοι Χρύσιππος διαφορώτερον πάλιν τὸ καθαρώτερον τοῦ αἰθέρος ἐν ταύτῳ, ὃ καὶ πρῶτον θεὸν λέγει ... cf. **Philodemus** *Piet.* 545.27–28 Diels and ed. Schober *CronErc* 18 (1988) 118 ἀλλὰ μὴν καὶ Χρύσιππος (*SVF* 2.1076) ... ἐν μὲν τῷ πρώτῳ Περὶ θεῶν ... φησὶν ... τὸν τε κόσμον ἔμψυχον εἶναι καὶ θεὸν καὶ τὸ ἡγεμονικόν καὶ τὴν ὅλην ψυχὴν. **Cicero** *ND* 1.39 (Velleius the Epicurean speaking) *Chrysippus* (*SVF* 2.1077) ... *ait ... vim divinam in ratione esse positam et in universae naturae animo atque mente, ipsumque mundum deum dicit esse et eius animi fusionem universam, tum eius ipsius principatum qui in mente et ratione versetur ...* **Luc.** 126 *an Stoicis ipsis inter se disceptare, cum iis non licebit? Zenoni* (*SVF* 1.154) *et reliquis fere Stoicis aether videtur summus deus, mente preaeditus qua omnia regantur, Cleanthes* (*SVF* 1.499), *qui quasi maiorum est gentium Stoicus, Zenonis auditor, solem dominari et rerum potiri putat; ita cogimur dissensione sapientium dominum nostrum ignorare, quippe qui nesciamus soli an aetheri serviamus.* **Arius Didymus** at Eus. *PE* 15.15.7–8 (= Diels fr. 29) ἡγεμονικὸν δὲ τοῦ κόσμου Κλεάνθει (*SVF* 1.499) μὲν ἤρесе τὸν ἥλιον εἶναι διὰ τὸ μέγιστον τῶν ἄστρων ὑπάρχειν ... τισὶ δὲ τῶν ἀπὸ τῆς αἰρέσεως ἔδοξε γῆν τὸ ἡγεμονικὸν εἶναι τοῦ κόσμου, Χρύσιππῳ (*SVF* 2.642) δὲ τὸν αἰθέρα τὸν καθαρώτατον καὶ εἰλικρινέστατον, ἅτε πάντων εὐκινητότατον ὄντα καὶ τὴν ὅλην περιάγοντα τοῦ κόσμου φοράν. **Cornutus** *Comp.* 20, pp. 29.17–30.2 Torres γενέσθαι (sc. Ἀθηνᾶ) δ' ἐκ τῆς τοῦ Διὸς κεφαλῆς λέγεται,

τάχα μὲν τῶν ἀρχαίων ὑπολαβόντων τὸ ἡγεμονικὸν τῆς ψυχῆς ἡμῶν ἐνταῦθ' εἶναι, καθάπερ καὶ ἕτεροι τῶν μετὰ ταῦτα ἐδόξασαν, τάχα δ' ἐπεὶ τοῦ μὲν ἀνθρώπου τὸ ἀνωτάτω μέρος τοῦ σώματος ἡ κεφαλὴ ἐστὶ, τοῦ δὲ κόσμου ὁ αἰθήρ, ὅπου τὸ ἡγεμονικὸν αὐτοῦ ἐστὶ καὶ ἡ τῆς φρονήσεως οὐσία (see also ch. 27, p. 41.11). **Simplicius** in *Cael.* 513.7–9 see below under §3.

Chapter heading: —

§2 **Cleanthes:** See the Stoic doxographies cited above under General texts. **ps.Censorinus** *Epit.disc.* 1.4, p. 61.13 Sallmann *et constat quidem* (sc. mundus) *quattuor elementis terra aqua igne aere. cuius principalem solem quidam putant, ut Cleanthes* (SVF 1.499), *et Chrysippus* (—) *aethera*.

§3 **Archedemus:** See the text of Arius Didymus cited above under General texts. **Simplicius** in *Cael.* 512.28–513.9 καὶ γὰρ δυνατόν πιθανῶς κατασκευάζειν, ὅτι τὸ πῦρ ἐν τῷ μέσῳ ἐστίν, ἀλλ' οὐχ ἡ γῆ· καὶ λοιπὸν ἐκτίθεται πιθανὸν λόγον ἀξιωμα προλαμβάνων, ὅτι τῷ τιμιωτάτῳ τῶν σωμάτων τῶν ὑπὸ σελήνην ἢ τιμιωτάτῃ τῶν ὑπὸ σελήνην προσήκει χώρα, καὶ συλλογιζόμενος ἐν πρώτῳ σχήματι οὕτω· τὸ πῦρ τῶν σωμάτων τιμιώτατον, τοῦ τιμιωτάτου τῶν σωμάτων οἰκείος ὁ τιμιωτάτος τόπος· καὶ συμπέρασμα, ὅτι τοῦ πυρὸς οἰκείος τόπος ὁ τιμιωτάτος· ἀλλὰ μὴν τιμιωτάτος τῶν τόπων ὁ μέσος· τὸ γὰρ πέρας τιμιώτατον, ἐν δὲ τῷ κόσμῳ τὸ ἔσχατον τε καὶ τὸ μέσον πέρατα· ὥστε καὶ τόπος ὑπὸ σελήνην ὁ μέσος τόπος· τοῦ πυρὸς ἄρα οἰκείος τόπος ὁ μέσος. ταύτης δὲ τῆς δόξης νεώτερος μὲν τοῦ Ἀριστοτέλους Ἀρχέδημος (SVF Arch. fr. 16) γέγονε, πρὸ δὲ Ἀριστοτέλους τίνες οὕτως ἐδόξασαν, ἐκ τῆς ἱστορίας, φησὶν Ἀλέξανδρος, ζητητέον.

b Sources and Other Parallel Texts

General texts: **Aristotle** *Cael.* 2.13 293b1–11 ἔτι δ' οἷγε Πυθαγόρειοι (58B37 DK) καὶ διὰ τὸ μάλιστα προσήκειν φυλάττεσθαι τοῦ παντός, τὸ δὲ μέσον εἶναι τοιοῦτον, Διὸς φυλακὴν ὀνομάζουσι τὸ ταύτην ἔχον τὴν χώραν πῦρ, ὥσπερ τὸ μέσον ἀπλῶς λεγόμενον, καὶ τὸ τοῦ μεγέθους μέσον καὶ τοῦ πράγματος δὴ μέσον καὶ τῆς φύσεως. καίτοι καθάπερ ἐν τοῖς ζῴοις οὐ ταῦτόν τοῦ ζώου καὶ τοῦ σώματος μέσον, οὕτως ὑποληπτέον μᾶλλον καὶ περὶ τὸν ὅλον οὐρανόν. διὰ μὲν οὖν ταύτην τὴν αἰτίαν οὐθὲν αὐτοὺς δεῖ θορυβεῖσθαι περὶ τὸ πᾶν, οὐδ' εἰσάγειν φυλακὴν ἐπὶ τὸ κέντρον, ἀλλ' ἐκεῖνο ζητεῖν τὸ μέσον, ποῖόν τι καὶ ποῦ πέφυκεν. **Chrysippus** at **Plu.** *SR* 1053B (SVF 2.605) λέγει δ' ἐν τῷ πρώτῳ περὶ Προνοίας· 'διόλου μὲν γὰρ ὢν ὁ κόσμος πυρώδης εὐθύς καὶ ψυχὴ ἐστὶν ἑαυτοῦ καὶ ἡγεμονικόν.' **Proclus** in *Tim.* 2.104.23 Diehl (commenting on *Tim.* 34b3 τὸ μέσον) καὶ οἱ μὲν ἐν τῷ κέντρῳ τὸ ἡγεμονικὸν ἀποτίθενται τοῦ παντός, οἱ δὲ ἐν σελήνῃ, οἱ δὲ ἐν ἡλίῳ, οἱ δὲ ἐν τῷ ἰσημερινῷ, οἱ δὲ ἐν τῷ ζῳδιακῷ.

Chapter heading: —

§1 **Plato:** **Plato** cf. *Tim.* 36e–37c καὶ τὸ μὲν δὴ σῶμα ὁρατὸν οὐρανοῦ γέγονεν, αὕτη δὲ ἀόρατος μὲν, λογισμοῦ δὲ μετέχουσα καὶ ἁρμονίας ψυχῇ, τῶν νοητῶν ἀεί τε ὄντων ὑπὸ τοῦ ἀρίστου ἀρίστη γενομένη τῶν γεννηθέντων. ... λόγος δὲ ὁ κατὰ ταῦτόν ἀληθὴς γιγνώμενος περὶ τε θάτερον ὄν καὶ περὶ τὸ ταῦτόν, ἐν τῷ κινουμένῳ ὑφ' αὐτοῦ φερόμενος ἄνευ φθόγγου καὶ ἡχῆς, ὅταν μὲν περὶ τὸ αἰσθητὸν γίγνηται καὶ ὁ τοῦ θατέρου κύκλος ὁρθὸς ἰὼν εἰς πάσαν αὐτοῦ τὴν ψυχὴν διαγγελῇ, δόξα

καὶ πίστεις γίνονται βέβαιοι καὶ ἀληθεῖς, ὅταν δὲ αὖ περὶ τὸ λογιστικὸν ἦ καὶ ὁ τοῦ ταύτου κύκλος εὐτροχος ὧν αὐτὰ μηνύσῃ, νοῦς ἐπιστήμη τε ἐξ ἀνάγκης ἀποτελεῖται. **Theo of Smyrna** *Exp.* pp. 187.20–188.7 Hiller ἄλλο γὰρ ἐν τοῖς ἐμψύχοις τὸ μέσον τοῦ πράγματος, τουτέστι τοῦ ζώου ἢ ζῶου, καὶ ἄλλο τοῦ μεγέθους· οἶον, ὡς ἔφαμεν, ἡμῶν αὐτῶν ἄλλο μέν, ὡς ἀνθρώπων καὶ ζῶων, τῆς ἐμψυχίας μέσον τὸ περὶ τὴν καρδίαν ... τοῦ δὲ μεγέθους ἡμῶν ἕτερον μέσον, οἶον τὸ περὶ τὸν ὀμφαλόν. ὁμοίως δὲ καὶ τοῦ κόσμου παντός ... τοῦ μεγέθους μέσον τὸ περὶ τὴν γῆν κατεψυγμένον καὶ ἀκίνητον· ὡς κόσμου δὲ καὶ ἡ κόσμος καὶ ζῶον τῆς ἐμψυχίας μέσον τὸ περὶ τὸν ἥλιον, οἶονεὶ καρδίαν ὄντα τοῦ παντός ... cf. 138.10–19 τὴν δὲ κατὰ τόπον τῶν σφαιρῶν (ἢ) κύκλων θέσιν τε καὶ τάξιν, ἐν οἷς κείμενα φέρεται τὰ πλανώμενα, τινὲς μὲν τῶν Πυθαγορείων τοιάνδε νομίζουσι· προσγειότατον μὲν εἶναι τὸν τῆς σελήνης κύκλον, δεύτερον δ' ὑπὲρ τούτον (τὸν τοῦ) Ἑρμοῦ, ἔπειτα τὸν τοῦ φωσφόρου, καὶ τέταρτον (τὸν) τοῦ ἡλίου, εἶτα τὸν τοῦ Ἄρεως, ἔπειτα τὸν τοῦ Διός, τελευταῖον δὲ καὶ συνέγγυς τοῖς ἀπλανέσι τὸν τοῦ Κρόνου· μέσον εἶναι βουλόμενοι τὸν τοῦ ἡλίου τῶν πλανωμένων ὡς ἡγεμονικώτατον καὶ οἶον καρδίαν τοῦ παντός. μηνύει δὲ ταῦτα καὶ Ἀλέξανδρος ὁ Αἰτωλός.

§4 **Philolaus**: On the Pythagoreans see **Aristotle** *Cael.* 2.13 293b1–11, cited above under General texts.

Liber 2 Caput 6

P^B: ps.Plutarchus 887A–C; pp. 333^a13–335^a4 Diels—**P^E**: Eusebius *PE* 15.37, pp. 409.17–410.10 Mras, cf. 15.32.8, p. 406.10–11—**P^G**: ps.Galenus *HPh* c. 49; p. 622.7–19 Diels—**P^Q**: Qustā ibn Lūqā pp. 142–145 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 18.1–5, p. 25 Westerink
S: Stobaeus, *Eclogae* 1.21.3b, p. 183.3–5 + 1.21.6c, p. 186.16–21 + 1.22.1f, p. 197.12–15 Wachsmuth
 Cf. Ach: Achilles *Univ.* cc. 6–7, p. 17.10–19 Di Maria

Titulus ζ'. Ἀπὸ ποίου πρώτου στοιχείου ἤρξατο ὁ θεὸς κοσμοποιεῖν (P)

- §1 οἱ φυσικοὶ καὶ οἱ Στωικοὶ ἀπὸ γῆς ἄρξασθαι φασὶ τὴν γένεσιν τοῦ κόσμου καθάπερ ἀπὸ κέντρου· ἀρχὴ δὲ σφαίρας τὸ κέντρον. (P₁,S₁)
- §2 Πυθαγόρας ἀπὸ πυρὸς καὶ τοῦ πέμπτου στοιχείου. (P₂,S₂)
- §3 Ἐμπεδοκλῆς τὸν μὲν αἰθέρα πρῶτον διακριθῆναι, δεύτερον δὲ τὸ πῦρ ἐφ' ᾧ τὴν γῆν, ἐξ ἧς ἄγαν περισφιγγομένης τῇ ῥύμῃ τῆς περιφορᾶς ἀναβλύσαι τὸ ὕδωρ· ἐξ οὗ ἀναθυμιαθῆναι τὸν ἀέρα καὶ γενέσθαι τὸν μὲν οὐρανὸν ἐκ τοῦ αἰθέρος τὸν δ' ἥλιον ἐκ τοῦ πυρός, πηληθῆναι δ' ἐκ τῶν ἄλλων τὰ περίγεια. (P₃) 5
- §4 Πλάτων τὸν ὁρατὸν κόσμον γεγενῆσθαι πρὸς παράδειγμα τοῦ νοητοῦ κόσμου· τοῦ δ' ὁρατοῦ κόσμου προτέραν μὲν τὴν ψυχὴν, μετὰ δὲ ταύτην 10

§1 physici —; Stoici *SVF* 2.581; §2 Pythagoras —; §3 Empedocles 31A49 DK; §4 Plato cf. *Tim.* 28a–b, 31b–32c, 34b–c

titulus Ἀπὸ ποίου πρώτου στοιχείου **P^{B(1,11)Q^S}**, cf. **SL-ind ex P** : πρῶτου **om.** **P^{B(111:Laur.31.37)G}**, **SL ex P** : στοιχείου **om.** **P^E** || ἤρξατο] ἤρξεται **P^G** || ὁ θεὸς κοσμοποιεῖν **P^{EG}** : κοσμοποιεῖν ὁ θεός **P^{BSL-ind ex P}** : τὸν κόσμον ποιεῖν ὁ θεός **P^S** || **pro tit. hab. in marg.** **P^{B(111:z)}** πόθεν ἄρχεται ὁ κόσμος καὶ ἐκ ποίων στοιχείων §1 [2] οἱ φυσικοὶ καὶ οἱ Στωικοὶ **scripsimus dubitanter** : οἱ φυσικοὶ **P** Diels, οἱ Στωικοὶ **S** cf. Ach || **post** ἀπὸ γῆς **add.** δὲ **S** || ἄρξασθαι] ἤρχεται **P^G** || φασὶ **om.** **S** (λέγουσιν **P^G**) || [2–3] τὴν ... κόσμου] αὐτὸν **P^G** || [3] ἀρχή ... κέντρον] **om.** **P^G** §2 [4] Πυθαγόρας] **add.** δὲ **P^G** || **ante** ἀπὸ **habet** **S** ἄρξασθαι δὲ τὴν γένεσιν τοῦ κόσμου || καὶ ... στοιχείου **om.** **P^G** §3 **non hab.** **S** || [5] Ἐμπεδοκλῆς **P^{BEG}** : Διοκλῆς **P^G** || **post** διακριθῆναι **add.** **P^G** φησί || δὲ] **om.** **P^E** || [6] **post** γῆν **hab.** **P^G** ἐξηγησέσθαι || [6–7] ἐξ ἧς ... τὸ ὕδωρ **P^B** : ἄγαν, τῇ ῥύμῃ τῆς περιφορᾶς **om.** **P^Q** : ἐξ ἧς ... ἀναβλύσαι **om.** **P^G** **qui add.** εἶτα || [6] περιφορᾶς **P^B** : σφαίρας **P^E** || [7] ἀναθυμιαθῆναι **P^G** **prob.** Reiske Diels Mau Lachenaud Laks–Most, **leg. et P^Q ut vid.** (*verdampft* **Q**) : θυμιαθῆναι **P^{B(1,11)E}** **prob.** Vitek : θυμιασθῆναι **P^{B(11)}** : ἀναθυμιαθῆναι **P^G** || καὶ γενέσθαι] γενέσθαι δὲ **P^G** || [8] αἰθέρος **P^{BEG}** : ἀέρος **P^{B(111:Laur.31.37)Q}** || [8–9] πηληθῆναι ... περίγεια **om.** **P^G** || [8] πηληθῆναι **P^{BQ}** : εἰληθῆναι **P^E** §4 [10] Πλάτων] **add.** δὲ **P^G** || τὸν ὁρατὸν κόσμον **P^{BS}** : ὁρατὸν τὸν κόσμον **P^{EG}** Diels (γεγενῆσθαι **ante** τὸν κόσμον **pos.** **P^G**) || **ante** πρὸς (**om.** **S**) **add.** **P^G** δὲ γίγνεσθαι (**v.l.** γίγνεται **sec. Jas per litt.**) || [11] κόσμου¹] **om.** **P^G** || τοῦ δ' ὁρατοῦ **P^{EGS}** Diels : **post** ὁρατοῦ **add.** κόσμου **P^{BQ}** || μὲν **P^{EGQ}** (**ut vid.**) **S** Diels : μὲν εἶναι **P^B** || μετὰ δὲ ταύτην **P^{BQ}** : μετὰ δὲ ταῦτα **P^E** : μετ' αὐτὴν δὲ **P^G**

τὸ σωματοειδὲς τὸ ἐκ πυρὸς μὲν καὶ γῆς πρῶτον, ὕδατος δὲ καὶ ἀέρος
δεύτερον. (P4,S4)

§5 Πυθαγόρας πέντε σχημάτων ὄντων στερεῶν, ἅπερ καλεῖται καὶ μαθη-
ματικά, ἐκ μὲν τοῦ κύβου φησὶ γεγενῆσθαι τὴν γῆν, ἐκ δὲ τῆς πυραμίδος 15
τὸ πῦρ, ἐκ δὲ τοῦ ὀκταέδρου τὸν ἀέρα, ἐκ δὲ τοῦ εἰκοσαέδρου τὸ ὕδωρ,
ἐκ δὲ τοῦ δωδεκαέδρου τὴν τοῦ παντὸς σφαῖραν. (P5,S3)

§6 Πλάτων δὲ καὶ ἐν τούτοις πυθαγορίζει. (P6)

§5 Pythagoras 44A15 DK (= Philolaus); §6 Plato cf. *Tim.* 53e–55c

[12] τὸ¹ ... πυρὸς] τοῦ σώματος τὸ εἶδος γεγενῆσθαι ἐκ τοῦ πυρὸς P^G || τὸ²] om. P^E || γῆς P^{B(I,II)EG} :
τῆς γῆς P^{B(III)} || [12–13] πρῶτον, δεύτερον P^{B(III)GQ} : πρῶτων, δευτέρων P^{B(I,II)E} §5 [14] πέντε
... στερεῶν P^{BES} : στερεῶν om. P^Q : σώματα τῶν στερεῶν ὥθηθη P^G || καλεῖται καὶ] καλεῖ P^G ||
post καλεῖται hab. σώματα P^Q || [15] τοῦ κύβου P^{B(I,II)EGQS} : τοῦ κόσμου P^{B(I)} : τοῦ κύκλου
P^{B(III:Laur.31.37)} || [16] inter ὀκταέδρου et τὸ hab. lac. P^G || [16–17] τὸ ὕδωρ ... δωδεκαέδρου P^{BGQ} :
om. P^{ES} §6 non hab. S || [18] post δὲ add. συμφέρεται P^G || πυθαγορίζει P^{BEG(ut vid.)} : τῷ Πυθα-
γόρᾳ P^G

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 49 (~ tit.) Ἀπὸ ποίου στοιχείου ἤρκεται ὁ θεὸς κοσμοποιεῖν (text
Diels)

49.1 (~ P1) οἱ φυσικοὶ ἀπὸ γῆς ἤρχθαι λέγουσιν αὐτὸν καθάπερ ἀπὸ κέντρου.

49.2 (~ P2) Πυθαγόρας δὲ ἀπὸ πυρὸς.

49.3 (~ P3) Διοκλῆς τὸν μὲν αἰθέρα πρῶτον διακριθῆναι φησι, δεύτερον δὲ πῦρ, ἐφ’
ὃ γῆν ἐξενηνέχθαι, εἶτα ὕδωρ, ἐξ οὗ ἀναθυμιαθῆναι τὸν ἀέρα. γενέσθαι δὲ τὸν μὲν
οὐρανὸν ἐκ τοῦ αἰθέρος, τὸν δὲ ἥλιον ἐκ τοῦ πυρὸς.

49.4 (~ P4) Πλάτων δὲ ὁρατὸν γεγενῆσθαι τὸν κόσμον, ὃς γίγνεσθαι πρὸς παρά-
δειγμα τοῦ νοητοῦ. τοῦ δὲ ὁρατοῦ πρότερον μὲν τὴν ψυχὴν, μετ’ αὐτὴν δὲ τὸ
σώματοειδὲς γεγενῆσθαι ἐκ τοῦ πυρὸς μὲν καὶ γῆς πρῶτον, ὕδατος δὲ καὶ ἀέρος
δεύτερον.

49.5 (~ P5) Πυθαγόρας σώματα τῶν στερεῶν ὥθηθη, ἅπερ καλεῖ μαθηματικά. ἐκ μὲν
γὰρ τοῦ κύβου γεγενῆσθαι τὴν γῆν φησιν, ἐκ δὲ τῆς πυραμίδος τὸ πῦρ, ἐκ δὲ τοῦ
ὀκταέδρου [...] τὸ ὕδωρ, ἐκ δὲ τοῦ δωδεκαέδρου τὴν τοῦ παντὸς σφαῖραν.

49.6 (~ P6) Πλάτων δὲ συμφέρεται καὶ ἐν τούτοις τῷ Πυθαγόρᾳ.

Psellus *Omn.Doctr.* c. 18.1–12 Ἀπὸ ποίου πρώτου στοιχείου ἤρξατο τὸν κόσμον ποι-
εῖν ὁ θεός (~ tit.)

Μωῦσῆς μὲν ὁ θεόπτης οὐρανῷ ἅμα καὶ γῇ τὰ πρεσβεία δίδωσι τῆς τοῦ κόσμου γενέ-
σεως. τῶν δὲ παρ’ Ἑλλήσι σοφῶν ἄλλοι ἄλλως ὥθηθησαν. οἱ μὲν γὰρ τὴν γῆν πρῶ-
τον παράγουσιν ὡς κέντρον τοῦ οὐρανοῦ κύκλου, ἐπεὶ καὶ τοῦ ἐπιπέδου κύκλου
τὸ κέντρον πρεσβύτερον (~ P1). ἕτεροι δὲ εἰς τὰ τέσσαρα στοιχεῖα καὶ τὸ πέμπτον
σῶμα τὸ αἰθέριον τὸν σύμπαντα διαιροῦντες κόσμον καὶ τὸ τετράστοιχον ὑπὸ τοῦ
αἰθέρος διοικεῖσθαι νομίζοντες, τὸ κάλλιστον δὲ τοῦ αἰθέρος ὁ οὐρανός, πρῶτον
τούτων γεγενῆσθαι φασίν (cf. P3). ὅσοι δὲ ἀγέννητον τὸν κόσμον σαφῶς ἀπεφή-

ναντο ὁμοῦ τὸ πᾶν εἶναι ἀκολούθως ἑαυτοῖς λέγουσι. δεῖ δὲ μᾶλλον οἶεσθαι τὸν οὐρανὸν πρῶτον γεγενῆσθαι, ὡς καὶ κρεῖττον σῶμα καὶ τῶν ἄλλων περιληπτικόν.

Testes secundi:

Achilles Univ. c. 6 p. 17.10–13 οἱ δὲ Πυθαγόρειοι, ἐπεὶ πάντα ἐξ ἀριθμῶν καὶ γραμμῶν συνεστάναι θέλουσι, τὴν μὲν γῆν φασιν ἔχειν σχῆμα κυβικόν, τὸ δὲ πῦρ πυραμοειδές, τὸν δ' ἀέρα ὀκτάεδρον, τὸ δὲ ὕδωρ εἰκοσάεδρον, τὴν δὲ τῶν ὅλων σύστασιν δωδεκάεδρον (~ §5).

c. 7, p. 17.14–19 οἱ Στωϊκοὶ φασιν ἐκ τῆς γῆς τὴν ἔξωθεν γίνεσθαι πρῶτον περιφορὰν· ἐπεὶ γὰρ ἡ γῆ κέντρου τάξιν ἐπέχει, ὅπως περ ἀπὸ κέντρου κύκλος γίνεται, οὕτω καὶ ἀπὸ τῆς γῆς εἰκὸς ἔξω περιφέρειαν γεγενῆσθαι. οἱ δὲ φασὶ τὸ πῦρ (διὰ τὸ) ἀνωφερές εἶναι καὶ τὴν κύκλῳ φορὰν εἰσθὲς ποιείσθαι τὴν σύστασιν τῆς τῶν ὅλων περιφορᾶς πεποιήσθαι (~ §1).

Loci Aetiani:

titulus A 5.17 Τί πρῶτον τελεσιουργεῖται ἐν γαστρί. A 5.23 Πότε καὶ πῶς ἄρχεται ὁ ἄνθρωπος τῆς τελειότητος.

quaestio A 1.4 Πῶς συνέστηκεν ὁ κόσμος. A 5.17 Τί πρῶτον τελεσιουργεῖται ἐν γαστρί. A 5.22 Ἐκ ποίων συνίσταται στοιχείων ἕκαστον τῶν ἐν ἡμῖν γενικῶν μορίων. A 1.3.9 (de Heraclito et Hippaso) ἐκ πυρὸς γὰρ τὰ πάντα γίνεσθαι καὶ εἰς πῦρ πάντα τελευτᾶν λέγουσι· τούτου δὲ κατασβεσθέντος κοσμοποιοῖσθαι τὰ πάντα. πρῶτον μὲν γὰρ τὸ παχυμερέστατον αὐτοῦ εἰς αὐτὸ συστελλόμενον γῆ γίγνεται, ἔπειτα ἀναχλωμένην τὴν γῆν ὑπὸ τοῦ πυρὸς φύσει ὕδωρ ἀποτελεῖσθαι, ἀναθυμιάμενον δ' ἀέρα γίνεσθαι. A 1.7.6 Ἀναξαγόρας νοῦν κοσμοποιὸν τὸν θεόν.

§1 A 2.7.6 (de Philolao) πρῶτον δ' εἶναι φύσει τὸ μέσον.

§3 A 2.7.3 Ἐμπεδοκλῆς μὴ διὰ παντὸς ἐστῶτας εἶναι μὴδ' ὠρισμένους τοὺς τόπους τῶν στοιχείων, ἀλλὰ πάντα τοὺς ἀλλήλων μεταλαμβάνειν.

§4 A 1.7.22 (de Platone) τούτου δὲ πατρὸς καὶ ποιητοῦ τὰ ἄλλα θεῖα ἔγγονα νοητὰ μὲν (ὃ τε νοητὸς λεγόμενος κόσμος), παραδείγματα δ' ἐστὶ τοῦ ὁρατοῦ κόσμου.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The evidence for this chapter is solid.

(1) P is again attested by the four main witnesses P^BEGQ, who all record the same six doxai. Ps takes over the title and briefly alludes to the first and third doxai.

(2) S's evidence is less straightforward. Despite its theological and Platonic-sounding title, he seemingly does not find the subject important, not including its title in any of his chapter titles and scattering the doxai, of which he retains

only four, to various locations. The first doxa in P is included as part of a cluster of Stoic views (on the name-label see below section D(d)§1) in S 1.21. The two doxai with the name-label Pythagoras in P are included in another cluster in the same chapter. The first Platonic doxa is included in S 1.22 on the cosmos' τάξις, where it is followed by a quote from *Tim.* 32c5–33a2. But the appended doxa at the end (P6) is left out. The Empedoclean doxa (P3) is also omitted, probably through an oversight. No other material in S is likely to have originated in this chapter.

(3) Ach records differing versions of the first two doxai (the former with the name-label Stoics) and the fifth spread out over chapters on the cosmos' shape and its revolution. For these passages the theme of cosmogenesis is lacking. His earlier chapter §4 Περὶ τῆς συστάσεως τῶν ὄλων contains similar doxographical material, which we shall discuss in relation to A 2.7.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The scattered material in Ach shows that A's chapter had a predecessor in the earlier tradition. There is, however, no further evidence in the proximate tradition. The question is not formulated elsewhere as such and does not appear to have been prominent in the broader doxographical tradition as far as we can tell from the surviving evidence. The parallel texts that we have collected discuss the subject of this chapter, but do not treat it dialectically.

(2) *Sources.* Given the large number of philosophers in the tradition who affirm that the cosmos had an origin (cf. ch. 2.4), it is an obvious question as to how that process of genesis took place. There are various texts in Aristotle (see section E(b) General texts) which refer to the views of earlier philosophers on this question. Implicit in his treatment is a distinction between those who begin the process at the physical level, whether from an earlier state of motion (Empedocles) or one of quietude (Anaxagoras), and those who begin it from higher principles of a non-physical kind (Pythagoreans). This opposition returns in our chapter. On a number of occasions he uses the key term κοσμοποιεῖν, which occurs in the title of A's chapter. We return to this term below in section D(e). In *Cael.* 2.13 more specifically the genesis and place of the earth is discussed. The view that it appeared first returns as the first doxa in A's chapter.

C Chapter Heading

For the heading we have only the tradition in P. (The heading preserved in S^L and recorded at Diels *DG* 271 is drawn from P through contamination, as demonstrated by Elter (1880) 72; cf. Wachsmuth (1882) 74.) E leaves out the word στοιχείου, a not unintelligent move, since §§4–6 do not begin with any

of the elements. The alternative title written in the margin of Ambrosianus 859 is no doubt inspired by the observation that the chapter does not in fact make mention of any creating god. There are reasons for thinking that earlier in the tradition the title may originally have not contained a reference to God, e.g. Ἀπὸ ποίου πρώτου στοιχείου ἤρξατο κοσμοποιεῖσθαι τὰ πάντα, but was altered—i.e. Platonised—by A (or perhaps P); see further section D(e) below. Such a title brings the heading much closer to a parallel chapter for the microcosm (relating to the embryonic living being) ch. 5.17 Τί πρῶτον τελεσιουργεῖται ἐν γαστρὶ. But for an even closer parallel see the alternative title found in table of contents of ms. L, as discussed below in ch. 5.17 Commentary C. See further below section D(e).

D *Analysis*

a Context

The chapter's subject follows on from ch. 2.4: if the cosmos had a genesis, how did this genesis take place? As in previous chapters, there is a rather precisely parallel chapter in relation to the microcosm, but without reference to a creating deity: 5.22 Ἐκ ποίων συνίσταται στοιχείων ἕκαστον τῶν ἐν ἡμῖν γενικῶν μορίων; cf. also ch. 5.23 Πότε καὶ πῶς ἄρχεται ὁ ἄνθρωπος τῆς τελειότητος. The subject of how the cosmos came to be composed has already been discussed at the outset in ch. 1.4, Πῶς συνέστηκεν ὁ κόσμος. The atomist position outlined there is not taken up in the present chapter, which is wholly devoted to teleological versions of cosmogony.

b Number–Order of Lemmata

As far as the evidence goes, P has transmitted the chapter in a complete form. There can be no grounds for altering the order of the doxai.

c Rationale–Structure of Chapter

Five answers are given to the question posed in the title. (a) The first two form a deliberate contrast between genesis starting at the centre of the cosmos and at the periphery. This diaeresis continues a similar opposition in the previous chapter 2.5a. (b) The third lemma gives a variation on the previous one: instead of fire and the fifth element, the process begins with aether, followed by fire and the other elements. The description of the cosmogonic process here giving the view of Empedocles gives more information than is required by the question posed in the chapter's title. It anticipates the long description of the cosmos' structure ascribed to Parmenides in the following chapter, A 2.7.1. (c) The fourth Platonic doxa adds a new aspect by having the process begin with a non-physical entity, the noetic cosmos, followed by soul and body. It is rather

surprising that the demiurgic god of the chapter's title is not mentioned here. (d) The fifth doxa develops the non-physical approach further by taking the incorporeal mathematical realm as starting-point, i.e. the five primary geometrical solids taken again from Plato's *Timaeus* (53c–55c) but attributed in the first instance to Pythagoras. (e) The Platonic provenance is indicated in the final doxa, which is really an appendix to the previous one rather than a separate doxa in its own right.

The first three and the last three doxai can also be seen as presenting a further diaeresis between a physical and a non-physical starting-point for corporeal reality. Such a division is implicit in Aristotle's criticism of philosophers such as the Pythagoreans (and also Plato and his successors) who move from abstract principles to physical bodies in the generation of the cosmos; see for example *Met.* N.3 1091a13–22 (text below section E(b) General texts).

We return to the disconnect between the chapter's theologizing title and the contents of its doxai below in Commentary D(e).

d Further Comments *Individual Points*

§1 The name-label for the first doxa is problematic. P unanimously records οἱ φυσικοί, but S, supported by Ach, places it in a cluster of Stoic doxai. The Stoic name-label is retained by Von Arnim *SVF* 2.582. This can be reconciled with other evidence because for the Stoics, although the process of world-formation does not begin with the earth, it is the first part of the cosmos to be formed (see the comment at M–R 2.123). However, it is also cavalier to dismiss P's reading out of hand. Lachenaud in a note ad loc. observes that it could refer to early Presocratics: doxai such as 12A10 on Anaximander and 13A6 DK on Anaximenes bear the same interpretation, i.e. the earth as the first part of the cosmos to be formed. Moreover the diaphonia of the first two doxai becomes more significant if they represent the two main Diadochai of the early Greek philosophical tradition, as already introduced at A 1.3.1 & 8. Mau in his apparatus testimoniorum appears to suggest that P might have referred to the Stoics under this name-label or included them in it.

So, were it not for the evidence of Ach, it would be tempting to opt for the reading in P and surmise that S added it to the other Stoic doxai because he recognised (perhaps through reading AD) that the doxa was compatible with Stoic doctrine. But the evidence of Ach makes this solution less likely.

A third solution is to retain both in the form οἱ φυσικοί καὶ οἱ Στωικοί. This is what we opted for in our earlier publication (M–R 2.123 n. 266, 2.385–386). At A 1.18.1 the name-label reads οἱ ἀπὸ Θάλεω φυσικοί πάντες μέχρι Πλάτωνος, which G has altered to οἱ ἀπὸ Πυθαγόρου φυσικοί πάντες μέχρι Πλάτωνος (cf. also

οἱ φυσικοὶ in G §18 on the active cause, used to introduce a long list of doxai on a material ἀρχή). For a double name-label with the Stoics in second place joined by καὶ it is possible to adduce an example at A 5.23.1, Ἡράκλειτος καὶ οἱ Στωικοί, but this name-label is of course not strictly parallel. In the present text we have with some hesitation retained this solution, which presumes that S could not easily use the first part in the context of his chapter and that P regarded the reference to the Stoics as sufficient for his purpose.

Bottler (2014) 318 comments on this conundrum: ‘An dieser Stelle zeigt sich die methodische Schwäche der Aëtios-Rekonstruktion: Wenn Stobaios durch Achilles bestätigt wird, dann ist die Ps.Plut. Version erklärungsbedürftig, da Ps.Plutarch lediglich als Epitomator gilt ... Ps.Plutarch hatte entweder eine andere Version vor Augen oder wurde nachträglich bearbeitet.’ It would be more accurate and fairer to say that it demonstrates the difficulties inherent in the reconstruction of the original source of P and S. It is not correct to say that P is only a (mechanical) epitomator. Whenever he manipulates name-labels, as he does frequently, he is more or less creatively intervening in the tradition. The difficulty here is that we cannot obtain certainty about what stood in A, i.e. the texts are ‘irreconcilable’ in the terminology of Runia (2020). But this is only an extreme case of what textual critics face very frequently when they have to judge between divergent readings.

§2 The attribution to Pythagoras of a ‘fifth element’ would appear to be quite anachronistic, since it is a distinctively Aristotelian concept. But here there is no mention of its circular motion and it may well stand for what in the next doxa is called αἰθήρ. On this text Guthrie (1962–1981) 1.272 denies that it is ‘wholly anachronistic’, because he argues for a gradual emergence of the doctrine in early Greek thought, in which Pythagoreanism may have played a role. In addition, from the ps.Platonic *Epinomis* onwards Academics and Platonists toyed with the idea when it suited them. See for example Dillon (1977) 33 (Xenocrates), 169 (Philo), 286 (Alcinous); for a comprehensive treatment of the doctrine’s reception see Moraux (1963), and also below on A 2.7.4–5 Commentary D(d), 2.11.5 Commentary D(d).

§3 The name-label in G, Diocles, is a mistake, perhaps caused by the falling away of some letters, i.e. [Ἐμπε]δοκλής. We note that the doxa carefully distinguishes between elements which are separated out (διακριθῆναι) and cosmic regions which come into being (γενέσθαι). A different approach is shown at D.L. 7.142 on the Stoics: γίνεσθαι δὲ τὸν κόσμον, ὅταν ἐκ πυρὸς ἢ οὐσίας τραπῇ δι’ αἰέρος εἰς ὑγρότητα ...

§4 A neat and compact summary of cosmogenesis in the *Timaeus* as interpreted in Middle Platonism. The second half of the doxa is a very compact précis of *Tim.* 34c4 (note προτέραν) and 31b4–7 (note σωματοειδές) with 32b3–

4. The first half departs further from the Platonic text. The terms ὁρατὸς κόσμος and νοητὸς κόσμος are not found there and are the result of Middle Platonic systematization. Similar terminology is found in A 1.7.22[111–112] and our comments ad loc. at Commentary D(e)§22. These texts represent two of the very earliest instances of the term νοητὸς κόσμος; cf. also Philo *Opif.* 16 and discussion at Runia (1999) 158–160, and also Baltes (1972) 105–106 on Tim.Locr. 30. As we might expect, Philo's account is strongly theologized, whereas in A the demiurge is conspicuous by his absence. A similar but much expanded summary of the *Timaeus* is given by Alcinous *Did.* 13–14. The summary at D.L. 3.71–73—part of what is likely to be quite an early doxographical account—mentions the model (called ὑπόδειγμα) and the four elements, but not the World Soul.

§5 The doctrine attributed to Pythagoras here obviously goes back to Plato's *Timaeus*, but the tradition connecting it to the Pythagorean tradition is ancient, already present in the Old Academy; see Burkert (1972) 70–71 with reference to ps.Iambl. *Theol.Ar.* 82.10–18 (text below section E(b)§5). Diels' attribution of the report to Philolaus in VS and its retention at 44A15 DK is highly questionable; see Huffman (1993) 393. It should also be noted that fr. 44B12 of Philolaus speaks of five elements. If the proposal to read in its final phrase (τ)ὸ τὰς σφαίρας ὄλ{χ}ας is accepted (Mansfeld 2016b), then a reference to the Platonic theory of the five regular solids may be detected, as in A's text, incidentally making it even more probable that the fragment is not authentic.

e Other Evidence

The striking term κοσμοποιεῖν in the chapter heading (but not used in the chapter itself) occurs elsewhere in the *Placita* six times: 1.3.9 (Heraclitus–Hippasus), 1.7.5 (Archelaus), 1.7.6 (Anaxagoras), 1.24.2 (Empedocles and other corporealists), 1.25.3 (Parmenides–Democritus), 2.13.14 (Orphic writings). We note that in the first of these texts it is said that 'all things originate from fire and all things terminate in fire; and when it is quenched, all things are formed into the cosmos (κοσμοποιεῖσθαι τὰ πάντα); first its densest part is concentrated and becomes earth; then the earth is loosened by fire and naturally produces water, which (in turn) evaporates and become air'. This is precisely the subject of our chapter and similar to the Stoic view discussed above in section D(d) §1.

It should further be noted that the term itself goes back to Aristotle, who uses it on four occasions not of a deity or another efficient cause, but for philosophers who put forward cosmogonic theories; texts below at section E(b). In particular the words at *Cael.* 3.2 301a13, where it is said of Anaxagoras ἐξ ἀκινήτων γὰρ ἄρχεται κοσμοποιεῖν, are reminiscent of the heading of the present chapter. (On the importance of the term in Aristotle's treatment of his cosmological predecessors see Johnson 2019, 74, 107.) Against this background, and

taking into account the fact that there is no reference to a creating deity in the body of the chapter, it might be surmised that in the earlier tradition the title was Ἀπὸ ποίου πρώτου στοιχείου ἤρξατο κοσμοποιεῖσθαι τὰ πάντα. As noted above in section C, this would bring it closer to the parallel heading of ch. 5.17 and esp. the alternative title in S^L. The current heading is exceptional because it goes against the grain of what we have called the ‘detheologizing tendency’ of the *Placita*; see Mansfeld (2013a) 330–331.

E Further Related Texts

a Proximate Tradition

General texts: Philo of Alexandria *Prov.* 2.60 Aucher (Alexander speaking) *quam ob rem vasto in medio universorum conditam erexit terram, supra se habentem maria: et concedens terrae spatium secundum (?), aerem super aquas elevans, eum sursum delatum usque ad aethrem extendit? quod vero a nobis (fortasse) audire vultis, praesto est responsum; necessitate videlicet quadam naturae leviora a gravioribus sursum pelli contigit ... eodem modo et mundi partes affici videntur, ut dicit Empedocles (31A49 DK). discedentibus enim ab aether vento et igne atque volantibus, tum caelo latissime expanso ac desuper circumducto, ignis qui paulo inferior caelo manserat, ipse quoque in radios solis adauctus est: terra vero concurrens in unum spatium et necessario condensata apparens, in medio stat. porro circa eam undique, quoniam nimis levior erat, volvitur absque dimotione aether. quietis autem exinde ratio datur per Deum, non vero per sphaeras multas super se invicem positas ...* *Prov.* 2.62 (Philo replying) *perpende, quod dicis, a gravioribus sursum agi leviora ... fuit autem elementorum extensio per providentiam opus creatoris patrisque. et terra occupavit medium ...* ps.Plutarch *Strom.* 10 (fr. 179 Sandbach: on Empedocles, 31A30 DK) ἐκ πρώτης φησὶ τῆς τῶν στοιχείων κράσεως ἀποκριθέντα τὸν ἀέρα περιχυθῆναι κύκλῳ, μετὰ δὲ τὸν ἀέρα τὸ πῦρ ἐκδραμὸν καὶ οὐκ ἔχον ἑτέραν χώραν ἄνω ἐκτρέχειν ὑπὸ τοῦ περὶ τὸν ἀέρα πάγου. ... τὴν δὲ ἀρχὴν τῆς κινήσεως συμβῆναι ἀπὸ τοῦ τετυχηκέναι κατὰ τὸν ἀθροισμὸν ἐπιβρίσαντος τοῦ πυρός. cf. §12 (on Diogenes of Apollonia, 64A6 DK) κοσμοποιεῖ δὲ οὕτως ...

Chapter heading: Eusebius *PE* 15.32.8 καὶ ἀπὸ ποίου ἤρξατο ὁ θεὸς κοσμοποιεῖν.

§1 **Physicists Stoics:** Plutarch *SR* 1053A (on Chrysippus, *SVF* 2.579) λέγει γὰρ ἐν τῷ πρώτῳ περὶ Φύσεως ‘ἡ δὲ πυρὸς μεταβολὴ ἐστὶ τοιαύτη· δι’ ἀέρος εἰς ὕδωρ τρέπεται· καὶ τούτου γῆς ὕφισταμένης ἀήρ ἀναθυμιάται· λεπτυνομένου δὲ τοῦ ἀέρος ὁ αἰθήρ περιχεῖται κύκλῳ· οἱ δ’ ἀστέρες ἐκ θαλάσσης μετὰ τοῦ ἡλίου ἀνάπτονται.’ Diogenes Laertius *V.P.* 7.142 (*SVF* 2.581) γίνεσθαι δὲ τὸν κόσμον ὅταν ἐκ πυρός ἢ οὐσίας τραπῇ δι’ ἀέρος εἰς ὑγρότητα, εἴτα τὸ παχυμερές αὐτοῦ συστᾶν ἀποτελεσθῇ γῇ, τὸ δὲ λεπτομερές ἐξαραιωθῇ, καὶ τοῦτ’ ἐπὶ πλεόν λεπτυνθὲν πῦρ ἀπογεννήσῃ. εἴτα κατὰ μίξιν ἐκ τούτων φυτὰ τε καὶ ζῶα καὶ τὰ ἄλλα γένῃ.

§3 **Empedocles:** Philo of Alexandria *Prov.* 2.60 (on Empedocles) see above.

§4 Plato: Philo of Alexandria *Opif.* 16 προλαβὼν γὰρ ὁ θεὸς ἄτε θεὸς ὅτι μίμημα καλὸν οὐκ ἂν ποτε γένοιτο δίχα καλοῦ παραδείγματος οὐδὲ τι τῶν αἰσθητῶν ἀνυπαίτιον, ὃ μὴ πρὸς ἀρχέτυπον καὶ νοητὴν ἰδέαν ἀπεικονίσθη, βουληθεὶς τὸν ὁρατὸν κόσμον τουτονὶ δημιουργῆσαι προεξετύπου τὸν νοητὸν ... cf. **Diogenes Laertius *V.P.*** 3.71 (on the created cosmos) ἕνα τε αὐτὸν καὶ οὐκ ἄπειρον κατεσκευάσθαι, ὅτι καὶ τὸ ὑπόδειγμα ἔν ἡν ἀφ' οὗ αὐτὸν ἐδημιούργησε. *V.P.* 3.73 συνεστάναι δὲ τὸν κόσμον ἐκ πυρός, ὕδατος, ἀέρος, γῆς. ἐκ πυρός μὲν, ὅπως ὁρατός ἦ· ἐκ γῆς δὲ, ὅπως στερεός· ἐξ ὕδατος δὲ καὶ ἀέρος, ὅπως ἀνάλογος—αἱ γὰρ τῶν στερεῶν δυνάμεις δύο μεσότησιν ἀναλογουσιν ὥς ἐν γενέσθαι τὸ πᾶν—ἐξ ἀπάντων δὲ, ἵνα τέλειος καὶ ἁφθαρτος ἦ. **Alcinous *Did.*** 13, p. 168.8–16 H. ἐξ ὧν δὲ συνέστηκεν ὁ κόσμος, δύο ὑπαρχόντων, σώματος καὶ ψυχῆς, ὧν τὸ μὲν ὁρατὸν καὶ ἄπτόν, ἡ δὲ ἀόρατός τε καὶ ἀναφής, ἐκατέρου ἡ δύναμις καὶ ἡ σύστασις διάφορος οὖσα τυγχάνει. Τὸ μὲν γὰρ σῶμα αὐτοῦ ἐκ πυρός γέγονε καὶ γῆς ὕδατός τε καὶ ἀέρος· ταῦτα δὴ τὰ τέτταρα συλλαβὼν ὁ δημιουργὸς τοῦ κόσμου οὐ μὰ Δία στοιχείων τάξιν ἐπέχοντα διεσχημάτισε πυραμίδι καὶ κύβῳ καὶ ὀκταέδρῳ καὶ εἰκοσαέδρῳ καὶ ἐπὶ πᾶσι δωδεκαέδρῳ ...

§5 Pythagoras: Sextus Empiricus *M.* 10.283 (on the Pythagoreans) πλὴν οὕτω μὲν ἀποτελεῖται τὰ στερεὰ σώματα ἡγουμένων τῶν ἀριθμῶν· ἀφ' ὧν λοιπὸν καὶ τὰ αἰσθητὰ συνίσταται, γῆ τε καὶ ὕδωρ καὶ ἀήρ καὶ πῦρ, καὶ καθόλου ὁ κόσμος. cf. also **Hermias *Irr.*** 161.1–26 Hanson ἄλλοι τοίνυν ἀπὸ τῆς παλαιᾶς φυλῆς Πυθαγόρας καὶ οἱ τούτου συμφυλέται σεμνοὶ καὶ σιωπηλοὶ παραδιδόασιν ἄλλα μοι δόγματα ὥσπερ μυστήρια, καὶ τοῦτο δὴ τὸ μέγα καὶ ἀπόρρητον αὐτὸς ἔφα· ἀρχὴ τῶν πάντων ἡ μονάς. ἐκ δὲ τῶν σχημάτων αὐτῆς καὶ ἐκ τῶν ἀριθμῶν τὰ στοιχεῖα γίνεται. καὶ τούτων ἑκάστου τὸν ἀριθμὸν καὶ τὸ σχῆμα καὶ τὸ μέτρον οὕτω πως ἀποφαίνεται· τὸ μὲν πῦρ ...

b Sources and Other Parallel Texts

General texts: **Plato *Leg.*** 10. 889b cited above ch. 2.3 section E(b) General texts. **Aristotle *Phys.*** 8.1 250b15–17 εἶναι μὲν οὖν κίνησιν πάντες φασὶν οἱ περὶ φύσεώς τι λέγοντες διὰ τὸ κοσμοποιεῖν καὶ περὶ γενέσεως καὶ φθοράς εἶναι τὴν θεωρίαν πᾶσαν αὐτοῖς ... (cf. also *Phys.* 1.4 187a11–b6). **Cael.** 2.13 295a13–19 διὸ δὴ τὴν γῆν πάντες ὅσοι τὸν οὐρανὸν γεννῶσιν, ἐπὶ τὸ μέσον συνελθεῖν φασὶν· ὅτι δὲ μένει, ζητοῦσι τὴν αἰτίαν, καὶ λέγουσιν οἱ μὲν τοῦτον τὸν τρόπον, ὅτι τὸ πλάτος καὶ τὸ μέγεθος αὐτῆς αἴτιον, οἱ δ' ὥσπερ Ἐμπεδοκλῆς (31A67 DK), τὴν τοῦ οὐρανοῦ φορὰν κύκλῳ περιθέουσιν καὶ θάττον φερομένην ἢ τὴν τῆς γῆς φορὰν καλῶειν, καθάπερ τὸ ἐν τοῖς κυάθοις ὕδωρ. **Cael.** 3.2 301a11–20, ἔοικε δὲ τοῦτό γε αὐτὸ καλῶς Ἀναξαγόρας λαβεῖν· ἐξ ἀκινήτων γὰρ ἄρχεται κοσμοποιεῖν. πειρώνται δὲ καὶ οἱ ἄλλοι συγκρίνοντές πως πάλιν κινεῖν καὶ διακρίνειν. ἐκ διεστώτων δὲ καὶ κινουμένων οὐκ εὐλογον ποιεῖν τὴν γένεσιν. διὸ καὶ Ἐμπεδοκλῆς (31A42 DK) παραλείπει τὴν ἐπὶ τῆς φιλότῃ οὐ γὰρ ἂν ἡδύνατο συστήσαι τὸν οὐρανὸν ἐκ κεχωρισμένων μὲν κατασκευάζων, σύγκρισιν δὲ ποιῶν διὰ τὴν φιλότῃ· ἐκ διακεκριμένων γὰρ συνέστηκεν ὁ κόσμος τῶν στοιχείων· ὥστ' ἀναγκαῖον γίνεσθαι ἐξ ἑνὸς καὶ συγκεκριμένου. **Met.** A.4 985a18–23 Ἀναξαγόρας (59A47 DK) τε γὰρ μηχανῇ χρῆται τῷ νῷ πρὸς τὴν κοσμοποιίαν, καὶ ὅταν ἀπορήσῃ διὰ τίν' αἰτίαν ἐξ ἀνάγκης ἐστὶ, τότε παρέλκει αὐτόν, ἐν δὲ τοῖς ἄλλοις πάντα μάλλον αἰτιᾶται τῶν γιγνομένων ἢ

νοῦν, καὶ Ἐμπεδοκλῆς (31A37 DK) ἐπὶ πλέον μὲν τούτου χρήται τοῖς αἰτίοις, οὐ μὴν οὐθ' ἱκανῶς, οὐτ' ἐν τούτοις εὐρίσκει τὸ ὁμολογούμενον. *Met.* N.3 1091a13–22 οἱ μὲν οὖν Πυθαγόρειοι (58B26 DK) πότερον οὐ ποιοῦσιν ἢ ποιοῦσι γένεσιν οὐδὲν δεῖ διστάζειν· φανερώς γὰρ λέγουσιν ὡς τοῦ ἐνὸς συσταθέντος, εἴτ' ἐξ ἐπιπέδων εἴτ' ἐκ χροιάς εἴτ' ἐκ σπέρματος εἴτ' ἐξ ὧν ἀποροῦσιν εἰπεῖν, εὐθύς τὸ ἔγγιστα τοῦ ἀπείρου ὅτι εἴλκετο καὶ ἐπεραίνετο ὑπὸ τοῦ πέρατος. ἀλλ' ἐπειδὴ κοσμοποιοῦσι καὶ φυσικῶς βούλονται λέγειν, δίκαιον αὐτοὺς ἐξετάζειν τι περὶ φύσεως, ἐκ δὲ τῆς νῦν ἀφείναι μεθόδου· τὰς γὰρ ἐν τοῖς ἀκινήτοις ζητοῦμεν ἀρχάς, ὥστε καὶ τῶν ἀριθμῶν τῶν τοιούτων ἐπισκεπτέον τὴν γένεσιν. *Nicomachus Intr.Arith.* 2.18.4 τῇ δὲ ἄρα διχοστατεῖ καὶ διανεμένηται καὶ ἐναντία ἀλλήλοις φαίνεται τὰ τε τοῦ ἀριθμοῦ πάντα καὶ τὰ ἐν κόσμῳ πρὸς ταῦτα ἀποτελεσθέντα καὶ καλῶς οἱ παλαιοὶ φυσιολογεῖν ἀρχόμενοι τὴν πρώτην διαίρεσιν τῆς κοσμοποιίας ταύτῃ ποιοῦνται· Πλάτων μὲν τῆς ταυτοῦ φύσεως καὶ τῆς θατέρου ὀνομάζων καὶ πάλιν τῆς ἀμερίστου καὶ αἰεὶ κατὰ τὰ αὐτὰ ἐχούσης οὐσίας τῆς τε αὐτῇ μεριστῆς γινομένης, Φιλόλαος (cf. 44B2 DK) δὲ ἀναγκαῖον τὰ ἔδοντα πάντα εἶμεν ἤτοι ἄπειρα ἢ περαίνοντα ἢ περαίνοντα ἅμα καὶ ἄπειρα, ὅπερ μᾶλλον συγκατατίθεται εἶναι, ἐκ περαίνοντων ἅμα καὶ ἀπείρων συνεστάναι τὸν κόσμον, κατ' εἰκόνα δηλονότι τοῦ ἀριθμοῦ ... *Poimandres* (= *Corpus Hermeticum* 1) ch. 8, τὰ οὖν, ἐγὼ φημι, στοιχεῖα τῆς φύσεως πόθεν ὑπέστη;—πάλιν ἐκεῖνος πρὸς ταῦτα, ἐκ βουλῆς θεοῦ, ἥτις λαβοῦσα τὸν Λόγον καὶ ἰδοῦσα τὸν καλὸν κόσμον ἐμμήσατο, κοσμοποιηθεῖσα διὰ τῶν ἐαυτῆς στοιχείων καὶ γεννημάτων ψυχῶν. *Simplicius in Ph.* 1120.21 (commenting on *Phys.* 8.2 250b15) οὕτω γὰρ καὶ Δημόκριτος κοσμοποιεῖ καὶ Ἐμπεδοκλῆς καὶ Ἀναξαγόρας, οἱ μὲν συγχρίνεσθαι καὶ διακρίνεσθαι τὰ ἄτομα σώματα καὶ τὰ τέτταρα στοιχεῖα λέγοντες, Ἀναξαγόρας δὲ ἐκκρίνεσθαι τὰς ὁμοιομερείας ἀπὸ τοῦ μίγματος λέγων· καὶ ἡ σύγκρισις δὲ καὶ ἡ διάκρισις καὶ ἡ ἐκκρίσις κινήσεις τινές εἰσι. καὶ περὶ γενέσεως δὲ καὶ φθορᾶς διαλέγονται πάντες ...

Chapter heading: —

§4 *Plato: Plato Tim.* 28a–b ὅτου μὲν οὖν ἂν ὁ δημιουργὸς πρὸς τὸ κατὰ ταῦτα ἔχον βλέπων αἰεὶ, τοιοῦτῳ τινὶ προσχρῶμενος παραδείγματι, τὴν ἰδέαν καὶ δύναμιν αὐτοῦ ἀπεργάζεται, καλὸν ἐξ ἀνάγκης οὕτως ἀποτελεῖσθαι πᾶν· οὐ δ' ἂν εἰς γεγονός, γεννητῷ παραδείγματι προσχρῶμενος, οὐ καλόν. *Tim.* 31b–32c σωματοειδὲς δὲ δὴ καὶ ὁρατὸν ἅπτόν τε δεῖ τὸ γενόμενον εἶναι, χωρισθὲν δὲ πυρὸς οὐδὲν ἂν ποτε ὁρατὸν γένοιτο, οὐδὲ ἅπτόν ἄνευ τινὸς στερεοῦ, στερεὸν δὲ οὐκ ἄνευ γῆς· ὅθεν ἐκ πυρὸς καὶ γῆς τὸ τοῦ παντός ἀρχόμενος συνιστάναι σώμα ὁ θεὸς ἐποίει. δύο δὲ μόνω καλῶς συνίστασθαι τρίτου χωρὶς οὐ δυνατόν· δεσμὸν γὰρ ἐν μέσῳ δεῖ τινα ἀμφοῖν συναγωγὸν γίνεσθαι. ... (32b) οὕτω δὴ πυρὸς τε καὶ γῆς ὕδωρ ἀέρα τε ὁ θεὸς ἐν μέσῳ θείς, καὶ πρὸς ἄλληλα καθ' ὅσον ἦν δυνατόν ἀνὰ τὸν αὐτὸν λόγον ἀπεργασάμενος, ὅτιπερ πῦρ πρὸς ἀέρα, τοῦτο ἀέρα πρὸς ὕδωρ, καὶ ὅτι ἀήρ πρὸς ὕδωρ, ὕδωρ πρὸς γῆν, συνέδησεν καὶ συνεστήσατο οὐρανὸν ὁρατὸν καὶ ἅπτόν. ... τῶν δὲ δὴ τεττάρων ἐν ὅλῳ ἕκαστον εἰληφεν ἢ τοῦ κόσμου σύστασις. ἐκ γὰρ πυρὸς παντός ὕδατός τε καὶ ἀέρος καὶ γῆς συνέστησεν αὐτὸν ὁ συνιστάς ... *Tim.* 34a–35a ψυχὴν δὲ εἰς τὸ μέσον αὐτοῦ θείς διὰ παντός τε ἔτεινεν καὶ ἔτι ἔξωθεν τὸ σῶμα αὐτῇ περιεκάλυψεν, καὶ κύκλῳ δὴ κύκλον στρεφόμενον οὐρανὸν ἕνα μόνον ἔρημον κατέστησεν, δι' ἅρετὴν δὲ αὐτὸν αὐτῷ δυνάμενον συγγίγνεσθαι καὶ οὐδενὸς ἐτέρου προσδεόμενον, γινώριμον

δὲ καὶ φίλον ἱκανῶς αὐτόν αὐτῷ. διὰ πάντα δὴ ταῦτα εὐδαίμονα θεὸν αὐτὸν ἐγεννήσατο. τὴν δὲ δὴ ψυχὴν οὐχ ὥς νῦν ὑστέραν ἐπιχειροῦμεν λέγειν, οὕτως ἐμηχανήσατο καὶ ὁ θεὸς νεωτέραν ... ὁ δὲ καὶ γενέσκει καὶ ἀρετὴν προτέραν καὶ πρεσβυτέραν ψυχὴν σώματος ὥς δεσπότην καὶ ἄρξουσιν ἀρξομένου συνεστήσατο ἐκ τῶνδ' ἐκ καὶ τοιῷδε τρόπῳ.

§5 Pythagoras: Plato cf. *Tim.* 53e–c. **Speusippus** at ps.Iambl. *Theol.Ar.* 82.10–18 ὅτι καὶ Σπεύσιππος (fr. 4 Lang, 122 Isnardi Parente, F28 Tarán) ὁ Πρωτῶν μὲν υἱὸς τῆς τοῦ Πλάτωνος ἀδελφῆς, διάδοχος δὲ Ἀκαδημίας πρὸ Ξενοκράτου, ἐκ τῶν ἐξαιρέτως σπουδασθεισῶν αἰὲ Πυθαγορικῶν ἀκροάσεων, μάλιστα δὲ τῶν Φιλολάου συγγραμμάτων, βιβλίδιον τι συντάξας γλαφυρὸν ἐπέγραψε μὲν αὐτὸ Περὶ Πυθαγορικῶν ἀριθμῶν (44A13 DK), ἀπ' ἀρχῆς δὲ μέχρι ἡμίσεος περὶ τῶν ἐν αὐτοῖς γραμμικῶν ἐμμελέστατα διεξελθὼν πολυγωνίων τε καὶ παντοίων τῶν ἐν ἀριθμοῖς ἐπιπέδων ἅμα καὶ στερεῶν περὶ τε τῶν πέντε σχημάτων, ἃ τοῖς κοσμοκοίς ἀποδίδονται στοιχείοις ... **Proclus** in *Eucl.* 65.20 (on Pythagoras) καὶ τὴν τῶν κοσμικῶν σχημάτων σύστασιν ἀνεύρεν.

Liber 2 Caput 7

P^B: ps.Plutarchus 887C–F; pp. 335^a5–336^a23 Diels—**P^E**: Eusebius *PE* 15.38, pp. 410.11–411.4 Mras, cf. 15.32.8, p. 406.11—**P^G**: ps.Galenus *HPh* c. 50; p. 622.20–25 Diels—**P^Q**: Qustā ibn Lūqā pp. 144–145 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 159, p. 81 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.32, p. 38.8 Delatte (titulus solus)—
S: Stobaeus, *Ecl.* 1.22.1ab, pp. 195.2–196.2 + 1.22.1de, pp. 196.18–197.10 + 15.6d, p. 147.11–13 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b7 Henry (titulus solus)
Cf. Ach: Achilles c. 4, pp. 12.6–19, 13.12–14 Di Maria

Titulus ζ'. Περὶ τάξεως τοῦ κόσμου (P,S)

§1 Παρμενίδης στεφάνας εἶναι περιπεπλεγμένας ἐπαλλήλους, τὴν μὲν ἐκ τοῦ ἀραιοῦ τὴν δ' ἐκ τοῦ πυκνοῦ, μικτάς δ' ἄλλας ἐκ φωτὸς καὶ σκοτόους μεταξὺ τούτων· καὶ τὸ περιέχον δὲ πάσας τεύχους δίκην στερεὸν ὑπάρχειν, ὅφ' ᾧ πυρώδης στεφάνη· καὶ τὸ μεσαίτατον πασῶν περὶ δὲ πάλιν πυρώδης· τῶν δε συμμιγῶν τὴν μεσαιτάτην ἀπάσαις (ἀρχήν) τε καὶ (αἰτίαν) πάσης κινήσεως καὶ γενέσεως ὑπάρχειν, ἦντινα καὶ δαίμονα κυβερνήτην καὶ κληροῦχον ἐπονομάζει, δίκην τε καὶ ἀνάγκην. καὶ τῆς μὲν γῆς ἀπόκρισιν εἶναι τὸν ἀέρα, διὰ τὴν βιαιοτέραν αὐτῆς ἑξατμισθέντα πύλῃσιν, τοῦ δὲ πυρὸς ἀναπνοὴν τὸν ἥλιον καὶ τὸν γαλαξίαν κύκλον· συμμιγῇ δ' ἐξ ἀμφοῖν εἶναι τὴν σελήνην, τοῦ τ' ἀέρος καὶ τοῦ πυρὸς. περιστάντος δ' ἀνωτάτω πάντων τοῦ αἰθέρος ὑπ' αὐτῷ τὸ πυρώδες ὑποταγῆναι τοῦθ' ὅπερ κεκλήκαμεν οὐρανόν, ὅφ' ᾧ ἤδη τὰ περὶ γαίαν. (P1,S2)

§1 Parmenides 28A37 DK, cf. 28B12.3, 28B1.14, 28B8.30 DK

titulus τάξεως τοῦ κόσμου **P^{B(II)DEGQS}** Diels : om. τοῦ **P^{B(I,II)PSy}** Mau Lachenaud : τῆς τοῦ κόσμου τάξεως **P^{B(III:Laur.31.37)}**, cf. E 15.32.8 §1 [2] ἐπαλλήλους **P^{B(I,II)S}** (-λας **P^{B(II)}**, -λαιοι **P^{B(III:Laur.31.37)}**) : ἐπ' ἀλλήλοις (et -λαιοι) **P^E** : πρὸς ἀλλήλους **P^G** || [2–3] στεφάνας ... πυκνοῦ] στεφάνους ... πεπλεγμένους ... τὸν μὲν ... τὸν δὲ ... **P^G** || [3–4] μικτάς ... τούτων] om. **P^G** || [3] ἐκ φωτὸς : ἐκ om. **S** || [4–5] καὶ ... ὑπάρχειν] al. **P^G** καὶ τὸ περιέχον δὲ τὸ πᾶν στοιχεῖον δίκην στεφάνου στερεοῦ εἶναι || [5–§4[19]] ὅφ' ᾧ ... Πλάτων om. **P^G** (lacuna?) || [5–14] ὅφ' ᾧ ... περὶ γαίαν om. **P** || [5] post πασῶν conj. στερεόν **DK** || περὶ δ corr. Boekh Wachsmuth : περὶ δν **S^F**, περὶ ὧν **S^P** || [6–7] (ἀρχήν) τε καὶ (αἰτίαν) coni. Diels *VS* ex Simp. ((ἀρχήν τόκου) τε καὶ Zeller), prob. **DK**, Mansfeld **R²** : τε καὶ **S** : τοκέα coni. Davis Diels *DG*, αἰτίαν coni. Krische Wachsmuth, crucif. Laks–Most || post δαίμονα add. καὶ **S^P** || [8] κληροῦχον **S** Mansfeld **R²**, Laks–Most : κληδοῦχον Fülleborn Diels Wachsmuth conl. 28B1.14 **DK** || [13] ὅφ' ᾧ Krische Diels Wachsmuth : ὅφ' οὐ **S**

- §2 Λεύκιππος καὶ Δημόκριτος χιτῶνα κύκλῳ καὶ ὑμένα περιτείνουσι τῷ 15
κόσμῳ, διὰ τῶν ἀγκιστροειδῶν ἀτόμων συμπεπλεγμένον. (P2,S5)
- §3 Ἐπίκουρος ἐνίων μὲν κόσμων ἀραιὸν τὸ πέρας ἐνίων δὲ πυκνόν, καὶ
τούτων τὰ μὲν τινα κινούμενα τὰ δ' ἀκίνητα. (P3,S6)
- §4 Πλάτων πῦρ πρῶτον εἶπ' αἰθέρα μεθ' ὃν ἀέρα ἐφ' ᾧ ὕδωρ, τελευταίαν 20
δὲ γῆν· ἐνίστε δὲ τὸν αἰθέρα τῷ πυρὶ συνάπτει. (P4)
- §5 Ἀριστοτέλης πρῶτον μὲν αἰθέρα ἀπαθῆ, πέμπτον δὴ τι σῶμα· μεθ' ὃν
παθητὰ πῦρ ἀέρα ὕδωρ· τελευταίαν δὲ γῆν. τούτων δὲ τοῖς μὲν
οὐρανίοις ἀποδεδόσθαι τὴν κυκλικὴν κίνησιν, τῶν δ' ὑπ' ἐκεῖνα τεταγ-
μένων τοῖς μὲν κούφοις τὴν ἄνω τοῖς δὲ βαρέσι τὴν κάτω. (P5,S3)
- §6 Φιλόλαος πῦρ ἐν μέσῳ περὶ τὸ κέντρον, ὅπερ ἐστὶν τοῦ παντὸς καλεῖ 25
καὶ Διὸς οἶκον καὶ μητέρα θεῶν, βωμόν τε καὶ συνοχὴν καὶ μέτρον
φύσεως· καὶ πάλιν πῦρ ἕτερον ἀνωτάτω, τὸ περιέχον. πρῶτον δ' εἶναι
φύσει τὸ μέσον, περὶ δὲ τοῦτο δέκα σώματα θεῖα χορεύειν, οὐρανόν,
(πέν)τε πλανήτας, μεθ' οὓς ἥλιον, ὕφ' ᾧ σελήνην, ὕφ' ἣ τὴν γῆν, ὕφ' ἣ 30
τὴν ἀντίχθονα, μεθ' ἧς σύμπαντα τὸ πῦρ ἐστὶν περὶ τὰ κέντρα τάξιν
ἐπέχον. τὸ μὲν οὖν ἀνωτάτω μέρος τοῦ περιέχοντος, ἐν ᾧ τὴν εἰλι-
κρίνειαν εἶναι τῶν στοιχείων, Ὀλυμπον καλεῖ· τὰ δὲ ὑπὸ τὴν τοῦ
Ὀλύμπου φοράν, ἐν ᾧ τοὺς πέντε πλανήτας μεθ' ἡλίου καὶ σελήνης
τετάχθαι, κόσμον. τὸ δ' ὑπὸ τούτοις ὑποσέληνόν τε καὶ περιγίειον μέρος, 35
ἐν ᾧ τὰ τῆς φιλομεταβόλου γενέσεως, Οὐρανόν. καὶ περὶ μὲν τὰ
τεταγμένα τῶν μετεώρων γίνεσθαι τὴν σοφίαν, περὶ δὲ τῶν γινομένων
τὴν ἀταξίαν τὴν ἀρετὴν, τελείαν μὲν ἐκείνην, ἀτελεὴ δὲ ταύτην. (S4)

§2 Leucippus—Democritus 67A23 DK, fr. 386 Luria; §3 Epicurus fr. 303 Usener; §4 Plato—;
§5 cf. Aristoteles *Cael.* 1.3 270b22, ps.Arist. *Mu.* 2 392a5–b17392a5–b17; §6 Philolaus 44A16
DK

§2 non hab. G || [15] κύκλῳ P^BEQSP² : κύκλου S^{FPI} || περιτείνουσι] περιζώνουσι
P^{B(III)}Laur.31.37 || [16] διὰ ... συμπεπλεγμένον om. P §3 non hab. G || [17] Ἐπίκουρος ἐνίων
μὲν κόσμων om. P^B || κόσμων P^B : κόσμον S || ἐνίων δὲ P^BQS : ἔνια δὲ πυκνά P^E || [18] τινα om.
P^{B(III)}Laur.31.37 §4 [19] πῦρ πρῶτον] πρῶτον πῦρ P^G lemma Parmenidis continuans || [20]
ἐνίστε ... τῷ πυρὶ συνάπτει P^B : ἐνίστε ... συνάπτει τῷ πυρὶ P^E : al. P^G εἶτα αἰθέρα, μεθ' ὃν ἀέρα
μεθ' ὃν ὕδωρ §5 non hab. G || [21] μὲν om. S || αἰθέρα P^EQ S : ἀέρα P^B, sed add. τὸν αἰθέρα
post ἀπαθῆ P^{B(III)} || δὴ τι corr. Duebner : δέ τι P^B : δὲ P^E : δὴ om. S || μεθ' ὃν P^{B(III)}ES : μεθ' ὃ
P^{B(III)} || [22] ἀέρα ὕδωρ P^BES : ὕδωρ ἀέρα P^Q || [22–24] τούτων ... κάτω om. S || [23] ἀποδε-
δόσθαι P^{B(III)}E ἀποδιδόναι P^{B(III)} || ὑπ' ἐκεῖνα P^{B(III)}EQ : ἐπ' ἐκεῖνα P^{B(III)} §6 non hab. P ||
[28–29] οὐρανόν, πέντε coniecimus, cf. Primavesi R² 166 : οὐρανόν τε S : τοὺς ε' conj. Diels,
quem sec. Wachsmuth, Laks–Most : τε om. Huffman || [30] περὶ Meineke edd. : ἐπὶ S || [36]
τῶν γινομένων corr. Usener : τὰ γινόμενα S || [37] τὴν ἀταξίαν S^F : τῆς ἀταξίας S^P

§7 Ἐμπεδοκλῆς μὴ διὰ παντὸς ἐστῶτας εἶναι μὴδ' ὠρισμένους τοὺς τόπους τῶν στοιχείων, ἀλλὰ πάντα τοὺς ἀλλήλων μεταλαμβάνειν. (P6,S1)

§7 Empedocles 31A35 DK

§7 [38] post Ἐμπεδοκλῆς hab. δὲ P^G || ἐστῶτας P^{BEG} : ἐστῶτα (sc. στοιχεῖα) P^Q || τοὺς] om. P^G || post στοιχείων add. P^G ὑπείληφεν || [39] πάντα ... μεταλαμβάνειν (locus corruptus sec. edd., sed sanus, πάντα sc. τὰ στοιχεῖα cf. P^G et Plato *Prot.* 329e3) : πάντα τοὺς P^{BQ} (πάντη τοῦ P^B(III-Laur-31.37)) : πάντα πως P^E : πάντας τοὺς S : πανταχοῦ coni. Diels *DG*, πανταχῶς Wachsmuth : al. P^G πάντα τῶν ἄλλων ἀντιλαμβάνειν

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 50 (~ tit.) Περὶ τάξεως τοῦ κόσμου (text Diels)

50.1 (~ P1,4) Παρμενίδης στεφάνους εἶναι πεπλεγμένους πρὸς ἀλλήλους τὸν μὲν ἐκ τοῦ ἀραιοῦ, τὸν δὲ ἐκ τοῦ πυκνοῦ· καὶ τὸ περιέχον δὲ τὸ πᾶν στοιχεῖον δίχην στεφάνου στερεοῦ εἶναι, πρῶτον πῦρ, εἶτα αἰθέρα, μεθ' ὃν ἀέρα μεθ' ὃν ὕδωρ.

50.2 (~ P7) Ἐμπεδοκλῆς δὲ μὴ διὰ παντὸς ἐστῶτας μὴδὲ ὠρισμένους τόπους τῶν στοιχείων ὑπείληφεν, ἀλλὰ πάντα τῶν ἄλλων ἀντιλαμβάνειν.

Psellus Omn.Doctr. c. 159 Περὶ τάξεως κόσμου (~ tit.)

Symeon Seth CRN 3.32 Περὶ τάξεως κόσμου (~ tit.)

Testes secundi:

Achilles Univ. c. 4, p. 10.18 Περὶ τῆς συστάσεως τῶν ὄλων (~ tit.)

p. 12.6–19 τὴν δὲ τάξιν, ἣν δεδώκαμεν τῷ σφαιρώματι, οἱ Ὀρφικοὶ λέγουσι παραπλησίαν εἶναι τῇ ἐν τοῖς φύσιν· ὃν γὰρ ἔχει λόγον τὸ λέπυρον ἐν τῷ ῥῶ, τοῦτον ἐν τῷ παντὶ τὸ οὐρανός, καὶ ὡς ἐξήρηται τοῦ οὐρανοῦ κυκλοτερώς ὁ αἰθήρ, οὕτω τοῦ λεπύρου ὁ ὕμην. κατὰ δὲ τινάς, ἐπειδὴ ὁ οὐρανός καὶ ὁ αἰθήρ εἰς ἐστὶ, μετὰ δὲ τοῦτον ὁ ἀήρ, ἔσται ἐν τοῖς ὠίοις ὁ ὕμην τοῦ ἀέρος τάξιν ἐπέχων. ἡ δὲ λευκὴ σὰρξ ἡ ἐν τῷ ῥῶ ἐὰν τὴν τοῦ ἀέρος τάξιν ἐπέχηι, ἔσται ἡ λέκιθος τοῦ ῥῶ τὴν τοῦ ὕδατος τάξιν ἐπέχουσα, τὸ δὲ ἐνδότατον καὶ μεσαίτατον τῆς λεκίθου τὴν τάξιν ἔχον τῆς γῆς. εἰ δὲ ὕμην τὸν ἐν τῷ ῥῶ ἀντὶ τοῦ αἰθέρος λάβωμεν, τὸ τῶν ὀρνίθων γάλα ἀντ' ἀέρος ἔσται καὶ ἡ ἔξωθεν περιφορὰ τῆς λεκίθου ἀντὶ ὕδατος, τὸ δὲ ἐνδότατον καὶ μεσαίτατον ἀντὶ τῆς γῆς. καθόλου δέ, ἐὰν πέντε σφαίρας εἴπωμεν κατὰ τὸν Ἀριστοτέλην, τὸ ἐνδότατον τῆς λεκίθου ἀντὶ τῆς γῆς παραληφθήσεται, ἐὰν δὲ τέσσαρας κατὰ τοὺς ἄλλους, ὅλη ἡ λέκιθος ἀντὶ τῆς γῆς ἔσται, οὐ κατὰ τὸ μέγεθος, ἀλλὰ κατὰ τὴν τάξιν.

p. 13.12–14 ὁ δὲ Ἐμπεδοκλῆς οὐ δίδωσι τοῖς στοιχείοις ὠρισμένους τόπους, ἀλλ' ἀντιπαραχωρεῖν ἀλλήλοις φησὶν, ὥστε καὶ τὴν γῆν μετέωρον φέρεσθαι καὶ τὸ πῦρ ταπεινότερον (~ §7).

Loci Aetiani:

titulus A 2.15 Περὶ τάξεως ἀστέρων.

quaestio A 2.1.1 Πυθαγόρας πρῶτος ὠνόμασε τὴν τῶν ὄλων περιοχὴν κόσμον ἐκ τῆς

ἐν αὐτῷ τάξεως. A 3.proœem. τρέψομαι ἐν τῷ τρίτῳ πρὸς τὰ μετάρσια· ταῦτα δ' ἐστὶ τὰ ἀπὸ τοῦ κύκλου τῆς σελήνης καθήκοντα μέχρι πρὸς τὴν θέσιν τῆς γῆς, ἥντινα κέντρου τάξιν ἐπέχειν τῇ περιοχῇ τῆς σφαίρας νενομίσασιν.

- §1 A 1.25.3 Παρμενίδης καὶ Δημόκριτος πάντα κατ' ἀνάγκην· τὴν αὐτὴν δ' εἶναι εἰμαρμένην καὶ δαίμονα καὶ δίκην καὶ πρόνοιαν καὶ κοσμοποιόν (cf. II. 8–9). A 2.11.1 Ἀναξιμένης καὶ Παρμενίδης τὴν περιφορὰν τὴν ἐξωτάτῳ γῆς εἶναι. A 3.1.6 Παρμενίδης τὸ τοῦ πυκνοῦ καὶ ἀραιοῦ μίγμα γαλακτοειδὲς ἀποτελέσαι χρώμα. A 2.11.4 Παρμενίδης Ἡράκλειτος Στράτων Ζήνων πύρινον εἶναι τὸν οὐρανόν.
- §2 A 1.4.1 ὁ τοῖνον κόσμος συνέστη περικεκλασμένῳ σχήματι ἐσχηματισμένους τὸν τρόπον τοῦτον κτλ.
- §3 A 2.1.3 ... Ἐπίκουρος ... ἀπείρους κόσμους ἐν τῷ ἀπείρῳ κατὰ πάσαν περίστασιν. A 2.2.5 Ἐπίκουρος δ' ἐνδέχεσθαι μὲν εἶναι σφαιροειδεῖς τοὺς κόσμους, ἐνδέχεσθαι δὲ καὶ ἐτέροις σχήμασι κεκρῆσθαι.
- §4 A 2.6.4 Πλάτων τὸν ὁρατὸν κόσμον γεγονέναι πρὸς παράδειγμα τοῦ νοητοῦ κόσμου· τοῦ δ' ὁρατοῦ κόσμου προτέραν μὲν τὴν ψυχὴν, μετὰ δὲ ταύτην τὸ σωματοειδὲς τὸ ἐκ πυρὸς μὲν καὶ γῆς πρῶτον, ὕδατος δὲ καὶ ἀέρος δεύτερον.
- §5 A 1.3.21 Ἀριστοτέλης δὲ Νικομάχου Σταγειρίτης ἀρχὰς μὲν ἐντελέχειαν ἦτοι εἶδος ὕλην στέρησιν· στοιχεῖα δὲ τέσσαρα, πέμπτον δὲ τι σῶμα αἰθέριον ἀμετάβλητον. A 1.12.3 Ἀριστοτέλης βαρύτατον μὲν εἶναι τὴν γῆν ἀπλῶς, κουφότατον δὲ τὸ πῦρ· ἀέρα δὲ καὶ ὕδωρ ἄλλοτ' ἄλλως. μὴδὲν δὲ πῦρ κυκλοτερώς φύσει κινεῖσθαι, μόνον δὲ τὸ πέμπτον σῶμα. A 2.11.5 Ἀριστοτέλης ἐκ πέμπτου σώματος et vid. text. cit. ad loc.
- §6 A 3.11.3 Φιλόλαος ὁ Πυθαγόρειος τὸ μὲν πῦρ μέσον (τοῦτο γὰρ εἶναι τοῦ παντὸς ἐστίν), δευτέραν δὲ τὴν ἀντίχθονα, τρίτην δ' ἣν οἰκοῦμεν γῆν ... A 3.13.2 Φιλόλαος δ' ὁ Πυθαγόρειος κύκλῳ περιφέρεσθαι περὶ τὸ πῦρ κατὰ κύκλον λοξὸν ὁμοιοτρόπως ἡλίῳ καὶ σελήνῃ.
- §7 cf. A 2.6.3 Ἐμπεδοκλῆς τὸν μὲν αἰθέρα πρῶτον διακριθῆναι ... A 2.11.2 Ἐμπεδοκλῆς στερέμνιον εἶναι τὸν οὐρανὸν ἐξ ἀέρος συμπαγέντος ὑπὸ πυρὸς κρυσταλλοειδῶς, τὸ πυρῶδες καὶ τὸ ἀερῶδες ἐν ἑκατέρῳ τῶν ἡμισφαιρίων περιέχοντα.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The P tradition is again represented by the four main witnesses. In P^{BEQ} there are the same six doxai. G has radically shortened the chapter, preserving only two lemmata, of which the former as transmitted is a combination of the Parmenidean and Platonic doxai. This is clearly meant to represent the standard cosmology where elements have their fixed place, which is then followed by the final Empedoclean lemma in which the elements do not have a fixed

place. So in spite of his brevity G still uses the diaeresis which is the hallmark of the method of the *Placita*!

(2) The chapter's contents become more complex when the evidence of S is taken into account. Five of P's six lemmata are found. The location of P6 = S1 (Empedocles) in S 1.15 Περί σχημάτων is surprising: it seems that after quoting the first doxa of A 2.8 (Diogenes–Anaxagoras), before writing out the second, Empedoclean doxa in that chapter, the anthologist decided first to write out the previous final doxa (as we believe) in A 2.7. Presumably he marked his text, because he does not repeat this doxa when he writes out the others in S 1.22.

The evidence in S 1.22 is complicated. It can be analysed as follows. (a) He uses A's title for his chapter. (b) He then begins by presenting P1 = S2 (Parmenides) in a much longer version, which in all likelihood is the original prior to P's excision of its latter part. (c) It is followed by S3 = P5 (Aristotle), whose mention of αἰθήρ links up well with the conclusion of the first doxa. But here he copies out on the first part of the doxa and replaces the rest with an extract from AD. The Platonic doxa P4 is thus left out (it is replaced by material from A 2.6). (d) He follows (= S4) with a long account of Philolaus' cosmology missing in P, but certainly belonging to this chapter (note how it is linked up with the AD quote through the role of τὸ μέσον). (e) Finally he writes out the two atomist doxai P2–3 = S5–6, followed by the inserted Platonic material.

(3) T again passes over this chapter, no doubt because it does not illustrate the diaphonia of the philosophers sufficiently clearly.

(4) A small amount of parallel material is found in Ach in his §4 Περί τῆς συστάσεως τῶν ὄλων. On Ach's evidence see further below section D(e).

B Proximate Tradition and Sources

(1) *Proximate tradition.* Various parallels show that the chapter's contents share common elements with earlier doxographic traditions. For the account of Parmenides' cosmology there is a briefer parallel text in Cicero's theological doxography at *ND* 1.28; we return to this text below at D(d)§1. The doxa of Leucippus and Democritus shares the interesting feature of a membrane holding together the contents of the cosmos with the atomist account of its origin in D.L. 9.32. In the case of Epicurus' doxa it is possible that we have its direct source in *Ep.Pyth.* at D.L. 10.88; we return to this text too below at D(d)§3. The Philolaus doxa shares some features with Aristotle's discussion of the early Pythagoreans in *Cael.* 2.13, but it is difficult to determine where much of its unparalleled content derives from (see the discussion at Huffman 1993, 395–400).

In general, descriptions of the cosmos' final structure are not a common feature in doxographies of individual philosophers in the proximate tradition such as we find Diogenes Laertius and Hippolytus. The emphasis there is on the ele-

ments as principles (or derived from them) and on descriptions of the genesis of the cosmos. See for example ps.Plutarch *Strom.* 5 on Parmenides (text section E(a)§1 below). Another example is the very brief account of the cosmos in Hippolytus' doxography on Plato (text section E(a)§4 below), which follows the reference to matter as one of the three principles. The four elements there follow the *Timaeus* and differ from the five elements in the present chapter.

(2) *Sources.* The contents of the chapter, which record Presocratic views on the structure of the cosmos of varying length (§§1,2,6,7, i.e. two long and two short), is clearly based on original sources, as is evident in the Parmenides doxa with its reference to the δαίμων in fr. 28B12 DK. But it is not likely that it occurred at first hand. These summaries most likely go back to the Peripatos, possibly but by no means necessarily going back at least in part to the labours of Theophrastus. The brief summary of Plato's cosmology is not directly based on the *Timaeus* and perhaps shows Academic features.

The Aristotelian cosmology lacks the theology of A 1.7.23 and, though very brief, describes the sub-lunary elements. There is little verbal resemblance to the extended description of the Aristotelian universe in the *De mundo*.

C Chapter Heading

After a number of chapters with different kinds of headings, the heading here returns to the common umbrella type Περί x and is paralleled at ch. 2.15 Περί τάξεως ἀστέρων. The quaestio is in the category of relative position (category of place, ποῦ). Ach has a chapter with a parallel heading, Περί τῆς συστάσεως τῶν ὄλων, where σύστασις means 'composition'; cf. the regular use of σύστημα in definitions of the cosmos, e.g. at ps.Arist. *Mu.* 2 392b9 (Aristotle), D.L. 7.138 (Stoa). There is no parallel chapter for the microcosm. Ch. 5.22, with the heading Ἐκ ποίων συνίσταται στοιχείων ἕκαστον τῶν ἐν ἡμῖν γενικῶν μορίων, asks a different question, i.e. quality rather than relative place.

Two of the mss. of P^B support the shorter version of the title, Περί τάξεως κόσμου, parallel to the titles of chs. 2.1–2 and 2.15. But the longer version with τοῦ κόσμου is found in E and G, and is also supported by S, so it must be retained.

D Analysis

a Context

After the (limited) discussion of cosmogonic processes has been set out in ch. 2.6, attention now turns to the result of that process, i.e. the structure of the physical world as it now exists. The subject is parallel to that of ch. 2.15, Περί τάξεως ἀστέρων, which goes into further detail on the arrangement of the heavenly bodies. The similarity lies in the notion of the ordering of separate elements. As we just saw, the chapter thus falls under the Aristotelian category of

(relative) position (κεῖσθαι). Ch. 2.12 Περί ἐγκλίσεως γῆς may be seen as another parallel, but there is no equivalent chapter for the microcosm or the animal realm.

b Number–Order of Lemmata

The evidence points to seven doxai, all but one at least partially present in P. Nothing in S contradicts the order found in P. But the doxa of Philolaus deleted by P must be given a place. Diels placed it at the end. This position is not persuasive, however, if the chapter's structure is taken into account.

c Rationale–Structure of Chapter

The final place of the Empedoclean doxa in the chapter should be preserved. As already observed on G's abridgement of the chapter (see above section A(1)), the main diaeresis in the chapter is between the cosmologies in which the elements have a fixed location and the view attributed to Empedocles that they are not fixed. This final position is often taken by doxai of Epicurus in other chapters (e.g. chs. 2.2, 2.13 etc.) It is more difficult to determine the rationale for the remaining six doxai. The first doxa is very long by the standards of the *Placita*. Its first half gives a highly exotic Presocratic cosmology that bears little relation to the standard cosmological model that by A's time was wholly dominant. The second half reads much more conventionally with references to the elements and various heavenly bodies. Each half has its own causative factors, the former formulated in theological terms, the latter emphasizing the role of condensation and exhalation. The next two lemmata P2–3 = S5–6 are much briefer and link up with Parmenides' view of the solidity of the extreme limit of the cosmos. The atomists differ by having a thin membrane around the cosmos, while Epicurus represents a compromise view in which both possibilities are entertained.

The Platonic and Aristotelian doxai P4–5 (= S3 only) more closely approximate the standard cosmological model and are clearly formulated in such a way as to form a contrasting pair, the key difference being the role of aether. It is possible that the Platonic doxa was originally longer, since we cannot draw on S to check what P did with it. There remains the doxa of Philolaus (= S4), who as in chs. 2.5 and 2.5a is seen as having a distinctive cosmological doctrine. The doxa is even longer than that of Parmenides and can also be divided in two parts. The first gives the distinctive cosmic order reported by Aristotle in *Cael.* 2.13 (see also A 3.11.3). The second divides the cosmos into three regions each with their own distinctive names. Both Burkert (1972) 243–246 and Huffman (1993) 395–400 regard this second part as inauthentic. The doxa will have to be placed either before the Plato–Aristotle pair or after it (not in the final place, as

done by Diels, for reasons given above). The cosmology of the first part, apart from the distinctive doctrines of the central fire and the counter-earth, is reasonably similar to the Platonic and Aristotelian views. So the doxa could come in between Epicurus and Plato as a transitional view. But it seems more probable that it follows the Platonic-Aristotelian pair, with the start of the doxa πῦρ ἐν μέσῳ περὶ τὸ κέντρον placed in deliberate contrast to Plato's view which starts with fire at the periphery. The contrast between centre and periphery recalls the similar diaeresis in ch. 2.6. It might further be argued that the three doxai stand as rational–teleological views in implicit contrast to the mechanistic–atomistic emphasis of the first three (in the case of Parmenides especially the second half). This antithesis has been recognized as fundamental to the development of early Greek cosmology; see Furley (1987), Sedley (2007), and also our comments above at chs. 2.1 Commentary B and 2.4 Commentary B.

d Further Comments

Individual Points

§1 This account is an important witness to Parmenides' cosmology because it is presumably derived from his poem, but we do not possess the lines on which it is primarily based. There are two significant parallel texts which place more emphasis on the theological aspects of the cosmos' genesis and structure than A does. Cicero *ND* 1.28 specifically mentions the role of 'something resembling a crown which he gives the name στεφάνη, a continuous circle of glowing lights'. The term στεφάνη occurs in lines 1 and 5 of A's doxa. The earlier text of Philodemus *Piet.* col. 324 Vassallo (= fr. 13 Schober) is very fragmentary and appears to show less resemblance to A's text; it is partly cited on ch. 1.7 section E(a)§17. For a detailed comparison of all three texts see now Vassallo (2016b). Further discussions of the cosmology latent in A's text in Morrison (1955) 60–61; Guthrie (1962–1981) 2.61–63; Tarán (1965) 232–250; Finkelberg (1986). On Diels' interpretation of the text as an excerpt from Theophrastus see Mansfeld (2011c), 395–396, who concludes (396): 'The derivational hypothesis of the *DG* tends to confirm itself'.

§1[6–7] The text here must remain uncertain. We print Diels' text at *VS* 1.114 (also in *DK*), which takes its cue from conjectures by Krische and Wachsmuth. It retains the conjunction τε καί and so must find two nouns, which it draws from Simplicius in *Phys.* 34.14–16 καὶ ποιητικὸν αἴτιον ἑκείνος (sc. Παρμενίδης) μὲν ἐν κοινὸν τὴν ἐν μέσῳ πάντων ἰδρυμένην καὶ πάσης γενέσεως αἰτίαν δαίμονα τίθησιν (but note that there is no reference to ἀρχή in this passage). The other strategy is to emend τε καί, as Diels for example did in *DG* by taking over Davis' conjecture τοκέα. For want of better, the commentators generally accept the text in *DK* (also Mansfeld-Primavesi fr. 14; but Laks–Most fr. D15 vol. 5 p. 58 obelize the original text).

§1[8] The emendation to *κληδοῦχον* accepted by most editors is based on the reference to Justice holding the ‘alternating keys (*κληῖδας*)’ in l. 14 of the Proœmium (28B1). But the text in S *κληροῦχον*, ‘holder of the lots’, also makes excellent sense, as observed by Guthrie (1962–1981) 2.62, who refers to the role of Lachesis in Plato’s myth of Er (*Resp.* 617e). It is retained by Mansfeld–Primavesi and Laks–Most in their recent editions.

§3 As noted in section B above, we may have the source of this doxa in Epicurus’ *Letter to Pythocles* preserved at D.L. 10.88 (and also perhaps the mother work *On nature* on which it is based). The doxographer has simplified the text by deleting the reference to multiple possibility based on lack of sensory evidence. The mention of multiple kosmoi places the doxa outside the scope of the chapter in the strict sense, but allows the contrast with the previous view. The juxtaposition of the early Atomists and Epicurus is parallel to what we find in A 2.2.4–5.

§§4–5 Both doxai have five elements, but in different configurations. There is no text in the *Timaeus* from which the former doxa can easily be derived. At *Tim.* 58d αἰθήρ is regarded as a form of air. In *Epin.* 984b aether follows fire. Xenocrates, however, in his life of Plato as cited by Simplicius relates αἰθήρ and the four elements to the five perfect geometrical figures of *Tim.* 53–55 and his view may be reflected in this doxa (text below section E(b)§4). Whether Plato espoused a four- or five-element cosmology was a matter of dispute in Middle Platonism, no doubt due to Aristotelian and Stoic influence; see the comments of Dillon (1977) 49. At Alcinous *Did.* 15.4 αἰθήρ seems to replace fire as the substance of the heavenly bodies rather than be placed next to it as in A. On the expression πέμπτον σῶμα see further A 2.11 Commentary D(d)§5.

§6 As noted above in section D(c), Burkert and Huffman regard the first part as based on authentic material (particularly fr. 7 preserved by S at 1.21.8), but argue that the second part contains elements that are contradictory to the system described in the first half and so should not be regarded as genuine. The doxa is extraordinarily long for the *Placita*, no doubt reflecting an earlier more expansive phase of the tradition. The epistemological turn at the end is remarkable.

§6[29] Huffman omits <πέν>τε (or ε’) in his text, presumably because he thinks two references to five planets in a single doxa is unlikely. The likelihood is increased if the doxa itself is composite. See further on the Democritus lemma at ch. 2.15.3.

§7 The doxa appears to go back to a criticism that Aristotle brings against Empedocles that his elements do not move in fixed directions but change their direction of movement (and their location?) through chance: see *Phys.* 2.4 196a19–23, *GC* 2.6 334a1–5 (where the lines 31B53 & 54 DK are cited) and a brief discussion in O’Brien (1969) 147–148.

e Other Evidence

The evidence in Ach is intriguing. The final doxa with the name-label Empedocles is parallel to the final doxa in A, though presented in a slightly longer and clearer form. He adds an illustration missing in A involving earth and fire (the same elements as in Aristotle *GC* 2.6 333b28 & 31). The doxa clearly comes from the same tradition as A. Other doxai differ, with different name-labels. The reference to the Aristotelian cosmos is only used to explicate the Orphic doctrine. This lengthy doxa compares the structure of the cosmos to an egg. Nevertheless its treatment of the parts of the cosmos is reminiscent of the content and method of this chapter. It may have come from the earlier doxographical tradition used by A; see ch. 2.2 Commentary D(e). There is no parallel in A for the doxa on Xenophanes with a quote from his poem.

E Further Related Texts

a Proximate Tradition

General texts: Stoic doxography at D.L. *V.P.* 7.138 (on the cosmos) σύστημα ἐξ οὐρανοῦ καὶ γῆς καὶ τῶν 4εν τούτοις φύσεων. **Philo of Alexandria** *Aet.* 4 λέγεται τοίνυν ὁ κόσμος καθ' ἓν μὲν [πρώτον] σύστημα ἐξ οὐρανοῦ καὶ ἄστρων κατὰ περιοχὴν (καὶ) γῆς καὶ τῶν ἐπ' αὐτῆς ζώων καὶ φυτῶν ... *Aet.* 32 (= Arist. *de Phil.* fr. 19b Ross) ὁ δὲ κόσμος ἀμέτοχος τῆς ἐν τοῖς λεχθεῖσιν ἀταξίας ἐστίν. ἐπεὶ, φέρε, θεασώμεθα· φθειρομένους τὰ μέρη νυνὶ μὲν ἀνάγκη τετάχθαι τὴν παρὰ φύσιν ἕκαστα χώραν· τοῦτο δὲ ὑπονοεῖν οὐκ εὐαγές· ἀρίστην γὰρ θέσιν καὶ τάξιν ἐναρμόνιον τὰ τοῦ κόσμου μέρη πάντα εἴληχεν, ὥς ἕκαστον καθάπερ πατρίδι φιλοχωροῦν μὴ ζητεῖν ἀμείνω μεταβολήν. διὰ τοῦτο γῆ μὲν ὁ μεσαίτατος ἀπενεμήθη τόπος ... *Congr.* 103–104 ἔμαθον γὰρ τὸν ἔνατον ὑπερβαίνοντες αἰσθητὸν δοκῆσει θεὸν τὸν δέκατον καὶ μόνον ὄντα ἀψευδῶς προσκυνεῖν. ἐννέα γὰρ ὁ κόσμος ἔλαχε μοίρας, ἐν οὐρανῷ μὲν ὀκτώ, τὴν τε ἀπλανῆ καὶ ἐπτά τὰς πεπλανημένας ἐν τάξεσι φερομένας ταῖς αὐταῖς, ἐνάτην δὲ γῆν σὺν ὕδατι καὶ ἀέρι· τούτων γὰρ μία συγγένεια τροπὰς καὶ μεταβολὰς παντοίας δεχομένων ... *Pliny Nat.* 2.4.10–12.

Chapter heading: Eusebius *PE* 15.32.8 περὶ τε τῆς τάξεως τοῦ κόσμου.

§1 Parmenides: Cicero *ND* 1.28 *nam Parmenides* (28A37 DK) *quidem com-menticiū quiddam: coronae similem efficit* (στεφάνην appellat) *continentem ardorum lucis orbem, qui cingit caelum, quem appellat deum; in quo neque figuram divinam neque sensum quisquam suspicari potest. multaue eiusdem monstra, quippe qui bellum qui discordiam qui cupiditatem ceteraque generis eiusdem ad deum revocet, quae vel morbo vel somno vel oblivione vel vetustate delentur; eademque de sideribus, quae reprehensa in alio iam in hoc omittantur.* cf. *Luc.* 118 (on the *principia rerum* of which the universe consists) *Parmenides* (28A35 DK) *ignem qui moveat terram quae ab eo formetur.* **ps.Plutarch** *Strom.* 5 (fr. 179 Sandbach, 28A22 DK) λέγει δὲ τὴν γῆν τοῦ πυκνοῦ καταρρυέντος ἀέρος γεγενέναι.

§2 Leucippus Democritus: Diogenes Laertius *V.P.* 9.32 (on Leucippus, 67A1 DK) τοῦτο δ' οἶον ὑμένα ἀφίστασθαι, περιέχοντ' ἐν ἑαυτῷ παντοία σώματα·

ὧν κατὰ τὴν τοῦ μέσου ἀντέρεισιν περιδινουμένων λεπτὸν γενέσθαι τὸν περίξ ὑμένα, συρρεόντων αἰετῶν συνεχῶν κατ' ἐπίψαυσιν τῆς δίνης. καὶ οὕτω γενέσθαι τὴν γῆν, συμμενόντων τῶν ἐνεχθέντων ἐπὶ τὸ μέσον. **Hippolytus Ref.** 1.13.4 (on Democritus, 68A40 DK) τοῦ δὲ παρ' ἡμῖν κόσμου πρότερον τὴν γῆν τῶν ἄστρων γενέσθαι εἶναι δὲ τὴν μὲν σελήνην κάτω, ἔπειτα τὸν ἥλιον, εἶτα τοὺς ἀπλανεῖς ἀστέρας.

§4 Plato: Hippolytus Ref. 1.19.1 (on Plato) ἀρχὰς εἶναι τοῦ παντὸς θεὸν καὶ ὕλην καὶ παράδειγμα· θεὸν μὲν τὸν ποιητὴν καὶ διακοσμήσαντα τότε τὸ πᾶν καὶ προνοούμενον αὐτοῦ· ὕλην δὲ τὴν πᾶσιν ὑποκειμένην, ἣν καὶ δεξαμένην καὶ τιθήνην καλεῖ. ἐξ ἧς διακοσμηθείσης γενέσθαι τὰ τέσσαρα στοιχεῖα, ἐξ ὧν συνέστηκεν ὁ κόσμος, πυρὸς ἀέρος γῆς ὕδατος, ἐξ ὧν καὶ τὰ ἄλλα πάντα συγκρίματα καλούμενα, ζῷά τε καὶ φυτά, συνεστηκέναι.

§5 Aristotle: Arius Didymus fr. 9 Diels at Stob. Ecl. 1.22.1c, p. 196.5, 11–12 (Ἀριστοτέλους) περιέχεσθαι δὲ ταῦτα ὑπὸ τοῦ αἰθέρος ... συνεστάναι δὲ τὰ ἄστρα καὶ τὸν οὐρανὸν ἐκ τοῦ αἰθέρος, τοῦτον δὲ οὔτε βαρὺν οὔτε κοῦφον ... **Diogenes Laertius VP.** 5.32 (on Aristotle) εἶναι δὲ παρὰ τὰ τέτταρα στοιχεῖα καὶ ἄλλο πέμπτον, ἐξ οὗ τὰ αἰθέρια συνεστάναι.

§6 Philolaus: Diogenes Laertius VP. 8.85 δοκεῖ δ' αὐτῷ (Philolaus 44A1 DK) ... καὶ τὴν γῆν κινεῖσθαι κατὰ κύκλον πρῶτον εἰπεῖν· οἱ δ' Ἰκέταν (τὸν) Συρακόσιον (cf. on 50.1 DK) φασιν.

b Sources and Other Parallel Texts

General texts: **Aristotle Cael.** 2.2 285b33–286a2 περὶ μὲν οὖν τῶν κατὰ τὰς διαστάσεις τῶν μορίων καὶ τῶν κατὰ τόπον ὠρισμένων τοσαῦτα εἰρήσθω. also **Cael.** 2.3 286a10–21 ἐπεὶ δ' ὁ οὐρανὸς τοιοῦτος (σῶμα γάρ τι θεῖον), διὰ τοῦτο ἔχει τὸ ἐγκύκλιον σῶμα, ὃ φύσει κινεῖται κύκλῳ αἰεὶ ... ἀνάγκη τοῖνυν γῆν εἶναι· τοῦτο γὰρ ἡρεμεῖ ἐπὶ τοῦ μέσου. **Corpus Hippocraticum Sept.** 1.2.1–2.1.1 West μίαν μὲν (ἐν) πᾶσι τάξιν τὴν τοῦ ἀκρίτου κόσμου (δι)εξ(όδους) ἔχοντος θέρεος καὶ χειμῶνος. δευτέρην δὲ [τάξιν] τὴν τῶν ἄστρων ἀνταυγείαν καὶ μάνωσιν [οὔσαν θερμότητην] καὶ ἀραιωτέρην τῆς φύσιος λαμπηδόνα. τρίτην ἡλίου διόδον θερμασ(ίην) ἔχοντ(ος)· τετάρτην σελήνης ἀνιούσης καὶ τελειούσης προσθέσει καὶ μειούσης ἀφαί(ρεσιν). πέμπτη μοῖρα ἢ τοῦ ἡέρος σύστασις [καὶ] κόσμου, παρέχουσα ὑετοὺς καὶ ἀστραπάς, β(ροντάς τε) καὶ χιόνας (καὶ χαλάζας καὶ τᾶλλα τοιαῦτα)· ἔκτον τὸ τῆς θαλάττης ὑγρὸν μέρος καὶ ποταμῶν καὶ κρηνέων καὶ πηγέων καὶ λιμνέων, (καὶ τὸ ἄποτον καὶ τὸ πότιμον), καὶ (τὸ) ἐν τούτοις θερμὸν, ὃ ἀγωγὴ καὶ ἄρδευσις ἐστὶ τῆς ἱκμάδος. ἔβδομον αὐτὴ ἡ γῆ, ἐφ' ἣ τὰ τε ζῶα καὶ τὰ (φυ)όμενα (...) καὶ ἔστι πάντων τροφός, [ἐξ ὕδατος ἐοῦσα] (διὰ τὸ περιέχειν αὐτὴν τὰ ὑγρά). οὕτως οἱ τῶν ὅλων πάντων κόσμοι ἑπταμερέα ἔχουσι τὴν τάξιν. **ps.Eudoxus Papyrus Parisinus** 1, col. 7.5 Blass (not in Lasserre) Οὐρανίου κόσμου τάξις. κόσμος νοεῖται ἐκ τε γῆς καὶ σελήνης καὶ ἡλίου καὶ πέντε πλανητῶν ἀστέρων καὶ ἀπλανῶν καὶ τοῦ περιέχοντος τὸν οὐρανὸν καὶ τὴν γῆν ἀέρος. **Cleomedes Cael.** 1.1.1–15 Todd τοῦ κόσμου πολλὰ ὡς λεγομένου, ὃ νῦν ἡμῖν λόγος ἐνεστηκώς περὶ τοῦ κατὰ τὴν διακόσμησιν ἐστίν, ὃν ὀρίζονται οὕτως· κόσμος ἐστὶ σύστημα ἐξ οὐρανοῦ καὶ γῆς καὶ τῶν ἐν τούτοις φύσεων. οὗτος δὲ πάντα μὲν τὰ σώματα ἐμπεριέχει ... ὅτι δὲ φύσιν ἔχει τὴν διοικοῦσαν αὐτόν, γνῶριμον πρῶτον μὲν ἐκ τῆς τάξεως τῶν ἐν αὐτῷ μερῶν, ἔπειτα ἐκ τῆς τῶν γινομένων τάξεως ...

Chapter heading: cf. *ps.Eudoxus Papyrus Parisinus* 1, col. 7.5 Blass, *Cleomedes Cael.* 1.1.11–12 both cited above.

§1 *Parmenides:* *Parmenides* fr. 28B12 DK at *Simp. in Phys.* 39,12–19 μετ' ὀλίγα δὲ πάλιν περὶ τῶν θυεῖν στοιχείων εἰπὼν ἐπάγει καὶ τὸ ποιητικὸν λέγων οὕτως 'αἱ γὰρ στενιότεραι πληντο πυρὸς ἀκρήτοιο, / αἱ δ' ἐπὶ ταῖς νυκτός, μετὰ δὲ φλογὸς ἵεται αἷσα. / ἐν δὲ μέσῳ τούτων δαίμων ἢ πάντα κυβερνᾷ. ταύτην καὶ θεῶν αἰτίαν εἶναι φησι λέγων 'πρώτιστον μὲν Ἐρωτα θεῶν μητίσαστο πάντων' καὶ τὰ ἐξῆς. *Aristotle Met.* A.5 986b31–987a2 (on *Parmenides*, 28A24 DK) καὶ τὸ ἐν μὲν κατὰ τὸν λόγον πλείω δὲ κατὰ τὴν αἴσθησιν ὑπολαμβάνων εἶναι, δύο τὰς αἰτίας καὶ δύο τὰς ἀρχὰς πάλιν τίθησι, θερμὸν καὶ ψυχρόν, οἷον πῦρ καὶ γῆν λέγων· τούτων δὲ κατὰ μὲν τὸ ὄν τὸ θερμὸν τάττει θάτερον δὲ κατὰ τὸ μὴ ὄν. *GC* 2.3 330b13–15 οἱ δ' εὐθύς δύο ποιοῦντες, ὥσπερ *Παρμενίδης* (28A35 DK) πῦρ καὶ γῆν, τὰ μεταξὺ μίγματα ποιοῦσι τούτων, οἷον ἀέρα καὶ ὕδωρ. also *GC* 2.9 336a3–6 (28A35 DK) ἐπειδὴ γὰρ πέφυκεν, ὥς φασι, τὸ μὲν θερμὸν διακρίνειν τὸ δὲ ψυχρὸν συνιστάναι, καὶ τῶν ἄλλων ἕκαστον τὸ μὲν ποιεῖν τὸ δὲ πάσχειν, ἐκ τούτων λέγουσι καὶ διὰ τούτων ἅπαντα τὰλλα γίνεσθαι καὶ φθεῖρεσθαι.

§3 *Epicurus:* *Epicurus Ep.Pyth.* at D.L. 10.88 κόσμος ἐστὶ περιοχὴ τις οὐρανοῦ, ἄστρα τε καὶ γῆν καὶ πάντα τὰ φαινόμενα περιέχουσα, ἀποτομὴν ἔχουσα ἀπὸ τοῦ ἀπείρου καὶ καταλήγουσα ἐν πέρατι ἢ ἀραιῷ ἢ πυκνῷ καὶ οὐ λυομένου πάντα τὰ ἐν αὐτῷ σύγχυσιν λήψεται—καὶ λήγουσαν ἢ ἐν περιεγομένῃ ἢ ἐν στάσιν ἔχοντι καὶ στρογγύλῃν ἢ τρίγωνον ἢ οἷαν δήποτε περιγραφῆν. πανταχῶς γὰρ ἐνδέχεται. cf. *Ep.Hdt.* at D.L. 10.74 (scholion) οὖν ὥς καὶ φθαρτοῦς φησι τοὺς κόσμους, μεταβαλλόντων τῶν μερῶν. καὶ ἐν ἄλλοις τὴν γῆν τῷ ἀέρι ἐποχεῖσθαι.

§4 *Plato:* *Xenocrates* (fr. 53 Heinze, fr. 183 Isnardi Parente²) at *Simp. in Cael.* 12.21–26 αἱ ὅτι καὶ Πλάτων πέντε εἶναι τὰ ἀπλὰ σώματα νομίζει κατὰ τὰ πέντε σχήματα, ἀρκεῖ *Ξενοκράτης* ὁ γησιώτατος αὐτοῦ τῶν ἀκροατῶν ἐν τῷ *Περὶ τοῦ Πλάτωνος βίου* τάδε γράφων· 'τὰ μὲν οὖν ζῶα οὕτω διηρεῖτο εἰς ἰδέας τε καὶ μέρη πάντα τρόπον διαιρῶν, ἔως εἰς τὰ πέντε στοιχεῖα ἀφίκετο τῶν ζῶων, ἃ δὴ πέντε σχήματα καὶ σώματα ὠνόμαζεν, εἰς αἰθέρα καὶ πῦρ καὶ ὕδωρ καὶ γῆν καὶ ἀέρα'. Same quote at *ibid.* 87.23 (fr. 53 Heinze, fr. 184 Isnardi Parente²). cf. *Alcinous Did.* 15, p. 171.34–37 H. ὁ δὲ αἰθὴρ ἐξωτάτω διηρημένος εἷς τε τὴν τῶν ἀπλανῶν σφαῖραν καὶ εἰς τὴν τῶν πλανωμένων· μεθ' ἧς ἡ τοῦ ἀέρος ὑπάρχει, καὶ ἐν μέσῳ ἡ γῆ σὺν τῷ ἑαυτῆς ὕγρῳ.

§5 *Aristotle:* *Aristotle Cael.* 1.3 270b20–24 διόπερ ὥς ἐτέρου τινὸς ὄντος τοῦ πρώτου σώματος παρὰ γῆν καὶ πῦρ καὶ ἀέρα καὶ ὕδωρ, αἰθέρα προσωνόμασαν τὸν ἀνωτάτω τόπον, ἀπὸ τοῦ θεῖν αἰεὶ τὸν αἰῶδιον χρόνον θέμενοι τὴν ἐπωνυμίαν αὐτῷ. *ps.Aristotle Mu.* 2 391b9–16 κόσμος μὲν οὖν ἐστὶ σύστημα ἐξ οὐρανοῦ καὶ γῆς καὶ τῶν ἐν τούτοις περιεχομένων φύσεων. λέγεται δὲ καὶ ἐτέρως κόσμος ἢ τῶν ὄλων τάξις τε καὶ διακόσμησις, ὑπὸ θεοῦ τε καὶ διὰ θεὸν φυλαττομένη. ταύτης δὲ τὸ μὲν μέσον, ἀκίνητόν τε καὶ ἐδραῖον ὄν, ἢ φερέσβιος εἵληχε γῆ, παντοδαπῶν ζῶων ἐστία τε οὖσα καὶ μήτηρ. τὸ δὲ ὑπερθεὶς αὐτῆς, πᾶν τε καὶ πάντῃ πεπερατωμένον εἰς τὸ ἀνωτάτω, θεῶν οἰκητήριον, οὐρανὸς ὠνόμασται. *Mu.* 2 392a5–9 οὐρανοῦ δὲ καὶ ἄστρον οὐσίαν μὲν αἰθέρα καλοῦμεν, οὐχ, ὥς τινες, διὰ τὸ πυρῶδη οὖσαν αἰθεσθαι, πλημμελοῦντες περὶ τὴν πλείστον πυρὸς ἀπηλλαγμένην δύναμιν, ἀλλὰ διὰ τὸ αἰεὶ θεῖν

κυκλοφορουμένην, στοιχειὸν οὖσαν ἕτερον τῶν τεττάρων, ἀκήρατόν τε καὶ θεῖον. *Mu.* 2 392a31–b6 μετὰ δὲ τὴν αἰθέριον καὶ θεῖαν φύσιν, ἦντινα τεταγμένην ἀποφαινόμεν, ἔτι δὲ ἄτρεπτον καὶ ἀνετεροίωτον καὶ ἀπαθὴ, συνεχὴς ἐστὶν ἡ δι' ὧλων παθητὴ τε καὶ τρεπτὴ, καὶ, τὸ σύμπαν εἰπεῖν, φθαρτὴ τε καὶ ἐπίκηρος. ταύτης δὲ αὐτῆς πρώτη μὲν ἐστὶν ἡ λεπτομερὴς καὶ φλογώδης οὐσία ... ἐξῆς δὲ ταύτης ὁ ἀήρ ὑποκέχυται. *Mu.* 3 392b14–17 ἐξῆς δὲ τῆς ἀερίου φύσεως γῆ καὶ θάλασσα ἐρήρεισται, φυτοῖς βρύουσα καὶ ζώοις πηγαῖς τε καὶ ποταμοῖς, τοῖς μὲν ἐν γῇ ἀναλίσκομενοίς, τοῖς δὲ ἀνερευομένοις εἰς θάλασσαν ...

§6 *Philolaus*: *Philolaus* at *Stob. Ecl.* 1.21.8 (44B7 DK) τὸ πρᾶτον ἄρμοσθέν, τὸ ἔν, ἐν τῷ μέσῳ τὰς σφαῖρας ἐστία καλεῖται. *Aristotle Cael.* 2.13 293a17–27 περὶ μὲν οὖν τῆς θέσεως οὐ τὴν αὐτὴν ἅπαντες ἔχουσι δόξαν, ἀλλὰ τῶν πλείστων ἐπὶ τοῦ μέσου κεῖσθαι λεγόντων, ὅσοι τὸν ὅλον οὐρανὸν πεπερασμένον εἶναι φασιν, ἐναντίως οἱ περὶ τὴν Ἰταλίαν, καλούμενοι δὲ Πυθαγόρειοι λέγουσιν· ἐπὶ μὲν γὰρ τοῦ μέσου πῦρ εἶναι φασι, τὴν δὲ γῆν, ἐν τῶν ἄστρον οὖσαν, κύκλῳ φερομένην περὶ τὸ μέσον νύκτα τε καὶ ἡμέραν ποιεῖν. ἔτι δ' ἐναντίαν ἄλλην ταύτη κατασκευάζουσι γῆν, ἣν ἀντίχθονα ὄνομα καλοῦσιν, οὐ πρὸς τὰ φαινόμενα τοὺς λόγους καὶ τὰς αἰτίας ζητούντες, ἀλλὰ πρὸς τινὰς λόγους καὶ δόξας αὐτῶν τὰ φαινόμενα προσέλκοντες καὶ πειρώμενοι συγκοσμεῖν. cf. *Simplicius in Cael.* 511.23–512.20. *Simplicius in Phys.* 1355.3–11 εἰ δὲ οἱ μὲν Πυθαγόρειοι (—) ἐν τῷ κέντρῳ λέγουσιν ἰδρῦσθαι, ὁ δὲ Ἀριστοτέλης ἐν τῇ ἀπλανεῖ σφαίρᾳ φησὶν εἶναι, ἐκεῖνοι μὲν τὸ κέντρον ἐπιτηδεότερον τῶν ἄλλων τοῦ παντὸς μερῶν νομίζουσι πρὸς μέθεξιν τῆς τοῦ δημιουργοῦ συνοχικῆς καὶ ἐδραστικῆς ἀγαθότητος, ὁ δὲ Ἀριστοτέλης τὴν ἀπλανὴν πρῶτως ἀπολαύειν τῆς δημιουργικῆς νομίζει κινήσεως. καὶ διὰ τοῦτο οἱ μὲν Πυθαγόρειοι Ἑστίας τόπον καὶ Ζανὸς πύργον ἐκάλουν τὸ κέντρον, ὁ δὲ Ἀριστοτέλης μέτρον τῶν ἄλλων κινήσεων τὴν τῆς ἀπλανοῦς ἔλεγεν ὡς πρῶτην καὶ συνηρημένην, καὶ τὸ τοῦ κινουντος ἀμερές διὰ τῆς ταχυότητος ἐνεικονιζομένην.

§7 *Empedocles*: *Aristotle Phys.* 2.4 196a19–24 ἄτοπον οὖν εἴτε μὴ ὑπελάμβανον εἶναι εἴτε οἰόμενοι παρέλειπον, καὶ ταῦτ' ἐνίστε χρώμενοι, ὥσπερ Ἐμπεδοκλῆς (31B53 DK) οὐκ αἰεὶ τὸν ἀέρα ἀνωτάτῳ ἀποκρίνεσθαι φησιν, ἀλλ' ὅπως ἂν τύχη· λέγει γοῦν ἐν τῇ κοσμοποιίᾳ ὡς 'οὕτω συνέκυρσε θέων τοτέ, πολλὰκι δ' ἄλλως'· καὶ τὰ μόρια τῶν ζώων ἀπὸ τύχης γενέσθαι τὰ πλείστα φησιν. *GC* 2.6 334a1–5 (on *Empedocles*, 31B53–54 DK) διεκρίνε μὲν γὰρ τὸ νεῖκος, ἡνέχθη δ' ἄνω ὁ αἰθήρ οὐχ ὑπὸ τοῦ νείκους, ἀλλ' ὅτε μὲν φησιν ὥσπερ ἀπὸ τύχης ('οὕτω γὰρ συνέκυρσε θέων τοτέ, πολλὰκι δ' ἄλλως'), ὅτε δὲ φησι πεφυκέναι τὸ πῦρ ἄνω φέρεσθαι, ὁ δ' αἰθήρ, φησί, '(<δ' αὖ>) μακρῆσι κατὰ χθόνα δύετο ῥίζαις'.

Liber 2 Caput 8

P^B: ps.Plutarchus 887E–F; pp. 337^{a1}–338^{a9} Diels—**P^E**: Eusebius *PE* 15.39, p. 411.5–12 Mras, cf. 15.32.8, p. 406.11–12—**P^G**: ps.Galenus *HPh* c. 51; p. 623.1–7 Diels—**P^Q**: Qustā ibn Lūqā pp. 144–147 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 160.1–6, p. 82 Westerink—**P^{Sy}**: Symeon Seth *CRN* 3.33, p. 39.3 Delatte (titulus solus)
S: Stobaeus, *Eclogae* 1.15.6c, p. 147.4–9 + 1.15.6d, p. 141.14–17 Wachsmuth
Cf. Ach.: Achilles *Univ.* c. 19, p. 28.13–16 Di Maria

Titulus η'. Τίς ἡ αἰτία τοῦ τὸν κόσμον ἐγκλιθῆναι (P)

- §1 Διογένης Ἀναξαγόρας μετὰ τὸ συστήναι τὸν κόσμον καὶ τὰ ζῶα ἐκ τῆς γῆς ἐξαγαγεῖν ἐγκλιθῆναι πῶς τὸν κόσμον ἐκ τοῦ αὐτομάτου εἰς τὸ μεσημβρινὸν αὐτοῦ μέρος· ἴσως ὑπὸ προνοίας, ἴν' ἃ μὲν ἀόικητα γέννηται ἃ δ' οἰκητὰ μέρη τοῦ κόσμου κατὰ ψύξιν καὶ ἐκπύρῳσιν καὶ εὐκρασίαν. (P1,S1) 5
- §2 Ἐμπεδοκλῆς τοῦ ἀέρος εἷξαντος τῇ τοῦ ἡλίου ὀρμῇ, ἐπικλιθῆναι τὰς ἄρκτους, καὶ τὰ μὲν βόρεια ὑψωθῆναι τὰ δὲ νότια ταπεινωθῆναι, καθ' ὃ καὶ τὸν ὅλον κόσμον. (P2,S2)

§1 Diogenes 64A11; Anaxagoras 59A67; §2 Empedocles 31A58

titulus Τίς ἡ αἰτία **P^{B(LIIDE)GQ}**, **S^{L-ind}** ex P : Περὶ τοῦ τίς ... **P^{B(II)}**, cf. index libri secundi : al. **P^{Sy}** Περὶ τῆς τοῦ κόσμου ἐγκλίσεως || ἐγκλιθῆναι **P^{B(LIIDE)}** : ἐγκεκλίσθαι **P^{B(III)}** : κλιθῆναι **P^G** §1 [2] Διογένης Ἀναξαγόρας **P^{BE}** : Διογένης καὶ Ἀναξαγόρας **P^{GS}** (ἐφησαν add. S) || [2–3] καὶ τὰ ζῶα ἐκ τῆς γῆς ἐξαγαγεῖν om. **P^Q** || [3] ἐξαγαγεῖν συμφύνα **P^G** || [4] αὐτοῦ corr. Meineke Diels : αὐτοῦ **P^{BE}** S : om. Q (αὐτοῦ μέρος om. **P^G**) || [4–5] ἃ μὲν ... ἃ δ' S : ἃ μὲν τινα ... ἃ δ' **P^B** (τινα secl. Diels Mau Lachenaud) : τὰ μὲν ... τὰ δὲ **P^E** : τινα μὲν ... τινα δὲ **P^G** || [5] οἰκητὰ ... ἀόικητα ord. inv. **P^Q** || [5–6] κατὰ ψύξιν ... εὐκρασίαν **P^{BQS}** : κατὰ ἐκπύρῳσιν καὶ εὐκρασίαν καὶ ψύξιν **P^E** : κατὰ ἐκπύρῳσιν καὶ ψύξιν **P^G** §2 [7] ἀέρος **P^{BEQ}** S : πυρὸς **P^G** || ἐπικλιθῆναι **P^{B(II)ES}** Diels Wachsmuth Vitek : ἐγκλιθῆναι **P^{B(LIID)}** Mau Lachenaud Laks-Most : ἐπικλίνει **P^G** || [7–8] ἐπικλιθῆναι τὰς ἄρκτους om. **P^Q** || τὰς ἄρκτους **P^{B(III)E}** S, τοὺς ἄρκτους **P^{B(I)}** : τὸν κόσμον **P^{B(II)}** || [8] μὲν om. **P^E** || [8–9] καθ' ὃ καὶ τὸν ὅλον κόσμον om. **P^G**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 51 (~ tit.) Τίς ἡ αἰτία τοῦ τὸν κόσμον κλιθῆναι (text Diels)

51.1 (~ P1) Διογένης καὶ Ἀναξαγόρας μετὰ τὸ συστήναι τὸν κόσμον καὶ τὰ ζῶα ἐκ τῆς γῆς συμφύνα, τὸν κόσμον ἐκ τοῦ αὐτομάτου εἰς τὸ μεσημβρινὸν κλιθῆναι ἴσως ὑπὸ προνοίας, ἵνα τινα μὲν ἀόικητα γέννηται, τινα δὲ οἰκητὰ κατὰ ψύξιν καὶ ἐκπύρῳσιν.

51.2 (~ P2) Ἐμπεδοκλῆς τοῦ πυρὸς εἷξαντος τῇ τοῦ ἡλίου ὀρμῇ ἐπικλίνει τὰς ἄρκτους καὶ τὰ μὲν βόρεια ὑψωθῆναι, τὰ δὲ νότια ταπεινωθῆναι.

Psellus *Omn.Doctr.* c. 160.1–6 Τίς ἡ αἰτία τοῦ τὸν κόσμον ἐγκλιθῆναι (~ tit.)

θαυμάζω τῶν φιλοσόφων ἐνίων μεταπεσεῖν τὸν κόσμον μετὰ τὴν πρώτην οἰομένων δημιουργίαν ὥσπερ ἐξολισθήσαντα τῆς οἰκείας τάξεως, καὶ τὸν μὲν βόρειον πόλον μετεωρισθῆναι, ὑπόγειον δὲ γενέσθαι τὸν νότιον, καὶ τὴν ἰσημερινὴν ζώνην ἐπὶ τὴν μεσημβρίαν μετακλιθῆναι (~ P2). τοσοῦτον γὰρ ἡγνοῦν κασιν ὅτι ...

Symeon Seth *CRN* 3.33 Περὶ τῆς τοῦ κόσμου ἐγκλίσεως (~ tit.)

Testes secundi:

Achilles *Univ.* c. 19, p. 28.13–16 κλίματα δὲ εἶρηται διὰ τὸ τὴν γῆν μὴ εἶναι ὁμαλήν, ἀλλ' ἔχειν οἶον ἐγκλίματά τινα ὑψηλοτέρων ὄντων καὶ ταπεινοτέρων τῶν μερῶν αὐτῆς καὶ τὰς οἰκήσεις τῶν ἐθνῶν ἄλλας ἀλλαχοῦ εἶναι (~ quaestio).

Loci Aetiani:

titulus A 3.12 Περὶ ἐγκλίσεως γῆς.

quaestio cf. A 2.23 Περὶ τρόπων ἡλίου. A 2.12.1 Πυθαγόρας πρῶτος ἐπινενοηκέ-
ναι λέγεται τὴν λόξωσιν τοῦ ζωδιακοῦ κύκλου, ἣν τινα Οἰνοπίδης ὁ Χίος ὡς ἰδίαν ἐπίνοιαν σφετερίζεται. A 2.24.7 Ἀρίσταρχος τὸν ἡλίον ἴστησι μετὰ τῶν ἀπλανῶν, τὴν δὲ γῆν κινεῖ περὶ τὸν ἡλιακὸν κύκλον καὶ κατὰ τὰς ταύτης ἐγκλίσεις σκιαζε-
σθαι. A 3.12.1 Λεύκιππος παρεκπεσεῖν τὴν γῆν εἰς τὰ μεσημβρινὰ μέρη διὰ τὴν ἐν τοῖς μεσημβρινοῖς ἀραιότητα, ἅτε δὴ πεπηγότων τῶν βορείων διὰ τὸ κατεψύχθαι τοῖς κρυμοῖς, τῶν δ' ἀντιθέτων πεπυρωμένων. A 3.12.2 Δημόκριτος διὰ τὸ ἀσθε-
νέστερον εἶναι τὸ μεσημβρινὸν τοῦ περιέχοντος αὐξομένην τὴν γῆν κατὰ τοῦτο ἐγκλιθῆναι· τὰ γὰρ βόρεια ἄκρατα τὰ δὲ μεσημβρινὰ κέκραται· ὅθεν κατὰ τοῦτο βεβάρηται, ὅπου περισσὴ ἐστὶ τοῖς καρποῖς καὶ τῇ αὐξῇ.

§1 A 2.24.8 Ξενοφάνης πολλοὺς εἶναι ἡλίους καὶ σελήνας κατὰ τὰ κλίματα τῆς γῆς καὶ ἀποτομάς καὶ ζώνας· κατὰ τινα δὲ καιρὸν ἐμπίπτειν τὸν δίσκον εἰς τινα ἀποτο-
μὴν τῆς γῆς οὐκ οἰκουμένην ὑφ' ἡμῶν, καὶ οὕτως ὥσπερ κενεμβατοῦντα ἐκλείψιν ὑποφαίνειν. ὁ δ' αὐτὸς τὸν ἡλίον εἰς ἄπειρον μὲν προιέναι, δοκεῖν δὲ κυκλεῖσθαι διὰ τὴν ἀπόστασιν. A 3.14.1 Πυθαγόρας τὴν γῆν ἀναλόγως τῇ τοῦ παντὸς οὐρα-
νοῦ σφαίρᾳ διηρησθαι εἰς πέντε ζώνας, ἀρκτικὴν ἀνταρκτικὴν θερινὴν χειμερινὴν ἰσημερινήν, ὧν ἡ μέση (τῆς θερινῆς καὶ χειμερινῆς) τὸ μέσον τῆς γῆς ὀρίζει, παρ' αὐτὸ τοῦτο διακεκαυμένη καλουμένη· ἡ δ' οἰκητὴ ἐστὶν ἡ {μέση τῆς θερινῆς καὶ χειμερινῆς} {θερινῆς}, εὐκρατὸς τις οὖσα.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) In the P tradition the chapter is again well-attested, with all four main witnesses retaining it and recording just the two doxai. G has paraphrased away

very little, though he leaves out the important final phrase of P2. Q leaves out a number of phrases. Ps remarkably includes this chapter's title and uses it as an opportunity to express surprise at the wayward ideas of philosophers who do not understand the cosmos' structure (he uses some words from the text to paraphrase their views).

(2) Both lemmata are copied out by S close together in 1.15 Περὶ σχημάτων. The former (Diogenes–Anaxagoras = S1) follows doxai on the cosmos' shape (see A 2.2); the latter (Empedocles = S2) is the second doxa in a cluster of three combining doxai from A 2.7, 8 & 10. This has the effect of separating the two doxai which are clearly meant as a contrasting pair.

(3) There is no trace of this chapter in T or any other related doxographical texts. Ach has a chapter entitled Εἰ ἔστηκεν ὁ κόσμος (§9). But it discusses Stoic and Epicurean cosmology, in which the cosmos is surrounded by the void, and does not touch on Presocratic cosmogonic theories. On the mention of κλίματα in §19 see section D(e) below.

B Proximate Tradition and Sources

(1) *Proximate tradition.* There are faint traces of the same topic in individual doxographies of Presocratic philosophers: cf. D.L. 2.9 (Anaxagoras), Hippolytus *Ref.* 1.9 (Archelaus); texts cited in section E(a) below. It is likely, therefore, that the subject was included in the earlier doxographical tradition. It is noteworthy that the opening scene of the ps.Platonic *Erastai* appears to allude to a dispute on this topic. The philosophers mentioned are Anaxagoras (as in this chapter and also at D.L. 2.9) and Oenopides (also mentioned on the zodiac inclination at A 2.12.2). If this work is to be dated to the early Hellenistic period (cf. Erler 2007, 297), it may reflect early doxographical summaries. Perhaps it is meant to reflect the preoccupations of an earlier time.

(2) *Sources.* The evidence of our chapter shows that its subject was discussed in Presocratic texts. But it receives no attention in later sources such as Aristotle's *De caelo*, no doubt because such speculations lost relevance when the vortex model fell out of favour and the standard cosmological model became dominant in the fourth cent. BCE; on this controversy between two cosmological paradigms see Furlley (1987) 160–161, 193.

C Chapter Heading

The quaestio posed by the chapter, like its predecessor, falls under the category of position (κρίσθαι). However, the formulation of the heading clearly indicates that the chapter also poses the question of the cause. Though there are a number of chapter headings inquiring about the cause(s) of phenomena (cf. 5.9, 14, 18, all starting with Διὰ τί) and many starting with Πῶς (e.g. 1.4, 4.11, 5.6–

8 etc.), this is the only one using the formulation *Τίς ἡ αἰτία*. Some mss. of P^B have a longer heading commencing with *Περὶ τοῦ* (also found in the index at the beginning of the Book), but the combined weight of P^{EGQ} weighs against it. S does not refer to the chapter heading. Diels *DG* 337 erroneously thinks it formed part of his ch. 1.22 (and so prints it at 337.25). But the very long chapter heading drawn from the Laurentianus ms. (see Wachsmuth 1882, 32, 74) which he prints at *DG* 271 is patently contaminated from P; see above on ch. 2.6 Commentary C. and further M–R 1.267.

D *Analysis*

a Context

The purported tilt of the cosmos is a sub-topic of the theme of the cosmos' *τάξις* discussed in the previous chapter and is somewhat surprisingly appended to it as a separate chapter. But it is important to note that there is a chapter in Book 3 on the subject of the earth's tilt, 3.12 *Περὶ ἐγκλίσεως γῆς*. This parallelism will have appealed to our doxographer and may have even motivated its inclusion. In fact the focus on the earth's tilt occurs in this chapter as well. Both chapters (as also chs. 2.7, 3.11) can be subsumed under the Aristotelian category of 'being in a certain position' (*κεῖσθαι*). We should note, however, that the explanations given relate to cosmogony (i.e. ch. 2.6) rather than cosmology (ch. 2.7).

b Number–Order of Lemmata

There is no evidence that points to the chapter having any more than the two doxai preserved by the two main witnesses. The extent of the doxai in these witnesses also coincides, so it seems likely that exceptionally P simply wrote out what he found in A in full. The order is also hardly in doubt, given that S confirms P on this aspect too.

c Rationale–Structure of Chapter

The problem raised in this chapter is not raised by the standard Platonic–Aristotelian cosmological model that became dominant in antiquity from the fourth cent. BCE onwards. In this model both the celestial and the earthly pole are on the same axis and neither the cosmos nor the earth are tilted. But not all ancient cosmologies posited a spherical earth and a spherical cosmos. Since the celestial North Pole does not appear directly overhead to an observer on earth, the question can be asked why the heaven is tilted in relation to the earth and the earth in relation to the heaven. The cosmologies in this chapter (and in its parallel ch. 3.12) antedate the standard model. Both appear to assume a flat or cylindrical earth (cf. the options in ch. 3.10). It would appear that the account assumes that both the earth and the cosmos are tilted (cf. also ch. 3.12 focused

on the earth). We shall not enter into the details of the cosmology involved. See the discussion at Couprie (2011) 69–78, (2018) 27–28, who argues that in recording both here and in ch. 3.12 a dip of the earth the doxographers misunderstood the original theories which posited only a tilting of the heavens to the north (and not the south).

Since there are only two doxai (infrequent in the *Placita* when the evidence of S is available, but cf. chs. 1.20, 2.10, 2.12, 2.18, 4.7a, 4.17), they can either be a list of random views or form an antithesis. In the light of A's general practice the latter is much more likely. The first doxa attributed to Diogenes of Apollonia and Anaxagoras in effect gives a cause that is no cause. The tilt happens 'somehow of its own accord' or spontaneously. The further comment ἴσως ὑπὸ προνοίας is best seen as an addition by the doxographer or his tradition under the influence of Stoic philosophy (cf. Laks 2008, 215). One might compare the discussion in Philo *Prov.* 2.60 between Alexander defending a mechanistic view of cosmology and Philo arguing that cosmic order is the result of divine providence; see text cited at A 2.6 section E(a) General texts. The suggestion introduces a teleological element into the explanation which can explain why some parts of the earth are habitable and others not. The Empedoclean doxa in contrast gives a specific cause—air yielding to the onrush of the sun—, which must be seen as a purely mechanical cause involving elemental movement (cf. A 2.7.7). The antithesis can thus be interpreted as a division between a second-order (or non-physical) cause (whether chance or providence) and a physical–mechanistic cause; cf. M–R 2.2.412. It cannot be agreed with Bottler (2014) 335 that the contents of the first doxa do not correspond to the search for a cause as indicated in the title, but (only) intend to explain the habitability of the world. The cause of spontaneous occurrence is given and then a teleological aspect is added.

d Further Comments

Individual Points

§1 Laks (2008) 216 points out that the term κόσμος in the phrase μέρη τοῦ κόσμου is not used loosely for the earth, but reflects the projection of the zones of the earth on the cosmos as a whole; see the doxa attributed to Pythagoras at A 3.14.1.

§2 In the final clause the reading of P^B, κατὰ ψύξιν καὶ ἐκπύρωσιν καὶ εὐκρασίαν, links up with ἀοίκητα (too cold or too hot) and οἰκητά (in between). E has reversed the last two nouns so that the sequence reflects the sequence on earth from north to south. The preference should be given to P^B.

e Other Evidence

Ach in his chapter on the sun (§19) in an aside explains that the term κλίματα (latitude, region) refers to high and low points of the earth's surface resulting in differing habitations of nations. This explanation differs from what is found in the current chapter, but does bring to mind the odd doxa on the eclipses of sun and moon attributed to Xenophanes at A. 2.24.8.

E *Further Related Texts*

a Proximate Tradition

General texts: **Diogenes Laertius** *V.P.* 2.9 (on Anaxagoras, 59A1 DK) τὰ δ' ἄστρα κατ' ἀρχὰς μὲν θολοειδῶς ἐνεχθῆναι, ὥστε κατὰ κορυφὴν τῆς γῆς τὸν αἰὲ φαινόμενον εἶναι πόλον, ὕστερον δὲ τὴν ἔγκλισιν λαβεῖν. **Hippolytus** *Ref.* 1.9 (on Archelaus, 60A4 DK) ἐπικλιθῆναι δὲ τὸν οὐρανὸν φησι καὶ οὕτως τὸν ἥλιον ἐπὶ τῆς γῆς ποιῆσαι φῶς, καὶ τὸν τε ἀέρα ποιῆσαι διαφανή καὶ τὴν γῆν ξηράν.

Chapter heading: **Eusebius** *PE* 15.32.8 καὶ τίς ἡ αἰτία τοῦ αὐτὸν (sc. τὸν κόσμον) ἐγκλιθῆναι.

§1 **Diogenes Anaxagoras:** **ps.Plato** *Erastai* 132a4–b3 ἐτυγχάνετην οὖν δύο τῶν μειρακίων ἐρίζοντε, περὶ οὗτου δέ, οὐ σφόδρα κατήκουον. ἐφαινέσθην μέντοι ἢ περὶ Ἀναξαγόρου (—) ἢ περὶ Οἰνοπίδου (41.2 DK) ἐρίζειν· κύκλους γοῦν γράφειν ἐφαινέσθην καὶ ἐγκλίσεις τινὰς ἐμιμοῦντο τοῖν χεροῖν ἐπικλίνοντε καὶ μάλ' ἐσπουδακότε.

§2 **Empedocles:** **Philo of Alexandria** *Prov.* 2.6o cited above on ch. 2.6 (citing Empedocles, 31A49 DK).

Liber 2 Caput 9

P^B: ps.Plutarchus 887F–888A; p. 338^a10–21 Diels—**P^E**: Eusebius *PE* 15.40, p. 411.13–18 Mras, cf. 15.32.8; **P^G**: ps.Galenus *HPh* 52; p. 623.8–11 Diels; pp. 161–167 Jas—**P^Q**: Qustā ibn Lūqā pp. 146–147 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 120, p. 64 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.34, p. 39.10 Delatte (titulus solus)

S: Stobaeus, *Ecl.* 1.18.4b, p. 160.9–14 + 1.18.4c, p. 160.19–20 Wachsmuth

Cf. Ach: Achilles *Univ.* c. 8, pp. 17.20–18.7 Di Maria—*Commentaria in Aratum*, Anon. I 3, pp. 92.34–93.2 Maass

Titulus θ'. Περὶ τοῦ ἐκτὸς τοῦ κόσμου, εἰ ἔστι κενόν (P)

- §1 οἱ μὲν ἀπὸ Πυθαγόρου ἐκτὸς εἶναι τοῦ κόσμου κενόν, εἰς δ' ἀναπνεῖ ὁ κόσμος καὶ ἐξ οὗ. (P₁,S₁)
- §2 οἱ δὲ Στωικοὶ εἶναι κενόν, εἰς δ' κατὰ τὴν ἐκπύρωσιν ἀναλύεται, ἄπειρον. (P₂,S₂)
- §3 Ποσειδώνιος οὐκ ἄπειρον, ἀλλ' ὅσον αὐταρκες εἰς τὴν διάλυσιν. (P₃,S₃)
- §4 Πλάτων Ἀριστοτέλης μῆτ' ἐκτὸς τοῦ κόσμου μῆτ' ἐντὸς μηδὲν εἶναι κενόν. (P^EQ₄,S₄)

5

§1 Pythagorei —; §2 Stoici *SVF* 2.609; §3 Posidonius *F* 84, 97 E.-K., 302 Theiler; §4 Plato cf. *Tim.* 33c, 58a; Aristoteles *Cael.* 1.9 278b23–24, 279a6–7

titulus Περὶ ... κενόν ^{P^BQ¹} (εἰ ἔστι κενόν ante ἐκτὸς τοῦ κόσμου ^{P^{Sy}}) : Περὶ ... κόσμου ^{P^GIQ²} : Περὶ τοῦ ἐκτὸς ^{P^EG²} : Εἰ ἔστι κενόν ἐκτὸς τοῦ κόσμου ^{S^L-ind ex P, P^Q(ind.)} (cf. Ach) : al. ^{P^S} Εἰ ἔστι τι ἐκτὸς τοῦ οὐρανοῦ §1 [2] οἱ μὲν ἀπὸ Πυθαγόρου ^{P^BE^Q} : οἱ Πυθαγόρου ^S, (ἀπὸ) add. Wachsmuth : verba desunt in ^{P^G} || post εἰς δ' hab. τι ^{P^G} §2 [4] δὲ om. ^S || εἶναι κενόν ^S : om. ^{P^BE^G} : ἐκτὸς εἶναι τοῦ κόσμου κενόν ^{P^Q} ut vid. || κατὰ τὴν ἐκπύρωσιν ^{P^BS} : καὶ τῇ ἐκπυρώσει ^{P^E} : om. ^{P^Q} || εἰς δ' ... ἄπειρον || al. ^{P^G} εἰς δ' ἀναπνεῖν μόνον || ἀναλύεται ^{P^BE} : ἀναλύεται ὁ κόσμος ^S || ἄπειρον ^{P^E} : τὸ ἄπειρον ^{P^B} : ἄπειρος ὢν ^S Diels, ἄπειρον ὄν Heeren Wachsmuth : ἄπειρον leg. ^{P^G(Nic)}, om. ^{P^G(mss.)} §3 [6] οὐκ ἄπειρον ^{P^BE} : ἔφησε τὸ ἐκτὸς τοῦ κόσμου οὐκ ἄπειρον ^S || ἀλλ' ὅσον ^{P^S} : καθ' ὅσον dub. Kidd E.-K. p. 393 || διάλυσιν ^{P^BQ^S} : διάβασιν ^{P^E} §4 [7] Πλάτων Ἀριστοτέλης ^{P^EQ} Diels Lachenaud : Πλάτων ^{P^G}, cf. ^S : ἐν τῷ πρώτῳ Περὶ κενοῦ Ἀριστοτέλης ἔλεγεν εἶναι κενόν Πλάτων ^{P^B} || [7–8] μῆτ' ... κενόν ^{P^B} : μῆτ' ἐκτὸς τοῦ κόσμου διάκενον εἶναι μῆτ' ἐντὸς ^{P^E} : κενὸν δὲ μὴ εἶναι μῆτε ἐκτὸς τοῦ κόσμου μῆτε ἐν τῷ κόσμῳ ^S, cf. *weder außerhalb noch innerhalb der Welt* ^Q (sed fort. legit ἐντὸς pro ἐν τῷ κόσμῳ) : μηδὲν εἶναι om. ^{P^G} || [8] post κενόν hab. mss. ^{P^G} ἐκτὸς δὲ μικρόν τι εἰς δ' ἀναπνεῖν, quae secl. Jas Nic. secuta

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 52 (~ tit.) Περὶ τοῦ ἐκτὸς τοῦ κόσμου (text Jas)

52.1 (~ P₁) [...] ἐκτὸς εἶναι τοῦ κόσμου κενόν, εἰς δ' τι ἀναπνεῖν τὸν κόσμον καὶ ἐξ οὗ.

52.2 (~ P₂) οἱ δὲ Στωικοὶ εἰς δ' ἀναπνεῖν μόνον [...] ἄπειρον.

52.3 (~ P4) Πλάτων δὲ μήτε ἐκτὸς εἶναι τοῦ κόσμου μήτε ἐντὸς κενόν {ἐκτὸς δὲ μικρόν τι εἰς ὃ ἀναπνεῖν}.

Symeon Seth CRN 3.34 Περὶ τοῦ εἰ ἔστι κενὸν ἐκτὸς τοῦ κόσμου (~ tit.)

cf. Psellus *Omn.Doctr.* c. 120 Εἰ ἔστι τι ἐκτὸς τοῦ οὐρανοῦ (~ tit.)

Testes secundi:

Achilles Univ. c. 8, 17.20 Εἰ ἔστι τι ἐκτὸς κενόν (~ tit.)

pp. 17.21–18.7 οἱ μὲν εἶναι τι ἐκτὸς φασιν, ὥσπερ καὶ Ἐπίκουρος (fr. 301 Usener) (ὅς καὶ ἀπείρους κόσμους ὑποτίθεται ἐν ἀπειρῷ τῷ κενῷ). οἱ δὲ Στωϊκοὶ (*SVF* 2.610) ἐκπύρῳσιν λέγοντες κόσμους κατὰ τινὰς ὠρισμένους χρόνους εἶναι κενόν μὲν, οὐ μὴν ἄπειρον φασιν, ἀλλὰ τοσοῦτον ὅσον χωρῆσαι λυθὲν τὸ πᾶν (~ §2). οἱ δὲ μηδὲν εἶναι λέγοντες (~ §4) χρώνται λόγῳ τοιούτῳ· τοῦ οὐρανοῦ σφαιρικῶς κινουμένου, εἰ ἔστι τι ἐκτὸς κενόν, συμβήσεται τὴν σφαῖραν παρεγκλίσεις τινὰς ὑπομένειν ἐξολισθαίνουσιν τῇδε ἀκάκῃ· τοῦτο δὲ οὐ γίνεται· οὐκ ἄρα ἔστι κενόν· αἰεὶ γὰρ κατὰ τὰ αὐτὰ καὶ ἀπὸ τῶν αὐτῶν ὁρώμεν τὰς ἀνατολάς καὶ τὰς δούσεις.

Commentaria in Aratum, Anon. I 3, p. 91.26 Maass (~ tit.) Εἰ ἔστηκεν ἡ γῆ ἢ κινεῖται

pp. 92.34–93.2 εἰ δὲ ἔστι τι κενόν ἔξωθεν τοῦ οὐρανοῦ, οὐ περιεργὸς ἡμῖν ἡ ζήτησις. πλὴν οἱ Στωϊκοὶ λέγουσιν εἶναι (ταύτη γὰρ διαφέρειν τὸ ὅλον τοῦ παντός), ἀλλ' οὐκ ἄπειρον (~ §2), ὡς Ἐπίκουρος καὶ οἱ λοιποί.

Loci Aetiani:

titulus A 1.18 Περὶ κενοῦ

quaestio A 1 Praef. ζητεῖ τις εἰ ζῶν ἢ μὴ ζῶν ὁ ἥλιος, τοῦτο δὲ ζητῶν θεωρητικὸς ἐστίν· οὐδὲ γὰρ τι πλέον θεωρεῖται ἢ τὸ ὄν. ζητεῖται ὁμοίως εἰ ἄπειρος ὁ κόσμος ἐστὶ καὶ εἰ ἔξω τι τοῦ κόσμου ἔστι· ταῦτα γὰρ πάντα θεωρητικά. A 1.3.16 (de atomis Epicuri) ταῦτα μέντοι κινεῖσθαι ἐν τῷ κενῷ καὶ διὰ τοῦ κενοῦ· εἶναι δὲ καὶ αὐτὸ τὸ κενὸν ἄπειρον καὶ τὰ σώματα ἄπειρα (et cf. A 1.7.25, 1.9.3, 2.3.2).

§1 A 1.18.6 Ἀριστοτέλης τοσοῦτον εἶναι τὸ κενὸν ἐκτὸς τοῦ κόσμου, ὥστ' ἀναπνεῖν εἰς αὐτὸ τὸν οὐρανόν· ἔνδοθεν γὰρ εἶναι τόπον πύρινον.

§2 A 1.18.5 Ζήνων καὶ οἱ ἄπ' αὐτοῦ ἐντὸς μὲν τοῦ κόσμου μηδὲν εἶναι κενόν, ἔξω δ' αὐτοῦ ἄπειρον. A 1.20.1 Ζήνων καὶ οἱ ἄπ' αὐτοῦ διαφέρειν κενόν, τόπον, χώραν· καὶ τὸ μὲν κενὸν εἶναι ἐρημίαν σώματος. A 2.1.9 οἱ Στωϊκοὶ διαφέρειν τὸ πᾶν καὶ τὸ ὅλον· πᾶν μὲν γὰρ εἶναι σὺν τῷ κενῷ τῷ ἀπείρῳ, ὅλον δὲ χωρὶς τοῦ κενοῦ τὸν κόσμον. A 4.19.4 οἱ δὲ Στωϊκοὶ φασὶ τὸν ἀέρα μὴ συγκεῖσθαι ἐκ θρασυμάτων, ἀλλὰ συνεχῇ δι' ὅλου μηδὲν κενὸν ἔχοντα.

§4 A 1.18.1 οἱ ἀπὸ Θάλεω φυσικοὶ πάντες μέχρι Πλάτωνος τὸ κενὸν ὡς ὄντως κενὸν ἀπέγνωσαν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The attestation of the chapter in the P tradition is the same as in the previous three chapters, with all the four main witnesses available. For this chapter, however, the divergences between them are greater than usual.

(a) The most straightforward text is presented by E with four doxai.

(b) Q's text appears to be rather similar, but with a slightly longer version of the fourth lemma as found in P^E.

(c) The transmitted text of G is extremely problematic and is of no use for reconstructing the text of A. There are three doxai, of which the first and third doxai correspond to the first and last in P^E, but with—it seems—imperfectly preserved name-labels. The second links the Stoic doxa to the first with reference to cosmic 'inbreathing'. Jas (2018a) 165 rightly follows Nicolaus in leaving out the final phrase of the third lemma present in all the Greek manuscripts. It has obviously been misplaced.

(d) The mss. of P^B deviate from E's text by splitting up the fourth lemma with separate doxai for Aristotle and Plato. Instead of the name-label Πλάτων Ἀριστοτέλης as in P^{EQ} the transmitted text reads ἐν τῷ πρώτῳ Περὶ κενοῦ Ἀριστοτέλης ἔλεγεν εἶναι κενὸν Πλάτων μήτ' ἐκτὸς τοῦ κόσμου μήτ' ἐντὸς μηδὲν εἶναι κενόν. There has been much discussion on this text. Should the reference to a work *On the void* go with the previous Posidonian doxa or is it a mistaken reference to Aristotle's *De caelo*? The most elegant solution is to see the comment as a marginal gloss pointing out that in Book I of A (not Aristotle), i.e. 1.18.6, the epitomator (wrongly) credits Aristotle with this view; see further A 1.18 above and M–R 2.2.416–418 (we revise our earlier suggestion reported by Algra 1993, 480). Once these words are excised P^B reduces to a text very similar to P^{EQ}, though with some minor variations. Diels and Lachenaud sensibly emend the text in conformity with P^E. Mau retains the separate doxai for Plato and Aristotle. This is a striking example of the methodological deficiencies of his edition.

(2) S coalesces this chapter with A 1.18–20 in his chapter 18 Περὶ κενοῦ καὶ τόπου καὶ χώρας. He records the same four doxai as P, the first three in a block (= S1–3), the fourth (= S4) in a small cluster with A 1.19.1 followed by a quote from *Tim.* 32c–33c. In the process the Aristotelian name-label in P4 is dropped.

(3) T does not exploit this chapter, having cited extensively from the parallel chapter 1.18 at CAG 4.14.

(4) The two texts in Ach. ch. 8 and *Commentaria in Aratum* I §3 share so many characteristics with A that they must belong to the same doxographical tradi-

tion. Both texts use the method of the diaeresis. Both refer to the atomist view of an infinite void populated by infinite kosmoi, which A must have left out (but did include in 1.18). In addition the Stoic view is prominent in both and there are overlaps in vocabulary. The texts are of limited use for the reconstruction of the text, but of great interest for its larger context.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There can be no doubt that the subject of this chapter was regarded as a standard quaestio in the domain of the φυσικός λόγος, for A himself gives it as an example in the preface to his compendium (text above *Loci Aëtiani*). A very similar formulation is found in *Commentaria in Aratum* I ch. 3 (note that ζήτησις corresponds to ζητεῖ and ζητεῖται in A). The quaestio is mentioned in numerous texts drawing on the proximate tradition (see the listings below in section E(a) General texts), some of which are of considerable interest. We note first Galen *PHP* 9.6.21–22, who gives it as an example of where philosophers disagree and provides the basic positions of the diaeresis without name-labels (a discussion of this text is given at M–R 3.69). Even more interesting perhaps is the version in the recently discovered Archimedes palimpsest already discussed at ch. 1.18. Here four logically possible positions are distinguished (κατὰ διαίρεσιν) as follows (text below section E(a) General texts):

- question: is there a void inside or outside the cosmos?
- position I there a void both inside and outside.
- position II there is neither a void inside nor outside.
- position III there is a void outside, but not inside.
- position IV there is a void inside, but no void outside.

Representatives of each position appear to be given, although the text is defective and it must be surmised that the Stoics represented the third view. The method here is reminiscent of A's approach in chs. 2.1, 2.3 and 2.4. In each case a *quaestio* with two parts allows a matrix of four views. In this particular case all four positions can be represented and if we take chs. 1.18 and 2.9 together each of them occurs in A with very similar name-labels. See further discussion in Mansfeld (2014), and also below section D(e). In *Pecc.Dig.* 7.8–9 Galen probably has similar doxographical material in mind when he opposes and aligns together three different views (Academic, Stoic, Epicurean), concluding that none of them can be regarded as demonstratively proven. In the doxographies of the earlier philosophers, however, the question is seldom touched upon in a cosmological context.

(2) **Sources.** The subject of the void was raised in two different contexts, as appears in A's two chapters devoted to it. In ch. 1.18 entitled *Περὶ κενοῦ* the discussion focuses on the void as a feature of physical reality. The source for this approach is Aristotle's analysis in *Phys.* 4.6, where he gives a classic example of the use of the dialectical method. In this analysis, when discussing the views of Melissus and the Pythagoreans, he does briefly mention the cosmos, but the cosmological aspects of the question receive little emphasis. In the cosmological context of the *De caelo* it is only lightly touched on at 1.9 279a6–17. See the texts cited below in section E(b) General texts. The void is also prominent as one of the principles of the atomists, as amply indicated in ch. 1.7.13–16 as well as in ch. 1.8.

It would appear that the cosmological aspects of the theme came into greater prominence through the contribution of the Stoics, whose theory of the conflagration opposed both the views of Plato and Aristotle and the atomist tradition and incidentally raised interesting philosophical questions in relation to the existence of an extra-cosmic void, which in turn may have drawn renewed attention to earlier Pythagorean views. Numerous texts discuss the Stoic position. In addition our chapter records disagreement within the Stoic school, a common occurrence in Book 2; cf. chs. 2.5a, 2.14, 25, 27. We note, finally, that from the third century CE onwards the question is raised less often because of the growing dominance of the Platonic–Aristotelian world view. Proclus does not ask εἰ οὐδὲν ἐστὶν ἔξω, but rather πῶς οὐδὲν ἐστὶν ἔξω (text below section E(b)§4). Consistent with this development is the fact that the question occurs on a number of occasions in Philo of Alexandria writing at the beginning of our era, but is seldom alluded to by later Christian authors.

C Chapter Heading

The long double heading *Περὶ τοῦ ἐκτὸς τοῦ κόσμου, εἰ ἔστι κενόν*, combining an umbrella heading *Περὶ x* in the category of place with the question of existence already posed earlier in ch. 1, is found only in P^B and one of the main mss. of P^Q (K). P^{EG} have the shorter title *Περὶ τοῦ ἐκτὸς*, as do the other two main mss. of P^Q (P, Z) and also the index to Book 2. S does not use the chapter heading at *Ecl.* 1.18, where he cites material from this chapter. S^L has a longer version that combines the two parts of the title in P^B, *Εἰ ἔστι κενόν ἐκτὸς τοῦ κόσμου*, but this is contaminated from P^B; see text at Wachsmuth (1882) 32 and comments at *ibid.* 55; it is erroneously attributed to S by Diels *DG* 271. A somewhat similar variant is found in Ps *Εἰ ἔστι τι ἐκτὸς τοῦ οὐρανοῦ*, no doubt due to the Byzantine scholar's own intervention.

The long heading should be retained. Many of A's titles retain the formulation with εἰ, asking the question of existence which goes back to Aristotle's

formulation of the primary questions of science in *APo.* 2.1 and plays an important role in the *Placita*; cf. chs. 1.5, 2.3–4, 4.3 etc. and M–R 2.1.171. A himself uses the formulation with *ἐἰ* when giving the topic of this chapter as an example of a physical *quaestio* in Book 1.proœm. For examples of double headings combining *περί* and *ἐἰ* see 4.23, 5.29 (but in these headings there are two subjects linked with *καί*). The shorter heading also obscures the important link to ch. 1.18 *Περὶ κενοῦ*.

D *Analysis*

a Context

Assuming a single cosmos as in the previous chapters 2.6–8, A now asks whether or not it is surrounded by empty space. The subject has already been touched on in chs. 1.5 and 2.1, but most significantly in ch. 1.18 *Περὶ κενοῦ*, which reveals a substantial overlap with the present chapter.

b Number–Order of Lemmata

The witnesses point to four doxai and there is no evidence to suggest that A's chapter contained more. Since the tradition of P preserves all four, the order is also not in doubt.

c Rationale–Structure of Chapter

Just as was the case in ch. 1.18, the chapter is organized along systematic lines. There is a main diaphonia between two opposed positions, (a) that there is an extra-cosmic void and (b) that there is not. The former view is represented by three successive doxai: (i) there is a void sufficient for cosmic-inbreathing attributed to the Pythagoreans (= P1–S1); (ii) there is a void which is infinite, allowing the cosmos to be dissolved in the conflagration, attributed to the Stoic school (= P2–S2); (iii) there is a void so that the cosmos can perish, but it is finite, attributed to the Stoic philosopher Posidonius (= P3–S3). The last two of these doxai also very clearly form an antithetical pair. The second position, that there is no extra-cosmic view, is represented by the philosophers Plato and Aristotle (= P4–S4).

As already noted above, there is considerable overlap with the structure and contents of ch. 1.18. In that chapter the first group of three lemmata deals with the existence of the void in general. The second group of three then discusses the question of the void in relation to the cosmos. The two chapters can thus be compared as follows:

A 1.18	A 2.9
§§1–2 existence of void denied	§1 external void for respiration (~ 1.18.6)
	§2 unlimited external void for conflagration (~ 1.18.4)
§3 unlimited void	§3 limited external void for conflagration
§4 internal but no external void	§4 no internal or external void (~ 1.18.1–2)
§5 no internal but unlimited external void	
§6 limited external void for respiration	

It can be seen that the two chapters complement each other, with neither possessing all the elements for a complete treatment of their subjects. We note the following. (1) Ch. 1.18 starts with the issue of the void’s existence, which is denied (same procedure in chs. 1.7 (gods), 1.23 (generation/destruction), 1.30 (nature)). Ch. 2.9 raises the question of existence in its chapter heading, but starts with a positive answer and ends with denial of its existence. (2) Ch. 1.18 includes the atomist position, which was a standard component of the doxography, but does not relate it to the cosmological position of multiple kosmoi separated by the (external) void. Ch. 2.9 omits this view entirely, even though it is very relevant to its topic. This view is more clearly articulated in Ach. (3) The mention of a void internal to the cosmos in the last doxa of ch. 2.9 does not cohere with its title. Moreover the view of Strato that there is internal but no external void (i.e. 1.18.4) is not included.

d

Further Comments

Individual Points

§1 This doxa is clearly the same as the one attributed to Aristotle at A 1.18.6. See our comments there (Commentary D(d)§6), where we argue that the doxographer has presented the Stagirite as a kind of Pythagorean.

§2 The reading of P^E and S, ἄπειρον, is clearly to be preferred to that of P^B, τὸ ἄπειρον, both because of the contrast with the next lemma, and because the Anaximandrian concept of the infinite (A 1.3.2) is not relevant here (in A it is found elsewhere only at 1.3.9, Epicurus). See also Algra (1993) 481–482, who suggests the article was inserted when ἄπειρον was wrongly taken to be the subject of the sentence. We note also Ach §8.2 18.1 οὐ μὴν ἄπειρόν φασι and *Commentaria in Aratum*, Anon. I, p. 93.1 Maass ἀλλ’ οὐκ ἄπειρον, both in Stoic doxai.

§3 This lemma has given rise to much discussion. All our sources with one exception state that the orthodox Stoic view was that the extra-cosmic void was infinite in extent (see texts below section E(a)§2). The one exception is Ach, but he appears to have mistakenly taken the exceptional view as the orthodox one. The doxa attributed to Posidonius thus records a deviation from orthodoxy. Many scholars, including Kidd (1988) 393, consider this position unlikely. In a full discussion, however, Algra argues that Posidonius may well have been dissatisfied with the Chrysippean argument for the existence of an infinite void, postulating (perhaps) that, just as place (τόπος) obtains its limit from the occupying body, so the void is limited by the maximum extent of its one-time occupant, i.e. the cosmos at the time of its conflagration. See Algra (1993) 495–504 and for a different view Primavesi (2018) 116.

§4 We have opted for the retention of the double name-label Plato–Aristotle as found in P^{EQ}. It should be noted, however, that it is not supported by S who only ascribes the doxa to Plato in a coalesced cluster, but also not by G, who in his final doxa also has only the name-label Plato. Jas in an unpublished review of Bottler (2014) suggests that S and G may independently have the original reading, and that a gloss may have entered the tradition in two stages, first as the name-label in E and Q, and then later the longer description with the false reference in P^B. In our view this hypothesis is not compelling. It is simpler to assume that S considered that the Aristotelian viewpoint was sufficiently covered at 1.18.1c (from 1.18.5 and AD). As for G, he could have easily dropped the name-label in his epitomising.

There are no other examples of this particular double name-label in P, but for the triple name-label Pythagoras–Plato–Aristotle see A 2.10.1, 4.29.1, 5.4.2. A generally connects two name-labels with καί, so we might perhaps conjecture Πλάτων <καί> Ἀριστοτέλης here. But there are exceptions, e.g. at A 1.11.3, 1.23.1, 2.8.1 etc., so it is not justified to alter the text.

e Other Evidence

The text in the recently discovered fragment of a Commentary on the *Categories* of Aristotle (perhaps to be attributed to Porphyry) is of great interest. As noted above in ch. 1.18 Commentary B(1), the text appears in a logical context and thus speaks of προτάσεις rather than δόξαι. But the method of division that it uses and the coupling of name-labels with philosophical positions is exactly the method so often used in the *Placita*. It would not surprise if the contents are traditional and that Porphyry (if indeed he is the author) took them over from an earlier commentary which had in turn made use of the doxographical tradition. The name-labels are exactly those of the tradition in which A stands, as the combined evidence of chs. 1.18 and 2.9 clearly shows.

The texts in Ach and Aratea I also stand in this tradition and verbally are even closer to A. It is to be noted how the text in Ach refers to ‘unlimited kosmoi’ and the text in the Aratea to the distinction between ‘the whole’ and ‘the universe’. Both of these themes occur in ch. 2.1. There is in fact a strong degree of interconnection between all the chapters in chs. 2.1–10, both in A and in closely related sources. As noted above in section D(c), the presence of the atomist doxa in Ach is a strong indication that it was also originally present in earlier versions of this chapter in the anterior doxographical tradition.

E Further Related Texts

a Proximate Tradition

General texts: (For this chapter see also the texts cited on ch. 1.18.) **Philo of Alexandria** *Plant.* 7 ἀνάγκη τοίνυν ἐκτὸς ἢ κενὸν ἢ μηδὲν εἶναι. εἰ μὲν δὴ κενόν, πῶς τὸ πλήρες καὶ ναστὸν καὶ τῶν ὄντων βαρύτατον οὐ βριθεὶ ταλαντεύον στερεοῦ μηδενὸς ἀπερείδοντος; cf. *Somn.* 1.184 cited on A 1.20 section E(a) General texts. **Galen** *PHP* 9.6.21 De Lacy ἐν μὲν γὰρ φιλοσοφίᾳ μὴ πεπαύσθαι τὰς πλείστας τῶν διαφωνιῶν οὐδὲν θαυμαστόν ... ὥσπερ γε καὶ τινῶν μὲν οὐδὲν ἔξωθεν αὐτοῦ (sc. τοῦ κόσμου) περιέχον εἶναι, τινῶν δὲ εἶναι λεγόντων καὶ τούτων αὐτῶν ἐνίων μὲν κενὸν ἀποφηναμένων εἶναι τοῦτο μηδεμίαν οὐσίαν ἔχον ἐν αὐτῷ, τινῶν δὲ κόσμους ἄλλους ἀριθμῶ ἀπεριλήπτους, ὥς εἰς ἄπειρον ἐκτετάσθαι πλήθος. *PHP* 9.7.9 μόνους οὖν ἐκεῖνοις τοῖς φιλοσόφοις καὶ τὸ μηδὲν εἰς ἡθὸς τε καὶ τὰς πολιτικὰς πράξεις χρησίμων ζητεῖν ἀκόλουθόν ἐστιν, ὅσοι τὴν θεωρητικὴν φιλοσοφίαν εἴλοντο, καθάπερ γε καὶ εἰ μετὰ (τὸν) κόσμον τοῦτόν ἐστὶ τι, καὶ εἰ ἔστιν, ὁποῖόν τι τοῦτο. *HVA* 1.12, p. 125.9 Helmreich τῆς μὲν τῶν φιλοσόφων διαφωνίας οὐδὲν ἔχομεν ἐμφανὲς τεκμήριον· οὔτε γὰρ εἰ γενητός ὁ κόσμος οὔτ’ εἰ φθαρτός οὔτ’ εἰ μὴ κενὸν ἐστὶν ἔξωθεν οὔτ’ εἰ ἄπειρος οὔτ’ εἰ μόνος οὗτος εἰς ἐστὶν ... *Pecc.Dig.* 7.8–9, p. 67.7 De Boer καὶ πρῶτόν γε τοῦτο λέγω, μάλιστα’ ἐπειδὴ (τῶνδε) τῶν Περιπατητικῶν τις ἀφίκεται {τῶν} φιλοσόφων ἓνα τε τὸν κόσμον τοῦτον εἶναι πεπεισμένων ἔξωθεν τ’ αὐτοῦ μηδὲν εἶναι κενόν, ὥσπερ οὐδ’ ἔνδον. διαφέρει γε μήν, ἔφην, τῶνδε τῶν φιλοσόφων διττὴν διαφορὰν ἐκάτερος τοῦτων (ἐδείκνυσεν δὲ τὸν τε Στωϊκὸν καὶ τὸν Ἐπικούρειον), ὁ μὲν γὰρ Στωϊκὸς (*SVF* 2.542) οὐκ ἔνδον εἶναι τι κενόν (λέγων), ἔξωθεν δὲ τοῦ κόσμου ὑπάρχειν αὐτό. ταῦτα δ’ ἄμφω συγχωρῶν ὁ Ἐπικούρειος ἐν ἄλλῃ τινὶ διαφέρεται πρὸς αὐτούς· οὐ γὰρ (ἓνα) ὁμολογεῖ (τὸν) κόσμον εἶναι τόνδε, καθάπερ ὁ Στωϊκὸς οἶεται, κατὰ γε τοῦτο τοῖς Περιπατητικοῖς ὁμοδοξῶν, ἀλλ’, ὥσπερ γε καὶ τὸ κενὸν ἄπειρον τῷ μεγέθει φησὶν ὑπάρχειν, οὕτω καὶ τοὺς ἐν αὐτῷ κόσμους ἀπείρους τῷ πλήθει. ἐγὼ δ’ ἤκουσα μὲν, ἃ λέγουσιν οἱ τρεῖς συναγορεύειν βουλόμενοι τοῖς ἰδίοις ὀνείροις, ἀκριβῶς δ’ οἶδα μηδένα λόγον ἀποδεικτικὸν ἔχοντα αὐτούς, ἀλλ’ ἐνδεχομένους τε καὶ εἰκότας ... *Propr.Plac.* c. 2, p. 172.31–32 Boudon-Millot–Pietrobelli πότερον ἀγέννητός ἐστιν ὁ κόσμος ἢ γεννητός, εἴτε τι μετ’ αὐτὸ ἔξωθεν, εἴτε μηδὲν (ἀγνοεῖν φημι). **Sextus Empiricus** *M.* 8.146 φύσει δὲ ἦν ἄδηλα τὰ δι’ αἰῶνος ἀποκεκρυμμένα καὶ μὴ δυνάμενα ὑπὸ τὴν ἡμετέραν πεσεῖν ἐνάργειαν, καθάπερ ... τὸ ἀξιούμενον ἐκτὸς εἶναι τοῦ κόσμου τισὶ φυσικοῖς ἄπειρον κενόν. **Anon.** (Porphyry?) *in Categoriais*, Archimedes-palimps. fol. 78^v + 75^r20–28 τοῦ γὰρ κε[νοῦ] δοκοῦντος εἶναι τόπος (our con-

jecture, codex appears to read τόπου) ἐστερημένος σώματος, | λάβοντες τὸ ἐντὸς καὶ τὸ ἐκτὸς τοῦ κόσμου ὡς δύο, | [φῆσομεν, τ]οῦ κενοῦ ἐνὸς κατὰ δυεῖν φερόμενου, τέσ[σα]ρας γενέσθαι κατὰ διαίρεσιν προτάσεις, ἢ | ἐκτὸς (καὶ) ἐντὸς τοῦ κόσμου εἶναι κενὸν ὡς Δημο-|κρίτῳ τε καὶ Ἐπικουρῷ ἡρσκεν, ἢ οὐτ' ἐντὸς | οὐτε ἐκτὸς ὡς Ἀριστοτέλει καὶ Πλάτῳ, ἢ ἐκτὸς μὲν | ἐντὸς δὲ οὐ, (καθάπερ τοῖς ἀπὸ Ζήνωνος, ἢ ἐντὸς μὲν ἐκτὸς δὲ οὐ) καθάπερ Στράτῳ (fr. 26C Sharples) ἔδοξεν. **Arnobius of Sicca** *Adv.Nat.* 2.58, p. 133.3–5 Marchesi *locus ipse ac spatium, in quo situs est (sc. mundus) ac volutatur, quid sit? infinitus, finitus inanis an solidus?*

Chapter heading: Eusebius *PE* 15.32.8 περί τε τοῦ ἐκτὸς τῆς τοῦ κόσμου περιφερείας.

§1 Pythagoreans: Stobaeus *Ecl.* 1.18c, p. 156.8–25 = Aristotle *Phys.* 4.6 213b22–27 + fr. 201 R³ Ἀριστοτέλης ἐν τετάρτῳ Φυσικῆς γράφει· 'εἶναι δὲ φασιν οἱ Πυθαγόρειοι (58B30 DK) κενὸν καὶ ἐπεισιέναι αὐτὸ τῷ οὐρανῷ ἐκ τοῦ ἀπείρου πνεύματος ὡς ἀναπνέοντι.' ἐν δὲ τῷ Περὶ τῆς Πυθαγόρου φιλοσοφίας γράφει τὸν μὲν οὐρανὸν εἶναι ἕνα, ἐπεισάγεσθαι δὲ ἐκ τοῦ ἀπείρου χρόνον τε καὶ πνοὴν καὶ τὸ κενόν, ὃ διορίζει ἐκάστων τὰς χώρας αἰεί.

§2 Stoics: Philo of Alexandria *Her.* 228 ὁ δ' οὐρανός ... ἀπειρομεγέθης ἐστί. περιέχεται γὰρ ὑπ' οὐδενὸς σώματος, οὐτε ἰσομεγέθους αὐτῷ οὔτε ἀπείρου, ἀλλ' οὐδ' ὑπὸ κενοῦ κατὰ Μωυσῆν διὰ τὴν ἐν τῇ ἐκπυρώσει μυθευομένην τερατολογίαν. cf. also *Aet.* 101–103 (= *SVF* 2.619). **Arius Didymus** fr. 25 Diels at Stob. *Ecl.* 1.18.4d, p. 161.17–26 (*SVF* 2.503) (on Chrysippus) τὸ μὲν οὖν κενὸν ἄπειρον εἶναι λέγεσθαι· τὸ γὰρ ἐκτὸς τοῦ κόσμου τοιοῦτ' εἶναι, τὸν δὲ τόπον πεπερασμένον διὰ τὸ μηδὲν σῶμα ἄπειρον εἶναι. καθάπερ δὲ τὸ σωματικὸν πεπερασμένον εἶναι, οὕτως τὸ ἀσώματον ἄπειρον, ὃ τε γὰρ χρόνος ἄπειρος καὶ τὸ κενόν. ὥσπερ γὰρ τὸ μηδὲν οὐδὲν ἐστὶ πέρας, οὕτως οὐδὲ τοῦ μηδενός, οἷόν ἐστι τὸ κενόν. κατὰ γὰρ τὴν αὐτοῦ ὑπόστασιν ἄπειρόν ἐστι· περατοῦται δ' αὖ τοῦτο ἐκπληρούμενον· τοῦ δὲ πληρούντος ἀρθέντος οὐκ ἔστιν αὐτοῦ νοῆσαι πέρας. fr. 26 Diels at Stob. *Ecl.* 1.8.42a, p. 106.11 (*SVF* 2.509) (on Chrysippus) τὸ κενὸν πᾶν ἄπειρον εἶναι πάντη. **Plutarchus** *SR* 1054B (on Chrysippus, *SVF* 2.539) ὅτι τοῦ κόσμου κενὸν ἐκτὸς ἄπειρόν ἐστι, τὸ δ' ἄπειρον οὐτ' ἀρχὴν οὐτε μέσον οὐτε τελευτὴν ἔχει, πολλάκις ὑπ' αὐτοῦ λέγεται. **Diogenes Laertius** *V.P.* 7.140 (on the Stoics, *SVF* 1.95, 2.543) ἔξωθεν δ' αὐτοῦ περιεχυμένον εἶναι τὸ κενὸν ἄπειρον, ὅπερ ἀσώματον εἶναι· ἀσώματον δὲ τὸ οἷόν τε κατέχεσθαι ὑπὸ σωμάτων οὐ κατεχόμενον· ἐν δὲ τῷ κόσμῳ μηδὲν εἶναι κενόν, ἀλλ' ἡνώσθαι αὐτόν· τοῦτο γὰρ ἀναγκάζειν τὴν τῶν οὐρανίων πρὸς τὰ ἐπίγεια σύμπτειαν καὶ συντονίαν. φησὶ δὲ περὶ τοῦ κενοῦ Χρύσιππος μὲν ἐν τῷ Περὶ κενοῦ καὶ ἐν τῇ πρώτῃ τῶν Φυσικῶν τεχνῶν καὶ Ἀπολλοφάνης (*SVF* 1a. Apoll. 404) ἐν τῇ Φυσικῇ καὶ Ἀπολλόδωρος (*SVF* 3. Apoll. 5) καὶ Ποσειδώνιος ἐν δευτέρῳ τοῦ Φυσικοῦ λόγου (F 6 E.-K., 260 Theiler). **Alexander of Aphrodisias** at Simplicius *in Cael.* 284.30 οἱ δὲ ἀπὸ τῆς Στοᾶς (*SVF* 2.535) ἔξω τοῦ οὐρανοῦ κενὸν εἶναι βουλόμενοι διὰ τοιαύτης αὐτοῦ κατασκευάζουσιν ὑποθέσεως. *in Cael.* 285.27–32 καὶ ἐξ αὐτοῦ δέ, φησὶν Ἀλέξανδρος, οὐ ὑποτίθενται κενοῦ, ἀναιροῦσι τὸ εἶναι κενόν. ἔστω γάρ, εἰ δυνατόν, ἐκτὸς τοῦ κόσμου κενόν· τοῦτο δὴ ἤτοι πεπερασμένον ἐστὶν ἢ ἄπειρον. ἀλλ' εἰ μὲν πεπερασμένον, ὑπὸ τίνος περατοῦται, καὶ πάλιν ἐπὶ τοῦ πέρατος τοῦ κενοῦ ὁ αὐτός

ἐρωτηθήσεται λόγος, καὶ ἐκτενεῖ τις τὴν χεῖρα ἢ οὐκ ἐκτενεῖ· τί γὰρ φήσουσιν; εἰ δὲ ἄπειρον εἴη, ὥσπερ Χρυσίππῳ δοκεῖ ... cf. at *Simp. in Phys.* 671.4–7 cited on A 1.18.

§3 Posidonius: cf. D.L. 7.140 cited above on §2. Also texts cited above under *Testes secundi*.

§4 Plato Aristotle: Sextus Empiricus *M.* 9.334 οἱ δὲ φάμενοι μὴδ' ὅλως εἶναι κενόν, ὡς οἱ ἐκ τοῦ Περιπάτου, τὸ ὅλον καὶ τὸ πᾶν τῶν σωμάτων μόνον, οὐχὶ δὲ καὶ τοῦ κενοῦ ἐπικατηγοροῦσιν.

b Sources and Other Parallel Texts

General texts: *Aristotle Phys.* 3.6 206b23–24 ὥσπερ φασὶν οἱ φυσιολόγοι τὸ ἔξω σῶμα τοῦ κόσμου, οὗ ἡ οὐσία ἢ ἀήρ ἢ ἄλλο τι τοιοῦτον, ἄπειρον εἶναι. *Phys.* 4.6 213a12–b29, τὸν αὐτὸν δὲ τρόπον ὑποληπτέον εἶναι τοῦ φυσικοῦ θεωρῆσαι καὶ περὶ κενοῦ, εἰ ἔστιν ἢ μὴ, καὶ πῶς ἔστι, καὶ τί ἐστὶν ... ἄρξασθαι δὲ δεῖ τῆς σκέψεως λαβοῦσιν ἃ τε λέγουσιν οἱ φάσκοντες εἶναι καὶ πάλιν ἃ λέγουσιν οἱ μὴ φάσκοντες, καὶ τρίτον τὰς κοινὰς περὶ αὐτῶν δόξας. οἱ μὲν οὖν δεικνύναι πειρώμενοι ὅτι οὐκ ἔστιν, οὐχ ὁ βούλονται λέγειν οἱ ἄνθρωποι κενόν, τοῦτ' ἐξελέγχουσιν, ἀλλ' (ὁ) ἀμαρτάνοντες λέγουσιν. ὥσπερ Ἀναξαγόρας καὶ οἱ τοῦτον τὸν τρόπον ἐλέγχοντες ... οὐκ οὖν τοῦτο δεῖ δεικνύναι, ὅτι ἐστὶ τὸ ἄήρ, ἀλλ' ὅτι οὐκ ἔστι διάστημα ἔτερον τῶν σωμάτων, οὔτε χωριστὸν οὔτε ἐνεργεῖα ὄν, ὁ διαλαμβάνει τὸ πᾶν σῶμα ὥστε εἶναι μὴ συνεχές, καθάπερ λέγουσιν Δημόκριτος καὶ Λεύκιππος καὶ (213) ἔτεροι πολλοὶ τῶν φυσιολόγων (67A19 DK), ἢ καὶ εἴ τι ἔξω τοῦ παντός σώματος ἐστὶν ὄντος συνεχούς. οὗτοι μὲν οὖν οὐ κατὰ θύρας πρὸς τὸ πρόβλημα ἀπαντῶσιν, ἀλλ' οἱ φάσκοντες εἶναι μᾶλλον. λέγουσιν δ' ἐν μὲν ... Μέλισσος (30A8 DK) μὲν οὖν καὶ δείκνυσιν ὅτι τὸ πᾶν ἀκίνητον ἐκ τούτων ... εἶναι δ' ἔφασαν καὶ οἱ Πυθαγόρειοι (58B30 DK) κενόν, καὶ ἐπεισιέναι αὐτὸ τῷ οὐρανῷ ἐκ τοῦ ἀπείρου πνεύματος ὡς ἀναπνέοντι καὶ τὸ κενόν ... ἐξ ὧν μὲν οὖν οἱ μὲν φασι εἶναι οἱ δ' οὐ φασι, σχεδὸν τοιαῦτα καὶ τοσαῦτά ἐστιν. *Phys.* 4.7 213b30 πρὸς δὲ τὸ ποτέρως ἔχει δεῖ λαβεῖν τί σημαίνει τοῦνομα ... *Phys.* 4.8 214b12 ὅτι δ' οὐκ ἔστιν κενόν οὕτω κεχωρισμένον, ὡς ἔνιοι φασι, λέγωμεν πάλιν ... **Seneca Dial.** 5.5.6 *scrutor quod ultra mundum iacet, utrumne profunda vastitas sit an et hoc ipsum terminis suis cludatur.* **Heron Mechanicus Pneum.** 1 Pr. 17–23 πρὸ δὲ τῶν λέγεσθαι μελλόντων πρῶτον περὶ κενοῦ διαληπτέον. οἱ μὲν γὰρ τὸ καθόλου μὴδὲν εἶναι κενόν (διατείνονται), οἱ δὲ ἄθρουν μὲν κατὰ φύσιν μὴδὲν εἶναι κενόν, παρεσπαρμένον δὲ κατὰ μικρὰ μόρια τῷ ἀέρι καὶ τῷ ὑγρῷ καὶ (τῷ) πυρὶ καὶ τοῖς ἄλλοις σώμασιν. **Themistius in Ph.** 67.16 τὸ κενὸν δὲ οἱ φυσικοὶ νομίζουσι. σκεπτέον οὖν, εἴτε ὁρθῶς ὑπολαμβάνουσιν εἴτε μὴ. **John Philoponus in APo** 239.2 ὅταν δὲ πότερον πάντα τὰ ὄντα ἐντὸς αὐτοῦ περιέχει ἢ οὐ, τὸ πρὸς τι (ζητοῦμεν). *in Ph.* 610.23–25 (on 213a13) Πῶς μὲν ἔστι, πότερον ἔξω ἐστὶ τοῦ κόσμου αὐτὸ καθ' αὐτὸ ἄπειρον τι κενόν, ἢ ἐγκατέσπαρται τοῖς σώμασιν, ὥσπερ ἔλεγον οἱ τὰς ἀτόμους δοξάζοντες.

Chapter heading: cf. *John Philoponus in Ph.* 610.23 cited above.

§2 Stoics: Cleomedes Cael. 1.1.43–48 Todd (*SVF* 2.537) εἰ δὲ καὶ εἰς πῦρ ἀναλύεται ἢ πᾶσα οὐσία, ὡς τοῖς χαριστάτοις τῶν φυσικῶν δοκεῖ, ἀνάγκη πλεον ἢ μυριοπλασιονα τόπον αὐτὴν καταλαμβάνειν, ὥσπερ καὶ τὰ εἰς ἀτμὸν ἐκθυμιάμενα

τῶν στερεῶν σωμάτων. ὁ τοίνυν ἐν τῇ ἐκπυρώσει ὑπὸ τῆς οὐσίας ἐκχεομένης κατα-
λαμβανόμενος τόπος νῦν κενός ἐστιν, οὐδενός γε σώματος αὐτὸν πεπληρωκότος ...
Cael. 1.1. 55 ὅθεν οἱ λέγοντες ἕξω τοῦ κόσμου μηδὲν εἶναι φλυαροῦσιν ... *Cael.* 1.1.81
Ἀριστοτέλης δὲ καὶ οἱ ἀπὸ τῆς αἰρέσεως οὐδ' ἕξω τοῦ κόσμου κενὸν ἀπολείπουσι ...
Cael. 1.1.104, εὐηθες δὲ καὶ τὸ λέγειν αὐτοὺς ὅτι, εἴπερ ἕξω τοῦ κόσμου κενὸν ἐστὶ,
τοῦτο ἄπειρον εἶναι δεήσει ...

§4 Plato Aristotle: Plato *Tim.* 32c6–8 ἐκ γὰρ πυρός παντός ὕδατός τε καὶ
ἀέρος καὶ γῆς συνέστησεν αὐτὸν ὁ συνιστάς, μέρος οὐδὲν οὐδενός οὐδὲ δύνάμιν ἕξω-
θεν ὑπολιπών. *Tim.* 33c3–4 πνεῦμά τε οὐκ ἦν περιστὸς δεόμενον ἀναπνοῆς. *Tim.*
58a7, σφίγγει πάντα καὶ κενὴν χώραν οὐδεμίαν ἐὰν λείπεσθαι. 59a1 τοῦ πυρός, ἅτε
οὐκ εἰς κενὸν ἐξιόντος. **Aristotle *Cael.*** 1.9 278b21–24 τριχῶς δὴ λεγομένου τοῦ
οὐρανοῦ, τὸ ὅλον τὸ ὑπὸ τῆς ἐσχάτης περιεχόμενον περιφορᾶς ἐξ ἅπαντος ἀνάγκη
συνεστάναι τοῦ φυσικοῦ καὶ τοῦ αἰσθητοῦ σώματος διὰ τὸ μήτ' εἶναι μηδὲν ἕξω σώμα
τοῦ οὐρανοῦ μήτ' ἐνδέχεσθαι γενέσθαι. *Cael.* 1.9 279a6–17 φανερόν τοίνυν ἐκ τῶν
εἰρημένων ὅτι οὐτ' ἔστιν ἕξω οὐτ' ἐγχωρεῖ γενέσθαι σώματος ὅγκον οὐθενός ... ἅμα
δὲ δῆλον ὅτι οὐδὲ τόπος οὐδὲ κενὸν οὐδὲ χρόνος ἐστὶν ἕξω τοῦ οὐρανοῦ. ... ἕξω δὲ
τοῦ οὐρανοῦ δέδεικται ὅτι οὐτ' ἔστιν οὐτ' ἐνδέχεται γενέσθαι σώμα. φανερόν ἄρα
ὅτι οὐτε τόπος οὐτε κενὸν οὐτε χρόνος ἐστὶν ἕξω. **Proclus in *Tim.*** 2.65.14 αὐτὸ δὲ
καθ' αὐτὸ σκεπτέον, πῶς οὐδὲν ἐστὶν ἕξω τοῦ παντός.

Liber 2 Caput 10

P^B: Plutarch 888A–B; p. 339^{a1}–10 Diels—**P^E**: *PE* 15.41, p. 411.19–23 Mras—**P^G**: ps.Galenus *HPh* c. 53; p. 623.12–16 Diels; pp. 167–169 Jas—**P^Q**: Qustā ibn Lūqā pp. 146–147 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 162, p. 83 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.34, p. 40.4–6 Delatte
S: Stobaeus, *Ecl.* 1.15.6de, pp. 147.17–148.3 Wachsmuth
Cf. Ach: Achilles *Univ.* c. 28, p. 44.14–18; c. 35, pp. 54.25–55.6 Di Maria

Titulus ι'. Τίνα δεξιά τοῦ κόσμου καὶ τίνα ἀριστερά (P)

- §1 Πυθαγόρας Πλάτων Ἀριστοτέλης δεξιά τοῦ κόσμου τὰ ἀνατολικά μέρη, ἀφ' ὧν ἡ ἀρχὴ τῆς κινήσεως, ἀριστερά δὲ τὰ δυτικά. {οὗθ' ὕψος δὲ φασιν οὕτε βᾶθος ἔχειν τὸν κόσμον, καθ' ὃν λόγον ὕψος μὲν λέγεται τὸ κάτωθεν ἄνω διάστημα, βᾶθος δὲ τὸ ἄνωθεν κάτω. μηδὲν γὰρ εἶναι τῶν οὕτως διαστημάτων λεγομένων περὶ τὸν κόσμον διὰ τὸ περὶ τὸ ἑαυτοῦ μέσον αὐτὸν συνεστάναι, ἀφ' οὗ πρὸς ἅπαν ἐστὶ καὶ πρὸς ὃ πανταχόθεν ταυτό.} (P1,S2) 5
- §2 Ἐμπεδοκλῆς δεξιά μὲν τὰ κατὰ τὸν θερινὸν τροπικόν, ἀριστερά δὲ τὰ κατὰ τὸν χειμερινόν. (P2,S1) 10

§1 Pythagoras —; Plato —; Aristoteles cf. *Cael.* 2.2; §2 Empedocles 31A50 DK

titulus τίνα ... ἀριστερά ^{PEQB}, ^{SL-ind} ex P : τίνα² om. ^{PG} sec. Jas (τοῦ κόσμου om. Nic, καὶ ἀριστερά om. mss.) §1 [2] post Πυθαγόρας et Πλάτων add. καὶ ^{PG} || post Ἀριστοτέλης add. ἔφασαν ^{PG} || ἀνατολικά μέρη] ἔφα ^{PG} || [3] ἡ ἀρχὴ] ἀρχὴν εἶναι ^{PG} || post κινήσεως add. S διὰ τὰς ἀνατολάς, secl. ut glossema Heeren Diels || δυτικά] ἐσπέρια ^{PG} || post τὰ δυτικά iterant ^{SFP} verba Ζήνων ἔφασκε τὸ πῦρ κατ' εὐθείαν κινεῖσθαι ex 146.21 Wachsmuth || [3–8] de verbis a S additis οὗθ' ὕψος ... ταυτό vid. comm. infra || [7] δ] τὸ S, emend. Diels || [8] ταυτό] τοῦτο S, emend. Heeren §2 [9] post Ἐμπεδοκλῆς add. δὲ ^{PG}, ante nomen add. καὶ S || post μὲν add. S αὐτοῦ (sc. τοῦ κόσμου) || [9–10] τὸν θερινὸν τροπικόν, τὸν χειμερινόν ^{PBEQS} : τῶν θερινῶν τροπικῶν, τῶν χειμερινῶν ^{PG}

Testes prim:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 53 (~ tit.) Τίνα δεξιά τοῦ κόσμου καὶ ἀριστερά (text Jas)

53.1 (~ P1) Πυθαγόρας καὶ Πλάτων καὶ Ἀριστοτέλης δεξιά τοῦ κόσμου ἔφασαν εἶναι τὰ ἔφα, ἀφ' ὧν ἀρχὴν εἶναι τῆς κινήσεως, ἀριστερά δὲ τὰ ἐσπέρια.

53.2 (~ P2) Ἐμπεδοκλῆς δὲ δεξιά μὲν εἶναι τὰ κατὰ τῶν θερινῶν τροπικῶν, ἀριστερά δὲ τὰ κατὰ τῶν χειμερινῶν.

Psellus *Omn.Doctr.* c. 162 Τίνα δεξιά τοῦ κόσμου καὶ τίνα ἀριστερά (~ tit.)

Symeon Seth *CRN* 3.35 Τίνα δεξιά τοῦ κόσμου καὶ τίνα ἀριστερά (~ tit.)

δεξιὰ μέρη τοῦ κόσμου τὰ ἀνατολικά μέρη τοῦ οὐρανοῦ, ἀριστερά δὲ τὰ δυτικά (~ P₁).

Testes secundi:

Achilles Univ. c. 28, p. 44.14–18 οἱ δὲ Πυθαγόρειοι δεξιὰ μὲν τὰ βόρεια, ἀριστερά δὲ τὰ νότια καλοῦσιν. "Ὁμηρος δεξιὰ μὲν καλεῖ τὰ ἀνατολικά, ἀριστερά δὲ τὰ δυτικά διὰ τούτων (*Il.* 12.239–240)· εἴτ' ἐπὶ δεξι' ἴωσι πρὸς ἡῶ τ' ἠέλιόν τε | εἴτ' ἐπ' ἀριστερά τοί γε ποτὶ ζόφον ἡερόεντα.'

c. 35, pp. 54.25–55.6 τινὲς δὲ τῶν ἐξηγουμένων βούλονται ἔμπροσθεν μὲν τὰς Ἀρκτοῦς, ὅπισω δὲ τὸν νότον, δεξιὰ(ς) δὲ τὰς ἀνατολάς, ἀριστερά(ν) δὲ τὴν δύσιν ἔχειν, ἴσως ἀπὸ τῶν Ὀμηρικῶν ἐπῶν κινηθέντες (*Il.* 12.239–240) εἴτ' ἐπὶ δεξι' ἴωσι πρὸς ἡῶ τ' ἠέλιόν τε / εἴτ' ἐπ' ἀριστερά τοί γε ποτὶ ζόφον ἡερόεντα, οὐκ εἰδότες, ὡς ὁ ποιητὴς πρὸς τὴν τῶν τόπων ἐκείνων θέσιν δεξιὰ μὲν τὰ ἀνατολικά, ἀριστερά δὲ τὰ δυτικά εἶπεν.

Loci Aetiani:

cf. A 5.7.4–5 (de partu sexus virilis et muliebris) Ἀναξαγόρας Παρμενίδης τὰ μὲν ἐκ τῶν δεξιῶν καταβάλλεσθαι εἰς τὰ δεξιὰ μέρη τῆς μήτρας, τὰ δ' ἐκ τῶν ἀριστερῶν εἰς τὰ ἀριστερά· εἰ δ' ἐναλλαγείη τὰ τῆς καταβολῆς, γίνεσθαι θήλεα. Λεωφάνης, οὗ μέμνηται Ἀριστοτέλης, τὰ μὲν ἐκ τοῦ δεξιοῦ διδύμου τὰ δ' ἐκ τοῦ ἀριστεροῦ. A 5.11.2 (de similitudine ad patrem aut matrem) Παρμενίδης, ὅταν μὲν ἀπὸ τοῦ δεξιοῦ μέρους τῆς μήτρας ὁ γόνος ἀποκριθῇ, τοῖς πατράσιν· ὅταν δ' ἀπὸ τοῦ ἀριστεροῦ, ταῖς μητράσιν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) In the P tradition, as for chs. 2.6–9, the chapter is represented by the four main witnesses. There is very little variation between them. All have just the two doxai (P₁, P₂). G, clearly striving for variation, replaces τὰ ἀνατολικά μέρη with τὰ ἐφῶα and τὰ δυτικά with τὰ ἐσπέρια. The evidence of Nicolaus' translation shows that the chapter heading in his Greek text referred to both the right and the left, but without mentioning the cosmos. In the Byzantine mss. it is the other way around, with mention of the cosmos but not the left parts. Jas rightly restores the longer title, though without a second τίνα. As at A 2.8. it is a surprise to see that Psellus retains the title, though not the contents.

(2) Both P's lemmata can be located in S's chapter 15 Περὶ σχημάτων. He sees a link between the chapter's subject and the mainstream view that the cosmos is spherical. The second Empedoclean doxa is written out first in a cluster of

three, in which it occurs last (= S1). It is immediately followed by the other doxa attributed to Pythagoras–Plato–Aristotle (= S2). This lemma is much longer than the corresponding one in P (P1).

(3) Predictably there is no trace of this chapter in T.

(4) Two texts in the later chapters of Ach's compendium briefly touch on the left and right sides of the cosmos, both with reference to the Pythagoreans (one anonymously) and the poet Homer. We discuss these texts in the following section.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Like ch. 2.8 this chapter asks a quite specific question about the cosmos. The texts in Philo and Ach with the tell-tale Homeric quotation lead to the surmisal that this question was present in the proximate tradition. The specific question, however, appears nowhere in writings belonging to this tradition.

(2) *Sources.* The original source of the question posed in this chapter may well have been a discussion in Aristotle's *De caelo* 2.2, where at the beginning of the chapter he notes that some people ask whether there is a left and a right (τι δέξιον καὶ ἀρίστερον) part of the heaven (note how a clear echo of Aristotle's formulation survives in the heading of A's chapter). He then mentions the Pythagoreans and criticizes them for only speaking of left and right, and not of above and below and back and front. He then gives his own view in which surprisingly the southern hemisphere is the upper part. Aristotle is also recorded as having discussed these matters in a separate treatise on the Pythagoreans (fr. 205 Rose, fr. 15 Ross).

There are three further entwined traditions that have to be taken into account. (1) In his description of the World Soul at *Tim.* 36c Plato says that the movement of the Same revolves to the right by way of the side, that of the Different to the left by way of the diagonal. Various commentators (Calcidius, Proclus, Philoponus) claim that this is consistent either with Aristotle or Homer or both (see texts below section E). (2) In addition, Philo, Calcidius, Philoponus and Simplicius all join Ach in citing the Homeric verses at *Il.* 12.239–240 and deducing from them that for Homer, as for Plato and Aristotle, the eastern regions are on the right and the western regions on the left. (3) At the same time Ach records the view, which he attributes to the Pythagoreans, that the north is on the right and the south on the left. This is similar to the view of the Stoics in Cleomedes, which is based on the cosmos moving forward from east to west, and of course differs from the view attributed to Pythagoras in A.

C Chapter Heading

The title is preserved only in the tradition of P. It is not referred to by S in his heading for *Ecl.* 1.15, which includes material from this chapter. It is found in the index in S^L, but this is contaminated from P^B; see above ch. 2.5 Commentary C.

The chapter heading asks questions in the category of relative position (χεῖ-σθαί, cf. ch. 2.7). There is agreement on the heading in P^{BEQPsSy}. As we have seen, G has abridged it only very slightly. The same title is found in S^L, where it has been introduced from P. The only other chapter heading in Book 2 starting with the interrogative τίς is 2.13, but there are a number of examples elsewhere (χεῖσθαί e.g. chs. 1.1–2, 1.7, 2.13, 4.3, 4.5, 5.3, 5.17), mostly seeking to answer the quaestio of existence or essence, which is not the case here. As noted above, the formulation of the chapter heading goes back to Aristotle's *Cael.* 2.2 284b6–7.

D Analysis

a Context

This chapter is the final one asking questions of the cosmos as a whole. It follows on quite naturally from chapters on the cosmos' motion, order and location, but is nevertheless somewhat of an oddity. There is an implicit analogy with a living being (one of the options laid out in ch. 2.3) such as a human being. See chs. 5.7 and 5.11 where aspects of human life are related to the right and left parts of the womb.

b Number–Order of Lemmata

There is no evidence that there are more than the two lemmata found in P and S. Since the epitomator P preserves the order of doxai much more faithfully than the anthologist S and S's procedure can easily be reconstructed, P's order should be retained.

c Rationale–Structure of Chapter

In both Aristotelian (cf. *Cael.* 2.2) and Stoic (cf. Cleom. *Cael.* 1.1.150–157) cosmology it is assumed, since the cosmos is a living body with its own motion, that it is legitimate to ascribe directions to it. The first doxa is given the authoritative name-labels of Pythagoras, Plato and Aristotle, and represents the majority view of the standard cosmological model. It assumes that the cosmos makes a daily rotation around a fixed north-south axis and takes the perspective of an observer in the northern hemisphere facing north. The second doxa is an earlier Presocratic view that, given the lack of explanation, is not easy to understand. It may presume a vortex model of the cosmos, but could also be based on the movement of the sun from north to south along the ecliptic in the northern

hemisphere (as suggested by Bollack 1965–1977, 3.277). In this case it would be closer to the Stoic view put forward in Cleomedes, in which the observer faces west.

The two doxai naturally form a diaeresis, but what is the opposition between them? Perhaps it might be between east and west on the one hand and north and south on the other. It could also be between the standard orthodox view and a more exotic view belonging to the earlier history of cosmology. This would continue the opposition prominent in ch. 2.7.

The multiple name-label of Pythagoras, Plato and Aristotle occurs elsewhere only on three occasions in the *Placita*: 2.23.8 (on the solar solstices, with Plato preceding Pythagoras), 4.20.1 (on whether the voice is incorporeal), and 5.4.2 (on whether semen is a body). The reason for Pythagoras' presence can only be guessed at. It is possible that it happened because his followers are mentioned in the discussion in Aristotle, or he may stand for the Pythagorean tradition embodied in the *Timaeus*. At any rate, it would appear that an opportunity has been missed to contrast the mainstream view with the differing view of the Stoics. As for the chapter's second doxa attributed to Empedocles, there are no parallels for it in the remains of his poems or the reports based upon them.

d Further Comments

Individual Points

§1 The text of the first doxa as found in S has three additions when compared with the P tradition. (1) The words διὰ τὰς ἀνατολάς are quite superfluous and should be regarded as a gloss, as seen by Heeren and followed by all subsequent editors. (2) A lemma with a doxa attributed to Zeno is repeated from S 1.14.6a and has no place here. It most likely derives from AD; see further on ch. 1.14 Commentary A.2(d). (3) The remaining part of the doxa not found in P is much more problematic. It is argued that there is no height or depth in the cosmos because it is uniformly centred on itself, the view expressed by Plato in *Tim.* 62c–d, but later rejected by Aristotle and the Stoa. Diels and Wachsmuth retain the passage, but the way it is connected to the remainder of the doxa with the vague verb φασί is unusual and suspicious. Stylistically the passage could derive from AD, but would then have to come from his treatment of Plato, almost none of which survives; cf. M–R 1.256, 3.322, 331. The topic is only marginally related to that of the rest of the chapter. We place the text in braces to indicate that its place in A must be considered uncertain (as we now think, *pace* M–R 2.2.432). Bottler (2014) 348 suggests it may be assigned to another chapter and that 1.12 Περί σωμάτων might be suitable. The application to the cosmos, however, speaks against this possibility.

E Further Related Texts

a Proximate Tradition

General texts: Philo of Alexandria *QG* 1.7 tr. Marcus (exegesis of Gen 2:8) 'Why is He said to have planted Paradise in Eden towards the East? In the first place, because the movement of the world is from East to West; and that from which movement starts is first. Second, that which is in the region of the East is said to be the right side of the world, while that in the region of the West is the left. And so the poet (sc. Homer) testifies (*Il.* 12.239–240), calling the birds in the region of the East 'right', and those which are in the region of the West 'on the left side'.'

b Sources and Other Parallel Texts

General texts: Plato *Tim.* 36c (on the World Soul) τὴν μὲν οὖν ἔξω φορὰν ἐπεφύημισεν εἶναι τῆς ταύτου φύσεως, τὴν δ' ἐντὸς τῆς θατέρου. τὴν μὲν δὴ ταύτου κατὰ πλευρὰν ἐπὶ δεξιὰ περιήγαγεν, τὴν δὲ θατέρου κατὰ διάμετρον ἐπ' ἀριστερά, κράτος δ' ἔδωκεν τῇ ταύτου καὶ ὁμοίου περιφορᾷ. *Leg.* 6.760d2 τὸ δ' ἐπὶ δεξιὰ γιγνέσθω τὸ πρὸς ἔω. Aristotle *Cael.* 2.2 284b6–10 ἐπειδὴ δὲ τινὲς εἰσιν οἱ φασιν εἶναι τι δεξιὸν καὶ ἀριστερόν τοῦ οὐρανοῦ, καθάπερ οἱ καλούμενοι Πυθαγόρειοι (58B30 DK) (ἐκείνων γὰρ οὗτος ὁ λόγος ἐστίν), σκεπτέον πότερον τοῦτον ἔχει τὸν τρόπον ὡς ἐκείνοι λέγουσιν, ἢ μάλλον ἐτέρως, εἴπερ δεῖ προσάπτειν τῷ τοῦ παντός σώματι ταύτας τὰς ἀρχάς. *Cael.* 2.2 285a25–31 διὰ τε δὴ τὸ παραλείπειν τὰς κυριωτέρας ἀρχὰς δίκαιον αὐτοῖς ἐπιτιμᾶν, καὶ διότι ταύτας ἐν ἅπασιν ὁμοίως ἐνόμιζον ὑπάρχειν. ἡμῖν δ' ἐπεὶ διώρισται πρότερον ὅτι ἐν τοῖς ἔχουσιν ἀρχὴν κινήσεως αἱ τοιαῦται δυνάμεις ἐνυπάρχουσιν, ὁ δ' οὐρανὸς ἔμψυχος καὶ ἔχει κινήσεως ἀρχήν, δηλὸν ὅτι ἔχει καὶ τὸ ἄνω καὶ τὸ κάτω καὶ τὸ δεξιὸν καὶ τὸ ἀριστερόν. *Cael.* 2.2 285b22–286a2 δηλὸν τοίνυν ὅτι ὁ ἀφανὴς πόλος ἐστὶ τὸ ἄνω. καὶ οἱ μὲν ἐκεῖ οἰκοῦντες ἐν τῷ ἄνω εἰσὶν ἡμισφαίριώ καὶ πρὸς τοῖς δεξιοῖς, ἡμεῖς δ' ἐν τῷ κάτω καὶ πρὸς τοῖς ἀριστεροῖς, ἐναντίως ἢ ὡς οἱ Πυθαγόρειοι λέγουσιν· ἐκείνοι γὰρ ἡμᾶς ἄνω ποιοῦσι καὶ ἐν τῷ δεξιῷ μέρει, τοὺς δ' ἐκεῖ κάτω καὶ ἐν τῷ ἀριστερῷ. συμβαίνει δὲ τοῦναντίον. ἀλλὰ τῆς μὲν δευτέρας περιφορᾶς, οἷον τῆς τῶν πλανήτων, ἡμεῖς μὲν ἐν τοῖς ἄνω καὶ ἐν τοῖς δεξιοῖς ἐσμεν, ἐκείνοι δὲ ἐν τοῖς κάτω καὶ ἐν τοῖς ἀριστεροῖς· ἀνάπαλιν γὰρ τούτοις ἡ ἀρχὴ τῆς κινήσεως ἐστὶ διὰ τὸ ἐναντίας εἶναι τὰς φορὰς, ὥστε συμβαίνειν ἡμᾶς μὲν εἶναι πρὸς τῇ ἀρχῇ, ἐκείνους δὲ πρὸς τῷ τέλει. περὶ μὲν οὖν τῶν κατὰ τὰς διαστάσεις τῶν μορίων καὶ τῶν κατὰ τόπον ὠρισμένων τοσαῦτα εἰρήσθω. *De Pythagoreis* fr. 205 Rose, fr. 15 Ross. Cleomedes *Cael.* 1.1.155–158 Todd (*SVF* 2.557) ἐμπρόσθια μὲν οὖν τὰ πρὸς τῇ δῦσει φασὶν εἶναι αὐτοῦ, ἐπειδὴ ὡς ἐπὶ δῦσιν ἔχει τὴν ὁρμήν, ὀπίσθια δὲ τὰ πρὸς τῇ ἀνατολῇ· ἀπὸ τούτων γὰρ ἐπὶ τὰ ἔμπροσθεν πρόεισιν. ὅθεν δεξιὰ μὲν αὐτοῦ τὰ πρὸς ἄρκτον, εὐώνυμα δὲ τὰ πρὸς μεσημβρίαν γενήσεται. Calcidius *in Tim.* c. 93 (on *Tim.* 36c4–7) *quia tamen idem mundus animal est et animal intellegens, dexteras partes habebit profecto eas in quibus est initium motus et ex qua parte perinde ut cetera animalia mouentur primitus. haec porro mundi pars in eo is est propterea quae Homerum puto lapsum alitis augurantem dixisse (Il. 12.239) 'dexter ad eoum uolitans solemque diemque'.* John Philoponus *Aet.* 193.19–23 φησὶν ὁ Πλάτων, τὸν μὲν ἐκτὸς ἐπὶ τὰ δεξιὰ ὁ θεὸς ἐκίνησε, τουτέστιν τὴν

ἀπλανή, τὸν δὲ ἐντὸς ἐπ' ἀριστερά, τὰς πλανωμένας δηλονότι, δεξιὰ μὲν τὰ ἀνατολικά προσαγορεύων Ὀμηρικῶς, ἀριστερά δὲ τὰ δυτικά· φησὶ γοῦν κάκεινος 'εἴτ' ἐπὶ δεξιὰ ἴωσι πρὸς ἡῶ τ' ἡέλιόν τε | εἴτ' ἐπ' ἀριστερά τοί γε ποτὶ ζόφον ἡερόεντα'. *in Phys.* 454.9–15 καὶ ἐν τῷ παντὶ δὲ δεξιὰ μὲν τὰ ἀνατολικά, ὡς ἄρχοντα τῆς κινήσεως, ἀριστερά δὲ τὰ ἐναντία. οὕτω καὶ ὁ ποιητὴς αὐτὰ καλεῖ· φησὶ γὰρ 'εἴτ' ἐπὶ δεξιὰ ἴωσι πρὸς ἡῶ τ' ἡέλιόν τε, | εἴτ' ἐπ' ἀριστερά τοί γε ποτὶ ζόφον ἡερόεντα.' ταῦτα μὲν οὖν δεξιὰ καὶ ἀριστερά, κατ' ἀναλογίαν δὲ ἔμπροσθεν μὲν τὰ βόρεια, ὀπίσθεν δὲ τὰ νότια. **Simplicius in Cael.** 392.5–8 (commenting on 2.2 285b8–27) ὅτι δὲ τὰ δεξιὰ τοῦ παντὸς τὰ ἀνατολικά ἐστί καὶ τὰ ἀριστερά τὰ δυτικά, καὶ Ὀμηρος ὁ σοφώτατος μαρτυρεῖ λέγων 'εἴτ' ἐπὶ δεξιὰ ἐστί πρὸς Ἡῶ τ' Ἠέλιόν τε, | εἴτ' ἐπ' ἀριστερά τοί γε ποτὶ ζόφον ἡερόεντα.'

Chapter heading: cf. Aristotle *Cael.* 2.2 284b6–7 cited above under General texts.

§1 Pythagoras Plato Aristotle: Proclus in Tim. 2.258.27–259.1 (on *Tim.* 36c6–8) οἶδα μὲν οὖν, ὅτι καὶ ὁ δαιμόνιος Ἀριστοτέλης δεξιὸν μὲν τὸ ἀνατολικόν, ἀριστερόν δὲ καλεῖ τὸ δυτικόν, ἐπειδὴ περ ἡ μὲν πρώτη κίνησις ἀπ' ἀνατολῶν ἐστίν, ἡ δὲ μετὰ ταύτην ἀπὸ δυσμῶν, ἀρχὴ δὲ κινήσεως ἐν πᾶσι ζώοις τὸ δεξιόν. καὶ κατ' αὐτό γε τοῦτο συμφωνεῖ πρὸς τὴν τοῦ Πλάτωνος παράδοσιν.

Liber 2 Caput 11

P^B : ps.Plutarchus *Plac.* 888B; pp. 339^a11–340^a5 Diels—**P^E** : *PE* 15.42, p. 412.1–5 Mras, cf. 15.32.8, p. 406.13—**P^G** : ps.Galenus *HPh* c. 54; p. 623.17–22 Diels—**P^Q** : Qustā ibn Lūqā pp. 146–147 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 121.1, 7–11, p. 65 Westerink—**P^{Sy}** : Symeon Seth *CRN* 3.35, p. 41.1 Delatte (titulus solus)—ps.Aristoteles *Erotoapokriseis* ed. V. Rose *Hermes* 9 (1875) 119 n. 1
S: Stobaeus, *Ecl.* 1.23, p. 200.13 (tit.) + 1.23.1–2, p. 200.15–25 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b8 Henry (titulus solus)
 Cf. Ach: Achilles *Univ.* c. 5, pp. 13.15–14.2 Di Maria; *Scholia in Basilium* I 22, p. 200.13–17 Pasquali; Isidorus Pelusiota *Ep.* 2.273, MPG 78.704A

Titulus 1α'. Περὶ οὐρανοῦ, τίς ἡ τοῦτου οὐσία (P,S)

- §1 Ἀναξιμένης καὶ Παρμενίδης τὴν περιφορὰν τὴν ἑξωτάτω γῆς εἶναι. (P1,S1)
- §2 Ἐμπεδοκλῆς στερέμνιον εἶναι τὸν οὐρανὸν ἐξ ἀέρος συμπαγέντος ὑπὸ πυρὸς κρυσταλλοειδῶς, τὸ πυρῶδες καὶ τὸ ἀερῶδες ἐν ἑκατέρῳ τῶν ἡμισφαιρίων περιέχοντα. (P2,S2) 5
- §3 Ἀναξίμανδρος ἐκ θερμοῦ καὶ ψυχροῦ μίγματος. (P3,S3)
- §4 Παρμενίδης Ἡράκλειτος Στράτων Ζήνων πύρινον εἶναι τὸν οὐρανόν. (P3,S4)
- §5 Ἀριστοτέλης ἐκ πέμπτου σώματος. (P3,S5) 10

§1 Anaximenes 13A13 DK, cf. Parmenides 28A38 DK; §2 Empedocles 31A51 DK; §3 Anaximander 12A17a DK; §4 Parmenides 28A38 DK; Heraclitus 22A10 DK; Strato fr. 84 Wehrli, fr. 42 Sharples; Zeno *SVF* 1.116; §5 Aristoteles cf. *Cael.* 1.2 269a31

titulus Περὶ ... οὐσία **P^B** : Περὶ οὐρανοῦ **P^{EG}** : περὶ τῆς (τοῦ add. **P^{Ps}**) οὐρανοῦ οὐσίας **P^Q**(ut vid.)**P^S** : cf. τίς οὐσία οὐρανοῦ Ach, τίς ἡ τοῦ οὐρανοῦ οὐσία **P^{Sy}** §1 [2] Ἀναξιμένης καὶ Παρμενίδης **S** : Ἀναξιμένης **P** || ἑξωτάτω γῆς εἶναι Diels *DG* : ἑξωτάτω τῆς γῆς εἶναι **S** Diels *VS* DK Laks—Most : ἑξωτάτω γῆνιν **P^B**, cf. Ach γῆνιν (mss. πτηνόν, conl. Maass) : τῆς ἕξω ζωνῆς εἶναι **P^E** : ἑξωτάτην γῆν εἶναι **P^G** : al. *Q daß die Substanz des Himmels dampffartig und die außerhalb von ihm (den Himmel) verlaufende Bewegung an seiner äußersten Grenze ist* (ἕξω τοῦτου ἑξωτάτω εἶναι per dittographiam scripsisse videtur **P^Q**) §2 [4] post nomen hab. **P^G** δὲ || εἶναι] ὑπάρχειν **P^G** || ἐξ ἀέρος] om. **P^Q** || συμπαγέντος **P^{BE}** ps.Arist. : παγέντος **P^G** : συμπαγέντα (sc. τὸν οὐρανόν) **P^Q**(ut vid.) || τοῦ add. post ὑπὸ **P^E** || [5] κρυσταλλοειδῶς **P^{B(1,11)EG1S}** ps.Arist. : κρυσταλλοειδοῦς **P^{B(11)G2}** || post τὸ² add. τε **P^G** || τὸ ἀερῶδες **P^G** : ἀερῶδες **P^{BE}** ps.Arist. || [5–6] ἐν ... περιέχοντα] ἑκάτερα τὰ ἡμισφαίρια περιέχειν **P^G** §§3–5 non hab. **P^E** || text. **S** : **P^B** non sanus, legit Ἀριστοτέλης ἐκ πέμπτου σώματος πυρὸς ἢ ἐκ θερμοῦ καὶ ψυχροῦ μίγματος, cf. **P^Q**, pro πυρὸς hab. **P^G** πύρινον εἶναι, vid. comm. infra §4 [8] πύρινον **S^{P^G}**, fort. leg. **P^Q** : πυρὸς **P^B** §5 post lemma add. **S** λέγει γοῦν ἐν τοῖς Περὶ τῆς φυσικῆς ἀκροάσεως καὶ οὐρανοῦ λόγοις οὕτως; vid. comm. infra

*Testes primi:**Traditio ps.Plutarchi:*

ps.Galenus HPh c. 54 (~ tit.) Περὶ οὐρανοῦ (text Diels)

54.1 (~ P1) Ἀναξιμένης τὴν περιφορὰν τὴν ἐξωτάτην γῆν εἶναι.

54.2 (~ P2) Ἐμπεδοκλῆς δὲ στερέμνιον ὑπάρχειν τὸν οὐρανὸν οἶεται ἐξ ἀέρος παγέντος ὑπὸ πυρὸς κρυσταλλοειδῶς, τὸ τε πυρῶδες καὶ τὸ ἀερῶδες ἐκάτερα τὰ ἡμισφαίρια περιέχειν.

54.3 (~ P5) Ἀριστοτέλης ἐκ πέμπτου σώματος πύρινον εἶναι τὸν οὐρανὸν ἐκ θερμοῦ καὶ ψυχροῦ συνεστῶτα.

fragmentum ap. ps.Arist. *Erotoapokrisis* ed. Rose Τοῦ Ἀριστοτέλους ἐρώτησις. Τί ἐστὶν οὐρανός; ἐκ πέμπτου σώματος, πυρός ἢ ἐκ θερμοῦ καὶ ψυχροῦ μίγματος (~ P3). ἀπολογία. οὐρανός ἐστι στερέμνιος ἐξ ἀέρος συμπαγέντος ὑπὸ πυρὸς κρυσταλλοειδῶς, τὸ πυρῶδες καὶ ἀερῶδες ἐν ἐκατέρῳ τῶν ἡμισφαιρίων περιέχοντα (sic) (~ P2).

Psellus Omn.Doctr. c. 121.1 Περὶ τῆς τοῦ οὐρανοῦ οὐσίας (~ tit.)

c. 121.7–11 Ἀριστοτέλης δὲ τὰ μὲν τέσσαρα στοιχεῖα κατ' εὐθείαν κινεῖσθαι λαβῶν, τὸν δὲ οὐρανὸν κύκλῳ φέρεσθαι, ἀπὸ τῆς διαφόρου κινήσεως διάφορον αὐτῷ καὶ τὴν οὐσίαν πρὸς τὰ στοιχεῖα δίδωσι, καὶ τὸν τε οὐρανὸν καὶ τοὺς ὑπ' αὐτὸν ἀστέρους καὶ μέχρι σελήνης αἰθέρα καλεῖ καὶ πέμπτου σώματος κατονομάζει (cf. P3).

Symeon Seth CRN 3.36 Τίς ἡ τοῦ οὐρανοῦ οὐσία (~ tit.)

Testes secundi:

Achilles c. 5 p. 13.15. Τίς οὐσία οὐρανοῦ (~ tit.)

pp. 13.16–14.2 τὸν δὲ οὐρανὸν οἱ μὲν πυρῶδη εἶναι καὶ στερέμνιον, ἐντὸς δὲ αὐτοῦ τοῦ αἰθέρος τὴν σφαῖραν ἔχομένην ὥσπερ δαλόν, διαφέρειν δὲ ταύτῃ, ἥ ὁ μὲν δαλὸς ἀνωφερὲς ἔχει τὸ πῦρ, ὁ δὲ αἰθήρ καταφερὲς, καὶ τῷ τὸ μὲν θεῖον εἶναι καὶ καθαρὸν καὶ ἀμετάληπτον, τὸ δὲ φθαρτόν· Ἐμπεδοκλῆς δὲ (31A51 DK) κρυσταλλῶδη τοῦτον εἶναι φησὶν ἐκ τοῦ παγετώδους συλλεγέντα, Ἀναξίμανδρος (12A17n. DK) δὲ πτηνὸν (γῆινον coni. Maass) πυρὸς μετέχοντα, Ἀριστοτέλης δὲ σώμα ἐκ ψυχροῦ καὶ θερμοῦ. etiam p. 15.19–21 Ζήνων γοῦν ὁ Κίτιεὺς (SVF 1.115) οὕτως αὐτὸν ὠρίσατο· ‘οὐρανός ἐστιν αἰθέρος τὸ ἔσχατον, ἐξ οὗ καὶ ἐν ᾧ ἐστὶ πάντα ἐμφανῶς ...’

Scholia in Basilium I 22, p. 200.13–17

τῶν οὐρανῶν οἱ μὲν πυρῶδη τὴν οὐσίαν εἶπον· Ἐμπεδοκλῆς (31A51 DK) δὲ ὕδروπαγῇ τὸν οὐρανὸν καὶ οἰονεῖ κρυσταλλῶδες πῖλημα· ἄλλοι δὲ κράμα ἐκ τῶν δ' στοιχείων· ἕτεροι δὲ τοῦ ε' στοιχείου· εἰκότως οὖν παραπέμπεται (sc. Basilium) τὴν περὶ οὐσίας σκέψιν ὡς διάφωνον καὶ ἄχρηστον.

Isidorus Pelusiota Ep. 2.273 σκοπήσωμεν οὖν, τί ἡμῖν λυσιτελεῖ εἰς μακαριότητα, τί δ' οὐ· καὶ οὕτως βασιανίσωμεν τὰ λεγόμενα. τὸ λέγειν ἢ σφαῖραν εἶναι τὸν οὐρανόν, ἢ ἡμισφαίριον ...

Loci Aetiani:

titulus et quaestio A 2.13 Τίς οὐσία τῶν ἀστέρων πλανητῶν τε καὶ ἀπλανῶν καὶ πῶς συνέστη; A 2.20 Περὶ οὐσίας ἡλίου; A 2.25 Περὶ οὐσίας σελήνης; A 3.9 Περὶ γῆς καὶ τίς ἡ ταύτης οὐσία καὶ πόσαι; A 4.3 Εἰ σῶμα ἢ ψυχὴ καὶ τίς ἡ οὐσία αὐτῆς.

- §1 A 2.14.2 Ἀναξιμένης ἤλων δίκην καταπεπηγέναι τῷ κρυσταλλοειδεῖ. A 2.7.1 (de Parmenide) καὶ τὸ περιέχον δὲ πάσας τείχους δίκην στερεὸν ὑπάρχειν, ὅφ' ὅφ' πυρώδης στεφάνη.
- §2 A 2.13.2 & 11 Ἐμπεδοκλῆς πύρινα ἐκ τοῦ πυρώδους ... τοὺς μὲν ἀπλανεῖς ἀστέρας συνδεδέσθαι τῷ κρυστάλλῳ, τοὺς δὲ πλανήτας ἀνείσθαι.
- §3 A 2.20.15 Παρμενίδης τὸν ἥλιον καὶ τὴν σελήνην ἐκ τοῦ γαλαξίου κύκλου ἀποκριθῆναι, τὸν μὲν ἀπὸ τοῦ ἀραιότερου μίγματος, ὃ δὴ θερμόν, τὴν δὲ ἀπὸ τοῦ πυκνοτέρου, ὅπερ ψυχρόν.
- §4 A 1.18.4 Ἀριστοτέλης τοσοῦτον εἶναι τὸ κενὸν ἐκτὸς τοῦ κόσμου, ὥστ' ἀναπνεῖν εἰς αὐτὸ τὸν οὐρανόν· ἔνδοθεν γάρ εἶναι τόπον πύρινον. A 2.13.2 vid. ad §2. A 2.13.3 Ἀναξαγόρας τὸν περιεκείμενον αἰθέρα πύρινον μὲν εἶναι κατὰ τὴν οὐσίαν ... A 2.13.9 Ἀναξιμένης πυρίνην μὲν τὴν φύσιν τῶν ἀστέρων ... A 2.20.3 Ἀναξιμένης Παρμενίδης πύρινον ὑπάρχειν τὸν ἥλιον. A 2.25.2 Ἀναξιμένης Παρμενίδης Ἡράκλειτος πυρίνην.
- §5 A 1.3.21 Ἀριστοτέλης δὲ Νικομάχου Σταγειρίτης ἀρχὰς μὲν ἐντελέχειαν ἦτοι εἶδος ὕλην στέρην· στοιχεῖα δὲ τέσσαρα, πέμπτον δὲ τι σῶμα αἰθέριον ἀμετάβλητον. A 1.7.23 Ἀριστοτέλης τὸν μὲν ἀνωτάτω θεὸν εἶδος χωριστόν, ἐπιβεβηκότα τῇ σφαίρᾳ τοῦ παντός, ἣτις ἐστὶν αἰθέριον σῶμα, τὸ πέμπτον ὑπ' αὐτοῦ καλούμενον. A 1.12.3 Ἀριστοτέλης μηδὲν δὲ πῦρ κυκλοτερώς φύσει κινεῖσθαι, μόνον δὲ τὸ πέμπτον σῶμα. A 2.7.5 Ἀριστοτέλης πρῶτον μὲν αἰθέρα ἀπαθῆ, πέμπτον δὲ τι σῶμα. A 2.13.12 Ἀριστοτέλης ἐκ τοῦ πέμπτου σώματος. A 2.20.11 Ἀριστοτέλης σφαῖραν ἐκ τοῦ πέμπτου σώματος. A 2.25.8 Ἀριστοτέλης (ἐκ τοῦ πέμπτου σώματος). A 2.30.7 Ἀριστοτέλης μὴ εἶναι αὐτῆς ἀκήρατον τὸ σύγκριμα διὰ τὰ πρόσγεια ἀερώματα τοῦ αἰθέρος, ὃν προσαγορεύει σῶμα πέμπτον.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The chapter is found in a direct transmission only in the family of P and in S. The former has three lemmata, representing the views of Anaximenes–Parmenides (P₁), Empedocles (P₂) and Aristotle (P₃). In the Byzantine mss. this final lemma is garbled. It is slightly better preserved in G and Q, but still makes very little sense. The absence of the lemma in E is perhaps an indication that the end of the chapter was corrupted early. Most of the chapter as found in P is utilised by

a Byzantine school teacher in a document edited by Rose (1875). Unfortunately he only published excerpts and he erred when he surmised that the source was S.

The situation in P is immediately clarified when S is adduced. He preserves a block of five lemmata, the first two of which correspond to the doxai in P (S₁, S₂; on the double name-label in S₁ see D(d) below). The remaining three correspond to the defective version in P^{BG} as follows:

P ₃ Ἀριστοτέλης ἐκ πέμπτου σώματος	= S ₅ (Aristotle)
† πυρὸς ἢ † (G πύρινον εἶναι τὸν οὐρανόν, Q <i>feurigen</i>)	cf. S ₄ πύρινον (Parmenides etc.)
ἐκ θερμοῦ καὶ ψυχροῦ μίγματος.	= S ₃ ἐκ θερμοῦ καὶ ψυχροῦ μίγματος, but with the name-label of Anaximander

We note the order of the three doxai in P is the reverse of what we find in S. How this might have occurred is discussed below in section D(c). For the further evidence in Ach and the Scholion on Basil see below section D(e). On a possible fleeting reference to P's text of this chapter in Julian the Arian see ch. 2.12 Commentary A.

The Aristotelian doxa in S is followed by another seven lines of text that are very unlikely to be derived from A. He first writes λέγει γοῦν ἐν τοῖς Περὶ τῆς φυσικῆς ἀκροάσεως καὶ οὐρανοῦ (mss. αὐτοῦ, emend. Spengel) λόγοις οὕτως and then follows these words with a quote from AD (fr. 9 Diels) which speaks of both the stars and the heaven and had already been quoted earlier at 1.21.1c. The word οὕτως can look both forwards and backwards, but the former is much more likely than the latter, especially when a quote or excerpt follows: cf. 1.8.45, 1.18.4c, 1.20.6, 1.22.1f etc. Diels *DG* 216 persuasively argued that the words had been added by S and that he had amplified the Aëtian doxa 'ex scholastica memoria'. As Mansfeld (2016a) 301 observes, 'the formula γοῦν + title is regularly used to introduce S's verbatim quotations from a Platonic dialogue', though here he refers to a summary by AD of his doctrines in *Phys.* and *Cael.*

B Proximate Tradition and Sources

(1) *Proximate tradition.* For this chapter and a number of others in the remainder of the book a text at Philo *Somn.* 1.21, overlooked by Diels, is of great interest. It was discovered by Wendland, who concluded that it (and the longer section 21–32 which it commences) was dependent on Diels' postulated *Vetusta placita*; see Wendland (1897) 1075. In illustrating the unknowability of both the heavens and the soul, Philo clearly draws on a doxographical compendium similar to that of A but anterior to him. On this and related texts in

Philo's Allegorical Commentary see Runia (2008b) 24–29. On the doxai relating to the soul see further Mansfeld (1990a) 3117–3122 and below on ch. 4.2–7. Philo does not use any name-labels at all in his excerpts but doxai can easily be recognised. In the case of this chapter three of A's doxai appear (Empedocles, Parmenides etc., Aristotle) in an order which agrees with S against P (the phrase μηδενός τῶν τεττάρων στοιχείων μετέχον may conceal a reference to the Platonic view utilised for the stars at 2.13.11). Further texts in Lactantius and Arnobius may also have distant links with the *Placita* tradition. The former preserves a reference to Empedocles' 'congealed air'. Texts in Basil and Gregory of Nyssa link the doxography to biblical material, with the same pronounced sceptical emphasis already present in Philo. Similarly Isidore of Pelusium raises the question of whether the heaven is a sphere or a hemi-sphere, perhaps a distant reflection of §2. All these parallels show that on this subject A stands in a broader doxographical tradition. In later philosophical texts (Alexander, Philoponus, Simplicius) the focus narrows to the difference between Platonic and Aristotelian views (we note that Philoponus uses the topic to illustrate a question of essence or substance, τό τί ἐστίν).

In general, it must be noted that the *quaestio* of the heaven's οὐσία is not often posed, as distinct from that of the heavenly bodies within it. An exception is Seneca who explicitly mentions the topic as part of the investigation of the *caelestia* and illustrates it with the interesting diaeresis between a solid and a tenuous substance (he favours the latter view as the polemic in *Nat.* 7.13–14 against a certain Artemidorus of Parium shows). This diaeresis is also found in an earlier text in Epicurus. Texts cited below in section E(a,b). As we shall see below, it is implicit in the structure of A's chapter.

(2) *Sources.* The material on this question as treated by Presocratic authors will have been derived from original works and later summaries (probably in the Peripatos). As the lack of parallels shows, none of this evidence appears to have been preserved outside the *Placita* tradition. For later authors (Plato, Aristotle, Stoics) there was sufficient material that could be adapted, but A refers only to Aristotle's famed quintessence. One might have expected a Platonic view, but in the *Timaeus* Plato speaks only of the substance of the heavenly bodies in general (cf. ch. 2.13). An extrapolation could of course have been made, as occurs in the Scholion on Basil, on which see further below Commentary D(e).

The only authors of which a work with the title Περὶ οὐρανοῦ has been recorded are Aristotle (extant) and his followers Theophrastus and Strato (for references see section E(a) Chapter heading). In Aristotle, as cogently argued by Johnson (2019), the term οὐρανός refers to the whole of physical reality, i.e. the universe, rather than to the heavens as part thereof; see further ch. 2.1 Commentary C.

C Chapter Heading

The witnesses reveal a wide variety of headings for the chapter. They can be summarised as follows:

short: *Περὶ οὐρανοῦ*—E and G

longer: *Περὶ τῆς (τοῦ) οὐρανοῦ οὐσίας*—Q, Ps and S

elaborate: *Περὶ οὐρανοῦ, τίς ἢ τούτου οὐσία*—P^B, cf. Ach and Sy

The short version simply gives a general umbrella heading of the *Περὶ x* type, comparable to the heading of ch. 2.1 *Περὶ κόσμου*. The longer one includes the specification that the chapter treats the category of substance, and this is emphasised even more in the elaborate version that actually poses the question of the substance. It is impossible to determine with certainty which heading originally stood in A. The oldest witness E has the short version, supported by G (they also contain a similar short title for the chapters on the sun, A 2.20, and the moon, A 2.25). A similar divergence between short titles without the term *οὐσία* and longer titles with the term is found in the case of other chapters which discuss the substance of various physical entities:

2.13 on the heavenly bodies: no short titles (but cf. Ach §10)

2.20 on the sun: short title EGP^B (ms. Marc. 521), longer title P^B (other mss.) QS

2.25 on the moon: short title EG, longer title P^BQS

3.9 on the earth: short title EGQ, longer title P^BS (but without *οὐσία*)

4.2–3 on the soul: 4.2 has shorter title, 4.3 longer title with *οὐσία* (on corporeal soul)

5.3 on semen: no short titles, longer title P^BGQ

The conclusion to be drawn from this astounding variety is that the tradition of chapter headings was fluid and that ‘the length and precise wording of the chapter headings were not a matter of rigorous discipline, but rather of convenience’ (M–R 2.197). It seems to us very likely that the original heading contained a reference to the subject of *οὐσία*, but whether we opt for the longer or the elaborate title is quite arbitrary. We have decided on the elaborate title, which has a fine early parallel in Ach. But certainty cannot be attained.

D Analysis

a Context

Having completed his chapters on the cosmos as a whole (chs. 2.1–10) A now turns to its most eminent part, the heaven. The *οὐρανός* has already been extens-

ively mentioned in chs. 2.5–7 (and also in 1.4 and 1.6), but now it is the main subject. This chapter is the first of five devoted to the οὐσία of parts of the cosmos (cf. chs. 2.13, 2.20, 2.25, 3.9). In the case of the heaven only two chapters discuss its features, many fewer than in the case of the other phenomena (stars 7, sun 5, moon 7, earth 7).

b Number–Order of Lemmata

There is no evidence to suggest that the chapter had more than the five lemmata preserved in S, all of which are also—even if sometimes imperfectly—witnessed by P. As already noted, however, the order of the final three lemmata is problematic. Normally P is a more reliable guide to lemmatic order than S. In addition, S has a reason for placing the Aristotelian doxa last, because he wishes to add a quote from AD (on which see further D(d) below). But we also need to take the overall structure of the chapter into account before making a decision.

c Rationale–Structure of Chapter

The term οὐρανός can have various meanings in early Greek thought. As Aristotle sets out very clearly in *Cael.* 1.9 278b9–21, it has at least three: (1) the outer periphery of the world; (2) the region which contains the planets; and (3) the world as a whole (cf. Plato's usage at *Tim.* 28b2; see further on κόσμος and οὐρανός the note at ch. 1.6 Commentary D(d) on §1[7–25] and §1[14–16]). The first lemma clearly indicates that the first meaning is meant, and the second follows on well from it. These two doxai regard the heaven's nature as solid, whether of earth or congealed air. For the remaining three the meaning is less clear. Both the first and second meaning would appear to be relevant. Those views attributed to Parmenides etc. and to Aristotle also form a plausible pair. The doxa that the heaven is fiery is the most common, as is perhaps indicated by the multiple name-labels. Aristotle's view is in contrast because his special element, though also called αἰθήρ, is not fiery. In chs. 2.13 and 2.25 (but not in 2.20) this view is contrasted with that of Plato, but as already noted no mention is made of the Platonic view, unlike in all the other chapters on the οὐσία of the cosmos' parts.

This leaves us with the remaining doxa of Anaximander. It would seem to be a *Fremdkörper* in the chapter. What does it mean that the heaven is 'from the hot and cold mixture'? Does this mean that it *consists* of a mixture with these two qualities? This is not so easy to place, although it is possible that A saw a link with Empedocles' view of air (cold) being congealed by fire (hot). However, a text in ps.Plutarch *Stromateis* may give us a clue (text cited below in section E(a)§2). It speaks of a 'part of the everlasting (i.e. the ἀπειρον) that was generative of hot and cold separated off at the genesis of this cosmos', i.e.

the hot and cold mixture was the source of the heaven, not what it consisted of (an earlier text in Aristotle speaks allusively of the same mixture; text *ibid.*). This is likely to have been the origin of A's doxa, but that does not mean that he intends it to be understood in the same way.

It was noted above (Commentary B) that two of the infrequent doxographical parallels cast the question of the heaven's nature in terms of a diaeresis between a solid and a tenuous composition. It is possible to interpret the structure of A's chapter in these terms. The first two doxai present the heaven as consisting of a dense compacted substance (i.e. earth or crystalline), the final two (in S) as of a light substance (i.e. fire or the quintessence). The remaining doxa of Anaximander remains difficult from the Aëtian perspective, but might be taken as a compromise view, if a similar text at A 2.20.15 is adduced. This doxa, attributed to Empedocles, states that 'the sun and the moon have been separated off from the Milky circle, the former from the more rarefied mixture which is hot, the latter from the denser (mixture) which is cold,' i.e. the hot is explicitly identified with the rare, the cold with the dense. In terms of Anaximander's cosmology one might see a connection with the revolving circles of fire and mist.

The structure of the chapter can thus be interpreted in terms of a main diaeresis between two positions, each with two doxai, and a compromise view in between. A's love of symmetrical structures has been amply demonstrated: see the remarks at M–R 2.657. Another possibility might be to see the chapter as moving through the various elements—earth, crystallized air, mixture of hot and cold, fire, quintessence. But this must be considered less likely, especially in light of the doxographical parallels. In whichever way it is interpreted, it is plain that the order in S makes more sense than that in P. The Aristotelian doxa can be read as trailing the others because it an exceptional view (as in chs. 2.13 and 2.25). If this is right, it remains difficult to see how the reversal of the order occurred in the tradition of P, except through the fact that the text became defective. Further evidence is found in both Ach and the scholion to Basil, both of which corroborate the order in S rather than that in A. They both end with a reference to Aristotle, the former using the name-label (but with an erroneous doctrine), the latter with the reference to the fifth element (but anonymously).

d Further Comments *Individual Points*

§1 This brief doxa gives rise to numerous textual and interpretative issues.

(1) The double name-label Anaximenes and Parmenides in S is dubious, since Parmenides recurs as the first name in §4. Although it often occurs in A that a name-label is repeated within a chapter (already pointed out in Runia

1992, 133, see also M–R 2.461, 523), this would be a particularly bold case. However, it is much easier for P to drop the name-label than for S to add it. At M–R 2.436 we suggested that the wrong name was written out or that the doxa was inspired by the description of the cosmos at A 2.7.1, and we deleted it from our reconstructed text. It is safest, we think now, to retain it.

(2) The text is difficult, with each of the five witnesses offering a different version for its final words. The main question is whether the sentence states the nature of the periphery of the cosmos (with γῆς as a genitive of quality), as we have translated it above, or whether it merely offers a description of what the heaven is (somewhat like the nominal definitions in Book 1 and the opening definition on the cosmos in A 2.1.1). It has been understood in the latter sense by Wöhrle (2012) 267, who translates (accepting Diels' emendation) 'Anaximenes [sagt, dass der Himmel] der äußerste Umkreis der Erde sei.' This is doubtless the way that S and E (but with a corrupt text) understood the doxa. P^B, however, probably understood it as in our translation, altering the genitive to the adjective γῆινον (*pace* Jas, who thinks it is a corruption of γῆς εἶναι). The same is probably the case for G. The fact that §2 repeats the heaven as subject is an argument for it not being understood in §1. As noted in the textual apparatus, the variant translation in Q is best explained through dittography. The doxa that the outer edge of the cosmos is earthy is of course quite odd, but it seems the doxographer envisages a solid edge (but not crystalline, which is not earthy, cf. §2 and the scholion no. 22 in Pasquali's collection).

§4 It might be thought that the words εἶναι τὸν οὐρανόν were added by S, since they are otiose in relation to the chapter's title. But their inclusion by G militates against this view.

§5 A uses the term πέμπτον σῶμα for the Aristotelian quintessence six times (seven if the conjecture at 2.25.8 is accepted), beginning at 1.3.21; see the *loci Aëtiani* above. As noted by Moraux (1963) 1226 in his magisterial article on the *quinta essentia*, although Aristotle himself calls the element the πρῶτον σῶμα, in the doxographical tradition there is a strong preference for terms involving the term 'fifth', which never occur in the corpus of Aristotle's writings. The earliest use of the term used here appears to be at Philo *Somn.* 1.21, cited below in section E(a) General texts as evidence of the *Placita* tradition prior to A. Thereafter it is found in Taurus, Sextus Empiricus, ps. Justin etc. Plutarch speaks of a πέμπτη οὐσία at *De E* 390A (also at Philo *QG* 4.8 Petit). The validity of Aristotle's doctrine was a hot topic in the first century BCE and CE. The last philosopher to be mentioned in the *Placita*, the Peripatetic Xenarchus of Seleucia wrote a work Πρὸς τὴν πέμπτην οὐσίαν and argued against it; see Falcon (2011) 25–32. Psellus, who wrongly says that Aristotle names it a πέμπτον σῶμα, does not necessarily derive the term from P, for he uses it on a number of occasions elsewhere, e.g. in

his *Commentary on Aristotle's Physics* 4.7. On the doctrine in the doxographical tradition see further Moraux (1963) 1226–1228.

e Other Evidence

Some further evidence is supplied by Achilles and a scholion to Basil. The former text, with the related title *Τίς οὐσία οὐρανοῦ*, plainly stands in the same tradition as A, but its transmitted state is quite confused. Three of the name-labels coincide, but only one of the accompanying doxai (Empedocles). Yet here too there is a significant difference: heaven's solidity appears to be divided between the first anonymous doxa (it is—rather oddly—both fiery and στερεῖ-μνιος, the same term in A's Empedocles doxa) and the second doxa attributed to Empedocles (heaven is crystalline and compacted). If Maass' conjecture is accepted, then the doxa of Anaximander has an affinity with the one of Anaximenes in A, while the (obviously erroneous) final Aristotelian doxa is reminiscent of Anaximander in A. See further M–R 2.2.437. The doxography in the scholion to Basil is much clearer in the way it sets out four positions, three of which are parallel to what we find in A (but only one with a name-label, Empedocles again). Interestingly the scholion contains the (unattributed) Platonic view that heaven consists of a mixture of the four elements (actually the heavenly bodies) which is missing in A and Ach. As noted above, the order of the doxai supports the sequence in S over against that in P, with the Aristotelian view coming last in both texts.

E Further Related Texts

a Proximate Tradition

General texts: *Philo of Alexandria Somn.* 1.21, τούτων μὲν δὴ πάντων αἰσθάνομεθα, ὁ δ' οὐρανὸς ἀκατάληπτον ἔχει τὴν φύσιν, οὐδὲν ἑαυτοῦ σαφὲς γινώρισμα πρὸς ἡμᾶς ἀποστείλας. τί γὰρ ἂν εἴποιμεν; ὅτι πεπηγὼς ἐστὶ κρύσταλλος, ὡς ἡξίωσάν τινες; ἢ ὅτι πῦρ τὸ καθαρώτατον; ἢ ὅτι πέμπτον κυκλοφορικὸν σῶμα, μηδενὸς τῶν τεττάρων στοιχείων μετέχον; *Her.* 2.47 καὶ ἥλιος μέντοι καὶ σελήνη καὶ ὁ σύμπαξ οὐρανός, γῆ τε καὶ ἀήρ καὶ ὕδωρ, τά τε ἐξ αὐτῶν σχεδὸν πάντα τοῖς σκεπτικοῖς ἔριδας καὶ φιλονεικίας παρεσχήκασιν, οὐσίας καὶ ποιότητας, μεταβολάς τε αὖ καὶ τροπὰς καὶ γενέσεις, ἔτι δὲ φθοράς αὐτῶν ἀναζητοῦσιν· μεγέθους τε πέρι καὶ κινήσεως τῶν κατ' οὐρανὸν οὐ πάρεργον ποιοῦμενοι τὴν ἔρευναν ἑτεροδοξοῦσιν οὐ συμφερόμενοι ... *Seneca Nat.* 2.1.1 *omnis de universo quaestio in caelestia, sublimia, terrena dividitur. prima pars naturam siderum scrutatur et magnitudinem et formam ignium, quibus mundus includitur, solidumne sit caelum ac firmæ concretæque materiae an ex subtili tenuique nexum ...* cf. *Nat.* 7.13.2 (on Artemidorus of Parium) *nam si illi credimus, summa caeli ora solidissima est, in modum tecti durata et alti crassique corporis, quod atomi congestae coacervataeque fecerunt, huic proxima superficies ignea est, ita compacta ut solvi vitarique non possit*

... **Arnobius of Sicca** *Adv.Nat.* 3.17 Marchesi *ut enim, si vitreus esse dicatur mundus, si argenteus, ferreus vel ex fragili conglobatus et fabricatus testa, non dubitemus falsum esse contendere, quamvis quae sit eius materia nesciamus, ita cum de specie agatur dei ... **Lactantius** *Op.D.* 17.6 Perrin *haec apertissime falsa sunt. neque enim tam obscuram nobis huiusmodi rerum dico esse rationem, ut ne hoc quidem intellegamus, quid verum esse non possit. an si mihi quispiam dixerit aeneum esse caelum aut vitreum aut, ut Empedocles (31A51 DK) ait, 'aerem glaciatum', statimne adsentiar, quia caelum ex qua materia sit ignorem? sicut enim hoc nescio, ita illud scio.**

Chapter heading: Eusebius *PE* 15.32.8, p. 409.13 Mras περί τε οὐρανοῦ.

§2 Empedocles: Diogenes Laertius *V.P.* 8.77 (Empedocles 31A1 DK) καὶ τὸν μὲν ἥλιόν φησι πυρὸς ἄθροισμα μέγα καὶ τῆς σελήνης μεῖζω· τὴν δὲ σελήνην δισκοειδῆ, αὐτὸν δὲ τὸν οὐρανὸν κρυσταλλοειδῆ. See also **Lactantius** cited above.

§3 Anaximander: ps.Plutarch *Strom.* 2 (fr. 179 Sandbach, Anaximander 12A10 DK) φησὶ δὲ τὸ ἐκ τοῦ αἰδίου γόνιμον θερμοῦ τε καὶ ψυχροῦ κατὰ τὴν γένεσιν τοῦδε τοῦ κόσμου ἀποκριθῆναι, καὶ τινα ἐκ τούτου φλογὸς σφαῖραν περιφυῆναι τῷ περὶ τὴν γῆν ἀέρι ὡς τῷ δένδρῳ φλοιόν, ἧς ἀπορραγείσης καὶ εἷς τινὰς ἀποκλεισθείσης κύκλους, ὑποστήναι τὸν ἥλιον καὶ τὴν σελήνην καὶ τοὺς ἀστέρας. cf. **Aristotle** *Phys.* 1.4 187a20–23 οἱ δ' ἐκ τοῦ ἐνὸς ἐνούσας τὰς ἐναντιότητας ἐκκρίνεσθαι, ὥσπερ Ἀναξίμανδρός (12A9 DK) φησὶ, καὶ ὅσοι δ' ἐν καὶ πολλὰ φασὶν εἶναι, ὥσπερ Ἐμπεδοκλῆς (31A46 DK) καὶ Ἀναξαγόρας (—)· ἐκ τοῦ μίγματος γὰρ καὶ οὗτοι ἐκκρίνουσι τὰλλα.

§4 Parmenides Heraclitus Strato Zeno: On Zeno see **Achilles** p. 15.19–21 cited above under *Testes secundi*. **Plutarch** *Fac.Lun.* 928D (on the Stoics, *SVF* 2.668) λέγουσι δὲ τοῦ αἰθέρος τὸ μὲν αὐγοειδὲς καὶ λεπτὸν ὑπὸ μανότητος οὐρανὸν γεγενῆσθαι, τὸ δὲ πυκνωθὲν καὶ συνειληθὲν ἄστρα· τούτων δὲ τὸ νωθρότατον εἶναι τὴν σελήνην καὶ θολερώτατον.

§5 Aristotle: Philo see above General texts; cf. *QG* 4.8 Petit δεύτερον δὲ μέτρον, καθ' ὃ ἐπάγῃ ὁ αἰσθητὸς οὐρανός, πέμπτην λαχὼν καὶ θειοτέραν οὐσίαν, ἄτρεπτον καὶ ἀμετάβολον. **Taurus** fr. 25a Lakmann at *Philop. Aet.* 13.15, p. 481.13–17 Rabe *Χρήσεις Ταύρου τοῦ Πλατωνικοῦ, Πορφυρίου, Πρόκλου, Πλωτίνου*, ὅτι ἐκ τῶν τεσσάρων καὶ μόνον στοιχείων συνεστάναι τὸν κόσμον βούλεται Πλάτων ἀγνοῶν τὸ παρὰ Ἀριστοτέλει πέμπτον καλούμενον σῶμα, ἐξ οὗ φησιν εἶναι τὸν οὐρανὸν ἐκεῖνος. fr. 25b Lakmann at *Philop. Aet.* 13.15, p. 520.18–21 Θεόφραστος (fr. 161A FSH&G) φησιν 'εἰ τὸ ὁρατὸν καὶ τὸ ἀπτόν ἐκ γῆς καὶ πυρὸς ἐστίν, τὰ ἄστρα καὶ ὁ οὐρανὸς ἔσται ἐκ τούτων· οὐκ ἔστιν δέ.' ταῦτα λέγει εἰσάγων τὸ πέμπτον σῶμα τὸ κυκλοφορητικόν. **Sextus Empiricus** *M.* 10.316 ἐκ πέντε δὲ Ὀκαελος ὁ Λευκανὸς καὶ Ἀριστοτέλης· συμπαρέλαβον γὰρ τοῖς τέσσαρσι στοιχείοις τὸ πέμπτον καὶ κυκλοφορητικὸν σῶμα, ἐξ οὗ λέγουσιν εἶναι τὰ οὐράνια. **ps.Justin** *Coh.Gr.* 5.2 Ἀριστοτέλης δέ, ἐν τῷ πρὸς Ἀλέξανδρον τὸν Μακεδόνα λόγῳ σύντομόν τινα τῆς ἑαυτοῦ φιλοσοφίας ἐκτιθέμενος ὅρον (*Mu.* 2 392a5–9), σαφῶς καὶ φανερώς τὴν Πλάτωνος ἀναίρει δόξαν, οὐκ ἐν τῇ πυρώδει οὐσίᾳ τὸν θεὸν εἶναι λέγων· ἀλλὰ, πέμπτον αἰθερίον τι καὶ ἀμετάβλητον ἀναπλάττων σῶμα ...

b Sources and Other Parallel Texts

General texts: Posidonius F 18 E.-K., 255 Theiler at Simp. *in Phys.* 291.24–292.9 τῆς μὲν φυσικῆς θεωρίας ἐστὶ τὸ σκοπεῖν περὶ τε οὐσίας οὐρανοῦ καὶ ἄστρον καὶ δυνάμεως καὶ ποιότητος γενέσεώς τε καὶ φθορᾶς καὶ νῆ Δία τούτων περὶ μεγέθους καὶ σχήματος καὶ τάξεως ἀποδείκνυναι δύναται. ἡ δὲ ἀστρολογία περὶ τοιοῦτου μὲν οὐδενὸς ἐπιχειρεῖ λέγειν, ἀποδείκνυσιν δὲ τὴν τάξιν τῶν οὐρανίων κόσμον ὄντως ἀποφύνασα τὸν οὐρανόν, περὶ τε σχημάτων λέγει καὶ μεγεθῶν καὶ ἀποστημάτων γῆς τε καὶ ἡλίου καὶ σελήνης καὶ περὶ ἐκλείψεων καὶ συνάψεων τῶν ἄστρον καὶ περὶ τῆς ἐν ταῖς φοραῖς αὐτῶν ποιότητος καὶ ποσότητος. ὅθεν ἐπειδὴ τῆς περὶ ποσὸν καὶ πηλίκον καὶ ποιὸν κατὰ σχῆμα (292) θεωρίας ἐφάπτεται, εἰκότως ἀριθμητικῆς τε καὶ γεωμετρίας ἐδεήθη ταύτη. καὶ περὶ τούτων, ὧν ὑπισχνεῖτο μόνων λόγον ἀποδώσειν, δι’ ἀριθμητικῆς τε καὶ γεωμετρίας συμβιβάζειν ἰσχύει. πολλὰ τοῖνυν ταῦτ’ ἐκ κεφαλῆ ἀποδείξει, προθήσεται δὲ τὸν ἀστρολόγον καὶ ὁ φυσικός, οἷον ὅτι μέγας ὁ ἥλιος, ὅτι σφαιροειδὴς ἡ γῆ, οὐ μὴν κατὰ τὰς αὐτὰς ὁδοὺς βαδιοῦνται. ὁ μὲν γὰρ ἀπὸ τῆς οὐσίας ἢ τῆς δυνάμεως ἢ τοῦ ἁμεινον οὕτως ἔχειν ἢ ἀπὸ τῆς γενέσεως καὶ μεταβολῆς ἕκαστα ἀποδείξει, ὁ δὲ ἀπὸ τῶν συμβεβηκότων τοῖς σχήμασιν ἢ μεγέθεσιν ἢ ἀπὸ τῆς ποσότητος τῆς κινήσεως καὶ τοῦ ἐφαρμοσμένου αὐτῇ χρόνου. **Epicurus** *Ep.Pyth.* at D.L. 10.88 κόσμος ἐστὶ περιοχὴ τῶν οὐρανοῦ, ἄστρα τε καὶ γῆν καὶ πάντα τὰ φαινόμενα περιέχουσα ... καταλήγουσα ἐν πέρατι ἢ ἀραιῶ ἢ πυκνῶ ... **Alexander of Aphrodisias** at Simp. *in Cael.* 436.4–8 ἀπορεῖ δὲ καλῶς ὁ Ἀλέξανδρος, πῶς ἀπλῆς οὐσῆς τῆς πέμπτης λεγομένης οὐσίας τοῦ κυκλοφορητικοῦ σώματος τοσαύτη φαίνεται διαφορὰ τοῦ τῶν ἄστρον σώματος πρὸς τὸ οὐράνιον· εἰ δὲ διαφέρει ὅλως πυκνότησιν ἢ μανότησιν ἢ κατὰ χρώματα ἢ κατὰ τινα ἄλλα τοιαῦτα εἶδη, πῶς ἀπλᾶ λέγεται ἢ πῶς ἀπαθῆ ... **Basil of Caesarea** *in Hexaem.* 1.8, p. 14.19–23 ἀλλὰ περὶ μὲν τῆς οὐσίας τοῦ οὐρανοῦ ἀρκούμεθα τοῖς παρὰ τοῦ Ἡσαίου εἰρημένοις· ὅς ἐν ἰδιωτικοῖς ῥήμασιν ἱκανὴν ἡμῖν τῆς φύσεως αὐτοῦ τὴν διάνοιαν ἐνεποίησεν, εἰπὼν· ὁ στερεώσας τὸν οὐρανὸν ὥσει καπνόν (Is. 51.6)· τουτέστι, λεπτὴν φύσιν καὶ οὐ στερεάν οὐδὲ παχείαν εἰς τὴν τοῦ οὐρανοῦ σύστασιν οὐσιώσας. *in Hexaem.* 1.11, 18.12–19 τὰ αὐτὰ δὲ ταῦτα καὶ περὶ οὐρανοῦ εἴπομεν, ὅτι πολυφωνότατοι πραγματεῖται τοῖς σοφοῖς τοῦ κόσμου περὶ τῆς οὐρανοῦ φύσεως καταβέβληνται. καὶ οἱ μὲν σύνθετον αὐτὸν ἐκ τῶν τεσσάρων στοιχείων εἰρήκασιν, ὡς ἀπτόν ὄντα καὶ ὁρατόν, καὶ μετέχοντα γῆς μὲν διὰ τὴν ἀντιτυπίαν, πυρὸς δὲ, διὰ τὸ καθορᾶσθαι, τῶν δὲ λοιπῶν, διὰ τὴν μίξιν. οἱ δὲ τοῦτον ὡς ἀπίθανον παρωσάμενοι τὸν λόγον, πέμπτην τινὰ σώματος φύσιν εἰς οὐρανοῦ σύστασιν οἴκοθεν καὶ παρ’ ἐαυτῶν ἀποσχεδιάσαντες ἐπεισήγαγον. καὶ ἔστι τι παρ’ αὐτοῖς τὸ αἰθέριον σῶμα ... **Gregory of Nyssa** *C.Eun.* 1.1.435 Jaeger ζητεῖσθω δὲ καθ’ ὑπόθεσιν τούτων ἑνὸς ἢ οὐσίας, καὶ ἔστω οὐρανὸς τῇ θεωρίᾳ τοῦ λόγου προκειμένος. ἀμφιβαλλομένης τοίνυν τοῦ οὐρανοῦ τῆς οὐσίας διὰ τὰς ποικίλας ἐπὶ τούτῳ δόξας τῶν διαφόρων κατὰ τὸ φανέν ἐκάστω περὶ αὐτοῦ φυσιολογούντων.

Chapter heading: cf. Aristotle *Cael.* Περί οὐρανοῦ. **Diogenes Laertius** *V.P.* 5.50 (works of Theophrastus) Περί οὐρανοῦ α’. **Diogenes Laertius** *V.P.* 5.59 (works of Strato) Περί τοῦ οὐρανοῦ. **Posidonius** see above under General texts. **Flavius Philostratus** *Ep.* 1.56.6–9 Kayser καὶ περὶ τὰ κάλλιστα ἐσπουδάκει φιλοσοφοῦσα (sc. ἡ ψυχὴ), καὶ ἦν αὐτῆς ὁ ἔρως τὰ οὐρανοῦ νῶτα ὁρᾶν καὶ περὶ τῆς κατὰ

ταῦτα οὕσης οὐσίας πολυπραγμονεῖν ... **Basil of Caesarea** in *Hexaem.* 1.8, p. 14.19 Amand de Mendieta–Rudberg ἀλλὰ περὶ μὲν τῆς οὐσίας τοῦ οὐρανοῦ ... (see further above) **John Philoponus** in *APo.* 238.26 Wallies οἶον ὅταν μὲν ζητῶμεν, εἰ τύχοι, περὶ οὐρανοῦ, πότερον ἐκ τῶν τεσσάρων στοιχείων συνέστηκεν ἢ ἑτέρας τινός ἐστιν οὐσίας, τό τί ἐστὶν αὐτοῦ ζητοῦμεν.

§1 Anaximenes Parmenides: Parmenides Παρμενίδης (28B11 DK at Simp. in *Cael.* 559.20–25) δὲ περὶ τῶν αἰσθητῶν ἄρξασθαί φησι λέγειν· ‘πῶς γαῖα καὶ ἥλιος ἡδὲ σελήνη / αἰθήρ τε ξυνὸς γάλα τ’ οὐράνιον καὶ ὄλυμπος / ἔσχατος ἡδ’ ἄστρον θερμὸν μένος ὠρμήθησαν / γίγνεσθαι’.

§5 Aristotle: Aristotle *Cael.* 1.2 269a30–32 ἔκ τε δὴ τούτων φανερόν ὅτι πέφυκέ τις οὐσία σώματος ἄλλη παρὰ τὰς ἐνταῦθα συστάσεις, θειοτέρα καὶ προτέρα τούτων ἀπάντων etc. cf. **ps.Plato** (Philip of Opus) *Epin.* 981c πέντε οὖν ὄντων τῶν σωμάτων, πῦρ χρὴ φάναι καὶ ὕδωρ εἶναι καὶ τρίτον ἄερα, τέταρτον δὲ γῆν, πέμπτον δὲ αἰθέρα. **Xenarchus** at Simp. in *Cael.* 13.22–23 (perhaps from Alexander, cf. 23.22) ὁ δὲ Ξεναρχος πρὸς πολλὰ τῶν ἐνταῦθα λεγομένων ἀντειπὼν ἐν τοῖς πρὸς τὴν πέμπτην οὐσίαν αὐτῷ γεγραμμένοις ἀντίπε ... **John Philoponus** in *Phys.* 219.19–21 (on Aristotle) αὐτὸς γοῦν ἐν τῇ Περὶ οὐρανοῦ οὐ μόνον περὶ τῆς οὐσίας τῶν οὐρανίων ἀπέδειξεν, ὅτι ἐστὶν ἑτέρας τινὸς παρὰ τὰ τέσσαρα στοιχεῖα ...

Liber 2 Caput 12

- P^B**: ps.Plutarchus *Plac.* 888C–D; pp. 340^a6–341^a2 Diels—**P^G**: ps.Galenus *HPH* c. 55; pp. 623.23–624.4 Diels; pp. 169–176 Jas—**P^{Jn}**: Julianus Arianista *Comm. in Job* 37:37–38, pp. 273.18–274.13 Hagedorn (praesertim 274.7–11)—**P^Q**: Qustā ibn Lūqā pp. 148–149 Daiber—**P^S**: Psellus *Omn. Doctr.* c. 122, p. 65 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.38, p. 42.8 Delatte (titulus solus)
- S**: Stobaeus *Ecl.* 1.23, p. 200.13 (tit.) + 1.23.3, p. 201.9–20 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b8 Henry (titulus solus)
- Cf. *Scholia in Aratum, Proleg.* 20, p. 29.4–7 Martin; *Commentaria in Aratum*, Anon. I 5, pp. 93.25, 94.6–8 Maass

Titulus ιβ'. Περὶ διαιρέσεως οὐρανοῦ, εἰς πόσους κύκλους διαιρεῖται (P,S)

- §1 Θαλῆς Πυθαγόρας οἱ ἀπ' αὐτοῦ μεμερίσθαι τὴν τοῦ παντὸς οὐρανοῦ σφαῖραν εἰς κύκλους πέντε, οὗστινας προσαγορεύουσι ζώνας· καλεῖται δ' αὐτῶν ὁ μὲν ἀρκτικός τε καὶ ἀειφανής, ὁ δὲ θερινὸς τροπικός, ὁ δ' ἰσημερινός, ὁ δὲ χειμερινὸς τροπικός, ὁ δ' ἀνταρκτικός τε καὶ ἀφανής· 5
λοξὸς δὲ τοῖς τρισὶ μέσοις ὁ καλούμενος ζωδιακὸς ὑποβέβληται, παρεπιψάων τῶν μέσων τριῶν· πάντας δ' αὐτοὺς ὁ μεσημβρινὸς πρὸς ὀρθὰς ἀπὸ τῶν ἄρκτων ἐπὶ τὸ ἀντίξουν τέμνει. (P₁,S₁)
- §2 Πυθαγόρας πρῶτος ἐπινενοηκέναι λέγεται τὴν λόξωσιν τοῦ ζωδιακοῦ κύκλου, ἣντινα Οἰνοπίδης ὁ Χίος ὡς ἰδίαν ἐπίνοιαν σφετερίζεται. 10
(P₂,S₂)

§1 Thales 11A13c DK; Pythagoras —; §2 Pythagoras —; Oenopides 41.7 DK

titulus Περὶ ... διαιρεῖται **P^B**: Περὶ διαιρέσεως οὐρανοῦ **P^{GQ}**: S Περὶ τῆς οὐρανοῦ οὐσίας (2.10) καὶ διαιρέσεως (2.11): al. **P^S** Εἰς πόσους κύκλους διαιρεῖται ὁ οὐρανός, **P^{Sy}** Περὶ τῶν ἐν τῷ οὐρανῷ νοουμένων κύκλων §1 [2] Πυθαγόρας] om. **P^G** || οἱ ἀπ' αὐτοῦ **P^B**: καὶ οἱ ἀπ' αὐτοῦ S, om. **P^G** || ante μεμερίσθαι hab. **P^{G2}** τοῦ οὐρανοῦ οὐ, sed absunt in **P^{G1}** et Nic., secl. Diels || οὐρανοῦ] om. **P^G** || [3] πέντε, ... προσαγορεύουσι] τινὰς προσαγορευομένας **P^G** || [3–6] al. **P^G** καλεῖσθαι δὲ ... ὑποβέβλησθαι (oratio obliqua, vid. text. infra, cf. **P^{Jn}**) || [3–4] καλεῖται δ' αὐτῶν ὁ μὲν **P^{B(111)}** S: καλεῖται δὲ ὁ μὲν αὐτῶν **P^{B(111)}** || [4–5] ὁ δ' ἰσημερινός ... τροπικός om. **P^{B(11)}**, ὁ δ' χειμερινός τροπικός om. **P^Q** || [5] post ἀφανής hab. αἰεὶ **P^{Jn}** || [6–7] al. Q die schiefe, sogenannte “Himmelssphäre der Tierkreiszeichen” umschließt nun die drei mittleren Himmelssphären und trennt sich somit von der mittleren unter ihnen, um die anderen beiden zu berühren || [6] post λοξὸς hab. δὲ S, del. Diels || μέσοις **P^{B(111)}** **J^{ln}** S: μέσος **P^{B(11)}**: μέσον **P^G** || ὁ καλούμενος ζωδιακός **P^{B(111)}** S: ὁ ζωδιακὸς καλούμενος **P^{B(11)}** **J^{ln}**: τὸν καλουμένον ζωδιακὸν **P^G** || ὑποβέβληται **P^{B^{Jn}}**, cf. **P^G** ὑποβέβλησθαι: ὑποκέκλιται **S^{FP}**, ὑπεκέκλιται conl. Heeren, ὑποβέβληται **S^L** e **P** (?) et emend. Wachsmuth || [7–8] παρεπιψάων ... τέμνει] om. **P^G** || [7] παρεπιψάων **P^{B^{Jn}}**: παραψάων **S^{FP}**, παραψάων **S^L** || [8] ἀπὸ τῶν ἄρκτων] om. **P^{B(111E)}** || ἀντίξουν **P^{B^{Jn}}**: ἀντικρὺ S: al. Q Süden §2 [9] Πυθαγόρας: δὲ add. **P^G** || πρῶτος] πρῶτον **P^G** Jas (πρῶτος Diels) || [10] ἣντινα **P^B** S: ἣν **P^G** || ὡς ἰδίαν ἐπίνοιαν **P^B**: ἐπίνοιαν ὡς ἰδίαν S, ὡς ἐπίνοιαν ἰδίαν **P^G**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 55 (~ tit.) Περὶ διαιρέσεως οὐρανοῦ (text Jas)

55.1 (~ P1) Θαλῆς {τοῦ οὐρανοῦ οὐ} μεμερίσθαι τὴν τοῦ παντός σφαῖραν εἰς κύκλους τινὰς προσαγορευομένας ζώνας, καλεῖσθαι δὲ αὐτῶν τὸν μὲν ἀρκτικὸν καὶ ἀειφανῆ, τὸν δὲ τροπικὸν θερινόν, τὸν δὲ ἰσημερινὸν τροπικόν, τὸν δὲ χειμερινόν τροπικόν, τὸν δὲ ἀνταρκτικόν καὶ ἀφανῆ. λοξὸν δὲ τοῖς τρισὶ μέσον τὸν καλουμένον ζωδιακὸν ὑποβεβλήσθαι.

55.2 (~ P2) Πυθαγόρας δὲ πρῶτον ἐπινενοηκέναι λέγεται τὴν λόξωσιν τοῦ ζωδιακοῦ κύκλου, ἣν Οἰνοπίδης ὁ Χίος ὡς ἐπίνοιαν ἰδίαν σφετερίζεται.

Julianus Arianista *Comm. in Iob* 38.37–38 Hagedorn τίς δὲ ὁ ἀριθμῶν νέφη σοφία, οὐρανὸν δὲ εἰς γῆν ἔκλινεν; κέχυται γὰρ ὡς γῆς κονία, κεκόλληκα δὲ αὐτὸν ὥσπερ κύβον λίθοις. εἰ γὰρ ἀριθμηταὶ αὐτῷ σταγόνες ὑετοῦ, πολλῶ μάλλον τὰ νέφη· ὁ γὰρ ἀριθμῶν πλήθην ἄστρον καὶ πᾶσιν αὐτοῖς ὀνόματα καλῶν, οὗτος καὶ τὸν οὐρανὸν ἐξετείνειν ὡς δέσριν (*Septuaginta* Ps 103:2) καὶ ἔπηξεν ὡς καμάραν (Is. 40:22), ἐν αὐτῷ (...) καὶ ὑπ' αὐτὸν ἐπὶ γῆς τὴν οἰκουμένην κατεργασάμενος. ὥσπερ γῆς φησὶ κονία ἀντὶ τοῦ λαμπρόν καὶ κρυσταλλοειδῆ, διήρηται δὲ ταῖς θέσεσιν ἄλλ' οὐ τῇ φύσει εἰς τὸ ἀρκτικὸν καὶ ἀειφανές, θερινόν τε τροπικόν, μεσημβρινόν τε καὶ ἰσημερινόν, πάλιν τε τροπικὸν χειμερινόν, ἀνταρκτικόν τε καὶ ἀφανῆ ἀεί· λοξὸς δὲ τοῖς τρισὶ μέσοις ὁ ζωδιακὸς καλούμενος ὑποβεβλήται παρὰ πειψαύων τῶν μέσων τριῶν· πάντας δὲ αὐτοὺς ὁ μεσημβρινὸς πρὸς ὀρθὰς ἀπὸ τῶν ἄρκτων ἐπὶ τὸ ἀντίξουν τέμνει (~ P1). ὥσπερ δὲ κύβον λίθῳ ἐπιτεθεῖσθαι ἔφη, ὃν τινες κωνοειδῆ ἔλεξαν οὐ μόνον Ἑλλήνων, ἀλλὰ καὶ τῶν τὰ λόγια ἐρμηνεύσαντων.

Psellus *Omn.Doctr.* c. 122 Εἰς πόσους κύκλους διαιρεῖται ὁ οὐρανός (~ tit.)

Symeon Seth *CRN* 3.37 Περὶ τῶν ἐν τῷ οὐρανῷ νοουμένων κύκλων (~ tit.)

Testes secundi:

Scholia in Aratum, *Proleg.* 20, p. 29.4 Martin πόσοι κύκλοι τῆς σφαίρας; (~ tit.)

p. 29.5–7 ἡ σφαῖρα ἔχει κύκλους πέντε, ὧν ὁ μὲν ἀρκτικὸς βόρειος, β' θερινὸς τροπικός, γ' ἰσημερινὸς τροπικός, δ' χειμερινὸς τροπικός, ε' ἀνταρκτικὸς κτλ.

Commentaria in Aratum, Anon. I 5, p. 93.25 Maass Περὶ κύκλων (~ tit.)

p. 94.3–5 ... εἰσὶ δὲ οὗτοι· ἀρκτικὸς θερινὸς τροπικός ἰσημερινὸς χειμερινὸς τροπικός ἀνταρκτικός. οὗτοι οἱ πέντε καλοῦνται παράλληλοι διὰ τὴν τάξιν τῆς θέσεως· κείνται γὰρ παραλλήλως ἐφεξῆς κτλ.

cf. **Achilles** *Univ.* c. 22 Περὶ κύκλων καὶ ὅτι ια'. c. 23 Πόσον τὸ πλάτος τοῦ ζωδιακοῦ. c. 25 Περὶ τῶν πέντε παραλλήλων.

Loci Aetiani:

titulus A 3.14, Περὶ διαιρέσεως γῆς καὶ πόσαι εἰσὶν αὐτῆς ζῶναι. cf. A 2.23 Περὶ τροπῶν ἡλίου.

- §1 A 2.10.2 Ἐμπεδοκλῆς δεξιὰ μὲν τὰ κατὰ τὸν θερινὸν τροπικόν, ἀριστερὰ δὲ τὰ κατὰ τὸν χειμερινόν. A 2.23.4 Ἐμπεδοκλῆς ὑπὸ τῆς περιεχούσης αὐτὸν (sc. τὸν ἥλιον) σφαίρας κωλυόμενον ἄχρι παντὸς εὐθυπορεῖν καὶ ὑπὸ τῶν τροπικῶν κύκλων. A 2.23.8 Πλάτων Πυθαγόρας Ἀριστοτέλης παρὰ τὴν λόξωσιν τοῦ ζῶντος κύκλου, δι' οὗ φέρεται λοξοπορῶν ὁ ἥλιος, καὶ κατὰ δορυφορίαν τῶν τροπικῶν κύκλων ταῦτα δὲ πάντα καὶ ἡ σφαῖρα δείκνυσιν. A 3.14.1 Πυθαγόρας τὴν γῆν ἀναλόγως τῇ τοῦ παντὸς οὐρανοῦ σφαίρᾳ διηρησθαι εἰς πέντε ζῶνας ἀρκτικὴν ἀνταρκτικὴν θερινὴν χειμερινὴν ἰσημερινὴν ...
- §2 A 1.3.7 Πυθαγόρας Μνησάρχου Σάμιος, ὁ πρῶτος φιλοσοφίαν τούτῳ τῷ ῥήματι προσαγορεύσας ... A 2.1.1 Πυθαγόρας πρῶτος ὠνόμασε τὴν τῶν ὅλων περιοχὴν κόσμον ἐκ τῆς ἐν αὐτῷ τάξεως. cf. A 2.25.1 (de luna) Ἀναξιμανδρος κύκλον εἶναι ἐννεακαἰδεκαπλάσιον τῆς γῆς, ὅμοιον ἄρματι (τροχῷ) κοίλῃν ἔχοντι τὴν ἀψίδα καὶ πυρὸς πλήρη, καθάπερ (τόν) τοῦ ἡλίου, κείμενον λοξόν, ὡς κάκεινον, ἔχοντα μίαν ἐκπνοήν, οἷον πρηστήρος αὐλὸν· ἐκλείπειν δὲ κατὰ τὰς ἐπιστροφὰς τοῦ τροχοῦ. A 2.32.6 οἱ δ' ἐν τοῖς ἐξήκοντα ἐνὸς δέουσιν, ἐν οἷς Οἰονοπίδης καὶ Πυθαγόρας· A 3.13.2 Φιλόλαος δ' ὁ Πυθαγόρειος κύκλῳ περιφέρεσθαι περὶ τὸ πῦρ κατὰ κύκλον λοξόν ὁμοιοτρόπως ἡλίῳ καὶ σελήνῃ. A 3.14.2 Παρμενίδης πρῶτος ἀφώρισε τῆς γῆς τοὺς οἰκουμένους τόπους ὑπὸ ταῖς δυσι ζῶναις ταῖς τροπικαῖς.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

P and S have almost identical texts, consisting of two lemmata only. G includes both, but abridges and lightly paraphrases in his usual manner. The uncontroversial nature of the subject makes it of no interest to E. Remarkably a section from the first lemma is copied out by a certain Julian in a Commentary on the Old Testament book of Job. The first part is reproduced in a paraphrase, the second is cited in a *verbatim* quote. The author has been identified as a follower of Arius writing most likely in the fourth century (CPG 2075). The references to Books 2 and 3 were identified by the editor Hagedorn (1973); see further General Introduction, section 4.2.5. There may be fleeting references to P at p. 274.6 (κρυσταλλοειδῆ, cf. A 2.11.2) and p. 274.12 (κωνοειδῆ, cf. A 2.2.2).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The first mention of the question regarding heavenly zones in a doxographical source is found in the Stoic doxography in Diogenes Laertius (text below section E(a) General texts). The main interest from a doxographical viewpoint appears to have been the identity of the person who first

discovered (or postulated) the heavenly circles and in particular the tilting of the zodiac, with various contenders being put forward for the two roles (see texts below section E(a) General texts). This interest is reflected in our chapter. In general such identifications seem to have begun early (see the citation of Theophrastus at D.L. 8.48 = fr. 227E FHS&G discussed above on ch. 2.1 Commentary D(d)§1)). We note too that the subject is exploited by the arithmo-logical tradition in relation to the number 5. On the discovery of the zones see A 3.14.1 and further Burkert (1972) 306.

(2) *Sources*. The division of the cosmos by means of five great circles corresponding to the five zones of the earth was an uncontroversial feature of the geocentric hypothesis. However, it is not described in any surviving author until the Hellenistic period (no mention in Aristotle and not even in the *De mundo*).

C Chapter Heading

The heading is of the common Περί x type, with the additional phrase containing the term πῶσος making it quite clear that its subject is posed in the category of quantity. P^B has the longer heading, which is paralleled (as we shall see) by the longer heading in ch. 3.14. The shorter heading is supported by the other witnesses G, Q and S (Ps and Sy are clearly dependent on P^B). Here too we opt for the longer title for the reasons set out in ch. 2.11 Commentary C. The heading with its reference to division and circles rather than zones, is not found outside A and his tradition.

D Analysis

a Context

After ch. 2.11 this is the only chapter specifically dedicated to the heaven before moving on to the heavenly bodies that populate it. There is a parallel chapter for the earth at 3.14 Περί διαιρέσεως γῆς καὶ πόσαι εἰσὶν αὐτῆς ζῶναι. In addition chs. 2.11 + 2.12 are closely parallel to chs. 3.9 (Περί γῆς καὶ τίς ἡ ταύτης οὐσία καὶ πόσαι) + 3.14 (with πόσαι in 3.9 also recalling 2.1).

b Number–Order of Lemmata

The number and order of the lemmata are not in doubt and there is no reason to suspect that lemmata have been lost.

c Rationale–Structure of Chapter

Most unusually, indeed uniquely in Book 2, this chapter does not record a plurality of doxai on the subject in question. The standard view on the heavenly zones is attributed to Thales, Pythagoras and their followers. Since the two are founders of the Ionian and Italian successions respectively, the name-labels

effectively cover the entire philosophical tradition. The second doxa is merely an additional comment on the discovery of the zodiac circle in the tradition of the πρώτος εὑρετής motif (on which see above ch. 1.3, Commentary D(d)§7[54–55]).

The formulation of the doctrine shows strong resemblances to brief reports elsewhere, both doxographical (see esp. the Stoic report in D.L. with its terms ἀρκτικὸν αἰεὶ φαινόμενον and ἀνταρκτικὸν ἀφανή) and arithmological (Plutarch, Anatolius).

d Further Comments

Individual Points

§1[6] There can be little doubt that λοξὸς ... ὑποβέβληται in P is the correct reading. S's combination of καλούμενος and ὑποκέκληται is unconvincing. Heeren's conjecture ὑπεκέκληται is brilliant (and may have been what S wrote), but does not weigh up against the combined weight of the P tradition.

For the final phrase of the lemma there is no difference in meaning between P's ἐπὶ τὸ ἀντίξουν and S's ἐπὶ τὸ ἀντικρύν. The preference should be given to the former as the *lectio difficilior*, his adjective being far rarer than S's adverb by a ratio of about 25 to 1.

§2 According to Theon of Smyrna (and also Diodorus Siculus, texts below section E(a) General texts), Eudemos in his account of Greek astronomy recounts that Oenopides was the discoverer of the obliquity of the zodiac. This directly contradicts the claim of plagiarism by A. Theon's statement goes back to an eminent source who is explicitly named, whereas A gives no authority for his claim. One must suspect that the tradition has been reworked in favour of a venerable school founder and is one more example of the tendency of the *Placita* to upgrade the role of Pythagoras (note also A 2.32.6, where the name-label Pythagoras follows that of Oenopides without further comment). See further the discussion at Abel (1974) 998, part of an exhaustive account of the ancient astronomical and geographical use of the concept 'zone'.

e Other Evidence

The Aratean tradition includes various texts (see above *Testes secundi*) on the circles of the heavens, but all of them are purely descriptive, without any reference to philosophers or scientists, i.e. parallel to what we find in handbooks such as Geminus and Cleomedes. See also ch. 3.14 Commentary D(e) on the parallel terrestrial zones.

E Further Related Texts

a Proximate Tradition

General texts: Stoics at D.L. 7.155 (SVF 2.651) ἀρέσκει δ' αὐτοῖς καὶ τὴν διακόσμησιν ᾧδε ἔχειν· ... κύκλους δ' εἶναι ἐν τῷ οὐρανῷ πέντε, ὧν πρῶτον ἀρκτικὸν αἰεὶ φαινόμενον, δεύτερον τροπικὸν θερινόν, τρίτον ἰσημερινόν, τέταρτον χειμερινόν τροπικόν, πέμπτον ἀνταρκτικὸν ἀφανή. **Diodorus Siculus** 1.98.2–3 Πυθαγόραν (—) τε τὰ κατὰ τὸν ἱερὸν λόγον καὶ τὰ κατὰ γεωμετρίαν θεωρήματα ... μαθεῖν παρ' Αἰγυπτίων ... τὸν τε Οἰνοπίδην (41.7 DK) ὁμοίως συνδιατρίψαντα τοῖς ἱερεῦσι καὶ ἀστρολόγοις μαθεῖν ἄλλα τε καὶ μάλιστα τὸν ἡλιακὸν κύκλον ὡς λοξὴν μὲν ἔχει τὴν πορείαν, ἐναντίαν δὲ τοῖς ἄλλοις ἀστροῖς τὴν φορὰν ποιεῖται. **Philo of Alexandria** *Opif.* 112 (arithmology) αὐτίκα τὸν οὐρανὸν φασιν ἑπτὰ διεζῶσθαι κύκλοις, ὧν ὀνόματα εἶναι τάδε· ἀρκτικόν, ἀνταρκτικόν, θερινόν τροπικόν, χειμερινόν τροπικόν, ἰσημερινόν, ζωδιακόν, καὶ προσέτι γαλαξίαν. **Plutarch** *Def.Or.* 429F ἐν δὲ τῷ παντὶ πέντε μὲν ζῶναις ὁ περὶ γῆν τόπος, πέντε δὲ κύκλοις ὁ οὐρανὸς διώρισταί, δυσὶν ἀρκτικοῖς καὶ δυσὶ τροπικοῖς καὶ μέσῳ τῷ ἰσημερινῷ. **Theon of Smyrna** *Exp.* 198.14–16 Hiller Εὐδημος (fr. 145 Wehrli) ἱστορεῖ ἐν ταῖς Ἀστρολογίαις, ὅτι Οἰνοπίδης (41.7 DK) εὗρε πρῶτος τὴν τοῦ ζωδιακοῦ διάζωσιν [λόξωσιν conj. Zeller Diels] καὶ τὴν τοῦ μεγάλου ἐνιαυτοῦ περίστασιν. **Anatolius de Dec. 9.16–17 Heiberg-Tannery (arithmology) ἔτι οἱ γνώριμοι παράλληλοι κύκλοι ἐν τῇ σφαίρᾳ πέντε, ἰσημερινός, τροπικοὶ δύο, ἀρκτικός καὶ ἀνταρκτικός. **ps.Iamblichus** *Theol.Ar.* 32.20–33.4 De Falco (arithmology) πέντε δὲ καὶ οἱ παράλληλοι κατὰ τὸν οὐρανὸν κύκλοι, ἰσημερινός καὶ οἱ παρ' ἑκάτερα τούτου τροπικοὶ, θερινός καὶ χειμερινός. ἀλλήλοις μὲν ἴσοι, δεύτεροι δὲ τῇ τοῦ μεγέθους συμμετρίᾳ, καὶ οἱ τούτων ἐφ' ἑκατέρωθεν τὸ ἕξαρμα καὶ τὸ ἀντέξαρμα ὀρίζοντες, ἀρκτικός τε καὶ ἀνταρκτικός, μικρότατοι μὲν τῷ μεγέθει, ἀλλήλοις μέντοι καὶ αὐτοὶ ἴσοι. **Ambrose of Milan** *Exp.Psalm.* 118, p. 15.20–21 Petschenig *at illi, qui de rerum natura disputant, caeli scrutantur plagas.* cf. **Eustathius** *Comm.II.* (allegorical interpretation of Achilles' shield, *II.* 18.481) 4.220.7 Van der Valk τὰς δὲ πέντε πτυχὰς τοῦ σάκους τοὺς παραλλήλους κύκλους νοεῖ, εἰς οὓς διαιρεῖται ὁ κόσμος, ἡγουν τὸν ἀρκτικόν, ὃς τῷ βορείῳ πόλῳ ἐγγίζει, καὶ τὸν τῷ Νότῳ προσκυροῦντα ἀνταρκτικόν, καὶ τοὺς δύο τροπικοὺς, ἡγουν τὸν πρὸς τῷ Βορρᾷ θερινόν καὶ τὸν πρὸς τῷ Νότῳ χειμερινόν, καὶ πέμπτον τὸν μέσον αὐτῶν ἰσημερινόν, εἰς ὃν ἥλιος ἐλθὼν ἰσάζει τὰς ἡμέρας ταῖς νυξίν.**

Chapter heading: —

§2 **Pythagoras:** cf. **Pliny** *Nat.* 2.31 *obliquitatem eius* (sc. heaven) *intellexisse, hoc est rerum fores aperuisse, Anaximander* (12A5 DK) *Milesius traditur primus Olympiade quinquagesima octava ...* **Apuleius** *Flor.* 18, p. 37.10–17 **Helm** *Thales Milesius* (11A19 DK) *ex septem illis sapientiae memoratis viris facile praecipuus—enim geometriae penes Graios primus repertor et naturae rerum certissimus explorator et astrorum peritissimus contemplator—maximas res parvis lineis repperit: temporum ambitus, ventorum flatus, stellarum meatus, tonitruum sonora miracula, siderum obliqua curricula, solis annua reverticula, itidem lunae vel nascentis incrementa vel senescentis dispendia vel delinquentis obstacula.* **Leucippus** at D.L. 9.33 (67A1 DK, conjecture Diels, not included in

text by Dorandi) ἐκλείπειν δ' ἥλιον καὶ σελήνην (*** τὴν δὲ λόξωσιν τοῦ ζῳδιακοῦ γενέσθαι) τῷ κεκλίσθαι τὴν γῆν πρὸς μεσημβρίαν.

b Sources and Other Parallel Texts

General texts: **Geminus** *Elem.* 5.1, p. 21 Aujac παράλληλοι μὲν οἱ τοὺς αὐτοὺς πόλους ἔχοντες τῷ κόσμῳ. εἰσὶ δὲ παράλληλοι κύκλοι εἰς ἄρκτικός, θερινὸς τροπικός, ἰσημερινός, χειμερινὸς τροπικός, ἀνταρκτικός κτλ. **Cleomedes** *Cael.* 1.1.193–198 Todd γράφονται δ' ἐν τῷ οὐρανῷ κύκλοι παράλληλοι πέντε, εἰς μὲν ὁ εἰς δύο ἴσα τέμνων τὸν οὐρανόν, ὃν καλοῦμεν ἰσημερινόν, τούτου δ' ἐκατέρωθεν δύο, αὐτοῦ μὲν μείονες, ἴσοι δ' ἄλλήλοις· καλοῦνται δὲ τροπικοί, ἐπεὶ διὰ τῶν τροπικῶν τοῦ ἡλίου σημείων γράφομεν αὐτούς. καθ' ἑκάτερον δὲ τούτων πάλιν ἕτεροι γράφονται δύο, ὧν ὁ μὲν βόρειος καλεῖται ἄρκτικός, ὁ δὲ ἐναντίος αὐτῷ ἀνταρκτικός. **Dionysius of Halicarnassus** *Ant.* 2.5.3 μετεωρίζεται γὰρ ἀπὸ τῶν βορείων μερῶν ὁ τοῦ ἄξονος πόλος, περὶ ὃν ἡ τοῦ κόσμου στροφή γίνεται, καὶ τῶν πέντε κύκλων τῶν διεζωκῶν τὴν σφαῖραν ὁ καλούμενος ἄρκτικός ἀεὶ τῇδε φανερός· ταπεινοῦται δ' ἀπὸ τῶν νοτίων ὁ καλούμενος ἀνταρκτικός κύκλος ἀφανὴς κατὰ τοῦτο τὸ μέρος. **Suda** s.v. K 2654, p. 3.208.25–28 Adler Κύκλοι ἐν τῷ οὐρανῷ πέντε· Ἀρκτικός, ὁ ἀεὶ φαινόμενος, Χειμερινός, Τροπικός θερινός, Ἰσημερινός, Ἀνταρκτικός ἀφανής. λέγονται δὲ παράλληλοι, καθότι οὐ συννεύουσιν εἰς ἀλλήλους· γράφονται μέντοι περὶ τὸ αὐτὸ κέντρον.

Chapter heading: —

Liber 2 Caput 13

- P^B**: ps.Plutarchus *Plac.* 888D–889A; pp. 341^a3–343^a15 Diels—**P^E**: Eusebius *PE* 15.30, pp. 403.18–404.18 Mras—**P^G**: ps.Galenus *HPh* c. 56; p. 624.5–19 Diels, pp. 176–187 Jas—**P^Q**: Qustā ibn Lūqā pp. 148–151 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 131, p. 69 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.39, p. 43.5 Delatte (titulus solus)
- S**: Stobaeus *Ecl.* 1.24, p. 201.23 (tit.) + 1.24.1ab, pp. 201.25–202.3 + 1.24.1c, p. 202.7–10 + 1.24.1d, p. 202.13–14 + 1.24.1e, p. 202.20 + 1.24.1f, p. 202.23–24 + 1.24.1g, p. 202.25–26 + 1.24.1i, p. 203.8–9 + 1.24.1k, p. 203. 13–15 + 1.24.1l, p. 203. 21–21 + 1.24.1m, p. 204.6–7 + 1.24.1n, p. 204.14–17 + 1.24.1o, pp. 204.21–205.2 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b8–9 Henry (titulus solus)
- T**: Theodoretus *CAG* 4.17, pp. 104.21–105.15 Raeder
- Cf. Ach: Achilles *Univ.* c. 11, pp. 19.22–20.10 Di Maria; Isidorus Pelusiota *Ep.* 1435.68–86 Éviex

Titulus γγ'. Τίς ἡ οὐσία τῶν ἄστρον πλανητῶν καὶ ἀπλανῶν (P,S)

- §1 Θαλῆς γεώδη μὲν, ἔμπυρα δὲ τὰ ἄστρο. (P₁,S₁,T₁)
- §2 Ἐμπεδοκλῆς πύρινα ἐκ τοῦ πυρώδους, ὅπερ ὁ ἀήρ ἐν ἑαυτῷ περιέχων ἐξανέθλιψε κατὰ τὴν πρώτην διάκρισιν. (P₂,S_{2a})
- §3 Ἀναξαγόρας τὸν περικείμενον αἰθέρα πύρινον μὲν εἶναι κατὰ τὴν οὐσίαν, τῇ δ' εὐτονίᾳ τῆς περιδινήσεως ἀναρπάσαντα πέτρους ἀπὸ τῆς γῆς καὶ καταφλέξαντα τούτους ἡστερικένας. (P₃,S₃,T₂)

§1 Thales 11A17a DK; §2 Empedocles 31A53 DK; §3 Anaxagoras 59A71 DK

titulus Τίς ... ἀπλανῶν ^{P^B(I,II)E} : πλανητῶν καὶ ἀπλανῶν *desunt* ^{P^B(III)AE} : Τίς οὐσία τῶν πλανητῶν καὶ ἀπλανῶν ^{P^G} : add. καὶ πῶς συνέστη ^{P^B(I,II)}, καὶ πῶς συνεστήκασιν ^{P^B(III)} : Τίς ἡ οὐσία τῶν ἀστέρων ^{P^Q}, cf. Τίς οὐσία ἀστέρων Ach : Περὶ οὐσίας ἄστρον ^{S^{FP}}, Περὶ ἄστρον οὐσίας ^{S^{L-ind}} §1 [2] post Θαλῆς add. ^{P^G} ὑπολαμβάνει || γεώδη ... ἄστρον ^{P^{BE}QS} : γεώδη μὲν εἶναι τὰ ἄστρο, ἔμπυρα δὲ ^{P^G} §2 [3] post nomen hab. δὲ ^{P^G} || πύρινα || add. μόνον ^{P^G} (μόνα Diels) || ἀήρ ^{P^B(I,II)Q} S : αἰθήρ ^{P^B(III)} Sturz || [3–4] ἐκ ... διάκρισιν || om. ^{P^G} || [3] ἐν ἑαυτῷ περιέχων om. ^{P^Q} || [4] ante ἐξανέθλιψε hab. S ἐξανέλαμψεν ἦτοι, del. Diels Wachsmuth ut ex dittographiis §3 [5] post nomen hab. δὲ ^{P^G} || τὸν περικείμενον αἰθέρα ^{P^{BS}} : τὸν περικείμενον ἀέρα ^{P^E} : τὸ περικείμενον ^{P^Q(ut vid.)} (*das Umgebende* Q) : τὸν περικείμενον αἰθέρα ἀέρα ^{P^G} || post πύρινον add. ὥθη ^{P^G} || [6] περιδινήσεως || παραλύσεως ^{P^G} || ἀναρπάσαντα ^{P^B(I,II)G} : ἀναρπάζοντα ^{P^B(III)} || [6–7] πέτρους ... τούτους || πέτρων ... ταύτην ^{P^G} || [6] ἀπὸ ^{P^{EG}S} : ἐκ ^{P^B} || [7] καὶ ^{P^BG} : om. ^{S^{PE}}, rest. Heeren Mras || [7] ἡστερικένας P : ἡστερωκένας S

- §4 Διογένης κισηρώδη τὰ ἄστρα, διαπνοὰς δ' αὐτὰ νομίζει τοῦ κόσμου· εἶναι δὲ διάπυρα. (P4a,S4a,T4)
- §5 Δημόκριτος πέτρους. (S5,T3) 10
- §6 Ἀρχέλαος μύδρους, διαπύρους δέ. (S6)
- §7 Ἀναξίμανδρος πιλήματα ἀέρος τροχοειδῆ, πυρὸς ἔμπλεα, κατὰ τι μέρος ἀπὸ στομίων ἐκπνέοντα φλόγας. (S7,T5)
- §8 Παρμενίδης καὶ Ἡράκλειτος πιλήματα πυρός. (S8)
- §9 Ἀναξίμενης πυρίνην μὲν τὴν φύσιν τῶν ἄστρων, περιέχειν δέ τινα καὶ γεώδη σώματα συμπεριφερόμενα τούτοις ἀόρατα. (S9) 15
- §10 Διογένης δὲ συμπεριφέρεσθαι τοῖς φανεροῖς ἄστροις ἀφανεῖς λίθους καὶ παρ' αὐτὸ τοῦτ' ἀνωνύμους, πίπτοντας δὲ πολλάκις ἐπὶ τὴν γῆν σβέννυσθαι, καθάπερ τὸν ἐν Αἰγὸς ποταμοῖς πυροειδῶς κατενεχθέντα ἀστέρα πέτρινον. (P4b,S4b,T6) 20
- §11 Ἐμπεδοκλῆς τοὺς μὲν ἀπλανεῖς ἀστέρας συνδεδέσθαι τῷ κρυστάλλῳ, τοὺς δὲ πλανήτας ἀνείσθαι. (P5,S2b)
- §12 Πλάτων ἐκ μὲν τοῦ πλείστου μέρους πυρίνους, μετέχοντας δὲ καὶ τῶν ἄλλων στοιχείων κόλλης δίκην. (P6,S10,T7)
- §13 Ἀριστοτέλης ἐκ τοῦ πέμπτου σώματος. (S11,T8) 25

§4 Diogenes 64A12 DK; §5 Democritus 68A85 DK; §6 Archelaus 60A15 DK; §7 Anaximander 12A18 DK; §8 Parmenides 28A39 DK; Heraclitus 22A11 DK; §9 Anaximenes 13A14 DK; §10 Diogenes 64A12 DK; §11 Empedocles 31A54 DK; §12 Plato cf. *Tim.* 40a; §13 Aristoteles cf. *Cael.* 1.2 269a31

§4 [8] post nomen hab. δὲ PG || κισηρώδη P^{B(I)} : κισσηρώδη P^{B(II-III)E} : κισσηροειδῆ S, κισσηροειδῆ PG, cf. κισσηροειδεῖς T¹, κισσηροειδεῖς T² || διαπνοὰς P^{BT} : διαπνοίας P^{ES}, διαπνοίαν PG || νομίζει] νοεῖται PG || [9] εἶναι δὲ διάπυρα S : om. P §§5–9 om. P, qui duo Diogenis placita coniugit verbis πάλιν δ' ὁ αὐτὸς ἀφανεῖς (ἀφανεῖς P^{B(I,III)} : λέγει P^{B(II)}) μὲν λίθους πίπτοντας ... §5 [10] πέτρους S^F: om. S^P §6 [11] post Ἀρχέλαος μύδρους add. S modo solito ἔφησεν εἶναι τοὺς ἀστέρας §7 [12] πιλήματα ... τροχοειδῆ S : al. T ξυστήματα ἄτα τοῦ ἀέρος ... τροχοειδῶς πεπιλημένα §8 [14] post πιλήματα πυρός add. S ipse verisimiliter τὰ ἄστρα §9 [15] περιέχειν : παρέχειν S^{F(2)P}, corr. Meineke §10 om. PG || [17] post nomen add. δὲ S, ut additamentum susp. Diels, sed cf. T || συμπεριφέρεσθαι ... λίθους S : P vid. supra ad §§5–9 || [18] πίπτοντας P : πίπτοντα S, corr. Diels || ἐπὶ τὴν γῆν P, cf. εἰς τὴν γῆν T : ἐπὶ τῆς γῆς S || [19] σβέννυσθαι P^{B(I,III)S} : σβέννυναι P^{B(II)} §11 [22] πλανήτας P^{BS} : πλανώντας P^E, πλάνους ὄντας coni. Mras §12 [23] post nomen hab. δὲ PG || Πλάτων ἐκ μὲν P^{B(I,III)ES} : Πλάτων εἶναι δὲ ἐκ P^{B(II)} (post πυρίνους hab. PG εἶναι τοὺς ἀστέρας ὑπολαμβάνει) || [24] στοιχείων P^{BGQS} : om. P^E || κόλλης δίκην P^{BEQ}(ut vid.) : κόλλης τρόπον PG : om. S §13 om. P || [25] post σώματος add. γεγενῆσθαι τὰ ἄστρα S ipse verisimiliter, cf. T

- §14 Ξενοφάνης ἐκ νεφῶν μὲν πεπυρωμένων, σβεννυμένους δὲ καθ' ἐκάστην ἡμέραν ἀναζωπυρεῖν νύκτωρ, καθάπερ τοὺς ἄνθρακας· τὰς γὰρ ἀνατολάς καὶ τὰς δύσεις ἐξάψεις εἶναι καὶ σβέσεις. (P7,S12,T9)
- §15 Ἡρακλείδης καὶ οἱ Πυθαγόρειοι ἕκαστον τῶν ἀστέρων κόσμον ὑπάρχειν, γῆν περιέχοντα ἀέρα τε καὶ αἰθέρα ἐν τῷ ἀπείρῳ αἰθέρι· ταῦτα δὲ 30 τὰ δόγματα ἐν τοῖς Ὀρφικοῖς φέρεται· κοσμοποιοῦσι γὰρ ἕκαστον τῶν ἀστέρων. (P8,S13,T10)
- §16 Ἐπίκουρος οὐδὲν ἀπογινώσκει τούτων, ἐχόμενος τοῦ ἐνδεχομένου. (P9,S14)

§14 Xenophanes 21A38 DK; §15 Heraclides fr. 113 Wehrli, fr. 75 Schütrumpf; Pythagorei cf. adn. 44A18 DK; Orphici fr. 30 F Bernabé; §16 Epicurus cf. adn. ad D.L. 10.90, p. 382.13 Usener

§14 [26] Ξενοφάνης P^{BS} : δὲ add. P^{GT} || μὲν P^{EST} : om. P^{BG} || post πεπυρωμένων hab. P^G συνεστάναι τοὺς ἀστέρας ἡγεῖται (cf. Ach λέγει τοὺς ἀστέρας ἐκ νεφῶν συνεστάναι, T ξυνίστασθαι) || [27] ἀναζωπυρεῖν] ἀναζωπυρεῖσθαι P^G || [27–28] τὰς ... σβέσεις : al. Q *welche sich (sc. die Kohle) entzündet und verlöscht* : om. T || [28] τὰς om. P^G §15 [29] post nomen primum hab. δὲ P^G || Ἡρακλείδης] Ἡράκλειτος P^Q || οἱ Πυθαγόρειοι] ἄλλοι τῶν Πυθαγορείων τινὲς T || [29–30] ὑπάρχειν] εἶναι P^G || [30] γῆν ... αἰθέρι P^{BQ} : περιέχοντα αἰθέρα ἐν τῷ ἀπείρῳ P^E : γῆν περιέχοντα καὶ αἰθέρα ἐν τῷ ἀπείρῳ αἰέρι (sic) P^G : γῆν περιέχοντα ἀέρα ἐν τῷ ἀπείρῳ αἰθέρι S ((καὶ) ante ἀέρα conī. Wachsmuth Diels secutus) : γῆν περιέχοντα καὶ ἀέρα T || [31] τοῖς] ἐνίοις P^G || φέρεται· κοσμοποιοῦσι γὰρ P^{BS} : ἐμφέρεται κοσμοποιοῦσιν (dat.) P^E, cf. P^G φέρεσθαι λέγουσι κοσμοποιοῦσι || γὰρ P^{BQS} : om. P^{EG} || [31–32] ἕκαστον τῶν ἀστέρων P^{BS} : τῶν ἀστέρων ἕκαστον P^G, cf. *jeder unter den Sternen im ganzen* Q §16 [33] ἀπογινώσκει] ἀπογινώσκειν P^G

Testes primi:

Theodoretus CAG 4.17–20

- 4.17.1 (~ §1) καὶ τοὺς ἀστέρας δὲ Θαλῆς μὲν γεώδεις καὶ ἐμπύρους ὠνόμασεν·
- 4.17.2 (~ §3) ὁ δὲ γε Ἀναξαγόρας ἐκ τῆς τοῦ παντός περιδινήσεως πέτρους εἶπεν ἀνασπασθῆναι, καὶ τούτους ἐκπυρωθέντας τε καὶ ἄνω παγέντας ἀστέρας ὀνομασθῆναι.
- 4.17.3 (~ §5) καὶ Δημόκριτος δὲ τοῦτον κρατύνει τὸν λόγον·
- 4.17.4 (~ §4) ὁ δὲ Διογένης κισσηροειδεῖς λέγει εἶναι τούτους, διαπνοάς τινας ἔχοντας·
- 4.17.5 (~ §7) ὁ δὲ Ἀναξίμανδρος ξυστήματα ἅττα τοῦ ἀέρος ἔφη, τροχοειδῶς πεπιλημένα, πυρὸς ἔμπλεα εἶναι, ἀπὸ τινων στομίων ἀφιέντα τὰς φλόγας.
- 4.18.1 (~ §10) Διογένης δὲ καὶ ἐμπίπτειν εἰς τὴν γῆν τινας τούτων ἔφησε καὶ σβεννυμένους ἐλέγχεσθαι, ὅτι λίθων ἔχουσι φύσιν, καὶ μάρτυρι χρῆται τῷ ἐν Αἰγὸς ποταμοῖς πυροειδῶς κατενεχθέντι ποτέ.
- 4.18.2 (~ §12) ὁ δὲ Πλάτων ὡς ἐπίπαν μὲν τούτους ἐκ τοῦ πυρὸς ξυνεστάναι, μετέχειν δὲ καὶ τῶν ἄλλων στοιχείων φησίν.
- 4.18.3 (~ §13) ὁ δὲ γε Ἀριστοτέλης τοῦ πέμπτου σώματος εἶρηκε ξυγγενεῖς.
- 4.19.1 (~ §14) Ξενοφάνης δὲ ἐκ νεφῶν μὲν λέγει πεπυρωμένων ξυνίστασθαι, σβεννυμένους δὲ μεθ' ἡμέραν νύκτωρ πάλιν ἀναζωπυρεῖσθαι, καθάπερ τοὺς ἄνθρακας.
- 4.20.1 (~ §15) Ἡρακλείδης δὲ καὶ ἄλλοι τῶν Πυθαγορείων τινὲς ἕκαστον τῶν ἀστέρων κόσμον ὑπάρχειν φασί, γῆν περιέχοντα καὶ ἀέρα.

Traditio ps.Plutarchi:

ps.Galenus HPh c. 56 (~ tit.) Τίς οὐσία τῶν πλανητῶν καὶ ἀπλανῶν (text Jas)

56.1 (~ P1) Θαλῆς ὑπολαμβάνει γεώδη μὲν εἶναι τὰ ἄστρα, ἔμπυρα δέ.

56.2 (~ P2) Ἐμπεδοκλῆς δὲ πύρινα μόνον.

56.3 (~ P3) Ἀναξαγόρας δὲ τὸν περικείμενον αἰθέρα ἀέρα πύρινον ᾤθη, τῇ δὲ εὐτονίᾳ τῆς παραλύσεως ἀναρπάσαντα πέτραι ἀπὸ τῆς γῆς καὶ καταφλέξαντα ταύτην ἡστερικέναι.

56.4 (~ P4) Διογένης δὲ κισσηροειδῇ τὰ ἄστρα λέγει καὶ διάπνοιαν αὐτὰ νοεῖται κόσμου.

56.5 (~ P6) Πλάτων δὲ ἐκ μὲν τοῦ πλείστου μέρους πυρίνους εἶναι τοὺς ἀστέρας ὑπολαμβάνει, μετέχοντας δὲ τῶν ἄλλων στοιχείων κόλλης τρόπον.

56.6 (~ P7) Ξενοφάνης δὲ ἐκ νεφῶν πεπυρωμένων συνεστάναι τοὺς ἀστέρας ἡγείται, σβεννυμένους δὲ καθ' ἑκάστην ἡμέραν ἡγείται ἀναζωπυρεῖσθαι νύκτωρ καθάπερ τοὺς ἄνθρακας. τὰς γὰρ ἀνατολάς καὶ δύσεις ἐξάψεις εἶναι καὶ σβέσεις.

56.7 (~ P8) Ἡρακλείδης δὲ καὶ οἱ Πυθαγόρειοι ἕκαστον τῶν ἀστέρων κόσμον εἶναι νομίζουσι γῆν περιέχοντα καὶ αἰθέρα ἐν τῷ ἀπείρῳ ἀέρι. ταῦτα δὲ τὰ δόγματα ἐν ἐνίοις Ὀρφικοῖς φέρεσθαι λέγουσι κοσμοποιοῦσι τῶν ἀστέρων ἕκαστον.

56.8 (~ P9) Ἐπίκουρος οὐδὲν ἀπογινώσκει τούτων ἐχόμενος τοῦ ἐνδεχομένου.

Psellus Omn.Doctr. c. 131 Τίς ἡ οὐσία τῶν ἀστέρων (~ tit.)

Symeon Seth CRN 3.39 Τίς ἡ τῶν ἀστέρων οὐσία (~ tit.)

Testes secundi:

Achilles Univ. c. 11, p. 19.22 Τίς οὐσία ἀστέρων (~ tit.)

pp. 19.23–20.10 Θαλῆς μὲν δὴ γῆνιν ἔμπυρον εἶπε τὴν τῶν ἀστέρων οὐσίαν (~ §1). Ἐμπεδοκλῆς δὲ πυρίνους αὐτοὺς εἶπεν. τινὲς δὲ γεώδεις εἶπεν αὐτοὺς ἐτόλμησαν (~ §2), ὧν ἐστὶ καὶ Ἀναξαγόρας· μετὰ γὰρ τὴν πρώτην φησὶ διάκρισιν τῶν στοιχείων τὸ πῦρ χωριζόμενον ἐπὶ τὴν ἰδίαν φύσιν ἀνασπάσαι καὶ διάπυρα ποιῆσαι καὶ τῆς γῆς μόριά τινα· ὅθεν καὶ τὸν ἥλιον ἔλεγεν εἶναι μύδρον (~ §3), ὡς ἐξῆς ἐροῦμεν. ἔνιοι δὲ κίσσηριν πλαγίαν οὖσαν ὑπὸ τῆς θερμότητος τοῦ αἰθέρος ἀναπτομένην ὑπὸ τῶν τρυμαλιῶν τοὺς ἀστέρας φαίνειν (~ §4). Πλάτων δὲ ἐκ τῶν τεσσάρων στοιχείων, πλείστου δὲ πυρός (~ §12). Ξενοφάνης δὲ λέγει τοὺς ἀστέρας ἐκ νεφῶν συνεστάναι ἐμπύρων καὶ σβέννυσθαι καὶ ἀνάπτεσθαι ὥσανεὶ ἄνθρακας, καί, ὅτε μὲν ἄπτονται, φαντασίαν ἡμᾶς ἔχειν ἀνατολῆς, ὅτε δὲ σβέννυνται, δύσεως (~ §14). οἱ Στωϊκοὶ δὲ ἐκ πυρός λέγουσιν αὐτοὺς, πυρός δὲ τοῦ θεοῦ καὶ αἰδίου καὶ οὐ παραπλησίον τῷ παρ' ἡμῖν· τοῦτο γὰρ φθαρτικὸν καὶ οὐ παμφαές (—).

Isidorus Pelusiota Ep. 1435.68–86 Énieux εἰ δὲ διὰ τὸ εἰρῆσθαι· τοῖς ἄστροις ἐνετειλάμην, ζῶα λογικὰ αὐτὰ καὶ αὐτεξούσια ὀριοῦνται τινες—οἷδα γὰρ τινας οὐ μόνον τῶν ζῶων τῆς πίστεως, ἀλλὰ καὶ τῶν πεπιστευκῶτων τοῦτο δογματίσαντας—περιττὴν καὶ ἀνωφελῆ τὴν ζήτησιν ταύτην εἶναι ἡγούμενος ..., οὐτ' ἐγκρίναιμι τοῦτο, οὐτ' ἀποψηφίσαιμι ... εἴτε οὖν λογικὰ ἐστὶ ζῶα, ὡς φασί τινες, εἴτε πύρινοι σφαῖραι, εἴτε δισκοειδῆ σώματα, ἐκ τοῦ αἰθερίου πυρός ἐξαφθέντα,

εἴτε σφαιροειδεῖς πυρὸς πιλήσεις, εἴτε μύδροι—τινὲς γὰρ τῶν φιλοσόφων τοῦτ' ἐδογματίσαν—εἴτε ὀχήματα δεκτικὰ τοῦ αὔλου καὶ ὑπερκοσμίου φωτός, οὐ σφῶδρα ἰσχυρισαίμην—οὐδὲν γὰρ τοῦτο πρὸς ἀρίστην πολιτείαν συντείνειν ἡγοῦμαι.

Loci Aetiani:

titulus et quaestio A 2.11 Περὶ οὐρανοῦ, τίς ἡ τοῦτου οὐσία; vide porro textus citatos ad 2.11. A 2.14 Περὶ σχημάτων ἀστέρων; A 2.15 Περὶ τάξεως ἀστέρων; A 2.16 Περὶ τῆς τῶν ἀστέρων φορᾶς καὶ κινήσεως; A 2.17 Πόθεν φωτίζονται οἱ ἀστέρες; A 2.18 Περὶ τῶν ἀστέρων τῶν καλουμένων Διοσκούρων; A 2.19 Περὶ ἐπισημασίας τῶν ἀστέρων καὶ πῶς γίνεται χειμῶν καὶ θέρος.

§2 A 2.6.3 Ἐμπεδοκλῆς τὸν μὲν αἰθέρα πρῶτον διακριθῆναι, δεῦτερον δὲ τὸ πῦρ ἐφ' ᾧ τὴν γῆν, ἐξ ἧς ἄγαν περισφιγγομένης τῇ ῥύμῃ τῆς περιφορᾶς ἀναβλύσαι τὸ ὕδωρ· ἐξ οὗ ἀναθυμιαθῆναι τὸν ἀέρα καὶ γενέσθαι τὸν μὲν οὐρανὸν ἐκ τοῦ αἰθέρος τὸν δ' ἥλιον ἐκ τοῦ πυρός, πιληθῆναι δ' ἐκ τῶν ἄλλων τὰ περίγεια. 2.14.3 Ἀναξιμένης ἦλων δίκην καταπεπηγέναι τῷ κρυσταλλοειδεῖ.

§4 cf. A 2.20.10 (de sole). 2.25.11 (de luna).

§11 A 2.11.2 Ἐμπεδοκλῆς στερέμνιον εἶναι τὸν οὐρανὸν ἐξ ἀέρος συμπαγέντος ὑπὸ πυρός κρυσταλλοειδῶς, τὸ πυρῶδες καὶ τὸ ἀερῶδες ἐν ἑκατέρῳ τῶν ἡμισφαιρίων περιέχοντα. A 2.14.2 Ἀναξιμένης ἦλων δίκην καταπεπηγέναι τῷ κρυσταλλοειδεῖ.

§12 cf. A 2.20.7 (de sole), 2.25.7 (de luna), 1.7.22 (de deis) αἰσθητὰ δὲ τοῦ πρώτου θεοῦ ἔγγονα ἥλιος, σελήνη, ἀστέρες, γῆ καὶ ὁ περιέχων πάντα κόσμος.

§13 vid. textus citatos ad 2.11.5 (de caelo).

§14 cf. A 2.20.2 (de sole), 2.25.3 (de luna).

§16 cf. A 2.2.5 Ἐπίκουρος δ' ἐνδέχεσθαι μὲν εἶναι σφαιροειδεῖς τοὺς κόσμους, ἐνδέχεσθαι δὲ καὶ ἐτέροις σχήμασι κεκρήσθαι. A 2.22.4 Ἐπίκουρος ἐνδέχεσθαι τὰ προειρημένα πάντα. A 3.15.11 Ἐπίκουρος ἐνδέχεσθαι μὲν ... ἐνδέχεσθαι δὲ ...

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) This chapter, one of the longest in the *Placita*, is extremely well attested. In the case of P the four major witnesses testify to it and reveal nine doxai (G deletes only one, the second Empedoclean doxa).

(2) These nine are all found in S, who combines what corresponds to ch. 13–17 in P into a single chapter, using ch. 13 as his base (24.1), to which he appends as many doxai as he can, then adding doxai relating to ch. 15–17 (24.2–3), followed by a single doxa relating to ch. 19 (24.4) and finishing with some doxai from AD (24.5). For a detailed analysis of S's systematic procedure in this chapter see M–R 1.220–222. There are another five doxai not preserved in P, making a total of

14 doxai in S. On the possibility that S replaced a Stoic doxa with material from AD see below at section D(e).

(3) T has ten doxai, all of which can be found in S, but he divides up the single Diogenes doxa as found in P and S. It is important to note that three of these doxai are not in P, confirming that T used A independently from P; see Mansfeld (2018a) 182.

(4) In addition, six of the doxai are also found in Ach; see below section D(e). On the six doxai in a letter of Isidore of Pelusium see the following section (a)

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* An important witness to doxographical traditions on this subject prior to A is Philo, who continues his section on the obscure nature of the heavens at *Somn.* 1.22 (on which see on A 2.11 Commentary B) with a set of six doxai which form three contrasted pairs (see section E(a) General texts). Only the first pair are directly parallel to A's chapter and illustrate, as we shall see, the main diaeresis. But Philo places most emphasis on the implicit contrast between lifeless clumps (ὄγκοι, μύδροι) or beings with life (ἀρμονία). If they have life, then they will be ensouled (ἐμψυχοί) and move of their own volition. This may indicate an earlier doxographical tradition with a chapter on εἰ ἐμψυχα τὰ ἄστρα (parallel to ch. 2.3) which A did not utilize. Another brief reference to the subject of this chapter and following chapters is found at *Somn.* 1.53. For a further Philonic reference to the Anaxagorean doctrine see section D(e) below. A similar diaeresis is given by Seneca on the *natura* of the stars and planets. In addition a further text is found in the early fifth cent. CE Egyptian monk Isidore of Pelusium, a contemporary of S, T and Nem. This text has six doxai on the nature of the stars which perhaps stand closer to Philo than to A, but reflect the same doxographical tradition; see further M–R 1.311. A different approach is found in Hippolytus' summary of the doctrines of individual philosophers; doxai on the subject are located in the sections devoted to Anaximander, Anaximenes and Anaxagoras in the Ionian tradition; see section E(a) below. These certainly derive from the proximate doxographical tradition.

Standing much closer to A, however, is the chapter on the οὐσία of the heavenly bodies in Achilles. Indeed the correspondence to the doxai of this chapter in P is quite remarkable. See below section D(e) for a detailed analysis of this evidence.

(2) *Sources.* The subjects of this chapter and the three that follow it are very clearly marked out by Aristotle in his treatment of the heavenly bodies. He introduces it at the beginning of *Cael.* 2.7 and rounds off his discussion at the end of 2.12 (texts below at section E(b) General texts). The introductory passage includes three of the topics (that of order, cf. A 2.15, is missing), the

concluding passage refers to all four. In his recapitulation of his treatment of the subject of physics at the beginning of the *Meteorology* he mentions only the movement of the heavenly bodies (1.1 338a21, cited on ch. 2.16). Aristotle's treatment has very clearly determined the structure of the subsequent doxographical tradition. If, however, we turn to the specific subject of the substance of the heavenly bodies in general (as distinct from the planets and esp. the sun and the moon), we find that it is not extensively discussed. Aristotle himself, in *Cael.* 2.7, does not specifically engage with any of the philosophers mentioned in A, only arguing against the view that the heavenly bodies are fiery in very general terms (289a17).

The sources for the doxai in extant authors can be traced to a greater or lesser extent for Plato, Aristotle and Epicurus, but in each case the doxographical tradition has introduced interesting changes. See further discussion and texts below.

C Chapter Heading

The chapter asks a question in the category of substance. Differently from the parallel chs. 2.11, 2.20 and 2.25, however, the heading appears to be not of the umbrella Περὶ x type, but uses the interrogative pronoun τίς with the noun in the nominative, which occurs rather infrequently elsewhere (note esp. ch. 5.3, but also chs. 1.1, 1.7, 2.10, 4.5, 5.17; in 2.11 the two types are both used). But there is a great diversity of formulations, with each of the five major witnesses presenting a different version (excluding T, who generally yields little evidence for this aspect). See our earlier discussion at M–R 1.180–181 (to which can be added the evidence of Ps). Short titles referring only to the stars in general are found in S (using the Περὶ x formula as part of a combined heading covering all seven chapters on the heavenly bodies) and Ach, and also in two later representatives of P, Q and Ps. P^B has the fullest title. Not only it is specified that by the term ἄστρα both the fixed stars and the planetary bodies are meant (though missing in some manuscripts), but the question of how they came into existence is also added. However, the subject of this final addition, which is parallel to ch. 2.4 (and ch. 2.6) on the cosmos, only plays a minor role in the chapter. It is not a second question that allows contrasts between the major divisions of opinion, as in ch. 2.3. The preference should be given, we believe, to the heading in E without the final addition. The final part of P^B's heading may well have been added on the basis of some of the doxai's contents (esp. P2–3–4–7). The heading itself poses the question in the category of substance. See our discussion on A 2.11 Commentary C, where we list the parallel headings in Book 2 and elsewhere.

D *Analysis*

a Context

The chapter on the nature of the stars is the second of the five major οὐσία chapters spread throughout chs. 2.11–32 and Book 3; see further above on ch. 2.11. The section 2.13–19 covers questions relating to the heavenly bodies. It should be noted that A appears to use the terms ἄστρον and ἀστήρ interchangeably (the former in chs. 2.13 and 18, the latter in chs. 2.14–17 and 19; but note how confused the witnesses are on the title of the present chapter). In this he differs from Ach who devotes a chapter to distinguishing between the two (§14, τί μὲν ἀστήρ, τί δὲ ἄστρον). To avoid ambiguity we shall translate ‘heavenly bodies’ when both stars and planets are meant (in the present chapter even meteorites are included).

On the possibility that there may have been a lost chapter on the subject of whether the heavenly bodies are alive or not, as suggested by a quaestio given as an example in Book 1.proœm. 3[15], see the Commentary ad loc. A(3).

b Number–Order of Lemmata

There is no material in P and T that is not found in the fullest source S. It is very likely therefore that the record of the chapter in S is complete. Given S's method, using this chapter as his basis and adding material from the next six chapters, it is also probable that for the most part he accurately reflects the order of the lemmata in A. In attempting to determine the original form of the chapter, however, three problems arise.

(1) For Empedocles P has two separate doxai (P2 and P5), which in S are kept together, joined by a simple καί (S2ab). As Bottler (2014) 368 rightly points out, the conjunction is an indicator of the process of coalescence. S more commonly uses the word δέ, but this was not possible here because of the μὲν ... δέ construction in the second doxa (another example of καί solving the same problem is found at in the same chapter at S 1.24.1e for the coalesced doxai of Democritus). It is of course not unusual in A to have two doxai with the same name-label in a single chapter (see the discussion at M–R 2.2.523). The second doxa in P admittedly does not have a close connection with the subject matter of the chapter. A more natural location would have been in ch. 2.15 on the ordering of the stars, but to move it there, given its presence in P 2.13, would be too radical a step. So, contrary to our view in M–R 2.460–461, we now believe that the separation of the two doxai, as set out in P, should be retained. As for the position of the second Empedocles doxa in the chapter, it is plausible to retain P's order and so place it between Diogenes' second doxa and Plato. We agree with Diels that, given the tight connection between Diogenes' doxa and that of Anaximenes (both speak of invisible stones or bodies), it should be placed after the latter doxa, so immediately preceding the view of Plato.

(2) There is a small discrepancy in the order of the lemmata between S and T that needs to be resolved. The lemma recording the view of Democritus follows that of Diogenes in S, but in T the order is reversed. Here we do not follow Diels, who gives priority to T above S. It is true that both the previous lemma of Anaxagoras (§3) and that of Democritus speak of ‘rocks’. T recognises this link with his formula καὶ Δημόκριτος δὲ τοῦτον κρατύνει τὸν λόγον (A 4.17.3). But in our view it remains more likely that S followed his method consistently and so Diogenes would have preceded Democritus. There are other examples of T reversing the order of two doxai, e.g. at A 4.5.8–9. The difference between the two solutions, however, is not great. As we shall see, both doxai belong to the same group of thinkers on the question at issue.

(3) In the case of Diogenes we also have two doxai connected to the same name-label. This time they are both joined together in S and P, but in T they are separate. The formula introducing the second doxa in P is striking. The words πάλιν δ’ ὁ αὐτός may be taken as an indication that the epitomator has linked up two originally separate lemmata (it is the only instance in P that this formula is used for a name-label; for πάλιν introducing an additional point cf. A 1.3.7[58]). Given S’s method in this chapter, it is likely that he too coalesces here. So we must conclude that in this case there were two Diogenes doxai in the chapter. But the location of the second still remains uncertain. From P and T we can deduce that it came after Anaximander and before Plato. Diels placed it after Parmenides–Heraclitus, but before Anaximenes. As will emerge below, it is more probable that it came *after* the Anaximenes doxa. As supporting evidence for the hypothesis that there were two Diogenes doxai in the chapter it should be noted that P skipped all the lemmata in A between the two. This was a very obvious and easy method of abridgement that was available to him. He simply linked up the two doxai, thereby leaving out the four or five lemmata in between.

c Rationale–Structure of Chapter

Because of its length, the chapter’s structure is not as neat and clear-cut as that of many others. Nevertheless it is clear that its main contours are determined by a fundamental diaeresis between the view that the stars consist of a basically earthy, rock-like substance (which is enflamed so that they are mostly visible) and a purer fiery or ethereal substance. This division is not found in Aristotle in his discussion on the nature of the stars in *Cael.* 2.7, presumably because it was too far removed from his own view. But it is very clearly found as the basis of Seneca’s discussion of the subject in *Nat.* Book 7 (text below section E(a) General texts). The same diaeresis is also found in Philo, Achilles and Isidore of Pelusium (cf. section B above). The chapter also reveals a general movement

from the first to the second pole of the diaeresis. At the end, as often elsewhere, a number of additional themes are included. The chapter thus proceeds as follows.

(1) The chapter begins with Thales, ἀρχηγέτης of the Italian succession, who represents the ‘earthy but inflamed’ view without further detail (§1). But he is immediately followed by Empedocles (§2), whose doxa belongs to the ‘fiery’ group (note that the verb ἐξαναθλίβω anticipates the πιλύματα introduced in §7). It may be surmised that A wishes to set out the basic antithesis at the outset (the same procedure, as we shall see below, in Ach). T prefers to retain continuity in his listing, and so passes over the Empedoclean lemma.

(2) The next four doxai (§§3–6) revert to the ‘earthy’ view: the stars are lumps of red-hot rock or iron. In the case of Diogenes they are like sponges, not (presumably) because they are soft, but because they have openings that allow the fiery pneuma to circulate.

(3) A continues with two doxai that regard the stars as ‘compressions’ of air and/of fire (§§7–8).

(4) Diels now followed with the second Diogenean lemma, but the transition is needlessly harsh. If Anaximenes (§9) follows, as in S, then the sequence of fiery doxai is maintained. But an interesting addition is made: there are also invisible rocky bodies carried around with the heavenly bodies, i.e. meteorites. This view thus combines the two poles of the diaeresis. A then recalls that Diogenes also mentions such invisible bodies. This time, however, they are invisible when whirling in the heavens, but can be observed when they fall down to earth (§10). The double use of the verb συμπεριφέρω links up the two doxai, as Diels *DG* 67 saw, with a contrast between the two doxai introduced with δέ in the second part of the sentence. It is also to be agreed with Diels that the δέ after Diogenes’ name in S was probably introduced by the anthologist as often elsewhere; the same particle is found in T, but cannot tip the balance because he leaves out §§8–9.

(5) There follows the second Empedocles lemma (§11) which distinguishes between the positioning of the fixed stars and the planets, the former having been fixed to the crystalline heaven, the latter free to move. As noted above, the view seems out of place here, but its position must be retained because of the location in P.

(6) The next three views continue the ‘fiery’ group (§12–14). Plato’s view, based on *Tim.* 40a, is distinctive and by implication includes some earth in the stars’ composition. Aristotle’s theory of the quintessence is a reaction against it. Xenophanes’ fantastical theory comes last in the group, presumably because of its unusual nature.

(7) Two doxai remain. That of Heraclides and the Pythagoreans (§15) is also unusual and can be regarded as an additional ‘interesting’ view, but in a sense it continues the compromise between ‘earthy’ and ‘fiery’ views. The explicit reference to the Orphics is unique in the *Placita*, but see A 2.2 Commentary D(e) on additional material in Ach that is probably drawn from the *Placita* tradition. The final doxa (§16) is another affirmation of Epicurus’ ‘modal’ view, which rejects all diaereses in favour of τὸ ἐνδεχόμενον. The same view, terminology and final placement were found at 2.2.5; see further A 2.2 Commentary D(c). The term goes back to Epicurus himself (*Ep.Pyth.* at D.L. 10.88). At D.L. 10.90, however, he indicates that the heavenly bodies may be pneumatic or fiery or both, but does not emphasize the ἐνδεχόμενον. It seems more likely that here it refers to all the various views represented in the chapter, rather than qualifying just the previous doxa, as suggested by Lachenaud (1993) 112 n. 4.

d Further Comments

Individual Points

§2 In this and the following doxa cosmogonic elements are added to the cosmological theme of the chapter. Some details of Empedocles’ view recall the description of the cosmogonic process attributed to him in A 2.6.3. The further details in §11 may also originally be derived from a cosmogonic account.

§3 Confusion between the terms ἀήρ and αἰθήρ in the various grammatical cases is frequent in the manuscripts of the P tradition and also in S. For other examples see §14 below, A 2.6.3, 2.7.5 etc. Here there can be little doubt that αἰθήρ is meant. Other texts do not mention that the stony heavenly bodies are swept up from the earth, as maintained here.

§§9–10 The doxai attributed to Anaximenes and Diogenes share similarities with that of Anaxagoras, who was famous for his prediction of the fall of the meteorite at Aegospotami in 467 BCE. In the case of Anaximenes there has been much discussion on how the various reports on the origin and nature of the heavenly body can be harmonised; cf. Wöhrle (1993) 70–72. The evidence of Hippolytus, however, throws interesting light on A’s doxai. The correspondences between his doxa on Anaxagoras and A’s on Anaximenes seem to be too great to be coincidental, so that there is much to be said for the view of Kirk-Raven-Schofield that Anaximenes’ doxa here is a case of ‘the inaccuracy of doxographical attributions’ (1983, 156). Since this is the only case in the testimonia to Diogenes that there is mention of the fall of the meteorite, there may have been transference in the case of his doxa too. But of course he may well have referred to it in his discussion of the nature of the heavenly bodies.

§10 Laks (2008) 206 argues that πίπτοντα in S may well be deliberate, referring to the term ἄστρα and indicating that meteorites too are heavenly bodies.

He retains, however, the reading *πίπτοντας* for P. We have to choose. The proximity to *λίθους* makes the latter reading much more probable.

§11 The description of the outer heaven as ‘crystalline’ is consistent with the Empedocles doxa at A 2.11.2. On the attribution of the same view to Anaximenes with the additional image of studs at 2.14.3 see our note at ch. 2.14 Commentary D(d).

§12 The Platonic doxa is ultimately derived from *Tim.* 40a2–3, τοῦ μὲν οὖν θείου τὴν πλείστην ιδέαν ἐκ πυρὸς ἀπηργάζετο, as is the case for the parallel doxai at A 2.20.7 and 2.25.7. Plato’s statement covers the entire γένος of heavenly beings. The doxographical tradition has applied it to the various individual cases. The doxography at D.L. 3.74 follows the Platonic source more closely. Interestingly A adds an explanatory metaphor: the additional inclusion of the other elements binds together the heavenly bodies (as we may assume) in the manner of glue. Plato himself does not use the metaphor in this context, reserving it for aspects of human physiology (*Tim.* 43a, 75d, 82d). Aristotle *Mete.* 4.4 382a1 notes the role of glue in Empedocles’ physics (cf. 31A34 DK), but applies it to sublunary compounds, not the heavenly bodies. We note that both S and T leave out this extra information, perhaps independently recognising its non-Platonic nature. It is theoretically possible that it was added by P, but it would go against his usual practice as epitomator.

§13 Translation and interpretation of this lemma is based on Mourelatos’ careful analysis in (2008) 139–146. He argues that *πεπυρωμένον* means ‘incandescent’ and not ‘ignited, enflamed’, i.e. does not necessarily imply that the composition of the stars is itself fire.

§15 There is much variation in the witnesses with regard to the composition of the mini-worlds of each heavenly body (i.e. planet), exacerbated by the similarity of the terms *ἄήρ* and *αιθήρ*. Given the correspondence of S and T, we think it best to follow the suggestion of Diels *DG* 343 in the apparatus that their readings best reflect the original in A, regardless of all the variation shown in the tradition of P. Though Heraclides and the Pythagoreans are not associated with the group of infinitists in A 2.1.3 (Pythagoras is regarded as a unicist in 2.1.2), the doxographer may assume that an infinite expanse of aether is implied by Heraclides’ hypothesis that the earth turns around its axis while the heaven remains at rest (3.13.3). Gottschalk (1980) 82–83 argues that Heraclides espouses the view that the cosmos is infinite in extent with the moon and the stars each forming a complete world. More recently Keyser (2009) 212 concurs, but in the view of Todd–Bowen (2009) 179 it cannot be proven. Note that at A 3.13.3 Heraclides is associated with Ecphantus ὁ Πυθαγόρειος (though with the Pythagorean Hicetas at Cicero *Luc.* 123). T’s formulation *ἄλλοι τῶν Πυθαγο-*

ρείων τινές may imply that he regards Heraclides as a Pythagorean, but does not necessarily do so (cf. Smyth 1956, §1272). In their recent edition Schütrumpf et al. (2008) laboriously treat ^PBEG, S and T in five separate lemmata (fr. 75A–E). But our method constrains us to make a choice for a single text.

e Other Evidence

Ach's chapter (§11) entitled Τίς οὐσία ἀστέρων forms a remarkably close parallel to our chapter. Indeed it was the closeness to P in this case that was a prime reason for Diels to postulate (erroneously) that Ach had excerpted P (see the discussion with a useful comparison in two columns at *DG* 24). The first six lemmata correspond to P1–2–3–4–6–7; only the seventh with the name-label Stoics is not found in P or A. The first two doxai preserve the basic diaeresis just as in A, emphasizing it even more with a μέν ... δέ construction. The Anaxagorean doxa is introduced by the word τινές ... ἐτόλμησαν, which can have a neutral connotation (i.e. 'claimed'), but in this context perhaps hints at a contrast with the Stoic view in the final lemma that the stars consist of divine fire. Such theological concerns are mostly foreign to the method of the *Placita* (compare also Philo *Aet.* 47 cited below, where the attitude towards Anaxagoras is openly hostile). The phrase μετὰ τὴν πρώτην διάκρισιν is almost the same as in A, but there it is part of the Empedoclean doxa. The fourth doxa is presented anonymously, but clearly corresponds to the first part of the Diogenean lemma in A. Nothing in our witnesses to A corresponds to the Stoic lemma. It may have been part of an earlier *Placita* tradition, but then it would be surprising that A did not include it in some form or other. It is possible that Ach imported it from another source. Another possibility, however, is that it does reflect a Stoic doxa that was present in A, but was omitted by P and T and not copied out by S because he replaced it with material from AD fr. 32 Diels at 1.24.5 (Posidonius, Chrysippus and Apollodorus). However this may be, it is certainly remarkable that the first six doxai all correspond to those in P, without any of the extra material preserved by S or T. Nevertheless, as Diels later saw (see Pasquali 1910, 221), they cannot be viewed as derived from P. They represent the shared tradition of the *Placita*.

E Further Related Texts

a Proximate Tradition

General texts: Philo of Alexandria *Somn.* 1.22 τί δ' ; οἱ ἀστέρες πότερον γῆς εἰσιν ὄγκοι πυρὸς πλήρεις—ἀγκεα γὰρ καὶ νάπας καὶ μύδρους διαπύρους εἶπον αὐτοὺς εἶναι τινες, αὐτοὶ δεσμωτηρίου καὶ μύλωνος, ἐν οἷς τὰ τοιαυτὰ ἐστὶν ἐπὶ τιμωρίᾳ τῶν ἀσεβῶν, ὄντες ἐπάξιοι—ἡ συνεχὴς καί, ὡς εἶπέ τις, πυκνὴ ἁρμονία, πιλήμματα ἀδιάλυτα αἰθέρος; ἔμψυχοι δὲ καὶ νοεροὶ ἢ νοῦ καὶ ψυχῆς ἀμέτοχοι; προαιρετικὰς δὲ

ἡ κατηναγκασμένης αὐτὸ μόνον κινήσεις ἔχοντες; *Somn.* 1.53, τί δὲ περὶ τῆς τῶν ἄλλων ἀστέρων φύσεως ἢ περιφορᾶς ἢ συμπαθείας πρὸς τε ἀλλήλους καὶ τάπτιγεια; **Seneca** *Nat.* 7.1.6–7 *at mehercules non aliud quis aut magnificentius quae-sierit aut didicerit utilius quam de stellarum siderumque natura, utrum flamma contracta, quod et visus noster affirmat et ipsum ab illis fluens lumen et calor inde descendens, an non sint flammei orbes, sed solida quaedam terrenaque corpora, quae per igneos tractus labentia inde splendorem trahant caloremque, non de suo clara. in qua opinione magni fuerunt viri, qui sidera crediderunt ex duro concreta et ignem alienum pascentia. 'nam per se' inquit 'flamma diffugeret, nisi aliquid haberet quod teneret et a quo teneretur, conglobatamque nec stabili inditam corpori profecto iam mundus turbine suo dissipasset.'* cf. *Dial.* 8.5.5 *unde ista sidera exierint.* **Arnobius of Sicca** *Adv.Nat.* 2.58, p. 133.13–18 *Marchesi quid sit luna? quid stellae? cur una specie aut illa non maneat, aut per omne mundi corpus frustilla haec ignea convenerit atque oportuerit figi? cur alia ex his parva, ampliora et maiora sint alia, obtunsi haec luminis, acutioris illa et fulgidae claritatis?* **John Chrysostom** *Cat.Illum.* 3.4.1 *Wenger* πυρώδης τῶν ἄστρον ἐκείνων ἢ φύσις, πυρώδης καὶ τούτων τῶν ἄστρον ἡ οὐσία. **Scholia in Aristophanem in Nubes** 102c *Holwerda*, ἀλαζῶν λέγεται ὁ ἄλλῃ καὶ πλάνῃ ζῶν καὶ βίῳ ἀστάτῳ, ὡς οἱ φιλόσοφοι περὶ ἡλίου, σελήνης, ἀστέρων τε τῶν λοιπῶν καὶ πάντων ἀπλῶς ψυχρομήθους λόγους πλατύνοντες ἐναντίους καὶ μαχομένους ἀλλήλοις καὶ αὐτοὺς ἑαυτοῖς, μεγέθη τε τούτων καὶ ἀπὸ γῆς ἀποστάσεις καὶ οὐσίας καὶ φύσεις καὶ θέσεις καὶ σχήματα καὶ ἄλλα μυρία λαλοῦντες.

Chapter heading: Posidonius see on ch. 2.11. **Pliny** *Nat. Index lib.* II, p. 11.9–10 *De siderum errantium natura.* Cf. **Seneca** *Nat.* 2.1.1 *prima pars* (sc. *de universo quaestio*) *naturam siderum scrutatur ...* also **Arnobius of Sicca** *Adv.Nat.* 2.58 *quid* (sc. *sint*) *stellae?* (cited above).

§1 Thales: Hippolytus *Ref.* 1.1.4 (Thales fr. 210 *Wöhrlé*) οὗτος περὶ τὸν τῶν ἄστρον λόγον καὶ τὴν ζήτησιν ἀσχοληθεὶς Ἑλλήσι ταύτης τῆς μαθήσεως αἴτιος πρῶτος γίνεται. δς ἀποβλέπων πρὸς τὸν οὐρανὸν καὶ τὰ ἄνω ἐπιμελῶς κατανοεῖν λέγων, εἰς φρέαρ ἐνέπεσεν ...

§3 Anaxagoras: Diogenes Laertius *V.P.* 2.9 (59A1 DK) τὰ δ' ἄστρο κατ' ἀρχὰς μὲν θολοειδῶς ἐνεχθῆναι, ὥστε κατὰ κορυφὴν τῆς γῆς τὸν αἰεὶ φαινόμενον εἶναι πόλον, ὕστερον δὲ τὴν ἔγκλισιν λαβεῖν. 2.12 τὸν δὲ Ἀναξαγόραν εἰπεῖν ὡς ὅλος ὁ οὐρανὸς ἐκ λίθων συγκεῖτο· τῇ σφοδρᾷ δὲ περιδινήσει συνεστάναι καὶ ἀνεθέντα κατενεχθῆσθαι. cf. **Plutarch** *Lys.* 12 (on Anaxagoras, 59A12 DK) οἱ δὲ καὶ τὴν τοῦ λίθου πτώσιν ἐπὶ τῷ πάθει τούτῳ σημείον φασὶ γενέσθαι· κατηνέχθη γάρ, ὡς ἡ δόξα τῶν πολλῶν, ἐξ οὐρανοῦ παμμεγέθους λίθος εἰς Αἰγὸς ποταμούς. ...· λέγεται δὲ Ἀναξαγόραν προεἰπεῖν ὡς τῶν κατὰ τὸν οὐρανὸν ἐνδεδεμένων σωμάτων, γενομένου τινὸς ὀλισθήματος ἢ σάλου, ῥίψις ἔσται καὶ πτώσις ἐνὸς ἀπορραγέντος· εἶναι δὲ καὶ τῶν ἄστρον ἕκαστον οὐκ ἐν ἡ πέφυκε χώρα· λιθώδῃ γάρ ὄντα καὶ βαρέα λάμπειν μὲν ἀντερεῖσει καὶ περικλάσει τοῦ αἰθέρος, ἔλκεσθαι δὲ ὑπὸ βίας σφριγγόμενα δῖνῃ καὶ τόνῳ τῆς περιφορᾶς, ὡς που καὶ τὸ πρῶτον ἐκρατήθη μὴ πεσεῖν δεῦρο τῶν ψυχρῶν καὶ βαρέων ἀποκρινομένων τοῦ παντός ... **Hippolytus** *Ref.* 1.8.2 (59A42 DK) καὶ τὰ μὲν κατὰ τὸν οὐρανὸν κεκοσμήσθαι ὑπὸ τῆς ἐγκυκλίου κινήσεως· τὸ μὲν

οὖν πυκνὸν καὶ (τὸ) ὑγρὸν καὶ τὸ σκοτεινὸν καὶ (τὸ) ψυχρὸν καὶ πάντα τὰ βαρέα συνελθεῖν ἐπὶ τὸ μέσον, ἐξ ὧν παγέντων τὴν γῆν ὑποστῆναι· τὰ δ' ἀντικείμενα τούτοις, (τὸ ἀραιὸν καὶ) τὸ θερμὸν καὶ τὸ λαμπρὸν καὶ τὸ ξηρὸν καὶ τὸ κοῦφον, εἰς τὸ πρόσω τοῦ αἰθέρος ὀρμήσαι. ... *Ref.* 1.8.6 ἥλιον δὲ καὶ σελήνην καὶ πάντα τὰ ἄστρα λίθους εἶναι ἐμπύρους, συμπεριληφθέντας ὑπὸ τῆς (τοῦ) αἰθέρος περιφορᾶς. εἶναι δ' ὑποκάτω τῶν ἄστρων ἡλίῳ καὶ σελήνῃ σώματά τινα συμπεριφερόμενα, ἡμῖν ἀόρατα. **Origen Cels.** 5.11 see on A 2.20.8. **Achilles** c. 13, p. 20.18–19 τοὺς ἀστέρας δὲ ζῶα εἶναι οὔτε Ἀναξαγόρᾳ (59A79 DK) οὔτε Δημοκρίτῳ (67B1 DK attributed to Leucippus, fr. 392 Luria) ἐν τῷ Μεγάλῳ διακόσμῳ δοκεῖ.

§5 cf. on §3, Achilles.

§7 **Anaximander: Hippolytus** *Ref.* 1.6.4 (12A11 DK) τὰ δὲ ἄστρα γίνεσθαι κύκλον πυρός, ἀποκριθέντα (ἐκ) τοῦ κατὰ τὸν κόσμον πυρός, περιληφθέντα δ' ὑπὸ ἀέρος. ἐκπνοάς δ' ὑπάρξαι, πόρους τινὰς αὐλώδεις, καθ' οὓς φαίνεσθαι τὰ ἄστρα· διὸ καὶ ἐπιφρασσομένων τῶν ἐκπνοῶν τὰς ἐκλείψεις γίνεσθαι.

§8 **Parmenides Heraclitus: cf. Diogenes Laertius** *VP.* 9.9–10 (on Heraclitus, 22A1 DK) εἶναι μέντοι ἐν αὐτῷ (sc. τῷ περιέχοντι) σκάφας ἐπεστραμμένας κατὰ κοῖλον πρὸς ἡμᾶς, ἐν αἷς ἀθροιζομένας τὰς λαμπρὰς ἀναθυμιάσεις ἀποτελεῖν φλόγας, ὥς εἶναι τὰ ἄστρα. λαμπροτάτην δὲ εἶναι τὴν τοῦ ἡλίου φλόγα καὶ θερμοτάτην. τὰ μὲν γὰρ ἄλλα ἄστρα πλεῖον ἀπέχειν ἀπὸ γῆς καὶ διὰ τοῦτο ἥττον λάμπειν καὶ θάλπειν, τὴν δὲ σελήνην προσγιοτέραν οὖσαν μὴ διὰ τοῦ καθαροῦ φέρεσθαι τόπου.

§9 **Anaximenes: Hippolytus** *Ref.* 1.7.4 (Anaximenes 13A7 DK) ὁμοίως δὲ καὶ ἥλιον καὶ σελήνην καὶ τὰ ἄλλα ἄστρα πάντα γὰρ πύρινα ὄντα ἐποχεῖσθαι τῷ ἀέρι διὰ πλάτος. differently **ps.Plutarch** *Strom.* 3 (fr. 179 Sandbach, Anaximenes 13A6 DK) καὶ τὸν ἥλιον καὶ τὴν σελήνην καὶ τὰ λοιπὰ ἄστρα τὴν ἀρχὴν τῆς γενέσεως ἐκ γῆς ἔχειν.

§10 **Empedocles: cf. Lactantius** *Inst.* 3.3.4 Heck–Wlosok (general question) *et stellae utrumne adhaereant caelo an per aerem libero cursu ferantur.*

§11 **Plato: Diogenes Laertius** *VP.* 3.74 (Plato doxography) θεοὺς μὲν οὖν ἔχειν τὸ πολὺ πυρίνους.

§12 **Aristotle: Diogenes Laertius** *VP.* 5.32 (Aristotle doxography) εἶναι δὲ παρὰ τὰ τέτταρα στοιχεῖα καὶ ἄλλο πέμπτον, ἐξ οὗ τὰ αἰθέρια συνεστάναι. ἀλλοίαν δ' αὐτοῦ τὴν κίνησιν εἶναι· κυκλοφορητικὴν γάρ.

§13 **Xenophanes: ps.Plutarch** *Strom.* 4 (fr. 179 Sandbach, 21A32 DK) τὸν δ' ἥλιόν φησι καὶ τὰ ἄστρα ἐκ τῶν νεφῶν γίνεσθαι. cf. also **ps.Plutarch** *Strom.* 11 on Metrodorus cited on A 2.20.15.

b Sources and Other Parallel Texts

General texts: **Aristotle** *Cael.* 2.7 289a11–13 περὶ δὲ τῶν καλουμένων ἄστρων ἐπόμενον ἂν εἴη λέγειν, ἐκ τίνων τε συνεστᾶσι καὶ ἐν ποίοις σχήμασι καὶ τίνες αἱ κινήσεις αὐτῶν (cited by **ps.Justin** *Confut.* 45, p. 152b Morel). *Cael.* 2.12 293a11–14 ἀλλὰ περὶ μὲν τῶν τὴν ἐγκύκλιον φερομένων κίνησιν ἄστρων εἰρηται ποῖ' ἅττα κατὰ τε τὴν οὐσίαν ἐστὶ καὶ κατὰ τὸ σχῆμα, περὶ τε τῆς φορᾶς καὶ τῆς τάξεως αὐτῶν. **Cicero** *Tusc.* 5.69 *quo tandem igitur gaudio adfici necesse est sapientis animum cum his habitantem pernoctantemque curis! ut, cum totius mundi motus con-*

versionesque perspexerit sideraque viderit innumerabilia caelo inhaerentia cum eius ipsius motu congruere certis infixa sedibus, septem alia suos quaque tenere cursus multum inter se aut altitudine aut humilitate distantia, quorum vagi motus rata tamen et certa sui cursus spatia definiant ... **Philo of Alexandria** *Aet.* 47 ἔδει γὰρ ἢ μύδρους διαπύρους ἀποφύνασθαι, κάθαπερ ἔνιοι τῶν οἶα περὶ δεσμωτηρίου φλυαρούντων τοῦ σύμπαντος οὐρανοῦ, ἢ θείας ἢ δαιμονίας φύσεις νομίζοντας τὴν ἀρμόττουσαν θεοῖς ἀφθαρσίαν προσομολογήσαι. **Arius Didymus** at *Stob. Ecl.* 1.25.5 = fr. 33 Diels *Zήνων (SVF 1.120)* τὸν ἥλιόν φησι καὶ τὴν σελήνην καὶ τῶν ἄλλων ἄστρων ἕκαστον εἶναι νοερόν καὶ φρόνιμον, πύρινον (δὲ) πυρὸς τεχνικοῦ. δύο γὰρ γένη πυρός, τὸ μὲν ἄτεχνον καὶ μεταβάλλον εἰς ἑαυτὸ τὴν τροφήν, τὸ δὲ τεχνικὸν αὐξητικὸν τε καὶ τηρητικόν, ὅσον ἐν τοῖς φυτοῖς ἐστὶ καὶ ζῷοις, ὃ δὴ φύσις ἐστὶ καὶ ψυχὴ· τοιοῦτου δὴ πυρὸς εἶναι τὴν τῶν ἄστρων οὐσίαν.

Chapter heading: Proclus in Tim. 3.112.26–27 δεῖ γὰρ πρῶτον ἡμᾶς περὶ τῆς οὐσίας αὐτοῦ (sc. τοῦ ἀπλανοῦς) διελθεῖν ... **Simplicius in Phys.** 290.21–23 εἰ οὖν ὁ μὲν φυσικὸς καὶ περὶ οὐσίας τῶν ἄστρων καὶ περὶ τῶν συμβεβηκότων αὐτοῖς ἐπισκοπεῖ, ὁ δὲ ἀστρολόγος περὶ μόνων τῶν συμβεβηκότων ... *in Cael.* 366.2–12 ἀρχὴν ἐποίησατο τοῦ δευτέρου βιβλίου, ἐν ᾧ τὰ λοιπὰ περὶ τοῦ οὐρανοῦ προβλήματα διαρθροῖ: ... καὶ ἑβδομον περὶ ἀστέρων οὐσίας τε αὐτῶν καὶ σχήματος καὶ τάξεως καὶ κινήσεως ... *in Cael.* 452.9–14 (on 290a7) μετὰ τὴν ἐκ διαιρέσεως ἀποδείξειν τὴν περὶ τῆς κινήσεως ἢ τῆς ἀκινήσεως τῶν ἄστρων ἄλλον τρόπον ἀποδείξεως ἐπάγει περὶ τοῦ μὴ κινεῖσθαι τὰ ἄστρα ὑποθέμενος αὐτὰ σφαιροειδῆ εἶναι καὶ νῦν μὲν τὸ πιθανόν τῆς ὑποθέσεως πιστούμενος ἔκ τε τῆς τῶν ἄλλων δόξης οὕτως οἰομένων περὶ αὐτῶν καὶ ἐκ τοῦ δεῖν τῆς αὐτῆς οὐσίας ὄντας αὐτοὺς τῷ οὐρανίῳ σώματι καὶ σχῆμα τὸ αὐτὸ ἔχειν ...

§2 Empedocles: cf. **Aristotle** *Cael.* 2.7 289a16–19 ὥσπερ γὰρ οἱ πύρινα φάσκοντες εἶναι διὰ τοῦτο λέγουσιν, ὅτι τὸ ἄνω σῶμα πῦρ εἶναι φαίνεται, ὥς εὐλογον ὅν ἕκαστον συνεστάναι ἐκ τούτων ἐν οἷς ἕκαστόν ἐστιν, ὁμοίως καὶ ἡμεῖς λέγομεν.

§3 Anaxagoras: Olympiodorus in Mete. 17.19–21 μόνα δὲ τὰ ἄστρα πυρῶδη εἰσίν, ὥς καὶ τὸν Ἀναξαγόραν (59A19 DK) μύδρον καλέσαι τὸν ἥλιον διὰ τὸ ἄμετρον τῆς πυρώσεως· μύδρος γὰρ ἐστὶν ὁ πεπυρακτωμένος σίδηρος.

§8 Parmenides Heraclitus: see on A 2.11.1 (Parmenides).

§12 Plato: Plato Tim. 40a τοῦ μὲν οὖν θεοῦ τὴν πλείστην ιδέαν ἐκ πυρὸς ἀπηργάζετο (sc. ὁ θεός). cf. **Alcinous** *Did.* 14, p. 171.1–4 H. (planets only) ἑπτὰ σώματα ὁ θεὸς δημιουργήσας ὁρατὰ ἐκ πυρώδους τῆς πλείστης οὐσίας ἐφήρμοσε ταῖς σφαίραις ὑπαρχούσαις ἐκ τοῦ θατέρου κύκλου καὶ πλανωμένου. **Apuleius** *Plat.* 1.12, p. 71.6–9 Beaujeu *iam ipsa animantium genera in quattuor species dividuntur, quarum una est ex natura ignis eiusmodi qualem solem ac lunam videmus ceterasque siderum stellas ...* **Proclus in Tim.** 3.112.23–113.17 πρῶτόν ἐστι τῶν μερικῶν ζῶων τὸ ἀπλανές, ὃ δὴ καὶ πρῶτον ὑφίστησιν ὁ δημιουργὸς ἐκ πυρὸς αὐτοῦ τὴν πλείστην ιδέαν ἀπεργαζόμενος· δεῖ γὰρ πρῶτον ἡμᾶς περὶ τῆς οὐσίας αὐτοῦ διελθεῖν, ἔπειτα περὶ τοῦ σχήματος καὶ τρίτον περὶ τῆς θέσεως καὶ τέταρτον περὶ τῆς κινήσεως. ὁ δὲ περὶ τῆς οὐσίας λόγος πολλὴν ἐπεισχυκλεῖ τὴν τῶν ἐξηγητῶν διαφωνίαν· πῶς γὰρ ἐκ πυρὸς ἔχει τὴν πλείστην ιδέαν; πότερον οὕτως, ὥσπερ ἔνιοι φασι, ὅτι συγκεκράται μὲν (113) ἀπὸ πάντων τῶν στοιχείων, τοῦ δὲ πυρὸς πλείστου μετεῖλη-

χεν, ἢ ὅτι πᾶν μὲν τὸ οὐράνιον γένος ἐκ πάντων ἐστί, τὸ δὲ πλείστον αὐτοῦ πύριόν ἐστι; ... ἄρα μὴ οὕτως, ὥσπερ ὁ τῶν πραγμάτων θεατὴς ὄντως ἐξηγήσατο τὴν πλείστην ἰδέαν τοῦ πυρός, ἀντὶ τοῦ πέμπτου σώματος τὸ πῦρ ἀκουστέον πλείστην ἰδέαν ἔχον, ὡς πολλοὺς λόγους ὑποδεξάμενον, ὧν ἐστι πλήρες ἕκαστον τῶν θείων σωμάτων; ἢ κατὰ τούτων μὲν οὐδένα τῶν τρόπων, ὡς δὲ ἔνιοι λέγουσιν, ὅτι τὰ θεῖα ζῶα συνέστηκε μὲν ἐκ πυρός, ἀλλὰ διαστατὴν ἔχει καὶ πεπληθυσμένην τὴν οὐσίαν (ἐνοειδὲς γὰρ τὸ νοητόν, πλείστον δὲ τὸ σωματικόν ὡς μεριστόν, ὡς διαστατόν, ὡς ὄγκον ἔχον), ἢ, ὅπερ ἐστὶ πάντων ἀληθέστατον, εἰς πάσας ἀποβλέψομεν τὰς ἐπιβολὰς καὶ μίαν ἀπὸ πασῶν ἀλήθειαν θεωρήσομεν; ... *in Tim.* 3.114.8 καὶ οὐ φοβηθισόμεθα τοὺς δεινοὺς τῶν διαλεκτικῶν (sc. Aristotle and the Peripatetics), οἳ σμικρόν τι μόριον τῆς φύσεως ἰδόντες οἴονται τὸν Πλάτωνα διασύρειν τὸ πῦρ ἄνωφερές λέγοντες, τὰ δὲ ἄστρα κυκλοφορητικά· ταῦτα γὰρ οὐκ ἔχει χώραν ἐπὶ τοῦ οὐρανοῦ πυρός

§13 Aristotle: *Aristotle Cael.* 1.2 269a30–32 ἔκ τε δὴ τούτων φανερόν ὅτι πέφυκε τις οὐσία σώματος ἄλλη παρὰ τὰς ἐνταῦθα συστάσεις, θειοτέρα καὶ προτέρα τούτων ἀπάντων ... See also on A 2.11.5.

§16 Epicurus: *Epicurus Ep.Pyth.* at D.L. 10.90 ἥλιός τε καὶ σελήνη καὶ τὰ λοιπὰ ἄστρα ... εὐθὺς διεπλάττετο καὶ αὕξησιν ἐλάμβανεν κατὰ προσκρίσεις καὶ δινήσεις λεπτομερῶν τινων φύσεων, ἧτοι πνευματικῶν ἢ πυροειδῶν ἢ συναμφοτέρων ...

Liber 2 Caput 14

P^B: ps.Plutarchus *Plac.* 889A; pp. 343^a16–344^a7 Diels—**P^E**: Eusebius *PE* 15.31, pp. 404.19–405.3 Mras, cf. 7.11.13 Mras—**P^G**: ps.Galenus *HPh* c. 56a; p. 624.20–24 Diels; pp. 183–185 Jas—**P^Q**: Qustā ibn Lūqā pp. 150–151 Dai-ber—**P^S**: Psellus *Omn.Doctr.* c. 133, p. 70.8 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.40, p. 44.3 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.24, p. 201.21 (tit.) + 1.24.1k, p. 203.15–16 + 2d, p. 205.25–26 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b8–9 Henry (titulus solus)
T: Theoderetus *CAG* 4.20, p. 105.15–16 Raeder
 Cf. Ach: Achilles *Univ.* c. 12, p. 20.11–15; c. 15, p. 22.15–18 Di Maria

Titulus ιδ'. Περὶ σχημάτων ἀστέρων (P,S)

- §1 οἱ Στωικοὶ σφαιρικοὺς τοὺς ἀστέρας, καθάπερ τὸν κόσμον καὶ ἥλιον καὶ σελήνην, (P₁,S₂,T₁)
 §2 Κλεάνθης κωνοειδεῖς. (P₂,S₃,T₂)
 §3 Ἀναξιμένης ἥλων δίκην καταπεπηγέναι τῷ κρυσταλλοειδεῖ. (P₃,S₁)
 §4 ἔνιοι δὲ πέταλα εἶναι πύρινα, ὥσπερ ζωγραφήματα. (P₄)

5

§1 Stoici *SVF* 2.681; §2 Cleanthes *SVF* 1.508; §3 Anaximenes 13A14, B2a DK; §4 anonymi cf. 13A14 DK

titulus σχημάτων ^{PB(I-III)EQSY}S (qui conflat tit. Περὶ οὐσίας ἀστρων (c. 2.13) καὶ σχημάτων (2.14), κινήσεως (cf. 2.16) τε καὶ ἐπισημασίας (2.19)), cf. P^S: σχήματος ^{PB(III)E}, cf. Ach : al. P^S: Ποταπὰ τῶν ἀστέρων τὰ σχήματα §1 [2] οἱ Στωικοὶ P : οἱ μὲν ἄλλοι S (cf. οἱ μὲν T), οἱ μὲν ἄλλοι (Στωικοὶ) con. Heeren prob. Wachsmuth || τοὺς ἀστέρας P : τοὺς S^{FP}, αὐτοὺς S^{P(m.s.)} Diels Wachsmuth || post κόσμον add. οἶονται P^G || [2–3] καθάπερ ... σελήνην P^{BGQ} : καθάπερ τὸν κόσμον καὶ ἥλιον P^E (cf. Ach καὶ τὸν ἥλιον καὶ τὸν περιέχοντα οὐρανόν) : om. S §2 [4] om. P^E || post nomen add. δὲ verisimiliter S (cf. T) §3 [5] καταπεπηγέναι ^{PB(I,III)G}S : καταπεπηγμένους P^E emend. Mras (mss. –μένων) : P^Q καταπεπηγμένων (daß sie die Stelle der Nägel einnehmen, die in der eisartigen Substanz festgenagelt und befestigt sind Q) : καταπεπηγέναι P^{B(II)} || post καταπεπηγέναι add. τὰ ἄστρα S (ret. Diels VS, DK), καὶ P^G §4 [6] ἔνιοι δὲ ^{PB(III)EQ}, cf. Ach τινὲς δὲ : δὲ om. P^G : καθάπερ P^{B(II)} || εἶναι πύρινα P^B : inv. P^E : om. πύρινα P^Q : al. P^G πύρινα νομίζουσιν εἶναι || ζωγραφήματα ^{PB(III)EG} : ἐξωγραφημένα P^{B(II)} || post ζωγραφήματα add. τοὺς ἀστέρας P^G

Testes primi:

Theodoretus *CAG* 4.20

4.20.2 (~ §1) καὶ οἱ μὲν σφαιροειδεῖς τούτους εἰρήκασι,

4.20.3 (~ §2) κωνοειδεῖς δὲ Κλεάνθης ὁ Στωϊκός.

Traditio ps.Plutarchi:

Eusebius *PE* 7.11.13 (de theologia Graeca, cf. c. 1.7) τῶν δὲ τοὺς ἀστέρας εἶναι (sc. θεοὺς) φασκόντων, οὓς καὶ μύδρους τυγχάνειν διαπύρους ἥλων καὶ πετάλων δίκην ἐμπεπηγότας τῷ οὐρανῷ (cf. P₃).

ps.Galenus *HPh* c. 56a (titulus deest) (text Jas)

56a.1 (~ P1) οἱ Στωικοὶ σφαιρικοὺς τοὺς ἀστέρας καθάπερ τὸν κόσμον οἶονται καὶ ἥλιον καὶ σελήνην.

56a.2 (~ P2) Κλεάνθης κωνοειδεῖς.

56a.3 (~ P3) Ἀναξιμένης ἡλίων δίκην καταπεπηγέναι καὶ <τῷ> κρυσταλλοειδεῖ.

56a.4 (~ P4) ἔνιοι πέταλα πύρινα νομίζουσιν εἶναι ὥσπερ ζωγραφήματα τοὺς ἀστέρας.

Psellus *Omn.Doctr.* c. 133 Ποταπὰ τῶν ἀστέρων τὰ σχήματα (~ tit.)

Symeon Seth *CRN* 3.40 Περὶ σχημάτων ἀστέρων (~ tit.)

Testes secundi:

Achilles *Univ.* c. 12, p. 20.11 Περὶ σχήματος ἀστέρων (~ tit.)

p. 20.12–15 Κλεάνθης αὐτοὺς κωνοειδῆς ἔχειν σχῆμά φησι (~§2), τινὲς δὲ πετάλοις εἰοικέναι ἐκπύροις βάθος οὐκ ἔχοντας (~§4), ἀλλ' ὥσπερ γραφὰς εἶναι, τινὲς δὲ πυραμίδας. οἱ δὲ Στωικοὶ σφαιρικὸν ἔχειν σχῆμα λέγουσι, καθάπερ καὶ τὸν ἥλιον καὶ τὸν περιέχοντα οὐρανόν (§1).

c. 15, p. 22.14. Περὶ πλανήτων (~ tit.)

p. 22.15–19 ὁ Ἄρατος τῇ τῶν πολλῶν δόξει κατακολουθήσας τοὺς ἀπλανεῖς ἐναρρῆναι (cf. §3) φησὶ (*Phaen.* 10) τῷ οὐρανῷ 'αὐτὸς γὰρ τάδε σήματ' ἐν οὐρανῷ ἐστήριξε' παρὰ τὸ 'ἐστήριξεν' ἀστέρας αὐτοὺς παρετυμολογῶν. τὸν δὲ τῶν πλανήτων λόγον παρητήσατο ὁ Ἄρατος ...

Loci Aetiani:

titulus et quaestio A 1.14 Περὶ σχημάτων. A 2.2 Περὶ σχήματος κόσμου; A 2.22 Περὶ σχήματος ἡλίου; A 2.27 Περὶ σχήματος σελήνης; A 3.10. Περὶ σχήματος γῆς.

§1 cf. A 2.22.3 (de sole) οἱ Πυθαγόρειοι οἱ Στωικοὶ σφαιροειδῆ, ὡς τὸν κόσμον καὶ τὰ ἄστρα.

§2 A 1.14.5 (de figuris) Κλεάνθης μόνος τῶν Στωικῶν τὸ πῦρ ἀπεφνήματο κωνοειδῆς. A 2.2.1–2 οἱ μὲν Στωικοὶ σφαιροειδῆ τὸν κόσμον, ἄλλοι δὲ κωνοειδῆ ... A 2.27.4 (de luna) Κλεάνθης πιλοειδῆ.

§3 A 2.22.1 Ἀναξιμένης Ἀλκμαίων πλάτυν ὡς πέταλον τὸν ἥλιον. A 2.13.2 Ἐμπεδοκλῆς ... τοὺς μὲν ἀπλανεῖς ἀστέρας συνδεδέσθαι τῷ κρυστάλλῳ, τοὺς δὲ πλανήτας ἀνεισθαι.

§4 A 2.13.2 (de stellis) Ἐμπεδοκλῆς πύρινα ἐκ τοῦ πυρώδους; A 2.13.9 Ἀναξιμένης πυρίνην μὲν τὴν φύσιν τῶν ἄστρων.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) P and his tradition (including G) have four lemmata (the second is passed over by Eusebius). G does not include the chapter heading, so it seems that his four lemmata become part of the previous chapter. Jas argues (2018a, 183) that this may have been his intention and does not include these doxai as a separate chapter. However, for the sake of clarity we have retained the numbering of Diels (ch. 56a).

(2) In the grand process of coalescence carried out by S (see above on ch. 2.13), three doxai are included, but the last anonymous lemma recorded by P finds no place, as occurs more often in S (see M–R 1.235).

(3) T retains only the first two doxai with their clear antithesis.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There are remarkably few references to this question in the proximate tradition. Philo does not include it in his long list of questions on the heaven and the heavenly bodies. It is briefly included in Diogenes Laertius' doxography of the Stoa, but it is not found in the fragments of Arius Didymus. Many centuries later Isidore of Pelusium, in his text on the nature of the stars (discussed on ch. 2.13), includes three doxai that mention their shape—*πύρινοι σφαίραι, δισκοειδῆ σώματα, σφαιροειδεῖς πυρὸς πιλῆσεις*—, of which the second is not found in our chapter. Isidore must have had access to a doxographical tradition differing from but parallel to that utilised by A. Much closer to A, however, is the brief chapter in Achilles with the heading *Περὶ σχήματος ἀστέρων*, which will be analysed separately below in D(e).

(2) *Sources.* In the *Timaeus* Plato does not mention the shape of the heavenly bodies, in contrast to the that of the universe as a whole. Aristotle, in his treatment of the stars in *Cael.* 2.8, states his view that they are *σφαιροειδῆ* (the usual term in A, cf. 2.2.1, 2.22.3 etc., but in this chapter the term used is *σφαιρικός*). He adds that this is also the view of others (text below section E(b) General texts). But, apart from this passage (and references to it in the commentators), the topic of the stars' shape occurs but seldom. It not specifically mentioned in the cosmological treatise of the Stoic Cleomedes nor in Geminus' handbook of astronomy. Clearly from the 4th century BCE onwards the stars' spherical shape was generally assumed, with as striking (and perhaps suspicious) exception Cleanthes. It might be expected that in the atomist tradition at least the possibility of different shapes would have been raised, but if so, we have not found any evidence of it.

C *Chapter Heading*

The heading follows the predominant umbrella Περί x construction, reflecting a quaestio in the category of quality (well understood by Ps in using the unusual interrogative adjective ποταπός). The majority reading of the plural σχημάτων is to be preferred above the singular σχήματος in E and one ms. of P^B (and Ach). The singular suits the cases of the cosmos (ch. 2.2), sun (2.22), moon (2.27) and earth (3.10) better, but the plural is clearly more suitable for the vast number of stars and planets.

In his chapter 1.24 on the heavenly bodies S adroitly combines the headings of chs. 2.13, 2.14, 2.16 and 2.19. A consequence, however, is that he omits the headings of three chapters from which he does include excerpts, chs. 2.15 (on τάξις), 2.17 (on their illumination) and 2.18 (on the Dioscuri).

D *Analysis*

a Context

The question of shape in the category of quality follows on from that of nature or essence, as in the case of the cosmos (ch. 2.2), sun (2.22), moon (2.27) and earth (3.10). A chooses not to pose the question of size in the case of the stars, in contrast to that of the sun (2.21) and moon (2.26). This would have been scarcely possible in the context of ancient astronomy.

b Number–Order of Lemmata

Among the witnesses for A there is no evidence for any more lemmata than are found in P, so the chapter may be regarded as complete (but see below D(e) on Ach). For the order of the doxai we can also rely on P, since the deviation in S is easily explained by the process of coalescence.

c Rationale–Structure of Chapter

The chapter as transmitted divides into two pairs of contrasting doxai, only the first of which is exploited by T. This first pair gives two different shapes. The Stoa is taken to represent the dominant view (implied in the comparison with other bodies; the same choice of name-label occurs in chs. 2.2, 2.27 and 3.10). The doxographer then points out a disagreement within the school itself (unlike in 2.2, where the cone-like option is kept anonymous, it is attributed here specifically to Cleanthes). The contrast involved in the second pair of doxai is less explicitly indicated. The stars are either stuck to the crystalline nature of the outer heaven (already ascribed to Empedocles, but here to the earlier Anaximenes) like studs (perhaps the image of a shield), or they are flat leaves like drawn or painted representation of living things (to draw out the full implication of the term ζωγράφημα). The parallel text in Ach suggests that the contrast

turns on the difference between two and three-dimensional shape, the studs having—we may surmise—a semi-circular shape. His second doxa states that ‘some thinkers say they (sc. the stars) resemble inflamed leaves having no depth but are like pictures’ (text *Testes secundi* above). A similar contrast is made at the beginning of the next ch. 2.15 on whether the stars are disposed on a flat surface or three-dimensionally with height or depth. The terminology of ‘being fixed to’ or ‘bound to’ the outer heaven used by A at §3 and previously 2.13.10 is found in numerous authors, examples of which are given below. In a much later text at *Enn.* 2.3.7.4 Plotinus uses the image of ‘pictures written in the heaven’ to describe the stars, but in this case he would not deny that the stars were spherical; they appear to be pictures in the form of the well-known constellations.

d Further Comments
Individual Points

§§1–2 There are divergences between P and ST in the first name-label and in the use of the μέν ... δέ construction. The opposition between ‘the Stoics’ and Cleanthes (as in P) may seem strange, because Cleanthes is a Stoic himself (cf. the conjecture of Diels and Wachsmuth for the text in S, οἱ μέν ἄλλοι (Στωϊκοί)). This may be the reason that both S and T dropped the reference to the Stoics. But we observe that the same kind of antithesis is made in ch. 2.9 (Stoics, Posidonius). And as noted above, the Stoics have the prime place in the equivalent chapters on shape at chs. 2.2, 2.27 and 3.10. The reading of P should be retained as the *lectio difficilior*. Similarly with regard to the use of the μέν ... δέ construction we have chosen the more difficult reading. It is more likely that it was introduced by the paraphrasing activities of ST than that it was deleted by P.

§2 Cleanthes’ idiosyncratic view that the stars have a cone-like shape will be linked to his view that it is the shape of the element fire (A 1.14.5), and may perhaps also be connected with the optical theory that the visual rays form a cone, attributed to Chrysippus at A 4.15.3. See further the discussion in the Commentary on ch. 1.14.5. Gilbert (1907) 691 cited by Lachenaud ad loc. surmises that the view is based on the fact that the appearance of fire in a flame is conical in shape. Von Arnim (1921) 565 appeals to his view of the moon’s hat-like shape in A 2.27.4 and suspects the influence of Heraclitus’ bowls (cf. the previous doxa in the same chapter 2.27.3, and also 2.28.7).

§§3–4 There has been much speculation on this text, because elsewhere it is the second view that appears to correspond to Anaximenes’ view and not the first (note the reference to the sun as πέταλον at 2.22.1, which Diels VS 1.95 regarded as drawn from Anaximenes’ original text; Ach keeps the doxa

anonymous, so cannot help us). See discussions in Guthrie (1962–1981) 1.135, Lloyd (1966) 317, Kirk–Raven–Schofield (1983) 155; further references at Lachenaud (1993) 248. Brind’Amour (1969) somewhat naively suggests that the name-labels be reversed. Long ago Heath (1913) 41–43 proposed that ἔνιοι be emended to ἐνίους, so that the distinction would occur within the Anaximenean doxa (Guthrie’s grammatical objection to this only follows if the reading of S is preferred as in DK). Schwabl (1966), supported by Wöhrle (1993) 72, proposed that the words ἔνιοι δὲ πέταλα εἶναι πύρινα be regarded as a comment on the planets that has found its way into the text on the fixed stars. Recently too, Bottler (2014) 375 and Couprie (2018) 50 n. 16 agree that the second lemma fits in better with Anaximenes. It is true that a mix-up of name-labels or views may quite easily have occurred, e.g. if the Anaximenes doxa originally belonged to Empedocles (cf. his doxa at A 2.13.2) and the other doxa to Anaximenes (suggested by Lloyd and Kirk–Raven–Schofield). But it would go too far to emend the text as transmitted in our witnesses.

e Other Evidence

Ach has a chapter with an identical title. The similarities to A cannot be coincidental and point to a shared tradition. He and A are ‘cousin writings’, cf. M–R 1.305. Three of A’s doxai can be easily recognized, but in a different order: Ach₁ = §2, Ach₂ = §4, Ach₄ = §1. Anaximenes’ doxa is not found and an additional pyramidal shape is included (reminiscent of the studs in A’s §3, since a body with pyramidal shape can be stuck onto a virtually flat surface). As noted above in section D(c), Ach’s reference to two-dimensional shape may give the clue to the second diaeresis in A. Ach’s chapter has a different organization, seeming to work towards the final view as definitive (the contrast within the Stoic school is thus not exploited). Isidore of Pelusium in his passage on the heavenly bodies discussed above on ch. 2.13 also mixes in the question of shape, but his ‘like a disc’ alternative does not occur in A or Ach (it is found in A 2.27.5 on the moon and 3.10.5 on the earth). His text, in referring to τὰ ἄστρα, may of course be referring to planets as well as fixed stars.

E Further Related Texts

a Proximate Tradition

General texts: Seneca *Nat.* 2.1.1 *prima pars* (sc. de universo quaestionis) *naturam siderum scrutatur et magnitudinem et formam ignium, quibus mundus includitur, solidumne sit caelum ac firmae concretaeque materiae an ex subtili tenuique nexum ... et infra sese sidera habeat an in contextu sui fixa.* **Scholía in Basilium I** 14, p. 198.14–16 Pasquali εóικασιν οὖν οὗτοι μόνοι μὴ ἐμπεπῆχθαι τῷ οὐρανῷ καθάπερ οἱ ἀπλανεῖς λεγόμενοι.

Isidore of Pelusium *Ep.* 1435.68–86 Ἐννίους εἴτε οὖν λογικά ἐστι ζῶα (sc. τὰ ἄστρα), ὥς φασί τινες, εἴτε πύρινοι σφαῖραι, εἴτε δισκοειδῆ σώματα, ... εἴτε σφαιροειδεῖς πυρὸς πιλῆσεις. see further on A 2.13.

Chapter heading: cf. *Seneca Nat.* 2.1.1 (cited above) *formam ignium*.

§1 **Stoics: Diogenes Laertius** *V.P.* 7.145 δοκεῖ δὲ αὐτοῖς σφαιροειδῆ εἶναι καὶ τὰ ἄστρα (*SVF* 2.650).

§3 **Anaximenes:** *Seneca Nat.* 2.1.1, *agatur an agat* (sc. *caelum*), *et infra sese sidera habeat an in contextu sui fixa*. **Lactantius** *Inst.* 3.3.4 Heck–Wlosok (general question) *et stellae utrumne adhaereant caelo an per aerem libero cursu ferantur*.

b Sources and Other Parallel Texts

General texts: **Aristotle** *Cael.* 2.8 290a7–8 ἔτι δ' ἐπεὶ σφαιροειδῆ τὰ ἄστρα, καθάπερ οἱ τ' ἄλλοι φασὶ καὶ ἡμῖν ὁμολογούμενον εἰπεῖν ... *Cael.* 2.8 291a26–28 ὅτι μὲν οὖν σφαιροειδῆ τὰ ἄστρα καὶ ὅτι οὐ κινεῖται δι' αὐτῶν, ἔρρηται. cf. **John Philoponus** in *GC* 3.14–16 (summarising *Cael.*) κατὰ δὲ τὸ δεύτερον περὶ τοῦ σχήματος τοῦ παντὸς οὐρανοῦ καὶ τῶν ἐν αὐτῷ ἀστέρων ὅτι σφαιροειδὲς ἐστί καὶ τῆς κινήσεως τῆς τούτων ὅτι κυκλοφορητική.

Chapter heading: **Aristotle** *Cael.* 2.7 289a11–12, 2.12 293a12–14 cited on ch. 2.13. **Posidonius** see on ch. 2.11. **John Philoponus** in *GC* 3.14–16 see above. **Simplicius** in *Cael.* 366.11–12, p. 452.14 cited on ch. 2.13.

§3 **Anaximenes:** cf. **Cicero** *ND* 2.54 *nec habent (stellae) aetherios cursus neque caelo inhaerentes, ut plerique dicunt physicae rationis ignari* ... (see further on ch. 2.15). Further texts describing the stars as fixed to the heaven: **Cicero** *Tusc* 5.69 *cum ... viderit innumerabilia caelo inhaerentia cum eius ipsius motu congruere certis infixis sedibus*. *Resp.* 6.17 (on the heaven) *in quo sunt infixi illi qui voluntur stellarum cursus sempiterni*. **Alexander of Aphrodisias** in *Met.* 544.15–16 οὐρανὸν λέγει (sc. Aristotle) τὸ κυκλοφορικὸν ἅπαν σῶμα, μόρια δὲ τοὺς ἐν αὐτῷ ἐμπεπηγμένους ἀστέρας etc. **Athenaeus** *Deipn.* 489D ἔχει γάρ (sc. τὸ τοῦ Νέστορος ποτήριον) καὶ ἀστέρας, οὓς ἥλοις ὁ ποιητὴς (*Il.* 11.633) ἀπεικάζει διὰ τὸ τοὺς ἀστέρας περιφερεῖς εἶναι τοῖς ἥλοις ὁμοίως καὶ ὥς (ἥλους) ἐμπεπηγέναι τῷ οὐρανῷ, καθὼς καὶ Ἀρατὸς φησιν ἐπ' αὐτῶν (*Phaen.* 453) 'οὐρανῷ αἰὲν ἄρην ἀγάλματα νυκτὸς ἰούσης'. see also on ch. 2.15.

§4 **Anonymi:** **Plotinus** *Enn.* 2.3[52].7.4 ἔστω (sc. τὰ ἄστρα) τοῖνυν ὥσπερ γράμματα ἐν οὐρανῷ γραφόμενα αἰεὶ ἢ γεγραμμένα καὶ κινούμενα ...

Liber 2 Caput 15

P^B: ps.Plutarchus *Plac.* 889A–B; pp. 344^a8–345^a12 Diels—**P^E**: Eusebius *PE* 15.46, p. 413.10–21 Mras—**P^G**: ps.Galenus *HPh* c. 57; pp. 624.25–625.7 Diels—**P^Q**: Qustā ibn Lūqā pp. 150–153 Daiber—**P^P**: Psellus *Omn.Doctr.* c. 134.1–9, p. 70 Westerink
S: Stobaeus *Ecl.* 1.24.1e, p. 202.20–21 + 1.24.1gh, p. 203.1–6 + 1.24.1l, pp. 203.23–204.1 + 1.24.2ab, p. 205.4–12 + 1.24.2e, pp. 205.28–206.3 Wachsmuth
Cf. Ach: Achilles *Univ.* c. 16, p. 23.6–17 Di Maria; Isidorus Pelusiota *Ep.* 2.273, MPG 78.704A

Titulus 1ε'. Περὶ τάξεως ἀστέρων (P)

- §1 Ξενοκράτης κατὰ μιάς ἐπιφανείας οἶεται κείσθαι τοὺς ἀστέρας. (P1,S5)
 §2 οἱ δ' ἄλλοι Στωικοὶ πρὸ τῶν ἐτέρων τοὺς ἐτέρους ἐν ὕψει καὶ βάθει. (P2,S6)
 §3 Δημόκριτος τὰ μὲν ἀπλανῆ πρῶτον, μετὰ δὲ ταῦτα τοὺς πλανήτας, ἐφ' οἷς ἥλιον φωσφόρον σελήνην. (P3,S1) 5
 §4 Πλάτων μετὰ τὴν τῶν ἀπλανῶν θέσιν πρῶτον φαίνοντα λεγόμενον τὸν τοῦ Κρόνου, δεύτερον φαέθοντα τὸν τοῦ Διός, τρίτον πυρόεντα τὸν τοῦ Ἄρεος, τέταρτον ἑωσφόρον τὸν τῆς Ἀφροδίτης, πέμπτον στίλβοντα τὸν τοῦ Ἑρμοῦ, ἕκτον ἥλιον, ἑβδομον σελήνην. (P4,S4) 10
 §5 τῶν μαθηματικῶν τινὲς μὲν ὡς Πλάτων, τινὲς δὲ μέσον πάντων τὸν ἥλιον. (P5,S7)
 §6 Ἀναξίμανδρος καὶ Μητροδόωρος ὁ Χίος καὶ Κράτης ἀνωτάτω μὲν πάντων τὸν ἥλιον τετάχθαι, μετ' αὐτὸν δὲ τὴν σελήνην, ὑπὸ δ' αὐτοὺς τὰ ἀπλανῆ τῶν ἀστρῶν καὶ τοὺς πλανήτας. (P6,S2–3) 15

§1 Xenocrates fr. 57 Heinze, F82 Isnardi-Parenti²; §2 Stoici *SVF* 2.689; §3 Democritus 68A86 DK; §4 Plato cf. *Tim.* 38c–d; §5 mathematici —; §6 Anaximander 12A18 DK; Metrodorus cf. 70A9 DK; Crates Mallotes fr. F5a Mette

titulus Περὶ τάξεως ἀστέρων ^{P^BEQ^S}: Περὶ τάξεως ^{P^G} (deest in S in tit. c. 1.24 ubi conflant tit. 2.13, 2.14, 2.16 et 2.19) §1 [2] Ξενοκράτης ^{P^BEQ^S}: Ξενοφάνης ^{P^G} || κατὰ μιάς ἐπιφανείας ^{P^BS}: κατὰ μίαν ἐπιφανείαν ^{P^E}: κατ' ἐπιφανείαν ^{P^G} || κείσθαι S: κινεῖσθαι P §2 om. G || [3] οἱ δὲ ἄλλοι Στωικοὶ ^{P^BS^{FP}}: δὲ om. ^{P^E}: οἱ δὲ ἄλλοι καὶ οἱ Στωικοὶ ^{S^{P(m.s.)}} || πρὸ τῶν ἐτέρων τοὺς ἐτέρους om. ^{P^Q} §3 [5] τὰ μὲν ἀπλανῆ πρῶτον P: πρῶτα μὲν τὰ ἀπλανῆ S || μετὰ δὲ ταῦτα] εἴτα ^{P^{B(III:Laur.31.37)}} || [5–6] ἐφ' οἷς ... σελήνην ^{P^BEQ}: ἐφ' οἷς ἥλιον καὶ σελήνην ^{P^G}: om. S §4 [7] μετὰ ... πρῶτον ^{P^B}: πρῶτον om. ^{P^E}: τοὺς ἀπλανεῖς πρῶτον ^{P^G}: καὶ πρῶτον μετὰ γε τὴν τῶν ἀπλανῶν θέσιν S || φαίνοντα ^{P^EQ^(ut vid.)}S Diels *DG*: φαίνοντα ^{P^B} Mau Lachenaud: φαίνεσθαι ^{P^G} || λεγόμενον ^{P^{B(IIID)EQ}}S: λέγει ^{P^{B(II)}}, ^{P^G} (ante φαίνεσθαι) || [9] ἑωσφόρον ^{P^BS}: φωσφόρον ^{P^GQ} || στίλβοντα P: στίλβοντα S §5 [12] ἥλιον] μετὰ δ' αὐτὸν σελήνην add. ^{P^G} (ex §6) §6 [14] δὲ ^{P^BS}: om. ^{P^EQ} || τὴν ^{P^{B(IIID)EQ}}S: om. ^{P^{B(II)}} || [15] τὰ ἀπλανῆ ... τοὺς πλανήτας: inv. ord. ^{P^Q}

§7 Παρμενίδης πρῶτον μὲν τάττει τὸν ἑῶν, τὸν αὐτὸν δὲ νομιζόμενον ὑπ' αὐτοῦ καὶ ἔσπερον, ἐν τῷ αἰθέρι· μεθ' ὃν τὸν ἥλιον, ὅφ' ᾗ τοὺς ἐν τῷ πυρῶδει ἀστέρας, ὅπερ οὐρανὸν καλεῖ. (S8)

§7 Parmenides 28A40 DK

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 57 (~ tit.) Περὶ τάξεως (text Diels)

57.1 (~ P1) Ξεοφάνης κατ' ἐπιφάνειαν οἶεται κινεῖσθαι τοὺς ἀστέρας.

57.2 (~ P3) Δημόκριτος τὰ μὲν ἀπλανῆ πρῶτον, μετὰ δὲ ταῦτα τοὺς πλανήτας, ἐφ' οἷς ἥλιον καὶ σελήνην.

57.3 (~ P4) Πλάτων (μετὰ) τοὺς ἀπλανεῖς πρῶτον λέγει φαίνεσθαι (τὸν) τοῦ Κρόνου, δεύτερον φαέθοντα (τὸν) τοῦ Διός, τρίτον πυρόντα τὸν τοῦ Ἄρεως, τέταρτον φωσφόρον τὸν τῆς Ἀφροδίτης, πέμπτον στίλβοντα τὸν τοῦ Ἑρμοῦ, ἕκτον ἥλιον, ἔβδομον σελήνην.

57.4 (~ P5–6) τῶν μαθηματικῶν τινες μὲν ὡς Πλάτων, τινὲς δὲ μέσον πάντων τὸν ἥλιον, μετὰ δ' αὐτὸν τὴν σελήνην.

Psellus *Omn.Doctr.* c. 134.1–9 Περὶ τάξεως ἀστέρων (~ tit.)

Εἰς δύο μέρη τῶν ἀστέρων διαιρουμένων, εἰς τὸ ἀπλανὲς καὶ τὸ πλανώμενον, οἱ μὲν ἀπλανεῖς τὴν ὑψηλοτέραν τάξιν τῶν πλανήτων ἔχουσιν, οὐκ ἐν τῇ αὐτῇ ἐπιφανείᾳ τοῦ αἰθερίου σώματος κείμενοι καὶ φερόμενοι, ἀλλ' οἱ μὲν ὑψηλότεροι αὐτῶν εἰσὶν, οἱ δὲ ταπεινότεροι (~ P1–3). οἱ δὲ ἑπτὰ πλανῆται μετὰ τοὺς ἀπλανεῖς τετάχονται· ὦν πρῶτος ἐστὶν ὁ τοῦ Κρόνου λεγόμενος ἀστήρ, καὶ μετὰ τοῦτον ὁ τοῦ Διός, καὶ ὑπ' αὐτὸν ὁ τοῦ Ἄρεως, εἶτα ἥλιος, μεθ' ὃν Ἀφροδίτη, καὶ μετὰ ταύτην Ἑρμῆς, καὶ τελευταῖον ἡ σελήνη (~ §4) ...

Testes secundi:

Achilles *Univ.* c. 16, p. 23.6 Τάξις τῶν ζ' σφαιρῶν

p. 23.7–17 Οἱ περὶ τὰ μετέωρα δεινοὶ φασὶ ζῶνας τινὰς εἶναι ἑπτὰ, δι' ὧν φέρεσθαι τοὺς ἑπτὰ ἀστέρας, καὶ ἐν μὲν τῇ ὑψηλοτάτῃ φέρεσθαι τὸν τοῦ Κρόνου, ἐν δὲ τῇ μετ' αὐτὴν τὸν τοῦ Διός, καὶ ἐν τῇ τρίτῃ τὸν τοῦ Ἄρεως, ἐν τῇ τετάρτῃ τὸν τοῦ ἡλίου, ἐν τῇ πέμπτῃ τὸν τῆς Ἀφροδίτης, ἐν δὲ τῇ ἕκτῃ τὸν τοῦ Ἑρμοῦ, ἐν δὲ τῇ ἑβδόμῃ τὸν τῆς σελήνης (~ §5). τινὲς δὲ ἐν τῇ τετάρτῃ τὴν Ἀφροδίτην λέγουσιν, ἐν τῇ πέμπτῃ δὲ τὸν Ἑρμῆν, ἐν δὲ τῇ ἕκτῃ τὸν ἥλιον (~ §4). ἄλλοι δὲ τέταρτον τὸν Ἑρμῆν, ἕκτην δὲ τὴν Ἀφροδίτην, μέσον δὲ τὸν ἥλιον. εἰσὶ δὲ οἱ πρῶτον τὸν ἥλιον λέγουσιν, δευτέραν δὲ τὴν σελήνην, τρίτον δὲ τὸν Κρόνον (~ §6). ἡ δὲ πλείων δόξα, καθ' ἣν πρώτη ἡ σελήνη, ἐπεὶ καὶ ἀπόσπασμα τοῦ ἡλίου λέγουσιν αὐτὴν, ὡς καὶ Ἐμπεδοκλῆς (B135 DK) 'κυκλοτερὲς περὶ γαίαν ἐλίσσεται ἀλλότριον φῶς.'

Isidorus Pelusiota *Ep.* 2.273 σκοπήσωμεν οὖν, τί ἡμῖν λυσιτελεῖ εἰς μακαριότητα, τί δ' οὐ· ... καὶ τὸ πολυπραγμονεῖν, ... τῶν ἄστρον τὴν θέσιν· ...

Loci Aetiani:

titulus cf. A 2.7 Περί τάξεως κόσμου, A 3.11 Περί θέσεως γῆς.

§§1–2 cf. A 2.13.2 τοὺς μὲν ἀπλανεῖς ἀστέρας συνδεδέσθαι τῷ κρυστάλλῳ, τοὺς δὲ πλανήτας ἀνείσθαι.

§§4–5 A 2.7.6 Φιλόλαος ... τὰ δὲ ὑπὸ τὴν τοῦ Ὀλύμπου φορὰν, ἐν ᾧ τοὺς πέντε πλανήτας μεθ' ἡλίου καὶ σελήνης τετάχθαι ... A 2.16.6 Πλάτων καὶ οἱ μαθηματικοὶ ταῦτον πεπονθέναι τῷ ἑωσφόρῳ τὸν στίλβωνα ἰσοδραμεῖν δὲ αὐτοὺς τῷ ἡλίῳ καὶ συμπεριφέρεσθαι αὐτῷ. cf. A 2.32.1 ἐνιαυτός ἐστι Κρόνου μὲν ἐνιαυτῶν περίοδος τριάκοντα, Διὸς δὲ δώδεκα, Ἄρεος δυεῖν, Ἥλιου δώδεκα μῆνες· οἱ δ' αὐτοὶ Ἑρμοῦ καὶ Ἀφροδίτης, ἰσόδρομοι γάρ· σελήνης ἡμέραι τριάκοντα· οὗτος γάρ ὁ τέλειος μῆν ἀπὸ φάσεως εἰς σύνοδον.

§7 A 2.16.7 Ἀπολλόδωρος ἐν τῷ δευτέρῳ Περί θεῶν Πυθαγορείαν εἶναι τὴν περὶ τοῦ τὸν αὐτὸν εἶναι φωσφόρον τε καὶ ἔσπερον δόξαν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) Six doxai are preserved in the Byzantine mss. of P. The same six are found in E and Q with some interesting textual variants to be discussed below. G leaves out the second and last lemma in his adaptation. Some formulations in Ps recall the contents of this chapter, but they are of no textual significance.

(2) S has retained all six of the doxai in P, but his preferred method scatters them to five different locations in his ch. 1.24 on the heavenly bodies (on the method used in this chapter see further M–R 1.220–223). He begins by placing doxai attributed to Democritus and Anaximander (cf. P3 & 6) in clusters based on the order of the lemmata in 2.13. This method constrains him to split up the equivalent of P6 into separate doxai for Anaximander and Metrodorus (while Crates falls away entirely), resulting in an additional lemma (24.1h): Μητρόδωρος ὁμοίως περὶ σχήματος τῶν ἀστέρων καὶ αὐτὸς ἀπεφύηνατο. The reference to the *shape* of the stars is of course a mistake (it should be their *order*), while the final three words are clearly added to facilitate the splitting up of the original doxa. Diels at first missed this and wrongly printed the lemma as part of ch. 2.14, but later he noted his error in the Addenda (DG 853). The Platonic doxa (cf. P4) is also part of a cluster, but thereafter three other doxai are written out separately once the name-labels in ch. 2.13 have been exhausted (cf. P1–2–5). A final lemma that remains is S8 attributed to Parmenides. There can be little doubt that it originally belonged to ch. 2.15 and its placement by S strongly suggests that it came last in the chapter.

(3) This chapter is not utilised by T.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The question of whether the outer heaven with its fixed stars has depth or is just a surface is raised by Philo at *Somn.* 1.21 as part of the extended doxographical passage already discussed on ch. 2.11. The view of Chrysippus on the subject is also given by AD in his Stoic doxography; see the comment below in section D(d) on §2. In the case of Democritus (§3), Anaximander (§6) and Parmenides (§7) information close to what we found in A is given by the proximate sources Diogenes Laertius and Hippolytus (texts below section E(a)). The text on Anaximander at Hippolytus *Ref.* 1.6.5 even shows verbal parallels to A's doxa (though the text is defective). This shows A's dependence on the prior doxographical tradition, but its ultimate source cannot be determined.

Many texts refer to the difference of opinion on the order of the planets below Mars, both in general treatments of physical astronomy and more specifically in comments on the Platonic texts. In a rare doxographical comment Ptolemy says that the matter remains unresolved (text below section E(a) General texts). In the proximate tradition the most important text is found in Ach, who gives more alternative orders than A. On this passage see below D(e).

(2) *Sources.* Discussion of the ordering of the heavenly bodies, whether the fixed stars or the planets taken on their own, or all of them taken together, goes back to the earliest period of Greek philosophy. A few later texts refer to the question of how the fixed stars are placed in the outermost sphere of heaven, for example Cicero's passage on the location of the 'so-called fixed stars' (*stel-lae quae inerrantes vocantur*) at *ND* 2.54–55 and some texts in the proximate tradition to be discussed below. However, from the time of Plato onwards most of the discussion focuses on the order of the seven planets. Plato in the *Timaeus* and more obliquely in the myth of Er in the *Republic* adopts the so-called Pythagorean order, but this loses favour from about 200 BCE onwards (see the note on §§4–5 below). Aristotle in *Cael.* 2.10 291a29–32 mentions the question of the order of the heavenly bodies (i.e. planets) but does not treat it, stating that it can best be studied in writings on astronomy.

In an important comment on Aristotle's text Simplicius tells us that Eudemus in his work on astronomy—its title was probably *Ἰστορία ἀστρολογική*, best translated as *Research on astronomy*, see Mejer (2002) 245—stated that Anaximander was the first to make discoveries on the sizes and distances of the heavenly bodies (but no details given), but added that the Pythagoreans first established the order of their placement (text below section E(b) General texts). Views on the method used in this work differ: see Mejer cited above; Bowen (2002); Zhmud (2006) 228–276. In an examination of the evidence relating to cosmic distances, Mansfeld (2000b) 201 argues that the information in

the *Placita* may ultimately derive from Eudemus rather than Theophrastus, as postulated by Diels and since then followed by most scholars; see further on ch. 2.31 Commentary B.

C Chapter Heading

The chapter's title is of the usual umbrella type Περί x, parallel to ch. 2.7 on the order (τάξις) of the cosmos and ch. 3.11 on the placement (θέσις) of the earth. As we shall see below, the text itself indicates that the subject falls under the Aristotelian category of relative position (κείμενοι). There can be no doubt that the heading of the Byzantine mss., supported by E and Q, is correct. G's shorter heading is seemingly incomplete, the fact that the order concerned refers to the heavenly bodies only emerging from the context (the same occurs in §45 Περί σχήματος sc. κόσμου, and cf. also §54 Περί οὐρανοῦ sc. οὐσίας). It is possible that this rests on a mistake in transmission; cf. our remarks on the heading of G ch. 68 in the Commentary on ch. 2.27. S does not take up this heading in his chapter heading which combines the headings of chs. 2.13–19. The key term τάξις occurs in numerous texts from Aristotle onwards; see the texts cited below in section E(b). An alternative term indicating the question of position is θέσις, as in ps.Arist. *De mundo* and Theon of Smyrna cited below section E(b) §§4–5.

D Analysis

a Context

The chapter occurs as third in the sequence of questions relating to the heavenly bodies, following on the chapter on their shapes. There are no chapters on their number or origin, i.e. parallel to chs. 2.1 and 2.6 on the cosmos, or on their size, i.e. parallel to chs. 2.21 on the sun and 2.26 on the moon. The first two might have been possible, the third was beyond the capability of ancient astronomy. Because of the heavenly bodies' evident plurality, the way that they are ordered must be a question that has to be answered.

b Number–Order of Lemmata

Given the thoroughness of S's excerpting in his ch. 1.24, there is no reason to think that the chapter as we have it with its seven doxai is not complete (S has eight because, as noted above, he splits one doxa into two). The order found in P can also be provisionally accepted, with the final doxa in S added at the end. But it has to be confirmed by an analysis of the chapter's contents.

c Rationale–Structure of Chapter

The chapter very clearly falls into two distinct parts. In the first two doxai the disposition of the ἀστέρεις is discussed. This subject follows on quite naturally

from ch. 2.13–14 and particularly from the distinctions already made in the Empedocles doxa at 2.13.10. The question is whether the fixed stars (this has to be meaning of ἀστέρες in the first doxa) are all situated in a single plane or whether they are situated in a three-dimensional array (a straightforward diaeresis). The extract from the Philonic doxography confirms this, even if it focuses on the outer sphere and not the stars in it (note the terms ἐπιφάνεια and βάθος). We may also compare the question raised by Seneca and Lactantius (texts below section E(a)§§1–2) in their set of quaestiones on the celestial realm as to whether the heavenly bodies were positioned below the outer sphere or fixed in it. There is also a more subtle link with the second diaeresis in A 2.14.3–4, where the studs need three planes but the pictures only two.

But, it must be noted, in the first doxa there is a significant textual problem. Should the verb be κινεῖσθαι as in P or κείσθαι as in S? Preference must clearly be given to the latter. Movement is the subject of the following chapter 2.16, Περὶ τῆς τῶν ἀστέρων φορᾶς καὶ κινήσεως. The present chapter discusses position or order. The verb κείσθαι points to one of the Aristotelian categories (in this case relative position), which are crucial for the way that A orders his material in this book. Interestingly exactly the same textual problem occurs in Aristotle *Cael.* 2.10 291a30, where κείται is also to be preferred. Further support for this reading is the example of the order of the planets given by Alexander to illustrate the comparative question κατὰ τὸ κείσθαι (text below section E(b)§§4–5).

The five remaining doxai that make up the rest of the chapter take as their starting point—clearly articulated in the third doxa—the distinction between fixed stars (τὰ ἀπλανῆ) and the planets (οἱ πλανήτες). The first three postulate that the fixed stars come first, i.e. placed on the outermost part of heaven, followed by the planets in three different sequences, with variations on the order of Venus and Mercury in relation to the sun. The second and third of these of course represent the two main views in ancient cosmology, with the first Democritean doxa as a strange variant (see below on §3). It is surprising that not more prominence is given to the so-called Chaldean order (on which see further the note below, section D(d)§§4–5) which by the time that A compiled his compendium was the majority view. It is presented as an alternative view of ‘some of the astronomers’.

Finally, the last two doxai have some of the planets first, followed by the fixed stars and other planets. These two doxai, which can be taken to represent unusual or even ‘dissident’ views (cf. Laks 1997, 258), form an implicit diaeresis with the previous group.

d Further Comments

Individual Points

§1 The name-label in G, Xenophanes, if not a mistake in transmission, is no doubt a *Verschlimmbesserung*, the epitomator having noticed that in this book A usually begins his chapters with one of the very ancient philosophers, e.g. Thales or Anaximander or Pythagoras. Xenophanes is placed first in chs. 2.18 and 2.28, second in ch. 2.20. His name-label occurs 12 times in Book 2, whereas that of Xenocrates occurs only here. The text at Geminus 1.23 may indicate that the question was still debated in the first cent. BCE, although it remains controversial whether ἀστέρες refers to fixed stars or planets; see the note at Evans–Berggren (2006) 118. As Manitius (1898) ad loc. points out, the difference in height and depth is implied at Manilius 1.394 (but Goold 1977 ad loc. regards the view as foreign to the poet and, following Housman, rejects the line).

§2 The phrase οἱ ἄλλοι Στωικοί does not have to imply that A thinks Xenocrates was a (proto-)Stoic (though it is implied at 1.7.21). As Mras notes at Eus. *PE* 15.46.2, it can be explained by the common Greek idiom used e.g. by Plato at *Resp.* 473d, εὐδαιμονιζόμενος ὑπὸ τῶν πολιτῶν καὶ τῶν ἄλλων ξένων. The usage here, however, must be considered somewhat awkward when used for a *contrastive* rather than an *appositive* group (ἄλλοι in this idiom basically means ‘besides’; cf. Smyth 1956, §1272). The report on Chrysippus at AD fr. 31 states that the fixed stars (τὰ ἀπλανῆ) are all located on the same surface, in contrast to the planets (text below section E(a)§2).

§3 Democritus’ view is oddly phrased. The impression is given that the sun, Venus and the moon are not planets. In addition the placement of Venus in between the sun and moon without Mercury hardly makes sense. Both S and G in different ways edit the text so that it presents a more conventional view. S simply omits the entire final phrase. G also adopts an easy solution by deleting the reference to Venus. Taking our cue from G we might indeed wonder whether the text originally read something like Δημόκριτος τὰ μὲν ἀπλανῆ πρῶτον, μετὰ δὲ ταῦτα τοὺς ⟨ε᾽⟩ πλανήτας, ἐφ’ οἷς ἥλιον {φωσφόρον} σελήνην (the phrase ‘the five planets’ is very common, cf. ps.Eudoxus *Papyrus Parisinus* 1 col. 7.5 and our conjecture at A 2.7.6). It is, however, as Gerard Journée has reminded us, hard to imagine why anyone would introduce Venus into this list in between the sun and the moon. The reading of P (confirmed by the early witness E) is clearly the *lectio difficilior*. It should be noted that in the report of Alexander cited below the planets are listed as five in number in an order (if such is meant) that is also idiosyncratic (Saturn Jupiter Venus Mars Mercury). As in A, the sun and the moon are excluded from the list of planets, but Venus is included.

§§4–5 These two doxai present the classic opposition between the Pythagorean–Platonic order of the planets (sun and moon second last and last) and

the Chaldean order (sun in the middle of the seven followed by Venus, Mercury and the moon). Plato's view is given at *Tim.* 38d, but in less detail than we have here. Like other accounts in ps.Arist. *De mundo*, Geminus and Cleomedes, A is careful to give both the mythological and phenomenological names (the latter, i.e. Φαίνων, Φαέθων, Πυροεῖς and Στίλβων are post-Platonic). The μαθηματικοί (i.e. astronomers) are described as split between the two views. In fact from 200 BCE the Chaldean view gradually takes over. The division of opinion is much more clearly presented by Macrobius and Proclus in their commentaries on Cicero and Plato (texts below, section E(b))§§4–5).

The reading ἐωσφόρον for the planet Venus, which is found in P^B, E and S, agrees with the Platonic text in *Tim.* 38d2 and must be preferred to the variant φωσφόρον in G and Q. It should be noted that the latter term was the more usual title and it has crept into the text of Middle Platonic writers such as Timaeus Locrus and Alcinoüs; see Dillon (1993) 131.

§6 It is surprising to see Anaximander joined by two much later figures. Certainly in the case of Crates of Mallos, an important commentator on Homer (first half of second cent. BCE), it is likely that a report on Anaximander has been mistaken for his own view.

e Other Evidence

Ach's chapter Τάξις τῶν ζ' σφαιρῶν has a very different kind of title, but does show some similarities to A. The four doxai are presented anonymously and only consider the order of the planets, not the fixed stars. He appears to combine two sources, the first a straight handbook giving the generally accepted Chaldean order (for οἱ περὶ τὰ μετέωρα δεινοί cf. the μαθηματικοί in A). He then cites three doxai giving alternative views, with some resemblance to the doxai in A. After citing a famous Empedoclean verse on the moon not used by A, Ach links it to the subject of the planets' motion, which A broaches in his next chapter 2.16.

E Further Related Texts

a Proximate Tradition

General texts: Philo *Somn.* 1.21, τί δ'; ἡ ἀπλανὴς καὶ ἐξωτάτω σφαῖρα πρὸς τὸ ἄνω βάθος ἔχει ἢ αὐτὸ μόνον ἐστὶν ἐπιφάνεια βάθους ἐρήμη, τοῖς ἐπιπέδοις σχήμασιν ἐοικυῖα;

Chapter heading: —

§§1–2 *Xenocrates: Stoics* Cicero *ND* 2.54–55 *nec habent* (sc. stellae) *aetherios cursus neque caelo inhaerentes, ut plerique dicunt physicae rationis ignari; non est enim aetheris ea natura ut vi sua stellas complexa contorqueat, nam tenuis ac perlucens et aequabili calore suffusus aether non satis aptus ad stellas continendas videtur; habent igitur suam sphaeram stellae inerrantes ab*

aetheria coniunctione secretam et liberam. Seneca Nat. 2.1.1 agatur an agat (sc. caelum), et infra sese sidera habeat an in contextu sui fixa (see above on A 2.11). Lactantius Inst. 3.3.4 Heck–Wlosok nam causas naturalium rerum disquirere aut scire velle ... et stellae utrumne adhæreant caelo an per aerem libero cursu ferantur ... Macrobius in Somn. 1.17.16 reliquas omnes (sc. stellas) alii infixas caelo nec nisi cum caelo moveri, alii, quorum adsertio vero propior est, has quoque dixerunt suo motu praeter quod cum caeli conversione feruntur accedere ...

§1 **Xenocrates: Clement of Alexandria Protr.** 5 Ξενοκράτης (fr. 17 Heinze, 135 Isnardi Parente²) ... ἐπτά μὲν θεοὺς τοὺς πλανήτας, ὄγδοον δὲ τὸν ἐκ πάντων τῶν ἀπλανῶν συνεστῶτα κόσμον αἰνίττεται.

§2 **Stoics: Diogenes Laertius V.P.** 7.144 (SVF 2.650) τῶν δ' ἄστρον τὰ μὲν ἀπλανῆ συμπεριφέρεσθαι τῷ ὅλῳ οὐρανῷ, τὰ δὲ πλανώμενα κατ' ἰδίαν κινεῖσθαι κινήσεις. τὸν δ' ἥλιον λοξὴν τὴν πορείαν ποιεῖσθαι διὰ τοῦ ζωδιακοῦ κύκλου· ὁμοίως καὶ τὴν σελήνην ἔλικοειδῇ. **Arius Didymus** fr. 31 Diels at Stob. *Ecl.* 1.185.11–14 (on Chrysippus, SVF 2.527) τετάχθαι δὲ τὰ μὲν ἀπλανῆ ἐπὶ μιᾷς ἐπιφανείας, ὡς καὶ ὁράται· τὰ δὲ πλανώμενα ἐπ' ἄλλης καὶ ἄλλης σφαίρας· περιέχεσθαι δὲ πάσας τὰς τῶν πλανωμένων ὑπὸ τῆς τῶν ἀπλανῶν σφαίρας.

§3 **Democritus: Diogenes Laertius V.P.** 9.33 (Leucippus 67A1(33) DK) εἶναι δὲ τὸν τοῦ ἡλίου κύκλον ἐξώτατον, τὸν δὲ τῆς σελήνης προσγειότατον, τῶν ἄλλων μεταξύ τούτων ὄντων. **Hippolytus Ref.** 1.13.4 (on Democritus, 68A40 DK) τοῦ δὲ παρ' ἡμῖν κόσμου πρότερον τὴν γῆν τῶν ἄστρον γενέσθαι. εἶναι δὲ τὴν μὲν σελήνην κάτω, ἔπειτα τὸν ἥλιον, εἶτα τοὺς ἀπλανεῖς ἀστέρας· τοὺς δὲ πλάνητας οὐδ' αὐτοὺς ἔχειν ἴσον ὕψος. **Seneca Nat.** 7.3.2 *Democritus* (68A92 DK) *quoque, subtilissimus antiquorum omnium, suspicari se ait plures stellas esse quae currant, sed nec numerum illarum posuit nec nomina, nondum comprehensis quinque siderum cursibus.*

§§4–5 **Plato Astronomers: Cicero ND** 2.52–53 see below on A 2.32.1. **Philo of Alexandria Her.** 224, τὴν δὲ τῶν πλανήτων τάξιν ἄνθρωποι παγίως μὴ κατεληφότες—τί δ' ἄλλο τῶν κατ' οὐρανὸν ἴσχυσαν κατανοῆσαι βεβαίως;—εἰκοτολογοῦσι, ἄριστά δ' ἐμοὶ στοχάζεσθαι δοκοῦσιν οἱ τὴν μέσσην ἀπονενεμηκότες ἡλίῳ τάξιν, τρεῖς μὲν ὑπὲρ αὐτὸν καὶ μετ' αὐτὸν τοὺς ἴσους εἶναι λέγοντες, ὑπὲρ αὐτὸν μὲν φαίνοντα, φαέθοντα, πυρόντα, εἶθ' ἥλιον, μετ' αὐτὸν δὲ στίλβοντα, φωσφόρον, τὴν ἀέρος γείτονα σελήνην. **Arius Didymus** fr. 31 Diels (continues text cited on §2) τῶν δὲ πλανωμένων ὑψηλοτάτην εἶναι μετὰ τὴν (τῶν) ἀπλανῶν τὴν τοῦ Κρόνου, μετὰ δὲ ταύτην τὴν τοῦ Διός, εἶτα τὴν τοῦ Ἄρεος, ἐφεξῆς δὲ τὴν τοῦ Ἑρμοῦ καὶ μετ' αὐτὴν τὴν τῆς Ἀφροδίτης, εἶτα τὴν τοῦ ἡλίου, ἐπὶ πᾶσι δὲ τὴν τῆς σελήνης, πλησιάζουσιν τῷ ἀέρι.

§6 **Anaximander Metrodorus of Chios Crates: Hippolytus Ref.** 1.6.5 (on Anaximander, 12A1 DK) καὶ ἀνωτάτω μὲν εἶναι τὸν ἥλιον, (μετ' αὐτὸν δὲ τὴν σελήνην (coni. Diels)) κατωτάτω δὲ τοὺς τῶν ἀπλανῶν (καὶ πλανήτων) ἀστέρων κύκλους.

§7 **Parmenides: Diogenes Laertius V.P.** 9.23 (on Parmenides, 28A1 DK) καὶ δοκεῖ πρώτος πεφωρακέναι τὸν αὐτὸν εἶναι Ἑσπερον καὶ Φωσφόρον, ὡς φησι Φαβ-

ρῖνος ἐν πέμπτῳ Ἀπομνημονευμάτων (fr. 54 Amato)· οἱ δὲ Πυθαγόραν· Καλλίμαχος δέ (fr. 442 Pfeiffer) φησι μὴ εἶναι αὐτοῦ τὸ ποίημα. VP. 8.14 (on Pythagoras) πρῶτόν τε Ἔσπερον καὶ Φωσφόρον τὸν αὐτὸν εἰπεῖν, ὡς φησι Παρμενίδης (cf. 28A40 DK).

b Sources and Other Parallel Texts

General texts: Eudemus at Simp. in *Cael.* 471.2–9 (commenting on Aristotle *Cael.* 2.10 291a29–32 = Eudemus fr. 146 Wehrli) καὶ γὰρ ἐκεῖ (sc. ἐν τῇ ἀστρολογίᾳ) περὶ τῆς τάξεως τῶν πλανωμένων καὶ περὶ μεγεθῶν καὶ ἀποστημάτων ἀποδέδεικται Ἀναξιμάνδρου (12A19 DK) πρῶτον τὸν περὶ μεγεθῶν καὶ ἀποστημάτων λόγον εὐρηκότος, ὡς Εὐδημος ἱστορεῖ τὴν τῆς θέσεως τάξιν εἰς τοὺς Πυθαγορείους πρῶτους ἀναφέρων. τὰ δὲ μεγέθη καὶ τὰ ἀποστήματα Ἡλίου καὶ Σελήνης μέχρι νῦν ἔγνωσται ἀπὸ τῶν ἐκλείψων τὴν ἀφορμὴν τῆς καταλήψεως λαβόντα, καὶ εἰκὸς ἦν ταῦτα καὶ τὸν Ἀναξιμανδρον εὐρηκέναι, καὶ Ἑρμοῦ δὲ καὶ Ἀφροδίτης ἀπὸ τῆς πρὸς τούτους μεταπαρβολῆς. Ptolemy *Synt.math.* 9.1 see below on §§4–5. Simplicius in *Cael.* 470.29–471.2 τῷ περὶ τῶν οὐρανίων λέγοντι ἀναγκαῖον ἦν καὶ περὶ τῆς κατὰ τὴν θέσιν τάξεως τῶν τε σφαιρῶν καὶ τῶν ἀστέρων εἰπεῖν, τίνα μὲν πρότερα καὶ τῇ ἀπλανεῖ προσεχέστερα, τίνα δὲ ὕστερα καὶ περιγίγνεται ... *Scholium in Aris-tophanem in Nubes* 102c Holwerda, see above on ch. 2.13.

Chapter heading: Aristotle *Cael.* 2.10 291a29–32 περὶ δὲ τάξεως αὐτῶν (sc. τῶν ἀστρῶν) ὃν μὲν τρόπον ἕκαστον κεῖται (v.l. κινεῖται) τῷ τὰ μὲν εἶναι πρότερα τὰ δ' ὕστερα, καὶ πῶς ἔχει πρὸς ἀλλήλα τοῖς ἀποστήμασιν, ἐκ τῶν περὶ ἀστρολογίαν θεωρεῖσθαι λέγεται γὰρ ἱκανῶς. *Cael.* 2.12 293a12–14 cited on ch. 2.13. Posidonius see above on ch. 2.11 section E(b) General texts.

§§1–2 **Xenocrates Stoics:** Geminus *Elem.* 1.23, p. 6 Aujac οὐ πάντας δὲ τοὺς ἀστέρας ὑποληπτέον ὑπὸ ἐπιφάνειαν κείσθαι, ἀλλ' οὓς μὲν μετεωροτέρους ὑπάρχειν, οὓς δὲ ταπεινοτέρους. Manilius 1.394 *non quod clara minus sed quod magis alta recedant*.

§3 **Democritus:** Alexander of Aphrodisias in *Mete.* 26.11–14 περὶ δὲ τῶν κομητῶν Ἀναξαγόρας (—) μὲν καὶ Δημόκριτος (68A92 DK) λέγουσι τὸν κομητὴν λεγόμενον ἀστέρα σύμφασιν εἶναι τῶν πλανήτων ἀστέρων· οὗτοι δὲ εἰσιν ὅ τε τοῦ Κρόνου καὶ οὗ τοῦ Διὸς καὶ ὁ τῆς Ἀφροδίτης καὶ ὁ τοῦ Ἄρεος καὶ ὁ τοῦ Ἑρμοῦ.

§§4–5 **Plato Astronomers:** Plato *Tim.* 38c7–d6 σώματα δὲ αὐτῶν ἐκάστων ποιήσας ὁ θεὸς ἔθηκεν εἰς τὰς περιφορὰς ἃς ἡ θατέρου περίοδος ἦεν, ἑπτὰ οὖσας ὄντα ἑπτὰ, σελήνην μὲν εἰς τὸν περὶ γῆν πρῶτον, ἥλιον δὲ εἰς τὸν δεύτερον ὑπὲρ γῆς, ἑωσφόρον δὲ καὶ τὸν ἱερὸν Ἑρμοῦ λεγόμενον εἰς {τὸν} τάχει μὲν ἰσόδρομον ἡλίῳ κύκλον ἰόντας, τὴν δὲ ἐναντίαν εἰληχότας αὐτῷ δύναιμι· ὅθεν καταλαμβάνουσιν τε καὶ καταλαμβάνονται κατὰ ταῦτα ὑπ' ἀλλήλων ἡλιός τε καὶ ὁ τοῦ Ἑρμοῦ καὶ ἑωσφόρος. see also *Resp.* 616e–617b. ps.Aristotle *Mu.* 2 392a23–31 συνεχῇ δὲ ἔχει αἰεὶ τὴν θέσιν ταύτη ὁ τοῦ Φαίνοντος ἅμα καὶ Κρόνου καλούμενος κύκλος, ἐφεξῆς δὲ ὁ τοῦ Φαέθοντος καὶ Διὸς λεγόμενος, εἴθ' ὁ Πυρροῖς, Ἡρακλέους τε καὶ Ἄρεος προσαγορευόμενος, ἐξῆς δὲ ὁ Στίλβων, ὃν ἱερὸν Ἑρμοῦ καλοῦσιν ἔνιοι, τινὲς δὲ Ἀπόλλωνος· μεθ' ὃν ὁ τοῦ Φωσφόρου, ὃν Ἀφροδίτης, οἱ δὲ Ἡρας προσαγορεύουσιν, εἴτα ὁ ἥλιος, καὶ τελευταῖος ὁ τῆς σελήνης, μέχρις ἧς ὀρίζεται ὁ αἰθήρ, τὰ τε

θεία ἐμπεριέχων σώματα καὶ τὴν τῆς κινήσεως τάξιν. **Geminus** *Elem.* 1.24–30 see below on A 2.32.1. **Cleomedes** 2.20–42 see below on A 2.32.1. **Ptolemy** *Synt.* 9.1, p. 1.2.206.14–207.7 Heiberg πρῶτον δὴ περὶ τῆς τάξεως τῶν σφαιρῶν αὐτῶν, αἵτινες καὶ αὐταὶ τὰς θέσεις ἔχουσιν ὡς περὶ τοὺς τοῦ λοξοῦ καὶ διὰ μέσων τῶν ζωδίων κύκλου πόλους, τὸ μὲν πάσας τε περιγιοιτέρας μὲν εἶναι τῆς τῶν ἀπλανῶν, ἀπογιοιτέρας δὲ τῆς σελήνιακῆς, καὶ τὸ τὰς τρεῖς τὴν τε τοῦ τοῦ Κρόνου μείζονα οὖσαν καὶ τὴν τοῦ τοῦ Διὸς ὡς ἐπὶ τὰ περιγιοιότερα δευτέραν καὶ τὴν τοῦ τοῦ Ἄρεως ὑπ' ἐκείνην ἀπογιοιτέρας εἶναι τῶν τε λοιπῶν καὶ τῆς τοῦ ἡλίου σχεδὸν παρὰ πᾶσι (207) τοῖς πρῶτοις μαθηματικοῖς ὁρῶμεν συμπεφωνημένα, τὴν δὲ τοῦ τῆς Ἀφροδίτης καὶ τὴν τοῦ τοῦ Ἑρμοῦ παρὰ μὲν τοῖς παλαιότεροις ὑποκάτω τιθεμένας τῆς ἡλιακῆς, παρὰ δὲ ἐνίοις τῶν μετὰ ταῦτα καὶ αὐτὰς ὑπερτιθεμένας ἔνεκεν τοῦ μηδ' ὑπ' αὐτῶν ἐπεσκοτῆσθαι ποτε τὸν ἥλιον. ἡμῖν δ' ἡ μὲν τοιαύτη κρίσις ἀβέβαιον ἔχειν δοκεῖ ... **Alcinous** *Did.* 14, p. 171.4–13 H. σελήνην μὲν δὴ τῷ μετὰ γῆν ἐπέθηκε κύκλῳ τῷ πρῶτῳ, ἥλιον δὲ εἰς τὸν δευτέρον ἔταξε, φωσφόρον δὲ καὶ τὸν ἱερὸν Ἑρμοῦ λεγόμενον ἀστέρα εἰς τὸν ἰσοταχῇ μὲν ἡλίῳ κύκλον ἰόντα, τούτου δὲ ἀφεστῶτα· ὑπερθεῖν δὲ τοὺς ἄλλους κατὰ σφαῖραν οἰκείαν, τὸν μὲν βραδυτάτον αὐτῶν ὑπὸ τῇ τῶν ἀπλανῶν κείμενον σφαῖρα, ὃν Κρόνου τινὲς ἐπονομάζουσιν ἀστέρα, τὸν δὲ βραδυτήτι δευτέρον μετὰ τοῦτον Διὸς ἐπώνυμον, ὑφ' ὃν τὸν Ἄρεως· ὁγδόη δὲ πᾶσιν ἡ ἄνωθεν δύναμις περιβέβληται. **Theon of Smyrna** *Exp.* 138.9–142.10 Hiller τὴν δὲ κατὰ τόπον τῶν σφαιρῶν (ἢ) κύκλων θέσιν τε καὶ τάξιν, ἐν οἷς κείμενα φέρεται τὰ πλανώμενα, τινὲς μὲν τῶν Πυθαγορείων τοιάνδε νομίζουσι· προσγειότατον μὲν εἶναι τὸν τῆς σελήνης κύκλον, δευτέρον δ' ὑπὲρ τούτου (τὸν τοῦ) Ἑρμοῦ, ἔπειτα τὸν τοῦ φωσφόρου, καὶ τέταρτον (τὸν) τοῦ ἡλίου, εἴτα τὸν τοῦ Ἄρεως, ἔπειτα τὸν τοῦ Διός, τελευταῖον δὲ καὶ σύνεγγυς τοῖς ἀπλανέσι τὸν τοῦ Κρόνου· μέσον εἶναι βουλούμενοι τὸν τοῦ ἡλίου τῶν πλανωμένων ὡς ἡγεμονικώτατον καὶ οἷον καρδίαν τοῦ παντός. μηνύει δὲ ταῦτα καὶ Ἀλέξανδρος ὁ Αἰτωλὸς, λέγων οὕτως· ... (142) Ἑρατοσθένης (F. 13 Powell, pp. 116–117 Geus) δὲ τὴν μὲν διὰ τῆς φορᾶς τῶν ἀστρῶν γινομένην ἁρμονίαν παραπλησίως ἐνδεῖκνυνται, τὴν μέντοι τάξιν τῶν πλανωμένων οὐ τὴν αὐτήν, ἀλλὰ μετὰ σελήνην ὑπὲρ γῆς δευτέρον φησι φέρεσθαι τὸν ἥλιον. **Alexander of Aphrodisias** in *Top.* 218.8–19.1 Wallies κατὰ δὲ τὸ κείσθαι, ὅταν ζητῆται πότερος προσγειότερος, ὁ ἥλιος ἢ ὁ τῆς Ἀφροδίτης ἀστήρ. **Macrobius** in *Somn.* 1.19.1, p. 73.12–19 *his adsertis de sphaerarum ordine pauca dicenda sunt, in quo dissentire a Platone Cicero videri potest ... Cicero Archimedes et Chaldaeorum ratio consentit, Plato Aegyptios omnium philosophiae disciplinarum parentes secutus est ...* **Proclus** in *Tim.* 3.62.2–10 Diehl ἄλλ' οὖν ἡ τῶν παλαιῶν φήμη ταύτην ἐδίδου τῷ ἡλίῳ τὴν τάξιν· καὶ γὰρ Ἀριστοτέλης οὕτως ᾤετο καὶ οἱ ἀμφὶ τὸν Εὐδόξον (Dg Lasserre). εἰ δὲ τινες ταῖς τῶν μαθηματικῶν ὑποθέσεις χαίροντες μέσον τῶν ἐπτά πλανήτων τάττειν ἀξιοῖεν τὸν ἥλιον, συνάγοντα καὶ συνδέοντα τὰς ἐφ' ἐκάτερα αὐτοῦ τριάδας, ἴστωσαν μηδὲν ἐχυρὸν μηδὲ αὐτοὺς τοὺς ἀπὸ τῶν μαθημάτων λέγοντας. See also in *Resp.* 2.218.17–221.26.

§6 **Anaximander Metrodorus of Chios Crates**: see **Simplicius** in *Cael.* 471.2–9 cited above General texts.

Liber 2 Caput 16

P^B: ps.Plutarchus *Plac.* 889C; pp. 345^a13–346^a6 Diels—**P^E**: Eusebius *PE* 15.47, p. 414.1–10 Mras—**P^G**: ps.Galenus *HPh* c. 58; p. 625.8–13 Diels—**P^Q**: Qusṭā ibn Lūqā pp. 152–153 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 132, p. 69 Weste-rink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.41, p. 45.9 Delatte (titulus), cf. 3.29 36.11–37.1 Delatte

S: Stobaeus *Ecl.* 1.24, p. 201.22 (~ tit.) + 1.24.1c, p. 202.10–11 + 1.24.1k, p. 203.17–18 + 1.24.2bc, p. 205.12–23 + 1.24.5, p. 207.8–11 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b8–9 Henry (titulus solus)

Cf. *Commentaria in Aratum*, Anon. I 6, p. 97.30–33 Maass

Titulus 15'. Περὶ τῆς τῶν ἀστέρων φορᾶς καὶ κινήσεως (P,cf.S)

§1 Ἀναξαγόρας Δημόκριτος Κλεάνθης ἀπ' ἀνατολῶν ἐπὶ δυσμὰς φέρεσθαι πάντας τοὺς ἀστέρας. (P1,S1)

§2 Ἀλκμαίων καὶ οἱ μαθηματικοὶ τοὺς πλανήτας τοῖς ἀπλανέσιν ἀπὸ δυσμῶν ἐπ' ἀνατολὰς ἀντιφέρεσθαι. (P2,S4)

§3 Ἀριστοτέλης ὑπὸ τῶν σφαιρῶν, ἐφ' ᾧ ἕκαστα συμβέβηκε, (S5)

§4 Ἀναξίμανδρος ὑπὸ τῶν κύκλων καὶ τῶν σφαιρῶν, ἐφ' ᾧ ἕκαστος βέβηκε, φέρεσθαι. (P3,S6)

§5 Ἀναξιμένης οὐχ ὑπὸ τὴν γῆν περὶ αὐτὴν δὲ στρέφεσθαι τοὺς ἀστέρας. (P4,S2)

5

10

§1 Anaxagoras 59A78 DK; Democritus fr. 387 Luria; Cleanthes *SVF* 1.507; §2 Alcmaeon 24A4 DK; mathematici —; §3 Aristoteles cf. *Cael.* 2.8 289b30–34, *Met.* A.8; §4 Anaximander 12A18 DK; §5 Anaximenes 13A14 DK

titulus Περὶ ... κινήσεως ^{P^{B(I,II)GQPs}}: τῆς τῶν om. ^{P^{B(II)}}: ἀστέρων] ἄστρον ^{P^E}, cf. S qui in tit. c. 1.24 conflat tit. Περὶ οὐσίας ἄστρον (c. 2.13) καὶ σχημάτων (2.14), κινήσεως (2.16) τε καὶ ἐπισημασίας (2.19): φορᾶς καὶ om. ^{P^G}, cf. S: καὶ κινήσεως om. ^{P^{Sy}} §1 [2] Δημόκριτος Κλεάνθης om. S || post Ἀναξαγόρας et Δημόκριτος add. ^{P^G} bis καὶ || post ἀνατολῶν add δὲ S || ἐπὶ] εἰς ^{P^G} || [3] πάντας τοὺς ἀστέρας] τοὺς ἀστέρας νομίζουσιν ^{P^G} §2 [4] ante τοὺς πλανήτας hab. ^{P^G} τοὺς ἀστέρας || [4–5] τοὺς ... ἀντιφέρεσθαι ^{P^E}S, cf. ^{P^Q}: post τοῖς ἀπλανέσιν (non hab. ^{P^G}) add. ^{P^B} ἐναντίως (^{P^{B(II)}} ἐναντίους) et post ἀπὸ add. γάρ, del. Diels (cf. ^{P^G}), ret. Mau Lachenaud: *daß die Bewegung der Planeten der Bewegung der Fixsterne entgegengestezt ist und ihre Bewegung von Westen nach Osten verläuft* Q || [5] ἐπ'] εἰς ^{P^G} || ἀντιφέρεσθαι] ἀνταναφέρεσθαι mss. ^{P^G}, qui add. τὸν ἥλιον πρῶτον (quae ut glossema del. Jas), conl. Diels ἀντιφέρεσθαι τῷ ἡλίῳ §3 [6] ὑφ' ᾧ ἕκαστα συμβέβηκε S: ἐφ' ᾧ scripsimus (cf. §4): ἐφ' ᾧ ἕκαστος ἐμβέβηκε conl. Diels (sed non in textu pos.), prob. Wachsmuth §4 [7] ante nomen add. S καὶ §5 [9] οὐχ ὑπὸ ... αὐτὴν δὲ ^{P^E} Diels *DG*: δὲ ἀλλὰ post γῆν hab. S: ὁμοίως ὑπὸ τὴν γῆν καὶ περὶ αὐτὴν ^{P^B}: *daß die Sterne sich oberhalb und unterhalb der Erde bewegen* Q

- §6 Πλάτων καὶ οἱ μαθηματικοὶ ταῦτόν πεπονθέναι τῷ ἑωσφόρῳ τὸν στίλβωνα ἰσοδραμεῖν δὲ αὐτοὺς τῷ ἡλίῳ καὶ συμπεριφέρεσθαι αὐτῷ· καὶ τότε μὲν προανατέλλοντα ἑωσφόρον φαίνεσθαι, τότε δὲ ἐπικαταδύμενον ἔσπερον καλεῖσθαι. (P₅,S₃)
- §7 Ἀπολλόδωρος ἐν τῷ δευτέρῳ Περὶ θεῶν Πυθαγορείαν εἶναι τὴν περὶ τοῦ τὸν αὐτὸν εἶναι φωσφόρον τε καὶ ἔσπερον δόξαν. (S₇) 15

§6 Plato cf. *Tim.* 38c–d; mathematici—; §7 Apollodorus *FGH* 244 F₉₁ Jacoby

§6 [11] Πλάτων καὶ οἱ μαθηματικοὶ ^{P^{BEQ}} : cf. S τῶν μαθηματικῶν τινες μὲν ὡς Πλάτων = PS 2.15.5 : Πλάτων om. mss. P^G et Nic, rest. Diels Jas (per litt.) || [11–12] ταῦτόν ... αὐτῷ S, qui post ταῦτόν add. δὲ : ἰσοδρόμους εἶναι τὸν ἥλιον τὸν ἑωσφόρον (φωσφόρον P^{EG}) τὸν στίλβοντα P || [13–14] καὶ ... καλεῖσθαι desunt in P §7 [15] τὴν S^{P(m.s.)} : τὸ S^{FP}

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 58 (~ tit.) Περὶ τῆς τῶν ἀστέρων κινήσεως (text Diels)

58.1 (~ P₁) Ἀναξαγόρας καὶ Δημόκριτος καὶ Κλεάνθης ἀπὸ ἀνατολῶν εἰς δυσμὰς φέρεσθαι τοὺς ἀστέρας νομίζουσιν.

58.2 (~ P₂) Ἀλκμαίων καὶ οἱ μαθηματικοὶ τοὺς ἀστέρας τοὺς πλανήτας ἀπὸ δυσμῶν εἰς ἀνατολὰς ἀντιφέρεσθαι τῷ ἡλίῳ.

58.3 (~ P₆) Πλάτων καὶ οἱ μαθηματικοὶ ἰσοδρόμους εἶναι τὸν ἥλιον, τὸν φωσφόρον, τὸν στίλβοντα.

Psellus *Omn.Doctr.* c. 132 Περὶ τῆς τῶν ἀστέρων φορᾶς καὶ κινήσεως (~ tit.)

Symeon Seth *CRN* 3.41 Περὶ τῆς τῶν ἀστέρων φορᾶς (~ tit.)

cf. 3.29 supra citatum ad c. 2.3.

Testes secundi:

Commentaria in Aratum, **Anonymus** I, p. 97.30–33 Maass φέρεται δὲ ὁ οὐρανὸς ἀπὸ τῶν ἀνατολῶν ἐπὶ τὰς δυσμὰς, ὁ δὲ ἥλιος καὶ οἱ λοιποὶ πλάνητες τὴν ἐναντίαν, τουτέστιν ἀπὸ τῶν δυσμῶν ἐπὶ τὰς ἀνατολὰς, ὡς εἶναι διπλὴν κίνησιν αὐτῶν γε, τὴν μὲν ἐρχομένων, τὴν δὲ φερομένων ...

Loci Aetiani:

titulus cf. A 1.23 Περὶ κινήσεως. A 3.13 Περὶ κινήσεως γῆς. A 4.6 Περὶ κινήσεως ψυχῆς.

§§1–2 A 2.10.1 Πυθαγόρας Πλάτων Ἀριστοτέλης δεξιὰ τοῦ κόσμου τὰ ἀνατολικά μέρη, ἀφ' ὧν ἡ ἀρχὴ τῆς κινήσεως, ἀριστερὰ δὲ τὰ δυτικά. cf. A 3.13.3 Ἡρακλείδης ὁ Ποντικός καὶ Ἐκφαντος ὁ Πυθαγόρειος κινουσι μὲν τὴν γῆν, οὐ μὴν γε μεταβατικῶς, ἀλλὰ τρεπτικῶς, τροχοῦ δίκην ἐνηξιοσιμένην ἀπὸ δυσμῶν ἐπ' ἀνατολὰς περὶ τὸ ἴδιον αὐτῆς κέντρον.

§3 A 1.7.21 Ἀριστοτέλης τὸν μὲν ἀνωτάτῳ θεὸν εἶδος χωριστόν, ἐπιβεβηκότα τῇ σφαίρᾳ τοῦ παντός, ἥτις ἐστὶν αἰθέριον σῶμα, τὸ πέμπτον ὑπ' αὐτοῦ καλούμενον.

διηρημένου δὲ τούτου κατὰ σφαίρας, τῇ μὲν φύσει συναφεῖς τῷ λόγῳ δὲ κεχωρισμένας, ἐκάστην οἶεται τῶν σφαιρῶν ζῶον εἶναι σύνθετον ἐκ σώματος καὶ ψυχῆς, ὧν τὸ μὲν σῶμά ἐστιν αἰθέριον κινούμενον κυκλοφορικῶς, ἡ ψυχὴ δὲ λόγος ἀκίνητος αἴτιος τῆς κινήσεως κατ' ἐνέργειαν. A 2.3.4 τὰ μὲν γὰρ οὐράνια ... σφαίρας ... περιέχειν ἐμπύχους καὶ ζωτικάς.

§4 A 2.20.1 (de sole) Ἀναξίμανδρος κύκλον εἶναι ὀκτωκαιικοσαπλασίονα τῆς γῆς
... A 2.25.1 (de luna) Ἀναξίμανδρος κύκλον εἶναι ἑννεακαιδεκαπλάσιον τῆς γῆς

...

§7 cf. A 2.15.7 Παρμενίδης πρῶτον μὲν τάττει τὸν ἑῶν, τὸν αὐτὸν δὲ νομιζόμενον ὑπ' αὐτοῦ καὶ ἔσπερον, ἐν τῷ αἰθέρι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) In the Byzantine mss. of P we find five lemmata, of which the first four clearly constitute two linked pairs. G omits the second pair, and so has only three doxai. In the case of P2 and P4 important variants in E (partially supported by G and Q) represent a superior tradition. These will be discussed below.

(2) In S the process of coalescing chs. 2.13–19, though systematically and competently carried out (see above on ch. 2.13), starts to get more and more difficult as he moves through the chapters. We note the following:

(a) When at S 1.24.1c he adds the Anaxagorean doxa (= P1) to the one by the same philosopher in 2.13, the other two name-labels recorded by P fall away.

(b) S noted that there are two references to the μαθηματικοί in the chapter (both retained by P). The latter of these is linked to the name-label Plato, just as occurs in the previous chapter. So he coalescences these two doxai in S 1.24.2b. He then adds the former, even though this one does not include the Platonic name-label. But he has an additional problem, because the former lemma also has the name-label of Alcmaeon, so he solves the problem by adding the words τούτῳ δὲ συνομολογεῖ καὶ Ἀλκμαίων (of course it is also theoretically possible that P is the one who coalesced and that S preserves the original, but given the methods of the two witnesses this is much less likely).

(c) The doxa of Anaximander was not included in the coalesced grouping at S 1.24.1g. The most likely and interesting reason for this is that he wanted to preserve the contrast with the preceding Aristotelian doxa and so wrote it out separately.

(d) The final doxa preserved at S 1.25.5 is difficult and will be further discussed in the detailed notes below.

(3) T does not make use of this chapter.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There is little parallel material in the proximate doxographical tradition. Ach's chapters on the stars (§10) and the planets (§15) are wholly descriptive and not parallel to A, except for a reference to the Pythagoreans, who are said to wish both the planets and the fixed stars to have their own movements (cf. §2 in the present chapter). The Aratean scholia give a more detailed version of §2, but without a name-label. Philo refers to the subject as relevant for the 'investigators of nature' in two texts that very likely show the influence of earlier literature linked somehow to the *Placita*; see above on ch. 2.11 and Runia (2008b) 26. See the texts cited above under *Testes secundi* and below in section E(a).

(2) *Sources.* On Aristotle's references to the topic of the movement of the heavenly bodies as part of his organisation of the treatment of the heavens see our comments on A 2.13. There can be little doubt that the macro-structure of this section of the *Placita* ultimately derives from Aristotle and the Peripatetic school.

More specifically in relation to the present chapter in *Cael.* 2.8 he gives a brief dialectical discussion of the different theoretical possibilities in relation to the movement of the whole heaven and the heavenly bodies (τὰ ἄστρα ... καὶ ὁλος ὁ οὐρανός), but he does not refer to any names of predecessors. In a different context there is a report at *Mete.* 2.1 354a30 about the movement of the sun (not the heavenly bodies in general) that is attributed to the ἀρχαῖοι μετεωρολόγοι. The language is so similar to what we read in §5 on Anaximenes that it is difficult not to conclude that there is some connection between the two texts, i.e. that the *Placita* may be utilising a source which goes back to a fuller text with names of philosophers drawn up in the Peripatetic school or compiled even earlier than Aristotle. In addition similar versions of this doxa occur in Diogenes Laertius' and Hippolytus' accounts of Anaximenes' doctrine, including the comparison with a felt hat (πίλον). As we note below in section D(c), even the language of the doxai shows a link to the earlier Aristotelian treatment.

A little later Epicurus in *Ep.Pyth.* at D.L. 10.92 gives a diaeresis of three positions on the movement of the heavenly bodies. As Mansfeld (1994b) notes, this suggests that he utilised a Peripatetic source (see discussion of this text at M–R 3.248–249). He may have even used *inter alia* a predecessor of the *Placita*, but it should be noted that he lists the various possible causes, which are not emphasized in A's account. A similar diaeresis is given by Lucretius in *DRN* 5.509–533.

The doctrine of §2 that the planets move from west to east along the zodiac circle (and by implication that the fixed stars move in the opposite direction

from east to west) becomes standard doctrine in astronomy from the fourth century BCE onwards. It is much discussed by the astronomers, but not often referred to in philosophical texts. But see below in section E(b) General texts two texts in Alexander and ps.Alexander, the former of which asks for the cause of this phenomenon.

C Chapter Heading

The heading in the Byzantine mss. and Ps may be accepted. It uses the most common formula Περί x and in discussing the question of motion relates its contents to the categories in general (note that there is no separate Aristotelian category of movement; cf. ch. 1.23 Commentary C., where we cite Theophrastus fr. 153B FHS&G at Simp. in *Phys.* 413.5–7). The term φορά has been added to the standard κίνησις (cf. chs. 1.23, 3.13), most likely because of the prominence of the verb φέρεσθαι and its derivatives in the chapter. G removes φορά even though he retains two lemma containing φέρεσθαι and ἀντιφέρεσθαι respectively. E's ἄστρον is the minority reading and should not be taken over (on A's use of ἀστέρες and ἄστρα see above 2.13 Analysis (a)).

In his chapter heading combining chs. 2.13–19 S retains only the noun κινήσεως, omitting the mention of φορά. He will have noted from chs. 1.23 and 3.13 (and perhaps from a chapter in Book 2 missing in P, cf. ch. 2.2 Appendix) that the former is the key term.

D Analysis

a Context

The question of movement follows on naturally from the discussion of the heavenly bodies' placement in ch. 2.15. Compare how ch. 3.13 on the movement of the earth follows ch. 3.11 on its nature (with a chapter on the earth's inclination, cf. chs. 2.8, 2.23) in between.

b Number–Order of Lemmata

Although the methods of our two chief witnesses are very different, there is a good correspondence between their results in this chapter. All of P's material can be found in S, while S has some additions that P has excerpted away. If we understand S's method of coalescence (details discussed above under Witnesses, section A), we can see that P's order can be retained, even though the order that S finishes up with is quite different. It is always possible that in the process of coalescence some unidentifiable material got lost (note what S did with the name-labels in P₁), but it will not have been much.

c Rationale–Structure of Chapter

The chapter appears to string together various subjects, using the doxographer's usual diaeretical and antithetical approach, but in a not very tidy fashion.

(i) The first two lemmata form a clear diaphonia, which in fact amounts to a division between the Presocratic vortex cosmology and the standard post-Platonic cosmology that uses concentric spheres. In the former both fixed stars and planets move in the same direction (but some slower than others), in the latter they have opposed motions.

(ii) The next two doxai also clearly form a pair. As the text stands, the only difference between the two is that Aristotle's heavenly bodies are carried along on the spheres to which they are attached, whereas those of Anaximander are also moved by their circles. This must be a reference to the celebrated circles of fire and their openings (cf. A 2.20.1). It has been claimed that the reference to spheres is out of place and that the doxa can be regarded as a repetition of the previous Aristotelian doxa; see Kahn (1960) 59, Guthrie (1962–1981) 1.93 n. 1. This is to ignore the method of the *Placita* and in any case, it would not have been difficult to envisage his system (anachronistically) in terms of spheres as well as circles; see for example the diagrams in Couprie (1995).

(iii) The formulation οὐχ ὑπὸ τὴν γῆν of the next Anaximenean doxa implies a correction of another view. This is best taken as a critical reference to his predecessor Anaximander. The same doxa is found in doxographical reports in Diogenes Laertius and Hippolytus (texts below section E(a)§5). The verb στρέφεσθαι implies the whirl of the Presocratic vortex, as introduced in §1 (though this view cannot be attributed to Anaximander). This means that the preposition περί cannot mean 'around' in the usual sense of the cosmic revolutions (or for Anaximander circles of fire), but rather 'around' more or less in a plane parallel to the flat earth, dipping below the horizon but not going all the way below the earth. See further below section D(d)§5.

(iv) The view of Plato and the astronomers on the concurrent motion of Venus and Mercury with the sun is a further refinement of the 'modern' view introduced in §2. It is better to place this doxa towards the end of the chapter as in P than link it to the other Platonic–astronomers view as in S. The comment on the identity of the morning and the evening star is to be seen as an appended thought.

(v) The final view adds a comment that ascribes this doxa to the earlier Presocratic Pythagoras. On this lemma see the comments below.

A striking feature of this chapter is the way that it uses verbs and verbal phrases to link up and articulate the various positions:

- §1 φέρεσθαι
- §2 ἀντιφέρεσθαι
- §3 ὑπὸ τῶν σφαιρῶν φέρεσθαι
- §4 ὑπὸ τῶν κύκλων καὶ τῶν σφαιρῶν φέρεσθαι
- §5 στρέφεσθαι
- §6 συμπεριφέρεσθαι

The method gives the chapter a forward momentum, in which there is a combination of antithesis (through the use of the diaeresis) and development (through the use of association). It is worth noting that the key verbs that A uses are all prominent in Aristotle's diaeretic account of heavenly movements in the *De caelo* with the exception of συμπεριφέρεσθαι (but cf. περιφέρεται at 2.2 285b20).

d Further Comments

Individual Points

§1 The addition of the Stoic Cleanthes to the two Presocratics is unexpected and can be linked to other doxai where an unorthodox view is ascribed to Cleanthes (A 2.14.2, 2.27.4).

§2 The shorter version of the text in E, G and S is to be preferred above P^{BQ}. ἐναντίως could easily have been added later and the inserted γάρ is rather awkward.

Coupré (2011) 171 claims that Alcmaeon as a Pythagorean will have subscribed to the hypothesis of a central fire with the earth and the other planets revolving around it. So the present report 'is usually, and perhaps already by its author Aëtius, misunderstood as a description of the contrary movement of the planets along the zodiac as is appropriate in the geocentric system.' This is quite well possible, but we do not know the details of Alcmaeon's cosmology, and anyway our task is to interpret A. See further Burkert (1972) 333–335.

§5 The various textual traditions read as follows:

- P^B Ἀναξιμένης ὁμοίως ὑπὸ τὴν γῆν καὶ περὶ αὐτὴν στρέφεσθαι τοὺς ἀστέρας.
- E Ἀναξιμένης οὐχ ὑπὸ τὴν γῆν περὶ αὐτὴν δὲ στρέφεσθαι τοὺς ἀστέρας.
- S —οὐχ ὑπὸ τὴν γῆν ἀλλὰ δὲ περὶ αὐτὴν στρέφεσθαι τοὺς ἀστέρας.

There can be little doubt that E and S preserve the right reading, particularly since as noted above the same doxa is already anonymously reported in almost exactly the same formulation in Aristotle's *Meteorology*, though he uses the verb φέρεσθαι rather than στρέφεσθαι. In the text we have opted for E. In *DG* and *VS* Diels followed E, but the text in *DK* is closer to S (but omitting δέ).

Our interpretation of the text differs from that put forward by Couprie (2018) 114–119. He argues that Diels' 'emendations' of the text of P have had a malign influence and that the correct text is that of the manuscripts of P. The implication that the original reading in P has some kind of special authority is beside the point, since in fact the evidence in E and S is older than that of the Byzantine mss. of P. Couprie argues (p. 117) the contrast between the two Milesians here is 'that Anaximander regards the heavenly bodies as fixed places of turning wheels, while Anaximenes has in mind fiery bodies (or leaves) floating on air' (the last statement is based on A 2.14.4, which he claims (p. 50) is the true view of Anaximenes and not the one reported with his name-label in 2.14.3). See further Couprie's entire ch. 7 (pp. 99–129) which goes into much more detail than can be discussed in the present context.

§6 P has abridged A, as witnessed by S. The text in S would read better as ἰσοδραμεῖν τῷ ἡλίῳ τὸν ἑωσφόρον καὶ τὸν στίλβοντα καὶ συμπεριφέρεσθαι αὐτῷ, as printed at M–R 2.493, but this degree of intervention in the text is not justifiable in the present edition.

§7 The ascription of this doxa is difficult. Formally it differs from most Aëtian lemmata since it reports on a doxa rather than attributing it directly to the philosopher concerned. The only parallel is at A 1.3.20, where Socrates and Plato are parenthetically said to have the same views on every subject. Diels ascribed it to AD, as is clearly the case for the two preceding lemmata in S, presumably on stylistic grounds. But the doxa with its reference to a Presocratic philosopher is more easily located in the *Placita* than in an account of Hellenistic philosophy. Moreover, the Apollodorus in question, as author of the Περὶ θεῶν, is the Athenian (*DPhA* A244, born c. 180 BCE) and not the Stoic person of that name (of Seleucia, *DPhA* A250). The style remains difficult to rhyme with A's usual practice, though the absence of a *verbum dicendi* speaks in favour of A. The adjective Πυθαγορείαν referring to Pythagoras (not his followers) is not used elsewhere in this manner in A. The same doxa is found in the previous chapter attributed to Parmenides as πρῶτος εὐρετής (A 2.15.7), but the ascription to Pythagoras is given at D.L. 8.14. There is no other reference to Apollodorus in the *Placita*. All in all, the provenance must be considered uncertain, but it would be rash to leave it out of our edition.

e Other Evidence

On the material in Ach, which is of little value for the understanding of the present chapter see above section B.

E Further Related Texts

a Proximate Tradition

General texts: **Achilles** 10, pp. 18.21–19.21 Di Maria *Περὶ ἀστέρος*. Ἀστήρ ἐστι κατὰ Διόδωρον σῶμα θεῖον οὐράνιον τῆς αὐτῆς μετεωροφύτης οὐσίας τῷ ἐν ᾧ ἐστὶ τόπων, σῶμά τι λαμπρὸν καὶ οὐδέποτε στάσιν ἔχον ἀλλ' αἰεὶ φερόμενον κυκλικῶς. ὡσαύτως δὲ ὠρίσατο καὶ Ποσειδώνιος πρὸ αὐτοῦ ὁ Στωϊκός (F 128 E.-K., F271b Theiler). τὸ δὲ 'οὐδέποτε στάσιν ἔχον' ἐπὶ μὲν τῶν πλανήτων οὕτως εἰρῆσθαι δοκεῖ, πλὴν ἀπὸ τῶν ἀπλανῶν πρὸς τοὺς ὡς ἔτυχεν αἰτιωμένους οὐ καλῶς ἔχειν τῆς αὐτῆς ἐννοίας ἔχεται· οὐδέποτε γὰρ στάσιν ἔχουσι τῷ ὑπὸ τοῦ κόσμου περιάγεσθαι, καὶ ἐπ' αὐτοῦ μένωνσιν· τῶν γὰρ ἀστέρων οἱ μὲν ἐμπεπηγότες τῷ οὐρανῷ ἀπλανεῖς λέγονται, οἱ δὲ τὴν ἐναντίαν φερόμενοι πλάνητες. αὐτοὶ δὲ ἑπτὰ ὄντες κατωτέρω τοῦ οὐρανοῦ καὶ τοῦ αἰθέρος περιδινόμενοι τὸν ἐναντίον τὴν τοῦ κόσμου στροφῇ δρόμον τρέχουσιν ... οἱ δὲ Πυθαγόρειοι οὐ μόνον τοὺς πλάνητας ἀστέρας βούλονται ἰδίαν κίνησιν ἔχειν, ἀλλὰ καὶ τοὺς ἀπλανεῖς, οὕτω μέντοι κινεῖσθαι καὶ περὶ τὸν ἴδιον κυκλεῖσθαι κύκλον, ὥσπερ τοῦ παντός μὴ μεταβαίνοντος ἐτέρωθι, ἀλλὰ περὶ τὸν αὐτὸν τόπον εἰλουμένου. **Strabo** 2.5.2 ὁ δ' οὐρανὸς περιφέρεται περὶ τε αὐτὴν καὶ περὶ τὸν ἄξονα ἀπ' ἀνατολῆς ἐπὶ δύσιν (cf. ch. 2.10), σὺν αὐτῷ δὲ οἱ ἀπλανεῖς ἀστέρες ὁμοταχεῖς τῷ πόλῳ (cf. ch. 2.16). οἱ μὲν οὖν ἀπλανεῖς ἀστέρες κατὰ παραλλήλων φέρονται κύκλων· παράλληλοι δ' εἰσὶ γνωριμώτατοι ὅ τε ἰσημερινὸς καὶ οἱ τροπικοὶ δύο καὶ οἱ ἀρκτικοὶ (cf. ch. 2.16)· οἱ δὲ πλάνητες ἀστέρες καὶ ἥλιος καὶ σελήνη κατὰ λοξῶν τινῶν τῶν τεταγμένων ἐν τῷ ζωδιακῷ. **Philo of Alexandria** *Her.* 247 see on ch. 2.11. **Arius Didymus** fr. 32 Diels at Stob. *Ecl.* 1.24.5 ἄστρον δὲ εἶναι φησιν ὁ Ποσειδώνιος (F 127 E.-K., 271a Theiler) σῶμα θεῖον ἐξ αἰθέρος συνεστηκός, λαμπρὸν καὶ πυρῶδες, οὐδέποτε στάσιν ἔχον, ἀλλ' αἰεὶ φερόμενον ἐγκυκλιῶς· ἰδίως δὲ τὸν ἥλιον καὶ τὴν σελήνην ἄστρα λέγεσθαι· διαφέρειν δὲ ἀστέρα ἄστρου· εἰ μὲν γάρ τις ἐστὶν ἀστήρ, καὶ ἄστρον ὀνομασθήσεται δεόντως, οὐ μὴν ἀνάπαλιν. **Isidore of Pelusium** *Ep.* 2.273, PG 78.704A, 773 *Énéieux* καὶ τὸ πολυπραγμονεῖν ... καὶ τῶν ἄστρον τὴν θέσιν ... τί συμβάλλεται εἰς ἀρίστην πολιτείαν, ἐγὼ μὲν οὐ συνορῶ.

Chapter heading: cf. **Philo of Alexandria** *Somn.* 1.53 τί δὲ περὶ τῆς τῶν ἄλλων ἀστέρων φύσεως ἢ περιφορᾶς ... *Mut.* 67 καὶ (sc. περὶ) τῶν ἄλλων ἀστέρων κινήσεως.

§1 Anaxagoras Democritus Cleanthes: Hippolytus *Ref.* 1.8.6 (on Anaxagoras, 59A42 DK) ἥλιον δὲ καὶ σελήνην καὶ πάντα τὰ ἄστρα λίθους εἶναι ἐμπύρους, συμπεριληφθέντας ὑπὸ τῆς (τοῦ) αἰθέρος περιφορᾶς.

§3 Aristotle: Arius Didymus fr.9 Diels at Stob. *Ecl.* 1.22.1c (on Aristotle) cited on A 2.3.4

§5 Anaximenes: Diogenes Laertius *VP.* 2.3 (on Anaximenes, 13A1 DK) κινεῖσθαι δὲ τὰ ἄστρα οὐχ ὑπὸ γῆν, ἀλλὰ περὶ γῆν. **Hippolytus** *Ref.* 1.7.6 (on Anaximenes, 13A7 DK) οὐ κινεῖσθαι δὲ ὑπὸ γῆν τὰ ἄστρα λέγει, καθὼς ἕτεροι ὑπὲρ γῆς, ἀλλὰ περὶ γῆν, ὥσπερ περὶ τὴν ἡμετέραν κεφαλὴν στρέφεται τὸ πῖλον.

§7 Apollodorus: Diogenes Laertius *VP.* 9.23 (on Parmenides, 28A1 DK) καὶ δοκεῖ πρῶτος πεφωρακέναι τὸν αὐτὸν εἶναι Ἑσπερον καὶ Φωσφόρον, ὡς φησι Φαβωρίνος ἐν πέμπτῳ Ἀπομνημονευμάτων· οἱ δὲ Πυθαγόραν. cf. **Diogenes Laertius**

V.P. 8.14 (on Pythagoras) πρῶτόν τε "Ἐσπερον καὶ Φωσφόρον τὸν αὐτὸν εἶπεῖν, ὥς φησι Παρμενίδης (28A40a DK)

b Sources and Other Parallel Texts

General texts: Aristotle *Cael.* 2.8 289b1–4 ἐπεὶ δὲ φαίνεται καὶ τὰ ἄστρα μεθιστάμενα καὶ ὁλος ὁ οὐρανός, ἀναγκαῖον ἦτοί ἡρεμούντων ἀμφοτέρων γίγνεσθαι τὴν μεταβολήν, ἢ κινουμένων, ἢ τοῦ μὲν ἡρεμούντος τοῦ δὲ κινουμένου. cf. *Met.* A.2 982b12–17 διὰ γὰρ τὸ θαυμάζειν οἱ ἄνθρωποι καὶ νῦν καὶ τὸ πρῶτον ἤρξαντο φιλοσοφεῖν, ἐξ ἀρχῆς μὲν τὰ πρόχειρα τῶν ἀτόπων θαυμάσαντες, εἶτα κατὰ μικρὸν οὕτω προϊόντες καὶ περὶ τῶν μειζόνων διαπορήσαντες, οἷον περὶ τε τῶν τῆς σελήνης παθημάτων καὶ τῶν περὶ τὸν ἥλιον καὶ ἄστρα καὶ περὶ τῆς τοῦ παντός γενέσεως. **Epicurus** *Ep.Pyth.* at D.L. 10.92, τάς τε κινήσεις αὐτῶν (sc. ἡλίου καὶ σελήνης καὶ τῶν λοιπῶν ἄστρων) οὐκ ἄδύνατον μὲν γίνεσθαι κατὰ τὴν τοῦ ὅλου οὐρανοῦ δίνην, ἢ τοῦτου μὲν στάσιν, αὐτῶν δὲ δίνην αὐτῶν δὲ δίνην κατὰ τὴν ἐξ ἀρχῆς ἐν τῇ γενέσει τοῦ κόσμου ἀνάγκην ἀπογεννηθεῖσαν ἀπ' ἀνατολῆς, ἦτοί τῇ (ἐντός) θερμοσίσια κατὰ τινα ἐπινέμῃσιν τοῦ πυρὸς αἰεὶ ἐπὶ τοὺς ἐξῆς τόπους ἰόντος (as conjectured in M–R 3.249). cf. **Lucretius** *DRN* 5.509–532 *motibus astrorum nunc quae sit causa canamus. / principio magnus caeli si vortitur orbis ... (517) est etiam quoque uti possit caelum omne manere / in statione, tamen cum lucida signa ferantur ... (526) nam quid in hoc mundo sit eorum ponere certum / difficile est; sed quid possit fiatque per omne / in variis mundi varia ratione creatis, / id doceo, plurisque sequor disponere causas, / motibus astrorum quae possint esse per omne; / e quibus una tamen siet hic quoque causa necessest / quae vegeat motum signis.* **Stoics** in D.L. 7.132 (—) καθ' ἣν (sc. σκέψιν φιλοσοφίας) ζητοῦσι περὶ τε τῶν ἀπλανῶν καὶ τῶν πλανωμένων, οἷον ... καὶ περὶ δινήσεως καὶ τῶν ὁμοίων τούτοις ζητημάτων. 7.144 (*SVF* 2.650) τῶν δ' ἄστρων τὰ μὲν ἀπλανῆ συμπεριφέρεσθαι τῷ ὅλῳ οὐρανῷ, τὰ δὲ πλανώμενα κατ' ἰδίαν κινεῖσθαι κινήσεις. **Cicero** *Tusc.* 5.69 cited above at ch. 2.13 E(b) General texts. **Alexander of Aphrodisias** in *Met.* 698.38 ἐπεὶ γὰρ δεῖ εἶναι τι αἰεὶ, ὥς δέδεικται, ἔδει τὴν αἰτίαν λέγειν δι' ἣν ἡ μὲν ἀπλανὴς ἀπὸ ἀνατολῆς ἐπὶ δυσμὰς κινεῖται, αἱ δὲ πλανώμεναι ἀνάπαλιν. **ps.Alexander** *Probl.* lib. 3, p. 17.28 Usener ὥς δηλοῖ σελήνης τὰ φῶτα αὐξανόμενα καὶ μειούμενα καὶ ἡ σφαῖρα κινουμένη καθ' ἑκάστην ἀπὸ ἀνατολῶν ἐπὶ δυσμὰς, οἱ δὲ ἐπτά ἀστέρες ἐναντίαν ὁδὸν ἀπὸ δυσμῶν ἐπὶ ἀνατολὰς, ὥς δεικνύσι τοῦτο πλεόν τῇ ὀψει πάντων τῶν κινουμένων ἀστέρων.

Chapter heading: Aristotle *Cael.* 2.7 289a11–12, 2.12 293a12–14 cited on A 2.13, also *Mete.* 1.1 338a21 ἔτι δὲ περὶ τῶν κατὰ τὴν ἄνω φορὰν διακεκοσμημένων ἄστρων. cf. **Plato** *Symp.* 188b4 ὣν ἐπιστήμη περὶ ἄστρων τε φορὰς καὶ ἐνιαυτῶν ὥρας ἀστρονομία καλεῖται. **Clement of Alexandria** *Strom.* 6.90.3 ὁ αὐτὸς λόγος καὶ περὶ ἀστρονομίας· αὕτη γάρ, μετὰ τὴν τῶν μεταρσίων ἱστορίαν περὶ τε σχήματος τοῦ παντός καὶ φορὰς οὐρανοῦ τῆς τε τῶν ἄστρων κινήσεως πλησιαιτέρον τῇ κτιζούσῃ δυνάμει προσάγουσα τὴν ψυχὴν, εὐαισθητῶς ἔχειν διδάσκει ὥρων ἐτείων, ἀέρων μεταβολῆς, ἐπιτολῶν ἄστρων.

§3 Aristotle: Aristotle *Cael.* 2.8 289b30–34 ἐπεὶ τοίνυν οὐτ' ἀμφοτέρα κινεῖσθαι εὐλογον οὐτε τὸ ἕτερον μόνον, λείπεται τοὺς μὲν κύκλους κινεῖσθαι, τὰ δὲ ἄστρα

ἡρεμεῖν καὶ ἐνδεδεμένα τοῖς κύκλοις φέρεσθαι· μόνως γὰρ οὕτως οὐθὲν ἄλογον συμβαίνει. *Met.* Λ.8 1073b1–5 ὅτι μὲν οὖν εἰσὶν οὐσῖαι, καὶ τούτων τις πρώτη καὶ δευτέρα κατὰ τὴν αὐτὴν τάξιν ταῖς φοραῖς τῶν ἄστρον, φανερόν· τὸ δὲ πλήθος ἤδη τῶν φορῶν ἐκ τῆς οἰκειοτάτης φιλοσοφίας τῶν μαθηματικῶν ἐπιστημῶν δεῖ σκοπεῖν, ἐκ τῆς ἀστρολογίας.

§5 *Anaximenes*: cf. *Aristotle Mete.* 2.1 354a28–32 (on Anaximenes, 13A14 DK) περὶ δὲ τοῦ τὰ πρὸς ἄρκτον εἶναι τῆς γῆς ὑψηλὰ σημείον τι καὶ τὸ πολλοὺς πεισθῆναι τῶν ἀρχαίων μετεωρολόγων τὸν ἥλιον μὴ φέρεσθαι ὑπὸ γῆν ἀλλὰ περὶ τὴν γῆν καὶ τὸν τόπον τοῦτον, ἀφανίζεσθαι δὲ καὶ ποιεῖν νύκτα διὰ τὸ ὑψηλὴν εἶναι πρὸς ἄρκτον τὴν γῆν.

§6 *Plato*: *Plato Tim.* 38c–d cited above at ch. 2.15 section E(b)§§4–5.

Liber 2 Caput 17

- P^B**: ps.Plutarchus *Plac.* 88gD; pp. 346^a11–25 Diels—**P^E**: Eusebius *PE* 15.48, p. 414.11–17 Mras—**P^G**: ps.Galenus *HPh* c. 59; p. 625.14–16 Diels; pp. 187–191 Jas—**P^Q**: Qustā ibn Lūqā pp. 152–153 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 135, p. 70 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.44, p. 48.6 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.24.1i, p. 203.9–10 + 1.24.1, p. 203.22–23 + 1.24.1m, p. 204.7–8 + 1.24.3, p. 206.5–10 Wachsmuth

Titulus ιζ'. Πόθεν φωτίζονται οἱ ἀστέρες (P)

- §1 Μητρόδωρος ἅπαντας τοὺς ἀπλανεῖς ἀστέρας ὑπὸ τοῦ ἡλίου προσλάμπεσθαι. (P1,S4)
§2 Στράτων καὶ αὐτὸς τὰ ἄστρα ὑπὸ τοῦ ἡλίου φωτίζεσθαι. (S5)
§3 Διότιμος Τύριος ὁ Δημοκρίτειος τὴν αὐτὴν τούτοις εἰσηνέγκατο γνώμην. 5 (S6)
§4 Ἡράκλειτος καὶ οἱ Στωικοὶ τρέφεσθαι τοὺς ἀστέρας ἐκ τῆς ἐπιγείου ἀναθυμιάσεως. (P2,S1)
§5 Ἀριστοτέλης μὴ δεῖσθαι τὰ οὐράνια τροφῆς· οὐ γὰρ φθαρτὰ ἀλλ' αἶδια. 10 (P3,S3)
§6 Πλάτων κοινῶς ὅλον τὸν κόσμον καὶ τὰ ἄστρα ἐξ αὐτῶν τρέφεσθαι. (P4,S2)

§1 Metrodorus 70A9 DK; §2 Strato fr. 85 Wehrli, 43 Sharples; §3 Diotimus Tyrius 76.1 DK; §4 Heraclitus 22A1 DK; Stoici SVF 2.690; §5 Aristoteles cf. *Cael.* 1.3 270b1–5, *Met.* Λ.8 1073a34; §6 Plato cf. *Tim.* 33c–d

titulus ante §1 con. M–R 2.503 (οἱ μὲν πλείστοι ἴδιον αὐτοὺς ἔχειν φῶς) et caput dividunt in dua capitula cum titulo secundi Πόθεν τρέφονται οἱ ἀστέρες : deest in S §1 [2] ἅπαντας ... ἀστέρας ^{PEQS} : ἀστέρας om. ^{PB} : ἅπαντας τοὺς ἀστέρας τοὺς ἀπλανεῖς ^{PG} || [2–3] προσλάμπεσθαι ^{PB(I,III)QGS} : καταλάμπεσθαι ^{PE} : λάμπεσθαι ^{PB(II)} §§2–3 non hab. ^{PBEQ} §§2–6 non hab. ^{PG} §3 [5] Δημοκρίτειος con. Diels *DG* sed non in textu pos., prob. Wachsmuth Diels VS, DK : διοκριτιὸς S, διακριτικὸς Heeren, Διοκρίτου vel Διοκράτου Meineke §4 [7] καὶ ^{PB} : om. ^{PE} || ἐπιγείου P : ἀπὸ γῆς S §5 [9] post αἶδια add. S εἶναι §6 [11] Πλάτων κοινῶς ^{PE} Diels : Πλάτων οἱ Στωικοὶ ^{PB} : post κοινῶς add. S δε : al. *Platon glaubte, daß Q* || ὅλον τὸν κόσμον ^{PBS} : τὸν κόσμον ὅλον ^{PE} || αὐτῶν ^{PB(III)} Mau Lachenaud : αὐτῶν ^{PB(I,II)} : αὐτοῦ ^{PEQ(ut vid.)S}, αὐτοῦ Diels *DG*

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 59 (~ tit.) Πόθεν φωτίζονται οἱ ἀστέρες (text Jas)

59.1 (~ P1) Μητρόδωρος ἅπαντας τοὺς ἀστέρας τοὺς ἀπλανεῖς ὑπὸ τοῦ ἡλίου προσλάμπεσθαι.

Psellus Omn.Doctr. c. 135 Πόθεν φωτίζονται οἱ ἀστέρες (~ tit.)

Symeon Seth CRN 3.44 Πόθεν φωτίζονται οἱ ἀστέρες (~ tit.)

Loci Aetiani:

titulus A 2.5 Πόθεν τρέφεται ὁ κόσμος, A 2.28 Περὶ φωτισμῶν σελήνης.

§§1–3 A 2.28.2–3 (de luna) Θαλῆς πρῶτος ἔφη ὑπὸ τοῦ ἡλίου φωτίζεσθαι. Πυθαγόρας Παρμενίδης Ἐμπεδοκλῆς Ἀναξαγόρας Μητρόδωρος ὁμοίως. A 2.26.2 (de luna) Παρμενίδης ἴσῃν τῷ ἡλίῳ, καὶ γὰρ ἀπ’ αὐτοῦ φωτίζεσθαι. A 2.28.5–6 (de luna) Θαλῆς πρῶτος ἔφη ὑπὸ τοῦ ἡλίου φωτίζεσθαι. Πυθαγόρας Παρμενίδης Ἐμπεδοκλῆς Ἀναξαγόρας Μητρόδωρος ὁμοίως. A 3.2.

§1 A 3.1.9 (de lacteo orbe) Μητρόδωρος διὰ τὴν ἀάροδον τοῦ ἡλίου· τοῦτον γὰρ εἶναι τὸν ἡλιακὸν κύκλον.

§3 Cf. A 3.1.8 (de lacteo orbe) Δημόκριτος πολλῶν καὶ μικρῶν καὶ συνεχῶν ἀστέρων συμφοωτίζομένων ἀλλήλοις συναυγασμὸν διὰ τὴν πύκνωσιν.

§4 A 1.3.1 (de Thalete) ὅτι καὶ αὐτὸ τὸ πῦρ τὸ τοῦ ἡλίου καὶ τὸ τῶν ἄστρον ταῖς τῶν ὑδάτων ἀναθυμιάσει τρέφεται καὶ αὐτὸς ὁ κόσμος. A 2.20.6 (de sole) Ἡράκλειτος Ἐκαταῖος Κλεάνθης ἀναμμα νοερόν ἐκ θαλάττης.

§5 A 2.5.1 Ἀριστοτέλης· εἰ τρέφεται ὁ κόσμος, καὶ φθαρῆσεται· ἀλλὰ μὴν οὐδεμιάς ἐπιτεῖται τροφῆς· διὰ τοῦτο καὶ αἰδῖος. cf. A 3.1.9 (de lacteo orbe) Ἀριστοτέλης ἀναθυμιάσεως ξηρὰς ἔξῃσιν πολλῆς τε καὶ συνεχοῦς· καὶ οὕτω κόμην πυρὸς ὑπὸ τὸν αἰθέρα κατωτέρω τῶν πλανητῶν. A 3.2.4 (de cometis). Ἀριστοτέλης τῆς ξηρὰς ἐκ γῆς ἀναθυμιάσεως διάπυρον σύστασιν.

§6 A 2.5.2 Πλάτων αὐτὸν αὐτῷ τὸν κόσμον ἐκ τοῦ φθίνοντος κατὰ μεταβολὴν τὸ τρέφον παρέχεσθαι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) P has four lemmata only, preserved in E and the Byzantine mss. and translated by Q. Only the first is retained in G. The first doxa addresses the question posed in the chapter’s heading. The remaining three patently focus on another question, the source of the heavenly bodies’ nourishment if they are to be regarded as living beings (which is not explicitly stated). There is an obvious strong link between illumination and sustenance, but this is not made explicit in the doxai.

(2) Six lemmata are preserved by S, of which the first four correspond to those in P, but in a different sequence. But in order to get his grand scheme of coalescence in ch. 1.24 to work he has made various changes when com-

pared with P. In 1.24.11 the doxa is placed under 2.13.8 which has the name-labels Parmenides–Heraclitus. From P it is clear that the original names were Heraclitus and the Stoics, which makes much better sense. The second lemma supports the reading of the single name-label Plato in E, and not the composite Plato–the Stoics in P^B. The final cluster of three doxai in 1.24.3 is important because it adds two doxai to P's first doxa which he must have epitomized away. But these additional doxai give rise to various textual problems to be considered below.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Since it was almost universally held that the stars produce their own light (see the main diaeresis in 2.13, where both alternatives assume that light is emitted), the specific topic of this chapter as indicated in its heading is seldom encountered. Symeon Seth tells us that there is much controversy on the subject, and indicates that the main division of opinion centres on whether the heavenly bodies are all illuminated by the sun or have their own light; text cited below under section E(a) General texts. The further details he gives show that he is probably thinking only of the planets, though the phrase *περὶ πάντων τῶν ἀστέρων* could refer to the stars as well. The question of the stars' nourishment is also infrequently addressed. Ach's chapter 13 asks the question *εἰ ζῶα οἱ ἀστέρες* and Philo in his list of doxographical questions on the stars asks whether they are ensouled (*Somn.* 1.22), but neither text reflects what their source of nourishment would be if they are living creatures.

(2) *Sources.* Aristotle does not include the question of the source of the stars' illumination in his outline of topics when beginning and ending his treatment of the heavenly bodies (*Cael.* 2.7 289a11, 2.12 293a12). But he briefly touches on the topic early in his discussion at 2.7 289a20–21, developing his strange theory that it is caused by friction with the underlying air (text below section E(b) General texts). The topic of the stars' nourishment also does not arise in Aristotle's *De caelo*, because his doctrine of the impassibility of the fifth element does not allow such a view (it is also not raised in Plato's *Timaeus*, where the heavenly bodies consist mainly of fire). He does briefly refer at *Mete.* 2.2 355a18–20 to the view that the stars are nourished by the exhalations from the ocean as a *reductio ad absurdum* when arguing against the view of the sun being nourished in this way. The Stoics ignored this criticism and developed the view earlier attributed to Heraclitus that the heavenly bodies are nourished by moist exhalations from the earth. See various texts in Cicero, Cleomedes and Plutarch cited below in sections E(a) and (b). They have very limited doxographical elaboration. At Cicero *ND* 3.37 reference is made to Cleanthes (*SVF* 1.501), but in relation to

the sun only (cf. A 2.20.6), while in D.L. 7.144 the same doctrine is attributed to Posidonius in relation to the moon. The philosophers mentioned in a late text in Proclus are obscure and foreign to the doxographical tradition. The question of the source of the stars' illumination is also relevant to the question on the nature of the Milky Way, e.g. the view of Democritus that its appearance is derived from the clustering of stars (A 3.1.8), but this is treated as part of meteorology; see Commentary on ch. 3.1.

C Chapter Heading

The chapter heading is only preserved in the witnesses in the P tradition, where there is no variation. S does not include it in his heading for ch. 1.24, which combines topics from 2.13 to 2.19.

There is no variation in any of the witnesses concerning the heading of this chapter. The verb φωτίζονται in the chapter heading corresponds to the noun in the chapter on the illuminations of the moon, 2.28 Περί φωτισμῶν σελήνης. For headings asking the question πόθεν (from where)—six in number in A, i.e. also chs. 1.6, 2.5, 4.21, 5.11, 5.28—see above ch. 1.6 Commentary C and 2.5 Commentary C. This chapter's heading is strictly parallel to that of ch. 2.5, except that the verb is φωτίζω (illuminate) rather than τρέφω (nourish). It indicates that the question is one of source or origin. As the contents of the chapter reveal, illumination is, or rather can be, the result of nourishment.

D Analysis

a Context

In ch. 2.13 it was already indicated that the heavenly bodies are all in some way or another fiery and so must gleam or shine. The source of their illumination is now explicitly addressed. The second half of the chapter then focuses on a different though related question which is exactly parallel to that treated in 2.5, Πόθεν τρέφεται ὁ κόσμος.

b Number–Order of Lemmata

The six lemmata fall into two distinct groups. Only the first doxa in P and the cluster of three in S address the chapter's theme as indicated in its heading. The remaining three doxai in P and S answer the question on the provenance of the heavenly bodies' nourishment. The basic order as found in P can be preserved. The cluster in S is thus a block and indicates that P has excised the two following doxai. It will emerge when the sequence of doxai is more closely examined that it is most unlikely that the chapter is complete as we now have it.

c Rationale–Structure of Chapter

The first three doxai all record essentially the same doctrine. The view that the luminosity of the stars was due not to their own inherent nature but to the sun, on an analogy with the majority view on the moon's light, is of course rather odd and scarcely attested elsewhere in ancient thought (in Boll's survey, (1909) 2411–2412, this is the only evidence for it). Given the usual method of the *Placita*, it must be strongly suspected that originally there was an opposition between the view that the stars have their own light (the majority view) and the view that they are illuminated by the sun (minority view). This is the diaeresis that controls the structure of the parallel chapter on the moon (2.28). No examples of such a diaeresis have been found in ancient sources. Nevertheless Mansfeld–Runia in their reconstruction (M–R 2.2.502) decided that it was justified to conjecture a first most likely anonymously attributed doxa presenting the majority position that the heavenly bodies have their own light, which both P and S overlooked or which—more likely—fell out early in the tradition. The formula used, οἱ μὲν πλείστοι ἴδιον αὐτοὺς ἔχειν φῶς, was based on similar doxai in 5.12.1 and 2.28.1. In the present edition, however, it is not appropriate to introduce such a massive intervention in the text. The name-labels of these three doxai also give rise to problems which will be further discussed in the detailed comments below.

The remaining three doxai are more straightforward. They are largely parallel to the doxai in the related chapter on the cosmos' nourishment in ch. 2.5, but in the case of the Aristotelian and Platonic doxai are presented in a more compact form. The argument in the Aristotelian doxa is also reversed: A now argues from the everlasting nature of the stars to the conclusion that they do not need nourishment, whereas in the earlier chapter he is recorded (less happily) as arguing the reverse. The Platonic doxa here does not indicate that the source of the food is internal decay. The third position of Heraclitus—the Stoics is also simplified compared to that of Philolaus in A 2.5.3.

Is it likely, therefore, that these two subjects were treated together in the single chapter, or did A originally have two chapters which—perhaps again early on—were joined together? Certainly the parallel in the treatment of the cosmos suggests there were originally two chapters. At M–R 2.2.501 we took the bold step of introducing an extra chapter heading in our reconstruction with the conjectured formulation Πόθεν τρέφονται οἱ ἀστέρες, but once again this would be a step too far for the present edition.

d Further Comments

Individual Points

§1 Metrodorus of Chios, the pupil of Democritus, is cited no less than 6 times in Book 2 and particularly often in the chapters on the heavenly bodies (also 18.2, 20.8, 28.5). The last doxa is exactly parallel to this one, but more plausibly relates to the moon's illumination. The emphatic mention of *all* (ἅπαντας) the heavenly bodies perhaps implies a contrast with the view that only some of them are illumined, e.g. the moon or the Milky Way, which may have been exploited in an earlier fuller tradition.

§2 The text shifts from τοὺς ἀπλανεῖς ἀστέρας for Metrodorus to τὰ ἄστρα for Strato, but as Sharples (2011) 107 notes, in both cases the reference is most likely to be to the stars and not the planets. The only other doxa attributed to Strato the Peripatetic in Book 2 is at 2.11.4, where he is reported to hold that the heaven is πύρινος, a view which—as Wehrli (1969) 64 notes—does not agree very well with the present view, although it is possible that he held that the stars both had their own light and reflected that of the sun. As in the case of the Cleanthes doxa at 2.16.1 it must be suspected that this doxa is mistaken. The phrase καὶ αὐτός used for Strato is rare in the *Placita*. It does not occur linked to a name-label in P and is elsewhere only found at S 1.24.1h, i.e. in this same chapter, where it is plainly added for the doxa of Metrodorus to cover up a difficulty in the grand scheme of coalescence; see above ch. 2.15, Commentary A(2). The same process of splitting up an original doxa with multiple name-labels may have happened here (but note that there is no *need* for S to make the change here).

§3 The same argument can be made for this doxa. It may be an expansion of a name that was part of a list of name-labels such as we saw for example in A 2.16.1. On Diotimus of Tyre see Dorandi *DPhA* 2.886. He was a disciple of Democritus, as indicated in Clem. Alex. *Strom.* 2.130.6 and S.E. *M.* 7.140. The scanty references to him are collected in DK 76. Dorandi accepts the brilliant conjecture that Diels makes here, even though he did not include it in his text of *DG* (but did do so when he published the first edition of the *VS* many years later). The name-label occurs only here in A. He is thus one of the 36 unique name-labels found in A's compendium; see Jeremiah (2018) 302.

§5 This argument is not found in the extant writings of Aristotle, though it follows on from the characteristics of the 'first body' (i.e. fifth element) as outlined in *Cael.* 1.3 270b1, where it is said to possess neither increase nor diminution. Effe (1970) 19 argues speculatively that it was put forward in the dialogue *De philosophia* as witnessed by Philo *Aet.* 21–24 and 74 (Critolaus); see our comments above on ch. 2.5, Commentary D(d)§1.

§6 The doctrine attributed to Plato is clearly based, just like at A 2.5.2, on the text of *Tim.* 33c6–7 (cf. Philo *Aet.* 25–27 who cites this text). Here it is extra-

polated from the cosmos as a whole to the heavenly bodies. In their case the question may be asked why the stars, which primarily consist of fire (*Tim.* 40a2, cf. A 2.13.11), can burn everlastingly without consuming their fuel. On the Stoic view that this cannot be the case see the argument at Cicero *ND* 2.118 (*SVF* 1.593, text cited below section E(b)§4). On the sun's sustenance from the sea see further on A 2.20.6.

e Other Evidence

On the evidence in Ach and Philo on whether stars are ensouled see above section B.

E Further Related Texts

a Proximate Tradition

General texts: cf. *Achilles* 13, p. 20.16 (title) εἰ ζῶα οἱ ἀστέρες. **Philo of Alexandria** *Somn.* 1.22 (on the heavenly bodies) ἔμψυχοι δὲ καὶ νοεροὶ ἢ νοῦ καὶ ψυχῆς ἀμέτοχοι; **Symeon Seth** *CRN* 3.44 περὶ τοῦτου πολλὴ ἀμφιβολία τοῖς πάλαι σοφοῖς ἐγένετο. τινὲς γὰρ ὁρῶντες τὴν σελήνην παρὰ τοῦ ἡλίου δεχομένην τὸ φῶς ἀπεφώνησαν καὶ περὶ πάντων τῶν ἀστέρων, ὡς καὶ αὐτοὶ παρὰ τοῦ ἡλίου φωτίζονται. ἕτεροι δὲ ὁρῶντες τὴν τε Ἀφροδίτην καὶ τὸν Ἑρμῆν ὑπὸ τὸν ἥλιον ὄντας καὶ μὴ πόρρωθεν αὐτοῦ ἀφισταμένους ὡς φωτίζεσθαι παρ' αὐτοῦ, ἐδόξασαν ἔχειν τοὺς τε καὶ τοὺς ἄλλους οἰκεῖον φῶς.

Chapter heading: see on ch. 2.28.

§4 **Heraclitus Stoics:** **Diogenes Laertius** *V.P.* 7.144 (on the Stoics, *SVF* 2.650) τρέφεσθαι δὲ τὰ ἔμπυρα ταῦτα καὶ τὰ ἄλλα ἄστρα, τὸν μὲν ἥλιον ἐκ τῆς μεγάλης θαλάττης νοερόν ὄντα ἀναμμα· τὴν δὲ σελήνην ἐκ ποτίμων ὑδάτων ... τὰ δ' ἄλλα ἀπὸ τῆς γῆς.

§5 **Aristotle:** **Arius Didymus** at *Stob. Ecl.* 1.22.1c (on Aristotle = fr. 9 Diels, cf. *Cael.* 1.3 270b1–3) συνεστάναι δὲ τὰ ἄστρα καὶ τὸν οὐρανὸν ἐκ τοῦ αἰθέρος, τοῦτον δὲ οὔτε βαρὺν οὔτε κοῦφον οὔτε γεννητὸν οὔτε φθαρτὸν οὔτε αὐξόμενον οὔτε μειούμενον ἐς αἰὶ διαμένειν ἄτρεπτον καὶ ἀναλλοιώτων.

b Sources and Other Parallel Texts

General texts: §§1–3 **Aristotle** *Cael.* 2.7 289a19–21 ἡ δὲ θερμότης ἀπ' αὐτῶν (sc. τῶν καλουμένων ἄστρων) καὶ τὸ φῶς γίνεται παρεκτριβομένου τοῦ ἀέρος ὑπὸ τῆς ἐκείνων φορᾶς. **Isidore of Seville** *Nat.* 24 *stellas non habere proprium lumen sed a sole inluminari dicunt nec eas umquam de caelo abscedere sed veniente sole celari. omnia enim sidera obscurantur sole oriente, non cadunt. nam dum sol ortus sui signa praemisit, omnis stellarum ignis sub eius luminis fulgore evanescunt.*

Chapter heading: see on ch. 2.28.

General texts: §§4–6 **Aristotle** *Mete.* 2.2 354b33–34, 355a18–21 διὸ καὶ γελοῖοι πάντες ὅσοι τῶν πρότερον ὑπέλαβον τὸν ἥλιον τρέφεσθαι τῷ ὑγρῷ ... ἄτοπον δὲ καὶ τὸ μόνον φροντίσαι τοῦ ἡλίου, τῶν δ' ἄλλων ἄστρων αὐτοῦς παριδεῖν

τὴν σωτηρίαν, τοσούτων καὶ τὸ πλήθος καὶ τὸ μέγεθος ὄντων (and cf. **Alexander of Aphrodisias** in *Mete.* 73.9–13). **Proclus** in *Tim.* 2.87.23–88.13 οὐκ ἄρα δεῖ λέγειν τρέφεσθαι τὰ οὐράνια ἐκ τῶν ἀναθυμιάσεων, ὡς οἴονται τινες· τὰ γὰρ δεόμενα τῆς ἐξωθεν ἐπιτροῆς καὶ προσθήκην δεχόμενα καὶ ἀφαίρεσιν οὐκ ἀλύτους ἔχει τοὺς δεσμούς. ἄτρεπτα ἄρα μένει τὰ οὐράνια, ὥσπερ δὴ τῶν μὲν ἀρχαίων Πρόκλος τε ὁ Μαλλώτης καὶ Φιλωνίδης εἰρήκασι, τῶν δὲ νεωτέρων οἱ ἀπὸ Πλωτίνου πάντες Πλατωνικοί.

§4 Heraclitus Stoics: Cicero *ND* 2.83 (on the earth, not in *SVF*) *eiusdem exspirationibus et aër alitur et aether et omnia supra.* *ND* 2.118 (*SVF* 2.593) *sunt autem stellae natura flammearum, quocirca terrae maris aquarum (que reliquarum) aluntur is qui a sole ex agris tepefactis et ex aquis excitantur; quibus vaporibus altae renovataeque stellae atque omnis aether refundunt eadem et rursum trahunt indidem, nihil ut fere intereat aut admodum paululum, quod astrorum ignis et aetheris flamma consumat.* *ND* 3.37 *quid enim, non eisdem vobis placet omnem ignem pastus indigere nec permanere ullo modo posse nisi alatur, ali autem solem, lunam, reliqua astra aquis, alia dulcibus, alia marinis; eamque causam Cleanthes (SVF 1.501) adfert cur se sol referat nec longius progrediatur solstitiali orbi itemque brumali, ne longius discedat a cibo.* **Cleomedes** *Cael.* 1.8.79–82 Todd οὐ χρὴ δὲ ἀπορεῖν ἐνταῦθα, πῶς ἡ γῆ στιγμιαία οὖσα πρὸς τὸ μέγεθος τοῦ κόσμου ἀναπέμπει τροφήν τῷ τε οὐρανῷ καὶ τοῖς ἐμπεριεχομένοις ἐν αὐτῷ ἄστροις, τοσούτοις καὶ τὸ πλήθος καὶ τὸ μέγεθος οὖσι. **Plutarch** *Fac.Lun.* 940C (*SVF* 2.677) καὶ γὰρ αὐτὴν τὴν σελήνην, ὥσπερ τὸν ἥλιον ζῶον ὄντα πύρινον καὶ τῆς γῆς ὄντα πολλαπλάσιον, ἀπὸ τῶν ὑγρῶν φασι τῶν ἀπὸ τῆς γῆς τρέφεσθαι καὶ τοὺς ἄλλους ἀστέρας ἀπείρους ὄντας. *Stoic.Rep.* 1053A (quoting **Chrysippus**, *SVF* 2.579) λέγει γὰρ ἐν τῷ πρώτῳ περὶ Φύσεως· ἡ δὲ πυρὸς μεταβολὴ ἐστὶ τοιαύτη· δι' ἀέρος εἰς ὕδωρ τρέπεται· καὶ τοῦτου γῆς ὑφίσταμένης ἀήρ ἀναθυμιάται· λεπτυνομένου δὲ τοῦ ἀέρος ὁ αἰθήρ περιχεῖται κύκλῳ· οἱ δ' ἀστέρες ἐκ θαλάσσης μετὰ τοῦ ἡλίου ἀνάπτονται'. **Porphyrus** *Antr.* 11 διαβεβαιούνται δὲ τινες καὶ τὰ ἐν ἀέρι καὶ οὐρανῷ ἀτμοῖς τρέφεσθαι ἐκ ναμάτων καὶ ποταμῶν καὶ τῶν ἄλλων ἀναθυμιάσεων· τοῖς δ' ἀπὸ τῆς στοᾶς ἥλιον μὲν τρέφεσθαι ἐκ τῆς ἀπὸ τῆς θαλάσσης ἀναθυμιάσεως ἐδόκει, σελήνην δ' ἐκ τῶν πηγαίων καὶ ποταμίων ὑδάτων, τὰ δ' ἄστρα ἐκ τῆς ἀπὸ γῆς ἀναθυμιάσεως. καὶ διὰ τοῦτο ἀναμμὰ μὲν νοερὸν εἶναι τὸν ἥλιον ἐκ θαλάσσης, τὴν δὲ σελήνην ἐκ ποταμίων ὑδάτων, τοὺς δ' ἀστέρας ἐξ ἀναθυμιάσεως τῆς ἀπὸ τῆς γῆς.

§5 Aristotle: **Aristotle** *Cael.* 1.3 270b1–4 διότι μὲν οὖν αἴθριον καὶ οὐτ' αὔξησιν ἔχον οὕτε φθίσιν, ἀλλ' ἀγήρατον καὶ ἀναλλοίωτον καὶ ἀπαθές ἐστὶ τὸ πρῶτον τῶν σωμάτων, εἴ τις τοῖς ὑποκειμένοις πιστεύει, φανερόν ἐκ τῶν εἰρημένων ἐστίν. *Met.* Λ.8 1073a34 ἢ τε γὰρ τῶν ἄστρον φύσις αἰδῖος οὐσία τις οὖσα. cf. *de Phil.* fr. 19a Ross (= **Philo of Alexandria** *Aet.* 20–24).

§6 Plato: **Plato** *Tim.* 33c–d ἀπῆει τε γὰρ οὐδὲν οὐδὲ προσήειν αὐτῷ ποθεν—οὐδὲ γὰρ ἦν—αὐτὸ γὰρ ἑαυτῷ τροφήν τὴν ἑαυτοῦ φθίσιν παρέχον καὶ πάντα ἐν ἑαυτῷ καὶ ὑφ' ἑαυτοῦ πάσχον καὶ δρῶν ἐκ τέχνης γέγονεν· ἡγήσατο γὰρ αὐτὸ ὁ συνθεὶς αὐταρκες ὃν ἄμεινον ἔσεσθαι μᾶλλον ἢ προσδεῆς ἄλλων.

Liber 2 Caput 18

P^B: ps.Plutarchus *Plac.* 889D; p. 347^{a1}–9 Diels—**P^E**: Eusebius *PE* 15.49, p. 414 .18–22 Mras—**P^G**: ps.Galenus *HPh* c. 60; p. 625.17–20 Diels—**P^Q**: Qustā ibn Lūqā pp. 154–155 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 138, p. 72 Westerink (titulus solus)

S: Stobaeus *Ecl.* 1.24.1n, p. 204.17–20 Wachsmuth

Titulus ιη'. Περὶ τῶν ἄστρον τῶν καλουμένων Διοσκοούρων (P)

§1 Ξενοφάνης τοὺς ἐπὶ τῶν πλοίων φαινομένους οἷον ἀστέρας νεφέλια εἶναι κατὰ τὴν ποιὰν κίνησιν παραλάμποντα. (P1,S1)

§2 Μητρόδωρος τῶν ὁρώντων ὀφθαλμῶν μετὰ δέους καὶ καταπλήξεως εἶναι στίλβηδόνας. (P2)

5

§1 Xenophanes 21A39 DK; §2 Metrodorus 70A10 DK

titulus Περὶ ... Διοσκοούρων **P^{B(I)Q}**(ut vid.)**P^{s1}** Mau Lachenaud : τῶν¹ om. **P^{B(II,III)}** : ἀστέρων **P^{B(II,III)}P^{s2}** : Περὶ τῶν καλουμένων Διοσκοούρων **P^E** Diels : Περὶ τῶν Διοσκοούρων **P^G** §1 [2] τοὺς P : δὲ add. S || ἀστέρας P : οὗς καὶ Διοσκοούρους καλοῦσιν τινες add. S || [3] παραλάμποντα **P^{BQ}**(ut vid.)**S** : παραλάμποντας **P^EG²** (corr. Mras) : περιλάμποντα **P^{G1}** §2 non hab. S || [5] δέους καὶ καταπλήξεως **P^{BES}** : δέους **P^G** : καταπλήξεως **P^Q**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus c. 60 (~ tit.) Περὶ τῶν Διοσκοούρων (text Diels)

60.1 (~ P1) Ξενοφάνης τοὺς ἐπὶ τῶν πλοίων φαινομένους οἷον ἀστέρας νεφέλια εἶναι κατὰ τὴν ποιὰν κίνησιν περιλάμποντα.

60.2 (~ P2) Μητρόδωρος τῶν ὁρώντων ὀφθαλμῶν μετὰ δέους στίλβηδόνας εἶναι.

Psellus Omn.Doctr. c. 138 Περὶ τῶν ἄστρον τῶν καλουμένων Διοσκοούρων (~ tit.)

Loci Aetiani:

quaestio cf. A 3.4 Περὶ νεφῶν κτλ.

§1 A 2.13.13 (de astris) Ξενοφάνης ἐκ νεφῶν μὲν πεπυρωμένων. A 2.20.2 Ξενοφάνης ἐκ νεφῶν πεπυρωμένων εἶναι τὸν ἥλιον. A 2.25.3 (de luna) Ξενοφάνης νέφος εἶναι πεπυρωμένον πεπιλημένον.

§2 A 4.9.1 Πυθαγόρας Ἐμπεδοκλῆς Ξενοφάνης Παρμενίδης Ζήνων Μέλισσος Ἀναξαγόρας Δημόκριτος Μητρόδωρος Πρωταγόρας Πλάτων ψευδεῖς εἶναι τὰς αἰσθήσεις.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) In the tradition of P all four witnesses agree that it has two lemmata only. The main point of textual interest is the variation among the witnesses between longer and shorter titles.

(2) S writes out only one of the two doxai in P, attaching the view of Xenophanes to an earlier doxa in 2.13. The words οὗς καὶ Διοσκούρους καλοῦσί τινες have clearly been added in order to compensate for the fact that the heading of the chapter which refers to the Dioscuri was not included in the composite chapter heading of *Ecl.* 1.24. The omission of the Metrodoran doxa is puzzling because it goes against S's usual practice and the lemma could have easily been added to other doxai of the same philosopher cited at 1.24.1h or 1.24.3. It may have been the result of oversight or S may have felt that the psychological explanation given fitted in less well with his collection of physical doxai.

B *Proximate Tradition and Sources*

(a) *Proximate tradition.* There are no doxographical parallels for this chapter apart from the tradition of A, including 'cousin writings' such as Ach.

(b) *Sources.* The meteorological phenomenon is not discussed by Aristotle in his *Meteorology*. But a remark on the cause of lightning at *Mete.* 2.9 370a12–22 shows some similarities, namely the view attributed to Cleidemus (fr. 62.1 DK) that lightning does not have an objective existence but is no more than an appearance and can be compared to the sea being struck (e.g. by an oar) at night, causing the water to flash (ἀποστίλβον 370a14). On the key role of the concept of reflection (τὰ κατ' ἔμφασιν) in Aristotle and its influence on the *Placita* see below section D(c).

Other parallel texts are also scarce. The allegorical explanation of the Dioscuri in terms of the two hemispheres above and below the earth, which is found in Philo, Sextus and Lydus, is foreign to the method of the *Placita*. Seneca argues that it is a meteorological and not a theological phenomenon, and that if it gives hope (the Dioscuri were known as 'saviours', cf. Strabo 5.3.5), this occurs because it indicates that the storm is losing its force. Sextus also cites it in an argument as evidence for the existence of divinities in the air. Lydus records an arithmological doctrine attributed—no doubt spuriously—to Epimenides (one of the seven sages) and his followers. The chapter is an example of the kind of esoteric material that A likes to include.

C Chapter Heading

The heading is of the usual *Περὶ* x type, moving from general questions on the heavenly bodies to a particular constellation. The tradition of P records four different headings. Given that all the other headings in chs. 2.13–19 contain either the term ἀστέρες or in one case (ch. 2.13) ἄστρα, it is prudent to retain the reference to the heavenly bodies. There is little to choose between the different readings of P^B. Mau and Lachenaud against Diels opt for the longer heading in P^B, Q and Ps, and we follow their lead. But should we read ἄστρων or ἀστέρων? We retain the former in the oldest ms. (and supported by the majority of the mss. of Ps), but the fact that the first lemma reads τοὺς ἀστέρας and its predominance in the headings of chs. 2.14–17 might induce one to choose the latter (it is found in the other mss. of P^B and a minority of the mss. of Ps).

D Analysis

a Context

So far in the section of Book 2 on the stars, all the chapters have treated themes for which there are analogous chapters elsewhere, e.g. on the cosmos or on the earth. This chapter and the next treat themes that are peculiar to the stars. One can compare the section on the moon (2.25–29) and the earth (3.9–17), which also end with chapters that discuss themes peculiar to these two bodies.

The chapter deals with the phenomenon of St. Elmo's fire. It could have easily found a place in Book 3 on meteorology. It may have been placed here perhaps because the mythical figures of the Dioscuri are also associated with the constellation of the Gemini (a late development, see below section D(e)). Since the phenomenon generally occurs at sea and was often taken as a portent, it is neatly placed between 2.17 (stars fed by the ocean) and 2.19 (stars as signs).

b Number–Order of Lemmata

There is every reason to think that the chapter in A originally only had the two lemmata preserved in P, particularly when we take the diaeretic structure into account.

c Rationale–Structure of Chapter

With its two doxai the chapter records the minimum brevity of presentation in the *Placita*, a single diaeresis with two opposed points of view (cf. chs. 2.8 and 2.10; 2.12 is an exception). The doxa of Xenophanes gives a physical explanation of the phenomenon in terms of his fiery cloud(let) theory, which occurs four times in Book 2 (also at A 2.13.13, 20.2, 25.3). The view of Metrodorus, in

contrast, presents a psychological or epistemological explanation, i.e. from the viewpoint of the observer. As noted above, this different kind of explanation may have been the reason why S omitted it.

It is also possible to relate the diaeresis to the antithesis between reality (κατ' ὑπόστασιν) and appearance (κατ' ἔμφασιν) that is dominant in the meteorological chapters 3.1–6 and derives fairly directly from Aristotle's *Meteorologica*. See further Introduction to Book 3, section 2, ch. 3.5 Commentary D(d) General points, and also Mansfeld (2005a). From this viewpoint the attribution of the doxa to Metrodorus is surprising because in his many other doxai recorded in Book 3 (A 3.1.3, 3.2.10, 3.3.3, 3.4.3, 3.5.12, 3.7.3, 3.9.5, 3.15.6, 3.16.5) there is no evidence at all of non-substantial views. But, as Lachenaud notes ad loc., he is mentioned in A 4.9.1 as part of a long list of name-labels associated with the view that the senses are false.

d Further Comments

Individual Points

§1 As Mourelatos (2008) 134 points out, Xenophanes was almost certainly the first to offer a naturalistic explanation of this unusual meteorological phenomenon. He notes the parallel with fr. B32 DK ἦν τ' Ἴριν καλέουσι, νέφος καὶ τοῦτο πέφυκε, / πορφύρεον καὶ φοινίκεον καὶ χλωρὸν ἰδέσθαι, but recognises that the phrase οὗς καὶ Διοσκούρους καλοῦσιν τινες may be an addition of the doxographer (or S, as we think).

Diels *DG* 220 n. 2 was struck by the facts that the term νεφέλια is used to describe Xenophanes' doctrine, which could not have occurred in his poem because it cannot fit the metre, and that this term for a cloudlet occurs on a number of occasions in Theophrastus (fr. 6.11, 20, 23, 43 Wimmer) and also at Aristotle *Mete.* 2.8 367b10. (He might have added that the fairly rare word στίλβηδών also occurs in Theophrastus at *Hist.plant.* 5.4.2.) The language betrays its source, he states. Such arguments are ingenious but attempt to prove more than is possible from the nature of the evidence.

e Other Evidence

No trace of this subject is found in Ach or the Aratea. As scholars have noted—see Bethe (1905) 1097, Kraus (1957) 1128–1129; Mourelatos (2008) 160 n. 16—the connection of the Dioscuri both with St. Elmo's fire and with the constellation of the Gemini are late developments. No mention of the two brothers is made in the poems of Aratus and Manilius, but there is a reference to constellation in ps.Eratosthenes *Cat.* 10, to be dated to about the time of A. It should be noted that the connection with the Dioscuri in our chapter only occurs in the chapter heading, and not in its doxai. Allusions to St. Elmo's fire and the assistance given

by the Dioscuri to sailors at sea are found a century later in Lucian *Navig.* 9, *Charidemus* 3.

E Further Related Texts

b Sources and Other Parallel Texts

General texts: ps.Eratosthenes *Cat.* 10, p. 31.1–6 Pàmias I Massana–Zucker Διδύμων. οὔτοι λέγονται Διόσκουροι εἶναι· ἐν δὲ τῇ Λακωνικῇ τραφέντες ἐπιφάνειαν ἔσχον· φιλαδελφίᾳ δὲ ὑερήνεγκαν πάντας· οὔτε γὰρ περὶ ἀρχῆς οὔτε περὶ ἄλλου τινὸς ἤρισαν· μνήμην δὲ αὐτῶν Ζεὺς θέσθαι βουλόμενος τῆς κοινότητος, Διδύμους ὀνομάσας εἰς τὸ αὐτόἀμφοτέρους ἔστησεν ἐν τοῖς ἄστροις. **Strabo** 3.5.3 καὶ ἐν μὲν τῇ ἀγορᾷ Διοσκούρων ἱερὸν ἰδρυσαμένους τιμᾶν οὓς πάντες σωτήρας ὀνομάζουσιν ... **Philo** *Decal.* 56 τὸν τε οὐρανὸν εἰς ἡμισφαίρια τῷ λόγῳ διχῇ διανείμαντες, τὸ μὲν ὑπὲρ γῆς, τὸ δ' ὑπὸ γῆς, Διοσκόρους ἐκάλεσαν. **Seneca** *Nat.* 1.1.9–13, *illud enim stultissimum, existimare aut decidere stellas aut transilire ... argumentum tempestatis nautae putant, cum multae trasvolant stellae. quod si ventorum signum est, ibi est unde venti sunt, id est in aere, qui medius inter lunam terrasque est. in magna tempestate apparere quasi stellae solent velo insidentes; adiuvari se tunc periclitantes aestimant Pollucis et Castoris numine. causa autem melioris spei est quod iam apparet frangi tempestatem et desinere ventos ...* **Sextus Empiricus** *M.* 9.37 τὰ γὰρ δύο ἡμισφαίρια, τὸ τε ὑπὲρ γῆν καὶ τὸ ὑπὸ γῆν, Διοσκόρους οἱ σοφοὶ τῶν τότε ἀνθρώπων ἔλεγον. *M.* 9.86 εἴπερ τε ἐν γῇ καὶ θαλάσῃ πολλῆς οὕσης παχυμερείας ποικίλα συνίσταται ζῶα ψυχικῆς τε καὶ αἰσθητικῆς μετέχοντα δυνάμει, πολλῷ πιθανώτερόν ἐστιν ἐν τῷ ἀέρι, πολὺ τὸ καθαρὸν καὶ εἰλικρινὲς ἔχοντι παρὰ τὴν γῆν καὶ τὸ ὕδωρ, ἔμψυχά τινα καὶ νοερά συνίστασθαι ζῶα. καὶ τούτῳ συμφωνεῖ τὸ τοὺς Διοσκούρους ἀγαθοὺς τινὰς εἶναι δαίμονας, σωτήρας εὐσέλμων νεῶν. **Ioannes Lydus** *Mens.* 4.17 οἱ φιλόσοφοι φασὶ Διοσκόρους εἶναι τὸ ὑπὸ γῆν καὶ ὑπὲρ γῆν ἡμισφαίριον· τελευτῶσι δὲ ἀμοιβαδὸν μυθικῶς, οἶσινεῖ ὑπὸ τοὺς ἀντίποδας ἐξ ἀμοιβῆς φερόμενοι. οἱ δὲ περὶ Ἐπιμενίδην (3B26 DK) ἄρρενα καὶ θήλειαν ἐμύθευσαν τοὺς Διοσκόρους, τὸν μὲν αἰῶνα, ὥσπερ μονάδα, τὴν δὲ φύσιν, ὡς δυάδα, καλέσαντες· ἐκ γὰρ μονάδος καὶ δυάδος ὁ πᾶς ζωογονικὸς καὶ ψυχογονικὸς ἐξεβλάστησεν ἀριθμός.

Chapter heading: —

§2 **Metrodorus:** cf. **Aristotle** *Mete.* 2.9 370a10–19 εἰσὶ δὲ τινες οἱ τὴν ἀστραπήν, ὥσπερ καὶ Κλείδημος (62.1 DK), οὐκ εἶναι φασιν ἀλλὰ φαίνεσθαι, παρεικάζοντες ὡς τὸ πάθος ὁμοιον δὲν καὶ ὅταν τὴν θάλατταν τις ῥάβδῳ τύπτῃ· φαίνεται γὰρ τὸ ὕδωρ ἀποστίλβειν τῆς νυκτός· οὕτως ἐν τῇ νεφέλῃ ῥαπιζομένου τοῦ ὑγροῦ τὴν φάντασιν τῆς λαμπρότητος εἶναι τὴν ἀστραπήν. οὔτοι μὲν οὖν οὕτω συνήθεις ἦσαν ταῖς περὶ τῆς ἀνακλάσεως δόξαις, ὅπερ αἴτιον δοκεῖ τοῦ τοιοῦτου πάθους εἶναι· φαίνεται γὰρ τὸ ὕδωρ στίλβειν τυπτόμενον ἀνακλωμένης ἀπ' αὐτοῦ τῆς ὀψews πρὸς τι τῶν λαμπρῶν.

Liber 2 Caput 19

- P^B**: ps.Plutarchus *Plac.* 889E–F; p. 347^a10–28 Diels—**P^G**: ps.Galenus *HPh* c. 61; p. 625.21–23 Diels—**P^Q**: Qusṭā ibn Lūqā pp. 154–155 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 136, p. 71 Westerink (titulus solus)—cf. **P^{Sy}**: Symeon Seth *CRN* 3.45, p. 48.15 Delatte (titulus solus)
- S**: Stobaeus *Ecl.* 1.24, p. 201.23 + 1.24.1k p. 203.16–17 + 1.24.1l, p. 204.1–3 + 1.24.4, p. 206.12–17 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b9–10 Henry (titulus solus)

Titulus 1θ'. Περὶ ἐπισημασίας ἀστέρων (P,S)

- §1 Πλάτων τὰς ἐπισημασίας τὰς τε χειμερινὰς καὶ τὰς θερινὰς κατὰ τὰς τῶν ἀστέρων ἐπιτολὰς τε καὶ δυσμὰς γίνεσθαι, ἡλίου τε καὶ σελήνης καὶ τῶν ἄλλων πλανητῶν καὶ ἀπλανῶν. (P₁,S₂)
- §2 Ἀναξιμένης δὲ διὰ μὲν ταῦτα μὴδὲν τούτων, διὰ δὲ τὸν ἥλιον μόνον. 5 (P₂,S₁)
- §3 Εὐδοξος Ἄρατος κοινῶς διὰ πάντας τοὺς ἀστέρας, ἐν οἷς φησιν·
αὐτοὺς γὰρ τὰ γε σήματ' ἐν οὐρανῷ ἐστήριξεν,
ἄστρα διακρίνας· ἐσκέψατο δ' εἰς ἐνιαυτὸν ἀστέρας,
οἷ κε μάλιστα τετυγμένα σημαίνουσιν. (P₃,S₃) 10

§1 Plato *Tim.* 40c–d; §2 Anaximenes 13A14 DK; §3 Eudoxus F 142 Lasserre; Aratus *Phaen.* 10–12.

titulus Περὶ ἐπισημασίας ἀστέρων scripsimus, cf. Περὶ ἐπισημασίας P^G, περὶ ... ἀστέρων P^{B(I,III)Ps} (τῶν ἀστέρων P^{B(II)}) : καὶ πῶς γίνεται χειμῶν καὶ θέρος add. P^{BPs}, cf. *Über die (Wetter)Konstellationen der Jahreszeiten* Q : al. P^{Sy} Πῶς γίνονται οἱ τέσσαρες καιροί : cf. S Περὶ οὐσίας ἄστρον ... τε καὶ ἐπισημασίας (vid. app. ad 2.14) §1 [2] τὰς τε χειμερινὰς ... θερινὰς S (et P^{B(III:Laur.31.37)}) P^G (om. τε), cf. *die winterlichen und sommerlichen* Q : τὰς τε θερινὰς καὶ τὰς χειμερινὰς P^B || post τὰς¹ add. δὲ S || [3] ἀστέρων P^{BG}, ἄστρον S || τε καὶ δυσμὰς om. P^G || [3–4] ἡλίου ... ἀπλανῶν P^{BQ} : om. P^{GS} et secl. Diels (πλανητῶν καὶ om. P^Q) || [4] πλανητῶν P^{B(I,III)} : τε add. P^{B(II)} || καὶ P^{B(I,III)} : τε καὶ P^{B(II)} §§2–3 non hab. P^G §2 [5] Ἀναξιμένης ... μόνον P^B : τὰς δὲ ἐπισημασίας γίνεσθαι διὰ τὸν ἥλιον μόνον S || δὲ P^{B(II)}, cf. S : om. P^{B(I,III)} || ταῦτα P^{B(II)} : ταύτην (i.e. lunam?) P^{B(I,III)} §3 [7] Εὐδοξος ... φησιν P^B : Εὐδοξος καὶ Ἄρατος τὰς ἐπισημασίας κατὰ τὰς τῶν ἄστρον ἐπιτολὰς γίνεσθαι. λέγει γοῦν Ἄρατος ἐν τοῖς Φαινόμενοις οὕτως S || [8] τὰ γε S Aratus : τάδε P^B || σήματ' P^{BQSP} : σώματ' S^F || [10] οἷ κε P^B Aratus : οἷ καὶ S^P, οἷ S^F, οἷ τε Meineke, οἷ κε prob. Diels Wachsmuth || μάλιστα P^{B(I,III)}S Aratus : μάλα P^{B(II)} || σημαίνουσιν P^B Aratus : σημαίνουσιν S

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 61 (~ tit.) Περὶ ἐπισημασίας (text Diels)

61.1 (~ P₁) Πλάτων τὰς ἐπισημασίας τὰς χειμερινὰς καὶ τὰς θερινὰς κατὰ τὰς τῶν ἀστέρων ἐπιτολὰς γίνεσθαι.

Psellus *Omn. Doctr.* c. 136 Περί ἐπισημασίας ἀστέρων, καὶ πῶς γίνεται χειμῶν καὶ θέρος (~ tit.)

Symeon Seth *CRN* 3.45 Πῶς γίνονται οἱ τέσσαρες καιροὶ (~ tit.)

Loci Aetiani:

titulus A 3.8 Περί χειμῶνος καὶ θέρους. cf. S 1.25 (tit.) Περί οὐσίας ἡλίου καὶ μεγέθους σχήματός τε καὶ τροπῶν καὶ ἐκλείψεως καὶ σημείων καὶ κινήσεως. 1.26 (tit.) Περί σελήνης οὐσίας καὶ μεγέθους καὶ σχήματος (φωτισμῶν τε καὶ περὶ ἐκλείψεως καὶ ἐμφάσεως καὶ περὶ ἀποστημάτων καὶ σημείων) (suppl. e Phot.).

§1 Cf. A 2.16.6 Πλάτων καὶ οἱ μαθηματικοὶ ταῦτον πεπονθέναι τῷ ἑσφορῷ τὸν στίλβωνα ἰσοδραμεῖν δὲ αὐτοὺς τῷ ἡλίῳ καὶ συμπεριφέρεισθαι αὐτῷ· καὶ τότε μὲν προανατέλλοντα ἑσφορόν φαίνεσθαι, τότε δὲ ἐπικαταδυόμενον ἔσπερον καλεῖσθαι.

§2 Cf. A 3.4.4 Ξενοφάνης ἀπὸ τῆς τοῦ ἡλίου θερμότητος ὡς (προκατ)αρκτικῆς αἰτίας τὰν τοῖς μεταρσίοις συμβαίνειν.

§3 A 5.18.6 (de in septimo et octavo mense partibus) οἱ δὲ μαθηματικοὶ τοὺς ὀκτῶ μῆνας ἀσυνδέτους φασὶν εἶναι πάσης γενέσεως, τοὺς δ' ἑπτὰ συνδετικούς· τὰ δ' ἀσύνδετα ζῶδια ἔστιν, ἐὰν τῶν οἰκοδεσποτούντων ἀστέρων τυγχάνῃ· ἐὰν γάρ τις τούτων τὴν ζωὴν καὶ τὸν βίον κληρώσῃται, δυστυχεῖς καὶ ἀχρόνους σημαίνει ...

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) Three lemmata are preserved in the Byzantine mss. and in Q. G only has the title (in a shortened form) and an abridged version of the first doxa. E does not copy out this chapter, which hampers the determination of the text.

(2) 2.19 is the final chapter that S absorbs into his grand scheme of coalescence in *Ecl.* 1.24. He writes out all three lemmata also found in P, making significant adaptations of the text in the first two. He also includes a reference to the chapter heading in his combined title for 1.24, Περί οὐσίας ἄστρον καὶ σχημάτων, κινήσεώς τε καὶ ἐπισημασίας.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There is no clear evidence of doxographical treatment of this theme in the proximate tradition comparable to what we find in this chapter. However, It is possible that Philo's reference to the heavenly bodies' συμπάθεια πρὸς τε ἀλλήλους καὶ ἐπίγεια at *Somn.* 1.53 is an allusion to the subject of our chapter. This text belongs to a cluster of Philonic texts dependent on

an earlier phase of the doxographical tradition; see further ch. 2.11 Commentary B, 2.13 Commentary B. We note also a scholion to the same lines from Aratus quoted by A, which gives a view on the subject that is formulated in a manner quite similar to that found in A (text below under section E(a)§3). The example of the Pleiades is the same as is found in the text in Pliny to be discussed below.

(2) *Sources*. The general theme of the interaction between the movements of the heavenly bodies and the turning of the seasons goes back to Hesiod (*Op.* 414–419). The more specific theme of the signs of the seasons indicated by the heavenly bodies and in particular their risings and settings is perhaps alluded to by Plato in the *Timaeus* (hence the doxa in this chapter), but is absent in Aristotle. Theophrastus certainly wrote a book *Περὶ σημείων*. We know this from Diogenes' lists and from a report in Proclus, who tells us that he discussed the Chaldeans in this work and made reference to their astrological doctrines (texts below under section E(b) General texts). See further Cronin (1992) 310, Sharples (1998b) 162. The surviving treatise under his name with that title is spurious (though Cronin 1992, 336 concludes that Theophrastus' treatise may have been one of its sources). It prominently cites the theme in its opening section. Epicurus in his letter to Pythocles discusses the subject of weather signs and in fact uses the same term *ἐπισημασία* that we find in A, but in his listing of causes he makes no reference to the heavenly bodies. Later texts in Geminus, Vitruvius and Ptolemy make reference to astronomers or philosophers who have concerned themselves with seasonal signs, including Eudoxus and Aratus (and also Aristotle); see the texts cited below under section E(b) General texts and §3. The last-mentioned text belongs to the tradition of 'Star calendars' (*παραπήγματα*), to which Pliny refers at *NH* 18.213, giving as an instance of disagreement the different views on the morning setting of the Pleiades by Hesiod, Thales, Anaximander, Euctemon and Eudoxus. But this tradition differs from what we encounter in A.

C Chapter Heading

The heading in its fullest form combines the common *Περὶ x* formula with a question enquiring after the cause introduced as often by *πῶς*. All of the transmitted chapter headings, however, are problematic (the early evidence of E is sorely missed). P^B supported by Ps has a double title. The first part covers the contents of the chapter well. The second part adds a subject that is not covered by the doxai themselves, which discuss not how winter and summer occur but what signs of their occurrence are given by the risings and settings of the heavenly bodies. It may, however, have been inspired by the first Platonic doxa which speaks of signs relating to winter and summer (note the same order of winter followed by summer in both heading and doxa). G's heading is

greatly shortened. Since every other chapter heading in the section 2.13–19 has a reference to the heavenly bodies, it is not likely that it will be missing here. The heading preserved by Q appears to be based on the contents of the chapter rather than on the original Greek text (though the reference to the seasons may allude to the second half of the heading in P). The different heading in Sy is based on the second half in P^B. A decision needs to be made between the shorter and longer versions of the heading. Given the evidence of G and the likelihood that the second part is a (superfluous) deduction from the first doxa, it is preferable to choose the shorter version, though of course including a reference to the heavenly bodies. This choice has the advantage of retaining consistency with the other chapter headings in 2.13–18. A similar dilemma occurs in the very next chapter 2.20 on the sun. The shorter version is also supported by S in his conflated heading of 2.13–19, but of course we need to take into account that he may have abridged a longer title present in his text of A.

D *Analysis*

a Context

The final chapter on the heavenly bodies, just like the previous one, introduces a meteorological aspect, examining their role as purveyors of signs in relation to the seasons. It forms a good transition to the two groups of chapters on the sun and the moon, both of which have a more direct influence on the earth.

b Number–Order of Lemmata

It is very likely that our two main witnesses preserve all the doxai in this chapter. S reverses the sequence of the first two doxai, but this can be explained through the process of coalescence. There is thus no reason to suggest that the order differed from what is preserved in P.

c Rationale–Structure of Chapter

The subject of the chapter is indicated by the relatively uncommon term ἐπισημασία in the chapter heading, which is repeated in the first and third doxa (in the second it has been added by S). The context makes clear that it refers to ‘indications of the (changes of the) seasons’. The theme itself goes back to Hesiod (cf. *Op.* 414–419, 546–548), but the poet scarcely makes an appearance in the *Placita* (he only occurs in 1.6, a chapter that to some extent differs from the usual method of the work). The first two doxai reveal a simple diaeresis: Plato regards the signs of seasonal change as occurring through the rising and setting of all the heavenly bodies, whereas Anaximenes attributes these signs to the sun only. The Platonic view is derived from *Tim.* 40c8–d2, where Plato says

that the movements of the heavenly bodies produce ‘fears and signs of events that will happen after these things to those who are unable to calculate’ (φόβους καὶ σημεῖα τῶν μετὰ ταῦτα γενησομένων τοῖς οὐ δυναμένοις λογίζεσθαι). At some stage in the textual transmission of this sentence after Cicero the word οὐ fell away and so the pronouncement lost its negative force, as can be seen in the comments on the text by Proclus cited section E(b)§1 (on this text see further Taylor 1928, 244). The doxa is based on the occurrence of the term σημεῖα, but there is no specific reference to the seasons in the passage. The third lemma does not add a new view but amounts to an illustration of the Platonic view by means of a poetic quote. A similar technique is used in the case of Empedocles in A 1.30.1 and for the anonymous doxa in A 5.19.2. Both Eudoxus and Aratus wrote works with the title Φαινόμενα. Aratus is named only here, though his verses are also cited in ch. 1.6[20–24]. Eudoxus is credited with a view on the sources of the Nile at ch. 4.1.7. On the occurrence of poetic quotes in the *Placita* see M–R 2.1.207.

d Further Comments *Individual Points*

§1 We have not followed Diels in bracketing the words, ἡλίου τε καὶ σελήνης καὶ τῶν ἄλλων πλανητῶν καὶ ἀπλανῶν though they are missing in S and G (but not in Q). Though it is possible that they are a gloss, it is more likely that they were omitted from a fuller original than that they were added. The retention of the phrase heightens the antithesis with the next doxa. The adjectives χειμερινάς and θερινάς qualifying the noun ἐπισημασίας are unclear in their precise meaning: they could refer to signs relating to winter and summer or signs taking place during those seasons. The theme of the chapter makes the former meaning more likely.

§2 The formulation is characteristically loose. τούτων must refer to σημεῖα, though the term has not been used so far in the chapter. ταῦτα (neuter) must refer to ἀστέρων (masculine), unless we read ἄστρον with S, and of course it does not include the sun.

§3 Poetic quotations are rare in A, except in the opening chapters of Book 1 (there are eleven poetic quotes in chs. 1.1–7). This is the only example in Book 2. The text introducing the quote in S, which refers specifically to its author and location, is much clearer than in P, where it has to be deduced that Aratus is the author. The words λέγει οὖν, however, are a tell-tale sign of S’s intervention in the text; cf. M–R 1.233. For examples of poetic quotes introduced by the verb φησί see A 1.3.20, 1.6.1, 4.12.1 (in the last passage the subject is the character in the play, not the author). At A 1.25.4 a prose quote from Leucippus is introduced as λέγει γὰρ ἐν τῷ Περὶ νοῦ. In the absence of further evidence the formulation in P should be retained.

It is of interest to compare the quoted lines in A with the textual transmission of the Aratean text; see the edition of Kidd (1997) ad loc. There is some variation in the readings in the mss. of the witnesses (see the apparatus above). The temptation must be resisted to accommodate readings to the text transmitted in the Aratean tradition. Nevertheless in all cases the best reading is the same as found in the Aratean tradition. The only case where one might hesitate is in the first line, where P reads τάδε. Here S reads τά γε, which is the reading in the Aratean tradition. It is always possible that S might have introduced a correction, but in this case it is justified to print his text. The lines themselves were well-known and are cited twice by Ach in different contexts at ch. 1.7, p. 7.8–10 and in ch. 15 (first line only).

e Other Evidence

A very late text in the Arabic work *Turba philosophorum* (c. 900), later translated into Latin (no later than 13th cent.), preserves information on Anaximenes which shows how his ἀήρ doctrine could be adapted to explain the advent of the seasons. It is thus consistent with the doxa in A, but there is no contrast with other views. On this text see Rudolph (1990), Lacaze (2018) 52–57, 353–354, who argue that the doxographical source is to be identified with Hippolytus (cf. *Ref.* 1.7.3). It should be noted, however, that in that doxographical account there is no reference to the seasons.

E Further related texts

a Proximate Tradition

General texts: Philo of Alexandria *Somn.* 1.53 τί δὲ περὶ τῆς τῶν ἄλλων ἀστέρων φύσεως ἢ περιφορᾶς ἢ συμπαθείας πρὸς τε ἀλλήλους καὶ τὰπίγεια; cf. *Opif.* 58 (on heavenly bodies) γεγόνασι καὶ ὅπως σημεία μελλόντων προφαίνωσιν· ἢ γὰρ ἀνατολαῖς αὐτῶν ἢ δύσεσιν ἢ ἐκλείψειν ἢ πάλιν ἐπιτολαῖς ἢ ἀποκρύψειν ἢ ταῖς ἄλλαις περὶ τὰς κινήσεις διαφοραῖς ἀνθρώποι τὰ ἀποβησόμενα στοχάζονται, ... ὥρων τῶν ἐτησίων ὑπαλλαγὰς ἢ θέρους χειμαίνοντος ἢ χειμῶνος φλέγοντος ἢ ἔαρος μετοπwrίζοντος ἢ μετοπwρου ἐαρίζοντος (cf. also Basil of Caesarea in *Hexaem.* 6.4). **Schol. Arat.** 10, p. 54.5 Martin (on Aratus) αὐτὸς γὰρ τῶν ὥρων σημεία ἐποιήσατο τοὺς ἀστέρας. ἐθέλει δὲ τὰς ἀνατολὰς αὐτῶν καὶ τὰς δύσεις δηλῶσαι, οἷον Πηλιάδων ἑῶαν ἐπιτολήν ἀρχὴν θέρους γίνεσθαι, δύσιν δὲ ἑῶαν ἀρχὴν χειμῶνος.

Chapter heading: —

§3 *Eudoxus Aratus:* Achilles 15, p. 22.14–18 Di Maria ὁ Ἄρατος (*Phaen.* 10) τῇ τῶν πολλῶν δόξῃ κατακολουθήσας τοὺς ἀπλανεῖς ἐναρρῆναι φησὶ τῷ οὐρανῷ ‘αὐτὸς γὰρ τάδε σήματ’ ἐν οὐρανῷ ἐστήριξε’ παρὰ τὸ ‘ἐστήριξεν’ ἀστέρας αὐτοὺς παρετυμολογῶν.

b Sources and Other Parallel Texts

General texts: **ps.Eudoxus** Χειμῶνος προγνωστικά (title), p. 183.1 Boll. **Theophrastus** fr. 194 FHS&G at Proclus in *Tim.* 3.151.1–9 θαυμασιωτάτην δὲ εἶναι φησιν ὁ Θεόφραστος ἐν τοῖς κατ' αὐτὸν χρόνοις τὴν τῶν Χαλδαίων περὶ ταῦτα θεωρίαν, τὰ τε ἄλλα προλέγουσαν καὶ τοὺς βίους ἐκάστων καὶ τοὺς θανάτους, καὶ οὐ τὰ κοινὰ μόνον, οἷον χειμῶνας καὶ εὐθείας, ὥσπερ καὶ τὸν ἀστέρα τοῦ Ἑρμοῦ χειμῶνος μὲν ἐκφανῇ γενόμενον ψύχῃ σημαίνειν, καύματα δὲ θέρους εἰς ἐκείνους ἀναπέμπει· πάντα δ' οὖν αὐτοὺς καὶ τὰ ἴδια καὶ τὰ κοινὰ προγινώσκειν ἀπὸ τῶν οὐρανίων ἐν τῇ Περὶ Σημείων βίβλῳ φησὶν ἐκεῖνος. **ps.Theophrastus Sign.** 1 τὰ μὲν οὖν ἐπὶ τοῖς ἄστροις δυομένοις καὶ ἀνατέλλουσιν ἐκ τῶν ἀστρονομικῶν δεῖ λαμβάνειν. *Sign.* 5–6 ἄλλα δὲ ἐστὶ σημεῖα ἃ λαμβάνεται ἀπὸ τε ζῶων τῶν κατ' οἰκίαν καὶ ἐτέρων τινῶν τόπων καὶ παθημάτων, μάλιστα δὲ κυριώτατα ἀπὸ τοῦ ἡλίου καὶ τῆς σελήνης· ἡ γὰρ σελήνη νυκτὸς οἷον ἡλίος ἐστὶ· διὸ καὶ αἱ σύνοδοι τῶν μηνῶν χειμέριοι εἰσιν ὅτι ἀπολείπει τὸ φῶς τῆς σελήνης ἀπὸ τετραδὸς φθίνοντος μέχρι τετραδὸς ἰσταμένου. ὥσπερ οὖν ἡλίου ἀπόλειψις γίνεται κατὰ τὸν ὅμοιον τρόπον καὶ τῆς σελήνης ἔκλειψις. (6) δεῖ οὖν προσέχειν μάλιστα ταῖς ἀνατολαῖς ταῖς τούτων καὶ ταῖς δύσεσιν ὅποιαις ἂν ποιοῦνται τὸν βουλόμενον προγινώσκειν. **Epicurus Ep.Pyth.** at D.L. 10.99 ἐπισημασίαι δύνανται γίνεσθαι καὶ κατὰ συγκυρήσεις καιρῶν, καθάπερ ἐν τοῖς ἐμφανέσι παρ' ἡμῖν ζῳίσι, καὶ παρ' ἑτεροίοις ἀέρος καὶ μεταβολάς. ἀμφοτέρω γὰρ ταῦτα οὐ μάχεται τοῖς φαινομένοις· ἐπὶ δὲ ποίοις παρὰ τοῦτο ἢ τοῦτο τὸ αἷτιον γίνεται οὐκ ἔστι συνιδεῖν. **Corpus Hippocraticum Hebd.** 2.2.1–5 West τὰ τοίνυν ἄστρα τὰ οὐράνια ἐπτά ἐόντα τάξιν ἔχει τῶν ὥρέων ἐκδοχῆς, μεμ(ρτισ)μενην· ᾧ(ν ἐπ) μῆς μὲν ὁ ἥλιος, ἡλίῳ δὲ σελήνη (ἀκολουθεῖ)· ἀκολουθεῖ δὲ Ἄρκτος τῷ Ἀρκτούρῳ ἀκολουθεῖν ἱ(σὴν) ὥσπερ ἡλίῳ σελήνη· αἱ δὲ Πλειάδες τῇ(σιν) Ὑάσιν ἀκολουθεοῦσιν· τῷ δὲ Ὠρίωνι ὁ Κύων. **Pliny Nat.** 18.213, *occasum matutinum vergiliarum* (i.e. *Pleades*) **Hesiodus ... tradidit fieri cum aequinoctium autumni conficeretur**, **Thales** (fr. 116 Wöhrle) *XXV die ab aequinoctio*, **Anaximander** (fr. 44 Wöhrle) *XXX, Euctemon XLIV, Eudoxus* (F 192b Lasserre) *XLVIII. nos sequimur observationem Caesaris maxime ...* **Ptolemy Phas.** 66–67 Heiberg καὶ τούτων ἀνέγραψα τὰς ἐπισημασίας καὶ κατέταξα κατὰ τε Αἰγυπτίους καὶ Δοσίθεον, Φίλιππον, Κάλλιππον, Εὐκτῆμονα, Μέτωνα, Κόνωνα, Μητρόδωρον, Εὐδοξον (F 143 Lasserre), Κάισαρα, Δημόκριτον (68B14.7 DK), Ἰππαρχον.

Chapter heading: cf. **Theophrastus** Περὶ σημείων (title recorded at D.L. 5.45); also spurious treatise preserved in corpus of Theophrastean works Περὶ σημείων ὑδάτων καὶ πνευμάτων καὶ χειμῶνων καὶ εὐδιῶν. cf. **Bolus** at *Suda* s.v. B 482, p. 1.490.1–3 Adler Βῶλος, Μενδῆσιος, Πυθαγόρειος (68B300.1 DK) ... Περὶ σημείων τῶν ἐξ ἡλίου καὶ σελήνης καὶ ἄρκτου καὶ λύχνου καὶ ἱριδος. see also **Ptolemy Phas.** 66 cited above.

§1 Plato: **Plato Tim.** 40c3–d2 χορείας δὲ τούτων αὐτῶν (sc. ἄστρων) καὶ παραβολὰς ἀλλήλων, καὶ {περὶ} τὰς τῶν κύκλων πρὸς ἑαυτοὺς ἐπανακυκλήσεις καὶ προχωρήσεις, ἐν τε ταῖς συνάψεσιν ὅποιοι τῶν θεῶν κατ' ἀλλήλους γιγνόμενοι καὶ ὅσοι καταντικρῶ, μεθ' οὐστινας τε ἐπίπροσθεν ἀλλήλοις ἡμῖν τε κατὰ χρόνους οὐστινας ἕκαστοι κατακαλύπτονται καὶ πάλιν ἀναφαινόμενοι φόβους καὶ σημεῖα τῶν μετὰ ταῦτα γενησομένων τοῖς οὐ δυναμένοις λογίζεσθαι πέμπουσιν ... **Galen Di.Dec.**

9.914.13 K. ἐν μὲν τοῖς ὀξέσι νοσήμασιν ἡ ἑβδομάς ἐστιν, ἐν δ' αὖ τοῖς χρονίοις αἱ τῶν ἐπιφανεστάτων ἄστρον εἰσὶν ἐπισημασίαι, καθ' ἃς ἔαρ καὶ θέρος καὶ χειμὼν καὶ φθινόπωρον ἀφορίζονται. **Proclus in Tim.** 3.149.16–20 (on *Tim.* 40c9–d1) τὰς δὲ 'κατὰ χρόνους αὐτῶν κατακαλύψεις καὶ πάλιν ἐκφάνσεις' οἰητέον τὰς κρύψεις τὰς ὑπὸ τὸν ἥλιον καὶ τὰς φάσεις, ἃς ἀμφοτέρας μεγάλων τινῶν εἶναι ποιητικὰς καὶ σημαντικὰς λέγουσιν οἱ αὐτὰ δεινοί. *in Tim.* 3.150.28–151.1 ἐπειδὴ δὲ τὰ σχήματα καὶ τὰς κινήσεις τῶν οὐρανίων 'φόβους' εἶπε 'καὶ σημεία τῶν γιγνομένων' παρέχειν 'τοῖς δυναμένοις λογίζεσθαι', τοσοῦτον ἰστέον, ὅτι οὐ μόνον ἐκεῖνα σημαίνειν οἰητέον, ἀλλὰ σημεία γεγονότων ὄντα σημαντικὰ τινων. διὸ καὶ αὐτὸς τῶν σημαντικῶν ἑαυτοῖς ἐνεργειῶν προηγουμένως ἐμνήσθη (there follows the reference to Theophrastus cited under General texts above).

§2 **Anaximenes: Turba philosophorum** 6.1–7, pp. 352.11–354.8 Lacaze (Latin version, original Arabic text is lost) *ait Eximedrux* (= Anaximenes, fr. 232 Wöhrlé): *magnifico aera et honorifico, ut Eximedrux roborum sermonem, eo quod per ipsum opus emendatur, et conspissatur et rarescit, (354) et calefit et frigescit. (2) eius autem spissitudo fit, quando disiungitur propter solis elongationem. (3) eius vero raritas fit, quando in caelo exaltato sole calescit aer et rarescit. (4) similiter vero fit in veris complexionem, in temporis nec calidi nec frigidi distinctione. (5) nam secundum alterationem dispositionis constitutae ad distinctiones anni alterandas, hyems alteratur. (6) aer igitur spissatur, cum ab eo sol elongatur, et tunc hominibus frigus pervenit. (7) aere vero rarecente prope fit sol, quo propinquo et aere rarecente calor pervenit hominibus.*

§3 **Eudoxus Aratus: Geminus Elem.** 17.46–49, pp. 92–93 Aujac (on Aratus) ὁθεν βελτίοσιν ἂν τις σημείοις χρῆσαιτο τοῖς ὑπὸ τῆς φύσεως ἡμῖν διδομένοις, οἷς καὶ Ἄρατος κέχρηται. τὰς μὲν γὰρ ἐκ τῶν ἐπιτολῶν καὶ δύσεων τῶν ἄστρον γινόμενας μεταβολὰς τοῦ ἀέρος ὡς διεψευσμένας παρέλιπε, τὰς δὲ φυσικῶς γινόμενας καὶ μετὰ τίνος αἰτίας κατεχώρισεν ἐν τῇ τῶν Φαινομένων πραγματείᾳ ἐπὶ πάσι τῆς ὅλης συντάξεως. (47) λαμβάνει γὰρ τὰς προγνώσεις ἀπὸ τῆς τοῦ ἡλίου ἀνατολῆς καὶ δύσεως, καὶ ἀπὸ τῶν τῆς σελήνης ἀνατολῶν καὶ δύσεων, καὶ ἀπὸ τῆς ἄλλω τῆς γινομένης περὶ τὴν σελήνην, καὶ ἀπὸ τῶν διαίσιόντων ἀστέρων, καὶ ἀπὸ τῶν ἀλόγων ζώων. (48) αἱ γὰρ ἀπὸ τούτων προγνώσεις μετὰ τίνος φυσικῆς αἰτίας γινόμεναι κατηναγκασμένα ἔχουσι τὰ ἀποτελέσματα. ὁθεν καὶ Βόηθος ὁ φιλόσοφος (—) ἐν τῷ τετάρτῳ βιβλίῳ τῆς Ἀράτου ἐξηγήσεως φυσικὰς τὰς αἰτίας ἀποδέδωκε τῶν τε πνευμάτων καὶ ὄμβρων, ἐκ τῶν προειρημένων εἰδῶν τὰς προγνώσεις ἀποφαινόμενος. (49) τοῖς δὲ τοῖς σημείοις καὶ Ἀριστοτέλης ὁ φιλόσοφος (ps.Aristotle or Theophrastus *Περὶ σημείων*, Arist. fr. 249 Rose³) κέχρηται καὶ Εὐδόξος (F 139 Lasserre) καὶ ἕτεροι πλείονες τῶν ἀστρολόγων. **Vitruvius** 9.6.3 *quorum* (sc. the natural philosophers) *inventi secuti siderum et occasus tempestatumque significatus Eudoxus* (F 138 Lasserre), *Eudemus* (—), *Callippus, Meto, Philippus, Hipparchus, Aratus ceterique ex astrologia paraepigmatorum disciplinis invenerunt et eas posteris explicatas reliquerunt.*

Liber 2 Caput 20

- P^B**: ps.Plutarchus *Plac.* 889F–890C; pp. 348^{a1}–351^{a2} Diels—**P^E**: Eusebius *PE* 15.23, pp. 400.9–401.10, cf. 7.11.13, p. 385.21–22 Mras—**P^G**: ps.Galenus *HPh* c. 62; *DG* pp. 625.24–626.12 Diels—**P^Q**: Qusṭā ibn Lūqā pp. 154–157 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 126, p. 67 (titulus solus)
- S**: Stobaeus *Ecl.* 1.25, p. 207.13 (tit.) + 1.25.1a, p. 207.13–17 + 1.25.1bc, pp. 207.23–208.8 + 1.25.1d, p. 208.15–16 + 1.25.1efg, pp. 208.20–209.6 + 1.25.3a, p. 209.22–23 + 1.25.3b, p. 209.27 + 1.25.3c, p. 210.5–6 + 1.25.3de, pp. 210.9–211.1 + 1.25.3f, p. 211.4–6 + 1.25.3g, p. 211.9–14 + 1.25.3i, p. 211.18–19 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b10 Henry (titulus solus)
- T**: Theodoretus *CAG* 4.21, p. 105.16–106.1 Raeder
- Cf. Ach: Achilles *Univ.* c. 19, p. 27.5–19; cf. c. 2, p. 9.5 Di Maria; *Scholia in Aratum*, *Proleg.* 17, p. 27.18–20 Martin

Titulus κ'. Περὶ οὐσίας ἡλίου (P,S)

- §1 Ἀναξίμανδρος κύκλον εἶναι ὀκτωκαιεικοσαπλασίονα τῆς γῆς, ἀρματείῳ τροχῷ παραπλήσιον τὴν ἀψίδα ἔχοντα κοίλην, πλήρη πυρός, κατὰ τι μέρος ἐκφαίνουσιν διὰ στομίου τὸ πῦρ ὥσπερ διὰ πρηστήρος αὐλοῦ· καὶ τοῦτ' εἶναι τὸν ἥλιον. (P1,S3)
- §2 Ξενοφάνης ἐκ νεφῶν πεπυρωμένων εἶναι τὸν ἥλιον. (S1,T1,cf.P2b)
- §3 Ἀναξιμένης Παρμενίδης πύρινον ὑπάρχειν τὸν ἥλιον. (S4+5)

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§1 Anaximander 12A21 DK; §2 Xenophanes 21A40 DK; §3 Anaximenes 13A15 DK; Parmenides 28A41 DK

titulus Περὶ οὐσίας ἡλίου ^{PB(1,11)QS}, cf. Ach : Περὶ ἡλίου ^{PB(11)EG} || καὶ ὅτι δύο καὶ τρεῖς εἰσιν add. ^{PB(1,11)} (καὶ ante δύο add. ^{PB(11)}), καὶ εἰ πολλοὶ εἰσιν ἥλιοι add. ^{P^{Ps}}: conflat S tit. cc. 2.20–24 Περὶ οὐσίας ἡλίου (2.20) καὶ μεγέθους (2.21) σχήματός (2.22) τε καὶ τροπῶν (2.23) καὶ ἐκλείψεως (2.24) καὶ σημείων (—) καὶ κινήσεως (—) §1 [2] κύκλον] τὸν κύκλον αὐτοῦ ^{P^G} || ὀκτωκαιεικοσαπλασίονα ^{P^{BEGS}}: ὀκτωκαιδεκαπλασίονα ^{P^Q(ut vid.)} || ἀρματείῳ ^{P^{EGS}}: ἀρματίῳ ^{P^B} || [3] παραπλήσιον ... κοίλην Diels Mau Lachenaud : παραπλήσιον post ἀψίδα ^{P^B} (κοίλον ^{P^E}) : παραπλήσιον ἔχοντα κοίλην περιφέρειαν S : παραπλησίως ἔχοντα κοίλην (καὶ πλήρη πυρός) ^{P^G} : cf. *Ihre Rundung ist wie die Rundung des Himmelsphäre der Milchstraße. Sie ist hohl ...* Q || [3–4] κατὰ τι μέρος ^{P^E} : ante κατὰ add. ἧς ^{P^B} del. Diels Mau Lachenaud : κατὰ μέρος ^{P^G} : om. ^{P^Q} || [4] ἐκφαίνουσιν S : ἐκφαίνοντα ^{P^{E1}} Mras : ἐκφαίνουσης ^{P^{B2}} corr. Diels || στομίῳ] στενοῦ ^{P^G} || [4–5] ὥσπερ ... ἥλιον ^{P^B} : αὐλοῦ ... ἥλιον om. S : cf. *wie die Blitze erscheinen. Das is bei der Form der Sonne (der Fall)* Q : al. ^{P^G} ὥς δι' αὐλοῦ πρὸς ἡμᾶς ἐκπέμπεσθαι §2 [6] εἶναι τὸν ἥλιον fort. add. S (sed cf. T) §3 [7] Ἀναξιμένης ... ἥλιον ex S (vid. comm.) : ἀπεφῆναιτο add. S ipse verisimiliter

- §4 Ἀντιφῶν πῦρ ἐπινεμόμενον μὲν τὸν περὶ τὴν γῆν ὑγρὸν ἀέρα, ἀνατολὰς
δὲ καὶ δύσεις ποιούμενον τῷ τὸν μὲν ἐπικαιόμενον αἰεὶ προλείπειν, τοῦ
δ' ὑπονοτιζομένου πάλιν ἀντέχεσθαι. (S6) 10
- §5 Ξενοφάνης, (ὥς) Θεόφραστος ἐν τοῖς Φυσικοῖς γέγραφεν, ἐκ πυριδίων
τῶν συναθροιζομένων μὲν ἐκ τῆς ὑγρᾶς ἀναθυμιάσεως συναθροιζόντων
δὲ τὸν ἥλιον. (P2,S2)
- §6 Ἡράκλειτος Ἐκαταῖος Κλεάνθης ἄναμμα νοερὸν ἐκ θαλάττης. (P3,S7
+16) 15
- §7 Πλάτων ἐκ πλείστου πυρός, μετέχειν δὲ καὶ τῶν ἄλλων σωμάτων.
(P4,T6)
- §8 Ἀναξαγόρας Δημόκριτος Μητρόδωρος μύδρον ἢ πέτρον διάπυρον. (P5,
S8+15(+4),T2)
- §9 Θαλῆς γεώδη. (S9,T3) 20
- §10 Διογένης κισηροειδῆ τὸν ἥλιον, εἰς ὃν ἀπὸ τοῦ αἰθέρος ἀκτῖνες ἐναπο-
στηρίζονται. (S10,T4)
- §11 Ἀριστοτέλης σφαῖραν ἐκ τοῦ πέμπτου σώματος. (P6,T5)
- §12 Φιλόλαος ὁ Πυθαγόρειος ὑαλοειδῆ, δεχόμενον μὲν τοῦ ἐν τῷ κόσμῳ
πυρός τὴν ἀνταύγειαν, διηθοῦντα δὲ πρὸς ἡμᾶς τό τε φῶς καὶ τὴν 25

§4 Antiphon 87B26 DK, fr. F26 Pendrick; §5 Xenophanes 21A40 DK; Theophrastus fr. 232 FHS&G; §6 Heraclitus 22A12 DK; Hecataeus 73B9 DK; Cleanthes SVF 1.501; §7 Plato cf. *Tim.* 40a; §8 Anaxagoras 59A72 DK; Democritus 68A87 DK; Metrodorus 70A11 DK; §9 Thales 11A17a DK; §10 Diogenes 64A13 DK; §11 Aristoteles cf. *Cael.* 1.2 269a31; §12 Philolaus 44A19 DK

§4 [9–10] ἐπικαιόμενον, ὑπονοτιζομένου S : ἐπικειόμενον, ὑπονοτιζομένου v.l. (not. Wachsmuth ad p. 208.23) §5 non hab. G || [11] (ὥς) Θεόφραστος ἐν τοῖς Φυσικοῖς γέγραφεν S : ὥς addidimus (cf. Usener, qui in S (ἢ ὥς) con. sine nomine Ξενοφάνης) : desunt in P || post πυριδίων add. μὲν S, τῶν φαινομένων P^E || [12] μὲν ἐκ] om. S || [13] post ἥλιον add. ex §2 ἡ νέφος πεπυρωμένον P^B, ἐκ νεφῶν πεπυρωμένων P^E Diels, cf. *entstehen die Sonne oder glühenden Wolken* Q §6 [14] Ἡράκλειτος Ἐκαταῖος Κλεάνθης scripsimus ex S, qui in duo lemmata dividit cum nominibus Ἡράκλειτος καὶ Ἐκαταῖος et Κλεάνθης : οἱ Στωικοὶ P || ἄναμμα ἄναμμα S bis, corr. Heeren || ἐκ θαλάττης P : τὸ ἐκ θαλάττης εἶναι τὸν ἥλιον S bis (om. εἶναι secundo loco 211.18 Wachsmuth) §7 non hab. S || [16] ἐκ πλείστου πυρός P^{BG} : ἐκ om. P^E : τὸ μὲν πλείστον ἔχειν ἐκ τοῦ πυρός T || μετέχειν ... σωμάτων T : deest in P §8 [18] Ἀναξαγόρας ... Μητρόδωρος P^{BE} : Ἀναξαγόρας (δὲ add. T) καὶ Δημόκριτος καὶ Μητρόδωρος P^{GT} || μύδρον ... διάπυρον P^{BEGST} : al. Q und Mydron (ex μύδρον!) glaubten, daß der Sonnenkörper wie ein glühenden Felsen ist (ἢ omissum susp. Daiber) §9 [20] γεώδη S : τὸν ἥλιον add. S verisimiliter §11 [23] post σώματος add. T ξυνεστῶσαν §12 [24] ὑαλοειδῆ P^{B(II)GST} : δίσκον ὑαλοειδῆ P^E : ὑελλοειδῆ P^{B(II)} : add. τὸν ἥλιον S || [25] πυρός PT : πρὸς S corr. Heeren || ἀνταύγειαν (εὐαγίαν P^G) διηθοῦντα P^{B(II)EGST} : ἔλλαμψιν πέμποντα P^{B(II)} || [25–26] τό τε ... ἄλέαν ST : τὸ φῶς P

ἄλλαν, ὥστε τρόπον τινὰ διττοὺς ἡλίους γίγνεσθαι, τό τε ἐν τῷ οὐρανῷ πυρώδες καὶ τὸ ἀπ' αὐτοῦ πυροειδὲς κατὰ τὸ ἐσοπτροειδές, εἰ μὴ τις καὶ τρίτον λέξει, τὴν ἀπὸ τοῦ ἐνόπτρου κατ' ἀνάκλασιν διασπειρομένην πρὸς ἡμᾶς αὐγὴν· καὶ γὰρ ταύτην προσονομάζομεν ἥλιον οἶον εἰδῶλον εἰδῶλου. (P7,S11,T7)

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§13 Ἐμπεδοκλῆς δύο ἡλίους, τὸν μὲν ἀρχέτυπον, πῦρ ἐν τῷ ἐτέρῳ ἡμισφαίριῳ τοῦ κόσμου πεπληρωκὸς τὸ ἡμισφαίριον, αἰεὶ κατ' ἀντικρὺ τῇ ἀνταυγείᾳ ἑαυτοῦ τεταγμένον· τὸν δὲ φαινόμενον ἀνταύγειαν ἐν τῷ ἐτέρῳ ἡμισφαίριῳ τῷ τοῦ ἀέρος τοῦ θερμομιγοῦς πεπληρωμένῳ, ἀπὸ κυκλοτεροῦς τῆς γῆς κατ' ἀνάκλασιν ἐγγιγνομένην εἰς τὸν Ὀλυμπον τὸν κρυσταλλοειδῆ, συμπεριελκομένην δὲ τῇ κινήσει τοῦ πυρίνου· ὥς δὲ βραχέως εἰρησθαι {συντεμόντα}, ἀνταύγειαν εἶναι τοῦ περὶ τὴν γῆν πυρὸς τὸν ἥλιον. (P8,S12)

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§14 Ἐπίκουρος γήινον πύκνωμα κισηροειδὲς καὶ σπογγοειδὲς ταῖς κατὰ-τρήσεσιν ὑπὸ τοῦ πυρὸς ἀνημμένον. (P9,S13)

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§15 Ἡράκλειτος ἀναμμα, ἐν μὲν ταῖς ἀνατολαῖς τὴν ἔξαψιν ἔχοντα, τὴν δὲ σβέσιν ἐν ταῖς δυσμαῖς. (P^G7)

§13 Empedocles 31A56 DK; §14 Epicurus fr. 343 Usener; §15 Heraclitus T437, 595 Mouraviev

[26–27] ὥστε ... ἐσοπτροειδές S, cf. Ach : ὥστε προσοικέναι ἡλίῳ τὸ ἐν τῷ οὐρανῷ πυρώδες τό τε δὴ ἀπ' αὐτοῦ καὶ ἐσοπτροειδές P^B (ἀπ' αὐτοῦ (πυρώδες) Diels) : ὥστε προσοικέναι ἡλίῳ τὸ ἐν τῷ οὐρανῷ πυρώδες P^E : al. P^G ὥστε τρεῖς εἶναι ἐν τῷ ἡλίῳ διαφορὰς· τὸ ἐν τῷ οὐρανῷ πυρώδες, τὸ ἀπ' αὐτοῦ πυροειδές P^G, cf. *Daher gibt es drei Sonnen: die eine von ihnen, welche im Himmel ist; sie ist feurig. Die zweite (ist diejenige,) welche aus ihm (dem Himmel) in der Art des Spiegels entsteht* Q || [27–29] εἰ μὴ ... αὐγὴν S : καὶ τρίτον τὴν ... αὐγὴν P^B : τῇ ... διασπειρομένη ... αὐγῇ P^E : al. P^G τρίτον τὴν ἀπὸ τούτου ἀνάκλασιν διασπειρομένην πρὸς ἡμᾶς : cf. *Die dritte ist die Rückstrahlung, welche zu uns reflektiert wird, und das Licht, welches sich deswegen über uns ausbreitet* Q || [29–30] καὶ ... εἰδῶλου P^{B^E}, cf. P^{QT} : desunt in P^{GS} || [29] προσονομάζομεν P^{B(I,II)E} : προσαγοπεύομεν P^{B(III)} §13 [31–33] τὸν ... τὸν τὸ ... τὸ P^E corr. Mras, P^G || [31] ἀρχέ-τυπον] ἄριστον P^G || [31–32] πῦρ ... τὸ om. P^G || [31] πῦρ P^{B^E} : πῦρ δν S prob. Primavesi R² || [32] πεπληρωκὸς P^B : πεπληρωκὸς P^{ES} corr. Diels || [32–33] αἰεὶ ... τεταγμένον om. P^G || [33] τῇ ἀνταυγείᾳ P^{BT} : τῆς ἀνταυγείας P^E || [34–38] τῷ ... ἥλιον om. P^G || [35] γῆς P^{B^{ES}} : (αὐ)γῆς Bernadakis Mau || Ὀλυμπον Mansfeld R¹ ex P^Q prob. Primavesi R², Laks–Most (cf. *somit den Berg füllen, welcher "Olympus" genannt wird* Q) : ἥλιον P^{B^{ES}} Diels Mau Lachenaud Vitek || [36] συμπεριελκομένην P^{B(II,III)S} : συμπεριπλεκομένην P^{B(I)}, δὲ add. S Primavesi R² || [37] βρα-χέως P^{BS} : διὰ βραχέος P^E || συντεμόντα P^{B^{ES}} ret. Laks–Most (συντεμόντι conī. Meineke prob. Wachsmuth), dub. Diels DG, secl. VS, del. Primavesi R² || [37–38] ἀνταύγειαν ... πυρὸς P^{BS} : πῦρ εἶναι P^E || [37] γῆν] αὐγὴν P^{B(III;Laur.31.37)} (cf. I. 35) §14 [39] πύκνωμα P^{B^{ES}} : κύκλωμα P^G || post πύκνωμα add. S τὸν ἥλιον φησιν εἶναι || κισηροειδὲς καὶ σπογγοειδὲς P^E : κισηροειδῶς καὶ σπογγοειδῶς S : κισηροειδῆ καὶ σπογγοειδῆ P^G : κισηροειδῶς P^{B(I–II)} : κισηροειδὲς P^{B(III)} || [40] ὑπὸ ... ἀνημμένον P^{B^{ES}} : ἐνημμένον P^G || post hoc lemma hab. G Ἡράκλειτος ἀναμμα, ἐν μὲν ταῖς ἀνατολαῖς τὴν ἔξαψιν ἔχοντα, τὴν δὲ σβέσιν ἐν ταῖς δυσμαῖς §15 hab. P^G solus, damn. ut additamentum Diels || [41] ἀναμμα Diels : mss. ἀναμα, ἀνάμματα || ἔχοντα sc. τὸν ἥλιον de titulo, cf. §3

§16 Παρμενίδης τὸν ἥλιον καὶ τὴν σελήνην ἐκ τοῦ γαλαξίου κύκλου ἀποκριθῆναι, τὸν μὲν ἀπὸ τοῦ ἀραιότερου μίγματος, ὃ δὴ θερμόν, τὴν δὲ ἀπὸ τοῦ πυκνοτέρου, ὅπερ ψυχρόν. (S14)

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§16 Parmenides 28A43 DK

§16 [44] τὸν : τὸ S^{FP} corr. Canter

Testes primi:

Theodoretus CAG 4.21

4.21.1 (~ §2) καὶ μέντοι καὶ τὸν ἥλιον καὶ τὴν σελήνην ὁ Ξενοφάνης νέφη εἶναι πεπωρωμένα φησίν·

4.21.2 (~ §8) Ἀναξαγόρας δὲ καὶ Δημόκριτος καὶ Μητρόδωρος μύδρον ἢ πέτρον διάπυρον·

4.21.3 (~ §9) Θαλῆς δὲ γεώδη,

4.21.4 (~ §10) κισσηροειδῆ δὲ Διογένης·

4.21.5 (~ §11) ὁ δὲ Ἀριστοτέλης σφαῖραν εἶναι ἐκ τοῦ πέμπτου σώματος ξυνεστῶσαν·

4.21.6 (~ §7) ὁ δὲ Πλάτων τὸ μὲν πλείστον ἔχειν ἐκ τοῦ πυρός, μετέχειν δὲ καὶ τῶν ἄλλων σωματῶν·

4.21.7 (~ §12) Φιλόλαος δὲ ὁ Πυθαγόρειος ὑαλοειδῆ, δεχόμενον μὲν τοῦ ἐν τῷ κόσμῳ πυρός τὴν ἀνταύγειαν, διηθούντα δὲ πρὸς ἡμᾶς τὸ τε φῶς καὶ τὴν ἀλέαν, εἰδῶλου τάξιν ἐπέχοντα·

4.21.8 καὶ ἕτεροι δὲ ἕτερα ἄττα περὶ τούτου ἐδόξασαν, ἃ περιττὸν οἶμαι λέγειν, ἵνα μὴ τῆς αὐτῆς μεταλλάχῃ τερθρείας.

Traditio ps.Plutarchi:

Eusebius PE 7.11.13 (de theologia graeca, cf. c. 1.7.1) τῶν δὲ τοὺς ἀστέρας (sc. θεούς) εἶναι φασκόντων, οὓς καὶ μύδρους τυγχάνειν διαπύρους (~ P5) ἤλων καὶ πετάλων δίκην ἐμπεπηγότας τῷ οὐρανῷ (cf. c. 2.14.4).

ps.Galenus HPh c. 62 (~ tit.) Περὶ ἡλίου (text Diels)

62.1 (~ P1) Ἀναξίμανδρος τὸν κύκλον αὐτοῦ εἶναι ὀκτωκαιεικοσαπλασίονα τῆς γῆς ἄρματιῷ τροχῷ τὴν ἀψίδα παραπλησίως ἔχοντα, κοίλην καὶ πλήρη πυρός κατὰ μέρος διὰ στενοῦ τὸ πῦρ ὡς δι' αὐλοῦ πρὸς ἡμᾶς ἐκπέμπεσθαι.

62.2 (~ P3) οἱ Στωικοὶ ἄναμμα νοερόν ἐκ θαλάσσης.

62.3 (~ P4) Πλάτων ἐκ πλείστου πυρός. Ἀναξαγόρας καὶ Δημόκριτος καὶ Μητρόδωρος πέτρον ἢ μύδρον διάπυρον.

62.4 (~ P7) Φιλόλαος ὁ Πυθαγόρειος ὑαλοειδῆ δεχόμενον τοῦ ἐκ κόσμου πυρός τὴν εὐαγίαν, διηθούντα δὲ πρὸς ἡμᾶς τὸ φῶς, ὥστε τρεῖς εἶναι ἐν τῷ ἡλίῳ διαφοράς· τὸ ἐν τῷ οὐρανῷ πυρῶδες, τὸ ἀπ' αὐτοῦ πυροειδές, τρίτον τὴν ἀπὸ τούτου ἀνάκλασιν διασπειρομένην πρὸς ἡμᾶς.

62.5 (~ P8) Ἐμπεδοκλῆς δύο ἡλίους, τὸ μὲν ἄριστον ἡμισφαίριον, τὸ δὲ φαινόμενον ἀνταύγειαν ἐν τῷ ἐτέρῳ ἡμισφαίριῳ.

- 62.6 (~ Pg) Ἐπίκουρος γήινον κύκλωμα, κισηροειδῆ καὶ σπογγοειδῆ ταῖς κατατρή-
σεσιν ἐνημμένον.
62.7 (deest in P) Ἡράκλειτος ἀναμμα, ἐν μὲν ταῖς ἀνατολαῖς τὴν ἕξαψιν ἔχοντα, τὴν
δὲ σβέσιν ἐν ταῖς δυσμαῖς.

Psellus *Omn. Doctr.* c. 126 Περὶ οὐσίας ἡλίου (~ tit.), καὶ εἰ πολλοὶ εἰσὶν ἡλιοι

Testes secundi:

Achilles *Univ.* c. 19, p. 27.1 Περὶ ἡλίου (~ tit.)

- p. 27.5–19 τὴν δὲ οὐσίαν τοῦ ἡλίου Πλάτων περιέργως ἐκ πυρὸς εἶναί φησι (~ §7),
τινὲς δὲ τῶν φυσικῶν ἐξ ἀναθυμιάσεως γῆς καὶ νεφῶν αὐτὸν εἶναι (~ §5, §2).
Ἀναξαγόρας μύθρον αὐτὸν εἶπε (~ §8), Φιλόλαος δὲ τὸ πυρῶδες καὶ διαυγὲς
λαμβάνοντα ἄνωθεν ἀπὸ τοῦ αἰθερίου πυρὸς πρὸς ἡμᾶς πέμπειν τὴν αὐγὴν διὰ
τινων ἀραιωμάτων, ὥστε κατ' αὐτὸν τρισσὸν εἶναι τὸν ἥλιον, τὸ μὲν ἀπὸ τοῦ αἰθε-
ρίου πυρὸς, τὸ δὲ ἀπ' ἐκεῖνου πεμπόμενον ἐπὶ τὸν ὑελοειδῆ ὑπ' αὐτοῦ λεγόμενον
ἥλιον, τὸ δὲ ἀπὸ τοῦ τοιοῦτου ἡλίου πρὸς ἡμᾶς πεμπόμενον (~ §12). Ἐπίκουρος δὲ
κισηροειδῆ αὐτὸν ἔφη ἐκ πυρὸς διὰ τρημάτων τινῶν τὸ φῶς ἐκπέμποντα (~ §14).
τινὲς δέ, ὧν ἔστι καὶ Ἀναξίμανδρος, φασὶ πέμπειν αὐτὸν τὸ φῶς σχῆμα ἔχοντα
τροχοῦ· ὥσπερ γὰρ ἐν τῷ τροχῷ κοίλῃ ἐστὶν ἡ πλήμνη, ἔχει δὲ ἀπ' αὐτῆς ἀνα-
τεταμέναις τὰς κνημίδας πρὸς τὴν ἕξωθεν τῆς ἀψίδος περιφορὰν, οὕτω καὶ αὐτὸν
ἀπὸ κοίλου τὸ φῶς ἐκπέμποντα τὴν ἀνάτασιν τῶν ἀκτίνων ποιεῖσθαι καὶ ἕξωθεν
αὐτὰς κύκλῳ φωτίζειν (~ §1). τινὲς δὲ ὡς ἀπὸ σάλπιγγος ἐκ κοίλου τόπου καὶ
στενοῦ ἐκπέμπειν αὐτὸν τὸ φῶς ὥσπερ πρηστήρας (~ §1).
cf. §2 p. 9.2–8 Εὐδωρος ὁ φιλόσοφος φησι Διόδωρον τὸν Ἀλεξανδρεᾶ μαθηματικὸν
τοῦτω διαφέρειν εἰπεῖν τὴν μαθηματικὴν τῆς φυσιολογίας, ὅτι ἡ μὲν μαθηματικὴ
τὰ παρεπόμενα τῇ οὐσίᾳ ζητεῖ, πόθεν καὶ πῶς ἐκλείψεις γίνονται, ἡ δὲ φυσιολο-
γία περὶ τῆς οὐσίας, τίς ἡλίου φύσις, πότερον μύθρος ἐστὶ κατὰ Ἀναξαγόραν (~
§8) ἢ πῦρ κατὰ τοὺς Στωϊκοὺς (~ §6) ἢ κατὰ Ἀριστοτέλην πέμπτη οὐσία μηδενὶ
τῶν τεσσάρων στοιχείων ἐπικοινωνοῦσα, ἀγέννητός τε καὶ ἀφθαρτος καὶ ἀμετά-
βολος (~ §11).

Scholia in *Aratum, Proleg.* 17, p. 27.18–20 ιζ' Ἥλιος. τὸν δὲ ἥλιον οἱ μὲν ὥρισαντο
{τὸ} πῦρ (~ §3), οἱ δὲ μύθρον αὐτὸν, ὡς Ἀναξαγόρας (~ §8), κυκλοτερεὴ ὄντα
ὀκτωκαιδεκαπλάσιον εἶναι τῆς γῆς.

Loci Aetiani:

titulus A 2.11 Περὶ οὐρανοῦ, τίς ἡ τούτου οὐσία; et vide textus citatos ad 2.11. A 2.21

Περὶ μεγέθους ἡλίου. A 2.22 Περὶ σχήματος ἡλίου. A 2.23 Περὶ τροπῶν ἡλίου.

A 2.24 Περὶ ἐκλείψεως ἡλίου.

quaestio A 1. prooem. 3 ζητεῖται εἰ ζῶν ἢ μὴ ζῶν ὁ ἥλιος, εἴ π(ῶ)ρ, (εἴ τηλικούτος
ἡλικίος) ὁράται· ὁ τοῦτο δὲ ζητῶν θεωρητικός ἐστίν.

§1 cf. A 2.25.1 (de luna) Ἀναξίμανδρος κύκλον εἶναι ἐννεακαιδεκαπλάσιον τῆς γῆς
κτλ.

§2 cf. A 2.13.13 (de astris), 2.25.3 (de luna).

- §3 Anaximenes cf. A 2.13.9 (de astris), 2.25.2 (de luna); Parmenides cf. A 2.11.4 (de caelo), 2.13.9 (de astris), 2.25.2 (de luna).
- §4 cf. A 2.28.4 Ἀντιφῶν ἰδιοφύγγῃ τὴν σελήνην, τὸ δ' ἀποκρυπτόμενον περὶ αὐτὴν ὑπὸ τῆς προσβολῆς τοῦ ἡλίου ἀμαυροῦσθαι, πεφυκός τοῦ ἰσχυροτέρου πυρὸς τὸ ἀσθενέστερον ἀμαυροῦν· ὃ δὲ συμβαίνειν καὶ περὶ τὰ ἄλλα ἄστρα.
- §5 cf. A 2.29.8 (de luna) Ἀναξαγόρας, ὡς φησι Θεόφραστος κτλ. A 1.3.1 (de Thalete) ὅτι καὶ αὐτὸ τὸ πῦρ τὸ τοῦ ἡλίου καὶ τὸ τῶν ἀστρων ταῖς τῶν ὑδάτων ἀναθυμιάσεσι τρέφεται καὶ αὐτὸς ὁ κόσμος.
- §6 cf. A 2.25.11 (de luna) Διογένης κισηροειδὲς ἀναμμα. A 2.23.6 (Stoici) οἱ Στωικοὶ κατὰ τὸ διάστημα τῆς ὑποκειμένης τροφῆς διέρχεσθαι τὸν ἥλιον· ὡκεανὸς δ' ἐστὶν ἡ γῆ, ἥς τὴν ἀναθυμίασιν ἐπινέμεται. A 2.28.7 Ἡράκλειτος τὸ αὐτὸ πεπονθέναι τὸν ἥλιον καὶ τὴν σελήνην· σκαφοειδεῖς γὰρ ὄντας τοῖς σχήμασι τοὺς ἀστέρας, δεχομένους δὲ τὰς ἀπὸ τῆς ὑγρᾶς ἀναθυμιάσεως αὐγὰς, φωτίζεσθαι πρὸς τὴν φαντασίαν, λαμπρότερος μὲν τὸν ἥλιον, ἐν καθαρωτέρῳ γὰρ ἀέρι φέρεσθαι, τὴν δὲ σελήνην ἐν θολωτέρῳ καὶ διὰ τοῦτο ἀμαυροτέραν φαίνεσθαι. cf. A 1.3.1 cit. ad §5 (de Thalete)
- §7 cf. A 2.13.11 (de astris), 2.25.7 (de luna), 1.7.22 (de deis, text. cit. ad 2.13.11).
- §8 cf. A 2.13.3, 5 (de astris), 2.25.10 (de luna).
- §9 cf. A 2.13.1 (de astris), 2.25.9 (de luna).
- §10 cf. A 2.13.10 (de astris), 2.25.11 (de luna).
- §11 vid. text. cit. ad 2.11.5 (de caelo).
- §12 cf. A 2.7.6 (de mundo).
- §13 A 2.21.2 Ἐμπεδοκλῆς δὲ ἴσον τῇ γῇ τὸν κατὰ τὴν ἀνταύγειαν. cf. A 2.11.2 (de mundo), A 2.13.2 (de astris). A 4.14.1 (de repercussu in speculis) Ἐμπεδοκλῆς κατ' ἀπορροίας τὰς συνισταμένας μὲν ἐπὶ τῆς ἐπιφανείας τοῦ κατόπτρου ... A 5.26.4[2] ... πρὶν τὸν ἥλιον περιπλωθῆναι ...
- §15 A 2.13.14 (de Xenophane de astris) Ξενοφάνης ἐκ νεφῶν μὲν πεπυρωμένων, σβεννυμένων δὲ καθ' ἑκάστην ἡμέραν ἀναζωπυρεῖν νύκτωρ, καθάπερ τοὺς ἀνθρακας· τὰς γὰρ ἀνατολὰς καὶ τὰς δύσεις ἐξάψεις εἶναι καὶ σβέσεις. A 3.3.9 (de ventis igneis) Ἡράκλειτος ... πρηστήρας δὲ κατὰ νεφῶν ἐμπρήσεις καὶ σβέσεις.
- §16 A 3.1.6 Παρμενίδης τὸ τοῦ πυκνοῦ καὶ ἀραιοῦ μίγμα γαλακτοειδὲς ἀποτελέσαι χρώμα.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The chapter is well-attested in all three witnesses.

(1) In the P tradition the three witnesses P^{BEQ} preserve nine lemmata, of which G retains six, with an extra lemma at the end (Heraclitus) not found in

the other witnesses. The various strands of the tradition show considerable textual variation.

(2) S continues to use a very different method, coalescing A's five chapters relating to the sun in a single massive exercise in coalescence (= 1.25), with a title that combines material from all five titles (Περὶ οὐσίας ἡλίου καὶ μεγέθους σχήματός τε καὶ τροπῶν καὶ ἐκλείψεως καὶ σημείων καὶ κινήσεως; the final two nouns do not correspond to anything in P). S clearly found this a challenging exercise and seven doxai present in the five chapters in P are not included (see M–R 1.233–236). 16 lemmata can be identified as derived from the present chapter. Of those in P all but P₄ (Plato) and P₆ (Aristotle) are found in S. The latter is replaced by AD. S no doubt intended to replace the former with either a quote from Plato himself (e.g. *Tim.* 40a) or another source, but he did not carry out his intention.

(3) T starts somewhat confusingly by citing Xenophanes on the sun *and* the moon, but then gives six further lemmata on the substance of the sun only (he returns to the moon at 4.23), before indicating in a concluding statement that there are others which he passes over. The ones selected are mainly the shorter views, with the Philolaic doxa considerably compressed. T includes the doxai of Plato and Aristotle which S left out. His other five doxai are all found in S.

(4) On the close parallels in Achilles and the Aratea see below sections B and D(e).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Important parallels to the material in this chapter are located in the collections of doxai relating to individual Presocratic philosophers in Diogenes Laertius, Hippolytus and ps.Plutarch *Stromateis*. See below section E(a) on Xenophanes, Anaximenes, Anaxagoras and Empedocles. The doxai on Xenophanes in the other ps.Plutarch are particularly interesting because he records parallels to both the doxai found in this chapter (§§2, 5, cf. Ach). Our chapter indicates that the source for the latter view (also found in Hippolytus) was Theophrastus. It is clear that there is a shared background for these texts and the *Placita*. Diels' conclusion at *DG* 217, however, that the reference to Theophrastus (augmented by another at 2.29.8) proves that the Peripatetic was the ultimate source for all the parallels in these texts and for most of the material on the Presocratics in the *Placita*, is unjustified. On this question see M–R 2.21–22, 133, 220–224. A safer conclusion is to say that the material of this chapter will for the most part have been drawn from a plurality of earlier doxographical traditions.

It is not so clear how the doxa attributed to Epicurus relates to these traditions. In Lucretius three alternatives are given to explain how such a small

object can emit so much heat. One of these is found in Diogenes of Oenoanda (texts below under section E(b)§14). For the single view in A (also found in Ach) there is no parallel in Epicurus' writings. It most resembles the view of Diogenes of Apollonia.

Even closer parallels to our chapter are found in Ach and the *Aratea*. These are more fully discussed below in section D(e). These texts have incorporated material from sources very close to those drawn on by A.

(2) *Sources*. Quotes preserved from the poems of Parmenides (B11) and Empedocles (B38, B44) are direct evidence—if such be required—that there was extensive discussion of the nature of the sun and how it produces its heat in Presocratic authors, starting already with Anaximander and his famous theory of the sun as a hoop or cartwheel of fire. The second cent. CE sophist Favorinus reports that Democritus discussed Anaxagoras' views on the sun (and the moon) and disputed their originality (see below section B(b)§8).

There is no separate treatment of the nature of sun in either Plato's *Timaeus* or Aristotle's *De caelo*. They both prefer to discuss it in conjunction with the other heavenly bodies. Plato refers to the view of Anaxagoras in his version of Socrates' *Apology* (26d), as does Xenophon in the *Memorabilia* (4.7.7). It is noteworthy that theological aspects of views on the sun, which are prominent elsewhere—whether *pro* (e.g. Stoics in Cicero *ND*) or *contra* (e.g. Anaxagoras in Philo, Lucian, Origen etc.)—are wholly missing in A's chapter and scarcely mentioned in the chapter on God, 1.7 (only a single reference in the lemma on Plato, 1.7.22). Aristotle in his *Meteorology* ridicules the earlier view (Heraclitus) that the sun feeds on earthly moisture, but this did not deter the Stoics from taking it over (text below section E(b)§6).

C Chapter Heading

As we have already seen in the parallel chs. 2.11 and 2.13 on the substance of the heaven and the stars respectively, the witnesses reveal considerable variation in their headings. The heading *Περὶ οὐσίας ἡλίου* of the usual umbrella type is witnessed by P^Q and the Planudean tradition of P^B, and is also presumed by S. It is almost certainly correct. The shorter title in P^{EG} fails to mention the key term *οὐσία* that is found in all the headings in parallel chapters (2.11, 2.13, 2.25, 3.9). Two key manuscripts of P^B have the addition *καὶ ὅτι (καὶ) δύο καὶ τρεῖς εἰσὶν*, which is clearly based on the doxai of Empedocles and Philolaus and also has found its way into the index at the beginning of the Book. Most likely it will have been added at some stage in the long tradition, although as a parallel can be adduced 3.9 *Περὶ γῆς καὶ τίς ἡ ταύτης οὐσία καὶ πόσαι*. It thus adds a question in the category of quantity, but this is only a minor theme in the chapter.

Psellus converts this statement into a question (εἰ πολλοὶ εἰσὶν ἥλιοι) and in the body of his brief chapter discusses it. But the second and third sun that he postulates relate to a Platonist theory of divine creation and not the multiple suns attributed to Philolaus and Empedocles in P.

As we have already seen, for his ch. 1.25 on the sun S puts together a very long heading, combining the titles of 2.20–24 as well as adding two more topics (signs and movement) not treated as such by A. The role of the sun in providing signs is mentioned in A 2.19, but S places the excerpts from that chapter in his 1.24, not here.

D *Analysis*

a Context

This chapter and the next four (20–24) treat the most prominent of the heavenly bodies, the sun. The sequence of topics are, as so often in the *Placita*, reminiscent of the Aristotelian categories. The first chapter thus treats the οὐσία (substance) of sun, taken in a material sense. As is the case in the parallel chapters on the heavenly bodies (§13) and the moon (§25), this first of the five chapters is longer than the others and is one of the longest chapters in the *Placita*.

In Book 1.proœm. 3 the quaestio εἰ ζῶον ἢ μὴ ζῶον ὁ ἥλιος is given as an example of a theoretical, as opposed to a practical, topic. This subject is not touched on in chs. 2.20–24 (and the sun is also not specifically mentioned in Ach §13). On the possibility that there may have been a lost chapter on the subject of whether the heavenly bodies are alive or not see the Commentary Book 1.proœm. A(3).

b Number–Order of Lemmata

The chapter is well-attested, with the three chief witnesses supplying nine, sixteen and seven lemmata respectively. There is thus every likelihood that it has been fully preserved. Yet not a single witness records every single lemma. The challenge is thus to reconstruct the exact number and the original order of the lemmata. Although the basic order is very similar in all three witnesses, there are various discrepancies which can only be explained if we take into account the different methods which they used. This Diels failed to do adequately, so that his reconstruction is quite unconvincing (on this see further M–R 2.520). The chapter can be reconstructed in nine steps, which will now be presented in outline (for a fuller analysis see *ibid.* 520–524).

(1) Starting towards the end, we note that the sequence Philolaus–Empedocles–Epicurus is the same in P and S (P7–9, S11–13), that Philolaus occurs as last doxa in T (T7) and that Ach testifies to the sequence Philolaus–Epicurus.

(2) The following doxa in S (S14) on Parmenides is surprising because it speaks about the sun *and the moon* originating in the Milky Way. A parallel is found in ch. 28, where another doxa on the sun *and the moon* is certainly placed last in the chapter. A often places doxai that fit in less well or add additional material at the end of his chapters, and that is likely to have happened here.

(3) A next significant correspondence between our witnesses occurs in the case of the sequence Anaxagoras–Thales–Diogenes in S8–10 and the sequence Anaxagoras + Democritus + Metrodorus–Thales–Diogenes in T2–4. That the triple name-label in T2 was already present in A is confirmed by P5. S repeats the doxa with Democritus's name-label in S15 and coalesces with a doxa from ch. 2.23, but then omits the name-label of Metrodorus. It is misguided to conclude that T made direct use of P rather than A in this instance, as argued by Bottler (2014) 512 (he could have done so via E, but if he consulted E he did so only for A 1.7.1; see Mansfeld 2016e = M–R 4.176–184). S often splits up conjoined names in the process of coalescence: there are two other examples in this same chapter in the way he treats the multiple name-labels in §§3 and 6. On the mistake that S most likely made in relation to Metrodorus see (7) below.

(4) In both P and T a doxa attributed to Aristotle follows the group just discussed. It is missing in S because it has been replaced by a long extract from AD (1.25.4 = fr. 10 Diels, cited below section E(a)§11). We note that AD's formulation at the beginning of the account is equivalent to that of A, but differs in terminology (οὐσία instead of σώματος).

(5) It is clear from P and T that the chapter contains a Platonic lemma which S dropped, no doubt because he was going to replace it with an extract from the *Timaeus*. But this in fact does not take place (he may have later discovered that Plato does not speak explicitly of the nature of the sun). It is best to place it in the order found in P (P4). T will have first left it out and then decided to include it after the Aristotelian view (T6), perhaps because it moves from a single elemental substance to a combination. The formulation of the doxa itself is slightly more elaborate in T than in P. T may have added this extra information from his own knowledge, but it is safest to include it in our text.

(6) Preceding the Platonic lemma in P is a doxa attributed to the Stoa (= P3), the sun as 'an intelligent ignited mass from the sea'. Omitted by T, it corresponds to two doxai in S, S7 and S16 (where the doxa apart from the name-label is almost identical). It is easy to reconstruct what has happened. S will have split up a single doxa to suit his separation into clusters of views of individual philosophers. P has recognized the doxa as basically Stoic and so has simplified the three names in S, Heraclitus–Hecataeus–Cleanthes, to the single label 'the Stoics'.

(7) Next there are three lemmata in S which are not found in the other two witnesses, S4–6. It is striking that S4 and S5 have exactly the same content, and it might be suspected that originally they formed a single lemma with again three conjoined name-labels. However, S's inclusion of the name-label Metrodorus and its coupling with Parmenides conflicts with the evidence of P and T, where his view is added to that of Anaxagoras and Democritus. This is almost certainly a mistake on S's part (the coupling of Democritus and his pupil Metrodorus is anyway more likely than the latter with the Eleatic Parmenides).

(8) The most difficult part of the chapter is its beginning. The evidence can be summarized as follows:

P1	Anaximander	S1	Xenophanes (cf. P2b)	T1	Xenophanes
P2	Xenophanes I + II	S2	Theophrastus (cf. P2a)		
		S3	Anaximander		

The first problem concerns the name-labels. Does the second lemma in S introduce the view of Theophrastus, or is the Peripatetic reporting on Xenophanes' doctrine, as is suggested by the joining up of the two views in P? Despite the views of some scholars (see esp. Steinmetz (1964) 334–351), we side with Usener and Diels in attributing both doxai to Xenophanes (see further the lengthy discussion in Runia (1992), and also M–R 2.523). But this does not necessarily mean that they were linked together in A. It is reasonably common in the *Placita* for more than one doxa to be ascribed to a particular philosopher in the same chapter (see for example Diogenes in ch. 2.13 and Xenophanes again in ch. 2.24), the reason being that the doxa is of greater importance for the doxographer than the name-label attached to it. The possibility must be entertained, therefore, that either P or S or both have coalesced these two doxai. In our view S's procedure makes it very likely that they were originally separate. He would not have separated the two doxai on the sun's $\sigma\upsilon\sigma\tau\alpha$ with a doxa on its eclipse if they had not been originally distinct. It should be noted too that both doxai are given quite separately in ps.Plut. *Strom.* 4 (see texts below section E(a)§2, §5). Moreover, given the strong link of the second Xenophanean doxa with the 'Stoic' view of Heraclitus–Hecataeus–Cleanthes, it is plausible that it preceded the latter, as indeed occurs in P (where the other Xenophanean view is appended). It also makes a smooth connection with the preceding view of Antiphon which also involves the moist air.

The second problem is how the chapter starts. Does it commence with the view of Anaximander as in P, or does it start with Xenophanes as in S and T? Both views can be defended. In an early treatment we gave the preference to S (Runia 1992). But since then we have changed our mind (M–R 2.524), because

we recognized that in the long chapters on the οὐραία of the stars, sun and moon (2.13, 20, 25), a privileged position was given to the Milesian philosophers—no doubt connected with the role that the very early philosophers and the successions play in the *Placita* (on this see further M–R 2.73–96). The parallel with the chapter on the moon (2.25) is particularly impressive. Therefore, it is more likely that P has preserved the original beginning of the chapter. Why then did S commence with Xenophanes? A possible explanation is that he was attracted to the pithy expression of Xenophanes' view, in contrast to Anaximander's doxa with its idiosyncratic position that the sun is in fact a circular hoop. He then added the second Xenophanean doxa before writing out the longer doxa of Anaximander.

(9) One final problem remains: the additional lemma in G recording the view of Heraclitus. Diels *DG* 16, noting that it doubles up on the earlier lemma P₃ = §6, regarded it as an attractive addition, but in his own words 'did not dare to add it to P in the absence of S' and does not even mention it in the apparatus to the text of P. Revising our view in M–R 2.524 we now argue that there are good grounds for including it. (a) As noted above on §§2 and 5 there are other cases of name-labels being repeated in a single chapter. A may have wished to repeat it because the additional information was not attributable to the other two name-labels in §6. (b) There are cases where G contains additional information not found elsewhere in the tradition of P; see M–R 1.150 and examples at chs. 5.19 (where confirmed by Q) and 5.23. (c) As Diels noted, the extra information is likely to be authentic; cf. fr. 22B30 DK ἀπτόμενον μέτρα καὶ ἀποσβεννύμενον μέτρα, ch. 3.3.9 (on firewinds) and the scholion on Plato *Resp.* 498a; a similar doctrine for the sun is attributed to Metrodorus of Chios at ps.Plut. *Strom.* 11 = 70A4 DK and for the stars to Xenophanes at A 2.13.14. It is best placed towards the end of the chapter, as indeed suggested by its location in G. Like §16 it records additional information of an unusual nature.

It may be concluded, therefore, that the chapter has sixteen lemmata and that its original order is well reflected in P, except that he has coalesced the two Xenophanean doxai that stood apart in A, and to a lesser extent also by S and T. The sequence of doxai in our reconstruction is plausible and, as we shall now see, is reinforced by the rationale that can be given for the chapter's structure as a whole. It cannot, however, be considered certain in all respects.

c Rationale–Structure of Chapter

The basic structure of the chapter is determined by the antithesis between the view that the sun consists of fire (§§1–3) and the view that it is basically an inflamed earthy rock (§§8–10). The antithesis, which is also dominant in the parallel chapters 2.13 and 2.25, fits in well with the evidence of doxographical-

dialectical parallels. The rhetor Hermogenes (?) gives as an example of a *θέσις* the subject εἰ ὁ ἥλιος πῦρ. No alternative is given, but it is implied that one exists. In the *traditio secunda* there are two texts in the Aratean tradition which give prominence to this antithesis (texts above). In the example of a quaestio on the nature of the sun in Achilles §2 the view of Anaxagoras that it is a clump of rock (μύδρος) is opposed to the Stoic view that it is πῦρ, with the Aristotelian quintessence added as a third view. In the very brief chapter on the sun in the *Isagoge* the view that it is fire is placed first (as in A), with the view of Anaxagoras that it is a μύδρος opposed to it.

In between the two basic positions there are four lemmata (§§4–7) which link the sun's fiery substance to the intermediate elements air (§4), water (§§5–6) or all three (§7). This group clearly has a bridging position. The final five views (§§11–15) form a less homogenous group of additional and exceptional views. It might be thought that the Aristotelian doxa (§11) would have been better placed after the fiery views. A has perhaps seen a (not very pertinent) link with the mention of the αἰθήρ in the previous Diogenes lemma. The next two lemmata, both involving multiple suns, clearly form a contrasted pair. The placement of the next lemma, §14 attributed to Epicurus, seems at first sight a puzzle. Its contents are little different to the view of Diogenes in §10 and seem based on it. In other chapters in Book 2 Epicurus' views are often placed at the end (cf. chs. 2.2, 2.4, 2.13, 2.22, also 3.15) because of his espousal of the theory of multiple explanation, on which see ch. 2.2 Commentary D(c). Apart from the parallel doxa in Ach the only surviving evidence on Epicurus' own view is the general account on the heavenly bodies in D.L. 10.90, in which the alternatives 'pneumatic or fire-like or both' are given. But other texts in the Epicurean tradition suggest that originally more specific alternatives were given on the nature and role of the sun; cf. Lucretius *DRN* 5.597–613; Diogenes of Oenoanda fr. 13 Smith—note that it begins with the key term ἐνδέχεται; see the texts below under section E(b)§14. It is likely, therefore, that at an early point in the tradition—already witnessed by Ach—just one of the explanations offered by Epicurus became fixed as his (single) position, even though that was counter to his general view on our knowledge of the heavenly bodies. The second Heraclitean lemma §15 repeats the substance of the sun from §6 in a condensed form and, as argued above in section D(b)(g), adds material specific to this Presocratic philosopher. The final lemma §16 is unusual in two respects. It involves a comparison between the sun and the moon. The latter planet has so far not been mentioned in the chapter and will not become the focus of attention until ch. 2.25. There is also a cosmogonical reference, which harks back to chs. 6–7 and seldom occurs in chs. 11–32. It is logical that this doxa should be placed at the end of the chapter.

d Further Comments

Individual Points

§1 It is surprising that S has left out the illustrative image ὥσπερ διὰ πρηστήρος αὐλοῦ, whereas he retains it in the parallel doxa on the moon (A 2.25.1). Since the final phrase in P is also not found in S, it may be suspected that a line of text has dropped out. The image in Ach is that of a trumpet, but the mention of a πρηστήρ is retained. We return to this image below. The other image of the chariot wheel recurs in the parallel doxa on the moon at A 2.25.1. There is also a possible reference to the cartwheel movement of the cosmos in a chapter on the cosmos' motion that may have dropped out of P; see the Appendix to the Commentary on ch. 2.2.

The interpretation of the phrase just cited (οἶον πρηστήρος αὐλόν at A 2.25.1) is difficult and the problems it raises are perhaps insoluble. Couprie (2011) 145–151 rightly points out that the meaning of πρηστήρ as a set of bellows as postulated by Diels *DG* 25–26 is not well attested. He argues that Q's Arabic translation 'wie die Blitze erscheinen' points us in the right direction and that the phrase should be translated 'like through a stream of lightning,' πρηστήρ having something like its usual meaning of 'fire-wind' as in ch. 3.3 and in the passage in Ach. According to Couprie αὐλός here means a spurt or a jet; he is followed by Graham (2010) 59 who translates 'jet of fire'. But this meaning too is rare. It seems better to adhere to the basic meaning of a 'tube' or 'pipe', or perhaps in this context a 'vent', with πρηστήρ retaining its usual meaning of 'fire-wind'. A suitable translation, with reference to a modern equivalent, might be 'like a blowtorch', since this instrument also involves a pipe that channels a hot flame. One would expect a parallel with the phrase that the image is supposed to illustrate διὰ στομίῳ τὸ πῦρ, i.e. διὰ αὐλοῦ πρηστήρας, as we find with modification in Ach, so there may be a problem with the text. Wöhrle (2012) 53 translated fairly literally 'Glutwindröhre'; see further his list of translations at n. 6, to which can be added Mansfeld R² 'Lötrohr'.

Couprie's interpretation poses an interesting methodological problem. He suggests (p. 151) that the phrase in A 2.25.1 may be the original one and that 'Aëtius no longer fully understood what Anaximander had meant with οἶον πρηστήρος αὐλόν'. But our task, as we have often stated, is to determine and interpret what A wrote and not what might have stood in the original source.

§2 The formula used to describe the sun's nature, ἐκ νεφῶν πεπυρωμένων, is the same as that in 2.13.14, in contrast to the doxa on the nature of the moon, for which an identification as a νέφος εἶναι πεπυρωμένον πεπιλημένον is given (on the text see below on A 2.25.3). Mourelatos (2008) 149 argues persuasively that the phrase ἐκ + genitive should be read constitutively rather than generatively (his terminology). His philological note at n. 33 is vitiated, however, by a

failure to take the evidence of S into account. His solution, based on Q, that the text read συναθροίζοντων δὲ (ἧ) τὸν ἥλιον ἢ νέφος πεπυρωμένον is not persuasive because it is most likely that P has coalesced two separate doxai. We follow him in translating πεπυρωμένον as ‘incandescent,’ see Mourelatos (2008) 148.

§4 The Greek of this doxa is difficult. Differently from M–R 2.2.531, we now take the subject of the two infinitival clauses in the second part of the lemma to be the sun (as fire) and not the air. This is also the interpretation of Pendrick (2002) 147. The image is perhaps of a fire moving through a forest. The source of Antiphon’s view here may well have been Heraclitus, as argued by Pendrick *ibid.* 295, who points to A 2.29.6 where the name-labels are linked together. Five doxai are attributed to an Antiphon in the *Placita*, who certainly is Antiphon the Sophist: A 1.12.6 (on time); 2.20.4 (sun); 2.28.4 (moon); 2.29.6 (moon); 3.16.3 (sea). The last four on cosmological subjects are taken from Book 2 of *Περὶ ἀληθείας*; see further Pendrick (2002) 34–36.

§5 There has been much debate about the reference ἐν τοῖς Φυσικοῖς. Diels followed his teacher Usener in attributing it to Theophrastus’ *Φυσικῶν δόξαι* (as they called this work) and so placed it as fr. 16 in his collection of fragments with that title at *DG* 492. We firmly believe, however, that this work was called *Φυσικαὶ δόξαι*. On the title see M–R 2.1.160, with further references to the scholarly discussion, and also our discussion above in the General Introduction, section 5.2. Since there is no reason to question the accuracy of the reference, it most likely refers to a cosmological discussion in his *Physics*, as argued by Steinmetz (1964) 336 (but as we saw above, he errs in arguing that Theophrastus is presenting his own doctrine in this fragment).

§6 The theory that the heavenly bodies are nourished by exhalations from the earth, and in particular its oceans, has already been attributed to Heraclitus and the Stoics at 2.17.4 (and in a different version for the entire cosmos to Philolaus at 2.5.3). The proponents of the view are regarded as ‘ridiculous’ by Aristotle at *Mete.* 2.2 353b33–34, but this did not stop the Stoics from turning his arguments on their head and using the theory as a critical component in their doctrine of the cosmic conflagration. For Zeno it is implicit in his argument preserved by Alexander of Lycopolis (not in *SVF*). It is specifically referred to by Cleanthes, as quoted in Cic. *ND* 2.40 and ascribed to the Stoics in general at *ND* 2.118. See the texts below and the discussion at Mansfeld (1978) 147–151, Hahm (1977) 151 (on Cleanthes).

§7 On the formulation of the Platonic doxa see the note on ch. 2.13.11.

§8 Amusingly the word μύδρον (clump) has become a name-label in the Arabic translation.

§12 The doxa on Philolaus is difficult, both with regard to the text and its interpretation. There is a valuable treatment of the doxa in Huffman (1993)

266–270, but he does not address the differences between P and S in any detail and favours the alternative version in Ach for his interpretation.

The lemma in its fullest form is found in P and consists of three parts: (a) a statement of the sun's basic nature, i.e. ὑαλοειδής (glass-like, i.e. crystalline), followed by a description of its workings by means of two present participles; (b) a consecutive clause showing how the two elements of its operation resemble the sun, leading on to a third element that results from the first two; (c) a final brief summary indicating that what we call the sun is actually the third element. In S and Ach only the first two parts are found. In S there is almost no divergence from P in part (a), with only the mention of warmth (ἄλέα) added (the formulation in Ach is quite different). S's formulation of (b) differs markedly from P and is also much clearer, because it immediately mentions the two 'suns'. The formula introducing the third 'sun', however, is less clear (εἰ μὴ τις καὶ τρίτον λέξει) than in P. Ach also has a consecutive clause and states the complex doctrine even more clearly by immediately stating that the sun is 'triple' (τριστόν). The text preserved in G and Q also suggest that the final clause in (b) began with a reference to the number of suns (they both mention three straight away). Neither S nor Ach have the brief final part (c), but its presence in A is confirmed by T.

It may be concluded that all three reports show striking similarities and clearly derive from the same tradition. We adopt S's text because of its greater clarity. We thus now agree with Huffman and DK (against our text in M–R 2.2.530 where we preferred P's version), although they give no reasons for their preference.

§13 Remarkably Q preserves the reading Ὀλυμπον, which has degenerated into ἥλιον in the other witnesses. As Daiber ad loc. notes, this must be the right reading because it corresponds to an authentic fragment (*Pyth. Or.* 400B = 31B44 DK) preserved by Plutarch (note also that ἀνταύγεια in A recalls the verb ἀνταύγει in that fragment). Mansfeld was right in emending the text in his Reclam edition (1983–1986, 2.100), followed by Primavesi in the revised version (2011, 528) and now taken over by Laks–Most (Empedocles D156 = 2016, 5.476).

The theory of the two suns, which is well-attested—in addition to the passage in Plutarch cited above, see also ps.Plutarch *Strom.* 10 (texts below E(a)§13, (b)§13)—has challenged the ingenuity of the interpreters; see, for example, Guthrie (1962–1981) 2.193; Burkert (1972) 343. For a much more critical approach see, for example, Wright (1981) 201–202, who regards it as 'absurd' and dismisses it on the grounds *inter alia* that 'confusions have often crept into the doxography by the time of Aetius and the *Stromateis*'.

We note, finally, that Empedocles is prominent in A's chapter which explains how reflections in mirrors occur; see A 4.14.1 and our Commentary ad loc., and also 3.5.1–6 on the rainbow (no name-label).

e Other Evidence

Ach's chapter 19 Περὶ ἡλίου has a substantial doxography on the substance of the sun. The term οὐσία is not included in the title, but it is placed prominently at the beginning when the author turns to the subject after some preliminary comments on Aratus and previous writers. The seven doxai reveal significant parallels to A. Plato is brought to the forefront in the first lemma. The next doxa on Xenophanes remarkably appears to combine in a very compact form both doxai in A, first parallel to §5, then parallel to §2. The doxa on Anaxagoras leaves out the adjective διάπυρος found in A and most parallels. The next two on Philolaus and Epicurus clearly derive from the same tradition as A, but are formulated quite differently, with only a limited resemblance in terminology. The last two showing similarities to the doxa of Anaximander in A, but again without precise verbal correspondences.

There is also, in the earlier chapter on the difference between natural philosophy (φυσιολογία) and astronomical science (μαθηματική), a reference to the question of the sun's φύσις which refers to a selection of three views. As noted above when discussing the rationale of A's chapter in section D(c), these form a limited diaeresis of key views. A shorter version of the same doxography is found in another very brief introductory manual to the *Aratea*. On this text see further M–R 1.306.

E Further Related Texts

a Proximate Tradition

General texts: Philo of Alexandria *Her.* 2.47 see on ch. 2.11. Galen *Inst. Log.* 2.1 (τῶν δὲ προτάσεων) ἔναι μὲν ὑπὲρ ἀπλῆς ὑπάρξεως ἀποφαίνονται, ... , ἔναι δὲ ὑπὲρ τῆς ποιότητος 'ὁ ἥλιος (φύσει θερμός ἐστιν· ὁ ἥλιος) οὐκ ἔστι φύσει θερμός', ἔναι δὲ ὑπὲρ τοῦ (πρός) τι 'μείζων ἐστὶν ὁ ἥλιος τῆς σελήνης· (οὐ μείζων ἐστὶν ὁ ἥλιος τῆς σελήνης)' ... **Ambrose of Milan** *Exam.* 2.3.14, *tantum autem inest illis impugnandae veritatis studium, ut solem ipsum negent calidae naturae esse; eo quod albus sit, non rubicundus, aut rutilus in speciem ignis. et ideo aiunt quod nec ignitus natura sit, et si quid habet caloris, ferunt ex nimio motu conversionis accidere.* **Stobaeus** *Ecl.* 1.25.6–7, p. 1.214.4–11 Εὐριπίδης (fr. 772 Kannicht) πῦρ εἶναι τὸν ἥλιον—"Ὁμηρος μὴ εἶναι πῦρ τὸν ἥλιον, ἀλλὰ φῶς καθαρώτατον ...

Chapter heading: Capitula Lucretiana. 5.596 *De calore solis*, cf. 5.621 *Demonstrati de sole. Scholia Platonica Resp.* 600a1–10 Greene (on Thales) καὶ περὶ ἡλίου μεγέθους καὶ φύσεως.

§1 Anaximander: Diogenes Laertius V.P. 2.1 (on Anaximander, 12A1 DK) ἀλλὰ καὶ τὸν ἥλιον ... καὶ καθαρώτατον πῦρ.

§2 Xenophanes: ps.Plutarch Strom. 4 (fr. 179 Sandbach, on Xenophanes 21A32 DK) τὸν δ' ἥλιόν φησι καὶ τὰ ἄστρα ἐκ τῶν νεφῶν γίνεσθαι.

§3 Anaximenes Parmenides: Hippolytus Ref. 1.7.4 (on Anaximenes, 13A7 DK) see on ch. 2.13.9. differently **ps.Plutarch Strom.** 3 (fr. 179 Sandbach) on

Anaximenes (13A6 DK) ἀποφαίνεται γοῦν τὸν ἥλιον γῆν, διὰ δὲ τὴν ὀξεῖαν κίνησιν καὶ μάλ' ἱκανῶς θερμότητα κίνησιν λαβεῖν.

§5 *Xenophanes*: ps.Plutarch *Strom.* 4 (fr. 179 Sandbach, on Xenophanes, 21A32 DK) φησὶ δὲ καὶ τὸν ἥλιον ἐκ μικρῶν καὶ πλειόνων πυριδίων ἀθροίζεσθαι. *Hippolytus Ref.* 1.14.3 (21A33 DK) τὸν δὲ ἥλιον ἐκ μικρῶν πυριδίων ἀθροιζομένων γίνεσθαι καθ' ἐκάστην ἡμέραν.

§6 *Heraclitus Hecataeus Cleanthes*: cf. *Diogenes Laertius V.P.* 9.10 (on Heraclitus, 22A1 DK) λαμπροτάτην δὲ εἶναι τὴν τοῦ ἡλίου φλόγα καὶ θερμότητην (see further on 2.13.8). *Arius Didymus* fr. 33 Diels at Stob. *Ecl.* 1.25.5 Χρύσιππος (*SVF* 2.652) τὸν ἥλιον εἶναι τὸ ἀθροισθὲν ἑξαμμο νοερὸν ἐκ τοῦ τῆς θαλάσσης ἀναθυμιάματος, σφαιροειδῆ δὲ εἶναι τῷ σχήματι. cf. fr. 21 Diels at Stob. *Ecl.* 1.10.16c (on Chrysippus, *SVF* 2.413) ὁ γὰρ ἥλιος πῦρ ἐστὶν εἰλικρινές. *Diogenes Laertius V.P.* 7.145 (on Stoics, *SVF* 2.650) τὸν μὲν ἥλιον ἐκ τῆς μεγάλης θαλάττης νοερὸν ὄντα ἀναμμο. cf. 7.144 εἶναι δὲ τὸν μὲν ἥλιον εἰλικρινές πῦρ, καθά φησι Ποσειδώνιος ἐν τῷ ἑβδόμῳ Περὶ μετεώρων (F 17 E.-K., 312 Theiler), continuation at ch. 2.21 section E(b) General texts, and see on A 2.22.3. *Etymologicum Gudianum* s.v. "Ἥλιος p. 241.42 Sturz (on Zeno, *SVF* 1.121) ἔστι γὰρ κατὰ Ζήνωνα τὸν Στωϊκὸν ἀναμμοῦν τὸν ἐκ τοῦ θαλάσσης. *Scholia in Dionysii Thracis Artem Grammaticam* p. 121.12–13 Uhlig (*Schol. Vaticana*) ὥσπερ οἱ Στωϊκοὶ (*SVF* 2.656) ὀριζόμενοι τὸν ἥλιον λέγουσιν ὅτι ἡλιός ἐστιν ἀναμμο νοερὸν θαλασσίων ὑδάτων. *Clement of Alexandria Strom.* 8.4.3 φέρε οὖν προβεβλήσθω ὁ ἥλιος τοῦνομα. φασιν οὖν οἱ Στωϊκοὶ τοῦτ' εἶναι ἀναμμο νοερὸν ἐκ θαλαττίων ὑδάτων. *Anonymus Londinensis* col. xxx.19–22 Manetti (on the sun) οὗτος [γὰρ τῷ ἀναμ-] | μα νοερὸν ἐκ θαλάσ[σης εἶναι ἀπὸ] | τοῦ νοστήμου τοῦ κατὰ τὴν θ[άλασσαν] | τρέ[φ]εται. *Porphyrus Antr.* 11 καὶ διὰ τοῦτο ἀναμμο μὲν νοερὸν εἶναι τὸν ἥλιον ἐκ θαλάσσης.

§7 *Plato*: See on ch. 2.13.11.

§8 *Anaxagoras Democritus Metrodorus*: *Diogenes Laertius V.P.* 2.8 (on Anaxagoras, 59A1 DK) οὗτος ἔλεγε τὸν ἥλιον μύδρον εἶναι διάπυρον. cf. 2.12 (59A1 DK) Σωτίων μὲν γὰρ φησιν ἐν τῇ Διαδοχῇ τῶν φιλοσόφων ὑπὸ Κλέωνος αὐτὸν ἀσεβείας κριθῆναι, διότι τὸν ἥλιον μύδρον ἔλεγε διάπυρον. *Harpocration Lexicon* A 119 s.v. Ἀναξαγόρας, οὗτός ἐστιν ὁ τὸν ἥλιον μύδρον εἰπὼν διάπυρον. cf. *Scholia in Pindarum Ol.* 1 91a.26–28 (59A20a DK) περὶ δὲ τοῦ ἡλίου οἱ φυσικοὶ φασιν ὡς λίθος καλεῖται ὁ ἥλιος· καὶ Ἀναξαγόρου δὲ γενόμενον τὸν Εὐριπίδην μαθητὴν πέτρον εἰρηκέναι τὸν ἥλιον ... *Hippolytus Ref.* 1.8.6 (59A42 DK) ἥλιον δὲ καὶ σελήνην καὶ πάντα τὰ ἄστρα λίθους εἶναι ἐμπύρους. *Favorinus of Arles* fr. 44 Mensching at D.L. 9.34 Φαβωρίνος δὲ φησιν ἐν Παντοδαπῇ ἱστορίᾳ λέγειν Δημόκριτον (68A1 DK) περὶ Ἀναξαγόρου (59A5 DK) ὡς οὐκ εἶησαν αὐτοῦ αἱ δόξαι αἱ τε περὶ ἡλίου καὶ σελήνης, ἀλλὰ ἀρχαῖαι, τὸν δ' ὑπερήσθαι. *Philo of Alexandria Aet.* 47 cited ch. 2.13 section E(b) General texts. *Josephus Ap.* 2.265 Ἀναξαγόρας δὲ Κλαζομένιος ἦν, ἀλλ' ὅτι νομιζόντων Ἀθηναίων τὸν ἥλιον εἶναι θεὸν ὃδ' αὐτὸν ἔφη μύδρον εἶναι διάπυρον ... *Lucian Icar.* 20, οὐ γὰρ ἱκανὰ ἦν αὐτοῖς ἃ περὶ αὐτοῦ εἰρήκασι τοῦ ἡλίου, λίθον αὐτὸν εἶναι καὶ μύδρον διάπυρον. *Origen CC* 5.11, p. 328.14–16 Marcovich καὶ οὐκ ἀτιμάζοντές γε τὰ τηλικαῦτα

τοῦ θεοῦ δημιουργήματα οὐδ' Ἀναξαγορείως μύδρον διάπυρον λέγοντες εἶναι τὸν ἥλιον καὶ σελήνην καὶ ἀστέρας τοιαυτὰ φαμεν περὶ ἡλίου καὶ σελήνης καὶ ἀστέρων. **Augustine C.D.** 18.41.33–34 Dombart–Kalb *unde miror cur Anaxagoras reus factus sit, quia solem dixit esse lapidem ardentem negans utique deum*. **ps.Plutarch Strom.** 7 (fr. 179 Sandbach, on Democritus, 68A39 DK) ἡλίου δὲ καὶ σελήνης γένεσιν φησι· κατ' ἰδίαν φέρεσθαι ταῦτα μηδέπω τὸ παράπαν ἔχοντα θερμὴν φύσιν μηδὲ μὴν καθόλου λαμπρότητα, τοῦναντίον δ' ἐξωμοιωμένην τῇ περὶ τὴν γῆν φύσει· γεγονέναι γὰρ ἑκάτερον τούτων πρότερον ἔτι κατ' ἰδίαν ὑποβολὴν τινὰ κόσμου, ὕστερον δέ, μεγεθοποιουμένου τοῦ περὶ τὸν ἥλιον κύκλου, ἐναποληφθῆναι ἐν αὐτῷ τὸ πῦρ. **Diogenes Laertius V.P.** 9.33 (doxography on Leucippus, 67A1 DK) καὶ πάντα μὲν τὰ ἀστρα πυροῦσθαι διὰ τὸ τάχος τῆς φορᾶς, τὸν δὲ ἥλιον καὶ ὑπὸ τῶν ἀστέρων ἐκπυροῦσθαι. differently 9.44 (doxography on Democritus, 68A1 DK) τὸν τε ἥλιον καὶ τὴν σελήνην ἐκ τοιούτων λείων καὶ περιφερῶν ὄγκων συγκεκρίσθαι. **Scholia in Apollonium Rhodium** 498b Wendel Ἀναξαγόρας (59A72 DK) δὲ μύδρον εἶναι τὸν ἡλιόν φησιν, ἐξ οὗ τὰ πάντα γίνεσθαι. διὸ καὶ Εὐριπίδης γνώριμος αὐτῷ γεγονώς φησι (*Or.* 983) χρυσέαν βῶλον τὸν ἥλιον εἶναι. **Olympiodorus in Mete.** 17.19 on Anaxagoras (DK59A19) cited on ch. 2.13.3.

§9 Thales: Scholia Platonica Resp. 600a p. 272 Greene Θαλῆς (11A3 DK) ... καὶ μικρὰν ἄρκτον αὐτὸς ἔγνω καὶ τὰς τροπὰς πρῶτος Ἑλλήνων, καὶ περὶ μεγέθους ἡλίου καὶ φύσεως.

§11 Aristotle: Arius Didymus fr. 10 Diels at Stob. *Ecl.* 1.25.4 Ἀριστοτέλης ἐκ πέμπτης οὐσίας τὸν ἥλιον. πυροῦσθαι δὲ τὸν ἀέρα καὶ σφόδρα γίνεσθαι θερμὸν ἀνίσχοντός τε τοῦ ἡλίου καὶ πλησιάζοντος ἡμῖν οὐ διὰ τὸ πύρινον εἶναι τὴν οὐσίαν, ἀλλὰ διὰ τὴν ὀξύτητα τῆς κινήσεως αὐτοῦ καὶ τὴν πρὸς τὸν ἀέρα παράτριψιν, ὑποβεβλημένων αὐτοῦ τῇ φορᾷ καὶ περικείμενον· οὕτε δὲ τὸν ἥλιον οὕτε τῶν ἄλλων ἀστρῶν ὅτιοι πῦρ εἶναι. **ps.Plutarch Hom.** 105 Kindstrand καὶ ἐπὶ τούτῳ ὁ Ζεὺς αὐτὸν παρακαλεῖ “Ἡέλι’, ἦ τοι μὲν σὺ μετ’ ἀθανάτοισι φάεινε | καὶ θνητοῖσι βροτοῖσιν ἐπὶ ζεῖδωρον ἄρουραν” (*Od.* 12.385–386) ἐξ ὧν δηλοῖ ὅτι οὐ πῦρ ἐστὶν ὁ ἥλιος ἀλλ’ ἐτέρα τις κρείσσω οὐσία· ὅπερ καὶ Ἀριστοτέλης ὑπέλαβεν, εἴ γε τὸ μὲν πῦρ ἐστὶν ἀνωφερὲς καὶ ἄψυχον καὶ εὐδιάλειπτον καὶ φθαρτόν, ὁ δ’ ἥλιος κυκλοφορητικός καὶ ἔμψυχος καὶ αἰδῖος καὶ ἀφθαρτος.

§13 Empedocles: Diogenes Laertius V.P. 8.77 (31A1 DK) καὶ τὸν μὲν ἡλιόν φησι πυρὸς ἄθροισμα μέγα. **ps.Plutarch Strom.** 10 (fr. 179 Sandbach: on Empedocles, 31A30 DK) ὁ δ’ ἥλιος τὴν φύσιν οὐκ ἔστι πῦρ ἀλλὰ τοῦ πυρὸς ἀντανάκλασις ὁμοία τῇ ἀφ’ ὕδατος γιγνομένη.

§15 Heraclitus: ps.Plutarch Strom. 11 (fr. 179 Sandbach) on Metrodorus of Chios (70A4) χρόνῳ δὲ πυγνυσθαι τῷ ξηρῷ τὸν ἥλιον καὶ ποιεῖν ἐκ τοῦ λαμπροῦ ὕδατος ἀστέρας, νύκτα τε καὶ ἡμέραν ἐκ τῆς σβέσεως καὶ ἐξάψεως, καὶ καθόλου τὰς ἐκλείψεις ἀποτελεῖν. **Scholia Platonica on Resp.** 498a Greene (fr. 58b³ Marcovich) Ἡράκλειτος ὁ Ἐφέσιος, φυσικὸς ὢν, ἔλεγεν ὅτι ὁ ἥλιος ἐν τῇ δυτικῇ θαλάσῃ ἐλθὼν καὶ καταδύς ἐν αὐτῇ σβέννυται, εἶτα διελθὼν τὸ ὑπὸ γῆν καὶ εἰς ἀνατολὴν φθάσας ἐξάπτει πάλιν, καὶ τοῦτο αἰεὶ γίγνεται.

b Sources and Other Parallel Texts

General texts: Plato *Apol.* 26d–e (Socrates on Anaxagoras) ὦ θαυμάσιε Μέλητε, ἵνα τί ταῦτα λέγεις; οὐδὲ ἥλιον οὐδὲ σελήνην ἄρα νομίζω θεοὺς εἶναι, ὥσπερ οἱ ἄλλοι ἄνθρωποι; μὰ Δί', ὦ ἄνδρες δικασταί, ἐπεὶ τὸν μὲν ἥλιον λίθον φησὶν εἶναι, τὴν δὲ σελήνην γῆν. Ἀναξαγόρου οἷε κατηγορεῖν, ὦ φίλε Μέλητε; καὶ οὕτω καταφρονεῖς τῶνδε καὶ οἷε αὐτοὺς ἀπείρους γραμμάτων εἶναι ὥστε οὐκ εἰδέναι ὅτι τὰ Ἀναξαγόρου βιβλία τοῦ Κλαζομενίου γέμει τούτων τῶν λόγων; καὶ δὴ καὶ οἱ νέοι ταῦτα παρ' ἐμοῦ μαθάνουσιν, ἃ ἔξεστιν ἐνίοτε εἰ πάνυ πολλοῦ δραχμῆς ἐκ τῆς ὀρχήστρας πριαμένοις Σωκράτους καταγελᾶν, ἐὰν προσποιῇται ἑαυτοῦ εἶναι, ἄλλως τε καὶ οὕτως ἄτοπα ὄντα; *Phd.* 111c (on the blessed souls) καὶ τὸν γε ἥλιον καὶ σελήνην καὶ ἄστρα ὁράσθαι ὑπ' αὐτῶν οἷα τυγχάνει ὄντα. **Aristotle** *Phys.* 2.1 193b26–30 εἰ γὰρ τοῦ φυσικοῦ τὸ τί ἐστὶν ἥλιος ἢ σελήνη εἰδέναι, τῶν δὲ συμβεβηκότων καθ' αὐτὰ μηδὲν, ἄτοπον, ἄλλως τε καὶ ὅτι φαίνονται λέγοντες οἱ περὶ φύσεως καὶ περὶ σχήματος σελήνης καὶ ἡλίου. *Cael.* 2.7 289a11 περὶ δὲ τῶν καλουμένων ἀστρων ἐπόμενον ἂν εἴη λέγειν, ἐκ τίνων τε συνεστάσι ... *Cael.* 2.12 293a11–14 ἀλλὰ περὶ μὲν τῶν τὴν ἐγκύκλιον φερομένων κίνησιν ἀστρων εἴρηται ποῖ' ἅττα κατὰ τε τὴν οὐσίαν ἐστὶ καὶ κατὰ τὸ σχῆμα, περὶ τε τῆς φορᾶς καὶ τῆς τάξεως αὐτῶν. **Stoics** at D.L. 7.144 (*SVF* 2.650) εἶναι δὲ τὸν μὲν ἥλιον εἰλικρινὲς πῦρ, καθά φησι Ποσειδώνιος ἐν τῷ ἑβδόμῳ Περὶ μετεώρων (F 17 E.-K., F312 Theiler) ... πῦρ μὲν οὖν εἶναι, ὅτι τὰ πυρὸς πάντα ποιεῖ.

Chapter heading: Aristotle see texts cited under General texts. **Posidonius** see on ch. 2.11. **Hermogenes(?)** *Prog.* 11, p. 25.8 Rabe εἰ ὁ ἥλιος πῦρ (example of a θέσις). **Isidore of Seville** *Nat.* 15 *de natura solis*. **Ioannes Tzetzes** in *Nubes* 102 see on ch. 2.13.

§6 **Heraclitus Hecataeus Cleanthes:** Aristotle *Mete.* 2.2 354b33–345a18 διὸ καὶ γελοῖοι πάντες ὅσοι τῶν πρότερον ὑπέλαβον τὸν ἥλιον τρέφεσθαι τῷ ὕγρῳ. καὶ διὰ τοῦτ' ἐνίοι γέ φασιν καὶ ποιεῖσθαι τὰς τροπὰς αὐτόν· οὐ γὰρ αἰεὶ τοὺς αὐτοὺς δύνασθαι τόπους παρασκευάζειν αὐτῷ τὴν τροφήν· ἀναγκαῖον δ' εἶναι τοῦτο συμβαίνειν περὶ αὐτόν ἢ φθεῖρεσθαι· καὶ γὰρ τὸ φανερόν πῦρ, ἕως ἂν ἔχη τροφήν, μέχρι τούτου ζῆν, τὸ δ' ὕγρον τῷ πυρὶ τροφήν εἶναι μόνον, —ὥσπερ ἀφικνούμενον μέχρι πρὸς τὸν ἥλιον τὸ ἀναγόμενον τοῦ ὕγρου, ἢ τὴν ἄνοδον τοιαύτην οὐσαν οἶανπερ τῇ γιγνομένη φλογί, δι' ἧς τὸ εἰκὸς λαβόντες οὕτω καὶ περὶ τοῦ ἡλίου ὑπέλαβον. τὸ δ' οὐκ ἔστιν ὁμοιον· ἢ μὲν γὰρ φλοῖξ διὰ συνεχροῦς ὕγρου καὶ ξηροῦ μεταβαλλόντων γίγνεται καὶ οὐ τρέφεται (οὐ γὰρ ἡ αὐτὴ οὐσα διαμένει οὐδένα χρόνον ὥς εἰπεῖν), περὶ δὲ τὸν ἥλιον ἀδύνατον τοῦτο συμβαίνειν, ἐπεὶ τρεφομένου γε τὸν αὐτὸν τρόπον, ὥσπερ ἐκεῖνοί φασιν, δῆλον ὅτι καὶ ὁ ἥλιος οὐ μόνον καθάπερ Ἡράκλειτός φησιν, νέος ἐφ' ἡμέρῃ ἐστίν, ἀλλ' αἰεὶ νέος συνεχῶς. ἔτι δ' ἡ ὑπὸ τοῦ ἡλίου ἀναγωγὴ τοῦ ὕγρου ὁμοία τοῖς θερμαινόμενοις ἐστὶν ὕδασιν ὑπὸ πυρός· εἰ οὖν μηδὲ τὸ ὑποακόμενον τρέφεται πῦρ, οὐδὲ τὸν ἥλιον εἰκὸς ἦν ὑπολαβεῖν, οὐδ' εἰ πᾶν θερμαίνων ἐξατμίσειεν τὸ ὕδωρ (continuation quoted on A 2.17.4–6) **Cicero** *ND* 2.40 (citing Cleanthes, *SVF* 2.504) 'ergo' inquit 'cum sol igneus sit, Oceanique alatur umoribus' (quia nullus ignis sine pastu aliquo posset permanere), 'necesse est aut ei similis sit igni quem adhibemus ad usum atque victum, aut ei qui corporibus animantium continetur. atqui hic noster ignis, quem usus vitae requirit,

confecto est et consumptor omnium idemque quocumque invasit cuncta disturbat ac dissipat; contra ille corporeus vitalis et salutaris omnia conservat alit auget sustinet sensuque adficit' negat ergo esse dubium horum ignium sol utri similis sit, cum is quoque efficiat ut omnia floreat et in suo quaeque genere pubescant. quare cum solis ignis similis eorum ignium sit qui sunt in corporibus animantium, solem quoque animantem esse oportet, et quidem reliqua astra quae oriantur in ardore caelesti qui aether vel caelum nominatur. See further texts cited on A 2.17.4. **Alexander of Lycopolis** *c.Manich.* 19.18–22 Brinkmann καλῶς γὰρ δὴ πρὸς τὸν Ζήνωνος (not in SVF) τοῦ Κιτιέως εἴρηται λόγον, ὃς 'τὸ πᾶν ἐκπυρωθήσεται' λέγων 'πᾶν τὸ καίον ἔχον καύση ὅλον καύσει, καὶ ὁ ἥλιος πῦρ ἐστὶν καὶ ὁ ἔχει οὐ καύσει,' ἐξ οὗ συνήγετο, ὡς ᾤετο, τὸ πᾶν ἐκπυρωθήσεται.

§7 Plato: *Plato Tim.* 40a see on ch. 2.13.12. **ps.Plato** *Def.* 411a ἥλιος πῦρ οὐράνιον.

§8 Anaxagoras Democritus Metrodorus: Xenophon Mem. 4.7.7 (Socrates on Anaxagoras, 59A73 DK) ἐκεῖνος γὰρ λέγων μὲν τὸ αὐτὸ εἶναι πῦρ τε καὶ ἥλιον ἡγνόμεν, ... φάσκων δὲ τὸν ἥλιον λίθον διάπυρον εἶναι καὶ τοῦτο ἡγνόμεν ...

§11 Aristotle: see on ch. 2.13.13.

§13 Empedocles: Clement of Alexandria Strom. 5.48.3 ἄμεινον δὲ ἐκδέχεσθαι τὸν αἰθέρα πάντα συνέχοντα καὶ σφίγγοντα, καθὰ καὶ ὁ Ἐμπεδοκλῆς φησιν (31B38 DK, text Primavesi)· εἰ δ' ἄγε τοι λέξω πρῶτ' ἀρχὴν Ἡελίοιο, / ἐξ ἧς δὴ(λ') ἐγένοντο τὰ νῦν ἐσορῶμεν πάντα, / γαίᾳ τε καὶ πόντος πολυκύμων ἡδ' ὕγρὸς ἀήρ | ἡδ' αἰθήρ Τιτὴν σφίγγων πέρι κύκλον ἅπαντα. **Plutarch Pyth.Or.** 400B ὕμεις δὲ τοῦ μὲν Ἐμπεδοκλέους (31B44 DK) καταγελάτε φάσκοντος τὸν ἥλιον περὶ γῆν ἀνακλάσει φωτὸς οὐρανοῦ γενόμενον αὐθις ἀνταυγεῖν πρὸς ὄλυμπον ἀταρβήτοισι προσώποις ...

§14 Epicurus: *Epicurus Ep. Pyth.* at D.L. 10.90 see on A 2.13.15. **Lucretius DRN** 5.597–613 *nam licet hinc mundi patefactum totius unum / largifluum fontem scatere atque erumpere lumen, / ex omni mundo quia sic elementa vaporis / undique convenient et sic coniectus eorum / confluit, ex uno capite hic ut profluat ardor: / ... est etiam quoque uti non magno solis ab igni / aera percipiat calidis fervoribus ardor / ... forsitan et rosea sol alta lampade lucens / possideat multum caecis fervoribus ignem / circum se ...* **Diogenes of Oenoanda** fr. 13 III 13–IV 10 Smith ἐνδέχεται τοιγαροῦν τὸν ἥλιον ἀνθρακῶδη τινὰ κύκλον [εἶναι καὶ] λεπτὸν ἄκρως, [ὑπὸ τε τῶν] πνευμάτων αἰω[ρούμενων] πηγῆς τε ἐπέχ[οντα τρό]πον, τοῦ μὲν ἀ[πορέοντος] ἐξ αὐτοῦ πυρὸς, τοῦ δὲ εἰς[π]ρέοντος ἐκ τοῦ [περιέχον]τος κατὰ μικρ[ομερεῖς] συνκρίσεις διὰ [τὴν τούτου] πολυμιγ[είαν οὕτω δ' ἐ]παρκεῖν αὐ[τομάτως πέφυ]κε τῷ κόσμῳ [ἢ τοῦ περι]χοντος εὐε[μπρήστου] τυνχαν[οντος] (including some conjectures by Bailey 3.1414)

§15 Heraclitus: cf. *Heraclitus* fr. 22B30 cited by *Clement of Alexandria Strom.* 5.104.1–2 (on the eternity of the cosmos, cf. A 2.4.1) σαφέστατα (δ') Ἡράκλειτος ὁ Ἐφέσιος (fr. 22B30 DK) ταύτης ἐστὶ τῆς δόξης, τὸν μὲν τινα κόσμον αἰδίων εἶναι δοκιμάσας, τὸν δὲ τινα φθειρόμενον, τὸν κατὰ τὴν διακόσμησιν εἰδῶς οὐχ ἔτερον ὄντα ἐκεῖνου πῶς ἔχοντος. ἀλλ' ὅτι μὲν αἰδίων τὸν ἐξ ἀπάσης τῆς οὐσίας ἰδίως

ποιὸν κόσμον ᾗδει, φανερόν ποιεῖ λέγων οὕτως· ‘κόσμον τὸν αὐτὸν ἀπάντων οὔτε τις θεῶν οὔτε ἀνθρώπων ἐποίησεν, ἀλλ’ ἦν ἀεὶ καὶ ἔστιν καὶ ἔσται πῦρ ἀείζων ἀπτόμενον μέτρα καὶ ἀποσβεννύμενον μέτρα.’ same text cited at **Plutarch** *An.Procr.* 1014A.

§16 *Parmenides*: see on A 2.11.1, 3.1.6 (fr. 11 28B1 DK).

Liber 2 Caput 21

- P^B**: ps.Plutarchus *Plac.* 890C; pp. 351^a3–352^a3 Diels—**P^E**: Eusebius *PE* 15.24, p. 401.11–17 Mras—**P^G**: ps.Galenus *HPh* c. 63; p. 626.13–17 Diels—**P^Q**: Qustā ibn Lūqā pp. 156–157 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 127, p. 67 (titulus solus)—cf. **P^{Sy}**: Symeon Seth *CRN* 3.46, p. 50.1 Delatte (titulus solus)
- S**: Stobaeus *Ecl.* 1.25, p. 207.13 (tit.) + 1.25.1c, p. 208.8–11 + 1.25.1g, p. 209.9–10 + 1.25.3e, p. 211.1 + 1.25.3f, p. 211.6–7; cf. Phot. *Bibl.* 167, p. 112b10 Henry (titulus solus)
- T**: Theodoretus *CAG* 1.97 p. 27.25–28.4; 4.22, p. 106.1, 4–7 Raeder
- Cf. Ach: Achilles *Univ.* c. 20, p. 29.7–9 Di Maria; *Scholia in Aratum, Proleg.* 17, p. 27.19–20 Martin

Titulus κα'. Περὶ μεγέθους ἡλίου (P,S,T)

- §1 Ἀναξίμανδρος τὸν μὲν ἡλίον ἴσον εἶναι τῇ γῇ, τὸν δὲ κύκλον, ἅφ' οὗ τὴν ἐκπνοὴν ἔχει καὶ ὕφ' οὗ φέρεται, ἑπτακαίικοσαπλασίονα τῆς γῆς. (P1,S1,T1)
- §2 Ἐμπεδοκλῆς δὲ ἴσον τῇ γῇ τὸν κατὰ τὴν ἀνταύγειαν. (S1,Tb2) 5
- §3 Ἀναξαγόρας πολλαπλασίονα Πελοποννήσου. (P2,Ta2b3)
- §4 Ἡράκλειτος εὖρος ποδὸς ἀνθρωπείου. (P3,S2,Ta3b4)
- §5 Ἐπίκουρος τηλικούτον ἡλίκος φαίνεται, ἢ μικρῶ τι μείζω ἢ ἐλάττω. (P4,S4)

§1 Anaximander 12A21 DK; §2 Empedocles 31A56 DK; §3 Anaxagoras 59A72 DK; §4 Heraclitus 22B3 DK; §5 Epicurus fr. 345 Usener

titulus S vid. app. ad c. 2.20 §1 [2] Ἀναξίμανδρος ^{P^{BEGQST}} (4.22) : Ἀναξίμανδρος μὲν γὰρ καὶ Ἀναξιμένης T (1.97) || ἴσον εἶναι τῇ γῇ ^{P^{BGS}} : ἴσον τῇ γῇ εἶναι ^{P^B} || κύκλον ^{P^G} || [2–3] ἅφ' οὗ ... καὶ deest in ^{P^Q}, καὶ ... φέρεται in ^{P^G} || [3] ἐκπνοὴν ^{P^{BGS}} : πνοὴν ^{P^E} || ὕφ' οὗ ^{P^{ES}} Diels Laks—Most : ἅφ' οὗ ^{P^{BQ}} || φέρεται ^{P^{BE}} : περιφέρεται S || ἑπτακαίικοσαπλασίονα ^{P^{BEIQT}} (bis) : τοῦ προειρημένου μεγέθους S, i.e. ut in capite priori, sed illic ὅκτωκαίικοσαπλασίονα : ὅκτω καὶ εἰκοσαπλασίῳ ^{P^{E2}} : ἑπτάκις καὶ εἰκοσαπλασίονα ^{P^G} §2 non hab. P || [5] τὸν κατὰ τὴν ἀνταύγειαν S : om. T §3 non hab. S || [6] πολλαπλασίονα ^{P^{BEGQGS}} : πολυπλάσιον ^{P^{G2}} : μείζονα T (bis) || Πελοποννήσου ^{P^{BET}} (bis) : γῆς ^{P^G}, cf. *von jener (Grösse der Erde)* Q §4 non hab. ^{P^G} || [7] Ἡράκλειτος ^{P^{BEST}} (bis) : al. Q *Epikuros und Herakleitos* §5 [8] post nomen hab. ^{P^{BQ}} πάλιν (om. Q) φησὶν ἐνδέχασθαι τὰ προειρημένα πάντα ἢ, secl. Diels Mau Lachenaud || τηλικούτον] τοιούτον ^{P^G} || ἡλίκος ^{P^{BS}} : ἡλίκος καὶ ὁποῖος ^{P^E} : οἶος ^{P^G} || ἢ] om. ^{P^B} || μικρῶ τι S : μικρῶ τι ^{P^E} : μικρῶ ^{P^B}, (τινι) add. Diels Mau Lachenaud : μικρῶ ^{P^G} || μείζω ἢ ἐλάττω corr. edd. : μείζων ἢ ἐλάττων ^{P^{BEIS}}, μείζον ἢ ἐλάττων ^{P^{E2}}, μείζων ἢ ἐλάττω ^{P^G}

Testes primi:

Theodoretus CAG 1.97, 4.22

1.97.0 (cf. tit. c. 2.20) καὶ αὖ πάλιν περὶ ἡλίου λογομαχία παρ' ἐκείνοις πολλή.

- 1.97.1 (~ §1) Ἀναξίμανδρος μὲν γὰρ καὶ Ἀναξιμένης ἑπτακαίκοσαπλασίονα τῆς γῆς
τοῦτον ἔφασαν εἶναι,
1.97.2 (~ §3) Ἀναξαγόρας δὲ Πελοποννήσου μείζονα,
1.97.3 (~ §4) Ἡράκλειτος δὲ ὁ Ἐφέσιος ποδιαῖον.

- 4.22 (tit.) καὶ μεγέθους δὲ περί καὶ σχήματος πολλή παρ' αὐτοῖς διαμάχη ... (cf. c.
2.22)
4.22.4 (~ §1) καὶ Ἀναξίμανδρος μὲν ἑπτακαίκοσαπλασίω τῆς γῆς τοῦτον ἔφησεν
εἶναι,
4.22.5 (~ §2) Ἐμπεδοκλῆς δὲ ἴσον τῇ γῇ,
4.22.6 (~ §3) ὁ δὲ Ἀναξαγόρας Πελοποννήσου μείζονα
4.22.7 (~ §4), Ἡράκλειτος δὲ ποδιαῖον.

Traditio ps.Plutarchi:

ps.Galenus HPh c. 63 (~ tit.) Περὶ μεγέθους ἡλίου (text Diels)

- 63.1 (~ P1) Ἀναξίμανδρος τὸν μὲν ἥλιον ἴσον εἶναι τῇ γῇ, τὸν δὲ πόλον ἀφ' οὗ τὴν
ἐκπνοὴν ἔχει ἐπτάκις καὶ εἰκοσαπλασίονα τῆς γῆς.
63.2 (~ P2) Ἀναξαγόρας πολυπλάσιον τῆς γῆς.
63.4 (~ P4) Ἐπικούρου τοιοῦτον, οἷος φαίνεται, ἢ μικρῶ μείζον' ἢ ἐλάττω.

Psellus Omn.Doctr. c. 127 Περὶ μεγέθους ἡλίου καὶ σελήνης καὶ γῆς (~ tit.)

Symeon Seth CRN 3.46 Περὶ μεγέθους καὶ σχήματος ἡλίου (~ tit.)

Testes secundi:

Achilles Univ. c. 20, p. 29.7 Περὶ μεγέθους ἡλίου (~ tit.)

- p. 29.8–9 μέγεθος ἡλίου μείζον γῆς φασιν. καὶ οἱ μὲν ποδιαῖον (§4), οἱ δὲ ὀκταπλα-
σίονα, οἱ δὲ ἑννεακαίδεκαπλασίονα.

Scholia in Aratum, Proleg. 17, p. 27.19–20 Martin κυκλοτερῆ ὄντα ὀκτωκαίδεκα-
πλάσιον εἶναι τῆς γῆς.

Loci Aetiani:

titulus et quaestio A 2.26 Περὶ μεγέθους σελήνης

- §1 A 2.26.1 (de luna) οἱ Στωικοὶ μείζονα τῆς γῆς ἀποφαίνονται ὡς καὶ τὸν ἥλιον.
§2 cf. A 2.20.13 Ἐμπεδοκλῆς δύο ἡλίους, τὸν μὲν ἀρχέτυπον, πῦρ ἐν τῷ ἐτέρῳ ἡμι-
σφαίρῳ τοῦ κόσμου πεπληρωκὸς τὸ ἡμισφαίριον, αἶε κατ' ἀντικρὺ τῇ ἀνταυγείᾳ
ἐαυτοῦ τεταγμένον· τὸν δὲ φαινόμενον ἀνταύγειαν ἐν τῷ ἐτέρῳ ἡμισφαίρῳ ...
§5 A 1.prooem. §3 ζητεῖται ... ὁ ἥλιος, ... (εἴ τιηλικούτος ἡλίκος) ὁράται.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The four witnesses to the tradition of P all record four doxai, with the exception of G, who deletes the view of Heraclitus that comes third in the others. A significant variant is found in the final Epicurean doxa. P^B and Q record a longer version consisting of two views joined by ἤ. E and G have shortened versions containing only the second alternative. In addition Q is alone in placing the name-label Epicurus in front of that of Heraclitus in the third doxa.

(2) S includes A's heading in the composite title for his chapter on the sun (1.25). When the coalesced doxai are disentangled, it emerges that he too records four doxai, those of Anaximander, Heraclitus, Empedocles (not in P) and Epicurus (in the shorter version). For the second of these doxai, the doxa on size is subsumed under the double name-label Heraclitus and Hecataeus, which is obviously taken over from A 2.20.6. Interestingly the doxa on size is placed last in the cluster, after doxai from ch. 22 and 24. Similarly in his collection of Empedoclean doxai too S does not preserve A's order (chs. 20, 23, 21 and 24). The doxa of Anaxagoras is omitted at S 1.25.3a, no doubt because of an oversight.

(3) Unusually (but cf. ch. 2.4) T utilizes this chapter twice. In both cases he explicitly mentions that its subject is the cause of much contention (1.97 λογομαχία, διαφωνία, 4.22 διαμαχή). In the former three doxai are cited, with the name-label of Anaximander in the first doxa expanded with that of Anaximenes. In the latter there are four doxai, with the Empedoclean doxa added to those in 1.97 (but the additional name-label Anaximenes is dropped). In both texts the doxai are considerably altered and in some cases compressed compared with P and S. It is noteworthy that T leaves the Epicurean doxa out of consideration in both texts.

(4) On the close parallels in Achilles and the Aratea see below section B and D(e).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Many texts show that from the Hellenistic period onwards the subject of the sun's size was a standard example of a θέσις or a *quaestio infinita* that could be discussed by rhetors and philosophers alike (Hermagoras in Cicero, Quintilian). Later, Galen, Alexander and Philoponus use it as an example in discussions of logical questions. An important text at Philo *Somn.* 1.53—no doubt from the same source as the texts discussed on chs. 2.11 and 2.13—shows that by the first cent. BCE the question had also become part of the doxographical tradition and was treated in a standard way involving

comparison with the earth. Interesting use of this tradition is made by Achilles and another Aratean text (see *Testes secundi* above). The evidence in these two texts differs from A in that numbers are used (8, 19 and 18 times the earth), and two of these numbers recur in texts in Cicero (*Luc.* 82, 18 times) and Macrobius (8 times); see the texts below section E(a) General texts. This will have been part of the doxographical tradition that A chose not to use (the differing numbers may relate to the inside and outside rings). It brings to mind the distinction put forward by Seneca in *Ep.* 88.27: the philosopher asserts that the sun is large, the astronomer how large it is. The numbers given in these texts may derive from earlier astronomical material, but they differ completely from the calculations found in the texts of the astronomers Aristarchus, Eratosthenes, Archimedes and Ptolemy (see for example the text of Archimedes with four different measurements in terms of a comparison with the diameter of the moon).

The brief chapter is one of the most interesting in A's compendium because there is such a large amount of comparative material. It allows us to see how the doxographical tradition relates to the philosophical tradition (not just physics, but also epistemology and even logic), and also to the scientific and rhetorical traditions. See the fine analysis of philosophical and astronomical aspects in Barnes (1989), but with very little on the doxographical tradition (mainly on p. 31). The epistemological problems raised by the Heraclitean and Epicurean view that its size equated to how it was perceived was a stock topic which occurs frequently in Cicero, but also in many other authors. For this material see Pease (1920–1923) on Cic. *Div.* 2.10–11; Pease (1958) on Cic. *N.D.* 2.92; and the treatment of Barnes (1989) with a focus on the text in *PHerc.* 1013. Heraclitus' doxai on the sun have been extensively studied in the widest possible cultural and philosophical context in Schönbeck (1998), with an idiosyncratic edition of the present chapter and its various witnesses at 349–350.

(2) *Sources.* The limited evidence indicates that the question of the sun's size was discussed by philosophers in the Ionian tradition, beginning with Anaximander and continuing in the writings of Anaxagoras and Democritus. The earliest speculations will have been cosmological, comparison with the earth forming a very approximate standard of measurement. However, already in Heraclitus (fr. 22B3 DK) epistemological considerations may have entered the discussion: the sun is the size of a human foot, *as it appears* (this addition is attested in the words of Heraclitus himself at *Pap. Derveni* col. 4.6–7, see below section E(b)§4). Aristotle refers to the size of the sun as an astronomical question at *Mete.* 1.8 345b1 (note the comparison with the size of the earth), but the question is far removed from his interests in the *De caelo*. He does refer to the epistemological aspect three times in his psychological writings, each time alluding to the Heraclitean text with the signature term ποδιαῖος (texts

below in section E(b)§4). A similar emphasis is found in a text in the *Epinomis* of Philip of Opus. After Aristotle it remains a standard example of the difference between appearance and reality and recurs in the tropes of Aenesidemus as recorded in Diogenes Laertius. The Heraclitean doctrine is continued in Epicurus and it gives rise to a standard debate between Epicureans and Stoics which is treated at great length in Cleomedes.

C Chapter Heading

The chapter heading is of the usual umbrella type (Περὶ x) and denotes a topic in the category of quantity. There are no variations in relation to its formulation. It is clear from S's composite title that he read the same heading in A. T's introductory sentence at 4.22 also contains a reference to the heading.

D Analysis

a Context

As in the case of the stars in chs. 2.13–19, after discussing the sun's nature (οὐσία), A turns to other questions relating to the sun. The first of these is its size. This was discussed for the cosmos as a whole in terms of whether it was limited or unlimited (ch. 2.1) but not in the case of the stars. It will be treated for the moon (ch. 2.26), but it is surprisingly missing for the earth in Book 3 (in the light of the title preserved by S for his ch. 1.33 it is likely that a chapter may have been dropped by P in this case—in S's absence he is our only witness; cf. Diels *DG* 62, M–R 2.1.198, and see further on ch. 3.9). As in his treatment of the cosmos, stars, moon and earth, A is following the sequence of the Aristotelian categories, in this case the category of quantity following that of substance. See further Introduction to Book 2, section 2.

b Number–Order of Lemmata

In total our witnesses yield five lemmata, with no single witness preserving all five. The order of the doxai in P and T is consistent with each other and so should be followed (S's order is distorted because the exigencies of the process of coalescence). This means that the Empedoclean doxa occupied the second place, as shown by T in his second text.

c Rationale–Structure of Chapter

The chapter appears in the first instance to descend from large to small, using the earth as the main criterion for measurement. As often in the chapters on the heavenly bodies, A starts off with a venerable Ionian (cf. also chs. 2.11–13, 18, 20, 22–25, 28–29). Anaximander and Empedocles have the same measurement, but for the former the detail on the size of ring in which the sun is conveyed

is added. For Empedocles the sun in question is ‘the visible sun’ described in 2.20.13 (the term ἀνταύγεια is repeated from there). The views of Anaxagoras and Heraclitus posit a smaller size. Implicit in the Heraclitean doxa is perhaps a move to a size in terms of human perception. In the final Epicurean view the epistemological perspective is made explicit. Epicurus also occupies the final position in 2.2.5, 2.13.15 and 2.22.4, but in all those texts the emphasis is on possible views (ἐνδέχόμενα), unlike in the present doxa (on the addition of the theme of possible views in P see the detailed comment in the next section). We note too that the term φαίνεται in §5 introduces by implication the antithesis between what is (Heraclitus) and what appears (Epicurus).

If the evidence of the secondary and proximate traditions are adduced, it is apparent that comparison with the size of the earth involving a number of positions is a standard approach. In Philo the movement is in the opposite direction, ascending from small to large. What is very surprising is that A has not included the obvious view that the sun is larger than the earth. Philo has two positions expressing this view (larger and much larger). Both T and G appear to sense this omission. T converts the first doxa into this position, adapting Anaximander’s doxa for that purpose and adding—it seems—the name-label of Anaximenes (see further below section D(d)§1). G has altered Anaxagoras’ view to compensate for the absence (it would seem) and so, because he omits the third doxa, his sequence goes from large to larger. Moreover, on the size of the moon A himself refers to this position in 2.26.1. So the oversight or omission remains a puzzle.

The evidence of Ach can be added. He commences with the above-mentioned view that the sun is larger than the earth, then adds the Heraclitean position, followed by two measurements in terms of numbers (8 times, 19 times). These two measurements are also found in Macrobius (texts cited below). The latter number is also found in a doxography at Cicero *Luc.* 82, which moreover includes the doxai of Heraclitus (without name-label) and Epicurus. The parallel with A is so close that Cicero’s text must be regarded as evidence of a proximate tradition. It seems that measurement of the sun’s relative size by means of numbers was an option in the doxographical tradition that A chose not to utilize here (nor in ch. 2.26 on the size of the moon). Cicero attributes the view that the sun is 19 times the earth to the *mathematici*, i.e. the astronomers, whose views A cites six times in Book 2 (chs. 15.5, 16.2, 16.6, 29.7, 30.8, 31.2). As we have already noted in section B above, Seneca distinguishes between the method of the philosopher and the astronomer. The astronomer’s method of proceeding to which he refers brings to mind Cicero’s reference to Archimedes’ diagrams at *Luc.* 116 (and Aristarchus’ extant treatise Περὶ μεγέθων καὶ ἀποστημάτων ἡλίου καὶ σελήνης). The views that A records are those of the

philosopher, but his method is not to demonstrate that the sun is large. Instead he presents an array of opinions by means of his customary diaeretic method, but it is certainly not done as effectively as might have been expected. Not only is the important view that the sun is greater than the earth not included, but the mixture of comparative views and those involving the epistemological and psychological factors relating to human perception lacks clarity (see the structural diagram at M–R 2.2.543). The treatment is kept very compact, though less so than in the parallel chapter on the moon (2.26) or those on the shape of the two heavenly bodies (2.22, 2.27).

d Further Comments

Individual Points

§1 T in one of his two texts adds the name-label Anaximenes. It is theoretically possible that it was present in T's copy of A, but had been left out by P in his abridgement and S in his process of coalescence. Other possibilities—also remote—are there was a separate doxa attributed to Anaximenes of which he preserved only the name, or that he has anticipated on the use of the name-label in the following chapter 2.22. But, as argued above in section D(c), it is much more likely to reflect adaptation on T's part, since the doxa of Anaximander is too specific to be shared with anyone else, even his pupil. In both texts T states that the sun is 27 times the size of the earth, whereas in the doxai preserved in P and S it is the sun's ring that has that size and the sun itself is the same size as the earth. The adaptation is most likely deliberate, because it allows T to include the alternative view that the sun is larger than the earth which is perplexingly missing in A. For the polemicist T the importance of including this diaeretical option is greater than the accuracy of his report. In his second report he does not bother to mention that the sun of which Empedocles says that it is equal to the earth (in size) is the reflected sun. Here he engages in simplification, not falsification.

§2 In a forthcoming article Couprie (2020) argues that Empedocles' earth was flat and that he may not have realised the consequences: 'If the text on the size of the sun [sc. in Aëtius] is not corrupt, we must assume that Empedocles did not fully understand that on a flat earth the sun cannot be the same size as the earth. Perhaps he did not realize that his various statements—the sun is twice as far from the moon as from the earth, the moon almost touches the earth, the sun is as big as the earth, the heaven is egg-shaped, the heaven has tilted—do not harmonize well together. Or perhaps he did not worry about such details.' As noted in the previous section, the term ἀνταύγεια is repeated from the description of the two suns in A 2.20.13. On the scholarly controversies relating to that text, see our Commentary ad loc.

§3 Couprie (2009) defends the plausibility of Anaxagoras' measurement based on the assumption of a flat earth and the use of a gnomon or a sighting tube. However, the calculation that he reaches, a diameter of either 54 or 78 km is hardly 'many times the size of the Peloponnese' (which is more than 100 km in width).

§4 In other doxographical texts the Heraclitean doxa is usually indicated by the single word ποδιαῖον (sc. μέγεθος) or *pedalis*; cf. T (twice), Ach, Philo *Somn.* 1.53; already in Arist. *de An.* 3.3 428b3, *Insomn.* 1 458b28, 2 468b16, Cic. *Acad.* 2.82, Tert. *Ad nat.* 2.4.15 etc. Against this background it is unnecessary to postulate a possible contamination between P and S on the grounds that T (twice) and Ach agree on the single word formulation, as done by Bottler (2014) 423, 515.

The phrase in A is taken by editors as a citation from Heraclitus' original text; see 22B3 DK (placed in quotation marks), Mouraviev (1999–2003) IIA, T440, Marcovich (2001a) fr. 57, Graham (2010) 163. This intuition was confirmed by the citation using the same words in the *Derveni papyrus*; text below section E(b)§4. However, the papyrus changes the word order to ἀνθρωπίνου εὖρος ποδός, which given its antiquity is likely to be authentic. The two texts demonstrate that the adjective ποδιαῖος which, as noted above, is standard in the doxographical tradition is the result of Aristotelian influence.

It is curious that Q records an extra name-label 'Epicurus and Heraclitus'. Bottler argues that the word πάλιν in the following lemma (§5) as preserved in P only makes sense if it refers back to Epicurus in the previous lemma (§4). But, as Jas has pointed out in an unpublished review of Bottler's study, the word πάλιν, *pace* Daiber, does not occur in Q's Arabic translation. Jas notes that the extra name-label may have already been present in Q's *Vorlage* and suspects that a marginal gloss has entered the text. This is perhaps more likely than that it was added by Q. In any case the name-label must have been added in recognition of the fact that Epicurus defended the same view as Heraclitus (see next comment).

§5 In the tradition Epicurus' views on the size of the sun are frequently associated with the Heraclitean position given in §4, although there is no reference to it in the brief discussion in *Ep.Pyth.* at D.L. 10.91 (including a glossematic cross-reference to *De natura* Book 11); see Cic. *Fin.* 1.20, *Acad.* 2.82, 123, Cleomedes, 2.1.1–25, 339–345, Tert. *Ad nat.* 2.4.15–16 etc. A's formulation is very close to Epicurus' own words in *Ep.Pyth.* 10.91 or another text from which that summary derives (note also Cic. *Fin.* 1.20, abridged version at Cleom. 2.1.1–2; see texts in section E(b)§5). The addition of ὁποῖος to ἡλικος in E is not convincing, since it does not cohere with the chapter's positioning in the category of quantity (G is even more mistaken with οἶος).

In the Byzantine mss. of P and Q two doxai are attributed to Epicurus joined by ἤ. Diels bracketed the former as interpolated from the following

chapter 2.22.4. However, the word *πάλιν* can hardly point forwards. Possibly the phrase was imported from the later text and then *πάλιν* was added with reference to 2.2.5 and 2.13.15.

For a spirited defence of Epicurus' much maligned doctrine see Algra (2001). On Q's brilliant but wayward *Verschlimmbesserung* at Book 1.prooem. 3 see above Commentary D(d) ad loc.

e Other Evidence

Ach has a separate and quite long chapter on the sun's size with exactly the same title as A, but only the first two lines contain doxographical material. The remainder of the chapter discusses the sun's movement (cf. A 2.23). Ach's two chapters thus cover the same ground as A but in a different sequence as follows:

Ach ch. 19 *Περὶ ἡλίου* on the sun's substance, shape and eclipses: cf. A chs. 2.20, 22, 24;

Ach ch. 20 *Περὶ μεγέθους ἡλίου* on the sun's size and movement: cf. A chs. 2.21, 23.

It is clear that Ach has used a doxographical tradition similar to that found in A, but he also includes sizes larger than the earth and uses the two commonly used numbers to indicate them. Of the four doxai only one is found in A, the one on Heraclitus, but without the name-label. The basic method is the same, but in contrast to A there is an ascending sequence of size rather awkwardly interrupted by the Heraclitean doxa. The other text in the Aratean commentary tradition only contains a single number (18×). It is also recalls the doxographical tradition, but does not take the opportunity to present multiple doxai.

E Further Related Texts

a Proximate Tradition

General texts: Hermagoras fr. 6a Matthes, T 14 Woerther at Cic. *Inv.* 1.6.8 *quae sit solis magnitudo?* (see further on ch. 2.2). Cicero *Luc.* 82 Plasberg *quid potest sole maius, quem mathematici amplius duodeviginti partibus confirmant maiorem esse quam terram: quantulus nobis videtur; mihi quidem quasi pedalis; Epicurus autem posse putat etiam minorem esse eum quam videatur, sed non multo; ne maiorem quidem multo putat esse, vel tantum esse quantus videatur, ut oculi aut nihil mentiantur {tamen} aut non multum.* *Luc.* 126 *solis autem magnitudinem (ipse enim hic radiatus me intueri videtur admonens ut crebro faciam mentionem sui) vos (sc. Stoics, not in SVF) ergo huius magnitudinem quasi decempeda permensi refertis; ego me, quasi malis architectis, mensurae vestrae nego credere: dubium est uter nostrum sit, leviter ut dicam, verecundior?* *Luc.* 128 *non enim magis adsentiuntur nec adprobant lucere nunc quam*

cum cornix cecinerit tum aliquid eam aut iubere aut vetare, nec magis adfirmant signum illud si erunt mensi sex pedum esse, quam solem, quem metiri non possunt, plus quam duodeviginti partibus maiorem esse quam terram. de Orat. 2.66 *si enim est oratoris, quaecumque res infinite posita sit, de ea posse dicere, dicendum erit ei, quanta sit solis magnitudo, quae forma terrae.* Div. 2.10 *num censes eos qui divinare dicuntur posse respondere sol maiorne quam terra sit an tantus quantus videatur?* **Strabo** 2.5.2 τούτοις (sc. heavenly bodies) δὲ πιστεύσαντες ἢ πᾶσιν ἢ τισὶν οἱ ἀστρονομικοὶ τὰ ἐξῆς πραγματεύονται, κινήσεις καὶ περιόδους (cf. ch. 2.16) καὶ ἐκλείψεις (cf. chs. 2.24, 2.29) καὶ μεγέθη (cf. chs. 2.21, 26) καὶ ἀποστάσεις (cf. ch. 2.31) καὶ ἄλλα μυρία. **Philo of Alexandria Somn.** 1.53 φησὶν οὖν ὁ ἱερός λόγος τῷ κατασκόπῳ τῶν τῆς φύσεως πραγμάτων· τί περὶ ἡλίου ζητεῖς, εἰ ποδιαῖός ἐστιν, εἰ τῆς γῆς μείζων ἀπάσης, εἰ πολλαπλάσιος αὐτῆς; **Quintilian Inst.** 2.17.38 *et mensuras solis* (full text at A 1.prooem. §3 *Exempla physica*) *Inst.* 7.2.6 *quaeritur per coniecturam et qualitatem circa modum speciem numerum: an sol maior quam terra ...* **Diogenes Laertius V.P.** 1.24 (on Thales, 11A1 DK) καὶ πρῶτος τὸ τοῦ ἡλίου μέγεθος (τοῦ ἡλιακοῦ κύκλου ὥσπερ καὶ τὸ τῆς σελήνης μέγεθος add. Diels prob. Dorandi) τοῦ σεληναίου ἑπτακοσιοστὸν καὶ εἴκοστὸν μέρος ἀπεφάνητο κατὰ τινος (cf. **Apuleius Flor.** 18.32 = 11A19 DK). **V.P.** 7.144 καὶ μείζονα (sc. τὸν ἥλιον) τῆς γῆς, ὡς ὁ αὐτὸς (sc. Posidonius, fr. 9 E-K., 261a Theiler) ἐν τῷ ζ' τὸν Φυσικοῦ λόγου ... μείζω τῆς γῆς τῷ πᾶσαν ὑπ' αὐτοῦ φωτίζεσθαι, ἀλλὰ καὶ τὸν οὐρανόν. **Arnobius Adv.Nat.** 2.61, p. 137.5–9 Marchesi *quid est inquit vobis investigare, conquirere, ... orbe sit sol amplior an pedis unius latitudine metiatur.* **Macrobius in Somn.** 1.20.32 *ergo ex his dicendum est solem octies terra esse maiorem. haec de solis magnitudine breviter de multis excerpta libavimus.* **Symeon Seth CRN** 3.46 50.2 Delatte τὸ τοῦ ἡλίου μέγεθος ἀπιστὸν τι δοκεῖ τοῖς γε ἀγεωμετρήτοις καὶ τοῖς τῆς φιλοσοφίας ἀμύητοις. πάντες μὲν οὖν οἱ μαθηματικοὶ ἀπεφάνητο τοῦτον τῆς γῆς μείζονα, διεφώνησαν δὲ περὶ τοῦ ὁπόσον ἐστὶ μείζων καὶ πολλαπλάσιος. ὁ δὲ σοφώτατος Πτολεμαῖος διὰ γεωμετρικῶν ἀπέδειξε μεθόδων ἑκατονεβοδηκονταπλάσιονα τοῦτον τῆς γῆς εἶναι.

Chapter heading: Philo of Alexandria Mut. 67 τί ἡλίου μέγεθος (for context see further on ch. 2.23); cf. also *Her.* 247 (cited on ch. 2.11). **Scholia in Platonem Resp.** 600a1–10 Greene (on Thales) καὶ περὶ ἡλίου μεγέθους καὶ φύσεως.

§1 **Anaximander: Diogenes Laertius V.P.** 2.1 (on Anaximander 12A1 DK) ἀλλὰ καὶ τὸν ἥλιον οὐκ ἐλάττονα τῆς γῆς. **Hippolytus Ref.** 1.6.5 (text Diels, see note at 12A11 DK) εἶναι δὲ τὸν κύκλον τοῦ ἡλίου ἑπτακαταεικοσαπλάσιονα (τῆς γῆς, ἑννεακαὶδεκαπλάσιονα δὲ τὸν) τῆς σελήνης.

§2 **Empedocles: cf. Diogenes Laertius V.P.** 8.77 (on Empedocles, 31A1 DK) καὶ τὸν μὲν ἥλιόν φησι πυρὸς ἄθροισμα μέγα καὶ τῆς σελήνης μείζω.

§3 **Anaxagoras: Diogenes Laertius V.P.** 2.8 (on Anaxagoras, 59A1 DK) οὗτος ἔλεγε τὸν ἥλιον μύθρον εἶναι διάπυρον καὶ μείζω τῆς Πελοποννήσου. **Hippolytus Ref.** 1.8.8 (on Anaxagoras, 59A42 DK) ὑπερέχειν δὲ τὸν ἥλιον μεγέθει τὴν Πελοπόννησον.

§4 **Heraclitus: Diogenes Laertius V.P.** 9.7 (on Heraclitus, 22A1 DK) εἴρηκε δὲ καὶ περὶ τῶν ἐν κόσμῳ συνισταμένων πάντων παθῶν, ὅτι τε ὁ ἥλιός ἐστι τὸ μέγεθος οἷος φαίνεται. cf. also **Philo of Alexandria Somn.** 1.53 cited above.

§5 *Epicurus*: Cicero *Luc.* 123 *quid tu, Epicure?* (—) *loquere, putas solem esse tantulum? ego ne bis quidem tantum.* *Fin.* 1.20 (—) *sol Democrito* (68A67 DK) *magnus videtur, quippe homini erudito in geometriaque perfecto; huic* (sc. *Epicurus*) *pedalis fortasse: tantum enim esse censet quantus videtur, vel paulo aut maiorem aut minorem.* *Seneca Nat.* 1.3.10 *ad ipsum solem revertere. hunc, quem tot terrarum orbe maiorem probat ratio, acies nostra sic contraxit ut sapientes viri pedalem esse contenderent.* *Tertullian ad Nat.* 2.4.15–16 *Borleffs sed Epicurus* (—) ... *cum et ipse caelum inspicere desiderat, solis orbem pedalem deprehendit. adhuc scilicet frugalitas et in caelis agebatur. denique ut ambitio profecit, etiam sol aciem suam extendit; ita illum orbe maiorem Peripatetici denotaverunt.* cf. *Philodemus* *Περὶ σημειώσεων* 14.5–7 De Lacy τὸν ἥλιον ἁ]ξ[ιοῖ τοῦ φαινομένου πολὺ μ]εῖζον[α εἶναι δι]ᾶ [τὸ ἄφ' ἡ]μ[ῶ]ν ἀπ[ό]στημα.

b Sources and Other Parallel Texts

General texts: *Aristotle Mete.* 1.8 345b1–3 εἰ καθάπερ δεικνύνται νῦν ἐν τοῖς περὶ ἀστρολογίαν θεωρήμασιν, τὸ τοῦ ἡλίου μέγεθος μεῖζόν ἐστιν ἢ τὸ τῆς γῆς. **ps.Plato** (**Philip of Opus**) *Epin.* 983a, καὶ μὴν ὅτι γε δικαίως ἐμψυχα αὐτὰ λέγομεν, πρῶτον τὸ μέγεθος αὐτῶν διανοηθῶμεν. οὐ γάρ, ὡς σμικρὰ φαντάζεται, τηλικαῦτα ὄντως ἐστίν, ἀλλ' ἀμήχανον ἕκαστον αὐτῶν τὸν ὄγκον—πιστεῦσαι δ' ἄξιον ἀποδείξεσιν γὰρ ἱκαναῖς λαμβάνεται—τὸν γὰρ ἥλιον ὅλον τῆς γῆς ὅλης μεῖζω διανοηθῆναι δυνατὸν ὀρθῶς, καὶ πάντα δὴ τὰ φερόμενα ἄστρα θαυμαστόν τι μέγεθος ἔχει cf. list of writings in the *Suda* Φ 418 s.v. φιλόσοφος (i.e. Philip, fr. i Tarán, F 27 Lasserre) l. 8 *Περὶ μεγέθους ἡλίου καὶ σελήνης καὶ γῆς α'.* **Eudemos** at *Simp. in Cael.* 471.2–9 (fr. 146 Wehrli) see ch. 2.15 section E(b) General texts. **Aristarchus** *Περὶ μεγέθων καὶ ἀποστημάτων ἡλίου καὶ σελήνης* (whole treatise extant). **Eratosthenes** see *Macrobius* below. **Archimedes** *Aren.* 9 μετὰ δὲ ταῦτα τὰν διάμετρον τοῦ ἁλίου τὰς διαμέτρου τὰς σελήνης ὡς τριακονταπλασίαν εἶμεν καὶ μὴ μεῖζονα, καίπερ τῶν προτέρων ἀστρολόγων Εὐδόξου (D 13 Lasserre) μὲν ὡς ἑνναπλασίονα ἀποφαινομένου, Φειδία δὲ τοῦ ἀμοῦ πατρὸς ὡς δὴ δωδεκαπλασίαν, Ἀριστάρχου δὲ πεπειραμένου δεικνύειν ὅτι ἐστὶν ἡ διάμετρος τοῦ ἁλίου τὰς διαμέτρου τὰς σελήνης μεῖζων μὲν ἢ ὀκτωκαιδεκαπλασίων, ἐλάττων δὲ ἢ εἰκοσαπλασίων· ἐγὼ δὲ ὑπερβαλλόμενος καὶ τοῦτον ... (cf. *Cicero Luc.* 116 *nec prius quam Archimedes ... rationes omnes descripserit eas quibus efficitur multis partibus solem maiorem esse quam terram*). **Posidonius** F 18 E.-K., 255 Theiler at *Simp. in Phys.* 292.2–5 πολλὰ τοῖνυν ταῦτ' ἐκ κεφάλαιον ἀποδείξει προθήσεται ὅ τε ἀστρολόγος καὶ ὁ φυσικός, οἷον ὅτι μέγας ὁ ἥλιος, ὅτι σφαιροειδὴς ἡ γῆ, οὐ μὴν κατὰ τὰς αὐτὰς ὁδοὺς βαδιοῦνται. **Seneca** *Ep.* 88.27 *magnum esse solem philosophus probabit, quantus sit mathematicus, qui usu quodam et exercitatione procedit.* **Quintilian** *Inst.Or.* 3.6.42 *his etiam ceteri status contineri dicuntur, quia et quantitas modo ad coniecturam referatur, ut: 'maiorne sol quam terra'* (also 7.2.6 cited on A 2.1); 7.4.1 *quantus sol.* **Galen** *Inst.Log.* 2.1 Kalbfleisch (τῶν δὲ προτάσεων) ἔναι μὲν ὑπὲρ ἀπλῆς ὑπάρξεως ἀποφαίνονται, ... ὑπὲρ δὲ τοῦ μεγέθους 'ὁ ἥλιος <ποδιαίος ἐστίν· ὁ ἥλιος> οὐκ ἔστι ποδιαίος', ..., ἔναι δὲ ὑπὲρ τοῦ (πρός) τι 'μεῖζων ἐστὶν ὁ ἥλιος τῆς σελήνης' (οὐ μεῖζων ἐστὶν ὁ ἥλιος τῆς σελήνης) ... *Inst.Log.*

12.3 Kalbfleisch, μέγεθος δὲ καὶ ἡλίου <καὶ> σελήνης καὶ τῶν κατ' αὐτοὺς ἀποστημάτων ἐζήτῃται καὶ δέδεικται τοῖς ἀστρονόμοις. **Alexander of Aphrodisias** in *Met.* 784.7 δύο τινῶν προσδιαλεγόμενων οἶον φέρε εἰπεῖν περὶ τοῦ ἡλίου, τοῦ μὲν λέγοντος ὅτι μείζων ἐστὶν ὁ ἥλιος τῆς γῆς, τοῦ δὲ ὅτι ἐλάττων ... **Lactantius** *Inst.* 3.3.4 Heck–Wlosok *nam causas naturalium rerum disquirere aut scire velle sol utrumne tantus quantus videtur an multis partibus maior sit quam omnis haec terra.* **Basil of Caesarea** in *Hexaem.* 6.1.20 Amand de Mandieta–Rudberg πολλὰ γὰρ περὶ μεγεθῶν καὶ ἀποστημάτων ἡλίου καὶ σελήνης ἐστὶν ἐξευρεῖν τοῖς λογισμοῖς. **Gregory of Nyssa** *An.Res.* 32.11–16 MPG 46, p. 16.15–17.1 Spira εἰ γὰρ μὴ τοῦτο δόξῃ τις ἀληθὲς εἶναι, πῶς, εἰπέ σὺ, πρὸς τὸν ἥλιον βλέπων, καθὼς ἐδιδάχθης παρὰ τοῦ διδασκάλου βλέπειν, οὐχ ὅσος φαίνεται τοῖς πολλοῖς, τοσοῦτον αὐτὸν φῆς εἶναι τῷ μεγέθει τοῦ κύκλου, ἀλλ' ὑπερβαλεῖν πολλαπλάσια τῷ μέτρῳ πάσαν τὴν γῆν; **Macrobius** in *Somn.* 1.20.9 *physici hoc maxime consequi in omni circa magnitudinem solis inquisitione voluerunt, quanto maior possit esse quam terra, et Eratosthenes (fr. 1.41 Bernhardt) in libris dimensionum sic ait: 'mensura terrae septies et vicies multiplicata mensuram solis efficiet'; Posidonius (F 116 E.-K., 261b Theiler) multo multoque saepius, et uterque lunaris defectus argumentum pro se advocat.* **John Philoponus** in *Apr.* 22.18 λήψεται γὰρ ... ὁ ἀποδεικτικὸς ὅτι ὁ ἥλιος μείζων τῆς γῆς ἐστὶ, καὶ εἰ πολλοῖς δοκεῖ ποδιαῖος εἶναι, οὐχ ὥς ὁ διαλεκτικὸς βουλόμενος αἰεὶ κρατεῖν τοῦ προσδιαλεγόμενου ἐκ τῶν παρ' αὐτοῦ ὁμολογουμένων, ἄν τε ἀληθὴ εἴη ἂν τε ψευδῇ. **Simplicius** in *Epict.* 34, p. 68.29 Hadot αἱ δὲ ἴδιαι ἐκάστου ἔννοιαι, καὶ διαμαρτάνουσι πολλάκις· αἱ μὲν, ἐξ αἰσθήσεως λαμβανόμεναι ἀπατωμένης, ὥς, τὸ τὴν σελήνην ἴσην εἶναι τῷ μεγέθει τοῦ ἡλίου.

Chapter heading: cf. **ps.Plato (Philip of Opus)** cited above under General texts. **Epicurus** *Ep.Pyth.* at D.L. 10.91, τὸ δὲ μέγεθος ἡλίου. **Stoics** at D.L. 7.132 μία γὰρ σκέψῃ ἐπικοινωνεῖν αὐτοῦ (sc. τοῦ περὶ τὸν κόσμον λόγου) καὶ τοὺς ἀπὸ τῶν μαθημάτων, καθ' ἣν ζητοῦσι περὶ τε τῶν ἀπλανῶν καὶ τῶν πλανωμένων, οἶον εἰ ὁ ἥλιός ἐστι τηλικούτος ἡλίκος φαίνεται ... **Lucian** *Paras.* 11 (on Epicurus) ὁ γὰρ ζητῶν περὶ σχήματος γῆς καὶ κόσμων ἀπειρίας καὶ μεγέθους ἡλίου καὶ ἀποστημάτων καὶ πρῶτων στοιχείων καὶ περὶ θεῶν, εἴτε εἰσὶν εἴτε οὐκ εἰσὶ ... **Aristarchus** see above General texts. **Ptolemy** *Synt.* 5.17 περὶ μεγεθῶν ἡλίου καὶ σελήνης καὶ γῆς. **Heron Mechanicus** *Geom.* 1.1 Heiberg ἐπεὶ γὰρ ἡ ἀστρονομία περὶ μεγεθῶν τε καὶ ἀριθμῶν καὶ ἀναλογιῶν διαλαμβάνει· τό τε γὰρ μέγεθος ἡλίου καὶ σελήνης πολυπραγμονεῖ. **Macrobius** in *Somn.* 1.20.9 see above under General texts. **Isidore of Seville** *Nat.* 16 *de quantitate solis et lunae.* **Scholia in Aristophanem** in *Nubes* 102c Holwerda, see above on ch. 2.13.

§1 **Anaximander:** **Eudemus** at **Simp.** in *Cael.* 471.6–8 (commenting on **Aristotle** *Cael.* 2.10 291a29–32 = **Eudemus** fr. 146 Wehrli, fuller text on ch. 2.15 section E(b) General texts) τὰ δὲ μεγέθη καὶ τὰ ἀποστήματα Ἥλιου καὶ Σελήνης μέχρι νῦν ἔγνωσται ἀπὸ τῶν ἐκλείψεων τὴν ἀφορμὴν τῆς καταλήψεως λαβόντα, καὶ εἰκὸς ἦν ταῦτα καὶ τὸν Ἀναξίμανδρον (12A19 DK) εὐρηκεῖν

§3 **Anaxagoras:** see **Aristotle** *Mete.* 1.8 345b1 cited above under General texts.

§4 Heraclitus: *Derveni papyrus* IV 5–9 Laks–Most–Piano κατὰ [ταύτ]α Ἡράκλειτος μα[ρτυρόμενος] τὰ κοινὰ κατ[αστρέ]φει τὰ ἴδ[ι]α· ὅσπερ ἔκελα [ἱερῶι]λόγῳ λέγων [ἔφη]· ‘ἥλιο[ς] ...]μου κατὰ φύσιν ἄνθρω[πῆ]τος εὖρος ποδός [ἔστι], τὸ μ[έγεθος] οὐχ ὑπερβάλλων. εἰ γὰ[ρ] τι οὕ[τῃ]ρους ἐ[αυτοῦ] ὑπερβαλε[ῖ], Ἐρινύε[ς] νιν ἐξευρήσου[σι].’ **Aristotle *de An.*** 3.3 428b3–4 οἷον φαίνεται μὲν ὁ ἥλιος ποδιαίος, πιστεύεται δ’ εἶναι μείζων τῆς οἰκουμένης. cf. *Somn.* 1 458b28 καὶ ὑγιαίνουσι δὲ καὶ εἰδόσιν ὅμως ὁ ἥλιος ποδιαίος εἶναι δοκεῖ. *Somn.* 2 460b18–20 τοῦτου δὲ σημεῖον ὅτι φαίνεται μὲν ὁ ἥλιος ποδιαίος, ἀντίφησι δὲ πολλάκις ἕτερόν τι πρὸς τὴν φαντασίαν. **ps.Heraclitus *Ep.*** 9.3 Marcovich θεοῖς ξυνοικῶν δι’ ἀρετῆς οἶδα ἥλιον ὁπόσος ἐστί. **Diogenes Laertius *V.P.*** 9.85 (seventh trope of Aenesidemus) ὁ γοῦν ἥλιος παρὰ τὸ διάστημα †πόρρωθεν† φαίνεται (ποδιαίος conj. Triller, ‘fort. recte’ Dorandi).

§5 Epicurus: *Epicurus Ep.Pyth.* at D.L. 10.91 τὸ δὲ μέγεθος ἡλίου τε καὶ τῶν λοιπῶν ἄστρον κατὰ μὲν τὸ πρὸς ἡμᾶς τηλικούτον ἐστὶν ἡλίκον φαίνεται· ... κατὰ δὲ τὸ καθ’ αὐτὸ ἦτοι μείζων τοῦ ὀρωμένου ἢ μικρὸν ἔλαττον ἢ τηλικούτον τυγχάνει. **Stoics** at D.L. 7.132 μῆξ γὰρ σκέψαι ἐπικοινωνεῖν αὐτοῦ (sc. the cosmos) καὶ τοὺς ἀπὸ τῶν μαθημάτων, καθ’ ἣν ζητοῦσι περὶ τε τῶν ἀπλανῶν καὶ τῶν πλανωμένων, οἷον εἰ ὁ ἥλιός ἐστι τηλικούτος ἡλίκος φαίνεται. **Lucretius *DRN*** 5.564–565 *nec nimio solis maior rota nec minor ardor / esse potest nostris quam sensibus esse videtur. DRN* 585–591 *postremo quoscumque vides hinc aetheris ignes / ... scire licet perquam pauxillo posse minores / esse vel exigua maiores parte brevique. Cleomedes *Cael.* 2.1.1–6 Todd Ἐπίκουρος (—) δὲ καὶ οἱ πολλοὶ τῶν ἀπὸ τῆς αἰρέσεως τηλικούτον εἶναι τὸν ἥλιον ἀπεφήναντο, ἡλίκος φαίνεται, αὐτῇ τῇ διὰ τῆς ὀψεως φαντασίᾳ ἀκολουθήσαντες καὶ ταύτην τοῦ μεγέθους αὐτοῦ κριτήριον ποιησάμενοι. πάρεστιν οὖν ὁρᾶν τὸ ἀκόλουθον τῇ ἀποφάσει αὐτῶν. εἰ γὰρ τηλικούτός ἐστιν, ἡλίκος φαίνεται, οὐκ ἄδηλον, ὥς πολλὰ ὁμοῦ μεγέθη περὶ αὐτὸν γενήσεται ... **Cael.** 2.1 342–344, πῶς ἂν οὖν ποδιαίος εἴη κατὰ πᾶσαν ἔφοδον σχεδὸν ἐμμεθόδως γινομένην ἀπειρομεγέθης εὕρισκόμενος;*

Liber 2 Caput 22

- P^B**: ps.Plutarchus *Plac.* 890D; p. 352^a4–12 Diels—**P^E**: Eusebius *PE* 15.25, p. 402.1–5 Mras—**P^G**: ps.Galenus *HPh* c. 64; p. 626.18–21 Diels; pp. 191–193 Jas—**P^Q**: Qustā ibn Lūqā pp. 158–159 Daiber—**P^{Sch}**: *Scholia Platonica ad Remp.* 498a, pp. 240–241 Greene—cf. **P^{Sy}**: Symeon Seth *CRN* 3.46, p. 50.1 Delatte (titulus solus)
- S**: Stobaeus *Ecl.* 1.25, p. 207.13 (tit.) + 1.25.1d, p. 208.17–18 + 1.25.1g, p. 209.6–7 + 1.25.1h p. 209.12 + 1.25.1, p. 209.14 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b10 Henry (titulus solus)
- T**: Theodoretus *CAG* 4.22, p. 106.4–7 Raeder
- Cf. Ach: Achilles *Univ.* c. 19, p. 27.19–20 Di Maria

Titulus κβ'. Περὶ σχήματος ἡλίου (P,S,T)

- §1 Ἀναξιμένης Ἀλκμαίων πλατὺν ὡς πέταλον τὸν ἥλιον. (P1,S1,3)
- §2 Ἡράκλειτος σκαφοειδῆ, ὑπόκυρτον. (P2,S2,T2)
- §3 οἱ Πυθαγόρειοι <καὶ> οἱ Στωικοὶ σφαιροειδῆ, ὡς τὸν κόσμον καὶ τὰ ἄστρα. (P3,S4,T1)
- §4 Ἐπίκουρος ἐνδέχεσθαι τὰ προειρημένα πάντα. (P4)

5

§1 Anaximenes 13A15 DK; Alcmaeon 24A4 DK; §2 Heraclitus 22A12 DK; §3 Pythagorei —; Stoici SVF 2.654; §4 Epicurus fr. 344 Usener

titulus S vid. app. ad c. 2.20 §1 [2] Ἀλκμαίων S : deest in PT || post πλατὺν add. P^G εἶναι τὸν ἥλιον οἶται || ὡς πέταλον P^{BE}, cf. *eine dünne Platte ist* Q : δ' εἶναι τῷ σχήματι S : ὥσπερ οἶον πέταλον P^G || τὸν ἥλιον P^{BQS} : om. P^E §2 [3] σκαφοειδῆ P^{BEQST}, cf. P^{Sch} σκαφοειδὲς (Diels *DG* app. σφαιροειδὲς per errorem), *daß ihre Gestalt wie diejenige eines Schiffes ist* Q : φακοειδῆ P^G; cf. δισκοειδὲς Ach || post σκαφοειδῆ add. S δ' εἶναι || ὑπόκυρτον P^{B(I-II)EGQSch} S : ἐπίκυρτον P^{B(III-Laur-31.37&80.30)} §3 [4] οἱ Πυθαγόρειοι S : om. PT || καὶ scripsimus, cf. 2.13.15 || οἱ Στωικοὶ P : om. ST || σφαιροειδῆ P^{BEQST} : om. P^{G2} || post σφαιροειδῆ add. S τὸν ἥλιον || [4–5] ὡς (ὥσπερ P^G) ... ἄστρα P : om. S §4 lemma non hab. P^{B(III)S}

Testes primi:

Theodoretus *CAG* 4.22

- 4.22 (~ tit.) καὶ μεγέθους δὲ πέρι καὶ σχήματος πολλή παρ' αὐτοῖς διαμάχη·
- 4.22.1 (~ §3) οἱ μὲν γὰρ αὐτὸν σφαιροειδῆ φασιν,
- 4.22.2 (~ §1) οἱ δὲ σκαφοειδῆ,
- 4.22.3 (cf. 2.20.1) οἱ δὲ ἀρματιαίῳ τροχῷ παραπλήσιον.

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 64 (~ tit.) Περὶ σχήματος ἡλίου (text Jas)

64.1 (~ P1) Ἀναξιμένης πλατὺν εἶναι τὸν ἥλιον οἶται ὥσπερ οἶον πέταλον.

64.2 (~ P2) Ἡράκλειτος φακοειδῆ ὑπόκυρτον.

64.3 (~ P3) οἱ Στωικοὶ σφαιροειδῆ ὥσπερ τὸν κόσμον καὶ τὰ ἄστρα.

64.4 (~ P4) Ἐπίκουρος (ἐν)δέχεσθαι τὰ προειρημένα πάντα.

Scholia Platonica ad Remp. 498a (de Heraclito) οὗτος τὸ τοῦ ἡλίου ἔλεγεν εἶναι σχῆμα σκαφοειδὲς καὶ ὑπόκυρτον (~ P2).

Symeon Seth *CRN* 3.46 Περὶ μεγέθους καὶ σχήματος ἡλίου (~ tit.)

Testes secundi:

Achilles Univ. c. 19, p. 27.19–20 σχῆμα δὲ αὐτοῦ οἱ μὲν δισκοειδὲς (cf. §1), Ἡράκλειτος δὲ σκαφοειδὲς (§2), Στωϊκοὶ δὲ σφαιροειδὲς (§3) εἶναι λέγουσιν.

Loci Aetiani:

titulus et quaestio A 1.14 Περὶ σχημάτων. A 2.2 Περὶ σχήματος κόσμου. A 2.14 Περὶ σχημάτων ἀστέρων. A 2.27 Περὶ μεγέθους σελήνης. A 3.10 Περὶ σχήματος γῆς.

§1 cf. A 2.14.3–4 Ἀναξιμένης ἡλὼν δίκην καταπεπηγέναι τῷ κρυσταλλοειδεῖ. ἔνιοι δὲ πέταλα εἶναι πύρινα, ὥσπερ ζωγραφήματα.

§2 A 2.24.4 (de defectu solis) Ἡράκλειτος κατὰ τὴν τοῦ σκαφοειδοῦς στροφήν. A 2.27.3 (de luna) Ἡράκλειτος σκαφοειδῆ. A 2.28.7 Ἡράκλειτος τὸ αὐτὸ πεπονθέναι τὸν ἥλιον καὶ τὴν σελήνην· σκαφοειδεῖς γὰρ ὄντας τοῖς σχήμασι τοὺς ἀστέρους ... A 2.29.3 (de defectu lunae) Ἀλκμαίων Ἡράκλειτος Ἀντιφῶν κατὰ τὴν τοῦ σκαφοειδοῦς στροφήν ...

§3 cf. A 2.2.1 οἱ μὲν Στωικοὶ σφαιροειδῆ τὸν κόσμον. A 2.14.1 οἱ Στωικοὶ σφαιρικοὺς τοὺς ἀστέρας, καθάπερ τὸν κόσμον καὶ ἥλιον καὶ σελήνην. A 2.27.1 οἱ Στωικοὶ σφαιροειδῆ εἶναι ὡς τὸν ἥλιον. A 3.10.1 Θαλῆς καὶ οἱ Στωικοὶ σφαιροειδῆ τὴν γῆν.

§4 cf. A 2.2.5 Ἐπίκουρος δ' ἐνδέχεσθαι μὲν εἶναι σφαιροειδεῖς τοὺς κόσμους, ἐνδέχεσθαι δὲ καὶ ἐτέροις σχήμασι κεχρησθαι. A 2.13.15 Ἐπίκουρος οὐδὲν ἀπογινώσκει τούτων, ἐχόμενος τοῦ ἐνδεχομένου. A 3.15.11 Ἐπίκουρος ἐνδέχεσθαι μὲν ... ἐνδέχεσθαι δὲ ...

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The tradition of P is well-attested, with all four main witnesses preserving the same four brief doxai. The unusual doxa of Heraclitus gives rise to textual divergences to be discussed below in section D(d). The majority readings are supported by a scholion to Pl. *Resp.* 498a. The text was cited by Diels *DG* 352 (where his reading σφαιροειδὲς is erroneous, perhaps under the influence of the following doxa); see also Mouraviev *IIA* T442, 1181. On this witness see further on ch. 2.24.

(2) Four lemmata in S record material from this chapter, but they represent only three of P's four doxai. The doxai of Anaximenes and Alcmaeon are separated but identical, and doubtless go back to a double name-label in A (the latter was thus deleted by P). The description ὥς πέταλον in P is not recorded by S. In contrast, the doxa of Heraclitus follows on from the citation of A 2.20.6, where there are two name-labels, Heraclitus and Hecataeus. Clearly the second does not belong in this chapter. The doxa that the sun is spherical is abridged and has the name-label 'the Pythagoreans', as opposed to that of the Stoics in P. S has perhaps deleted the Stoic name-label because he quotes a view on the subject of the sun's shape of Chrysippus from AD later in the chapter (1.25.5b). It may be surmised that A originally had a double name-label οἱ Πυθαγόρειοι καὶ οἱ Στωικοί, though this combination is not found elsewhere in the extant *Placita* (but for a double name-label with οἱ Πυθαγόρειοι see A 2.13.15). It is possible that P has substituted a general label for an individual Stoic, as he did in ch. 2.20, but we have no evidence for this. The final Epicurean doxa is not found in S unlike in his previous chapter 1.24 on the stars, where he did retain a very similar view on the stars' shape. He may have left it out at S 1.25.3f because he felt that its mention of 'all the above-mentioned (shapes)' did not cohere well with the process of coalescence in this case.

(3) T only refers to the subject of the sun's shape in the second of the two passages discussed on ch. 2.21. In a chiasitic construction he inverses the order of the doxai of the two chapters, giving those in ch. 22 before those in ch. 21. Two first two anonymous doxai can be identified as those of the Stoics and Heraclitus in P. T has reversed them, no doubt because the former represents the dominant opinion. The third doxa does not correspond to anything in P or S. It is possible that T records material from A that is not preserved by P or S here. It is much more likely, however, that he has extracted the extra material from A 2.20.1, where the exact phrase in question, ἀρματιαίῳ (v.l. ἀρματείῳ) τροχῷ παραπλήσιον, is used for the sun's circle (also adapted in ch. 2.21).

The comment in this chapter by Bottler (2014) 425 that 'der Weg zu »Aëtios« ist bei dieser Textzeugenlage versperrt' is greatly exaggerated. Ach does not belong to the direct tradition of A. T's additional image can be very reasonably explained, as can the missing name-label in S. To be sure, the finalised text cannot be considered absolutely certain, but is solidly based on an understanding of the practices of the relevant witnesses.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The reference to the doxa of Anaximenes in Hippolytus is evidence that doxai of Presocratic views on the subject of the sun's circular shape were taken up in the earlier doxographical tradition. Two texts in

Stoic doxographies in Diogenes Laertius and AD record mentions of the subject by Chrysippus and Posidonius (or his circle). AD fr. 10 on Aristotle also records an argument that the heavenly bodies cannot be made of fire, since their shape is spherical and that of fire is not. This argument is not based on an extant Aristotelian text. The doxography in Ach is much closer to the *Placita*. See the discussion below in section D(e).

(2) *Sources*. The subject of the sun's circular shape is virtually never discussed outside the doxographical tradition, presumably because it was thought obvious and uncontested. The sun will have been included with the other heavenly bodies in Aristotle *Cael.* 2.8 (note esp. 290a7, which is stated to be the common opinion). Admittedly among the Aristotelian commentators Aspasius give it as an example of a ζήτησις, but more representative surely is Alexander's use of it as an example of an opinion that cannot but be true (see texts below under section E(b) General texts).

C Chapter Heading

The chapter heading is of the usual umbrella type Περὶ x and, just like the parallels at chs. 2.2, 2.26 and 3.10, indicates a question in the category of quality. As in the previous chapter, it is identical in all the witnesses of the tradition of P and is incorporated in S's composite title. It is also alluded to by T in his introductory words at 4.22.

D Analysis

a Context

As he will do later in the case of the moon (chs. 2.26–27), A moves from size to shape, i.e. from the category of quantity to quality. This differs from the sequence of chapters on the cosmos as a whole (chs. 2.1–2), the stars (2.13–14) and the earth (3.9–10) where in each case he moves from nature or substance (οὐσία) to shape.

b Number–Order of Lemmata

It can be considered almost certain that the chapter had four lemmata, as preserved in P. Diels' double-column method obscures the reconstruction and results in two doxai too many. There is also no reason to doubt the order of the lemmata in P, which here is corroborated by Ach.

c Rationale–Structure of Chapter

Formally the chapter consists of a list of three shapes, followed by a fourth 'modal' view which stands in opposition to the others. There is a close resemblance to other chapters on the shape of cosmic bodies—the cosmos (2.2), the

stars (2.14), the moon (2.27) and the earth (3.10)—, though each is subtly different. Here A does not commence with the mainstream view that the sun is spherical, but rather with two Presocratic views. As so often, a venerable Ionian commences the list (cf. M–R 2.95). The Pythagoreans in the third doxa form the transition to the dominant view, further represented by the Stoics (as also in chs. 2.2, 14, 27, and 3.10). Epicurus occupies the same place at the end as in A 2.2.5 and 2.13.15 (where the technical term ἐνδέχῃσθαι is also used; see further on 2.2.5). Epicurus does not refer to the subject in the *Ep.Pyth.* If the sun is as it appears (see 2.21.5), then it can hardly be doubted that it is circular (cf. Lucr. *DRN* 5.564 *rota*). So perhaps Epicurus went on record as saying that the sun could have the various shapes consistent with its being circular, e.g. a (small) flat round disc, a round bowl or a sphere. It is also possible, however, that this doxa is simply an extrapolation on the part of the doxographer or an earlier source.

The paucity of references to this topic indicate that it was not regarded as a serious problem by A's time. However, for our doxographer the views of venerable Presocratics serve to demonstrate that even here a plurality of views exists.

d Further Comments

Individual Points

§2 Although this appears to be the only text that gives us a Heraclitean doxa on the sun's shape, it is consistent with other texts which record the theory that it is like a bowl with fire inside, e.g. at D.L. 9.10. The unusual term σκαφοειδής is derived from σκάφη (to which σκάφος and σκαφίς are related), which has as its root σκάπτω (cf. Beekes 2010, 1342). It signifies something that is dug out, most often a winnow, bowl or trough, but also a ship (we correct M–R 2.2.547 here). It is generally assumed that Heraclitus meant something like a bowl, but Q interprets in terms of the meaning 'ship'.

Oddly G records φακοειδῆ, 'lentil-like'. Aristotle uses the term as a possible shape of the cosmos at *Cael.* 2.4 287a20 and Plutarch uses it for the phenomenal appearance of the moon at *Mor.* 288B. Here, however, it must be wrong. For a plausible explanation of how the mistake occurred, see Jas (2018a) 189. But she rightly hesitates to emend the text.

We note, finally, that the idiosyncratic Heraclitean shape is mentioned by A no less than five times, twice for the sun (also 2.24.4) and three times for the moon (2.27.3, 28.7, 29.3). It is surely authentic, yet recorded nowhere else for the Ephesian philosopher.

e Other Evidence

Ach does not have a separate chapter on this subject, but incorporates a brief doxography consisting of three doxai on the sun's shape in his ch. 19. The second and third correspond exactly to P. The first is anonymous. The adjective *δισκοειδής* is used for the moon's shape in A 2.27.4 (Empedocles) and for that of the earth in A 3.10.4 (Democritus). The doxa here may represent approximately the same view as that of Anaximenes in P and S, as suggested by Maass in his text, since a disk is flat and also would explain why the heavenly bodies float in the air. Ach's brief doxography plainly goes back to a shared anterior tradition of the *Placita*.

E Further Related Texts

a Proximate Tradition

General texts: Arius Didymus fr. 10 Diels at Stob. *Ecl.* 1.25.4, p. 212.19 (on Aristotle) οὔτε δὲ τὸν ἥλιον οὔτε τῶν ἄλλων ἀστρων ὅτιοῦν πῦρ εἶναι· σφαιροειδῆ μὲν γὰρ τούτων τὰ σχήματα, πυρὸς δὲ ἐκτός.

Chapter heading: —

§1 Anaximenes Alcmaeon: Hippolytus *Ref.* 1.7.4 (on Anaximenes, 12A7 DK) τὴν δὲ γῆν πλατεῖαν εἶναι, ἐπ' ἀέρος ὀχουμένην· ὁμοίως δὲ καὶ ἥλιον καὶ σελήνην καὶ τὰ ἄλλα ἄστρα πάντα {γὰρ} πύρινα ὄντα ἐποχείσθαι.

§3 Pythagoreans Stoics: Arius Didymus fr. 33 Diels at Stob. *Ecl.* 1.25.5b Χρῶσιππος (*SVF* 2.652) τὸν ἥλιον ... σφαιροειδῆ δὲ εἶναι τῷ σχήματι. **Diogenes Laertius** *VP.* 7.144 (on Posidonius, F 117 E.-K., 265 Theiler) τὸν μὲν ἥλιον ... ἄλλα καὶ σφαιροειδῆ, ὡς οἱ περὶ αὐτὸν τοῦτον φασιν, ἀναλόγως τῷ κόσμῳ.

b Sources and Other Parallel Texts

General texts: Aristotle *Cael.* 2.8 290a7–8 ἔτι δ' ἐπεὶ σφαιροειδῆ τὰ ἄστρα, καθάπερ οἱ τ' ἄλλοι φασὶ καὶ ἡμῖν ὁμολογούμενον εἰπεῖν ... *Cael.* 2.11 291b22–23 (on the heavenly bodies) ὥστ' εἴπερ ἔν τοιούτον, δηλὸν ὅτι καὶ τὰλλα ἂν εἴη σφαιροειδῆ. **ps.Aristotle** *Probl.* 15.8 Διὰ τί ὁ ἥλιος καὶ ἡ σελήνη σφαιροειδῆ ὄντα ἐπίπεδα φαίνεται; **Aspasius** in *EN.* 73.30 ζητούμεν γὰρ καὶ περὶ τῶν μαθηματικῶν, οἷον εἰ ἡ διάμετρος σύμμετρος, καὶ περὶ τῶν ἀδίων, οἷον εἰ ὁ ἥλιος σφαῖρά ἐστι. **Alexander of Aphrodisias** in *Met.* 598.35 ἀλλ' εἰ μὲν δοξάζω ὅτι ὁ ἥλιος σφαῖρά ἐστιν ἀεὶ ἀληθεύσω· οὐ γὰρ ἐνδέχεται χωρισθῆναι αὐτοῦ τοῦτο τὸ σχῆμα, ὥστε δοξάζων αὐτὸν σφαῖραν ψεύδεσθαι, ὥσπερ ἀπὸ σου χωρισθὲν τὸ καθήσθαι ψεύδομαι δοξάζων σε καθῆσθαι, ἀλλ' ἀεὶ ἐστὶν ὁ ἥλιος σφαῖρα· ὥστε καὶ ἐγὼ ἀεὶ δοξάζων τοῦτο ἀεὶ ἀληθεύσω, ἀλλ' οὐ ποτὲ μὲν ποτὲ δ' οὐ. **ps.Justin** *Quaest.Resp.* 172A–B, p. 274 Otto δηλὸν ὅτι δύο ποιήσεις ἔχει ὁ ἥλιος, μίαν μὲν τῆς οὐσίας, ἐτέραν δὲ τῆς κινήσεως· οἷόν ἐστιν ὁ ἥλιος πίλημα, αἰθεροειδὲς τῇ οὐσίᾳ, λαμπρὸς τῷ εἶδει, σφαιροειδὲς τῷ σχήματι, ὦν οὐδὲν διὰ κινήσεως ἔχει ὁ ἥλιος. **Synesius** *Calv.* 8 τὸ δὲ ὁρώμενον ἅπαν ἀκριβεῖς εἰσι σφαῖραι· ἥλιος, σελήνη, πάντες ἀστέρες, ἀπλανεῖς τε καὶ πλάνητες μέσους καὶ μείζους εἰσίν, ἀλλ' ὁμοιοσχήμονες ἅπαντες. **Asclepius** in *Met.* 142.32 οὔτε γὰρ ποτὲ μὲν ἐστὶ σφαιροειδὲς ὁ ἥλιος ποτὲ δὲ οὐκ ἔστιν.

Chapter heading: Aristotle *Phys.* 2.1 193b29 *περὶ σχήματος σελήνης καὶ ἡλίου*. **Posidonius** F 18 E.-K. see above on ch. 2.11 section E(b) General texts. **Simplicius** *in Phys.* 290.17 (commenting on the *Phys.* text) *καὶ φαίνονται μέντοι οἱ περὶ φύσεως πραγματευσάμενοι καὶ περὶ σχήματος ἡλίου καὶ σελήνης λέγοντες*.

§3 Pythagoreans Stoics: Cleomedes *Cael.* 2.2.24 Todd *ἐπεὶ τοίνυν σφαιρικὰ σώματ' ἔστιν ὁ τε ἥλιος καὶ ἡ γῆ ...*

§4 Epicurus: cf. **Lucretius** *DRN* 5.564–565 *nec nimio solis maior rota nec minor ardor / esse potest nostris quam sensibus esse videtur*.

Liber 2 Caput 23

P^P *Papyrus Antinoopolis* 85 fr. 1 verso, p. 75 Barns–Zilliacus—**P^B**: ps.Plutarchus *Plac.* 890D–E; pp. 352^{a1}4–353^{a1}7 Diels—**P^G**: ps.Galenus *HPh* c. 65; pp. 626.22–627.3 Diels—**P^Q**: Qustā ibn Lūqā pp. 158–159 Daiber (titulus solus)

S: Stobaeus *Ecl.* 1.25, p. 207.14 (tit.) + 1.25.1d, p. 208.16–17 + 1.25.3a, p. 209.23–25 + 1.25.3c, p. 210.6–7 + 1.25.3e, pp. 210.26–211.1 + 1.25.3h, p. 211.14–15 + 1.25.3i, p. 211.19–25 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b10–11 Henry (titulus solus)

Titulus κγ'. Περὶ τροπῶν ἡλίου (P,S)

- §1 Ἀναξιμένης ὑπὸ πεπυκνωμένου ἀέρος καὶ ἀντιτύπου ἐξωθεῖσθαι τὰ ἄστρα. (P1,S1)
- §2 Ἀναξαγόρας ἀνταπώσει τοῦ πρὸς ταῖς ἄρκτοις ἀέρος, ὃν αὐτὸς συνωθῶν ἐκ τῆς πυκνώσεως ἰσχυροποιεῖ. (P2,S2) 5
- §3 Διογένης ὑπὸ τοῦ ἀντιπίπτοντος τῇ θερμότητι ψύχους σβέννυσθαι τὸν ἥλιον. (P4,S3)
- §4 Ἐμπεδοκλῆς ὑπὸ τῆς περιεχούσης αὐτὸν σφαίρας κωλυόμενον ἄχρι παντὸς εὐθυπορεῖν καὶ ὑπὸ τῶν τροπικῶν κύκλων. (P3,S4)
- §5 Δημόκριτος ἐκ τῆς περιφερούσης αὐτὸν δινήσεως. (S5) 10
- §6 οἱ Στωικοὶ κατὰ τὸ διάστημα τῆς ὑποκειμένης τροφῆς διέρχεσθαι τὸν ἥλιον· ὡκεανὸς δ' ἐστὶν ἡ γῆ, ἥς τὴν ἀναθυμίασιν ἐπινέμεται· συγκαταφέρεσθαι δὲ τὸν ἥλιον κινούμενον ἔλικα ἐν τῇ σφαίρᾳ, ἀπὸ τοῦ ἰσημερινοῦ ἐπὶ τε ἄρκτου καὶ νότου, ἅπερ ἐστὶ πέρατα τῆς ἔλικος. (P5,S6)
- §7 ἄλλοι δὲ ἐπ' εὐθείας αὐτὸν κινεῖσθαι τὴν ἔλικα οὐ περὶ σφαῖραν 15 ποιοῦντα, περὶ δὲ κύλινδρον. (S7)

§1 Anaximenes 13A15 DK; §2 Anaxagoras 59A72 DK; §3 Diogenes 64A13 DK; §4 Empedocles 31A58 DK; §5 Democritus 68A89 DK; §6 Stoici *SF* 1.508, 2.658; §7 anonymi —

titulus titulum solum exhibet P^Q: de titulo S vid. app. ad c. 2.20 §1 [2] post πεπυκνωμένου add. S δὲ || [2–3] ἐξωθεῖσθαι ... ἄστρα P^{BG}: ἐξωθούμενα τὰ ἄστρα τὰς τροπὰς ποιεῖσθαι S §2 [4] ante ἀνταπώσει hab. S τροπὴν δὲ γίνεσθαι || ἀνταπώσει P^{B(IIID)}: ἀνταπόσει P^{B(II)}: ἀνταπτήσει P^{B(II)}: ἀντασπάσει P^B(Paris 2423): ἀπὸ P^G: ἀνταποδώσει S^F, ἀνταποδόσει S^P || [5] ἰσχυροποιεῖ || ἰσχυρότερον ποιεῖ P^G §3 [6] ψύχους P^{BG}: ψυχροῦ S || [6–7] τὸν ἥλιον P^B: om. P^{GS} §4 [8] περιεχούσης P^{B(IIID)GS}: ἐμπεριεχούσης P^{B(IIID)} || ἄχρι P^{BS}: μέχρι P^G || [9] post κύκλων add. εἰργόμενον P^G §5 [10] non hab. P || Δημόκριτος ἐκ restituimus ex S p. 211.14: τροπὴν δὲ γίνεσθαι ἐκ S §6 [11] οἱ Στωικοὶ P^{BG}: περὶ τῶν τροπῶν φασί S || [11–12] διέρχεσθαι (διεῖναι P^G) ... ἥλιον P^B: om. S. || [15] ὡκεανὸς δ' ἐστὶν ἡ γῆ P^{B(IIID)}: ἡ om. P^{B(IIID)}: ἡ γῆ deest in S, καὶ ἡ μεγάλη θάλασσα vel simile susp. Wachsmuth: al. P^G ὡκεανὸν δὲ καὶ τὴν θάλασσαν παρέχειν τῷ ἡλίῳ τροφὴν τὴν αὐτοῦ ὑγρότητα ἔχουσαν ἐν αὐτῷ καὶ τὴν γεωδὴ ἀναθυμίασιν || [12–14] συγκαταφέρεσθαι ... ἔλικος non exhib. P §7 non hab. P

§8 Πλάτων Πυθαγόρας Ἀριστοτέλης παρὰ τὴν λόξωσιν τοῦ ζῳδιακοῦ κύκλου, δι' οὗ φέρεται λοξοπορῶν ὁ ἥλιος, καὶ κατὰ δορυφορίαν τῶν τροπικῶν κύκλων ταῦτα δὲ πάντα καὶ ἡ σφαῖρα δείκνυσιν. (P6)

§8 Plato cf. *Tim.* 38e–39a; Pythagoras —; Aristoteles cf. AD fr. 32 Diels

§8 lemma non hab. P^{GS} || [17] παρὰ P^{B(I)} : περι P^{B(II,III)}

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis fr. 1 verso = P §§2–5

... [ισχυρο]
 ποι[ει Εμπεδοκλής υπο της περιεχου]
 [σ]ης α[υτον σφαιρας κωλυομενον αχρι]
 παντ[ος ευθυπορειν και υπο των τροπι]
 5 κων κ[υκλων Διογενης υπο του αντιπιπ]
 τ[οντος τη θερμότητι ψυχους σβεννυ]
 σ[θαι τον ηλιον οι Στωικοι κατά τα διαστη]
 μ[α]

ps.Galenus *HPh* c. 65 (~ tit.) Περί τροπῶν ἡλίου (text Diels)

65.1 (~ P1) Ἀναξιμένης ὑπὸ πεπυκνωμένου ἀέρος καὶ ἀντιτύπου ἐξωθεῖσθαι τὰ ἄστρα.

65.2 (~ P2) Ἀναξαγόρας ἀπὸ τοῦ πρὸς ταῖς ἄρκτοις ἀέρος * * * τῆς πυκνώσεως ἰσχυρότερον ποιεῖ.

65.3 (~ P3) Ἐμπεδοκλῆς ὑπὸ τῆς περιεχούσης αὐτὸν σφαῖρας κωλυόμενον μέχρι παντὸς εὐθυπορεῖν καὶ ὑπὸ τῶν τροπικῶν κύκλων εἰργόμενον.

65.4 (~ P4) Διογένης ὑπὸ τοῦ ἀντιπίπτοντος τῇ θερμότητι ψυχους σβέννυσθαι.

65.5 (~ P5) οἱ Στωικοὶ κατὰ τὸ διάστημα τῆς ὑποκειμένης τροφῆς διέναι τὸν ἥλιον ὥκεανὸν δὲ καὶ τὴν θάλασσαν παρέχειν τῷ ἡλίῳ τροφήν τὴν αὐτοῦ ὑγρότητα ἔχουσιν ἐν αὐτῷ καὶ τὴν γεώδη ἀναθυμίασιν.

Loci Aetiani:

titulus et quaestio cf. capitulum Περί κινήσεως κόσμου (deest post A 2.2?). A 2.8

Περὶ τοῦ τίς ἢ αἰτία τὸν κόσμον ἐγκλιθῆναι. A 2.12 Περὶ διαιρέσεως οὐρανοῦ, εἰς πόσους κύκλους διαιρεῖται. A 2.16 Περὶ τῆς τῶν ἀστέρων φορᾶς καὶ κινήσεως. A 3.12 Περὶ ἐγκλίσεως γῆς. A 3.13 Περὶ κινήσεως γῆς.

§2 A 2.8 Διογένης Ἀναξαγόρας μετὰ τὸ συστήναι τὸν κόσμον καὶ τὰ ζῶα ἐκ τῆς γῆς ἐξαγαγεῖν ἐγκλιθῆναι πως τὸν κόσμον ἐκ τοῦ αὐτομάτου εἰς τὸ μεσημβρινὸν αὐτοῦ μέρος ...

§§4,7 A 2.1.6 Ἐμπεδοκλῆς τὸν τοῦ ἡλίου περίδρομον εἶναι περιγραφὴν τοῦ πέρατος τοῦ κόσμου. A 3.10.2 Ἀναξίμανδρος λίθω κίονι τὴν γῆν προσφερῇ ... A 2.27.6 (de luna) ἄλλοι κυλινδροειδῆ.

§6 A 2.20.6 (de sole) Ἡράκλειτος Ἑκαταῖος Κλεάνθης ἀναμμα νοερὸν ἐκ θαλάτ-

της. A 2.17.4 Ἡράκλειτος καὶ οἱ Στωικοὶ τρέφεσθαι τοὺς ἀστέρας ἐκ τῆς ἐπιγείου ἀναθυμιάσεως.

§8 A 2.12.1 Θαλῆς Πυθαγόρας οἱ ἀπ' αὐτοῦ μεμερίσθαι τὴν τοῦ παντὸς οὐρανοῦ σφαῖραν εἰς κύκλους πέντε, οὓστινας προσαγορεύουσι ζώνας· ... λοξὸς δὲ τοῖς τρισὶ μέσοις ὁ καλούμενος ζωδιακὸς ὑποβέβληται, παρεπιψάων τῶν μέσων τριῶν· πάντας δ' αὐτοὺς ὁ μεσημβρινὸς πρὸς ὀρθὰς ἀπὸ τῶν ἄρκτων ἐπὶ τὸ ἀντίξουν τέμνει. de orbe signifero obliquo cf. A 2.9 Περὶ τοῦ ἐκτὸς τοῦ κόσμου, εἴ ἔστι κενόν; A 2.12.2 Πυθαγόρας πρῶτος ἐπινενοηκέναι λέγεται τὴν λόξωσιν τοῦ ζωδιακοῦ κύκλου, ἣντινα Οἶνοπίδης ὁ Χίος ὡς ἰδίαν ἐπίνοιαν σφετερίζεται

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The chapter is less-well attested than usual in the P tradition. In addition to the Byzantine mss. there is only G, who retains all of the six doxai in P^B except the last. E does not include the chapter and Q records only the title (no doubt caused by haplography). In addition, this chapter is the first for which there is a tiny amount of evidence from a very early copy of P. On the remains of this third cent. codex from Antinoopolis see Barns–Zilliacus (1960–1967) 2.74–81, 3.181–182, M–R 1.126–130. The papyrus snippet contains residual letters from the second to the fifth doxa in P^B, but they are of no significance for determining any textual matters. It demonstrates that the lemmata were written continuously without a break, as was standard practice.

(2) In S the doxai of Anaximenes, Anaxagoras, Diogenes and Empedocles are found joined up with doxai from other chapters on the sun under the corresponding name-label, requiring various small adaptations to the text (in the case of Diogenes S omits to do this, so that the reader would have had no idea of the subject of the doxa). A doxa on the subject attributed to Democritus has no equivalent in P (the words τροπὴν δὲ γίνεσθαι will have been added to the original in A). Because of the process of coalescence S cannot help us with the question of where this doxa was originally placed in A. There is no trace of the doxa attributed to Plato–Pythagoras–Aristotle that is present in P (also deleted by G). It has no doubt been replaced by the long excerpt from AD on Aristotelian doctrine at S 1.25.4.

The greatest difficulty presented by S's evidence is the material on the Stoics. The Stoic doxa in P is found in S under the name-label Cleanthes and follows the lemma taken from A 2.20.6. S commences with περὶ δὲ τῶν τροπῶν φασι,

and the evidence from P strongly suggests that this phrase replaces the name-label οἱ Στωικοί in P. However, S continues with another passage consisting of two lemmata which Diels left out of his reconstruction (only referring to it in the addenda at *DG* 853) and are also not included by Von Arnim in *SVF*. These lemmata are discussed further in the Analysis below at section D(c)(6).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* References to the subject of the sun's annual motion between the extremes of the two solstices and its causes in the doxographical tradition are scarce. In Hippolytus there is a record of Anaxagoras' view which is parallel to, if a little less explicit, than what is found in A. There is no mention of any early non-standard theories on the sun's movement in Achilles' chapter on the sun, or in ch. 23 on the zodiacal circles and ch. 25 on the five parallel circles of the heavens. Philo at *Mut.* 67 refers to the subject of this chapter when summarising the subjects studied by the investigator of the heavens. This text can be linked to other passages that he wrote at about the same time (*Somn.* 1.21–24, 1.53) which clearly show knowledge of an earlier version of the *Placita* (see further on chs. 2.11, 2.13 and 2.21).

(2) *Sources.* There is ample evidence that the subject of the sun's annual motion between the extremes of the two solstices and its causes was much discussed in Presocratic writings. Thales is credited with being the first to make discoveries on the subject and even to have written a treatise on it (see D.L. 1.23, text below). The τροπαί of the sun and other heavenly bodies were one of the subjects for which Socrates wanted to read the book of Anaxagoras (*Phd.* 98a, cf. Mansfeld 2000a, 12). The material included in this chapter will no doubt go back to these discussions. The reason why so little remains of the discussion is doubtless the dominance of the standard astronomical model once the movements of the sun and other planets had been convincingly explained. Aristotle refers obliquely to some of these discussions in his *Meteorology* when discussing the origins of the sea (see ch. 3.16), but sees no reason to take them seriously (texts below in section E(b) General texts).

We have not yet mentioned, however, some significant evidence in Epicurus. In *Ep.Pyth.* 93 he gives four possible explanations of the τροπαί of the sun, all of which can be located in A's chapter. These are discussed in more detail below in section D(e) below. It is inconceivable that A and the Epicurean account are entirely independent of each other. It is well possible that he made use of discussions in the works of Theophrastus, but there is no conclusive evidence for this hypothesis. See further Mansfeld (1994a) and Runia (2018) 404, 413. It should be noted that when Alexander comments on the Aristotelian

passages mentioned above (*Mete.* 2.1 353b6–9), he states that the view mentioned there is attributed by Theophrastus to Anaximander and Diogenes. But this differs from the evidence in our chapter (Anaximander is not mentioned, a different view attributed to Diogenes in §3). A fuller account of Epicurus' use of the *Placita* given in Runia (2018), where it is argued that Epicurus represents a particularly fascinating case because he is not only prominent in the *Placita* himself, but clearly in his exploitation of earlier philosophical views he has made use of material that would subsequently be distilled into the tradition of *Placita*. An alternative hypothesis is that both Epicurus and the *Placita* independently of each other are dependent on work such as Theophrastus' Φυσικὰ δόξαι, but in our view the correspondences between the two in this chapter are too close, *pace* Sedley (1998b) 165–185, to make this alternative plausible.

C Chapter Heading

All three witnesses in the tradition of P have the same heading (it is all that Q preserves) and S alludes to it in his composite heading for his chapter on the sun. The heading as preserved follows the usual umbrella type Περί x and poses a question relating to the cause, in this case of the motion of a particular entity (cf. ch. 2.16). See further below in section D(c).

D Analysis

a Context

The subject of the sun's motion follows on logically from the previous chapters on its nature, size and shape. Unlike in the parallel sequences on the cosmos (if our conjecture is correct, see the appendix to ch. 2.2) and the stars, there is no chapter Περί κινήσεως ἡλίου. Instead the chapter focuses on the solstices, which in the geocentric model of the universe was the most striking feature of the sun's motion.

b Number–Order of Lemmata

As noted above, the evidence in S adds three doxai to the six in P, making nine in all. It might, however, be questioned whether the final two lemmata following the Stoic doxa are in fact taken from A. The return to the accusative and infinitive construction after the intervening sentence in direct speech is certainly rather harsh. An alternative would be that they form an extract from AD that has been added to the Stoic material. But the final lemma appears to give a Presocratic view, and so is hardly likely to come from this source. It is of course always possible that S has added them from a third unknown location. We might compare the Stoic lemma at S 1.21.3b which was also difficult to

place; see the above-mentioned Appendix to ch. 2.2. Since, however, it is beyond doubt that the lemmata could have been present in A, it is safest to include them in our reconstruction.

Because, except for the group of three lemmata just discussed, S does not preserve any doxa from this chapter in blocks, we have only the evidence of P to help us determine the original order of the doxai. In general P preserves the order of A, though there are exceptions. In M–R 2.552–561 we attempted a rearrangement of the doxai in terms of a systematic diaeretical structure which involved deviating from the order of P. We now think that this attempt was too speculative and will offer an alternative which for the most part retains the order as found in P.

c Rationale–Structure of Chapter

Firstly it should be noted that all the doxai in P and the additional Democritean doxa in S are formulated by means of prepositional phrases answering the question ‘why (διὰ τί) does the sun move between the two solstices’. This is obscured by the bland wording of the heading Περὶ τροπῶν ἡλίου. One wonders whether an earlier heading may have been διὰ τί ὁ ἥλιος τὰς τροπὰς ποιεῖται or even πῶς ὁ ἥλιος τὰς τροπὰς ποιεῖται. It must be admitted, however, questions of this type seldom occur in the cosmological Books 2 and 3, only occurring in the longer titles of chs. 2.19 and 2.30.

Our reconstruction can proceed in the following steps:

(1) The first four doxai in P and S all answer the question in terms of some kind of opposition which causes the sun to stop and turn. The first two involve the air, Anaximenes’ (older) view applying to the heavenly bodies in general. (cf. ch. 2.16), while Anaxagoras refers specifically to the sun. These two doxai clearly belong together, although they are not formulated in opposition to each other. The second can perhaps be regarded as a more developed version of the first.

(2) The next view in P is that of Empedocles, which states that the turnings (τροπαί) occur ‘by the sphere that surrounds it’. It may be best to take this literally. For Empedocles the sun has its own straight movement (εὐθυπορεῖν), which causes it at some stage to bump up against the crystalline mass of the outermost heavenly sphere (cf. A 2.11.2, 2.13.11), causing it to turn. (We owe this explanation to D. Couprie; see further below at (5).) It is followed by the view of Diogenes, which also involves cold (cf. Anaxagoras), but surprisingly the air is not mentioned and the sun is said to be quenched. This does not, however, *pace* Diels *DG* 62 and Laks (2008) 207 have to refer to extinction of the sun (as will be the case for the lemma of Xenophanes on eclipses in ch. 2.24). It could also mean diminution of power. It would be more logical to have this view fol-

low the view of Anaxagoras, as occurs in the sequence of S. We must bear in mind that in his process of coalescence the order is primarily determined by the doxai in ch. 2.20. We will return to this question in (5) below.

(3) The next doxa is attributed to the Stoics, and is well known from other sources (see below section D(d)§7). The movement of the sun and its solstices is determined by the presence or absence of sustenance for the sun through the exhalations of ocean and land. It follows on from Diogenes' view, both emphasising change of circumstances, though of quite a different nature.

(4) The final view in P is the explanation in terms of the standard cosmological model attributed to the heavyweights Plato–Pythagoras–Aristotle. This is the first mention of the role of the ecliptic in the chapter (it was earlier mentioned in chs. 2.9 and 2.12). Here the sun travels its own course along the ecliptic until it reaches the tropics. The role of the latter, stated in terms of 'guardianship' recalls the doxa of Empedocles. For the doxa's place in the chapter see (6) below.

But now the difficult task of integrating the extra material in S awaits us.

(5) It is not possible to determine with any certainty the position of the Democritean lemma, since S has separated it from other doxai in the chapter. A clue might be the parallelism of expression (so loved by A) between it and the Empedoclean lemma: ἐκ τῆς περιφερούσης αὐτὸν δινήσεως and ὑπὸ τῆς περιεχούσης αὐτὸν σφαίρας. This, when added to the link between the lemmata of Anaxagoras and Diogenes above, leads us to deviate from the order in P and place the latter before the view of Empedocles. This allows the two doxai of Empedocles and Democritus to be juxtaposed. For the latter the explanation given is only in terms of the whirling of the vortex. For Empedocles in contrast the movement is straight (εὐθύπορεῖν) until blocked (see (2) above). It would still have to be in a spiral in order to explain the movement up and down. How this spiral movement relates to the role of the vortex in Empedocles' cosmogony and cosmology is not clear and cannot be broached here; see for example the discussion of the baffled Furley (1987) 91–94 (but he does not discuss this text). A further contrast between the two doxai is that Empedocles' view involves the independent movement of the sun, and so anticipates later views in the chapter.

(6) What remains in S is the additional material in 1.25.3i, which is tacked on to the views of the Stoics also found in P. As noted above in section A(2), this text is not found in Diels' text in *DG*, but he noted in the Appendix that it should be added after the Stoic doxa. This does seem a logical move. (It is not likely that it derives from AD, given the extracts from that source (fr. 32–33 Diels) later in the same chapter at 1.25.5. Though S's text does not contain a verb of movement in the first part, διέρχεσθαι can safely be supplied

from P's text. The verb συγκαταφέρεισθαι then continues the explanation of movement. Without the dative the prefix συγ- suggests an additional movement (not concomitant movement as at A 2.13.9–10). This would be the circular movement around the (spherical) earth, in addition to the up and down movement between the tropics, together making a spiral. There is nothing in this description that is not consistent with Stoic views assuming a spherical earth in a spherical cosmos (though, as already noted, the text is not included in *SVF*).

The remaining sentence then contrasts another group (ἄλλοι δέ) who make this movement in a straight line, i.e. not around a sphere, but around a cylinder. The straight movement (ἐπ' εὐθείας) recalls the description in the doxa of Empedocles (εὐθυπορεῖν). At M–R 2.557 we suggested the contrast here was between a vortex model and a centrifocal model. Couprie in a forthcoming article disagrees with this suggestion, but approves of the link with the earlier view of Empedocles (which he develops substantially further). He argues that unspecific reference to 'others' in fact has Empedocles in mind. However this may be, the contrast with the earlier, probably Stoic, view is clear.

The final question is where this additional material should be placed in relation to the doxa of Plato–Pythagoras–Aristotle. It might be thought that the anonymous doxa should come last, as often occurs in A (examples in this book at chs. 2.14, 2.26–27, 2.32). The difficulty here is that it almost certainly follows on from the latter part of the Stoic doxa. But the first part of that doxa, as we saw, follows on well from the earlier Presocratic views in the first five doxai. Moreover, it precedes the doxa of Plato etc. in P. So it will be best to place the latter doxa last, as it occurs in P, even though it is not usual for A to reserve the final position for a really significant view. The reference to 'the sphere' preceded by the word καί ('the sphere too') might be thought to link up to the two references in the other Stoic and anonymous doxai, but here it is the sphere as teaching model that is meant (as illustrated on the famous Naples mosaic), not the shape of the earth or cosmos.

The chapter's structure, as best we can reconstruct it, is rather loose, moving from rather obscure and limited Presocratic views, via the Stoa with its surprising adoption of a view which also has these roots, to the more sophisticated and by A's time generally accepted view of the standard model.

d Further Comments *Individual Points*

§6 We have retained the text in P, which makes tolerable sense. But other Stoic texts explaining the source of the sun's heat only mention the oceanic exhalation, not the earthly one (AD on Chrysippus at S 1.25.5b = *SVF* 2.652, Cleanthes

at Cic. *ND* 2.40, 3.37 = *SVF* 1.504, 501). Indeed in the second text in Cicero it is implied that the reason for the solstices is that the sun turns back on running out of oceanic exhalations to feed on (cf. Hahm 1977, 151). The textual problems in S and the adaptation in G also imply that we do not have A's original text. Wachsmuth's conjecture 'the ocean (and the great sea)' is attractive because it provides an alternative feminine antecedent for ἡς rather than the difficult γῆ. It is just possible that G's mention of τὴν θάλασσαν preserves an earlier text. But if we read θάλασσα instead of γῆ, then there would have been no reference to the ἀναθυμίαςις on land to which G also refers. It is more likely that G gives us a paraphrase of what he read in P. There is little alternative in our view but to print the text as recorded in P.

The Stoic view on the sun's nourishment had Presocratic antecedents, as recorded by Aristotle, who criticizes it sharply; cf. *Mete.* 2.2 353b6–9, 354b34–355a1 (texts below section E(b) General texts). See our comments on A 2.17.4 and 2.20.6. He also mentions and criticizes the view that air causes the solstices (355a24), which brings to mind the views of Anaximander and Anaxagoras recorded in §§1–2.

§7 A cylindrical shape ('like a stone pillar') is attributed to the earth as the doxa of Anaximander at ch. 3.10.2. This doxa would seem to refer to an early Presocratic view no longer preserved elsewhere. As noted above, Couprie links this doxa with §4 and suspects that the view can be ascribed to Empedocles, but there is no further evidence for this.

§8 The weighty triple name-label Plato–Pythagoras–Aristotle is used for the view that represents the dominant standard model of ancient cosmology as developed from the fourth century BCE onwards. The same combination also occurs at A 2.10.1 on the right and left parts of the cosmos and elsewhere at A 4.20.1 and 5.4.2. In the other three cases A follows the chronological order Pythagoras–Plato–Aristotle. Plato perhaps comes first here because of the astronomy of the *Timaeus*; cf. 38e–39a, where the ecliptic and the spiral twist (ἐλιξ, cf. §6) are mentioned, but not the movement between the tropics. But of course Pythagoras is also associated with this work, e.g. at A 2.6.5. It is to be noted that AD includes a separate mention of the motions of the sun in his account of Aristotle's doctrine of the sun at S 1.25.4 (fr. 10 Diels), even though there is no mention of this subject in the *De caelo*.

e Other Evidence

As noted above in section B, Epicurus in giving an account of the τροπαί of the sun at *Ep.Pyth.* 93 gives four possible explanations, all of which can be paralleled with doxai in the present chapter: (1) tilting, cf. Plato–Pythagoras–Aristotle; (2) the resistance of air, cf. Anaxagoras; (3) the presence or absence

of combustible material, cf. the Stoa; (4) the vortex, cf. Democritus (and for the reference to the helix cf. the Stoa and the anonymous view). We note also similarities of vocabulary: κατὰ λόξωσιν (first recorded use of the term) cf. §8; κατὰ ἀέρος ἀντέξωσιν cf. §2; δίνην cf. §5; ἑλικά cf. §§6–7. Epicurus concludes by saying all these theories do not conflict with what is possible (ἐχόμενος τοῦ δυνατοῦ). A could have easily added here Ἐπίκουρος οὐδὲν ἀπογινώσκει τούτων, ἐχόμενος τοῦ ἐνδεχομένου, i.e. a formulation parallel to A 2.13.15 on the stars' substance. Lucretius follows his master at 5.614–649, but gives only two reasons: (1) the whirl explicitly attributed to Democritus (5.621–628, cf. §5); and (2) the pushing of air (5.637–642, cf. §2). Diogenes of Oenoanda mentions the sun's oblique course (fr. 13 Smith).

E Further Related Texts

a Proximate Tradition

General texts: Eudemos in D.L. 1.23 (on Thales, 11A1 DK) δοκεῖ δὲ κατὰ τινὰς πρῶτος ἀστρολογῆσαι καὶ ἡλιακάς ἐκλείψεις καὶ τροπὰς προειπεῖν, ὡς φησιν Εὐδημος (fr. 144 Wehrli) ἐν τῇ Περὶ τῶν ἀστρολογουμένων ἱστορίᾳ. cf. **Heron Mechanicus** Def. 11 τίς τί εὗρεν ἐν μαθηματικοῖς; Εὐδημος (fr. 145 Wehrli) ἱστορεῖ ἐν ταῖς Ἀστρολογίαις ὅτι Οἰνοπίδης (41A7 DK) εὗρε πρῶτος ... Θαλῆς (fr. 93 Wöhrle) δὲ ἡλίου ἔκλειψιν καὶ τὴν κατὰ τροπὰς αὐτοῦ πάροδον, ὡς οὐκ ἴση αἰεὶ συμβαίνει; also **Theon of Smyrna** Exp. 198.14–18 Hiller (see further on ch. 2.32). cf. **Aelian** V.H. 10.7 ὅτι Μέτων ὁ Λευκονοιεὺς ἀστρολόγος ἀνέστησε στήλας, καὶ τὰς τοῦ ἡλίου τροπὰς κατεγράψατο, καὶ τὸν μέγαν ἐνιαυτὸν ὡς ἔλεγεν εὗρε, καὶ ἔφατο αὐτὸν ἐνὸς δέοντα εἶκοσιν ἐτών. **Philo of Alexandria** Mut. 67 μετέωρον τοῖνυν ἀλληγοροῦντες φαμεν τὸν ἀπὸ γῆς ἑαυτὸν εἰς ὕψος αἴροντα καὶ ἐπισκοποῦντα τὰ μετάρσια, μετεωροπῶλον τε καὶ μετεωρολογικόν, ἐρευνῶντα τί ἡλίου μέγεθος, τίνες αὐτοῦ φοραί, πῶς τὰς ἐτησίους ὥρας διανέμει προσιῶν καὶ ἐξαναχωρῶν πάλιν ἱσοταχέσι ταῖς ἀνακυκλήσεσι. **Seneca** Nat. 2.1.1 *quemadmodum* (sc. caelum) *anni vices servet, solem retro flectat* (for context see text quoted on ch. 2.11). **Ambrose of Milan** Exc.Fratr. 2.86, p. 296.1–2 *Faller de solis cursu caelique ratione philosophi disputant et sunt qui putant his esse credendum, cum quid loquantur ignorant*. **Symeon Seth** CRN 3.31 ἔδοξαν τινες τρέφεσθαι τὸν ἥλιον καὶ τοὺς ἀστέρας ἐκ τῶν ἀνερχομένων ἀτμῶν ἀπὸ τῆς γῆς καὶ ὡς διὰ τοῦτο ποιεῖται τὴν λόξωσιν ὁ ἥλιος, διὰ τὸ ἀπὸ τῶν ἀτμῶν τρέφεσθαι.

Chapter heading: **Diogenes Laertius** V.P. 1.23 (on Thales, 11A1 DK) κατὰ τινὰς δὲ μόνᾳ δύο συνέγραψε Περὶ τροπῆς καὶ Ἰσημερίας. **Aelian** cf. V.H. 10.7 cited above. **Eusebius** PE 10.14.10 Θαλῆς ὁ Μιλήσιος (fr. 265 Wöhrle) φυσικὸς πρῶτος Ἑλλήνων γεγονώς περὶ τροπῶν ἡλίου ... καὶ ἰσημερίας διελέχθη.

§2 **Anaxagoras: Hippolytus** Ref. 1.8.9 (on Anaxagoras, 59A42 DK) τροπὰς δὲ ποιεῖσθαι καὶ ἥλιον καὶ σελήνην ἀπωθουμένους ὑπὸ τοῦ ἀέρος.

§8 **Aristotle: Arius Didymus** at Stob. Ecl. 1.25.4 (on Aristotle, fr. 10 Diels) καὶ τοῦ μὲν ἐτέρου τῶν τροπικῶν ἐφαψάμενον (sc. τὸν ἥλιον) βραχυτάτην ποιεῖν τὴν ἡμέραν, μακροτάτην δὲ τὴν νύκτα· θατέρου δὲ ἀνάπαλιν.

b Sources and Other Parallel Texts

General texts: Plato *Phd.* 98a (on Socrates reading Anaxagoras) και δὴ και περι ἡλίου οὕτω παρεσκευάσμεν ὡσαύτως πευσόμενος, και σελήνης και τῶν ἄλλων ἀστρων τάχους τε πέρι πρὸς ἄλληλα και τροπῶν και τῶν ἄλλων παθημάτων. **Aristotle** *Met.* A.2 982b12–17 ... εἶτα κατὰ μικρὸν οὕτω προϊόντες και περι τῶν μειζόνων διαπορήσαντες, οἷον περι τε τῶν τῆς σελήνης παθημάτων και τῶν περι τὸν ἥλιον και ἀστρα ... (for full text see on chs. 2.4, 2.16). *Mete.* 2.1 353b6–9 (on the origin of the sea, 12A27 DK) οἱ δὲ σοφώτεροι τὴν ἀνθρωπίνην σοφίαν ποιούσιν αὐτῆς (sc. τῆς θαλάττης) γένεσιν· εἶναι γὰρ τὸ πρῶτον ὑγρὸν ἅπαντα τὸν περι τὴν γῆν τόπον, ὑπὸ δὲ τοῦ ἡλίου ξηραίνόμενον τὸ μὲν διατμίσαν πνεύματα και τροπὰς ἡλίου και σελήνης φασὶ ποιεῖν. cf. **Alexander of Aphrodisias** in *Mete.* 67.3–12 οἱ μὲν γὰρ αὐτῶν ὑπολειμμα λέγουσιν εἶναι τὴν θάλασσαν τῆς πρώτης ὑγρότητος. ὑγροῦ γὰρ ὄντος τοῦ περι τὴν γῆν τόπου κάπνεται τὸ μὲν τι τῆς ὑγρότητος ὑπὸ τοῦ ἡλίου ἐξατμίζεσθαι και γίνεσθαι πνεύματά τε ἐξ αὐτοῦ και τροπὰς ἡλίου τε και σελήνης, ὡς διὰ τὰς ἀτμίδας ταύτας και τὰς ἀναθυμιάσεις κάκείνων τὰς τροπὰς ποιουμένων, ἔνθα ἡ ταύτης αὐτοῖς χορηγία γίνεται, περι ταῦτα τρεπομένων· τὸ δὲ τι αὐτῆς ὑπολειφθὲν ἐν τοῖς κοίλοις τῆς γῆς τόποις θάλασσαν εἶναι· διὸ και ἐλάττω γίνεσθαι ξηραίνομένην ἐκάστοτε ὑπὸ τοῦ ἡλίου και τέλος ἔσεσθαι ποτε ξηράν. ταύτης τῆς δόξης ἐγένετο, ὡς ἱστορεῖ Θεόφραστος (fr. 221 FHS&G), Ἀναξίμανδρός (12A27 DK) τε και Διογένης (64A17 DK). **Epicurus** *Ep.Pyth.* at D.L. 10.93 τροπὰς ἡλίου και σελήνης ἐνδέχεται μὲν γίνεσθαι κατὰ λόξωσιν οὐρανοῦ οὕτω τοῖς χρόνοις κατηναγκασμένου· ὁμοίως δὲ και κατὰ ἀέρος ἀντέξωσιν ἢ και ὕλης αἰε ἐπιτηδεῖας ἐχομένως ἐμπιπραμένης τῆς δ' ἐκλείπουσιν· ἢ και ἐξ ἀρχῆς τοιαύτην δίνην κατειληθῆναι τοῖς ἀστροῖς τούτοις, ὥσθ' οἶόν τιν' ἔλικα κινεῖσθαι. πάντα γὰρ τὰ τοιαῦτα και τὰ τούτοις συγγενῇ οὐθενὶ τῶν ἐναργημάτων διαφωνεῖ, ἐάν τις αἰε ἐπὶ τῶν τοιούτων μερῶν, ἐχόμενος τοῦ δυνατοῦ, εἰς τὸ σύμφωνον τοῖς φαινομένοις ἕκαστον τούτων δύνῃται ἐπάγειν, μὴ φοβούμενος τὰς ἀνδραποδῶδεις ἀστρολόγων τεχνιτεῖας. **Lucretius** *DRN* 5.614–620 *nec ratio solis simplex (et) recta patescit, / quo pacto aestivis e partibus aegocerotis / brumalis adeat flexus atque inde revertens / canceris ut vertat metas ad solstitialis / ... / non, inquam, simplex his rebus reddita causast.* **Diogenes of Oenoanda** fr. 13 col. 1 Smith οἱ μὲν αὐτῶν (sc. the heavenly bodies) ἀλλήλοισι συναντῶσιν, οἱ δ' οὐ· και οἱ μὲν τὸν ὀρθὸν ἔως τινὸς περαιοῦσιν δρόμον, λοξὸν δ' ἕτεροι, ὥσπερ ὁ ἥλιος και ἡ σελήνη, οἱ δὲ τὸν αὐτοῦ κύκλον στρέφονται, καθάπερ ἡ ἄρκτος· ἔτι δ' οἱ μὲν ὑψηλὴν ζώνην φέρονται, οἱ δ' αὖ ταπεινήν.

Chapter heading: cf. *Scholia in Hesiodum Op.* 477bis Pertusi λεκτέον δὲ και περι τῶν τοῦ ἡλίου τούτων τροπῶν. *Astrologica Περὶ τῶν ἐπτὰ ζωνῶν* 7, p. 360.6 Kunze Περι τῶν τεσσάρων τρόπων τοῦ ἡλίου και ἀνατολῶν και τῶν δύσεων.

§§1–2 *Anaximenes Anaxagoras*: cf. **Aristotle** *Mete.* 2.2 355a21–25 τὸ δ' αὐτὸ συμβαίνει και τούτοις ἄλογον και τοῖς φάσκουσι τὸ πρῶτον ὑγρὰς οὔσης και τῆς γῆς, και τοῦ κόσμου τοῦ περι τὴν γῆν ὑπὸ τοῦ ἡλίου θερμαινόμενου, ἀέρα γενέσθαι και τὸν ὅλον οὐρανὸν αὐξηθῆναι, και τούτον πνεύματά τε παρέχεσθαι και τὰς τροπὰς αὐτοῦ ποιεῖν.

§2 *Anaxagoras*: see **Plato** *Phd.* 98a above.

§5 **Democritus:** *Lucretius DRN* 5.621–628 (follows on from text above) *nam fieri vel cum primis id posse videtur, / Democriti quod sancta viri sententia ponit, / quanto quaeque magis sint terram sidera propter, / tanto posse minus cum caeli turbine ferri; / evanescere enim rapidas illius et acris / imminui sup̄ter viris, ideoque relinqui / paulatim solem cum posterioribus signis, / inferior multo quod sit quam fervida signa. DRN* 637–642 *fit quoque ut e mundi transversis partibus aër / alternis certo fluere alter tempore possit, / qui queat aestivis solem detrudere signis brumalis usque ad flexus gelidumque rigorem, / et qui reiciat gelidis a frigoris umbris / aestiferas usque in partis et fervida signa.* see also **Epicurus** cited above.

§5 **Plato:** *Plato Tim.* 38e–39a κατὰ δὴ τὴν θατέρου φορὰν πλαγίαν οὖσαν, διὰ τῆς ταύτου φορᾶς ἰούσης τε καὶ κρατουμένης, τὸ μὲν μείζονα αὐτῶν, τὸ δ' ἐλάττω κύκλον ἰόν, θάττον μὲν τὰ τὸν ἐλάττω, τὰ δὲ τὸν μείζω βραδύτερον περιήειν. τῇ δὴ ταύτου φορᾷ τὰ τάχιστα περιμόντα ὑπὸ τῶν βραδύτερον ἰόντων ἐφαίνετο καταλαμβάνοντα καταλαμβάνεσθαι.

§7 **Stoics:** cf. **Aristotle Mete.** 2.1 354b33–355a1 διὸ καὶ γελοῖοι πάντες ὅσοι τῶν πρότερον ὑπέλαβον τὸν ἥλιον τρέφεσθαι τῷ ὑγρῷ· καὶ διὰ τοῦτ' ἔνιοί γέ φασιν καὶ ποιεῖσθαι τὰς τροπὰς αὐτόν.

Liber 2 Caput 24

P^B: ps.Plutarchus *Plac.* 890F–891B; pp. 353^a16–355^a15 Diels—**P^E**: Eusebius *PE* 15.50, p. 415.1–18 Mras—**P^G**: ps.Galenus *HPh* c. 66; p. 627.4–10 Diels—**P^Q**: Qustā ibn Lūqā pp. 158–161 Daiber—**P^{Sch}**: *Scholia Platonica ad Remp.* 498a p. 241 Greene—**P^{Sy}**: Psellus *Omn.Doctr.* c. 128, p. 68 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 3.49, p. 52.15 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.25, p. 207.14 (tit.) + 1.25.1a, p. 207.18–21 + 1.25.1c, p. 208.11–12 + 1.25.1g, p. 209.7–9 + 1.25.1i, p. 209.14–15 + 1.25.3b, pp. 209. 27–210.3 + 1.25.3e, p. 211.2 + 1.25.3k, p. 212.1–11 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b11 Henry (titulus solus)
 Cf. Ach: Achilles *Univ.* c. 19, p. 28.1–3 Di Maria

Titulus κδ'. Περὶ ἐκλείψεως ἡλίου (P,S)

- §1 Θαλῆς πρῶτος ἔφη ἐκλείπειν τὸν ἥλιον τῆς σελήνης αὐτὸν ὑπερχο-
 μένης κατὰ κάθετον, οὐσης φύσει γεώδους· βλέπεσθαι δὲ τοῦτο
 κατοπτρικῶς ὑποτιθεμένην τῷ δίσκῳ. (P1,S5)
 §2 οἱ Πυθαγόρειοι Ἐμπεδοκλῆς (ὁμοίως). (S4,6)
 §3 Ἀναξίμανδρος τοῦ στομίου τῆς τοῦ πυρὸς διεκπνοῆς ἀποκλειομένου.
 (P2,S2)
 §4 Ἡράκλειτος κατὰ τὴν τοῦ σκαφοειδοῦς στροφὴν, ὥστε τὸ μὲν κοῖλον
 ἄνω γίνεσθαι τὸ δὲ κυρτὸν κάτω πρὸς τὴν ἡμετέραν ὄψιν. (P3,S3)
 §5 Ξενοφάνης κατὰ σβέσιν· ἔτερον δὲ πάλιν πρὸς ταῖς ἀνατολαῖς γίνεσθαι·
 παριστόρηκε δὲ καὶ ἔκλειψιν ἡλίου ἐφ' ὅλον μῆνα καὶ πάλιν ἔκλειψιν
 ἐντελῇ, ὥστε τὴν ἡμέραν νύκτα φανῆναι. (P4,S1)

§1 Thales 11A17a DK; §2 Pythagorei —; Empedocles 31A59 DK; §3 Anaximander 12A21 DK;
 §4 Heraclitus 22A12 DK; §5 Xenophanes 21A41 DK

titulus Περὶ ἐκλείψεως ἡλίου add. τῆς τοῦ post Περὶ P^S: de titulo S vid. app. ad c. 2.20 §1
 [2] πρῶτος P^{BEQ}: πρῶτον P^G: deest in S || ἔφη (εἶπεν P^G) ... αὐτὸν P: ἐκλείπειν δὲ αὐτὸν τῆς
 σελήνης S || [2–3] ὑπερχομένης P^{EGS}: ὑποτρεχούσης P^B, cf. *durch den Gang des Mondes unter
 ihr* Q || [3] κατὰ κάθετον P^{EGS}: om. P^Q || βλέπεσθαι κλέπεσθαι P^{B(I a.c.)}, cf. Q cit. infra ||
 [4] ὑποτιθεμένην τῷ δίσκῳ P^B Mau: ὑποτιθεμένην (sc. τὴν σελήνην) τῷ δίσκῳ P^E: ὑποτιθεμένον
 τῷ δίσκῳ S: om. P^G: *Daher verhüllt er, was über ihm ist, wie die Schale verhüllen (kann)* Q:
 crucif. Diels Lachenaud Wöhrle, ὑποτιθεμένης (sc. τῆς σελήνης) τῷ δίσκῳ Torracca §2 non
 hab. P || [5] (ὁμοίως) coniecimus ex S, vid. comm. infra: σελήνης αὐτὸν ὑπερχομένης (sc.
 ἥλιον ἐκλείπειν) S Diels Wachsmuth Vitek §3 [6] τὸ ante τοῦ στομίου add. P^{B(IIID)} || στομίου
 στόματος P^G || τῆς om. P^{B(II)} || διεκπνοῆς P: ἐκπνοῆς S §4 non hab. P^G || [8] ante κατὰ add. S
 γίνεσθαι δὲ τὴν ἐκλείψιν || τὴν om. P^{B(II)} §5 [10] ante κατὰ σβέσιν hab. S ἔκλειψιν δὲ γίνεσθαι,
 post hab. P^G τὴν ἔκλειψιν γίνεσθαι, cf. *jene tritt ... ein* Q || πρὸς P: om. S || ἔτερον δὲ πάλιν καὶ
 πάλιν P^{Sch} || γίνεσθαι ἐξάπτεσθαι P^G || [11] παριστόρηκε παρεισήγαγε P^G || ἐφ' ὅλον μῆνα et
 πάλιν desunt in P^G || ante μῆνα add. τὸν P^E || [11–12] καὶ ... ἐντελῇ P^{BES}: om. P^Q || [12] ἐντελῇ
 P^{B(II,IIID)EG}: εὐτελῇ P^{B(II)}: ἐν τέλει S, corr. Diels Wachsmuth || νύκτα φανῆναι ἀφανῇ εἶναι P^G

- §6 ἔνιοι πύκνωμα τῶν ἀοράτως ἐπερχομένων τῷ δίσκῳ νεφῶν. (P5)
- §7 Ἀρίσταρχος τὸν ἥλιον ἴσθησι μετὰ τῶν ἀπλανῶν, τὴν δὲ γῆν κινεῖ περὶ τὸν ἡλιακὸν κύκλον καὶ κατὰ τὰς ταύτης ἐγκλίσεις σκιαῖζεσθαι. (P6,S7) 15
- §8 Ξενοφάνης πολλοὺς εἶναι ἡλίους καὶ σελήνας κατὰ τὰ κλίματα τῆς γῆς καὶ ἀποτομὰς καὶ ζώνας· κατὰ τινὰ δὲ καιρὸν ἐμπίπτειν τὸν δίσκον εἰς τινὰ ἀποτομὴν τῆς γῆς οὐκ οἰκουμένην ὑφ' ἡμῶν, καὶ οὕτως ὥσπερ κενεμβατοῦντα ἔκλειψιν ὑποφαίνειν. ὁ δ' αὐτὸς τὸν ἥλιον εἰς ἄπειρον μὲν προιέναι, δοκεῖν δὲ κυκλεῖσθαι διὰ τὴν ἀπόστασιν. (P7,S8) 20

§6 anonymi —; §7 Aristarchus cf. Heath (1913) p. 305; §8 Xenophanes 21A41a DK

§6 non hab. P^{GS} || [13] πύκνωμα P^{B(1,11E)} : νεφῶν πύκνωσιν P^{B(111)} || ἀοράτως P^B : ἀοράτων P^E || νεφῶν P^{B(1,11E)} : del. P^{B(111)} || *Einige Philosophen glaubten, daß jene durch eine Zusammenziehung und Vereinigung der einen Teile mit den anderen eintritt, sodaß Hervortreten (der Sonne) zum Erleuchten verhindert wird* Q §7 lemma male locatum ex c. 2.23? || [14–15] τὸν ... καὶ om. P^G || [14] γῆν P^{BQS} : σελήνην P^E || [15] κατὰ ... ἐγκλίσεις κατὰ τῆς γῆς P^G || τὰς ταύτης P^B : ταύτας τὰς P^E || ἐγκλίσεις P^S : ἐκκλίσεις con. Usener Untersteiner || post σκιαῖζεσθαι add. τὸν δίσκον P, ut glossema dub. Mau §8 non hab. P^G || [16] πολλοὺς εἶναι inv. P^E || κατὰ τὰ κλίματα S^{PE1} : κατὰ κλίμα P^B : κατὰ κλίματα P^{E2} || [17] post τὸν δίσκον add. P^G τοῦ ἡλίου || [18] οἰκουμένην P^B : οἰκουμένης P^{ES}, corr. edd. || ὑφ' ἡμῶν P^{BES} : om. P^Q(ut vid.) || [19] ὑποφαίνειν P^{B(1)EQS} : ὑπομένειν P^{B(11,111)} || [19–20] ὁ δ' αὐτὸς ... ἀπόστασιν om. P^Q

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 66 (~ tit.) Περὶ ἐκλείψεως ἡλίου (text Diels)

66.1 (~ P1) Θαλῆς πρῶτον εἶπεν ἐκλείπειν τὸν ἥλιον τῆς σελήνης αὐτὸν ὑπερχομένης κατὰ κάθετον οὔσης φύσει γεώδους.

66.2 (~ P2) Ἀναξίμανδρος τοῦ στόματος τῆς τοῦ πυρὸς διεκπνοῆς ἀποκλειομένου.

66.3 (~ P4) Ξενοφάνης κατὰ σβέσιν τὴν ἔκλειψιν γίνεσθαι, ἕτερον δὲ πάλιν πρὸς ταῖς ἀνατολαῖς ἐξάπτεσθαι. παρεισήγαγε δὲ καὶ ἔκλειψιν ἐντελῆ, ὥστε τὴν ἡμέραν ἀφανῆ εἶναι.

66.4 (~ P6) Ἀρίσταρχος κατὰ τῆς γῆς σκιαῖζεσθαι τὸν δίσκον τοῦ ἡλίου.

Scholia Platonica ad Remp. 498a (de Heraclito) καὶ τὴν ἔκλειψιν αὐτοῦ συ(μ)-βαίνειν κατὰ τὴν τοῦ σκαφοειδοῦς στροφὴν, ὥστε τὸ μὲν κοῖλον ἄνω γίνεσθαι, τὸ δὲ κυρτὸν κάτω πρὸς τὴν ἡμετέραν ὄψιν (~ P4). ἀλλὰ μὴν καὶ Ξενοφάνη τὸν Κολοφώνιον κατὰ σβέσιν τὴν ἡλιακὴν ἔκλειψιν λέγειν γίνεσθαι φασίν, καὶ πάλιν πρὸς ταῖς ἀνατολαῖς ἀνίσχειν αὐτόν (~ P5).

Psellus Omn.Doctr. c. 128 Περὶ ἐκλείψεως ἡλίου (~ tit.)

Symeon Seth CRN 3.49 Περὶ τῆς τοῦ ἡλίου ἐκλείψεως (~ tit.)

Testes secundi:

Achilles Univ. c. 19, p. 28.1–3 ἐκλείπει δέ, ὡς μὲν τινές φασιν, ἔμπροσθεν αὐτοῦ τῆς σελήνης κατὰ κάθετον αὐτοῦ γιγνομένης (~ §1), ὃ καὶ μᾶλλον πιθανόν· προσγειοτέρα γὰρ αὐτοῦ ἐστὶν ἡ σελήνη καὶ κατωτέρα τοῦ ἡλίου· οὕτω γὰρ καὶ ὁ Ἄρατος
...

Loci Aetiani:

titulus et quaestio A 2.29 Περὶ ἐκλείψεως σελήνης passim, vid. §1 Anaximander, §3 Heraclitus, §4 Pythagorei, §6 Xenophanes, §7 Thales Plato Aristoteles

§1 A 2.28.1 (de luna) Θαλῆς πρῶτος ἔφη ὑπὸ τοῦ ἡλίου φωτίζεσθαι. cf. 2.30.1 (de luna) τὸ γεωφανὲς, 2.30.4 διὰ τὸ ψυχρομιγὲς ἅμα καὶ γεῶδες.

§4 A 2.28.7 Ἡράκλειτος τὸ αὐτὸ πεπονθέναι τὸν ἥλιον καὶ τὴν σελήνην· σκαφοειδεῖς γὰρ ὄντας τοῖς σχήμασι τοὺς ἀστέρας, δεχομένους δὲ τὰς ἀπὸ τῆς ὑγρᾶς ἀναθυμιάσεως αὐγὰς, φωτίζεσθαι πρὸς τὴν φαντασίαν κτλ

§7 A 3.13.3 Ἡρακλείδης ὁ Ποντικός καὶ Ἐκφαντος ὁ Πυθαγόρειος κινουσί μὲν τὴν γῆν, οὐ μὴν γε μεταβατικῶς, ἀλλὰ τρεπτικῶς. A 3.17.9 Σέλευκος ὁ μαθηματικός ἀντιγεγραφῶς Κράτητι, κινῶν καὶ τὸς τὴν γῆν ...

§8 A 2.13.14 Ξενοφάνης (sc. τὰ ἄστρα) ἐκ νεφῶν μὲν πεπυρωμένων, σβεννυμένων δὲ καθ' ἑκάστην ἡμέραν ἀναζωπυρεῖν νύκτωρ, καθάπερ τοὺς ἀνθρακας· τὰς γὰρ ἀνατολάς καὶ τὰς δύσεις ἐξάψεις εἶναι καὶ σβέσεις.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The tradition of P, fully represented in the Byzantine mss., E and Q but abridged in G, preserves seven doxai. Two doxai, P4 and P5, are copied out in the Platonic scholion, the former verbatim, the latter in a paraphrase. Noteworthy is that the scholiast adds Xenophanes' place of origin (τὸν Κολοφώνιον) and by omitting the word ἕτερον misses the main point of the doxa.

(2) All of P's lemmata can be recovered among S's various coalesced clusters of doxai except the anonymous P4, which he either overlooked or did not think was worth including. Two doxai are recorded which have no equivalent in P, attributed to the Pythagoreans and Empedocles respectively (1.25.1i, 3e). The formulation of the doxa is identical in both cases (ἐκλείψιν δὲ γίγνεσθαι σελήνης αὐτὸν ὑπερχομένης). This is the same doxa as that of Thales in P1 and at S 1.25.3b (without the additional words κατὰ κάθετον), which leads to the surmise that a multiple name-label was present in A. We cannot, however, simply add the two names to Thales in the first doxa, since it is formulated in terms of the πρῶ-

τος εὔρετής motif. But we can conjecture A's original text on an analogy with S's formulation at S 1.26.2 (= 2.28.5–6), Θαλῆς πρῶτος ἔφη ὑπὸ τοῦ ἡλίου φωτίζεσθαι. Πυθαγόρας, Παρμενίδης, Ἐμπεδοκλῆς, Ἀναξαγόρας, Μητρόδωρος ὁμοίως (note that the two name-labels in ch. 2.24 recur in this later chapter, except that Pythagoras replaces his followers). It should also be noted that the final two doxai in P are also the final lemmata in S's extended scheme of coalescence. This strongly suggests that they were what was left over after he had joined together all the other doxai. He could of course have joined the final Xenophanean lemma to the two (or three) others with which he commenced the chapter (S 1.25.1ab), but he must have overlooked it then and made up for the omission later.

B Proximate Tradition and Sources

(1) *Proximate tradition.* On the subject of the sun's eclipse the situation regarding sources for the doxographical tradition differs little from that on the sun's movements. Numerous texts describe Thales' knowledge of eclipses; see the listing in Wöhrle (2014) 28–31. The majority, starting with Herodotus 1.74, claim his ability to predict eclipses. Fewer texts mention his discovery of the cause. Other (non-standard) Presocratic views on the cause of eclipses are rare, but for each of the views in §1 and §§3–5 there is a single parallel in the collections of doxai in Diogenes Laertius or Hippolytus (texts below section E(a)).

(2) *Sources.* The subject of solar eclipses is not discussed by Plato in the *Timaeus* or Aristotle in the *De caelo* and thereafter becomes wholly uncontroversial. Aristotle uses the solar eclipse as a standard example of seeking the cause in his theory of knowledge (*APo* 2.1 89b26, text below section E(b) General texts).

As was the case in the previous chapter, the most interesting source material is located in the Epicurean tradition. In his *Ep.Pyth.* at D.L. 10.96 Epicurus combines explanations for the eclipses of both the sun and the moon. For the sun he only gives two alternatives. The former clearly recalls the first doxa of Xenophanes, using the same key phrase κατὰ σβέσιν. The second involves interposition (the technical term is used) but the text is not entirely clear. Epicurus appears to postulate the interposition of the earth, but also other heavenly bodies, which could imply bodies other than the moon. Similarities with the anonymous doxa in A are certainly present. In addition, a scholion in Diogenes' text indicates that in the (presumably) fuller discussion in his *Περὶ φύσεως* Epicurus also listed the dominant view attributed to Thales in the *Placita*. These three views (quenching, interposition of moon or of another body) are repeated by Lucretius in his poem at 5.753–757. As in the case of ch. 2.23 some kind of link with the anterior tradition of the *Placita* must be assumed.

See further the discussion in Runia (2018) 407–408. But in this chapter too A does not make any reference to Epicurean views.

For the treatment of solar eclipses in Achilles see below section D(e).

C Chapter Heading

There is no essential variation in the witnesses regarding the heading of the chapter in the tradition of P and it is succinctly referred to in S's composite title for his ch. 1.25. Like the previous chapter on solstices, it is a clear example of a question διὰ τί, i.e. seeking the cause. As noted above, in *APo* 2.1 89b26 Aristotle had explicitly given this question as an example of how, after we ask τὸ ὅτι, we then go on to ask τὸ διότι; see further above ch. 1.6 Commentary D(a). So A could have formulated the heading as διὰ τί ἐκλείπει ὁ ἥλιος. He chooses, however, to stick to the standard Περί x type, as he also does in ch. 2.29 on the moon's eclipse. The question is posed in relation to a specific feature of this particular heavenly body (and also on the moon at ch. 2.29).

D Analysis

a Context

The final chapter of the sequence on the sun turns to a subject that is specific to it (and the moon), the phenomenon of its eclipse and how it can be explained.

b Number–Order of Lemmata

Because this chapter is the last that S includes in his coalesced clusters, his presentation can tell us very little about the original order of the lemmata in A, except that the fact that he reserves the doxai of Aristarchus and Xenophanes for the last place before moving on to material from AD confirms that these were most likely the last two in the chapter (as corroborated by P). He could have linked the final Xenophanean doxa with the earlier one (= P5), but did not do so, either because he overlooked it or because it introduced the new subject of multiple suns and moons. It is very probable, therefore, that we have A's chapter complete and that the order as set out by P, with some additions from S, is trustworthy.

c Rationale–Structure of Chapter

The chapter with its eight doxai is not highly structured. Unusually for A, there are no oppositions or obvious diaereses. He starts off this time with the dominant scientific view, represented by the first Ionian, who is also credited with the discovery as expressed in terms of the πρῶτος εὐρετής motif. This was long regarded as completely non-historical and explicable as an extrapolation from his famous prediction of the eclipse during the battle between the Lydians and

the Persians as reported by Herodotus. Guthrie trenchantly states (1962–1981, 1.49) that ‘these achievements were quite impossible for Thales, and his ignorance becomes even clearer when we see the fantastic explanation of eclipses given by his associate Anaximander’. However, the discovery of a papyrus in which this attribution to Thales is claimed by none other than Aristarchus, i.e. two centuries earlier than the previous earliest text in Cicero, has led scholars to reexamine the issue and some are now less sceptical, e.g. Mouraviev in *CPF* 1.238, Lebedev (1990), Burkert (2013), but Zhmud (2006) 241 remains unconvinced. Of course Aristarchus’ claim could have been based on supposition (he must have known the story) rather than any written evidence.

The next doxa in A is attributed to Anaximander, followed by two other Presocratic explanations involving the sun’s fiery nature. In the case of Xenophanes’ doxa in §5 there does seem to be confusion with an explanation of the daily appearance of the sun; see the parallel view on the heavenly bodies in 2.13.14 and the comment in Kirk-Raven-Schofield (1983) 174–175. However, the explanation for eclipses would appear to be confirmed for the doxographical tradition by the evidence in Epicurus and Lucretius discussed above in section B. Thereafter the next anonymous doxa is somewhat reminiscent of the standard view, except that the blocking is done by clouds and not the moon. One might think of the cosmology of Xenophanes, who does much with compressed clouds, were it not for the fact that two other doxai in the chapter are already attributed to him.

The seventh doxa is noteworthy in recording the only cosmological doxa attributed to Aristarchus in the *Placita* (elsewhere only at A 1.15.5 and 4.13.4). It is based on his famous heliocentric hypothesis and so stands apart from all other views (but this is not emphasized). The difficulty is that the inclination of the earth is not relevant to an explanation of eclipses. The doxa would find a much better place in the previous chapter on solstices. However the formulation with the verb *σκιάζεσθαι* demonstrates that its place in A was in the current chapter. This is corroborated by S’s manner of excerpting, as we have noted above.

The final lemma returns to Xenophanes and records another seemingly odd view involving multiple suns and moons in various places. The sun ‘treads on emptiness’ (Bicknell’s translation: 1967, 76, adducing a parallel in Plu. *Flaminius* 10) and its light appears to be eclipsed. If we accept Bicknell’s explanation, the reason is that it passes over an area of the earth where there is no nourishment through lack of moisture. The doxa could then be a further explication of the compactly stated cause *κατὰ σβέσιν* in the doxa earlier in the chapter. However, it can also be linked to the explanation *κατ’ ἀναχώρησιν* in the scholion on Epicurus in D.L. 10.96, i.e. through retirement or withdrawal (cause unspecified).

The doxa is placed at the end because it involves multiple suns *and* moons; cf. the final placement of the Heraclitean doxa at A 2.28.6. The last part of the doxa, however, does not address the topic of the chapter, but just like the previous doxa it would be better placed in a chapter *Περὶ κίνησεως ἡλίου*, part of the subject matter of which is covered by ch. 2.23 on the solstices.

d Further Comments
Individual Points

§1 S does not mention the *πρῶτος εὐρετής* motif in connection with Thales. Most likely he left it out in coalescing the doxa with the one of the sun's οὐσία in 2.20. Given, however, the strength of the tradition on Thales, there is another possibility, namely that P himself added it in the process of epitomising A. But since S includes it for the illumination of the moon by the sun in A 2.28.5, it is much more likely that he dropped it here. Later traditions also make Thales the first discover the cause of the moon's eclipses: cf. Wöhrle (2009) frs. 433–435, 515, 535. But A himself does not mention this in ch. 2.29.

The final phrase of the doxa has given rise to much discussion. Heeren (1792–1801) 1.528 and Diels took τῷ δίσκῳ here to mean an ancient mirror, in which the eclipse can be seen to take place. The verb *vidisse* in Cicero's report at *Rep.* 1.25 recalls βλέπεσθαι and perhaps supports this interpretation. There are two problems. The Greek is somewhat stilted. As Torraca (1961, 452) notes, one would expect ὑποτιθέντι τὸν δίσκον. But doxographical style does not aim at fluency and often shows a preference for an impersonal style (though note πρὸς τὴν ἡμετέραν ὄψιν in §4). A more significant problem is that the term ὁ δίσκος is later used three times in §§6–8 to refer to the sun and not a mirror. But this is at a fair remove from the opening lemma. The text should be allowed to stand. However, the use of two different senses of the same word may help to explain the degree of textual variation.

§7 The final two words τὸν δίσκον are not found in S, and Mau, though leaving them in his text, would prefer them to be removed. He is right to retain them, however, because this text is clearly the *lectio difficilior*. In Aristarchus' surviving treatise on the sizes and distances of the sun and the moon (on which see the Commentary on A 2.21) there is no trace of the heliocentric hypothesis; see further Heath (1913) 310. It has often been thought that the unusual term *κενεμβατοῦντα* ('stepping into an void' or 'treading on emptiness', as interpreted by Bicknell, see above D(c)) goes back to Xenophanes' poem; see for example Kirk-Raven-Schofield (1983) 175, Graham (2010) 125. But the occurrence in A is the earliest preserved instance of the verb.

e Other Evidence

Ach gives only a single view, that of Thales but presented anonymously, in terms quite reminiscent of A but not identical. Moreover he adds an evaluative comment in a favour of this view, which is of course the dominant one. He thus differs from the method employed by A, who does not discriminate, although he does place this view first.

E Further Related Texts

a Proximate Tradition

General texts: **Epicurus** *Ep.Pyth.* at D.L. 10.96 (and scholion) ἐκλειψις ἡλίου καὶ σελήνης δύναται μὲν γίνεσθαι καὶ κατὰ σβέσιν, καθάπερ καὶ παρ' ἡμῖν τοῦτο θεωρεῖται γινόμενον· καὶ ἦδη κατ' ἐπιπροσθέτησιν ἄλλων τινῶν, ἢ γῆς ἢ οὐρανίου {ἢ} τινος ἐτέρου τοιούτου. καὶ ὦδε τοὺς οἰκείους ἀλλήλοις τρόπους συνθεωρητέον, καὶ τὰς ἅμα συγκυρήσεις τινῶν ὅτι οὐκ ἀδύνατον γίνεσθαι. (ἐν δὲ τῇ ιβ' *Περὶ φύσεως* (fr. 83 Usener) ταῦτά λέγει καὶ πρὸς, ἡλίον ἐκλείπειν σελήνης ἐπισκοτούσης, σελήνην δὲ τοῦ τῆς γῆς σκιάσματος, ἀλλὰ καὶ κατ' ἀναχώρησιν. τοῦτο δὲ καὶ Διογένης ὁ Ἐπικούρειος ἐν τῇ α' τῶν *Ἐπιλέκτων*.) **Lucretius** *DRN* 5.751–761 *solis item quoque defectus lunaeque latebras / pluribus e causis fieri tibi posse putandumst. / nam cur luna queat terram secludere solis / lumine et a terris altum caput obstruere ei, / obiciens caecum radiis ardentibus orbem, / tempore eodem aliut facere id non posse putetur / corpus, quod cassum labatur lumine semper? / solque suos etiam dimittere languidus ignis / tempore cur certo nequeat recreareque lumen, / cum loca praeteriit flammis infesta per auras, / quae faciunt ignis interstingui atque perire?* **Strabo** 2.5.2 see text quoted on ch. 2.21. **Philo of Alexandria** *Prov.* 2.71 *Aucher testantur autem magnopere providentia destitutam necessitatem, eclipsis solis defectioque luminis lunae ... quum adsint multiplices causae adducendae. sol enim deficit, luna sub eo intrante conjunctionis tempore, cum advenit interlunium vel novilunium.* **Basil of Caesarea** in *Hexaem.* 9.1, p. 147.13 *Amand de Mendieta–Rudberg* καὶ πῶς τοῦτο (sc. the sun) τῇ σελήνῃ προσενεχθὲν τὰς ἐκλείψεις ποιεῖ. **Themistius** *APo. paraphr.* 40.29 *Wallies* ἐν Ἐπικούρῳ (fr. 347 Usener) μὲν γὰρ δόξα ἦν ὅτι τῆς σελήνης ὑποτρεχούσης ὁ ἥλιος ἐκλιμπάνει· ᾧετο γὰρ αὐτὸ ἐνδέχεσθαι καὶ ἄλλως ἔχειν· ἐν Ἰπάρχῳ δὲ ἐπιστήμη. **Servius** *Comm. in Verg. Georg.* 2.478, p. 264.1 *Thilo varios defectus secundum Epicurum* (—), *qui ait non unam causam pronuniandam, qua sol deficere videtur, sed varias: potest enim fieri ut extinguatur, ut longius recedat, ut aliquod eum corpus abscondat.*

Chapter heading: *Pliny Nat.* 1 (table of contents) p. 11.11 *de lunae et solis defectibus.* **Capitula Lucretiana** at *DRN* 5.751 *de eclipsi*; 5.774 *de solis et lunae offectione.* **Eusebius** *PE* 10.14.10 (on Thales, fr. 265 Wöhrle) Θαλῆς ὁ Μιλήσιος φυσικός πρῶτος Ἑλλήνων γεγρονῶς περὶ τροπῶν ἡλίου καὶ ἐκλειψεως ... διελέχθη.

§1 **Thales: Diogenes Laertius** *V.P.* 1.23 (on Thales, 11A1 DK) δοκεῖ δὲ κατὰ τινὰς πρῶτος ἀστρολογῆσαι καὶ ἡλιακὰς ἐκλείψεις καὶ τροπὰς προειπεῖν, ὥς φησιν Εὐδήμος (fr. 144 Wehrli) ἐν τῇ *Περὶ τῶν ἀστρολογουμένων ἱστορίᾳ*. cf. **Heron** *Mechanicus Def.* 11 τίς τίς εὖρεν ἐν μαθηματικοῖς; Εὐδήμος (fr. 145 Wehrli) ἱστο-

ρεῖ ἐν ταῖς Ἀστρολογίαις, ὅτι ... Θαλῆς (fr. 93 Wöhrle) δὲ ἡλίου ἐκλείψιν ... same report at *Theon of Smyrna Expos.* 198.14–17 Hiller (= Eudemos fr. 145 Wehrli). cf. also *Cicero Rep.* 1.25 *erat enim tum haec nova et ignota ratio, solem lunae oppositu solere deficere, quod Thaletum Milesium* (fr. 75 Wöhrle) *primum vidisse dicunt.* *Themistius Or.* 26 317B Maisano (on Thales, fr. 300 Wöhrle) καὶ προεφήτευσεν ἐν κοινῷ ἅπανσι Μιλησίοις ὅτι νῦν ἔσοιτο ἐν ἡμέρᾳ καὶ δύσεται ἄνω ὁ ἥλιος καὶ ὑποθεύσεται αὐτὸν ἢ σελήνην, ὥστε ἀποτέμεσθαι τὴν αὐγὴν καὶ τὰς ἀκτῖνας. *Scholia Platonica Resp.* 600a p. 272 Greene Θάλῃς (fr. 578 Wöhrle) ... εὗρεν γὰρ τὸν ἥλιον ἐκλείπειν ἐξ ὑποδρομῆς σελήνης. *Suda* s.v. Θ 17, p. 2.681.21–23 Adler πρῶτος δὲ Θαλῆς (fr. 495 Wöhrle) ... ἐκλείψει τε καὶ ἰσημερίας κατελιγφεν.

§3 *Anaximander: Hippolytus Ref.* 1.6.4 (on Anaximander, 12A1 DK) διὸ καὶ ἐπιφρασσομένων τῶν ἐκπνοῶν τὰς ἐκλείψεις γίνεσθαι.

§4 *Heraclitus: Diogenes Laertius V.P.* 9.10 (on Heraclitus, 22A1 DK) ἐκλείπειν τε ἥλιον καὶ σελήνην, ἄνω στρεφομένων τῶν σκαφῶν.

§5, §8 *Xenophanes: Hippolytus Ref.* 1.14.3 (on Xenophanes, 21A33) καὶ ἀπείρους ἡλίου εἶναι καὶ σελήνας. cf. also *Epicurus Ep.Pyth.* at D.L. 10.96 ἀλλὰ καὶ κατ' ἀναχώρησιν (cited above under General texts).

b Sources and Other Parallel Texts

General texts: *Aristotle APo.* 2.1 89b24–31 ζητοῦμεν δὲ τέτταρα, τὸ ὅτι, τὸ διότι, εἰ ἔστι, τί ἔστιν. ὅταν μὲν γὰρ πότερον τόδε ἢ τόδε ζητῶμεν, ... οἷον πότερον ἐκλείπει ὁ ἥλιος ἢ οὐ, τὸ ὅτι ζητοῦμεν ... ὅταν δὲ εἰδῶμεν τὸ ὅτι, τὸ διότι ζητοῦμεν, οἷον εἰδότες ὅτι ἐκλείπει καὶ ὅτι κινεῖται ἡ γῆ (cf. ch. 3.15), τὸ διότι ἐκλείπει ἢ διότι κινεῖται ζητοῦμεν.

Chapter heading: *Diodorus Siculus* 1.50.2 (on the Thebans in Egypt) περὶ δὲ τῶν ἐκλείψεων ἡλίου τε καὶ σελήνης ἀκριβῶς ἐπεσκέφθαι δοκοῦσι. *Pliny Nat.* 1, p. 11.1, 11.11–12 (table of contents) *Libro II. continentur: ... de lunae et solis defectibus.* *Geminus Elem.* 10, p. 61 Aujac. Περὶ ἐκλείψεως ἡλίου. *John Philoponus in Phys.* 221.5 (on *Arist. Phys.* 193b22–30) ὅσα γὰρ περὶ ἐκλείψεως ἡλίου καὶ σελήνης καὶ τῆς τῶν ἄλλων ἀστέρων κινήσεως λέγεται.

§1 *Thales: Aristarchus in Comm. Hom.* on *Od.* 20.156 *P.Oxy.* 53.3710 col. 2.36–43 (= *CPF* 3T 1.826) ὅτι ἐν νουμηνίᾳ αἱ ἐκλείψεις δηλο[ί] Ἀρίσταρχος ὁ Σάμ[ι]ος γράφων ἔφη τε ὁ μὲν Θαλῆς (fr. 91 Wöhrle) ὅτι ἐκλείπειν τὸν ἥλ[ι]ον σελήνης ἐπίπροσθεν αὐτῷ γενομένης ...

§3 *Anaximander: Eudemus ap. Simp. in Cael.* 471.2–9 (on *Arist. Cael.* 2.10 291a29) see text cited at ch. 2.15 section E(b) General texts.

§7 *Aristarchus:* See above on §1. *Archimedes Aren.* 1.5, p. 2.144 Heiberg ὑποτίθεται γὰρ (sc. Aristarchus) τὰ μὲν ἀπλανέα τῶν ἀστρων καὶ τὸν ἄλιον μένειν ἀκίνητον, τὰν δὲ γὰν περιφέρεισθαι περὶ τὸν ἄλιον κατὰ κύκλου περιφέρειαν, ὅς ἐστιν ἐν μέσῳ τῷ δρόμῳ κείμενος ... *Plutarch Fac.Lun.* 923A ὥσπερ Ἀρίσταρχον ᾤετο δεῖν Κλεάνθης (*SVF* 1.500) τὸν Σάμιον ἀσεβείας προσκαλεῖσθαι τοὺς Ἕλληνας ὡς κινουντα τοῦ κόσμου τὴν ἐστίαν, ὅτι (τὰ) φαινόμενα σφῆξιν ἀνὴρ ἐπειράτο μένειν τὸν οὐρανὸν ὑποτιθέμενος, ἐξελίττεσθαι δὲ κατὰ λοξοῦ κύκλου τὴν γῆν, ἅμα καὶ περὶ τὸν αὐτῆς ἄξονα δινουμένην. *Quaest.Plato.* 8 1006C (on Plato) πότερον οὕτως ἐκί-

νει τὴν γῆν, ὥσπερ ἥλιον καὶ σελήνην καὶ τοὺς πέντε πλάνητας, οὓς ὄργανα χρόνου διὰ τὰς τροπὰς προσηγόρευε, καὶ ἔδει τὴν γῆν ἴλλομένην περὶ τὸν διὰ πάντων πόλον τεταμένον' (*Tim.* 40b) μὴ μεμηχανῆσθαι συνεχομένην καὶ μένουσαν, ἀλλὰ στρεφομένην καὶ ἀνειλουμένην νοεῖν, ὡς ὕστερον Ἀρίσταρχος καὶ Σέλευκος ἀπεδείκνυσαν, ὁ μὲν ὑποτιθέμενος μόνον ὁ δὲ Σέλευκος καὶ ἀποφαινόμενος; **Theon of Smyrna** *Exp.* p. 200.7–12 Hiller (quoting Dercyllides) φησὶ δ' ὡς γῆν μὲν χρή οἶσθαι μένειν, ἐστὶαν τοῦ θεῶν οἴκου κατὰ τὸν Πλάτωνα, τὰ δὲ πλανώμενα· σὺν τῷ παντὶ περιέχοντι οὐρανῷ κινεῖσθαι· τοὺς δὲ τὰ κινητὰ στήσαντας, τὰ δὲ ἀκίνητα φύσει καὶ ἔδρα κινήσαντας ὡς παρὰ τὰς τῆς μαθηματικῆς ὑποθέσεις ἀποδιοπομπεῖται. **Sextus Empiricus** *M.* 10.174 οἱ γε μὴν τὴν τοῦ κόσμου κίνησιν ἀνελόντες, τὴν δὲ γῆν κινεῖσθαι δοξάσαντες, ὡς οἱ περὶ Ἀρίσταρχον τὸν μαθηματικόν, οὐ κωλύονται νοεῖν χρόνον.

Liber 2 Caput 25

PP: *Papyrus Antinoopolis* 85 fr. 1 recto, pp. 75, 81 Barns–Zilliacus—**PB**: ps.Plutarchus *Plac.* 891B–C; pp. 355^a11–357^a1 Diels—**PE**: Eusebius *PE* 15.26, p. 402.8–19 Mras—**PG**: ps.Galenus *HPh* c. 67; p. 627.11–16 Diels; pp. 193–202 Jas—**PL**: Ioannes Lydus *Mens.* 3.12, p. 53.6–13 Wuensch—**PQ**: Qusṭā ibn Lūqā pp. 160–161 Daiber—cf. **PSy**: Symeon Seth *CRN* 2.50, p. 54.1–2 Delatte (titulus solus)

S: Stobaeus *Ecl.* 1.26, p. 217.18 (tit.) + 1.26.1a–b, pp. 217.22–218.5 + 1.26.1c–f, pp. 218.8–219.1 + 1.26.1g–h, p. 219.5–9 + 1.26.1k, p. 219.18–19 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b11–12 Henry (titulus solus)

T: Theodoretus *CAG* 4.21, p. 105.16–17 + 4.23, 106.7–12 Raeder

Cf. Ach: Achilles *Univ.* c. 21, p. 30.6–12 Di Maria; *Scholia in Aratum, Proleg.* 17, pp. 27.21–28.2 Martin

Titulus κε'. Περὶ οὐσίας σελήνης (P,S)

§1 Ἀναξίμανδρος κύκλον εἶναι ἔννεακαιδεκαπλάσιον τῆς γῆς, ὅμοιον ἄρμα-
τείῳ (τροχῷ) κοίλῃν ἔχοντα τὴν ἀψίδα καὶ πυρὸς πλήρη, καθάπερ (τόν)
τοῦ ἡλίου, κείμενον λοξόν, ὥς κάκεινον, ἔχοντα μίαν ἐκπνοήν, οἷον πρη-
στήρος αὐλόν· ἐκλείπειν δὲ κατὰ τὰς ἐπιστροφὰς τοῦ τροχοῦ. (P1,S1)

5

§2 Ἀναξίμενης Παρμενίδης Ἡράκλειτος πυρίνην. (S2–3,T3)

§3 Ξενοφάνης νέφος εἶναι πεπυρωμένον πεπιλημένον, (P2,S4,T1)

§4 Κλεάνθης δὲ πυροειδῆ. (S14)

§1 Anaximander 12A22 DK; §2 Anaximenes 13A16 DK; Parmenides 28A42 DK; Heraclitus T446 Mouraviev; §3 Xenophanes 21A43 DK; §4 Cleanthes —

titulus Περὶ οὐσίας σελήνης ^{PBQ}, cf. S Περὶ σελήνης οὐσίας κτλ : Περὶ σελήνης ^{PEG} : conflat S tit. cc. 2.25–27 Περὶ σελήνης οὐσίας καὶ μεγέθους (c. 2.26) καὶ σχήματος (2.27) §1 [2–5] Ἀναξίμανδρος ... τροχῷ S ([3] τροχῷ add. ex P Diels Wachsmuth; ἔχοντα coni. Diels Wachsmuth : ἔχοντι ^{SFP}, [5] ἐπιστροφὰς e P : τροπὰς ^{SF}, τροφὰς ^{SP1}, στροφὰς ^{SP2}) : al. (vid. comm. infra) ^{PBEQ} Ἀναξίμανδρος ... τῆς γῆς, ὥσπερ (τόν) (add. Beck edd. ex S : ἐπὶ ^{PE}) τοῦ ἡλίου πλήρη πυρὸς· ἐκλείπειν ... τροχοῦ· ὅμοιον γὰρ εἶναι ἄρματίου (^{PB(IID)} : ἄρματείῳ ^{PB(IIIE)}) τροχῷ ... πλήρη πυρὸς (^{PB}, πυρὸς πλήρη ^{PE}), ἔχοντι (ἔχοντα ^{PE} Diels) μίαν ἐκπνοήν (^{PB(IIDE)} : πνοήν ^{PB(II)}) : Ἀναξίμενης (sic) τοῖνον κύκλον τὴν σελήνην εἶναι βούλεται ἔννεακαιδεκαπλάσιον τῆς γῆς, πλήρη πυρὸς ὥσπερ (τόν) τοῦ ἡλίου ^{PL} : Ἀναξίμανδρος ... ἔκκαιδεκαπλάσιον τῆς γῆς, om. ὥσπερ ... ἐκπνοήν ^{PG} §2 [6] Ἡράκλειτος T : om. S || post πυρίνην add. S τὴν σελήνην verisimiliter §3 [7] post Ξενοφάνης add. ^{PG} δὲ || πεπυρωμένον πεπιλημένον scripsimus || πεπυρωμένον ^{PB(II)GLQ} : πεπιλημένον ^{PB(II)DES} (et ^{PP} edd., sed vid. comm. infra) : πεπυρωλημένον ^{PB(II)} : cf. νέφη πεπυρωμένα (τὸν ἡλίον καὶ τὴν σελήνην) T || post εἶναι add. τὴν σελήνην ^{SP} §4 [8] πυροειδῆ S : τὴν σελήνην add. S

- §5 Ποσειδώνιος δὲ καὶ οἱ πλείστοι τῶν Στωικῶν μικτὴν ἐκ πυρὸς καὶ ἀέρος.
(P3,S15) 10
- §6 Ἐμπεδοκλῆς ἀέρα συνεστραμμένον νεφοειδῆ, πεπηγότα ὑπὸ πυρός,
ὥστε σύμμικτον. (S12)
- §7 Πλάτων ἐκ πλείονος τοῦ πυρώδους. (P4,S13)
- §8 Ἀριστοτέλης (ἐκ τοῦ πέμπτου σώματος). (cf. S13a)
- §9 Θαλῆς γεώδη. (S5,T2) 15
- §10 Ἀναξαγόρας Δημόκριτος στερέωμα διάπυρον, ἔχον ἐν ἑαυτῷ πεδία καὶ
ὄρη καὶ φάραγγας. (P5,S6,T4)
- §11 Διογένης κισηροειδὲς ἀναμμα. (S7)
- §12 Ἴων σῶμα τῇ μὲν ὑελοειδές, διαυγές, τῇ δὲ ἀφεγγές. (S8)
- §13 Βῆρωσος ἡμιπύρωτον σφαῖραν. (S9) 20
- §14 Ἡρακλείδης καὶ Ὁκελλος γῆν ὁμίχλην περιεχομένην. (P6,S10,T6)
- §15 Πυθαγόρας κατοπτροειδὲς σῶμα. (P7,S11,T5)

§5 Posidonius F 122 E.-K., 301 Theiler; Stoici *SVF* 2.671, 506; §6 Empedocles 31A60 DK; §7 Plato cf. *Tim.* 40a; §8 Aristoteles cf. *Cael.* 1.2 269a31; §9 Thales fr. 356 Wöhrlé; §10 Anaxagoras 59A77 DK; Democritus 68A90 DK; §11 Diogenes 64A14 DK; §12 Ion 36A7 DK; §13 Berossus *FGH* 680 F19a Jacoby, F21c De Breucker; §14 Heraclides fr. 114 Wehrli, fr. 76 Schütrumpf; Ocellus T9 Harder; §15 Pythagoras —

§5 [9] Ποσειδώνιος ... Στωικῶν S : οἱ Στωικοὶ P || μικτὴν P^{BLGS} : μικτὸν P^E || post μικτὴν hab. P^G εἶναι τὴν σελήνην || ἀέρος] γεώδους P^G || post γεώδους hab. P^G ὥθησαν §7 [13] τοῦ πυρώδους P^{BLQS} : τοῦ γεώδους P^E : πυρός P^G || post πυρώδους add. S εἶναι τὴν σελήνην §8 [14] Ἀριστοτέλης σελήνην ἐν μεθορίοις ἀέρος τεταγμένην καὶ τῆς πέμπτης οὐσίας μετέχουσιν ἐν μηνὶ περιέρχεσθαι τὸν ἴδιον κύκλον S, sed verisimiliter e AD, supplevimus ex 2.13.12 et 2.20.11 §9 [15] post γεώδη add. S ipse τὴν σελήνην ἀπεφῆνατο §10 [16] Ἀναξαγόρας Δημόκριτος P^{BE} (Ἀναξαγόρας om. P^P) : Ἀναξαγόρας καὶ Δημόκριτος P^{GLQ}(ut vid.)S^F (δὲ post καὶ add. T) : Δημόκριτος καὶ Ἀναξαγόρας S^P §11 [18] post ἀναμμα add. S τὴν σελήνην §13 [20] post σφαῖραν add. S τὴν σελήνην §14 non hab. P^G || [21] Ἡρακλείδης καὶ Ὁκελλος ST (καὶ Ὁκελλος secl. Diels) : Ἡράκλειτος P || ὁμίχλη PT : ὁμίχλην S §15 non hab. P^G || [22] κατοπτροειδὲς σῶμα S, cf. Aratea κάτοπρον τι (vid. test. sec. infra) : κατὰ τὸ πυροειδὲς σῶμα σελήνης P^{BQ}(ut vid.) (κατὰ τὸ πυροειδὲς cruxifix. Mau, conl. κατοπτροειδὲς ex S Diels Lachenaud, σελήνης secl. Diels Mau Lachenaud) : πυροειδὲς σῶμα P^L : κατὰ τὸ πυροειδὲς σχῆμα P^E (conl. Mras πυροειδὲς σῶμα κατὰ τὸ σχῆμα κατοπτροειδὲς) : πετρώδες σῶμα T

Testes primi:

Theodoretus CAG 4.21, 23

4.21.1 (~ §3) καὶ μέντοι καὶ τὸν ἥλιον καὶ τὴν σελήνην ὁ Ξενοφάνης νέφη εἶναι πεπωρωμένα φησίν.

4.23 (~ tit.) καὶ περὶ σελήνης δὲ ὁμοίως ὑθλοῦσιν·

4.23.1 (~ §9) γεώδη μὲν γὰρ αὐτὴν ὁ Θαλῆς φησιν,

4.23.2 (~ §2) Ἀναξίμενης δὲ καὶ Παρμενίδης καὶ Ἡράκλειτος ἐκ μόνου ξυνεστάναι πυρός·

- 4.23.3 (~ §10) Ἀναξαγόρας δὲ καὶ Δημόκριτος στερέωμα διάπυρον, ἔχον ἐν ἑαυτῷ
πεδία καὶ ὄρη καὶ φάραγγας·
4.23.4 (~ §15) ὁ δὲ Πυθαγόρας πετρώδες σῶμα·
4.23.5 (~ §14) Ἡρακλείδης δὲ γῆν ὁμίχλην περιεχομένην.

Traditio ps.Plutarchi:

Papyrus Antinoopolis fr. 1 recto = P §§1–5

- [κ]αῖτα
[τας επιστροφας του τροχου ομοιον γαρ ε]ινα[ι]
[αρματιου τροχῳ κοίλῃν εχοντι τ]ῇν αψι[δα]
[και πληρη πυρος εχοντι μιαν εκ]πνοην Ξε
5 [νοφανης νεφος εἶναι πεπιλημε]νον οἱ
[Στωικοι μικτην εκ πυρος και αερο]ς
[Πλατων εκ πλειονος του πυρωδους] Δη]
[μοκριτος στερεωμα διαπυρον εχον] εν

ps.Galenus HPh c. 67 (~ tit.) Περὶ σελήνης (text Jas)

- 67.1 (~ P1) Ἀναξίμανδρος κύκλον εἶναι ἐκακαιοδεκαπλασίονα τῆς γῆς.
67.2 (~ P2) Ξενοφάνης δὲ εἶναι νέφος πεπυρωμένον.
67.3 (~ P3) οἱ Στωικοὶ μικτὴν εἶναι τὴν σελήνην ἐκ πυρὸς καὶ γεώδους ᾧθήσαν.
67.4 (~ P4) Πλάτων ἐκ πλείονος πυρός.
67.5 (~ P5) Ἀναξαγόρας καὶ Δημόκριτος στερέωμα διάπυρον, ἔχον ἐν ἑαυτῷ πεδία
καὶ ὄρη καὶ φάραγγας.

Ioannes Lydus Mens. 3.12 Ἀναξίμενης τοίνυν κύκλον τὴν σελήνην εἶναι βούλε-
ται ἑννεακαιοδεκαπλασίονα τῆς γῆς, πλήρη πυρὸς ὥσπερ (τὸν) τοῦ ἡλίου (~ P1),
Ξενοφάνης δὲ νέφος εἶναι πεπυρωμένον (~ P2), οἱ Στωικοὶ μικτὴν πυρὸς καὶ ἀέρος
(~ P3), Πλάτων ἐκ πλείονος τοῦ πυρώδους (~ P4), Ἀναξαγόρας καὶ Δημόκριτος
στερέωμα διάπυρον, ἔχον ἐν ἑαυτῷ πεδία καὶ ὄρη καὶ φάραγγας (~ P5), Ἡρά-
κλειτος γῆν ὁμίχλην περιειλημμένην (~ P6), Πυθαγόρας γε μὴν πυροειδὲς σῶμα
(~ P7).

Symeon Seth CRN 3.50 Περὶ οὐσίας καὶ φωτισμῶν σελήνης καὶ σχήματος (~ tit.)

Testes secundi:

Achilles Univ. c. 21 p. 30.6 Περὶ σελήνης (~ tit)

- p. 30.7–12 (1) τινὲς οὐδὲ ὅλως βούλονται εἶναι σελήνην. (2) ἄλλοι δὲ αὐτὴν ἐξ ἀνα-
θυμιάσεως γῆς εἶναι λέγουσιν, (3) ἕτεροι δὲ ἐκ πυρός (~ §2), (4) ἄλλοι καὶ ἀέρος
(~ §5), (5) ἄλλοι ἐκ τῶν τεσσάρων στοιχείων, (6) ἕτεροι δὲ γῆν πεπυρωμένην
στερέμνιον ἔχουσιν πῦρ, εἶναι δὲ ἐπ' αὐτῆς οἴκησιν ἄλλην ποταμούς τε καὶ ὅσα
ἐπὶ γῆς (~ §10), καὶ τὸν λέοντα τὸν Νεμεαῖον ἐκεῖθεν πεσεῖν μυθολογοῦσιν. (7)
Ἐμπεδοκλῆς δὲ ἀπόσπασμα αὐτὴν φησιν ἡλίου.

Scholia in Aratum, Proleg. 17 p. 27.21–28.2 Martin ἰζ' Σελήνη. τὴν δὲ σελήνην
σύγκριμα ἐκ πυρός καὶ ἀέρος (~ §5)· διὰ τοῦτο καὶ πάντων κατωτέρα(ν) τῶν
ἀστέρων. οἱ δὲ ἀτόπρον τι (~ §15).

Loci Aetiani:

titulus et quaestio A 2.11 Περί οὐρανοῦ, τίς ἡ τούτου οὐσία; et vide textus citatos ad 2.11. A 2.26 Περί μεγέθους σελήνης. A 2.27 Περί σχήματος σελήνης. A 2.28 Περί σχήματος σελήνης. A 2.29 Περί φωτισμῶν σελήνης. A 2.30 Περί ἐμφάσεως αὐτῆς καὶ διὰ τί γεώδης φαίνεται. A 2.31 Περί τῶν ἀποστημάτων τῆς σελήνης, πόσον ἀφέστηκε τοῦ ἡλίου.

§1 cf. A 2.20.1 (de sole) Ἀναξιμανδρος κύκλον εἶναι ὀκτωκαίκοσαπλασίονα τῆς γῆς κτλ.

§2 cf. A 2.20.3 Ἀναξιμένης Παρμενίδης πύρινον ὑπάρχειν τὸν ἥλιον. A 2.30.5 Παρμενίδης διὰ τὸ παραμεμῖχθαι τῷ περὶ αὐτὴν πυρώδει τὸ ζοφῶδες κτλ.

§3 cf. A 2.13.13 (de astris), 2.20.2 (de sole). A 2.20.15 Παρμενίδης τὸν ἥλιον καὶ τὴν σελήνην ἐκ τοῦ γαλαξίου κύκλου ἀποκριθῆναι, τὸν μὲν ἀπὸ τοῦ ἀραιότερου μίγματος, ὃ δὴ θερμόν, τὴν δὲ ἀπὸ τοῦ πυκνοτέρου, ὅπερ ψυχρόν.

§4 cf. A 2.20.6 (de luna) Ἡράκλειτος Ἐκαταῖος Κλεάνθης ἀναμμὰ νοερόν ἐκ θαλάττης.

§5 A 2.28.3 (de luna) οἱ Στωικοὶ ἀμαυροφανές, ἀεροειδές γάρ. A 2.30.6 (de luna) οἱ Στωικοὶ διὰ τὸ ἀερομιγές τῆς οὐσίας μὴ εἶναι αὐτῆς ἀκήρατον τὸ σύγκριμα.

§7 cf. A 2.13.11 (de astris), 2.20.7 (de sole), 1.7.22 (de deis, text. cit. ad A 2.13.11).

§8 vide text. cit. ad 2.11.5 (de caelo).

§9 cf. A 2.13.1 (de astris), 2.20.9 (de sole). A 2.24.1 Θαλῆς πρῶτος ἔφη ἐκλείπειν τὸν ἥλιον τῆς σελήνης αὐτὸν ὑποτρεχούσης κατὰ κάθετον, οὕσης φύσει γεώδους.

§10 cf. A 2.13.3, 5 (de astris), 2.20.8 (de sole). A 2.30.3 (de luna) Ἀναξαγόρας ἀνωμαλότητα τοῦ συγκρίματος διὰ τὸ ψυχρομιγές ἅμα καὶ γεώδες, τὰ μὲν ἐχούσης ὑψηλά, τὰ δὲ ταπεινά, τὰ δὲ κοῖλα. cf. A 2.30.4 Δημόκριτος ἀποσκιάματα τῶν ὑψηλῶν ἐν αὐτῇ μερῶν ἄγκη γάρ αὐτὴν ἔχειν καὶ νάπας.

§11 cf. A 2.13.10 (de astris), 2.20.10 (de luna).

§13 A 2.29.2 (de lunae defectu) Βήρωσος κατὰ τὴν πρὸς ἡμᾶς ἐπιστροφὴν τοῦ ἀπυρώτου μέρους.

§14 A 2.13.14 Ἡρακλείδης καὶ οἱ Πυθαγόρειοι ἕκαστον τῶν ἀστέρων κόσμον ὑπάρχειν, γῆν περιέχοντα ἄερα τε καὶ αἰθέρα ἐν τῷ ἀπείρῳ αἰθέρι.

§15 A 2.30.1 τῶν Πυθαγορείων τινὲς μὲν, ὧν ἐστὶ Φιλόλαος, τὸ γεωφανές αὐτῆς εἶναι

...

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The chapter on the moon's substance is one of the longest in Book 2 and is exceptionally well attested. For the tradition of P there are no less than six witnesses. There is also very full record in S, complemented by extracts in T and some parallel material in Ach and the Aratean tradition.

(1) P records seven doxai. The first attributed to Anaximander is quite long and gives various additional details based on his particular cosmology. It is wholly parallel to the first doxa in ch. 2.20. The remaining six are mainly short. The complete set of doxai is found in E, Q and in an excerpt in Ioannes Lydus. G abridges the first doxa and deletes the final two. The papyrus is very fragmentary but gives evidence on one textual conundrum. As the apparatus shows, in the case of the second, fourth and final doxa there are important textual discrepancies that will need to be examined in detail. For this task the evidence of the remaining witnesses must be taken into account.

(2) As occurred in the case of the doxography on the sun, S combines all the material on the moon in a single chapter. His procedure differs a little, however, no doubt because he concluded that to coalesce seven chapters (compared with five on the sun) would simply be too difficult. So he just takes the first three chapters on the moon's substance, size and shape and combines all the material in them. Since the other two chapters are short, most of the material comes from the chapter on substance. The remaining four chapters are then seemingly written out in full. The procedure thus provides valuable evidence on both S's method and the original appearance of A (see the remarks at M–R 1.218).

Since the following two chapters on the moon's size and shape are short and distinctive, it should be possible to strip the doxai from them away and so be left with the lemmata originally present in 2.25. A complicating factor, however, is that S has clearly mixed in some material from AD towards the end of the coalesced section of the chapter. Stylistic considerations make it highly likely that the lemmata on Aristotle (1h), Zeno (1i) and Chrysippus (1l) derive from AD (but not the lemma on Cleanthes); on these lemmata see further M–R 3.328–329 (but the Aristotelian lemma should be added). We shall argue below that the extract on Aristotle from AD very likely replaces a doxa originally present in A.

If, then, the extraneous material both from chs. 2.26 and 2.27 and from AD is filtered out, the following fifteen doxai remain (doxai present in P are added in brackets):

S₁ Anaximander (= P₁)—S₂ Anaximenes—S₃ Parmenides—S₄ Xenophanes (= P₂)—S₅ Thales—S₆ Anaxagoras Democritus (= P₅)—S₇ Diogenes—S₈ Ion—S₉ Berosus—S₁₀ Heraclides Ocellus (~ P₆)—S₁₁ Pythagoras (= P₇)—S₁₂ Empedocles—S₁₃ Plato (= P₄)—S₁₄ Cleanthes—S₁₅ Posidonius and most of the Stoics (~ P₃).

Clearly it will be a challenge to reconcile this list with the order of the doxai in P.

(3) T follows his section on the sun with a parallel section on the moon. But earlier in T 4.21 he had already coalesced the doxai of Xenophanes on the two heavenly bodies, changing the singular into the plural νέφη πεπυρωμένα (T₁). In T 4.23 he continues with five more doxai which can all be paralleled in S. Significantly, however, he joins up the name-labels of Anaximenes and Parmenides and adds that of Heraclitus to it (T₃; missing in S). It is most likely that these three labels were linked together with the view that the moon is fiery. There are also differences in the order of the doxai when compared with S. T begins with Thales (T₂) and places the doxa of Heraclides (T₆) after that of Pythagoras (T₅; this also differs from P). The doxa of Anaxagoras–Democritus (T₄) is taken over without modification.

(4) On the significant parallels in Achilles and the Aratea see the next section.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The topic of the moon's substance is prominent in a number of texts which stand close to the doxographical traditions used by A. Two occur in Achilles and the *Scholia in Aratum*, showing significant though mostly not very exact parallels to A. These will be discussed in section D(e) below. A third text is found in Cicero's *Lucullus*, where as we saw in the case of ch. 2.21 Cicero draws on an anterior doxographical tradition. The doxa at §123 is clearly parallel to that of Anaxagoras–Democritus in A (note both mention mountains), but it is attributed to Xenophanes. Finally, there are two suggestive texts in doxographical passages in Philo's *De somniis*. At *Somn.* 1.22 Philo writes that some people have said that the heavenly bodies are ἄγκεια καὶ νάπας καὶ μύδρους διαπύρους. This is not specifically said of the moon, but is reminiscent of the doxa of Anaxagoras and Democritus in §10 (but is even closer to the doxa of Democritus at A 2.30.4). In *Somn.* 1.145 Philo also gives a view that is similar to the Stoic doxa in A (note the term χρᾶμα). We may surmise that these passages are drawn from the source that he used extensively earlier in the treatise (see above on chs. 2.11 and 2.13). We return to this text when discussing ch. 2.30 below. Lucian in his satire *Icaromenippus* also refers to questions associated with the moon (substance, size and shape), wittily placing them in the moon's mouth as a participant in the conversation.

Of considerable interest in relation to this chapter (and also chs. 2.28 and 2.30) is the celebrated treatise of Plutarch, *Περὶ τοῦ ἐμφαινομένου προσώπου τῷ κύκλῳ τῆς σελήνης*. Various views are recorded, some of which correspond to doxai in A (Stoics 921F, Empedocles 922C, Aristotle 928E, Thales etc. 936E, Plato 943A), while others differ (Posidonius 929D, Xenocrates 944A). The proposed

view at 922B, εἰ οὖν ἡ σελήνη πῦρ ἐστὶ, recalls the formulation of a θέσις. In fact, the opposition between fiery–light and earthy–heavy, parallel to A's diaphonia, dominates the entire treatise; see esp. 921E, 936E (cited below section E(a) General texts). Ultimately Plutarch seeks a compromise view associated with Plato and Xenocrates (cf. 943F and 945D, and see further on A 2.30). This is also a common doxographical technique. The entire treatise is a splendid example of how doxographical material and techniques can be utilised and absorbed in a highly literary work. It deserves further detailed analysis from this viewpoint. Most of these doxographical parallels are not included in the notes to the edition of Cherniss's edition in Cherniss-Hembold (1957) or are concealed in references to collections such as DK and SVF.

(2) *Sources.* That the nature of the moon was a hot topic of discussion in early Greek philosophy, just like in the case of the sun, is evident not only from the material in our chapter but also from the purported exchange between Socrates and Meletus in the former's speech at his trial (*Apol.* 26d–e). But it is difficult to trace antecedents for the collection of doxai in our chapter. Aristotle scarcely refers to the moon in *De caelo* and furnishes no doxographical material (he does refer to two questions regarding it in his theory of knowledge at *APo.* 2.1 90a3–5, text below). In general, there is less doxographical and dialectical material on the substance of the moon than on that of the sun (we have found no examples of its use as a rhetorical example of a *quaestio* or a θέσις). It is clear, however, that the main diaeresis of A's chapter reflects the main division of opinion on the subject in antiquity; see Préaux (1973) 157. The thorough overview of ancient views in Gundel (1933) 77–84, which is like a modern version of doxography, is organised in a tripartition, beginning with views that the moon is earthlike, followed by views that it is a mixture of elements, and ending with the view that it is composed of fire.

C Chapter Heading

The longer heading found in P^{BQ} and in S (and P^{Sy}) must be the original, as shown by the parallels at chs. 2.11, 2.13 and 2.20. E and G abridge, as they also did in their chapters on the sun's substance (ch. 2.20). As in the parallel chapters, the heading as the common umbrella formulation Περὶ x, indicating a *quaestio* in the category of substance.

S has joined together the chapter headings of chs. 2.25–27 at the beginning of his chapter and inserted the remaining headings of chs. 2.28–31 at the appropriate points within the chapter itself. There is no need to follow Wachsmuth in restoring the latter to the initial chapter heading. This is based on Photius' index, but he could have easily extracted them from within the chapter, as argued by Elter (1880) 72 and Mansfeld (2000b) 182–183.

D *Analysis*

a Context

The doxography on the moon (chs. 2.25–31) follows the same pattern as that on the sun (chs. 2.20–24), starting with a lengthy chapter on its substance. The parallel chapters on the heaven, stars, sun and earth at chs. 2.11, 2.13, 2.20 and 3.9 all include the term οὐσία in their chapter headings (but the chapter on the sun is the only other one to use the formula Περὶ οὐσίας, the others using longer formulations).

b Number–Order of Lemmata

The task is to identify which doxai belong to the chapter (in most but not all cases this is clear) and to reconcile the differences in order between the three witnesses. The starting-point should be the long list of doxai in S, but we must bear in mind that the epitomator P seldom alters the order that he found in A. We proceed in the following steps.

(1) The order in P corresponds well with the order in S, except in the case of P₃ = S₁₄ (Stoics) and P₄ = S₁₃ (Plato). S often moves doxai on Plato, Aristotle and the Stoa to the end of the chapter and sometimes replaces A with extracts from AD. This will have happened here. We should retain P's order for these doxai.

(2) For the second doxa (Anaximander is first in both P and S) T shows that most likely there were three name-labels Anaximenes–Parmenides–Heraclitus. This means that S must have accidentally deleted the Heraclitean view at 1.26.1c (unless the word πυρίνην dropped out of the text). This view is consistent with the Heraclitean doxai in following chapters (A 2.28.7, 2.29.3).

(3) As Wachsmuth saw, S_{5–11} form a block (all with views that the moon is in some way earthy). The view of Xenophanes that precedes in both P and S is to be located earlier in the chapter.

(4) The Empedoclean doxa that follows the block (S₁₂) does not belong with it. It is close to the Stoic view and very likely followed it. S may have overlooked it when he passed over the views of the Stoa and then added it after the block.

(5) In S an Aristotelian doxa follows on from Plato (the two philosophers are often coupled in the *Placita*). Its formulation suggests, however, that it was drawn from AD (it should be added to the list in Runia (1996b) 372–376, repr. M–R 3.322–327). It is very likely that it replaced the original doxa in A, which therefore must be supplied. Our conjectured formulation is based on the similar doxai in A 2.13.12 and 2.20.11.

(6) As noted above, the doxai of Zeno and Chrysippus near the end in S are taken from AD. However, the formulation of the two brief doxai on substance and shape attributed to Cleanthes at S 1.26.1i differs and so they are more likely

to come from A (cf. S 1.26.1cf), to be assigned to chs. 2.25 and 2.27 respectively. The former on the moon's substance precedes the view of Posidonius and the Stoics in S (note the expanded name-label compared with P, who must have compressed here). This order can be retained, the doxa forming a slight contrast with the similar view of Xenophanes, although it is also possible that it followed that of most Stoics as an exception (the option taken at M-R 2.2.580).

On the basis of the above there are 15 doxai in the chapter (very similar to the parallel chapters 2.13 and 2.20) in the following order:

A1 Anaximander—A2 Anaximenes—Parmenides—Heraclitus—A3 Xenophanes—A4 Cleanthes—A5 Posidonius and most of the Stoics—A6 Empedocles—A7 Plato—A8 Aristotle—A9 Thales—A10 Anaxagoras—Democritus—A11 Diogenes—A12 Ion—A13 Berossus—A14 Heraclides—Ocellus—A15 Pythagoras.

This order is fully consistent with that found in P. As noted above in section A(3), T has modified the order in a number of ways.

c Rationale—Structure of Chapter

If the 15 doxai are analysed (and the further comments in the following subsection are taken into account), it emerges that the chapter has a remarkably coherent structure (first pointed out in Runia 1989), which illustrates beautifully a number of common doxographical techniques used by A.

The chapter is dominated by a fundamental diaeresis between the view that the moon is basically fiery and the view that it is primarily made of earth or some solid substance. The leaders of the two views are the venerable Milesians Anaximander (§1) and Thales (§9). After Anaximander there follow three views that the moon is fiery or fire-like (§§2–4). Then there are four doxai in which fire is mixed with other elements (§§5–8). The Aristotelian view coming last in this group might be seen as exceptional, since the quintessence is not fiery in the strict sense. After Thales, leader of the second basic group of views (§§9–15), a number of doxai follow in which the moon is earthy or solid or glassy etc. These views are only loosely organized and contain some quite idiosyncratic positions. There is an obvious link with the subject of ch. 2.30 on the moon's appearance and why it appears to be earthy. See further our Commentary on that chapter.

d Further Comments

Individual Points

§1 For this doxa P and S have very different texts, which are not easily reduced to a single version. It is worth setting out the two texts in detail, cutting them up into their separate components and highlighting what is common to them both:

S1	Ἀναξίμανδρος κύκλον εἶναι ἐννεακαί- δεκαπλάσιον τῆς γῆς,	P1	Ἀναξίμανδρος κύκλον εἶναι ἐννεακαί- δεκαπλασίονα τῆς γῆς,
S2	ὅμοιον ἄρματίῳ (τροχῷ) κοίλην ἔχοντι τὴν ἀψίδα καὶ πυρὸς πλήρη,	P2	ὥσπερ (τὸν) τοῦ ἡλίου πλήρη πυρὸς·
S3	καθάπερ (τὸν) τοῦ ἡλίου, κείμενον λοξόν, ὡς κάκεινον,	P3	ἐκλείπειν δὲ κατὰ τὰς ἐπιστροφὰς τοῦ τροχοῦ·
S4	ἔχοντα μίαν ἐκπνοήν, οἷον πρηστήρος αὐλόν·	P4	ὅμοιον γὰρ εἶναι ἄρματίου τροχῷ κοί- λην ἔχοντι τὴν ἀψίδα καὶ πλήρη πυρὸς,
S5	ἐκλείπειν δὲ κατὰ τὰς ἐπιστροφὰς τοῦ τροχοῦ.	P5	ἔχοντι μίαν ἐκπνοήν.

There are two main differences. (1) S has additional material (κείμενον λοξόν, ὡς κάκεινον, οἷον πρηστήρος αὐλόν), whereas P repeats a phrase (πυρὸς πλήρη). (2) There is a difference in order: compared with S, P has the order P1–4–2–5–3; compared with P, S has the order 1–3–5–2–4. There can be little doubt that S's text is superior. Aside from the superfluous repetition, P also states that the wheel causes the eclipse in P3 before introducing it in P4. S's additional material is not such that it could easily be added on the basis of general knowledge. We note that the phrase οἷον πρηστήρος αὐλόν recalls διὰ πρηστήρος αὐλοῦ in A 2.20.1 (though there the full phrase is only found in P); on the interpretation of this phrase see on ch. 2.20, Commentary D(d)§1. We have thus integrally taken over S's version in our text above. See further Runia (2020).

§3 For the reading here the witnesses are fairly evenly divided by πεπυρωμένον and πεπιλημένον. The evidence for the former is a little stronger than the latter if T is added. It is important to realise that both readings are supported by independent parts of the tradition of P. Remarkably the papyrus, unknown to Runia when writing his 1989 paper, contains the final three letters of the participle. The editor Barns supplemented with πεπυρωμένον, but given the virtually identical length of the two variants, this is arbitrary. It is easy to see that something like the reading πεπυρωμένον πεπιλημένον is required in order to differentiate between the sun and the moon (not understood by T). The strange hybrid reading πεπυρωλημένον in the oldest Byzantine ms. Mosq. 339 can be explained as the result of the superscripting of letters from the

alternative reading (cf. Diels *DG* 16 and the apparatus to Mau's edition) or as the result of haplography, i.e. πεπυρω(μένον πεπι)λημένον. In Runia (1989) 267 it was proposed that both participles must have originally been present in the text and this was approved by Mourelatos (2008) 148 in his fuller analysis of Xenophanes' cosmology. If the succession of participles seems a little harsh, one might adduce the text in Ach, γῆν πεπυρωμένην στερέμνιον ἔχουσιν πῦρ (where στερέμνιον goes with γῆν), but of course this is no parallel for the succession of two passive past participles. The unusual nature of the phrase must have led to one of the participles being dropped. The papyrus tells us this happened already at an early stage. The hybrid reading remains as witness to the original text. For the translation of πεπυρωμένον as 'incandescent' see above on ch. 2.13 Commentary D(d)§13 and ch. 2.20 Commentary D(d)§2.

§7 The reading for the Platonic doxa in S clearly confirms the reading in P^B and Lydus against E and G. It is consistent with, but less accurate than A 2.13.11 and 2.20.7.

§8 On the conjecture here, based on A 2.13.12 and 2.20.11, see section D(b) above.

§12 This is the only appearance of Ion of Chios in the *Placita*. See the note on unique name-labels at ch. 2.17 Commentary D(d)§3. Brief discussion in a collective volume on Ion by Baltussen (2007) 308–310.

§13 Berossus the Babylonian (fl. 330 BCE) is only cited in the *Placita* in relation to the moon; cf. also A 2.28.1, 2.29.2. He is thus not a Presocratic, but like them has an interesting and idiosyncratic view, for which our doxographer always shows an interest. The astronomical fragments of Berossus are controversial. These doxai may have been drawn from his Βαβυλωνιακά, but Jacoby, followed by recent scholars, regarded them as a late Hellenistic invention; see now De Breucker (2012) and the further discussion at ch. 2.28 Commentary D(e).

§14 The name-label Heraclides in S is confirmed by T (P has Heraclitus, an easy mistake, esp. in the light of a similar doxa attributed to the latter in A 2.28.7). There is no reason to follow Diels *DG* 100, 216 and 356 in supposing the name of Ocellus was added by S. Admittedly this is his only appearance in the *Placita*, but he occurs elsewhere in doxographical material (e.g. S.E. *M.* 10.316, Philo *Aet.* 12). We note also Ἡρακλείδης καὶ οἱ Πυθαγόρειοι in A 2.13.14.

§15 The readings in the tradition of P involving a fiery body are most unlikely to be correct given the structure of the chapter noted above in section D(c). T's reading πετρῶδες σῶμα is not impossible. But in two nearby chapters there are Pythagorean doxai involving reflection (A 2.20.13, 2.30.2), so S's reading κατοπτροειδὲς σῶμα inspires confidence. It is also supported by the doxa in the *Scholia in Aratum* (see section D(e) below). The readings in the P tradition can be explained as corruptions of the original reading preserved in S.

e Other Evidence

In a most interesting parallel passage Ach at the beginning of his chapter on the moon presents seven doxai. Although not specifically linked to the subject of its οὐσία, this is clearly what they discuss. These doxai have a complex relationship to what is found in A, regrettably offering little help for the task of reconstructing his original chapter. The doxai are all but the last presented anonymously and are mainly very brief:

Ach1. The denial of the moon's existence is a remarkable doxa. It can be explained as a mechanical application of the originally Aristotelian question types, of which the first is εἰ ἔστιν, whether something exists or not. Cf. A 1.7 on the gods and 1.24 on generation and change; see further M–R 2.1.169. Aristotle actually uses the moon's existence as an example at *APo.* 2.1 90a5 (text below). Another explanation might be that the moon we see is only a phantasm or a reflection.

Ach2. Not in A, but equivalent to A 2.20.5–6 on the sun.

Ach3. Equivalent to the doxa of Anaximenes–Parmenides–Heraclitus in A.

Ach4. Parallel to the doxa of Posidonius and the Stoics in A.

Ach5. Presumably the Platonic view; cf. Ach ch. 11 on the stars, but there he adds πλείστου δὲ πυρός.

Ach6. Basically equivalent to the Anaxagoras–Democritus lemma in A. The mention of the Nemean lion is also found in a scholion on Apollonius Rhodes' *Argonautica*, where it is linked to the flat surface of the moon (see on ch. 2.27). The report is also anonymously mentioned by Plutarch *Fac.* 937F in connection with the moon's velocity.

Ach7. Quite different from the Empedoclean doxa in A (the view has already been mentioned in ch. 16, 23.16 Di Maria on the order of the seven spheres, where it is joined up with fr. B45 DK).

There is a further scrap of material in the *Scholia in Aratum*. The first doxa is basically that of the Stoics (the term σύγκριμα reappears in the Stoic doxa at A 2.30.6 on the moon's appearance; we note also κρᾶμα at Philo *Somn.* 1.145). The second doxa most interestingly gives us a parallel for the reading of S in the Pythagorean lemma found in all three witnesses (§15). There can be no doubt that this material comes from a shared tradition.

E Further Related Texts

a Proximate Tradition

General texts: Philo of Alexandria *Somn.* 1.145, λέγεται γοῦν ὅτι σελήνην πύλημα μὲν ἄκρατον αἰθέρος οὐκ ἔστιν, ὡς ἕκαστος τῶν ἄλλων ἀστέρων, κρᾶμα δὲ ἕκ τε αἰθερώδους οὐσίας καὶ ἀερώδους. also *Her* 247; see on A 2.11. cf. **Ioannes Lydus** *Mens.* 3.12, p. 54.12–14 (copied from Philo *Somn.* 1.145). **Plutarch** *Fac.Lun.* 921E οὐκ ἐθελήσει δέ ... τὴν σελήνην ἐμβριθὲς ὑποθέσθαι σῶμα καὶ στέρεον ἡμῖν ὁ Κλέ-αρχος (not in Wehrli) ἀλλὰ ἄστρον αἰθέριον καὶ φωσφόρον ... *Fac.Lun.* 922B εἰ οὖν ἡ σελήνη πῦρ ἐστὶ, πόθεν αὐτῇ τοσοῦτος ἐγγέγονεν ἀήρ. *Fac.Lun.* 935B, (γ)ῆ τις (ὄλυμπία καὶ) ἱερὰ πρὸς ἀνθρώπων νομιζομένη μάλλον ἢ πῦρ θολερὸν ὥσπερ οἱ Στωικοὶ (...) λέγουσι καὶ τρυγῶδες. *Fac.Lun.* 936E οἱ δὲ σῶμα μὴ λεπτόν μηδὲ λείον ... ἀποφαίνοντες τὴν σελήνην ἀλλ' ἐμβριθὲς καὶ γεῶδες ... *Fac.Lun.* 943E ἐφορώσι δὲ πρῶτον μὲν αὐτῆς σελήνης τὸ μέγεθος καὶ τὸ κάλλος καὶ τὴν φύσιν οὐχ ἀπλήν οὐδ' ἄμικτον ἀλλ' οἷον ἄστρον σύγκραμα καὶ γῆς οὖσαν ... ταῦτα δὲ καὶ Ξενοκράτης (fr. 56 Heinze, 161 Isnardi Parente²) ἔοικεν ἐννοῆσαι θεῖω τινὶ λογισμῷ τὴν ἀρχὴν λαβὼν παρὰ Πλάτωνος. Πλάτων (*Tim.* 31b–32c, 40a) γάρ ἐστιν ὁ καὶ τῶν ἀστέρων ἕκαστον ἐκ γῆς καὶ πυρὸς συνηρμόσθαι διὰ τῶν (δυεῖν) μεταξὺ φύσεων ἀναλογίᾳ δεθεισῶν ἀποφηνάμενος ... ὁ δὲ Ξενοκράτης τὰ μὲν ἄστρα καὶ τὸν ἥλιον ἐκ πυρὸς φησι καὶ τοῦ πρῶτου πυκνοῦ συγκεῖσθαι τὴν δὲ σελήνην ἐκ τοῦ δευτέρου πυκνοῦ καὶ τοῦ ἰδίου ἀέρος ... *Fac.Lun.* 945D μικτὸν δὲ καὶ μέσον ἡ ψυχὴ καθάπερ ἡ σελήνη τῶν ἄνω καὶ κάτω σύμμιγμα καὶ μετακέρασμα ὑπὸ τοῦ θεοῦ γέγονε ... **Lucian** *Icar.* 20 (moon speaking in first person) πολλὰ καὶ δεινὰ παρὰ τῶν φιλοσόφων ἀκούουσα, οἷς οὐδὲν ἑτερόν ἐστιν ἔργον ἢ τὰμὰ πολυπραγμονεῖν, τίς εἰμι καὶ πηλίκη, καὶ δι' ἥντινα αἰτίαν διχότομος ἢ ἀμφίκυρτος γίνομαι. **Macrobius** in *Somn.* 1.19.10–12 *denique quia totius mundi ima pars terra est, aetheris autem ima pars luna est, lunam quoque terram sed aetheriam vocaverunt ... luna speculi instar lumen quo illustratur emittit, quia illa aeris et aquae, quae per se concreta et densa sunt, faex habetur et ideo extrema vastitate densata est, nec ultra superficiem quavis luce penetratur; haec licet et ipsa finis sit, sed liquidissimae lucis et ignis aetherii, ideo quamvis densius corpus sit quam cetera caelestia, multo tamen terreno purius ...*

Chapter heading: **Plutarch** *Fac.Lun.* 944A καὶ ταῦτα μὲν περὶ οὐσίας σελήνης. **Arnobius** of Sicca *Adv.Nat.* 2.58, p. 133.13 Marchesi *quid sit luna?*

§2 **Anaximenes Parmenides Heraclitus:** see **Plutarch** *Fac.Lun.* 922B cited above.

§5 **Posidonius Stoics:** **Plutarch** *Fac.Lun.* 921F (*SVF* 673) ἀλλὰ μὴ δόξωμεν ἔφη (Lucius) κοιμῆθι προπηλακίζειν τὸν Φαρνάκην, οὕτω τὴν Στωικὴν δόξαν ἀπροσαύδητον ὑπερβαίνοντες, εἰπέ δὴ τι πρὸς τὸν ἄνδρα, πα(γέ)ντος ἀέρος μίγμα καὶ μαλακοῦ πυρὸς ὑποτιθέμενον τὴν σελήνην, εἴθ' οἷον ἐν γαλήνῃ φρίκης ὑποτρεχοῦσης φάσκοντα τοῦ ἀέρος διαμελαίνοντος ἔμφασιν γίνεσθαι μορφοειδῆ. *Fac.Lun.* 922C see §6 below on Empedocles. *Fac.Lun.* 928D (on the Stoics = *SVF* 2.668) λέγουσι δὲ τοῦ αἰθέρος τὸ μὲν αὐγοειδὲς καὶ λεπτόν ὑπὸ μακρότητος οὐρανὸν γεγενῆσθαι, τὸ δὲ πυκνωθὲν καὶ συνειληθὲν ἄστρον· τοῦτων δὲ τὸ νωθρότατον εἶναι τὴν σελήνην καὶ θολερώτατον. *Fac.Lun.* 933F ὁ Φαρνάκης (*SVF* 2.672) εἶπεν, ὅτι τοῦτο καὶ

μάλιστα τὴν σελήνην δείκνυσιν ἄστρον ἢ πῦρ οὖσαν· οὐ γάρ ἐστι παντελῶς ἄδηλος ἐν ταῖς ἐκλείψεσιν, ἀλλὰ διαφαίνει τινὰ χρόαν ἀνθρακῶδη καὶ βλοσυράν, ἣτις ἰδιός ἐστιν αὐτῆς. **Arius Didymus** fr. 34 Diels at Stob. *Ecl.* 1.25.5 Χρύσιππος (*SVF* 2.652) τὸ ἀθροισθὲν ἑξαμμη μετὰ τὸν ἥλιον νοερὸν ἐκ τοῦ ἀπὸ τῶν ποτίμων ὑδάτων ἀναθυμιάματος. **Diogenes Laertius** *V.P.* 7.145 (*SVF* 2.650) γεωδεστέραν δὲ τὴν σελήνην, ἅτε καὶ προσγειοτέραν οὖσαν. τρέφεσθαι δὲ τὰ ἔμπυρα ταῦτα καὶ τὰ ἄλλα ἄστρα, ... τὴν δὲ σελήνην ἐκ ποτίμων ὑδάτων, ἀερομιγῇ τυγχάνουσιν καὶ πρόσγειον οὖσαν, ὥς ὁ Ποσειδώνιος ἐν τῷ ἑκτῷ τοῦ Φυσικοῦ λόγου (F 10 E.-K., 260 Theiler).

§6 Empedocles: Plutarch *Fac.Lun.* 922C καὶ γὰρ Ἐμπεδοκλεῖ (31A60 DK) δυσκολαινοῦσι (sc. the Stoics) πάγον ἀέρος χαλαζῶδη ποιοῦντι τὴν σελήνην ὑπὸ τῆς τοῦ πυρὸς σφαίρας περιεχόμενον, αὐτοὶ δὲ τὴν σελήνην σφαῖραν οὖσαν πυρὸς ἀέρα φασὶν ἄλλον ἄλλῃ διεσπασμένον περιέχειν, καὶ ταῦτα μῆτε ῥήξεις ἔχουσιν ἐν αὐτῇ μῆτε βάθῃ καὶ κοιλότητι, ἅπερ οἱ γεῶδη ποιοῦντες ἀπολείπουσιν, ἀλλ' ἐπιπολῆς δηλονότι τῇ κυρτότητι ἐπικείμενον. **ps.Plutarch** *Strom.* 10 (fr. 179 Sandbach: on Empedocles, 31A30 DK) σελήνην δὲ φησι συστήναι καθ' αὐτήν ἐκ τοῦ ἀποληφθέντος ἀέρος ὑπὸ τοῦ πυρὸς· τοῦτον γὰρ παγῆναι καθάπερ καὶ τὴν χάλαζαν.

§8 Aristotle: Plutarch *Fac.Lun.* 921D οὐκ ἐβελήσει δ' οἶμαι τὴν σελήνην ἐμβριθὲς ὑποθέσθαι σῶμα καὶ στερεὸν ἡμῖν (Cherniss, mss. ὑμῖν) ὁ Κλέαρχος, ἀλλ' ἄστρον αἰθέριον καὶ φωσφόρον, ὥς φατε (sc. Peripatetics). **Arius Didymus** at Stob. *Ecl.* 1.26.1h (not in Diels *DG*) Ἀριστοτέλης σελήνην ἐν μεθορίοις ἀέρος τεταγμένην καὶ τῆς πέμπτης οὐσίας μετέχουσιν ἐν μηνὶ περιέρχεσθαι τὸν ἴδιον κύκλον.

§9 Thales: see Plutarch *Fac.Lun.* 936E cited above.

§10 Anaxagoras Democritus: Philo of Alexandria *Somn.* 1.22 see text cited at A 2.13. **Diogenes Laertius** *V.P.* 2.8 (on Anaxagoras, 59A1 DK) τὴν δὲ σελήνην οἰκῆσεις ἔχειν, ἀλλὰ καὶ λόφους καὶ φάραγγας. **Hippolytus** *Ref.* 1.8.6 (59A42 DK) see on A 2.20.8; also *Ref.* 1.8.10 ἔφη δὲ γήινην εἶναι τὴν σελήνην ἔχειν τε ἐν αὐτῇ πεδία καὶ φάραγγας. cf. **Democritus** on Anaxagoras cited on A 2.20.8. **ps.Plutarch** *Strom.* 7 (fr. 179 Sandbach, on Democritus, 68A39 DK) see A 2.20.8. cf. **Cicero** *Luc.* 123 *habitari ait Xenophanes* (fr. 43 Strobel-Wöhrle) *in luna, eamque esse terram multarum urbium et montium; portenta videntur, sed tamen nec ille qui dixit iurare possit ita se rem habere neque ego non ita*. **Scholia on Apollonius of Rhodes** *Argonautica* 498 Wendel (follows on from passage cited on A 2.20.8) τὴν δὲ σελήνην ὁ αὐτὸς Ἀναξαγόρας (59A77 DK) χώραν πλατεῖαν ἀποφαίνει, ἔξ ἧς δοκεῖ ὁ Νεμεαῖος λέων πεπτωκέναι (cf. Achilles §21 cited under *Testes secundi*; also Plu. *Fac.Lun.* 937F). **Origen** *Cels.* 5.11 (on Anaxagoras) see on A 2.20.8.

§12 Ion: Plutarch *Fac.Lun.* 929B–D φωτίζεσθαι τοῖνυν τὴν σελήνην οὐχ ὥς ὕελον ἢ κρύσταλλον ἐλλάμπει καὶ διαφάσει τοῦ ἡλίου πιθανόν ἐστιν ...

b Sources and Other Parallel Texts

General texts: **Plato** *Apol.* 26d–e (on Socrates) see on ch. 2.20. **Aristotle** *APo.* 2.1 90a2–5 λέγω δὲ τὸ ὅτι ἔστι ἐπὶ μέρους καὶ ἀπλῶς, ἐπὶ μέρους μὲν, ἄρ' ἐκλείπει ἢ σελήνην ἢ αὐξεται; εἰ γὰρ ἐστι τὶ ἢ μὴ ἔστι τί, ἐν τοῖς τοιοῦτοις ζητοῦμεν· ἀπλῶς

δ', εἰ ἔστιν ἢ μὴ σελήνη ἢ νύξ. *Phys.* 2.1 193b26–29 see above on ch. 2.20 section E(b) Chapter heading.

Chapter heading: see texts cited on A 2.11, 2.13, 2.20.

§5 *Posidonius Stoics: Cleomedes Cael.* 1.2.36–39 Todd ὑπὸ τοῦτόν ἐστιν ἡ σελήνη, προσγειοτάτη πάντων τῶν ἄστρον ὑπάρχουσα. κατὰ τὴν συναφὴν γὰρ τοῦ ἀέρος πρὸς τὸν αἰθέρα εἶναι λέγεται· ὅθεν καὶ ζοφῶδες αὐτῆς τὸ οἰκεῖον ὁράται σῶμα. *Cael.* 2.4.10–12 ἔστι δ' εὐέλεγκτος ἡ δόξα αὐτοῦ (sc. Berossus, see on §13). πρῶτον μὲν γὰρ ἀδύνατόν ἐστι τὴν σελήνην ἐν τῷ αἰθέρι οὖσαν ἡμίπυρον εἶναι, ἀλλὰ μὴ δι' ὅλου ὁμοίαν τῇ οὐσίᾳ παραπλησίως τοῖς ἄλλοις τῶν ἄστρον.

§7 *Plato:* see on A 2.13.11. *Alcinous Did.* 14, pp. 170.42–171.5 H. ἑπτὰ τοῖ-
νυν σφαιρῶν οὐσῶν ἐν τῇ πλανωμένη σφαίρᾳ, ἑπτὰ σώματα ὁ θεὸς δημιουργήσας
ὁρατὰ ἐκ πυρώδους τῆς πλείστης οὐσίας ἐφήρμοσε ταῖς σφαίραις ὑπαρχούσαις ἐκ
τοῦ θατέρου κύκλου καὶ πλανωμένου. σελήνην μὲν δὴ τῷ μετὰ γῆν ἐπέθηκε κύκλῳ
τῷ πρῶτῳ ...

§10 *Anaxagoras Democritus:* *Plato Apol.* 26d (on Anaxagoras = 59A35 DK)
τὴν δὲ σελήνην γῆν (see further on A 2.20).

§13 *Berossus: Cleomedes Cael.* 2.4.1–3 Todd (*FGH* 680 F18, F21b De Breu-
cker) περὶ δὲ τῶν φωτισμῶν αὐτῆς πλείους γεγόνασι λόγοι. Βηρωσσὸς μὲν γὰρ
ἡμίπυρον οὖσαν αὐτὴν πλείονας κινεῖσθαι κινήσεις ἀπεφώνητο. see further on §5
above.

§15 *Pythagoras:* cf. *Proclus in Tim.* 2.48.15 οἱ δὲ Πυθαγόρειοι ἔλεγον ἐν τῷ
οὐρανῷ θεωρεῖσθαι τὰ στοιχεῖα διχῶς, ἄλλως μὲν πρὸ ἡλίου, ἄλλως δὲ μετὰ ἡλίου.
γῆ μὲν γὰρ αἰθερία ἢ σελήνη.

Liber 2 Caput 26

P^B: ps.Plutarchus *Plac.* 891C; p. 357^a2–8 Diels—**P^E**: Eusebius *PE* 15.27, p. 403.1–3 Mras—**P^G**: ps.Galenus *HPh* c. 67a; p. 627.17–19 Diels—**P^Q**: Qusṭā ibn Lūqā pp. 160–161 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 127, p. 67 Westerink (titulus solus)

S: Stobaeus *Ecl.* 1.26, p. 217.18 (tit.) + 1.26.1b, p. 218.5–6 + 1.26.1h, p. 219.9–10 + 1.26.1b, 219.19–20 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b11–12 Henry (titulus solus)

T: Theodoretus *CAG* 4.23, p. 106.12–14 Raeder

Titulus κς'. Περὶ μεγέθους σελήνης (P,S)

§1 οἱ Στωικοὶ μείζονα τῆς γῆς ἀποφαίνονται ὡς καὶ τὸν ἥλιον. (P1,S3,T1)

§2 Παρμενίδης ἴσῃν τῷ ἡλίῳ, καὶ γὰρ ἀπ' αὐτοῦ φωτίζεται. (P2,S1,T2)

§3 Ἀριστοτέλης ἐλάττονα τῆς γῆς, (S2,T3)

§4 ἄλλοι δὲ σπιθαμῆς ἔχειν διάμετρον. (T4)

5

§1 Stoici *SVF* 2.666; §2 Parmenides 28A42; §3 Aristoteles —; §4 anonymi —

titulus Περὶ μεγέθους σελήνης **P^{BEG}**, cf. S Περὶ σελήνης ... μεγέθους (vid. app. ad c. 2.25) : deest in **P^G** (Περὶ μεγέθους suppl. Diels) §1 [2] post μείζονα add. S δὲ || τῆς γῆς] deest in **P^E** suppl. Mras || ἀποφαίνονται **P^B** : νομίζουσι **P^G** : om. S §2 [3] ἴσῃν **P^{B(I,II)GS}** (add. δὲ S) : ἴσον **P^{B(III)E}** || γὰρ **P^S** : deest in **P^{BGQ}**(ut vid.) || ἀπ' αὐτοῦ **P^{B(I,III)E}** S : παρὰ **P^{B(II)}** : ἐξ αὐτοῦ **P^G** Diels, sed ἀπ' αὐτοῦ leg. Nic. sec. Jas per litt. || φωτίζεται **P^{BEG}** : φωτίζεται S §3 non hab. P || [4] εἶναι τῷ μεγέθει add. S §4 dubium (T testis solus)

Testes primi:

Theodoretus *CAG* 4.23

4.23.6 (~ §1) καὶ οἱ μὲν μείζονα τῆς γῆς ἀποφαίνονται,

4.23.7 (~ §2) οἱ δὲ ἰσόμετρον,

4.23.8 (~ §3) οἱ δὲ γε ἐλάττονα,

4.23.9 (~ §4) ἄλλοι δὲ σπιθαμῆς ἔχειν διάμετρον.

traditio ps.Plutarchi:

ps.Galenus *HPh* c. 67a (text Diels)

67a1 (~ P1) οἱ Στωικοὶ μείζονα τῆς γῆς νομίζουσι τὴν σελήνην ὡς καὶ τὸν ἥλιον.

67a2 (~ P2) Παρμενίδης ἴσῃν τῷ ἡλίῳ καὶ ἐξ αὐτοῦ φωτίζεται.

Psellus *Omn.Doctr.* c. 127 Περὶ μεγέθους ἡλίου καὶ σελήνης καὶ γῆς

Loci Aetiani:

titulus et quaestio A 2.21 Περὶ μεγέθους ἡλίου.

§2 A 2.28.5–6 (de luna) Θαλῆς πρῶτος ἔφη ὑπὸ τοῦ ἡλίου φωτίζεσθαι. Πυθαγόρας Παρμενίδης Ἐμπεδοκλῆς Ἀναξαγόρας Μητρόδωρος ὁμοίως.

§3 A 2.21.3 (de sole) Ἄναξαγόρας πολλαπλασίονα Πελοποννήσου.

§4 A 2.21.4 (de sole) Ἡράκλειτος εὔρος ποδὸς ἀνθρωπίου.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) All the witnesses to the tradition of P reveal only two doxai, the former relating the moon's size to the earth, the latter to the sun. In the case of G it would seem that the epitomator decided to join up this chapter with the preceding one. As argued by Mansfeld (2000b) 180 and followed by Jas, there is no justification for following Diels in interpolating the missing title and so restoring a separate chapter 67a. G can make this change because he has modified the title in ch. 67 (~ P 2.25), omitting the word οὐσίας.

(2) The two doxai in P are also found in S, with an additional doxa relating the view of Aristotle. On Bottler's suggestion that contamination has occurred here see below D(c).

(3) T continues his very compact presentation of views on the moon. He has four doxai, all presented anonymously. Of these the first and third clearly correspond to those of the Stoics (in P and S) and Aristotle (in S). The second differs from what we find in P and S, not comparing the moon's size to that of the sun but continuing the comparison with the earth. The final doxa is not found elsewhere in the doxographical tradition.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The question of the moon's size is raised or discussed in the doxographical tradition and related texts less frequently than that of the sun. It would appear that other aspects of the moon were regarded as more interesting, especially its eclipse, illuminations and appearance. For example, in his *Ep.Pyth.* at D.L. 10.91 Epicurus states that the sun and the stars are the size that they appear, leaving out a reference to moon (Usener and Marcovich added <καὶ σελήνης> to the text but this is not followed by Dorandi, whose explicit aim is to edit Diogenes and not Epicurus). The subject is not mentioned by Ach in his chapter 21 on the moon. There are some indications, however, of a broader doxographical tradition than what we find in A. Cicero, Plutarch and Galen (texts below) all refer to 'the scientists' (οἱ μαθηματικοί) who have treated the subject. Cicero's measurement is rather inexact (more than half the earth's size), but Plutarch gives for Aristarchus a much more accurate estimation (dia-

meter smaller than 60 to 19 and larger than 108 to 43). Its source is known to us, namely the extant treatise of Aristarchus 'On the sizes and distances of the sun and the moon'. Plutarch also records a view of Anaxagoras that it was as large as the Peleponnese, i.e. a *doxa* that clearly recalls his view in A 2.21.3 that the sun is many times the size of the Peleponnese (this text is missing in DK), as well as a measurement by some Egyptians (i.e. priests?). It would appear that Plutarch has put together this list of opinions himself; the Anaxagorean *doxa* may have been taken from a *Placita*-style doxography, but this is less likely for the other two views.

(2) *Sources*. Though there is much evidence that early philosophers and scientists discussed the subject of the moon's size—both Thales and Anaximander are described as having been the first to treat it (see texts in Eudemus and Diogenes Laertius cited below)—, the record of their findings is lost. Plato and Aristotle do not mention it in their extant writings, in spite of the *doxa* in the present chapter (see below section D(d)§3). Advances were made by the astronomers Eudoxus, Aristarchus and Hipparchus. The results of these investigations are visible in the manual of Cleomedes, who uses them to carry on a polemical discussion with Epicurus (note his tell-tale use of the term *ποδιαίος* at *Cael.* 2.3.81, cf. ch. 2.21 on the size of the sun). For overviews of ancient views on the subject see Gundel (1933) 84–86, Pease (1958) on Cic. *ND* 2.103, Préaux (1973) 202–271. In these accounts A is not treated as a separate source.

C Chapter Heading

The heading, parallel to that on the sun in ch. 2.21, is of the usual *Περὶ x* type and poses a *quaestio* in the category of quantity. It is the same in all extant witnesses of the tradition of P (as noted above, it is missing in G) and is confirmed by S, who has combined the chapter headings of chs. 2.25–27 (on S's coalescence of A's chapter headings in his chapter on the moon see above on ch. 2.25 Commentary C). We note also that Ps has coalesced the two chapter headings on size, chs. 2.21 and 2.26, and added the size of the earth which is not discussed in A's Book 3 as transmitted to us (though the subject is implicit in the Xenophanes *doxa* at A 3.9.4). As noted above in section A, G appears to have coalesced the contents of the two chapters 2.25 and 2.26 (a rare procedure on his part), altering the heading to the more general *Περὶ σελήνης* and so deleting the equivalent heading for ch. 2.26 in P.

D Analysis

a Context

As in the case of the sun, the question of the moon's size follows on from that of its substance.

b Number–Order of Lemmata

This chapter is one of the rare occasions that T records a doxa not present in the two primary witnesses P and S (the other examples are in chs. 4.3 and 4.5). The order that he gives is compatible with that of P and suggests that the Aristotelian doxa was placed third in A's list of views. There are, however, no parallels anywhere for his final anonymous view that the moon is the width of a span. It is neatly parallel to the Heraclitean doxa on the sun in ch. 2.21 (the span as the distance from the tip of the thumb to the tip of the little finger is a slightly smaller measure than a foot, but there is no evidence that Heraclitus or anyone else held this view on the moon's size). Moreover it might be regarded as suspicious in that the span is a common biblical measure. In Is. 40:12 LXX it used rhetorically as a measure for the heaven, a text which T quotes on six occasions. But its position here is very apposite and from the formal point of view it represents a typical doxographical lemma, so there is no real reason to be overly suspicious (we revise our view in M–R 2.590). One might compare the doxai on the motion of the cosmos that T presents in 4.16, which we discuss in the Appendix to ch. 2.2. The status of those lemmata is more questionable, however, because there it is necessary to postulate that a whole chapter has fallen out, and so in contrast to the present lemma we have not included them in our reconstruction. For a passage in Lucretius that may shed light on this doxa see section D(e) below.

c Rationale–Structure of Chapter

The chapter gives a brief list of four views not dissimilar to the method used in ch. 2.21 on the sun (there is no final 'epistemological' Epicurean doxa this time). But the list gives rise to a major difficulty when its rationale is analysed. The first Stoic doxa compares the size of the moon to that of the earth, the same procedure as used in ch. 2.21. The second Parmenidean doxa, however, proceeds differently and compares the moon to the sun, not the earth. It then adds the comment that it is illuminated by the sun, which is the subject of a later chapter (2.28). The view is in itself unobjectionable; cf. the statement at Cleomedes *Cael.* 2.3 64.19 Todd that the apparent size of both sun and moon is 12 inches. But the doxa interrupts the comparison of the moon's size with that of the earth in the first and third doxa. This is not the case in T, where the first three doxai all compare the moon and the earth and we have a perfectly logical set of alternatives going from large to very small. There are at least three ways in which this surprising sequence can be explained:

(1) The doxa in P and S goes back to A, but is inconsistent with his usual diaeretic method. T perceived this and adapted it to a more acceptable list. It

was easy to do this because all of his doxai are anonymous and it is clearly the views that are important for him, not fidelity to his source.

(2) The doxa in P and S does not go back to A, but a mistake has crept into the tradition. The reference to the moon's illumination by the sun should belong in ch. 2.28. It is a consequence of the original mistake of comparing the moon to the sun and not the earth. T thus represents in a paraphrased form A's original intention. This interpretation is put forward by Bottler (2014) 454, who argues that contamination has here occurred between P and S. This drastic conclusion is, however, far from necessary if T has normalised the diaeresis, as argued above. Another possibility, suggested by Jas in an unpublished review of Bottler, is that the transmission of A diverged on this point early on and the one version was used by PS, the other by T. We regard this possibility as less likely than that T altered the text *suo Marte*.

(3) The text in both P and S is partially defective (the result of an early corruption) and originally read Παρμενίδης ἴσῃν <τῇ γῇ ὥς καὶ> τῷ ἡλίῳ. We note that the first doxa also includes a comparison with the sun. The additional comment in the second half of the doxa might have originally been a gloss. Compare a comparable confusion between sun, moon and earth in A 2.31.1.

There seems little alternative but to retain the text as transmitted by both P and S, unsatisfactory though it appears to be. Emendation is, we believe, not justified.

d Further Detailed Comments

Individual Points

§3 This eminently sensible doxa is found nowhere in Aristotle's extant works. As we noted in our discussions on the sources for chs. 2.20 and 25, he does not give the sun and moon much individual attention in the *De caelo*. It is also not found in the spurious *De mundo*. It is possible that this view was put forward in one of his writings that is not longer extant.

§4 The use of ἄλλοι or ἄλλοι δέ for the final doxa of a list is not common in A, but can be paralleled at A 2.23.9, 2.27.6, 2.32.10, 5.17.6, 5.23.3. There are no further examples in T, so this could be taken as an argument for his doxa being derived from A rather than added by himself.

e Other Evidence

In a set of 10 lines on the size of the moon Lucretius strongly emphasizes that it is exactly the size that it seems (*DRN* 5.575–584, text below section E(a)§4). This is similar to what he, following Epicurus, says about the sun, but he does not allow for a margin of error as his master is reported to do in the case of the larger body (cf. A 2.21.5). Bailey (1947) 1410 wonders why the question of the

source of the moon's light is already introduced here prior to the main discussion in *DRN* 5.705–730. His answer is that, if the moon is an illuminated object, it will have a perfectly clear contour and therefore will be seen exactly as it is. As in the case of the sun, neither the philosopher (in our extant sources) nor the poet give an example of the kind of size it could be. But as we noted in our detailed comment on A 2.21.5, Epicurus' view was often aligned with the Heraclitean doxa that the sun was the size of a foot. Analogously, it is possible that the comparison with a span in §4 preserved only by T could have the same background, going back either to Heraclitus or to Epicurus. But there seems to be no actual evidence to support this surmisal.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *ND* 2.103 *luna autem, quae est, ut ostendunt mathematici, maior quam dimidia pars terrae ...* **Strabo** see on ch. 2.21 section E(a) **General texts.** **Plutarch** *Fac.Lun.* 923A, πολλῶ μείζονα (sc. τὴν γῆν) τῆς σελήνης οὖσαν ὡς ἐν τοῖς ἐκλειπτικοῖς πάθεσιν οἱ μαθηματικοὶ καὶ ταῖς διὰ τοῦ σκιασματος παρόδοις τῇ ἐποχῇ τὸ μέγεθος ἀναμετροῦσιν. *Fac.Lun.* 932A–B, ἀλλ' Αἰγυπτίους μὲν ἐβδόμηκοστόδουον οἶμαι φάναι μόριον εἶναι τὴν σελήνην, Ἀναξαγόραν (—) δ' ὄση Πελοπόννησος. Ἀρίσταρχος (*Magn. prop.* 17, p. 408 Heath) δὲ (τὴν διάμετρον τῆς γῆς πρὸς) τὴν διάμετρον τῆς σελήνης λόγον ἔχουσαν ἀποδείκνυσιν, ὃς ἐλάττων μὲν ἢ ἐξήκοντα πρὸς δεκαεννέα, μείζων δ' ἢ ὡς ἑκατὸν ὀκτὼ πρὸς τεσσαράκοντα τρι' ἔστιν. **Galen** *Inst.Log.* 12.3 27.8 Kalbfleisch μέγεθος δὲ καὶ ἡλίου (καὶ) σελήνης καὶ τῶν κατ' αὐτοὺς ἀποστημάτων ἐζήτῃται καὶ δέδεικται τοῖς ἀστρονόμοις ... **Lucian** *Icar.* 20 see on A 2.25. **Diogenes Laertius** *V.P.* 1.24 (on Thales, 11A1 DK) καὶ πρῶτος τὸ τοῦ ἡλίου μέγεθος (τοῦ ἡλιακοῦ κύκλου ὥσπερ καὶ τὸ τῆς σελήνης μέγεθος) τοῦ σεληναίου ἑπτακοσιοστὸν καὶ εἰκοστὸν μέρος ἀπεφῆνατο κατὰ τινάς.

Chapter heading: Isidore of Seville *Nat.* 16 *de quantitate solis et lunae*

§4 *Anonymi:* cf. Lucretius *DRN* 5.575–584 *lunaque sive notho fertur loca lumine lustrans, / sive suam proprio iactat de corpore lucem, / quidquid id est, nihilo fertur maiore figura / quam, nostris oculis qua cernimus, esse videtur. / nam prius omnia, quae longe semota tuemur / aera per multum, specie confusa videntur / quam minui filum. quapropter luna necesse est, / quandoquidem claram speciem certamque figuram / praebet, ut est oris extremis cumque notata, / quanta quoquest, tanta hinc nobis videatur in alto.*

b Sources and Other Parallel Texts

General texts: Aristotle *Met.* A.2 982b11–16 ὅτι δ' οὐ ποιητικὴ (sc. the discipline we are looking for), δῆλον καὶ ἐκ τῶν πρῶτων φιλοσοφησάντων· διὰ γὰρ τὸ θαυμάζειν οἱ ἄνθρωποι καὶ νῦν καὶ τὸ πρῶτον ἤρξαντο φιλοσοφεῖν, ἐξ ἀρχῆς μὲν τὰ πρόχειρα τῶν ἀτόπων θαυμάσαντες, εἶτα κατὰ μικρὸν οὕτω προϊόντες καὶ περὶ τῶν μειζόνων διαπορήσαντες, οἷον περὶ τῶν τῆς σελήνης παθημάτων ... **Philip of Opus**, list of writings in the *Suda* Φ 418 s.v. φιλόσοφος (i.e. Philip of Opus,

fr. i Tarán, F 27 Lasserre) l. 8, p. 4.733 Adler *Περὶ μεγέθους ἡλίου καὶ σελήνης καὶ γῆς α'.* **Eudemus** at *Simp. in Cael.* 471.6–8 (commenting on *Arist. Cael.* 2.10 291a29–32, Eudemus fr. 146 Wehrli, fuller text see on ch. 2.15) τὰ δὲ μεγέθη καὶ τὰ ἀποστήματα Ἡλίου καὶ Σελήνης μέχρι νῦν ἔγνωσται ἀπὸ τῶν ἐκλείψεων τὴν ἀφορμὴν τῆς καταλήψεως λαβόντα, καὶ εἰκὸς ἦν ταῦτα καὶ τὸν Ἀναξίμανδρον (12A19 DK) εὐρηκέναι ... **Stoics** at D.L. 7.132 μία γὰρ σκέψει ἐπικοινωνεῖν αὐτοῦ (sc. τοῦ περὶ τὸν κόσμον λόγου) καὶ τοὺς ἀπὸ τῶν μαθημάτων, καθ' ἣν ζητοῦσι περὶ τε τῶν ἀπλανῶν καὶ τῶν πλανωμένων, οἷον εἰ ὁ ἥλιός ἐστι τηλικούτος ἡλίκος φαίνεται, καὶ ὁμοίως εἰ ἡ σελήνη (cf. *Cleomedes Cael.* 2.1.353 Todd). **Aristarchus** *Περὶ μεγέθων καὶ ἀποστημάτων ἡλίου καὶ σελήνης* (whole treatise extant). **Heron Mechanicus** *Geom.* 1.1 Heiberg ἐπεὶ γὰρ ἡ ἀστρονομία περὶ μεγεθῶν τε καὶ ἀριθμῶν καὶ ἀναλογιῶν διαλαμβάνει· τό τε γὰρ μέγεθος ἡλίου καὶ σελήνης πολυπραγμονεῖ. **Cleomedes** *Cael.* 2.1.293 Todd ... δοκεῖ πίθανον εἶναι διπλασίονα εἶναι τὴν γῆν τῆς σελήνης. 2.3.61–70 τῆς δὲ σελήνης τὸ μέγεθος καὶ ὅτι μὴ ἐστὶ ποδιαία, ἔνεστι καὶ ἀπὸ τῆς δυνάμεως τεκμαίρεσθαι ... καὶ διότι μὲν οὔτε ὁ ἥλιος οὔτε ἡ σελήνη οὔτε τῶν ἄλλων τι ἀστρῶν τηλικούτον ἐστὶν ἡλίκον φαίνεται, αὐτάρκως προεῖρηται. τῶν μὲν οὖν ἄλλων ἀστρῶν, ὅποσα γε φαίνεται ἡμῖν, οὐδὲν τῆς γῆς μικρότερον εἶναι δοκεῖ τὴν δὲ σελήνην σμικροτέραν τῆς γῆς φασιν οἱ ἀστρολόγοι εἶναι ... *Cael.* 2.3.76–82 εἰ δέ γε ἴση ἦν ἡ σελήνη ἢ μείζων τῆς γῆς, πολὺ μέρος ἂν αὐτῆς κατεσχίαζεν ἐν ταῖς γινομέναις αὐτῆς ὑπὸ τὸν ἥλιον ὑποδρομαῖς ... φαίνεται δ' ἡ σελήνη μεγάλη καὶ τῷ ἡλίῳ ἰσομεγέθης καὶ τῶν ἀστέρων μείζων, ἐλάττων κατὰ τὴν ἀλγίθειαν αὐτῶν οὖσα ... *Scholia in Aristophanem in Nubes* 102c Holwerda see above on A 2.13.

Chapter heading: Philip of Opus, Eudemus (on Anaximander), Aristarchus, Heron Mechanicus see above under General texts. **Posidonius** F 18 E.-K., 255 Theiler (at *Simp. in Phys.* 291.26) see above on ch. 2.11. **Ptolemy** *Synt.* 5.17 περὶ μεγεθῶν ἡλίου καὶ σελήνης καὶ γῆς.

Liber 2 Caput 27

- P^B**: ps.Plutarchus *Plac.* 89iC; pp. 357^a8–358^a3 Diels—**P^E**: Eusebius *PE* 15.28, p. 403.4–7 Mras—**P^G**: ps.Galenus *HPh* c. 68; p. 627.20–29 Diels; pp. 202–208 Jas—**P^Q**: Qustā ibn Lūqā pp. 160–161 Daiber (titulus solus)—cf. **P^{Sy}**: Symeon Seth *CRN* 2.50, p. 54.1–2 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.26, p. 217.18–19 (tit.) + 1.26.1c, p. 218.8 + 1.26.1f, p. 219.1–2 + 1.26.1i, p. 219.14–15 + 1.26.1k, p. 219.20–22 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b11–12 Henry (titulus solus)
T: Theodoretus *CAG* 4.24, p. 106.14–15 Raeder
 Cf. Ach: Achilles *Univ.* c. 21, p. 30.12–13, 17–25 Di Maria; Isidorus Pelusiota *Ep.* 2.273, MPG 78.704A

Titulus κζ'. Περὶ σχήματος σελήνης (P,S)

- §1 οἱ Στωικοὶ σφαιροειδῆ εἶναι ὡς τὸν ἥλιον· (P1,S5)
 §2 σχηματίζεσθαι δὲ αὐτὴν πολλαχῶς, καὶ γὰρ πανσέληνον γινομένην καὶ διχότομον καὶ ἀμφίκυρτον καὶ μηνοειδῆ. (S6)
 §3 Ἡράκλειτος σκαφοειδῆ, (P2,S1)
 §4 Κλεάνθης πιλοειδῆ, (S4)
 §5 Ἐμπεδοκλῆς δισκοειδῆ, (P3,S2)
 §6 ἄλλοι κυλινδροειδῆ. (P4,S3)

5

§§1–2 Stoici *SVF* 2.667; §3 Heraclitus 22A12 DK; §4 Cleanthes *SVF* 1.506; §5 Empedocles 31A60 DK; §6 anonymi —

titulus Περὶ σχήματος σελήνης **P^{BEG1}**, cf. **SP^{SyQ}** (*Über die Gestalt und die Erleuchtung des Mondes* Q, sed lemmata c. 27 desunt) : om. σελήνης **P^{G2}**, cf. σχημάτων πέρι T : de S vid. app. c. 2.25 §1 [2] σφαιροειδῆ εἶναι **P^{B(LIIDE)}** : εἶναι om. **P^{B(LIDGS)}** (sed add. δὲ post σχηματίζεσθαι) || ὡς τὸν ἥλιον **P^{B(LIIDE)}** : ὡς καὶ τὸν ἥλιον **P^{B(LIIEE)}** : om. S qui add. τῷ σχήματι §2 non hab. P, sed cf. **P^G** c. 68.5 || [3] γινομένην S : γίγνεσθαι coni. Meineke Diels §3 [5] lemma ante §5 **P^{EG}**, post **P^B** (ap. S incertum) || post σκαφοειδῆ add. τῷ σχήματι S §4 non hab. P || [6] post πιλοειδῆ add. τῷ σχήματι S verisimiliter §5 [7] post δισκοειδῆ add. τῷ σχήματι S verisimiliter §6 [8] ἄλλοι **P^{BE}** : ἄλλοι δὲ **P^G** : τινὲς δὲ S

Testes primi:

Theodoretus *CAG* 4.24 καὶ τί δεῖ λέγειν, ὅσα ἐκείνοι σχημάτων πέρι καὶ ἐκλείψεων καὶ διαστημάτων μυθολογοῦσιν;

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 68 (~ tit.) Περὶ σχήματος σελήνης (text Jas)

68.1 (~ P1) οἱ Στωικοὶ τὴν σελήνην σφαιροειδῆ ὡς καὶ τὸν ἥλιον νομίζουσιν.

68.2 (~ P2) Ἡράκλειτος δὲ σκαφοειδῆ.

68.3 (~ P3) Ἐμπεδοκλῆς δὲ δισκοειδῆ.

68.4 (~ P4) ἄλλοι δὲ κυλινδροειδῆ.

68.5 (deest in P) σχηματίζεται δὲ ἡ σελήνη ἐπταχῶς· ὅτε γὰρ τίκεται, δοκεῖ φαίνεσθαι μηνοειδής, εἴτα διχότομος, εἴτ' ἀμφίκυρτος, εἴτα πανσέληνος, εἴτα πάλιν ἐπαναχωροῦσα αὐθις γίνεται ἀμφίκυρτος, εἴτα διχότομος καὶ τὸ ὕστερον μηνοειδής, εἴτ' ἀφανής κατὰ τὴν καινὴν. πλείστος γίνεται περὶ αὐτῆς λόγος. λέγεται τοῦτον σχηματίζεσθαι τὸν τρόπον σκιαζούσης ἐκάστοτε τῆς γῆς πρῶτον μὲν κατὰ τὸ μόριον ἑαυτῆς, ποτὲ δὲ κατὰ τὸ παντελὲς ὑπορρεούσης τῆς σελήνης εἰς τὸ κοῖλον (τὸν κῶνον conj. Diels) τῆς γῆς.

Symeon Seth CRN 3.50 Περί οὐσίας καὶ φωτισμῶν σελήνης καὶ σχήματος (~ tit.)

Testes secundi:

Achilles Univ. c. 21 p. 30.12–13 σχῆμα δὲ αὐτῆς (sc. τῆς σελήνης) οἱ μὲν σφαιροειδές, οἱ δὲ δισκοειδές. p. 30.17–25 γίνεται δὲ κατὰ μῆνα ἕκαστον. γέννα δὲ σελήνης καὶ ἀνατολὴ διαφέρει· μετὰ γὰρ τρεῖς ἢ τέσσαρας τοῦ γεννηθῆναι ἡμέρας φαίνεται καὶ οὐχ ἅμα τῷ γεννηθῆναι. ἀνατέλλει δὲ οὐχ ὅλον τὸ φῶς ἔχουσα περιφερές, ἀλλὰ μηνοειδής. μέχρι δὲ τοῦ ἡμίσεος αὐξηθεῖσα γίνεται διχότομος. ἐὰν δὲ τὸ δῆμοιρον περιφωτισθῇ, καλεῖται ἀμφίκυρτος. πληρωθεῖσα δὲ γίνεται πληροσέληνος καὶ πανσέληνος καὶ διχόμηνις (πεντεκαιδεκαταῖα γὰρ ἔστιν, ὅτε πληροῦται, ὅ ἐστιν ἡμισυ μηνὸς διχαζομένων τῶν λ' ἡμερῶν), καὶ πάλιν αὐτὴ ἀπὸ τῆς πανσελήνου ἄρχεται μειοῦσθαι καὶ γίνεται πρῶτον ἀμφίκυρτος, εἴτα διχόμηνις, εἴτα μηνοειδής.

Isidorus Pelusiota Ep. 2.273 σκοπήσωμεν οὖν, τί ἡμῖν λυσιτελεῖ εἰς μακαριότητα, τί δ' οὐ· ... καὶ τὸ πολυπραγμονεῖν, ... σελήνης δὲ μειώσεις τε καὶ αὐξήσεις· ...

Loci Aetiani:

titulus et quaestio A 1.14 Περί σχημάτων. **A 2.2** Περί σχήματος κόσμου. **A 2.14** Περί σχημάτων ἀστέρων. **A 2.22** Περί μεγέθους ἡλίου. **A 3.10** Περί σχήματος γῆς.

§1 cf. **A 2.2.1** οἱ μὲν Στωικοὶ σφαιροειδῆ τὸν κόσμον. **A 2.14.1** οἱ Στωικοὶ σφαιρικούς τοὺς ἀστέρας, καθάπερ τὸν κόσμον καὶ ἥλιον καὶ σελήνην. **A 2.22.3** οἱ Πυθαγόρειοι οἱ Στωικοὶ σφαιροειδῆ, ὡς τὸν κόσμον καὶ τὰ ἄστρα. **A 3.10.1** Θαλῆς καὶ οἱ Στωικοὶ σφαιροειδῆ τὴν γῆν.

§3 **A 2.22.2** Ἡράκλειτος σκαφοειδῆ, ὑπόκυρτον. **A 2.24.4** (de defectu solis) Ἡράκλειτος κατὰ τὴν τοῦ σκαφοειδοῦς στροφὴν. **A 2.28.7** (de luna) Ἡράκλειτος τὸ αὐτὸ πεπονθέναι τὸν ἥλιον καὶ τὴν σελήνην· σκαφοειδεῖς γὰρ ὄντας τοῖς σχήμασι τοὺς ἀστέρας ... **A 2.29.3** (de defectu lunae) Ἀλκμαίων Ἡράκλειτος Ἀντιφῶν κατὰ τὴν τοῦ σκαφοειδοῦς στροφὴν ...

§4 **A 2.14.2** (de astris) Κλεάνθης κωνοειδεῖς. **A 2.20.5** (de luna) Κλεάνθης δὲ πυροειδῆ.

§5 cf. **A 2.14.4** (de astris) ἔνιοι δὲ πέταλα εἶναι πύρινα, ὥσπερ ζωγραφήματα. **A 2.22.1** (de sole) Ἀναξίμενης Ἀλκμαίων πλατὺν ὡς πέταλον τὸν ἥλιον. **A 3.10.5** (de terra) Δημόκριτος δισκοειδῆ μὲν τῷ πλάτει, κοίλῃν δὲ τῷ μέσῳ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) All the witnesses in the P tradition have four lemmata (except in Q, where through haplography only the title is preserved). As in the previous chapter, the Stoic doxa is placed first, and it also contains a comparison with the sun. The remaining three doxai all give alternative shapes indicated by a single adjective. In all four cases the adjective has the form $x + -\epsilon\iota\delta\acute{\eta}\varsigma$, which was also extensively used in the parallel chapters 2.2 (earth), 2.14 (stars) and 2.22 (sun). There is a difference in the order of the doxai. In P^B the Empedoclean doxa precedes that of Heraclitus, in E and G this order is reversed. In addition after the final anonymous doxa G includes a long section on the various shapes of the moon's phases, which is important evidence that he occasionally inserts additional material among his selection of the *Placita* (though in the case of shorter texts this is not always certain).

(2) The evidence in S has to be disentangled from his coalescence of the three chapters 2.25–27. Unlike ch. 2.26 this chapter includes the doxa of Heraclitus (S₁). The view of Empedocles and the anonymous view are coupled together (S₂–3), supporting the order in E and G against the Byzantine mss. A little further on we come to two doxai attributed to Cleanthes. In the previous chapter we argued that these derive from A. The odd view (S₄) that the moon is cap-like ($\pi\iota\lambda\omicron\epsilon\iota\delta\acute{\eta}$) is reminiscent of the exceptional Cleanthean view on the stars' shape at A 2.14.2, where they are cone-shaped ($\kappa\omega\nu\omicron\epsilon\iota\delta\epsilon\iota\varsigma$). There it follows the Stoic lemma as an exceptional view. This is possible here, but it could have also had a place in the list of non-spherical views. Finally S cites the Stoic view that the moon is spherical (S₅). The longer name-label including Posidonius belongs to ch. 2.25 and should not be retained here. Unlike in the case of ch. 2.26 S does not include the additional remark drawing the analogy with the sun. It is more likely that S left it out than that P added it to A, so it should be retained. S then adds a section (S₆) on the phases of the moon similar but much shorter than that found in G (and cf. Ach). They cannot be reduced to each other: G begins with the new moon, S with the full moon. We agree with Diels that it should be retained for A. Unlike the sun, the moon also has multiple shapes through its phases. There is no need to suspect contamination between G and S here, since G had access to doxographical traditions both earlier and later than and differing from A (see M–R 1.144).

(3) T at CAG 4.24 only gives a general reference to the subject without citing any doxai. He speaks of shapes in the plural. This enables him to summarize a number of chapters in his source.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Only a limited number of texts give doxographical accounts of the moon's shape. Diogenes Laertius and Plutarch mention the non-standard Empedoclean view that it is 'disc-like' (and also in Plutarch 'bean-shape,' φακοειδής). The same doxa is also found in Ach, where only two views are recorded, those of the Stoa and Empedocles in a simple diaeresis indicated with a μέν ... δέ construction. All three texts may ultimately be derived from an earlier doxographical tradition shared with A. Philo in a text located at *Mut.* 67 states that the surveyor of the heights (μετεωροπόλος καὶ μετεωρολογικός) will investigate not only questions relating to the sun (see on chs. 2.21 and 2.23) but also the moon's illuminations and shapings through decrease and increase. This treatise precedes *De somniis* with its important doxographical summary (see on ch. 2.11), so this text may point to treatment of the subject in the same source. We should also note (1) that Quintilian and Lactantius indicate that the subject of the moon's shape is a *quaestio generalis*, i.e. a θέσις, and (2) that the fact that there are seven phases of the moon is exploited in the arithmological tradition (Nicomachus, Clement of Alexandria, Anatolius etc.).

(2) *Sources.* Unlike in the case of the sun (see on ch. 2.22 Commentary B) Aristotle states explicitly that the moon is demonstrated to be spherical through the evidence of sight. The reason for this mention is obviously the fact of its phases, in which it does not always appear to be spherical. He adds that it is further proven through astronomical facts because solar eclipses are moon-like in shape. Cleomedes too connects the moon's phases with its spherical shape (*Cael.* 2.5.24–39, text below). He does not give alternative shapes, except that he notes the impossibility of its having a two-dimensional shape (σχῆμα ἐπίπεδον), i.e. using a mathematical term rather than the 'disk-like' shape found in the doxographical tradition (cf. §3 on Empedocles and above on Diogenes and Plutarch). The long passage on the illumination of the moon in Gregory of Nyssa is also more likely to be based on a scientific than a doxographical account, as for example in the Handbook of Geminus. It gives no alternative views; see text below section E(b) General texts and further on ch. 2.28.

C *Chapter Heading*

There can be no doubt that the heading is simply Περὶ σχήματος σελήνης, parallel to chs. 2.2 and 2.22 (2.14 has the plural because of the multitude of stars or galaxies). It would appear that G also has the full chapter heading, contrary to the text printed by Diels. Jas (2018a) 200 notes that it is found in ms. O and confirmed by Nicolaus' translation (both not used by Diels). On T's plural (σχημάτων) see above section A(3). The heading itself is of the usual Περὶ x umbrella type, asking a question in the category of quality. This title is the last one that

S has conflated in the heading of his chapter 1.26 on the moon. The remaining chapter titles are inserted into the text, starting with that of ch. 2.28 at S 1.26.2 Wachsmuth.

D *Analysis*

a Context

As in the case of the sun, the question of shape follows that of size. The difference between the two heavenly bodies is that the moon has two kinds of shapes, one as a body, another through its phases.

b Number–Order of Lemmata

In addition to the four lemmata presenting four different shapes in P, S includes one more shape for the moon as a body (Cleanthes). He then adds a brief section on the phases of the moon, which as argued above in A(2) should be included in the chapter. The parallel texts in G and Ach, though not derived directly from A, suggest a common doxographical origin and so support the view that this topic also belonged to the material discussed in the chapter. The placement of the sentence in *oratio obliqua* after the first Stoic doxa, as in S, can be accepted. This would mean that the doxa of Cleanthes is not presented as an exceptional view, unlike in 2.14.2. There are thus six doxai in all. The only remaining question is the divergence between P^B on the one hand and E, G and S on the other on the order of the doxai of Heraclitus and Empedocles. Priority should be given to the majority reading, unless there are significant structural reasons for departing from it. The appeal of Bottler (2011) 286 to the evidence of Ach in this question is misguided, since it is outweighed by the more direct evidence of the other witnesses. The fact that P and Ach agree is not an argument in favour of P's order, firstly because Ach is not derived directly from A, and secondly because Ach only has two doxai. See also further Bottler (2014) 460.

c Rationale–Structure of Chapter

The chapter begins with the Stoic view, which of course corresponds to the mainstream position on the topic. It is striking that in all five chapters on the shape of the major cosmic bodies, the Stoics are chosen to represent the spherical view (coupled with Thales in 3.10) and that in all but 2.22 they are placed first. The following doxa adds the shapes that occur during the phases of the moon. These are, from the viewpoint of the observer, modifications of its spherical shape depending on the illumination it receives from the sun (i.e. related to the question to be discussed in the following chapter). As noted above, parallel texts from Aristotle onwards link up the topics of the moon's shape and

phases, as is only to be expected. The remaining four doxai all give alternative non-spherical shapes in a list. All of these have to be in some way circular to account for the observed phenomena. The main diaeresis is thus between the mainstream spherical view and the remaining non-orthodox views (this is also suggested by the parallel in Ach and its use of μέν ... δέ), which can be summed up under 'other (circular) shapes'. For the similar diaeresis on the shape of the earth see on ch. 3.10. Bottler (2014) 461 suggests an alternative diaeresis between one phase, multiple phases and phases in comparison. While not impossible, it is less likely because A does not emphasise the contrast between a single and multiples phases.

d Further Comments

Individual Points

§2 A (and also Ach and G) uses the standard terminology for the phases of the moon, as can be seen from the descriptions of Nicomachus of Gerasa, Clement, Cleomedes and Geminus (texts below section E(b) General texts). The reference to 'the scientist Seleucus' in Clement is noteworthy. He makes two rare appearances in the *Placita* at 2.1.7, 3.17.9.

§4 The term πιλοειδής is extremely rare. Apart from its use here it is only found in three medical texts (Soranus *Gyn.* 1.14.1, Oribasius *Coll.Med.* 24.31.24, 48.50.1). The primary meaning of πῖλος is 'felt' (Beekes 2010, 1190), so perhaps the comparison is with a felted product such as a (round) hat, thereby explaining that the moon appears to have a surface that is slightly rough rather than smooth and uniform like the sun. It is thus better to translate 'hat-like' rather than 'cap-like' (as at M–R 2.2.599 following LSJ).

e Other Evidence

The question may be posed, given the fact that by time A's the view that the moon was spherical was universally accepted, where the alternative views in our chapter come from? Some clearly derive from the early periods of Presocratic thought, in which A is always interested (Heraclitus and Empedocles). However, as was the case in the chapter on the shape of the cosmos (see ch. 2.2 Commentary B), it is also possible that the list may have been influenced by dialectical argument. As already noted, Aristotle argues that if the moon were not spherical, it would not be possible to explain the visible evidence of its phases. He does not, however, give any alternative shapes. Some are supplied by Simplicius in his Commentary, but these (drum-like and bean-like) are not the ones found in A. But in an astronomical papyrus located in Paris the alternative examples given are precisely two shapes in our chapter (δισκοειδής and σκαφοειδής); see the text below in section E(b) General texts. We note that this

dialectical argument combines views on the moon's shape as a body and the apparent shape of its phases, just as occurs in the present chapter.

E Further Related Texts

a Proximate Tradition

General texts: **Plutarch** *Quaest. Rom.* 288B ἀλλ' ὅρα μὴ καὶ τοῦτο διὰ τὴν σελήνην φοροῦσι (children wearing amulets). τὸ γὰρ φαινόμενον σχῆμα τῆς σελήνης, ὅταν ᾗ διχόμηνος, οὐ σφαιροειδὲς ἀλλὰ φακοειδὲς ἐστὶ καὶ δισκοειδὲς, ὡς Ἐμπεδοκλῆς (31A77 DK) οἶται, καὶ τὸ ὑποκείμενον. **Quintilian** *Inst. Or.* 7.2.6 (on *quaestiones generales*) *quaeritur per coniecturam et qualitatem circa modum speciem numerum ... luna globosa an plena an acuta*. **Lactantius** *Inst.* 3.3.4 Heck–Wlosok *nam causas naturalium rerum disquirere aut scire velle ... item luna globosa sit an concava*.

Chapter heading: **Philo Mut.** 67 τὸν ... μετεωρολογικόν, ἐρευνῶντα ... καὶ σελήνης περὶ φωτισμῶν, σχηματισμῶν, μειώσεως, αὐξήσεως.

§1 **Stoics:** **Arius Didymus** fr. 34 Diels at Stob. *Ecl.* 1.26.11 (on Chrysippus, *SVF* 2.677) σφαιροειδῇ (sc. τὴν σελήνην) δὲ εἶναι.

§3 **Heraclitus:** **Diogenes Laertius** *V.P.* 9.10 (22A1 DK) τοὺς τε κατὰ μῆνα τῆς σελήνης σχηματισμοὺς γίνεσθαι στρεφομένης ἐν αὐτῇ κατὰ μικρὸν τῆς σκάφης, see also on A 2.28.7, 2.29.3.

§5 **Empedocles:** **Diogenes Laertius** *V.P.* 8.77 (31A77 DK) τὴν δὲ σελήνην δισκοειδῇ. cf. **Plutarch** *Quaest. Rom.* 288B cited above. **Scholia on Apollonius of Rhodes** *Argonautica* 498 Wendel cited on A 2.25.10 (on Anaxagoras).

b Sources and Other Parallel Texts

General texts: **Aristotle** *Cael.* 2.11 291b18–23 ἡ δ' σελήνη δείκνυται διὰ τῶν περὶ τὴν ὕψιν ὅτι σφαιροειδής· οὐ γὰρ ἂν ἐγίνετο αὐξανόμενη καὶ φθίνουσα τὰ μὲν πλείστα μηνοειδὴς ἢ ἀμφίκυρτος, ἀπαξ δὲ διχότομος. καὶ πάλιν διὰ τῶν ἀστρολογικῶν, ὅτι οὐκ ἂν ᾗσαν αἱ τοῦ ἡλίου ἐκλείψεις μηνοειδεῖς. cf. *APo.* 1.13 78b4–8 πάλιν ὡς τὴν σελήνην δεικνύουσιν ὅτι σφαιροειδής, διὰ τῶν αὐξήσεων—εἰ γὰρ τὸ αὐξανόμενον οὕτω σφαιροειδὲς, αὐξάνει δ' ἡ σελήνη, φανερόν ὅτι σφαιροειδής—οὕτω μὲν οὖν τοῦ ὅτι γέγονεν ὁ συλλογισμός, ἀνάπαλιν δὲ τεθέντος τοῦ μέσου τοῦ διότι ... **Aristotle** *Met.* A.2 982b11–17 see on A 2.26. **ps.Eudoxus** *Papyrus Parisinus* 1. col. 12.1–9 Blass ἡ σελήνη σφαιροειδής ἐστίν. εἰ μὲν γὰρ ᾗν δισκοειδής, αὐθημερόν ἂν αὐτὴν κατέλαμψεν ὁ ἥλιος, [γί]νεται δὲ μετὰ πεντε[κα]ίδεχ' ἡμέρας λαμπρά—ὥστε οὐκ ἂν εἴη δισκοειδής ἢ σελήνη· εἰ δὲ ἔσται σκαφοειδής καὶ τὰ κοῖλα αὐτῆς ἐστραμμένα, οὐχ ἔξει τὸ πρὸς τῷ ἡλίῳ αὐτῆς μέρος πρῶτον λαμπ[ρ]όν. νῦν δὲ ἐκ τῶν ἐναντίων τὸ μὲν κατὰ τὸν ἡλιόν ἐστιν αὐτῆς μέρος πρῶτον λαμπρόν, τὸ δὲ λοιπὸν σκιερόν. **Geminus** *Elem.* 9.11–12, p. 60 Aujaç λαμβάνει δὲ τοὺς πάντας σχηματισμοὺς ἢ σελήνην ἐν τῷ μηνιαίῳ χρόνῳ τέσσαρας, δις αὐτοὺς ἀποτελοῦσα. εἰσὶ δὲ οἱ σχηματισμοὶ οἷδε· μηνοειδής, διχότομος, ἀμφίκυρτος, πανσέληνος. μηνοειδής μὲν οὖν γίνεται περὶ τὰς ἀρχὰς τῶν μηνῶν, διχότομος δὲ περὶ τὴν ὀγδοὴν τοῦ μηνός, ἀμφίκυρτος δὲ περὶ τὴν δωδεκάτην, πανσέληνος δὲ περὶ τὴν διχομηνίαν· καὶ πάλιν ἀμφίκυρτος μετὰ τὴν διχομηνίαν, διχότομος δὲ περὶ τὴν εἰκοστὴν τρίτην, μηνοειδής

δὲ περὶ τὰ ἔσχατα τῶν μηνῶν. see further on ch. 2.28. **Nicomachus of Gerasa** at ps.Iambl. *Theol.Ar.* 60.2 Di Falco (on the hebdomad) συλλογίσασθαι δὲ δεῖ καὶ τὰς ἑπτὰ σχηματικὰς μορφὰς τῆς σελήνης τετράδι, μηνοειδῇ διχότομον ἀμφίκυρτον πανσέληνον, πάλιν ἄλλην ἀμφίκυρτον, ἐκ θατέρου μέρους φωτιζομένης αὐτῆς, καὶ πάλιν διχότομον κατὰ ταυτὰ καὶ ἄλλην μηνοειδῇ. **Pliny Nat.** 2.41 *multiformis haec ambigua torsit ingenia contemplantium et proximum ignorare sidus maxime indignantium, crescens semper aut senescens et modo curvata in cornua facie, modo aequa portione divisa, modo sinuata in orbem, maculosa eademque subito praenitens, immensa orbe pleno ac repente nulla.* **Lucian Icar.** 20 see above on A 2.25. **Clement of Alexandria Strom.** 6.143.1–3 ἡ σελήνη τε δι' ἑπτὰ ἡμερῶν λαμβάνει τοὺς μετασχηματισμούς. κατὰ μὲν οὖν τὴν πρώτην ἑβδομάδα διχότομος γίνεται, κατὰ δὲ τὴν δευτέραν πανσέληνος, τρίτῃ δὲ ἀπὸ τῆς ἀποκρούσεως αὐτῆς διχότομος, καὶ τετάρτῃ ἀφανίζεται. ἀλλὰ καὶ αὕτη, καθάπερ Σέλευκος ὁ μαθηματικὸς (—) παραδίδωσιν, ἑπτὰκις μετασχηματίζεται. γίνεται γάρ ἐξ ἀφεγγούς μηνοειδῆς, εἴτα διχότομος, εἴτα ἀμφίκυρτος πανσέληνός τε καὶ κατὰ ἀπόκρουσιν πάλιν ἀμφίκυρτος διχότομός τε ὁμοίως καὶ μηνοειδῆς. **Anatolius de Dec.** p. 12.3–4 Heiberg-Tannery (arithmological) αὐτῆς σελήνης φάσεις ζ', δις μηνοειδῆς, (δις) διχότομος, δις ἀμφίκυρτος, ἅπαξ πανσέληνος. **Gregory of Nyssa An.Res.** p. 17.4–18.9 Spira see ch. 2.28. **Simplicius in Cael.** 479.8–14 εἰ οὖν ἡ σελήνη ἐκ τῶν ὀρωμένων αὐτῆς φωτισμῶν σφαιροειδῆς δεικνυται, δῆλον ὅτι καὶ τὰ ἄλλα εἴη ἂν σφαιροειδῆ. εἰ γὰρ μὴ σφαιροειδῆς ᾗν, ἀλλὰ τυμπανοειδῆς, εἰ τύχοι, ἢ φακοειδῆς, οὐκ ἂν οἱ φωτισμοὶ τοιοῦτοι ἐγίνοντο, ὥς αὐξανομένην, φησί, καὶ φθίνουσαν τὰ μὲν λείστα μηνοειδῇ φαίνεσθαι ἢ ἀμφίκυρτον, ἅπαξ δὲ διχότομον. ἀλλ' εἰ μὲν διχότομον τὴν πανσέληνον ἔλεγεν, ὥς διχόμηνον αὐτὴν ἐκάλεσεν Ἄρατος διὰ τὸ διχῇ τέμνειν τὸν μῆνα, καὶ τὰ ἄλλα συνεφώνει καὶ τὸ πλεονάκις μηνοειδῇ φαίνεσθαι· καὶ γὰρ αὐξανομένη καὶ φθίνουσα· καὶ ἀμφίκυρτος ὁμοίως ...

Chapter heading: Aristotle Phys. 2.1 193b29 περὶ σχήματος σελήνης. **Posidonius F 18 E.-K.**, 255 Theiler see above on A 2.11. **Plutarch Suav.** 1093E Φίλιππον (sc. of Opus) ἀποδεικνύναται περὶ τοῦ σχήματος τῆς σελήνης. **Themistius in Phys.** 40.26 εἰ οὖν ἀμφότεροι (sc. the physicist and the scientist) λέγουσι καὶ περὶ σχημάτων ἡλίου καὶ σελήνης καὶ πότερον ἡ γῆ σφαιροειδῆς καὶ ὁ κόσμος, τίνοι διαφέρουσιν ἄν;

§§1–2 **Stoics: Cleomedes Cael.** 2.5.24–39 Todd ὁπότε μὲν οὖν σύνοδος εἴη, πεφώτισται αὐτῆς τὸ πρὸς τὸν οὐρανὸν τετραμμένον ἡμισφαίριον· τοῦτο γὰρ αὐτῆς τότε πρὸς τὸν ἥλιον ἀφορᾷ. παραμειβούσης δὲ τὸν ἥλιον αὐτῆς καὶ ἐκ τοῦ πρὸς λόγον τῆς ἀποχωρήσεως τὸ πρὸς τὴν γῆν αὐτῆς βλέπον ἡμισφαίριον ἐπιστρεφούσης πρὸς αὐτόν, οὕτω πρῶτον μὲν ἐκ τῶν πλαγίων φωτιζομένη μηνοειδὲς ποιεῖ τὸ σχῆμα, εἴτα ἐπὶ πλεῖον ἐπιστρεφομένη πρὸς αὐτὸν διχότομον, εἴτα ἀμφίκυρτον, καὶ μετὰ τοῦτο πλήρες, ὁπότεν διαμετρήσῃ αὐτόν. ἐφ' ὅσον μὲν οὖν ἀπὸ συνόδου ἐπὶ διάμετρον παραγίνεται, ἐκ τοῦ πρὸς τὸν οὐρανὸν τετραμμένου αὐτῆς ἡμισφαίριου εἰς τὸ πρὸς ἡμᾶς ὀρῶν κάτεισι τὸ ἀπὸ τοῦ ἡλίου φῶς, καὶ οὕτω λέγεται αὖξεσθαι μέχρι πανσελήνου. ἐπειδὴν δὲ διαμετρήσασα παραμείψῃ τὴν διάμετρον, μειοῦται πάλιν ἐκ τοῦ πρὸς ἡμᾶς αὐτῆς ὀρῶντος ἡμισφαίριου εἰς τὸ πρὸς τὸν οὐρανὸν ὀρῶν, περιαγομένου τοῦ φωτὸς μέχρι συνόδου. εἰ μὲν οὖν ἐπιπέδῳ τῷ σχήματι ἐκέχρητο, εὐθὺς ἂν ἅμα

τῷ παρελθεῖν ἀπὸ συνόδου τὸν ἥλιον ἐπληροῦτο καὶ ἔμενεν ἂν μέχρι συνόδου πλήρης· νυνὶ δὲ σφαιρικὸν ἔχουσα τὸ σχῆμα, οὕτω τὰς τῶν σχημάτων ιδέας ἀποτελεῖ. *Cael.* 2.5.87–91 οἱ μὲν οὖν παλαιοὶ τρία εἶναι περὶ τὴν σελήνην σχήματα ἔφασαν, τὸ μηνοειδές, τὸ διχότομον, τὸ πεπληρωμένον (ὅθεν καὶ τριπρόσωπον τὴν Ἄρτεμιν ποιεῖν ἔθος ἐστίν), οἱ δὲ νεώτεροι προσέθεσαν τοῖς τρισὶ τὸ νῦν καλούμενον ἀμφίκυρτον, ὃ μείζον μὲν ἐστὶ τοῦ διχότομου, μείον δὲ τοῦ πανσελήνου.

Liber 2 Caput 28

P^B: ps.Plutarchus *Plac.* 891D–E; pp. 358^a5–359^a10 Diels—**P^E**: Eusebius *PE* 15.29, p. 403.8–18 Mras—**P^G**: ps.Galenus *HPh* c. 69; p. 628.1–3 Diels—**P^L**: Ioannes Lydus *Mens.* 3.12, pp. 53.13–54.7 Wuensch—**P^Q**: Qustā ibn Lūqā pp. 160–163 Daiber—cf. **P^{Sy}**: Symeon Seth *CRN* 3.50, p. 54.1–2 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.26.2, p. 220.3 (tit.), 5–22 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b11–12 Henry (titulus solus)
 Cf. Ach: Achilles *Univ.* c. 16, p. 23.15–17 Di Maria

Titulus κη'. Περὶ φωτισμῶν σελήνης (P,S)

- §1 Ἀναξίμανδρος Ξενοφάνης Βήρωσος ἴδιον αὐτὴν ἔχειν φῶς. (P1,S1)
 §2 Ἀριστοτέλης ἴδιον μέν, ἀραιότερον δέ πως. (S2)
 §3 οἱ Στωικοὶ ἀμαυροφανές, ἀεροειδές γάρ. (S3)
 §4 Ἀντιφῶν ἰδιοφεγγή τὴν σελήνην, τὸ δ' ἀποκρυπτόμενον περὶ αὐτὴν ὑπὸ 5
 τῆς προσβολῆς τοῦ ἡλίου ἀμαυροῦσθαι, πεφυκότες τοῦ ἰσχυροτέρου
 πυρὸς τὸ ἀσθενέστερον ἀμαυροῦν· ὃ δὴ συμβαίνειν καὶ περὶ τὰ ἄλλα
 ἄστρα. (P2,S4)
 §5 Θαλῆς πρῶτος ἔφη ὑπὸ τοῦ ἡλίου φωτίζεσθαι. (P3,S5)
 §6 Πυθαγόρας Παρμενίδης Ἐμπεδοκλῆς Ἀναξαγόρας Μητροδῶρος 10
 ὁμοίως. (S6)
 §7 Ἡράκλειτος τὸ αὐτὸ πεπονθέναι τὸν ἥλιον καὶ τὴν σελήνην· σκαφο-
 ειδεῖς γὰρ ὄντας τοῖς σχήμασι τοὺς ἀστέρας, δεχομένους τὰς ἀπὸ τῆς

§1 Anaximander 12A22 DK; Xenophanes 21A43 DK; Berossus *FGH* 680 F19b Jacoby, F21d De Breucker; §2 Aristoteles —; §3 Stoici *SVF* 2.670; §4 Antiphon 87B27 DK, Pendrick fr. F27; §5 Thales fr. 159, 357 Wöhrlé; §6 Pythagoras —; Parmenides 28A42 DK, cf. B14; Empedocles 31A60 DK; Anaxagoras 59A77 DK; Metrodorus 70A12 DK; §7 Heraclitus 22A12 DK

titulus Περὶ P : add. δὲ S || φωτισμῶν **P^{BESyS}** : φωτισμοῦ **P^{GQ}** || σελήνης P : αὐτῆς S §1 [2] Ἀναξίμανδρος Ξενοφάνης Βήρωσος S : Ξενοφάνης Βήρωσος om. P || αὐτὴν αὐτὸς **P^{B(11)}** || αὐτὴν ἔχειν inv. **P^G** || post φῶς add. εἶρηκεν **P^G**, postea ἀραιότερον δέ πως P ex §2 (cf. *welches jedoch schwach ist* Q) §§2–3 non hab. P §4 non hab. **P^G** || [5] ἰδιοφεγγή S : ἰδίῳ (add. μέν **P^L**) φέγει λάμπειν **P^{BEQ}** || ἀποκρυπτόμενον ὑποκρυπτόμενον **P^E** || ὑπὸ **P^E** || [6–7] ἰσχυροτέρου πυρὸς **P^{B(11)DE}** : ἰσχυροτέρου φωτὸς **P^L** : ἰσχυροτάτου φωτὸς **P^{B(11)}** : ἰσχυροτέρου S || [7] συμβαίνειν S : συμβαίνει **P^{BE^L}** §5 [9] Θαλῆς ... ἔφη S : Θαλῆς καὶ οἱ ἀπ' αὐτοῦ P (cf. §6) || ὑπὸ **P^G** || φωτίζεσθαι S : add. τὴν σελήνην P §6 [10–11] Πυθαγόρας ... ὁμοίως S : P vid. supra §5 §7 non hab. **P^G** || [12] P τὸ αὐτὸ : S ταὐτόν || τὸν ἥλιον καὶ τὴν σελήνην P : τὴν σελήνην τε καὶ τὸν ἥλιον S || post σελήνην add. **P^L** φησί || [13] γάρ P : δὲ S || post δεχομένους add. δὲ **P^B** || [13–14] τὰς ... αὐγὰς S : τὰ ... αὐτά **P^{BQ}** (om. αὐτά **P^{EL}**) || [13] ἀπὸ **P^L**

ὕγρας ἀναθυμιάσεως αὐγὰς, φωτίζεσθαι πρὸς τὴν φαντασίαν, λαμπρο-
τέρως μὲν τὸν ἥλιον, ἐν καθαρωτέρῳ γὰρ ἀέρι φέρεσθαι, τὴν δὲ σελήνην 15
ἐν θολωτέρῳ καὶ διὰ τοῦτο ἀμαυροτέραν φαίνεσθαι. (P4,S7)

[14–15] λαμπροτέρως S : λαμπρότερον P || al. P^L λαμπρότερον δὲ τὸν ἥλιον διὰ τὸ ἐν καθαρῷ ἀέρι
φαίνεσθαι || [15] καθαρωτέρῳ] καθαρωτάτῳ P^{B(11)} || [16] θολωτέρῳ] θολέρῳ P^E || καὶ διὰ τοῦτο
S : διὰ τοῦτο καὶ P^{BE}

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 69 (~ tit.) Περὶ φωτισμοῦ σελήνης (text Diels)

69.1 (~ P1) Ἀναξίμανδρος ἴδιον ἔχειν αὐτὴν φῶς εἴρηκεν, ἀραιότερον δὲ πῶς.

69.2 (~ P3) Θαλῆς δὲ ἀπὸ τοῦ ἡλίου φωτίζεσθαι τὴν σελήνην.

Ioannes Lydus Mens. 3.12 περὶ δὲ τοῦ κατ' αὐτὴν φωτὸς ἐροῦμεν, ὡς Ἀναξίμαν-
δρος μὲν ἴδιον αὐτὴν φῶς ἔχειν βούλεται, ἀραιότερον δὲ πῶς (~ P1), ὁ δὲ Ἀντι-
φῶν ἰδίῳ μὲν φέγγει λάμπειν τὴν σελήνην φησί, τὸ δὲ ἀποκρυπτόμενον περὶ
αὐτὴν ὑπὸ τῆς προσβολῆς τοῦ ἡλίου ἀμαυροῦσθαι, πεφυκτός τοῦ ἰσχυροτέρου
φωτὸς τὸ ἀσθενέστερον ἀμαυροῦν, ὃ δὴ συμβαίνει καὶ περὶ τὰ ἄλλα ἄστρα (~ P4).
Θαλῆς δὲ καὶ οἱ ἀπ' αὐτοῦ ὑπὸ τοῦ ἡλίου φωτίζεσθαι τὴν σελήνην ἐνέκριναν (~
P5). ὃ γὰρ μὴν Ἡράκλειτος τὸ αὐτὸ πεπονθέναι τὸν ἥλιον καὶ τὴν σελήνην φησί·
σκαφοειδεῖς γὰρ ὄντας τοῖς σχήμασιν ἐκ τῆς ὑγρᾶς ἀναθυμιάσεως φωτίζεσθαι
πρὸς τὴν φαντασίαν, λαμπρότερον δὲ τὸν ἥλιον διὰ τὸ ἐν καθαρῷ ἀέρι φαίνεσθαι
(~ P7).

Symeon Seth CRN 3.50 Περὶ οὐσίας καὶ φωτισμῶν σελήνης καὶ σχήματος (~ tit.)

Testes secundi:

Achilles Univ. c. 16, p. 23.15–17 ἡ δὲ πλείων δόξα, καθ' ἣν πρώτη ἡ σελήνη, ἐπεὶ καὶ
ἀπόσπασμα τοῦ ἡλίου λέγουσιν αὐτὴν, ὡς καὶ Ἐμπεδοκλῆς (31B45 DK) 'κυκλο-
τερές περὶ γαίαν ἐλίσσεται ἀλλότριον φῶς' (cf. c. 2.16 *testes secundi*).

Loci Aetiani:

titulus et quaestio A 2.17 Πόθεν φωτίζονται οἱ ἀστέρες

§2 A 2.30.7 Ἀριστοτέλης μὴ εἶναι αὐτῆς ἀκήρατον τὸ σύγκριμα διὰ τὰ πρόσγεια
ἀερώματα τοῦ αἵθερος, ὃν προσαγορεύει σῶμα πέμπτον.

§3 A 2.25.5 Ποσειδώνιος δὲ καὶ οἱ πλείστοι τῶν Στωικῶν μικτὴν ἐκ πυρὸς καὶ
ἀέρος.

A 2.30.6 οἱ Στωικοὶ διὰ τὸ ἀερομιγῆς τῆς οὐσίας μὴ εἶναι αὐτῆς ἀκήρατον τὸ σύγ-
κριμα.

§5 A 2.17.1–3 Μητρόδωρος ἅπαντας τοὺς ἀπλανεῖς ἀστέρας ὑπὸ τοῦ ἡλίου προσλάμ-
πεσθαι. Στράτων καὶ αὐτὸς τὰ ἄστρα ὑπὸ τοῦ ἡλίου φωτίζεσθαι. Διότιμος Τύριος,
ὁ Δημοκρίτειος, τὴν αὐτὴν τούτοις εἰσηνέγκατο γνώμην.

§6 A 2.26.2 Παρμενίδης ἴσῃ τῷ ἡλίῳ, καὶ γὰρ ἀπ' αὐτοῦ φωτίζεσθαι.

- §7 A 2.20.6 (de solis substantia) Ἡράκλειτος Ἐκαταῖος Κλεάνθης ἀναμμο νοε-
 ρὸν ἐκ θαλάττης. A 2.21.2 (de solis figura) Ἡράκλειτος σκαφοειδῆ, ὑπόκυρτον.
 A 2.25.2 (de lunae substantia) Ἀναξιμένης Παρμενίδης Ἡράκλειτος πυρίνην.
 A 2.27.3 (de lunae figura) Ἡράκλειτος σκαφοειδῆ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

For the remaining chapters of Book 2, i.e. chs. 28–32, we are in the virtually unique position of having them transmitted to us in exactly the form that they appeared in A's handbook (only the final lemma in 2.32 is missing). It would appear that for chs. 28–31 S became weary of the process of coalescence that he had carried out for the chapters on the stars, the sun and (so far) on the moon. There is every indication that in the remainder of S 1.26 he has written these four chapters out separately under their titles (ch. 32 had been written out earlier in S 1.8 on the nature of time). We thus have a unique opportunity to study the way A constructed his chapters and how they were excerpted in their very different ways by P and T. Contrary to our usual fashion, therefore, in the case of these chapters we must start with S.

(1) S records seven doxai. Their sequence is quite unproblematic.

(2) Of the seven doxai in S four remain in P. We note the following manipulations:

- (a) In his first doxa P combines elements from §1 and §2 in S. This could be the result of a kind of haplography, or perhaps P decided there was little difference between them and they could be conflated, particularly if 'dimmer' is taken to be 'dimmer compared with the sun'.
- (b) S's third doxa is deleted by P, no doubt because it adds little (we already know that the moon is 'air-like' from ch. 2.25).
- (c) The fourth doxa of Antiphon is copied out with perhaps a minor change; see below, section D(d).
- (d) For the next two doxai (which must be read together) P drops the πρῶτος εὐρετής motif for Thales and characteristically shortens the long list of name-labels to καὶ οἱ ἄπ' αὐτοῦ (exactly the same occurs in 2.1.2).
- (e) The final doxa in S is copied out in its entirety by P.

It emerges therefore that P has excerpted almost all of the chapter, yet two (or three if S_{5–6} are split up) doxai are obscured. G goes much further in his excerpting, preserving only P's first and third doxai (which do give the main

diæresis). We note that G further reduces the name-labels in the latter doxa to Thales only. On the other hand, Lydus writes out all four of P's lemmata, only abbreviating the final doxa.

(3) T has not made use of this chapter.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Two texts at Philo *Somn.* 1.23 and 1.53 give insight into pre-Aëtian traditions on this topic not mentioned in Achilles. The latter text includes the chapter's title and gives a brief diaphonia of the two main positions: the moon shines with light derived from elsewhere or it has its own light. The former has the same division, but then introduces a third, compromise position in which the moon's light is a mixture of the sun's and its own light. On the earlier doxographical tradition on which these texts are based see above Commentary on ch. 2.11 section B. Extensive dialectical-doxographical parallels confirm that the two Philonic texts mentioned above represent standard approaches to the topic. The single diaphonia in Philo's second text is found in Epicurus, Lucretius, Cicero, Vitruvius, Apuleius and Augustine (texts below section E(b) General texts). The tripartite schema appears, albeit not very clearly, in Plutarch's *De facie* (on which see our Commentary on ch. 2.25 section B). It is also found in Cleomedes' Stoic manual of astronomy, on which see further on §3 in the Detailed comments below, D(d). On the early texts in Epicurus and Lucretius see section D(e) below. For the Patristic authors Irenaeus and Arnobius the topic of the moon's phases belongs to the standard questions of natural philosophy: see Book 1.proœm. 3 *Exempla physica* and texts below section E(a).

(2) *Sources.* The subject of this chapter exercised the thinking of the early philosophers to a considerable degree, as can be seen in quotations from the poems of Parmenides and Empedocles and the prose work of Anaxagoras (texts quoted by Philo and Plutarch cited below under section E(a)§6). Plato credits Anaxagoras with the discovery that the moon derives its light from the sun, but does not pronounce on the matter himself. The question also remains unclear in Aristotle; see the note on §2 below in section D(d).

C *Chapter Heading*

The witnesses agree on the heading, which is of the simple umbrella Περί x type, though in fact the chapter treats the sub-question of source or origin (πόθεν, *unde*) of the question type cause; see further our Commentary on ch. 1.6 section C. S now discontinues his practice of conflating headings and places the heading of this chapter as a sub-title within his ch. 1.26, altering it slightly by adding the connecting particle δέ and replacing σελήνης with αὐτῆς. The equivalent ch. 2.17 for the stars uses the formula with the term πόθεν, i.e. πόθεν φωτίζονται οἱ ἀστέρες.

D *Analysis*

a Context

Our author proceeds to the next subject relating to the moon, the source of its light, which follows on from its substance (ch. 2.25) and its phases (ch. 2.27), but precedes discussion of its eclipse (ch. 2.29). Unlike in the case of the sun, however, its illuminations can be linked to but do not necessarily follow directly from its substance as discussed in ch. 2.25. Given the controversy on the source of the moon's light, the doxographer felt the need for a separate chapter, which does not have an equivalent in the case of the sun, though as we saw the subject is also discussed in the case of the stars (ch. 2.17).

b Number–Order of Lemmata

Because of the method used by S for this chapter, the number and the order of the lemmata are not in doubt.

c Rationale–Structure of Chapter

The main diaeresis of the chapter is between the view that the moon has its own light and that it receives its light from the sun. It is the same diaeresis as in the second Philonic text and is found in many other texts (see sections B above and D(e) below). The two groups are led by the venerable Milesians Anaximander and Thales (note that the order is not chronological but systematic, for the view that it has its own light is logically prior). The same main representatives and non-chronological order were used in ch. 2.25. For the first view Berossus, who elsewhere is often cited as its chief representative (see the parallels listed below), is placed after the two early Presocratics. The extreme brevity of the second and third doxai make them difficult to interpret. The Aristotelian doxa is basically a refinement of the opening lemma, taking into account the natures of the two heavenly bodies. *Pace* M–R 2.605 ἀραιότερον here must mean 'thinner, sparser' (cf. chs. 2.7.1 and 2.7.3, where the comparison is with πυκνός, 'dense'). Grammatically the adjective appears to describe the moon's light, but it makes more sense to refer it to the moon's composition in terms of the fifth element (cf. A 2.25.8). The Stoic view could also be a restatement of the first doxa. But more likely it relates to the third (compromise) view in the first Philonic text and other Stoics texts. The moon's dim appearance would be the result of a mixture of its own bodily nature and the light of the sun (but see the detailed comment in the next sub-section and also further below). It would thus be a compromise view. It has to be admitted, however, that the exact meaning could not have been clear to A's reader. For these two lemmata his desire for brevity has most likely obscured the systematics of his source. In the case of the fourth doxa attributed to Antiphon we also appear to have a compromise

view: the moon's own light is obscured by the more powerful light of the sun that shines on it and it reflects. The verbs ἀμαυροῦσθαι and ἀμαυροῦν would pick up the adjective ἀμαυροφάνης in the Stoic doxa and reinforce the interpretation that these two views are compromise positions that supply a transition to the second major branch of the diaeresis. However, the final words of the doxa sit uneasily with this interpretation. As noted by Pendrick (2002) 297, the doxa could also be interpreted as explaining why the moon is (largely) obscured during the day, as also happens to the other heavenly bodies (for which reflection of the sun at night does not make much sense). Here too the doxographer does not make the meaning very clear for his reader.

The doxa whose discovery is attributed to Thales, that the moon receives its light from the sun, was the dominant view in antiquity. No doubt the impressive list of name-labels is meant to underline this dominance. It is surprising that A does not use the characteristic formulation of 'bastard light' that occurs in Philo and in various parallel texts (see texts below). In addition he also does not refer to the theory of Empedocles comparing the moon's reflection of light with what occurs in a mirror (cf. Philo *Prov.* 2.70, *Plu. Fac.Lun.* 929E).

The final Heraclitean lemma might appear to belong to the first group of the diaeresis, since the moon's light comes from the moist exhalation in its bowl, just like in the case of the sun. The difference is that the moon's light appears 'dimmer' (ἀμαυρός again) because of the murky air in which it moves compared to the brighter air for the sun. It is placed at the end most likely because it compares the sun and moon. Such comparisons involving the two planets are found at the end of three other chapters (2.20, 2.24, 2.30). The final placing may also be due to its 'epistemological' nature, i.e. dependent on how the two bodies appear to the observer (πρὸς τὴν φαντασίαν). We might compare the way that Epicurus' 'modal' views are placed at the end of chs. 2.2, 2.4, 2.13.

In various sources it is argued that there is a direct relation between the question of the moon's phases and the source of its light. But the argument is worked into two opposing directions. At Cleomedes 2.4.56–78 Todd and Plutarch *Fac.Lun.* 929F–930E, we read that if its light were due *only* to reflection of the sun's light, it would not be visible during some of its phases. On the other hand, Geminus *Elem.* 9.1–10 attempts to use observations to demonstrate the (by his time) dominant view that the moon receives its light from the sun, while Gregory of Nyssa in a lengthy passage at *An.Res.* p. 17.4–18.19 Spira argues that observation of the phases of the moon demonstrates that it does not possess its own light (see below section E(b) General texts). This is the kind of material that is not found in A, who following his usual practice does not comment on the doxai that he juxtaposes to each other.

d Further Comments

General Points

The main diaeresis of A's chapter is recognised in modern scholarship, e.g. by Graham (2013) 88 who even goes so far as to introduce an adaptation of the doxographical terminology, i.e. distinguishing between idiophotism and heliophotism. See further ch. 2.29 Commentary D(d). There has in recent scholarship been extensive discussion of the origins of the view that the moon receives its light from the sun. Wöhrle (1995a) concludes that Anaxagoras deserves the credit for the discovery, since according to our sources (esp. Plutarch) he developed the theory most clearly, though it is possible that Parmenides promoted it in his poem. The tradition that Thales discovered it must be a retro-projection, while its ascription to Anaximenes by Eudemus must also be mistaken, even though it appears to stand in the Theophrastean tradition. For the texts cited by Wöhrle see below section E(a) and (b). Graham (2013) 89–92 also discusses the list of philosophers in A's doxai §§5–6. He discounts Thales and Pythagoras, but is inclined to privilege the contribution of Parmenides. In a very full discussion Couprie (2018) 195–218 reaches a wholly different conclusion, arguing that in the general context of Anaxagoras' astronomy the statement that 'the moon receives its light from the sun' probably means that the moon's light is ignited by the sun. On this theory of kindling, already suggested by O'Brien (1968) see further on ch. 2.30 Commentary D(d)§5.

Individual Points

§2 At chs. 2.11.5, 2.13.12, 2.20.11 and 2.25.8 (very likely) A had on each occasion stated that according to Aristotle the heavenly bodies consisted of the 'fifth body' without any further qualification. Given the placement of these doxai in the various diaereses (esp. the proximity to Plato's view), it may be assumed that A thought this body was similar to fire and had its own luminosity (*pace Cael.* 2.7 289a20–35). The present doxa may be a further deduction on the part of A or his predecessors. There is a single Aristotelian text that hints that the moon may contain some admixture of fire, *GA* 3.11 761b21. AD in his passage on the sun (fr. 10 Diels), however, denies that the sun or any other of the heavenly bodies is fire. But for Aristotle's views on lunar eclipses see further on A 2.27 Commentary B(b), 2.29 Commentary B(b), D(d)§8.

§3 Cleomedes, in arguing for the Stoic position, gives a doxographical overview of three positions (2.4.1–30 Todd). The first of these is that of Berossus (as in A). The second is that the moon is illuminated by the sun, like what happens with mirrors. The third view, which is regarded as 'sounder' (ὕγιεστέρα), argues that the sun's light produces a luminous effect in the moon's substance (a mixture of fire and air) which can remain even when the sun's light is removed

and is thus a better theory that the one of reflection (see the notes of Bowen–Todd 2004, 137–139). This is thus a kind of compromise view, but more subtle than Philo's one of mixture or that of Antiphon in A. The Stoic view in A is not presented clearly enough for the reader to deduce the view presented in Cleomedes.

§4 To describe Antiphon's position S says the moon is ἰδιοφεγγή, P that it ἰδίῳ φέγγει λάμπειν. The compound adjective used by S is a hapax, occurring only in this text, but it seems very much a *vox doxographica*. Both the compressed style and the avoidance of verbs are characteristic of doxographical style. Moreover S is less motivated to alter the text than P. So we retain S's text in this case. It is prudent, however, to retain πυρός in the phrase πεφυκότος τοῦ ἰσχυροτέρου πυρός since it have easily dropped out of S's text. On the doxai of the sophist Antiphon in the *Placita* see our comment at A 2.20, Commentary D(d)§4.

e Other Evidence

The early texts of Epicurus and his follower Lucretius are of considerable interest. Epicurus *Ep.Pyth.* at D.L. 10.94–95 states the two main positions and argues that both are consistent with unspecified analogies from our own experience. On this text see Runia (2018) 408 and further on ch. 2.29 Commentary B. Lucretius offers that same diaeresis at *DRN* 5.575–577, in which the contrast between 'bastard light' and 'its own light' is exactly the same as that found in Philo's first text (cf. also Lucian and Apuleius, who cites the poet's lines). But at *DRN* 5.705–750 he goes into more detail, giving four explanations which combine the questions of its light and its phases (see also ch. 2.29). It is noteworthy that the third of these views is the *Babylonica Chaldaeum doctrina*, i.e. the view of Berossus, which is also used by other authors to represent the position that the moon has its own light (Vitruvius, Apuleius, Cleomedes, Augustine). We note that Epicurus does not refer to the doxa of Berossus in his text. It is possible that some of Epicurus' doxographical material was drawn from the work of Theophrastus; see Bakker (2016) 58–61; Runia (2018) 404. For chronological reasons, however, it is unlikely that the Eresian mentioned the view of Berossus. As argued in Runia (1997) 101–102, Epicurus cannot have referred to him in his *De natura*, the work that was Lucretius' main source, because it was written relatively early in his career, before the *Babyloniaca* became available. Sedley (1998b) 90–91 contests this view, arguing that we do not know that Berossus' cosmological views became known to Hellenistic readers through that work. However, we do not know of any other works available in Greek, and indeed—as noted above on A 2.25.13—some scholars incline to the view that Berossus' fragments 'bear all the characteristics of a falsification of the late Hellenistic period taking advantage of a prestigious name' (Daroca 1994, 96, citing

Kuhrt 1987, 43–44, cf. also the most recent edition by De Breucker 2012, 588–595, 606–609). This is a subject that we cannot pursue further in the present context.

In conclusion, the evidence suggests that Lucretius, as well as following his master, also made use of doxographical traditions that developed during the Hellenistic period. See Runia (1997), and on his psychological theories Mansfeld (1990a) 3143–3154 and Introduction to Book 4, section 5.

E Further Related Texts

a Proximate Tradition

General texts: Eudemus see Theon of Smyrna and Heron Mechanicus below.

Epicurus *Ep.Pyth.* at D.L. 10.94–95 ἔτι τε ἐνδέχεται τὴν σελήνην ἐξ ἑαυτῆς ἔχειν τὸ φῶς, ἐνδέχεται δὲ ἀπὸ τοῦ ἡλίου. καὶ γὰρ παρ’ ἡμῖν θεωρεῖται πολλὰ μὲν ἐξ ἑαυτῶν ἔχοντα, πολλὰ δὲ ἀφ’ ἑτέρων. καὶ οὐθὲν ἐμποδοστατεῖ τῶν ἐν τοῖς μετεώροις φαινομένων, ἂν τις τοῦ πλεοναχοῦ τρόπου αἰεὶ μνήμην ἔχη καὶ τὰς ἀκολουθούς αὐτοῖς ὑποθέσεις ἅμα καὶ αἰτίας συνθεωρῇ καὶ μὴ ἀναβλέπων εἰς τὰ ἀνακόλουθα ταῦτ’ ὀγκοῖ ματαίως καὶ καταρρέπη ἄλλοτε ἄλλως ἐπὶ τὸν μοναχὸν τρόπον. **Lucretius** *DRN* 5.575–577 *lunaque, sive notho fertur loca lumine lustans / sive suam proprio iactat de corpore lucem, / quidquid id est ...; DRN* 5.705–775 *luna potest solis radiis percussa nitere / inque dies magis id lumen convertere nobis / ad speciem, ... (715) est etiam quare proprio cum lumine possit / volvier et varias splendoris reddere formas; / corpus enim licet esse aliud, quod fertur et una / labitur omnimodis occursans officiensque, / nec potis est cerni, quia cassum lumine fertur. / versarique potest, globus ut, si forte, pilai / dimidia ex parti candenti lumine tinctus, / versandoque globum variantis edere formas, / donique eam partem, quae cumque est ignibus aucta, / ad speciem vertit nobis oculosque patentis; / inde minutatim retro contorquet et aufert / luciferam partem glomeraminis atque pilai; / ut Babylonica Chaldaeeum doctrina refutans / astrologorum artem contra convincere tendit, / proinde quasi id fieri nequeat quod pugnat uterque / aut minus hoc illo sit cur amplectier ausis. / denique cur nequeat semper nova luna creari / ordine formarum certo certisque figuris / inque dies privos aborisci quaeque creata / atque alia illius reparari in parte locoque, / difficilest ratione docere et vincere verbis, / ordine cum <videas> tam certo multa creari ... (748) quo minus est mirum, si certo tempore luna / gignitur et certo deletur tempore rusus, / cum fieri possint tam certo tempore multa. cf. *DRN* 768–770 cited below on A 2.29. **Cicero** *Div.* 2.10 *num censes eos, qui divinare dicuntur, posse respondere ... lunaque suo lumine an solis utatur? ND* 2.103 *luna autem ... isdem spatiis vagatur quibus sol, sed tum congregiens cum sole tum degrediens et eam lucem quam a sole accepit mittit in terras et varias ipsa lucis mutationes habet, atque etiam tum subiecta atque opposita soli radios eius et lumen obscurat, tum ipsa incidens in umbram terrae, cum est e regione solis, interposito interiectuque terrae repente deficit.* **Philo of Alexandria** *Somn.* 1.23, τί δέ; σελήνη πότερον γνήσιον ἢ νόθον ἐπιφέρεται φέγ-*

γος ἡλιακαῖς ἐπιλαμπόμενον ἀκτίσιν ἢ καθ' αὐτὸ μὲν ἰδίᾳ τούτων οὐδέτερον, τὸ δ' ἐξ ἀμφοῖν ὡς ἂν ἐξ οἰκείου καὶ ἄλλοτρίου πυρὸς κράμα; 1.53 τί δὲ περὶ φωτισμῶν σελήνης, εἰ νόθον ἔχει φέγγος, εἰ γνησίῳ μόνῳ χρήται; **Seneca Nat.** 7.27.1 *dic tu mihi prius quare luna dissimillimum soli lumen accipiat, cum accipiat a sole.* cf. also **Theon of Smyrna Exp.** 198.14–199.2 Hiller Εὐδημος (fr. 145 Wehrli) ἱστορεῖ ἐν ταῖς Ἀστρολογίαις, ὅτι ... Ἀναξιμένης (13A16 DK) δὲ ὅτι ἡ σελήνη ἐκ τοῦ ἡλίου ἔχει τὸ φῶς καὶ τίνα ἐκλείπει τρόπον. same text at **Heron Mechanicus Def.** 11.2–9 Heiberg. **Irenaeus of Lyon Haer.** 2.28.2 Rousseau–Doutreleau (trans. Rufini) *quae autem causa est per quam crescit luna et decresci.* **Isidore of Pelusium Ep.** 2.273 PG 78.704A, 773 Ἐνιεύχεται καὶ τὸ πολυπραγμονεῖν ... σελήνης δὲ μειώσεις τε καὶ αὐξήσεις ... τί συμβάλλεται εἰς ἀρίστην πολιτείαν, ἐγὼ μὲν οὐ συνορώ.

Chapter heading: Capitula Lucretiana at DRN 5.705 *De lunae lumine.* **Philo Mut.** 67 τὸν ... μετεωρολογικόν, ἐρευνῶντα ... καὶ σελήνης περὶ φωτισμῶν, σχηματισμῶν, μειώσεως, αὐξήσεως. **Eusebius PE** 10.14.10 Θαλής ὁ Μιλήσιος (fr. 265 Wöhrle) φυσικὸς πρῶτος Ἑλλήνων γεγονώς περὶ ... φωτισμῶν σελήνης καὶ ἡμερίας διελέχθη.

Quaestio: Irenaeus of Lyon Haer. 2.28.2 (tr. Rufini) *quae autem causa est per quam crescit luna et decrescit.* **Arnobius of Sicca Adv.Nat.** 2.61, p. 137.6–10 Marchesi *quid est inquit vobis investigare, conquirere, ... alieno ex lumine an propriis luceat fulgoribus luna.*

§1 Anaximander Xenophanes Berossus: Diogenes Laertius VP. 2.1 (on Anaximander, 12A1 DK) τὴν τε σελήνην ψευδοφαή, καὶ ἀπὸ ἡλίου φωτίζεται.

§2 Aristotle: see Plutarch Fac.Lun. 928F quoted below on A 2.30.6. **Symeon Seth CRN** 3.50, p. 54.3 Delatte εἰ καὶ οἱ Ἀριστοτελικοὶ πέμπτον ὑπέθεντο σῶμα τὸν οὐρανόν, ἀλλ' οὐδὲν ὁμολογοῦσι μέρη μὲν αὐτοῦ εἶναι παχύτερα, καὶ μάλιστα τὰ τῇ γῇ προσεγγίζοντα, μέρη δὲ λεπτότερα τὰ ἄνωθεν καὶ πορρώτερα τῆς γῆς. ἢ γοῦν σελήνη τῷ ἐν γενέσει καὶ φθορᾷ τούτῳ κόσμῳ πλησιάζουσα οὐκ ἄμοιρος οὐδ' ἀμέτοχος κατελείφθη τῶν τούτου κακῶν, ἀλλὰ παχείαν καὶ ὥσανει γεώδη τὴν ὑπὸ στασιν ἔχει.

§3 Stoics: Plutarch Fac.Lun. 929B–D φωτίζεται τοῖνυν τὴν σελήνην οὐχ ὡς ὕελον ἢ κρύσταλλον ἐλάμψει καὶ διαφάσει τοῦ ἡλίου πιθανόν ἐστιν, οὐδ' αὖ κατὰ σύλλαμψιν τίνα καὶ συναυασμόν, ὥσπερ αἱ δᾶδες αὐξομένου τοῦ φωτός. οὕτως γὰρ οὐδὲν ἦττον ἐν νομηνίαις ἢ διχομηνίαις ἔσται πανσέληνος ἡμῖν, εἰ μὴ στέγει μὴδ' ἀντιφράττει τὸν ἥλιον, ἀλλὰ δίδεισιν ὑπὸ μανότητος ἢ κατὰ σύγκρασιν εἰσλάμπει καὶ συνεξάπτει περὶ αὐτὴν τὸ φῶς ... ὁ δὲ λέγει Ποσειδώνιος (F 124 E–K., 295 Theiler), ὡς ὑπὸ βάθους τῆς σελήνης οὐ περαιούται δι' αὐτῆς τὸ τοῦ ἡλίου φῶς πρὸς ἡμᾶς, ἐλέγχεται καταφανῶς. ὁ γὰρ ἀπὸ ἀπλετοῦ ὦν καὶ βάθος ἔχων πολλαπλάσιον τῆς σελήνης ὅλος ἐξηλιούται καὶ καταλάμπεται ταῖς αὐγαῖς. **Fac.Lun.** 933D εἴπερ οὖν ἡ σελήνη πυρὸς εἴληχε βληχροῦ καὶ ἀδρανούς, ἄστρον οὖσα θοερώτερον, ὥσπερ αὐτοὶ (sc. the Stoics) λέγουσιν, οὐθὲν ὦν πάσχουσα φαίνεται νῦν, ἀλλὰ τὰ ἐναντία πάντα πάσχειν αὐτὴν προσήκόν ἐστι, φαίνεσθαι μὲν ὅτε κρύπτεται, κρύπτεσθαι δ' ὁπηνίκα φαίνεται. see also **Fac.Lun.** 922C cited above on A 2.25.6.

§5 **Thales: John Philoponus in Cat.** 118.7 ἀμέλει φασὶ Θαλὴν τὸν Μιλήσιον (fr. 434 Wöhrlé) πρῶτον ἐπιστῆσαι τῇ αἰτίᾳ τῆς σεληνιακῆς ἐκλείψεως κατανοήσαντα ὅτι ἐκ τοῦ ἡλίου ἡ σελήνη δέχεται τὸ φῶς ...

§6 **Pythagoras: Diogenes Laertius V.P.** 8.27 (58B1a DK) τὴν τε σελήνην λάμπεσθαι ὑφ' ἡλίου.

Parmenides: Plutarch Adv.Col. 1116A (on the moon) οὐδὲ γὰρ ὁ πῦρ μὴ λέγων εἶναι τὸν πεπυρωμένον σίδηρον ἢ τὴν σελήνην ἥλιον, ἀλλὰ κατὰ Παρμενίδην 'νυκτιφαεὶς περὶ γαίαν ἀλῶμενον ἀλλότριον φῶς' (28B14 DK). also **Fac.Lun.** 929A ὡς δ' ἄστρον ἢ φῶς ἢ τι σῶμα θεῖον καὶ οὐράνιον δέδρα μὴ ἄμορφος ἢ καὶ ἀπρεπὴς καὶ καταισχύνουσα τὴν καλὴν ἐπωνυμίαν· εἴ γε τῶν ἐν οὐρανῷ τοσοῦτων τὸ πληθὸς ὄντων μόνῃ φωτὸς ἀλλοτρίου δεομένη περίεσι, κατὰ Παρμενίδην 'αἰ παπταίνουσα πρὸς αὐγὰς ἡελίοιο' (28B15 DK).

Empedocles: Philo of Alexandria Prov. 2.70 Aucher *lunae vero lumen nonne inepte putatur; a sole juxta Providentiam desumere lucem, cum potius instar speculi casu in se incidentem formam recipiat? quemadmodum Empedocles (dixit)* (31B43 DK): 'lumen accipiens lunaris globus magnum largumque, mox illico reversus est, ut currens caelum attingeret'. also at **Plutarch Fac.Lun.** 922C (31A60 DK) cited above on A 2.25.6. see further **Fac.Lun.** 929E (31B42–43 DK) ἀπολείπεται τοίνυν τὸ τοῦ Ἐμπεδοκλέους (—), ἀνακλάσει τινὶ τοῦ ἡλίου πρὸς τὴν σελήνην γίνεσθαι τὸν ἐνταῦθα φωτισμὸν ἀπ' αὐτῆς. ὅθεν οὐδὲ θερμὸν οὐδὲ λαμπρὸν ἀφικνεῖται πρὸς ἡμᾶς, ὥσπερ ἦν εἰκὸς ἐξάψεως καὶ μίξεως (δυοῖν) φῶτων γεγενημένης ἄλλ' οἷον αἶ τε φωναὶ κατὰ τὰς ἀνακλάσεις ἀμαυροτέραν ἀναφαίνουσι τὴν ἡχὴν τοῦ φθέγματος αἶ τε πληγαὶ τῶν ἀφαλλομένων βελῶν μαλακώτεραν προσπίπτουσιν, 'ὥς αὐγὴ τύψασα σεληνιακῆς κύκλον εὐρύν' ἀσθενῇ καὶ ἀμυδρὰν ἀνάρροισιν ἴσχει πρὸς ἡμᾶς, διὰ τὴν κλάσιν ἐκλυομένης τῆς δυνάμεως. cf. **Achilles** §16 23.15–17 (31B45 DK) cited above under *Testes secundi*. **ps.Plutarch Strom.** 10 (fr. 179 Sandbach: on Empedocles, 31A30 DK) τὸ δὲ φῶς αὐτὴν (sc. the moon) ἔχειν ἀπὸ τοῦ ἡλίου.

Anaxagoras: Plutarch Nic. 23.3 ὁ γὰρ πρῶτος σαφέστατον τε πάντων καὶ θαρραλεώτατον περὶ σελήνης καταυγασμῶν καὶ σκιᾶς λόγον εἰς γραφὴν καταθέμενος 'Ἀναξαγόρας οὐτ' αὐτὸς ἦν παλαιὸς οὐθ' ὁ λόγος ἔνδοξος, ἀλλ' ἀπόρρητος ἔτι καὶ δι' ὀλίγων καὶ μετ' εὐλαβείας τινὸς ἢ πίστεως βαδίζων. **Fac.Lun.** 929B (59B18 DK, follows passage at 929A cited above) ὁ μὲν οὖν ἐταῖρος ἐν τῇ διατριβῇ τοῦτο δὴ τὸ 'Ἀναξαγόρειον ἀποδεικνύς, ὡς 'ἥλιος ἐντίθησι τῇ σελήνῃ τὸ λαμπρὸν' ἡὐδοκίμῃσεν. **Hippolytus Ref.** 1.8.8 (59A42 DK) τὸ δὲ φῶς τὴν σελήνην μὴ ἴδιον ἔχειν, ἀλλὰ ἀπὸ τοῦ ἡλίου. cf. **Ref** cf. 1.8.10 οὗτος ἀφώρισε πρῶτος τὰ περὶ τὰς ἐκλείψεις καὶ φωτισμούς. see also **Olympiodorus in Mete.** 67.32–37 (on Anaxagoras and Democritus, not in DK) καὶ δηλοῖ ἡ σελήνη. ταύτης γὰρ ἕτερον μὲν τὸ ἴδιον φῶς, ἕτερον δὲ τὸ ἀπὸ ἡλίου· τὸ γὰρ ἴδιον αὐτῆς φῶς ἀνθρακῶδες ἐστίν, ὡς δηλοῖ ἡμῖν ἡ ἔλλειψις αὐτῆς. ἀλλ' οὐ πάντα, φησί, τὸ ἐπίκτητον δέχονται (for context see full citation at ch. 3.1 section E(b) General texts).

§7 **Heraclitus: Diogenes Laertius V.P.** 9.10 (22A1 DK) εἶναι μέντοι ἐν αὐτῷ σκάφας ἐπεστραμμένας κατὰ κοῖλον πρὸς ἡμᾶς, ἐν αἷς ἀθροίζομένας τὰς λαμπράς ἀναθυμιάσεις ἀποτελεῖν φλόγας, ἃς εἶναι τὰ ἄστρα. λαμπροτάτην δὲ εἶναι τὴν τοῦ ἡλίου φλόγα καὶ θερμωτάτην. τὰ μὲν γὰρ ἄλλα ἄστρα πλεῖον ἀπέχειν ἀπὸ γῆς καὶ διὰ τοῦτο ἦττον λάμπειν καὶ θάλλειν, τὴν δὲ σελήνην προσγειωτέραν οὖσαν μὴ διὰ τοῦ

καθαροῦ φέρεσθαι τόπου. cf. **Hippolytus** *Ref.* 1.4.3 (T658 Mouraviev) καὶ ὥσπερ ὁ Ἑμπεδοκλῆς πάντα τὸν καθ' ἡμᾶς τόπον ἔφη κακῶν μεστὸν εἶναι καὶ μέχρι μὲν σελήνης τὰ κακὰ φθάνειν ἐκ τοῦ περὶ γῆν τόπου ταθέντα, περαιτέρω δὲ μὴ χωρεῖν, ἅτε καθαρωτέρου τοῦ ὑπὲρ τὴν σελήνην παντὸς ὄντος τόπου, οὕτω καὶ τῷ Ἑρακλείτῳ ἔδοξεν.

b Sources and Other Parallel Texts

General texts: **Aristotle** *Met.* A.2 982b11–17 see on A 2.26. **Vitruvius** 9.2.3 *uti autem Aristarchus Samius mathematicus vigore magno rationes varietatis disciplinis de eadem reliquit, exponam. non enim latet lunam suum propriumque non habere lumen, sed esse uti speculum et ab solis impetu recipere splendorem.* **Apuleius** *D.Socr.* 1–2, p. 7.12–8.9 *Moreschini diei opificem lunamque ... seu corniculata seu dividua seu protumida seu plena sit ..., sive illa proprio sed non perpeti candore (pollens), ut Chaldaei arbitrantur, parte luminis compos, parte altera cassa fulgoris, pro circumversione oris discoloris multiuiga {pollens} speciem sui variat, seu tota proprii candoris expers, alienae lucis indigna, denso corpore sed levi ceu quodam speculo radios solis obstipi vel adversi susupat et, ut verbis utar Lucreti (DRN 5.574), 'notham iactat de corpore lucem.' utra(cum)que harum vera sententia est ...* **Cleomedes** *Cael.* 2.4.1–30 Todd περὶ δὲ τῶν φωτισμῶν αὐτῆς πλείους γεγόνασι λόγοι. Βήρωστος (*FGH* 680 F18 Jacoby) μὲν γὰρ ἡμίπυρον οὖσαν αὐτὴν πλείονας κινήσεις κινεῖσθαι ἀπεφῆντο ... ἕτεροι δὲ φασιν ὑπὸ τοῦ ἡλίου μὲν ἐλλάμπεσθαι αὐτήν, κατὰ ἀνάκλασιν δὲ φωτίζειν τὸν ἀέρα· ὅπερ καὶ ἐπὶ τῶν ἐσόπτρων ὁράται γινόμενον καὶ τῶν λαμπρῶν ἀργυρωμάτων καὶ ὅσα τούτοις ἔοικε. τρίτη ἐστὶν αἵρεσις ἢ λέγουσα κινᾶσθαι αὐτῆς τὸ φῶς ἐκ τε τοῦ οἰκείου (σώματος) καὶ τοῦ ἡλιακοῦ φωτός, καὶ τοιοῦτον γίνεσθαι οὐκ ἀπαθοῦς μενούσης αὐτῆς, οὐδὲ παραπλησίως τοῖς στερεοῖς τῶν λαμπρῶν σωμάτων ἀποπαλλομένης ἐχούσης τὰς αὐγὰς καὶ κατ' ἀνάκλασιν φωτίζουσης τὸν ἀέρα (κατ' ἀνταύγειαν δεχομένης ἀπὸ τοῦ ἡλίου τὰς ἀκτίνας καὶ οὕτως ἀντιπεμπούσης πρὸς ἡμᾶς), ἀλλ' ἀλλοιουμένης ὑπὸ τοῦ ἡλιακοῦ φωτός καὶ κατὰ τοιαύτην κράσιν ἴδιον ἰσχύουσης τὸ φῶς, οὐ πρῶτως, ἀλλὰ κατὰ μετοχήν, ὡς ὁ διάπυρος σίδηρος κατὰ μετοχήν ἴσχει τὸ φῶς, οὐκ ἀπαθῆς ὢν ἀλλὰ τετραμμένος ὑπ' αὐτοῦ. αὕτη ἢ αἵρεσις ὑγιεστέρα τῆς λεγούσης κατ' ἀνάκλασιν φωτίζειν τὴν σελήνην ἀποπαλλομένων ἀπ' αὐτῆς τῶν αὐγῶν, ὅπερ ἐπὶ τῶν λαμπρῶν ὁράται σωμάτων γινόμενον, ὅταν ᾗ στερεά. **Gregory of Nyssa** *An.Res.* p. 17.4–18.19 Spira καὶ τῆς σελήνης μείωσιν τε καὶ αὔξησιν βλέπων, ἄλλα διδάσκει διὰ τοῦ φαινομένου περὶ τὸ στοιχεῖον σχημάτων, τὸ, ἀφεγγή τε εἶναι αὐτὴν κατὰ τὴν ἰδίαν φύσιν, καὶ τὸν πρόσγειον κύκλον περιπολεῖν λάμπει δὲ ἀπὸ τῶν ἡλιακῶν ἀκτίνων, ὡς ἐπὶ τῶν κατόπτρων γίνεσθαι πεφυκέναι τὸν ἥλιον, ἐφ' ἑαυτῶν δεχόμενα οὐκ ἰδίας αὐγὰς ἀντιδίδωσιν, ἀλλὰ τοῦ ἡλιακοῦ φωτός ἐκ τοῦ λείου καὶ στίλβοντος σώματος εἰς τὸ ἔμπαλιν ἀνακλωμένου. ὥσπερ τοῖς ἀνεξετάστως βλέπουσιν ἐξ αὐτῆς δοκεῖ τῆς σελήνης εἶναι τὸ φέγγος. δείκνυται δὲ τὸ μὴ ἔχειν, ὅτι γινομένη μὲν ἀντιπρόσωπος τῷ ἡλίῳ κατὰ διάμετρον ὅλῳ τῷ πρὸς ἡμᾶς βλέποντι κύκλῳ καταφωτίζεται ... **Augustine** *Enarr. in Ps.* 10.3.2–30 Dekkers–Fraipont *duae sunt de luna opiniones probabiles. harum autem quae vera sit aut non omnino aut difficillime arbitror posse hominem scire. cum enim quaer-*

itur unde lumen habeat, alii dicunt suum habere sed globum eius dimidium lucere dimidium autem obscurum esse ... alii autem dicunt non habere lunam lumen proprium sed a sole illustrari ...

Chapter heading: Cleomedes see below on §1. **Vettius Valens** *Anth.* 1.12 Περὶ φωτισμῶν σελήνης. **Geminus** ch. 9 Περὶ σελήνης φωτισμῶν.

§1 **Berosus:** **Vitruvius** 9.1.16–2.1 (fr. 680 F20 Jacoby, 21a De Breucker) *nunc de crescenti lumine lunae deminutioneque, ut traditum est nobis a maioribus, dicam. Berosus, qui ab Chaldaeorum civitate sive natione progressus in Asia etiam disciplinam Chaldaicam patefecit, ita est professus: pilam esse ex dimidia parte candentem, reliqua habere caeruleo colore.* See also Apuleius, Cleomedes and Augustine cited above under General texts.

§2 **Aristotle:** see on A 2.30.1.

§3 **Stoics:** **Cleomedes** *Cael.* 2.4.20–32 Todd τρίτη ἐστὶν αἴρεσις ἢ λέγουσα κινᾶσθαι αὐτῆς τὸ φῶς ἐκ τε τοῦ οἰκείου (σώματος) καὶ τοῦ ἡλιακοῦ φωτὸς καὶ τοιοῦτον γίνεσθαι οὐκ ἀπαθοῦς μενούσης αὐτῆς οὐδὲ παραπλησίως τοῖς στερεοῖς τῶν λαμπρῶν σωμάτων ἀποπαλλομένης ἐχούσης τὰς αὐγὰς καὶ κατὰ ἀνάκλασιν φωτιζούσης τὸν ἀέρα, κατ’ ἀνταύγειαν δεχομένης ἀπὸ τοῦ ἡλίου τὰς ἀκτῖνας καὶ οὕτως ἀντιπεμπούσης πρὸς ἡμᾶς, ἀλλ’ ἀλλοιομένης ὑπὸ τοῦ ἡλιακοῦ φωτὸς καὶ κατὰ τοιαύτην τὴν κρᾶσιν ἴδιον ἰσχύουσης τὸ φῶς, οὐ πρῶτως, ἀλλὰ κατὰ μετοχὴν, ὡς διάπυρος σίδηρος κατὰ μετοχὴν ἴσχει τὸ φῶς οὐκ ἀπαθὲς ὢν, ἀλλὰ τετραμμένος ὑπ’ αὐτοῦ. αὕτη ἡ αἴρεσις ὑγιεστέρα τῆς λεγούσης κατὰ ἀνάκλασιν φωτίζει τὴν σελήνην ...

§6 **Anaxagoras:** **Plato** *Cra.* 409a–b, τί δὲ ἡ ‘σελήνη’; τοῦτο δὲ τὸ ὄνομα φαίνεται τὸν Ἀναξαγόραν (59A76 DK) πιέζειν. τί δὴ; ἔοικε δηλοῦντι παλαιότερον ὃ ἐκεῖνος νεωστὶ ἔλεγεν, ὅτι ἡ σελήνη ἀπὸ τοῦ ἡλίου ἔχει τὸ φῶς. πῶς δὴ; τὸ μὲν που ‘σέλας’ καὶ τὸ ‘φῶς’ ταῦτόν. ναί. νέον δὲ που καὶ ἔνον αἰεὶ ἐστὶ περὶ τὴν σελήνην τοῦτο τὸ φῶς, εἴπερ ἀληθὴ οἱ Ἀναξαγόρειοι λέγουσιν· κύκλῳ γάρ που αἰεὶ αὐτὴν περιῶν νέον αἰεὶ ἐπιβάλλει, ἔνον δὲ ὑπάρχει τὸ τοῦ προτέρου μηνός. πάνυ γε. ‘σελαναίαν’ δὲ γε καλοῦσιν αὐτὴν πολλοί. πάνυ γε. ὅτι δὲ σέλας νέον καὶ ἔνον ἔχει αἰεὶ, ‘σελαενοεοαία μὲν δικαιοτάτ’ ἂν {τῶν} ὀνομάτων καλοῖτο, συγκεκροτημένον δὲ ‘σελαναία’ κέκληται. cf. **Plutarch** *E apud Delph.* 391A–B ‘τὸ δὲ μέγιστον’ ἔφην ‘δέδωκε μὴ ῥηθὲν πιέζει τὸν Πλάτωνα ἡμῶν, ὡς ἐκεῖνος ἔλεγε πιέζεσθαι τῷ τῆς σελήνης ὀνόματι τὸν Ἀναξαγόραν, παμπάλαιον οὖσαν τὴν περὶ τῶν φωτισμῶν δόξαν ἰδίαν αὐτοῦ ποιούμενον. ἡ γὰρ οὐ ταῦτ’ εἴρηκεν ἐν Κρατύλῳ (see above); **Lucian** *Icar.* 20 (see also on ch. 2.25) τὰ τελευταῖα δὲ καὶ τὸ φῶς αὐτὸ κλοπιμαῖόν τε καὶ νόθον εἶναι μοί φασιν ἄνωθεν ἦκον παρὰ τοῦ Ἥλιου, καὶ οὐ παύονται καὶ πρὸς τοῦτόν με ἀδελφὸν ὄντα συγκροῦσαι καὶ στασιάσαι προαιρούμενοι. **Cleomedes** *Cael.* 2.5.81 Todd ἥδεσαν δὲ καὶ οἱ παλαιότατοι τῶν φυσικῶν τε καὶ ἀστρολόγων, ὅτι ἀπὸ τοῦ ἡλίου ἡ σελήνη τὸ φῶς ἔχει ...

Liber 2 Caput 29

P^B: ps.Plutarchus *Plac.* 89^oE–F; pp. 359^a11–360^a17 Diels—**P^E**: Eusebius *PE* 15.51, pp. 415.20–416.9 Mras—**P^G**: ps.Galenus *HPh* c. 70; p. 628.4–10 Diels; pp. 209–217 Jas—**P^Q**: Qustā ibn Lūqā pp. 162–163 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 129.1–2, p. 68 Westerink—**P^{Sv}**: Symeon Seth *CRN* 3.54, p. 57.13 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.26.3, pp. 220.23 (tit.), 220.25–221.24 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b13 Henry (titulus solus)
T: Theodoretus *CAG* 4.24, p. 106.14–16 Raeder
 Cf. Ach: Achilles *Univ.* c. 21, p. 30.12–17 Di Maria

Titulus καθ'. Περὶ ἐκλείψεως σελήνης (P,S,T)

- §1 Ἀναξίμανδρος τοῦ στομίου τοῦ περὶ τὸν τροχὸν ἐπιφραττομένου. (P1,S1)
 §2 Βήρωσος κατὰ τὴν πρὸς ἡμᾶς ἐπιστροφὴν τοῦ ἀπυρώτου μέρους. (P2,S2)
 §3 Ἀλκμαίων Ἡράκλειτος Ἀντιφών κατὰ τὴν τοῦ σκαφοειδοῦς στροφὴν καὶ τὰς περικλίσεις. (P3,S3) 5
 §4 τῶν Πυθαγορείων τινὲς κατὰ τὴν Ἀριστοτέλειον ἱστορίαν καὶ τὴν Φιλίππου τοῦ Ὀπουντίου ἀπόφασιν ἀνταυγία καὶ ἀντιφράζει τοτὲ μὲν τῆς γῆς τοτὲ δὲ τῆς ἀντίχθονος. (P4,S4)
 §5 τῶν δὲ νεωτέρων εἰσὶ τινες οἷς ἔδοξε κατ' ἐπινέμησιν φλογὸς κατὰ μικρὸν ἐξαπτομένης τεταγμένως, ἕως ἂν τὴν τελείαν πανσέληνον ἀποδῶ, καὶ πάλιν ἀναλόγως μειουμένης μέχρι τῆς συνόδου, καθ' ἣν τελείως σβέννυται. (P5,S5) 10

§1 Anaximander 12A22 DK; §2 Berossus *FGH* 680 F19c Jacoby, F21d De Breucker; §3 Alcmaeon 24A4 DK; Heraclitus 22A12 DK; Antiphon 87B28 DK, Pendrick fr. F28; §4–5 Pythagorei 58B36 DK, cf. Aristoteles *de Pythag.* fr. 16 Ross; Philippus Opuntius fr. 10 Tarán, F32–33 Lasserre

titulus post Περὶ add. δὲ S || ἐκλείψεως PS : ἐκλείψων T §1 [2] Ἀναξίμανδρος ^{PB(1)EGQS} : Ἀναξίμενης ^{PB(1,11)} || post nomen add. P^G μὲν ὑπέλαβε || ἐπιφραττομένου || ἐμφραττομένου τὴν σελήνην ἐκλείπειν P^G §§2–3 non hab. P^G §2 [3] Βήρωσος] om. P^E qui hoc modo conflatur §1 et 2 || ἀπυρώτου] πυρώδους P^E §3 [5] Ἀντιφών] Ἀντίφαντος S, corr. ex P Heeren || στροφὴν] συστροφὴν P^B, corr. ex P^E Diels Mau, ret. Lachenaud || [6] καὶ τὰς περικλίσεις S : om. P §4 [7] ante τινες hab. P^G δὲ || [7–8] κατὰ ... ἀπόφασιν S : non hab. P || [8] ἀνταυγία καὶ ἀντιφράζει Diels (P), cf. P^G κατ' ἀνταυγίαν καὶ ἀντιφράξιν : ἀνταυγία καὶ ἐπιφράζει ^{PB(1,11)} : ἀνταυγίαν καὶ ἐπιφράξιν ^{PB(1,11)E} : infolge seine Verhüllung Q : ἀντιφράζει S || [8–9] τοτὲ ... ἀντίχθονος S : τὸ μὲν ... τὸ δὲ P^{BQ} : τῆς γῆς ἢ τῆς ἀντίχθονος P^E : τῆς τε γῆς καὶ τῆς ἀντίχθονος P^G §5 non hab. P^G || [10] τῶν δὲ νεωτέρων τινες S corr. Canter Diels Wachsmuth : τῶν δὲ μεθ' ἐτέρων τινες S^{FP} : οἱ δὲ νεώτεροι ^{PBEQ} || οἷς ἔδοξε S : om. P || φλογὸς] φωτὸς P^E || [11] ἂν S : om. P || [13] τελείως P : τελείωσιν S, corr. Heeren

- §6 Ξενοφάνης καὶ τὴν μηνιαίαν ἀπόκρυψιν κατὰ σβέσιν. (S6)
- §7 Θαλῆς Ἀναξαγόρας Πλάτων Ἀριστοτέλης οἱ Στωικοὶ οἱ μαθηματικοὶ 15
 συμφώνως τὰς μὲν μηνιαίους ἀποκρύψεις συνοδεύουσιν αὐτὴν ἡλίῳ καὶ
 περιλαμπομένην ποιεῖσθαι, τὰς δ' ἐκλείψεις εἰς τὸ σκίασμα τῆς γῆς
 ἐμπίπτουσιν, μετὰξὺ μὲν ἀμφοτέρων τῶν ἀστέρων γινομένης, μᾶλλον
 δὲ τῆς σελήνης ἀντιφραττομένης. (P6,S7)
- §8 Ἀναξαγόρας, ὥς φησι Θεόφραστος, καὶ τῶν ὑποκάτω τῆς σελήνης ἔσθ' 20
 ὅτε σωμάτων ἐπιπροσθούτων. (S8)

§6 Xenophanes 21A43 DK; §7 Thales fr. 159, 357 Wöhrlé; Anaxagoras 59A77 DK; Plato —; Aristoteles cf. *Cael.* 2.14 297b29, fr. 210 Rose, fr. 738 Gigon; Stoici *SVF* 2.676; mathematici —; §8 Anaxagoras 59A77 DK, Theophrastus fr. 236 FHS&G

§7 [15] Θαλῆς Ἀναξαγόρας S : om. P || post Πλάτων habet P^G δὲ καὶ || Ἀριστοτέλης P (add. καὶ P^G) : om. S || [15–16] οἱ μαθηματικοὶ συμφώνως P^B : τοῖς μαθηματικοῖς συμφώνως S (prob. Bakker 2016, 51 n. 128) : καὶ οἱ μαθηματικοὶ συμφώνουσι P^E : ἔτι δὲ καὶ οἱ μαθηματικοὶ P^G || [16] ἀποκρύψεις] ἀλλοιώσεις P^G (Nic. *alternationes*), sed crucif. Jas || [17] περιλαμπομένην] συμπεριλαμπομένην P^E || post ποιεῖσθαι add. Q und dadurch, daß das von ihm Erleuchtete der Sonne gegenübersteht || [17–18] εἰς ... ἐμπίπτουσιν] σκιαζομένην ὑπὸ τῆς γῆς P^G || [18] μὲν P^{B(G,II)S} (secl. Wachsmuth) : δὲ P^{B(II)D} : om. P^E || [18–19] μᾶλλον ... ἀντιφραττομένης P^{BES} (cf. Q und sie (die Erde) ein Hindernis zwischen beiden bildet) : crucif. Diels (qui propos. ἥλιον δὲ τῆς σελήνης ἀντιφραττούσης) Wachsmuth Mau, sed sanum hab. Bernadakis Mras Torracca Lachenaud §8 [20] τῶν S : τινων coni. Usener

Testes primi:

Theodoretus CAG 4.24 καὶ τί δεῖ λέγειν, ὅσα ἐκεῖνοι σχημάτων πέρι καὶ ἐκλείψεων καὶ διαστημάτων μυθολογοῦσιν;

Traditio ps.Plutarchi:

ps.Galenus HPh c. 70 (~ tit.) Περὶ ἐκλείψεως σελήνης (text Jas)

70.1 (~ P1) Ἀναξίμανδρος μὲν ὑπέλαβε τοῦ στομίου τοῦ περὶ τὸν τροχὸν ἐμφραττομένου τὴν σελήνην ἐκλείπειν.

70.2 (~ P4) τῶν Πυθαγορείων δὲ τινες κατ' ἀνταύγειαν καὶ ἀντίφραξιν τῆς τε γῆς καὶ τῆς ἀντίχθονος.

70.3 (~ P6) Πλάτων δὲ καὶ Ἀριστοτέλης καὶ οἱ Στωικοὶ, ἔτι δὲ καὶ οἱ μαθηματικοὶ τὰς μὲν μηνιαίας ἀλλοιώσεις συνοδεύουσιν αὐτὴν ἡλίῳ καὶ περιλαμπομένην ποιεῖσθαι, τὰς δὲ ἐκλείψεις σκιαζομένην ὑπὸ τῆς γῆς.

Psellus *Omn.Doctr.* c. 129.1–2 Περὶ ἐκλείψεως σελήνης (~ tit.)

ἐκλείπει ἢ σελήνην εἰς τὸ τῆς γῆς ἐμπίπτουσα σκίασμα ... (P7).

Symeon Seth *CRN* 3.54 Περὶ σελήνης ἐκλείψεως (~ tit.)

Testes secundi:

Achilles *Univ.* c. 21, p. 30.12–17 κατὰ μῆνα δὲ ἐκλείπει, ὥς μὲν Ἡράκλειτός φησιν, ὁμοίως τῷ ἡλίῳ τοῦ φωτεινοῦς {σχήματος} (σκαφοειδοῦς ὀχήματος coni.

Diels) ἀναστραφέντος (~ §3), ἄλλοι δὲ τοῦ στομίου τοῦ τροχοειδοῦς, δι' οὗ ἐκπέμπεται τὸ φῶς, ἀποφραχθέντος (~ §1), ὡς δὲ ἄλλοι, ὅταν περὶ τὸ κωνοειδὲς τῆς γῆς γένηται δύνουσα, ὡς δὲ οἱ πολλοί, κατὰ διάμετρον γενομένη ἡλίῳ (~ §7). γίνεται δὲ κατὰ μῆνα ἕκαστον.

Loci Aetiani:

titulus et quaestio A 2.24 Περὶ ἐκλείψεως ἡλίου.

§1 A 2.24.3 (de sole) Ἀναξίμανδρος τοῦ στομίου τῆς τοῦ πυρὸς διεκπνοῆς ἀποκλειομένου. A 2.25.1 (Anaximandri de luna) ἐκλείπειν δὲ κατὰ τὰς ἐπιστροφὰς τοῦ τροχοῦ. A 2.28.1 (de luna) Ἀναξίμανδρος Ξενοφάνης Βήρωσος ἴδιον αὐτὴν ἔχειν φῶς.

§2 A 2.25.13 (de luna) Βήρωσος ἡμιπύρωτον σφαίραν. A 2.28.1 vide supra.

§3 A 2.24.4 (de sole) Ἡράκλειτος κατὰ τὴν τοῦ σκαφοειδοῦς στροφὴν ... A 2.28.7 (de lunae illuminatione) Ἡράκλειτος τὸ αὐτὸ πεπονθέναι τὸν ἥλιον καὶ τὴν σελήνην· σκαφοειδεῖς γὰρ ὄντας τοῖς σχήμασι τοὺς ἀστέρας ...

§6 A 2.24.6 (de sole) Ξενοφάνης κατὰ σβέσιν· ἕτερον δὲ πάλιν πρὸς ταῖς ἀνατολαῖς γίνεσθαι ... A 2.24.8 Ξενοφάνης πολλοὺς εἶναι ἡλίους καὶ σελήνας κατὰ τὰ κλίματα τῆς γῆς καὶ ἀποτομάς καὶ ζώνας· κατὰ τινὰ δεκαίφρον ἐμπίπτειν τὸν δίσκον εἰς τινὰ ἀποτομὴν τῆς γῆς οὐκ οἰκουμένην ὑφ' ἡμῶν, καὶ οὕτως ὥσπερ κενεμβὰ τοῦντα ἐκλείψιν ὑποφαίνειν. A 2.28.1 (de luna) vide supraad §1.

§7 A 2.24.1 Θαλῆς πρῶτος ἔφη ἐκλείπειν τὸν ἥλιον τῆς σελήνης αὐτὸν ὑποτρεχούσης κατὰ κάθετον, οὕσης φύσει γεώδους ...

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) S continues the method initiated in the previous chapter and writes out A's chapter in full. He records nine lemmata. Of these the final one (S9) rouses suspicion because it *alone* repeats the subject of the chapter and is moreover entirely superfluous when added to the previous two doxai. We shall argue below that it is added from AD.

(2) P preserves six of S's lemmata, leaving out just two shorter doxai, but omitting or modifying various name-labels (on his procedure see M–R 1.187):

- (a) For S3 only the name-label of Heraclitus is retained, a very reasonable move considering that the doxa presents specifically Heraclitean doctrine as already introduced in 2.27.3 and 2.28.4.
- (b) In relation to S4 P does not have the reference to the source of the doctrine in the writings of Aristotle and Philip of Opus, while for S5 the name-label is slightly simplified. It is difficult to determine here between the

alternatives: (1) S has added to A or (2) P has abridged A. Mansfeld has argued (2016a, 302) that the reference ‘may ... have been interpolated by S’. But this reference differs from those at S 1.18.1c (cf. A 1.18.6) and S 1.23.2 (cf. A 2.11.5), since—as Mansfeld acknowledges—there is no mention of Aristotelian book titles as in the other two references and one may well wonder where he found the information on Philip of Opus if not in his source. So it is safer to give the preference to S and leave the reference in our text.

- (c) The doxa of Xenophanes that follows on (= S6) is deleted.
- (d) For S7 = P6 the variations in the name-labels are intriguing. P surprisingly drops Thales and Anaxagoras from the list found in S, but adds Aristotle.
- (e) P drops the additional Anaxagorean doxa (= S8) and also does not record the final lemma (S9).

The text in E carelessly coalesces the first two doxai and shows a number of other textual variations. G reduces the chapter to only the first, third and sixth doxa. Psellus retains the title and opens his chapter with a few words that might be a paraphrase of P’s final doxa. The remainder contains a non-doxographical scientific account more similar to what is found in Geminus or Cleomedes. Symeon Seth utilises only the title.

(3) T only indicates that there was a treatment of this subject in his source A, speaking about ‘eclipses’ in the plural, i.e. relating to both the sun and the moon.

B Proximate Tradition and Sources

(1) *Proximate tradition.* Brief doxai on the subject of lunar eclipses are found in doxographical sources such as Diogenes Laertius and Hippolytus (texts below section E(a)§§1, 3, 7). Most interestingly, early evidence is found in Epicurus. But, unlike Aristotle, he prefers multiple possible explanations to a single definite theory. In his summary treatment in *Ep.Pyth.* he distinguishes clearly between the question of the phases of the moon (treated at D.L. 10.94) for which three explanations are given, and its eclipses, dealt with in 10.96 taking sun and moon together, for which two explanations are given. There are various correspondences with the doxai in A’s 2.28–29, e.g. rotation (στροφή) of the moon’s body (2.29.2), configurations of the air (2.28.7), interposition of bodies (2.29.7–8), quenching (2.29.5–6). Three of these are the same as in Aristotle, though for interposition he uses the noun προσθήκησις. We note that he uses the formula with κατὰ no less than six times, the same formula that is prominent in A. On these texts see further Runia (2018) 408. Lucretius follows his master’s lead in *DRN* 5.762–770, giving three explanations and also noting the link with the question of whether the moon shines with its own light or not.

As we already saw in relation to ch. 2.28, these texts reveal a debt to the early doxographical tradition, which explains the loose parallelism with the material found in A. Philo at *Prov.* 2.71 still mentions multiple explanations, but then goes on to give only the standard view, as do all other texts from Cicero onwards, except when referring to early thinkers.

(2) *Sources.* The evidence of the material discussed above gives clear indications of early discussion on the causes of eclipses, but the original texts have not survived. The information will have been collected and transmitted primarily through the Peripatos, as the three references to sources which the chapter—rather unusually—contains indicate; on these see below section D(e). By that time, however, the cause was no longer in dispute. Aristotle himself in his *Analytica Posteriora* uses the example of the moon's eclipse or its waxing as a standard example of finding the middle term, which thereby provides the explanation (text below section E(b) General texts). Interestingly, however, in the first two texts he speaks of interposition only as the cause, but in the third text at 93b5–6 he gives three possible causes: interposition, turning (i.e. Heraclitus' view) or extinction (Xenophanes). This can be regarded as a precursor of a doxographical list albeit without name-labels.

C Chapter Heading

The heading is of the usual umbrella type Περί x, asking a specific question involving causation relating to the moon. As in the case of the chapter on the eclipse of the sun (2.24) there is no variation in the witnesses except T's use of the plural ἐκλείψεων. This is either because he is referring to the eclipses of both sun and moon, or because he is speaking in general terms. There is no reason to conclude with Bottler (2014) 468 that the plural refers specifically to the phases of the moon. As in the case of the previous chapter, S places the title within his chapter on the moon which coalesces A's 2.25–31.

D Analysis

a Context

The theme of the moon's eclipses follows on logically from that of its illuminations. Moreover, because as we shall see the chapter also returns to the subject of its phases, there is a link with ch. 2.27 on its shape.

b Number–Order of Lemmata

The only question to be resolved here is whether all nine lemmata in S are taken from A. As we shall see in the following section, it is almost certain that the final lemma has been added from another source, in all likelihood AD.

c Rationale–Structure of Chapter

The chapter contains a great difficulty which impedes a clear structural analysis. Although its title suggests that the chapter will treat views on the (irregular) eclipses of the moon, its contents also include material relating to the moon's (regular) phases. As we shall see below (section D(e)), the same double treatment occurs in Ach, who quite unambiguously relates the moon's 'failure' to its monthly cycle (κατὰ μῆνα δὲ ἐκλείπει). The combination of subjects does not appear to derive from a double meaning of the noun ἔκλειψις, as suggested at M–R 2.613. Bakker (2013) 686 argues convincingly that there is no evidence that the noun ἔκλειψις is ever used in association with the moon for anything other than the technical sense of a lunar eclipse, and that elsewhere it is never used for its phases as found in A and Ach (the verb ἐκλείπειν is a different matter; see our comment below, section D(d)§1). The distinction is clearly made in another doxographical text, when Hippolytus says that Anaxagoras was the first to distinguish eclipses and illuminations (*Ref.* 1.8.10, text below), and of course the distinction is made in the chapter itself in §7 (τὰς μὲν μηνιαίους ἀποκρύψεις, τὰς δ' ἐκλείψεις).

It should also be noted that there are clear links with the previous chapter on the moon's illuminations. Of the sixteen name-labels in the two chapters (omitting that of Chrysippus) ten are held in common (see the table in M–R 2.616). In addition Anaximander and Thales both play a significant role in starting the list and representing the main 'scientific' views respectively. This suggests that the main diaeresis that dominated ch. 2.28, namely whether the moon has its own light or receives it from elsewhere, may play a role in this chapter too.

The opening three doxai all assume that the moon has its own source of light. A does not state explicitly whether these explanations refer to eclipses or phases. In the case of Anaximander the explanation of blockage is the same as for the sun's eclipse in A 2.24.3 (but differs from the doxa on the moon at A 2.25.1; see also the detailed comment below). But in the case of Berossus' doctrine it must be the phases that are being explained. Heraclitus is recorded as using his hypothesis of the boat-like shape to explain both phenomena (cf. D.L. 9.10), but the addition of καὶ τὰς περιλίσεις (not in P) also suggests that it is the phases that are explained here. The final three doxai (including that of Chrysippus) all refer to the standard explanation of a lunar eclipse by the interposition of the earth (and also other bodies for Anaxagoras). Here it must be assumed that the moon receives its light from the sun. The addition of Chrysippus is entirely otiose and doubles up on the name-label of the Stoics in §7. When we add the stylistic feature (not decisive by itself) that S only here repeats the subject of the chapter, it may be concluded that this final lemma in S has been added from elsewhere, and most likely from AD (and so should be added to the

list of AD's fragments; see M–R 3.332, 583). As in ch. 2.28 the long list of name-labels in §7 is no doubt meant to underline that this is the dominant view.

There remain the three intermediate doxai §§4–6. These appear to relate to the diaeresis of ch. 28 in a chiasmic fashion. The first Pythagorean view is similar to the dominant view, but adds the interposition of a counter-earth. It patently relates to the lunar eclipse. The younger thinkers, in contrast, posit a theory of gradual inflammation and quenching, similar to the view of Xenophanes which is tagged on to it. These latter two doxai can only explain the phases of the moon. So by adhering to the chronological order of the two groups A has run counter to the logical sequence of the doxai and obscures the similarity between the views of the younger group and Anaxagoras later in the chapter. On the identity of the two groups in §§4–5 see below section D(d).

It must be concluded, therefore, that the combination of two different subjects in this chapter, lunar eclipses and lunar phases, has led to a lack of clarity, not to speak of confusion, with a structure that could easily be improved. It would not have been difficult to move §4 to the latter part of the chapter, but A apparently chose to keep the two groups together in a chronological sequence.

Bakker (2013) in a thorough analysis of the material of this chapter (building on our earlier treatment) argues that the present chapter is a conflation of two successive chapters in A's *Vorlage*, the former on the moon's concealments, the latter on its eclipse. The clear distinction between the two subjects is shown in the treatment of Epicurus and Lucretius outlined above. Since the same conflation occurs in Ach (see below section D(e)), the confusion must have already been present in the earlier tradition (or *Vorlage*?) which they share. To this might be added the observation that A often 'pedantically' (to use the Dielsian term) divides up what was kept together in his *Vorlage*. Bakker's arguments are persuasive, but our task in the present work is to reconstruct and analyse what A has left us, not to speculate on his adaptation of antecedent sources.

d Further Comments

General Points

The confusion noted in the previous section is not confined to the ancient world, but has also been present in modern discussions. Clarity is provided by Graham (2013) 87–88, who, as noted on ch. 2.28, distinguishes between ascribing to the moon 'idiophotism' (i.e. self-illumination) and 'heliophotism' (i.e. solar illumination), the former being an active process, the latter merely passive. With regard to the latter theory, further distinctions could be made, e.g. whether the illumination is caused by reflection or by other means, as in the Stoic theory to be discussed under §3 below. Graham then in relation to eclipses uses the Greek term 'antiphraxis' to describe the theory of the block-

ing of the sun's light (of course it applies to solar eclipses as well, where the moon does the blocking). He notes that the two theories are related in a certain way. Heliophotism does not of itself entail antiphraxis, because the sun could lose its light (Xenophanes) or the moon suffer eclipse because a cloud covers it (Anaximenes). But antiphraxis does presuppose heliophotism because it accounts for lunar eclipses by having the earth (or another body) block the moon's source of light. He concludes: 'Thus heliophotism is a necessary condition for antiphraxis and antiphraxis a sufficient condition for heliophotism. In a certain sense, antiphraxis exploits the insights of heliophotism to explain eclipses phenomena. It builds on heliophotism as a foundation.' See also the earlier article of O'Brien (1968). On the term ἀντίφραξις see further our comments at below on §4.

Individual Points

§1 In the fuller account of Anaximander's views on the moon in A 2.25.1 more information is given on how it 'fails' (ἐκλείπειν) than here. The reference to 'turnings' (ἐπιστροφάι) and not blockages indicate that the doxa has lunar phases in mind, not eclipses as in this chapter. (Bakker does not refer to this text.) For a very clear instance where the verb ἐκλείπειν must mean 'failure' in a cosmological context see Psellus' comment in §128 on the sun: οὐ κυρίως ἔκλειψις ἐπὶ τοῦ ἡλίου λέγεται—οὐ γὰρ ἐκλείπει ποτὲ τὸ ἡλιακὸν φῶς—ἀλλ' ἐπισκότησις; cf. much earlier Geminus *Elem.* 10.2 who says the true term should be ἐπιπροσθήσεις ('placings in front').

§2–3 A frequently uses prepositional phrases with κατὰ to indicate causation; cf. also 2.4.12, 2.19.1, 2.24.4–5, 7, 2.25.1 (the last four all in relation to eclipses).

§4 For the explanation of the eclipse the witnesses are divided between the accusative and the dative (both are possible) and between one noun and two joined by καί. That S and P^Q have just the single noun is no doubt the result of coincidence (cf. M–R 1.159). The reading ἀντιφράξει in S will no doubt be the result of the running together of the two nouns, e.g. ἀντ(αυγεία καὶ ἐπ)ιφράξει. But this conceals whether his source read ἐπι- or ἀντι- for the prefix of the second noun. In the context of eclipses the term ἀντίφραξις, meaning obstruction through anteposition, is much more common. The other term ἐπιφραξις means obstruction through blockage and is used by Hippolytus *Ref.* 1.6.5 for the Anaximandrian doxa in §1 where A used the equivalent verb. Despite the evidence of P^{BE} and its being the *lectio difficilior*, Diels is almost certainly right that G's use of ἀντίφραξις points to the correct reading in this Pythagorean context (but the dative can be retained in light of S). We thus revise our reading in M–R 2.621.

§§4–5 The two name-labels, τῶν Πυθαγορείων τινές and τῶν νεωτέρων τινές, both expressed with use of the indefinite article, have generally been taken, at least since Diels *VS* (cf. most recently Laks–Most 4.319), to represent two groups of Pythagoreans. The phrasing of the name-labels does not support this view. It can be argued, however, that A would not have broken the logical sequence of his doxai (as argued above in the previous section) unless there was a special reason for keeping the two groups together. Burkert (1972) makes no reference to the second doxa.

§7 Of the five name-labels two are missing in P (Thales and Anaxagoras) and one in S (Aristotle). The presence of the former two can hardly be doubted (cf. ch. 2.28). The case of Aristotle is more difficult. Did S omit or P add? Here too the presence of an Aristotelian doxa in ch. 2.28 favours the former. S may have wished to add a passage from AD but then did not find what he was looking for. It is surprising that Empedocles is not included, contrary to A 2.28.6.

It should also be noted that P has used the adverb συμφώνως after the four name-labels in the nominative and it is presumably meant to be taken with all them (four in P's case), whereas S uses it with the dative for the scientists, so that the first four named philosophers agree with them. The parallel with the use of the nominative at A 5.30.4 (only in P) and of the similar adverb ὁμοίως at 1.30.2 and 2.28.6 has led us to opt for P's usage, thus disagreeing with Bakker (2016) 128, who prefers the dative. See further on ch. 1.7.23, Commentary D(d).

§8 Couprie (2018) 167–194 argues convincingly that this theory is incompatible with that of the previous doxa and that, in the light of Anaxagoras' theory of the origin of the Milky Way at A 3.1.7 which assumes a flat earth, it must represent his genuine and only explanation for the lunar eclipse. His suggestion (p. 187), however, that it was added to this chapter by S who found it in another source that referred to Theophrastus runs counter to what we know about the anthologist's method.

e Other Evidence

This chapter is quite exceptional in making reference to no less than three sources for the contents of its doxai. The mention of Aristotle's ἱστορία might have the text at *Cael.* 2.13 293b21–24 in mind, as suggested by Huffman (1993) 246, or to the lost Περί τῶν Πυθαγορείων (Ross includes it as fr. 16 in his fragment collection). The reference to Philip of Opus will be to his work Περί ἐκλείψεως σελήνης cited by the *Suda* Φ 418 (the same title as the heading of this chapter except the order of the nouns). The third reference to Theophrastus will be either to his *Physics* (cf. 2.20.5) or to the Φυσικαὶ δόξαι (as Diels thought, including it as fr. 19 in his fragments). But the earlier references will not have entered the tradition *via* Theophrastus, since he appears never to have referred directly

to Aristotle. They will have been added in the tradition later. There is another reference to Aristotle's lost work at S 1.18.1c, but we have argued against Diels in our Commentary D(e) on ch. 1.18.6 that the passage in which it occurs was most likely derived from AD rather than A. None of the references are confirmed in P's epitome, so as noted above in section A, the possibility cannot be excluded that one or more of them were added by S.

Ach includes four doxai on the eclipse of the moon in his chapter on that body, placing them straight after his treatment of its shape (see above ch. 2.27, Commentary B(a)). In the first doxa, in contrast to A, he immediately makes clear that he is speaking about the monthly phases and then refers to the view of Heraclitus (~ S3). Diels' conjecture *σκαφοειδοῦς ὀχήματος* is tempting here, since one would expect an allusion to the Ephesian's characteristic doctrine. The second anonymous lemma clearly describes the doxa of Anaximander (~ S1). But the next doxa reverts to the classic explanation of a lunar eclipse (~ S7) and finally, to increase the confusion even further, it is pointed out that it only happens when the moon is diametrically opposite the sun, which occurs monthly too. This of course is a necessary but not a sufficient cause of a lunar eclipse.

E Further Related Texts

a Proximate Tradition

General texts: Epicurus *Ep.Pyth.* at D.L. 10.94 *κένωσεις τε σελήνης καὶ πάλιν πλήρωσεις καὶ κατὰ στροφὴν τοῦ σώματος τούτου δύναται ἂν γίνεσθαι καὶ κατὰ σχηματισμούς ἄερος ὁμοίως, ἔτι τε καὶ κατὰ προσθετήσεις καὶ κατὰ πάντας τρόπους, καθ' οὓς καὶ τὰ παρ' ἡμῖν φαινόμενα ἐκκαλεῖται εἰς τὰς τούτου τοῦ εἶδους ἀποδόσεις, ἐὰν μὴ τις τὸν μοναχὴν τρόπον κατηγορητικῶς τοὺς ἄλλους κενῶς ἀποδοκιμάζῃ, οὐ τεθεωρηκῶς τί δυνατόν ἀνθρώπῳ θεωρῆσαι καὶ τί ἀδύνατον, καὶ διὰ τοῦτο ἀδύνατα θεωρεῖν ἐπιθυμῶν.* see also D.L. 10.96 cited above on ch. 2.24. **Lucretius** *DRN* 5.762–770 *et cur terra queat lunam spoliare vicissim / limine et oppressum solem super ipsa tenere, / menstrua dum rigidas coni perlabitur umbras; / tempore eodem aliud nequeat succurrere lunae / corpus vel supra solis perlabier orbem, / quod radios interrumpat lumenque profusum? / et tamen ipsa suo si fulget luna nitore, / cur nequeat certa mundi languescere parte, / dum loca luminibus propriis inimica per exit?* **Cicero** *ND* 2.103 see above on ch. 2.28. **Philo of Alexandria** *Prov.* 2.71 *Aucher quum adsint multiplices causae adducendae ... eclipsis vero lunae latentis sub umbra terrae, quando tres illi globi ad invicem sunt ex diametro.* **Seneca** *Nat.* 7.25.3, *multaeque hodie sunt gentes quae facie tantum noverunt caelum, quae nondum sciunt cur luna deficiat, quare obumbratur.*

Quaestiones–exempla physica (cf. ch. 1.prooem. 3): **Strabo** 2.5.2 καὶ ἐκλείψεις. **Arnobius of Sicca** *Adv.Nat.* 2.58, p. 133.14 Marchesi (on the moon) *cur una specie aut illa non maneat?*

Chapter heading: *Capitula Lucretiana* at DRN 5.751 *de eclipsi*; 5.774 *de solis et lunae offectione*. Eusebius PE 10.14.10 Θαλής ὁ Μιλήσιος (fr. 271 Wöhrle) φυσικὸς πρῶτος Ἑλλήνων γεγινώς περὶ ἐκλείψεως καὶ φωτισμῶν σελήνης καὶ ἰσημερίας διελέχθη.

§1 Anaximander: Eudemus *ap. Simp. in Cael.* 471.2–9 see on A 2.15. Hippolytus *Ref.* 1.6.5 (on Anaximander, 12A11 DK) τὴν δὲ σελήνην ποτὲ μὲν πληρομένην φαίνεσθαι, ποτὲ δὲ μειομένην κατὰ τὴν τῶν πόρων ἐπιφραξιν ἢ ἀνοίξιν.

§3 Alcmaeon Heraclitus Antiphon: Diogenes Laertius *V.P.* 9.10 (on Heraclitus, 22A1 DK) ἐκλείπειν τε ἥλιον καὶ σελήνην, ἄνω στρεφομένων τῶν σκαφῶν.

§7 Thales: Apuleius *Flor.* 18.30–31 Hunink *Thales Milesius* (11A19 DK) *ex septem illis sapientiae memoratis viris facile praecipuus—enim geometriae penes Graios primus repertor et naturae rerum certissimus explorator et astrorum peritissimus contemplator—maximas res parvis lineis repperit: ..., itidem lunae vel nascentis incrementa vel senescentis dispendia vel delinquentis obstitacula.* Augustine *C.D.* 8.2.15–18 Dombart–Kalb *iste autem Thales* (fr. 311 Wöhrle) ... *rerum naturam scrutatus suasque disputationes litteris mandans eminuit maximeque admirabilis extitit, quod astrologiae numeris conprehensis defectus solis et lunae etiam praedicere potuit.*

Anaxagoras: Hippolytus *Ref.* 1.8.9 (59A42) ἐκλείπειν δὲ τὴν σελήνην γῆς ἀντιφραττούσης, ἐνίοτε δὲ καὶ τῶν ὑποκάτω τῆς σελήνης. cf. *Ref.* 1.8.10 οὗτος ἀφώρισε πρῶτος τὰ περὶ τὰς ἐκλείψεις καὶ φωτισμούς

Stoics: Arius Didymus fr. 33 Diels at Stob. *Ecl.* 1.25.5 (on Zeno, *SVF* 1.120) τὰς δ' ἐκλείψεις τούτων γίνεσθαι διαφόρως, ἡλίου μὲν περὶ τὰς συνόδους, σελήνης δὲ περὶ τὰς πανσελήνους. γίνεσθαι δ' ἐπ' ἀμφοτέρων τὰς ἐκλείψεις καὶ μείζους καὶ ἐλάττους. Chrysippus at Stob. *Ecl.* 1.26.3, p. 221.23–24 (very probably from Arius Didymus, not in Diels) Χρύσιππος (*SVF* 2.678) ἐκλείπειν τὴν σελήνην τῆς γῆς αὐτῇ ἐπιπροσθούσης καὶ εἰς σκιάαν αὐτῆς ἐμπίπτουσιν. Stoics at D.L. 7.146 (*SVF* 2.678) τὴν δὲ σελήνην ἐμπίπτουσιν εἰς τὸ τῆς γῆς σκίασμα· ὅθεν καὶ ταῖς πανσελήνοισι ἐκλείπειν μόναις, καίπερ κατὰ διάμετρον ἵσταμένην κατὰ μῆνα τῷ ἡλίῳ, ὅτι κατὰ λοξοῦ ὡς πρὸς τὸν ἥλιον κινουμένη παραλλάττει τῷ πλάτει, ἢ βορειότερα ἢ νοτιωτέρα γινομένη. ὅταν μέντοι τὸ πλάτος αὐτῆς κατὰ τὸν ἡλιακὸν καὶ τὸν διὰ μέσων γένηται, εἴτα διαμετρήσῃ τὸν ἥλιον, τότε ἐκλείπει· γίνεταί δὲ τὸ πλάτος αὐτῆς κατὰ τὸν διὰ μέσων ἐν χηλαῖς καὶ σκορπίῳ καὶ κριῶ καὶ ταύρῳ, ὡς οἱ περὶ τὸν Ποσειδώνιον (F 126 E.-K., 266 Theiler).

b Sources and Other Parallel Texts

General texts: Aristotle *APo.* 2.1 90a7–18 (on the moon) ἄρ' ἐκλείπει; ἄρ' ἔστι τι αἴτιον ἢ οὐ; ... τί ἐστὶν ἐκλείψις; στέρησις φωτὸς ἀπὸ σελήνης ὑπὸ γῆς ἀντιφράξεως. διὰ τί ἔστιν ἐκλείψις, ἢ διὰ τί ἐκλείπει ἡ σελήνη; διὰ τὸ ἀπολείπειν τὸ φῶς ἀντιφραττούσης τῆς γῆς ... *APo.* 2.7 93a29–33 ὦν οὖν ἔχόμεν τι τοῦ τί ἐστίν, ἔστω πρῶτον μὲν ὥδε· ἐκλείψις ἐφ' οὗ τὸ Α, σελήνη ἐφ' οὗ Γ, ἀντιφραξίς γῆς ἐφ' οὗ Β. τὸ μὲν οὖν πότερον ἐκλείπει ἢ οὐ, τὸ Β ζητεῖν ἔστιν, ἄρ' ἔστιν ἢ οὐ. τοῦτο δ' οὐδὲν διαφέρει ζητεῖν ἢ εἰ ἔστι λόγος αὐτοῦ· καὶ ἐὰν ἦ τοῦτο, κάκεινός φαμεν εἶναι. *APo.* 2.8 93b3–7 δὴ γὰρ δ' ὄντος ὅτι τὸ Α τῷ Γ ὑπάρχει, ἀλλὰ διὰ τί ὑπάρχει, τὸ ζητεῖν τὸ

Β τί ἐστι, πότερον ἀντίφραξις ἢ στροφή τῆς σελήνης ἢ ἀπόσβεσις. τοῦτο δ' ἐστὶν ὁ λόγος τοῦ ἐτέρου ἄκρου, οἷον ἐν τούτοις τοῦ Α· ἔστι γὰρ ἡ ἔκλειψις ἀντίφραξις ὑπὸ γῆς.

Chapter heading: Philip of Opus at Suda Φ 418 Περὶ ἐκλείψεως σελήνης. **Posidonius** F 18 E.-K., 255 Theiler see above on A 2.11. **Diodorus Siculus** 1.50.2 see on A 2.24. **Pliny** *Nat.* 1 p. 11.11 (table of contents) *de lunae ... defectibus*. **Geminus** *Elem.* 11.1, p. 62 Aujac Περὶ ἐκλείψεως σελήνης. **John Philoponus** in *Phys.* 221.5 (on Arist. *Phys.* 193b22–30) see on A 2.24.

§2 **Berossus**: see ch. 2.28 section E(b) §1.

§4 **Pythagoreans: Aristotle** *Cael.* 2.13 293b18–25 ἀλλ' ὅσοι μὲν μὴδ' ἐπὶ τοῦ μέσου κείσθαι φασιν αὐτήν, κινεῖσθαι κύκλῳ περὶ τὸ μέσον, οὐ μόνον δὲ ταύτην, ἀλλὰ καὶ τὴν ἀντίχθονα, καθάπερ εἵπομεν πρότερον. ἐνίοις δὲ δοκεῖ καὶ πλείω σώματα τοιαῦτα ἐνδέχεσθαι φέρεσθαι περὶ τὸ μέσον, ἡμῖν ἄδηλα διὰ τὴν ἐπιπρόσθησιν τῆς γῆς. διὸ καὶ τὰς τῆς σελήνης ἐκλείψεις πλείους ἢ τὰς τοῦ ἡλίου γίνεσθαι φασιν· τῶν γὰρ φερομένων ἕκαστον ἀντιφράττειν αὐτήν, ἀλλ' οὐ μόνον τὴν γῆν (with a reference to the counter-earth in 293b20). **Alexander of Aphrodisias** commenting on this text, quoted by **Simp.** in *Cael.* 7.515.24 τίνων δὲ ἡ τοιαύτη δόξα, οὐκ εἶπε, λέγει δὲ ὁ Ἀλέξανδρος, ὅτι δύναται τοῦτο καὶ ὡς Πυθαγορείων τινῶν ἐπὶ ταύτης γενομένων τῆς δόξης ἀκούεσθαι. τεκμήριον δὲ ἐποιοῦντο τοῦ λόγου τοῦδε τὸ τὴν σελήνην πολλάκις ἐκλείπειν καὶ πρὸς τὸν ἥλιον· διὰ γὰρ τὸ μὴ μόνον ὑπὸ τῆς γῆς, ἀλλὰ καὶ ὑπὸ τῶν ἄλλων τούτων σωμάτων τῶν περὶ τὸ μέσον κινουμένων ἀντιφράττεσθαι πολλάκις αὐτήν ἐκλείπειν.

§7 **Thales: Simplicius** in *Cat.* 191.2–7 on *Cat.* 7b25 καὶ ἡ μὲν τῆς ἐκλείψεως ἐπιστήμη διὰ Θαλοῦ (fr. 432 Wöhrle) ὕστερον ἦλθεν εἰς τοὺς Ἕλληνας, ἡ δὲ ἔκλειψις αὐτὴ καὶ τὸ ἐπιστητὸν προὔπηρχεν. cf. **John Philoponus** in *Cat.* 118.4.25 (fr. 434 Wöhrle) and other texts in the Aristotelian commentators.

Aristotle: Plutarch *Fac.Lun.* 932C (= fr. 210 Rose³, 738 Gigon) Ἀριστοτέλης δ' ὁ παλαιὸς αἰτίαν τοῦ πλεονάκεις τὴν σελήνην ἐκλείπουσαν ἢ τὸν ἥλιον καθορᾶσθαι πρὸς ἄλλαις τισὶ καὶ ταύτην ἀποδίδωσιν· ἥλιον γὰρ ἐκλείπειν σελήνης ἀντιφράζει, σελήνην δὲ (γῆς, πολλῶ μείζονος οὕσης).

Stoics: Cleomedes *Cael.* 2.6.56–60 Todd ταῦτα οὖν πάντα σχεδὸν ὁφθαλμοφανῶς ἡμῖν παρίστησιν, ὅτι ἡ σελήνη μίαν ἔχει ταύτην τῆς ἐκλείψεως αἰτίαν, τὴν περιπίπτωσιν τὴν περίπτωσιν, καθ' ἣν περιπίπτουσα τῇ σκιᾷ τῆς γῆς καὶ ἐπισκοτουμένη ὑπ' αὐτῆς στέρεται τῆς ἀπὸ τῶν ἡλιακῶν ἀκτίνων ἐπιβολῆς, αἱ λαμπρύνουσι τὸ αἰεὶ πρὸς τὸν ἥλιον αὐτῆς τετραμμένον.

§8 **Anaxagoras**: cf. above on §4.

Liber 2 Caput 30

- P^B**: ps.Plutarchus *Plac.* 892A–B; pp. 361^a1–18 Diels—**P^E**: Eusebius *PE* 15.52, p. 416.10–19 Mras—**P^G**: ps.Galenus *HPh* c. 71; p. 628.11–17 Diels—**P^Q**: Qusṭā ibn Lūqā pp. 164–165 Daiber
S: Stobaeus *Ecl.* 1.26.4, pp. 222.1 (tit.), 222.3–223.7 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b13 Henry (titulus solus)

Titulus λ'. Περί ἐμφάσεως σελήνης καὶ διὰ τί γεώδης φαίνεται (P,S)

- §1 τῶν Πυθαγορείων τινὲς μὲν, ὧν ἔστι Φιλόλαος, τὸ γεωφανὲς αὐτῆς εἶναι διὰ τὸ περιοικεῖσθαι τὴν σελήνην καθάπερ τὴν παρ' ἡμῖν γῆν μείζοσι ζώοις καὶ φυτοῖς μείζοσι καὶ καλλίοσιν· εἶναι γὰρ πεντεκαϊδεκαπλάσια τὰ ἐπ' αὐτῆς ζῶα τῇ δυνάμει μὴδὲν περιττωματικὸν ἀποκρίνοντα, καὶ τὴν ἡμέραν τοσαύτην τῷ μήκει. (P1,S1) 5
- §2 ἄλλοι δὲ τὴν ἐν τῇ σελήνῃ ἔμφασιν ἀνάκλασιν εἶναι τῆς πέραν τοῦ διακεκαυμένου κύκλου τῆς οἰκουμένης ὑφ' ἡμῶν θαλάττης. (S2)
- §3 Ἀναξαγόρας ἀνωμαλότητα τοῦ συγκρίματος διὰ τὸ ψυχρομιγῆς ἅμα καὶ γεῶδες, τὰ μὲν ἐχούσης ὑψηλά, τὰ δὲ ταπεινά, τὰ δὲ κοῖλα· {καὶ παραμεμῖχθαι τῷ πυροειδεῖ τὸ ζοφῶδες, ὧν τὸ πάθος ὑποφαίνει τὸ σκιερὸν· ὅθεν ψευδοφανῇ λέγεσθαι τὸν ἀστέρα.} (P2,S3) 10
- §4 Δημόκριτος ἀποσκιάματα τῶν ὑψηλῶν ἐν αὐτῇ μερῶν· ἄγκη γὰρ αὐτὴν ἔχειν καὶ νάπας. (S4)

§1 Pythagorei 44A20 DK; Philolaus test. A20 Huffman; §2 anonymi —; §3 Anaxagoras 59A77 DK; §4 Democritus 68A90 DK

Titulus Περί ... φαίνεται scripsimus, cf. P^BE^Q (αὐτῆς pro σελήνης P^BE^S, sed *des Mondes* Q; ante διὰ τί habet P^B(11)E καὶ) : διὰ τί γεώδης φαίνεται ἡ σελήνη P^G : Περί δὲ ἐμφάσεως αὐτῆς S §1 [2] τῶν Πυθαγορείων ... εἶναι S (γαιοφανὲς mss., corr. Meineke) : οἱ Πυθαγόρειοι γεώδη φαίνεσθαι τὴν σελήνην P || [3] post σελήνην hab. P^G οἴονται || τὴν σελήνην S : αὐτὴν P^B(1)E^Q(ut vid.) : ταύτην P^B(11,11)G || [4] ζώοις ... καλλίοσιν S : μείζοσι ζώοις καὶ φυτοῖς καλλίοσιν P^BE : καλλίοσιν om. P^Q : ὑπὸ μείζονων ζῶων καὶ φυτῶν καὶ καλλιόνων P^G || πεντεκαϊδεκαπλάσια P^BE^S : πεντεκαϊδεκαπλάσιον P^B || [5] ζῶα φυτὰ P^B(11) || τῇ δυνάμει om. P^E || περιττωματικὸν] σωματικὸν P^E || [6] ἡμέραν P : ἡμετέραν S, corr. edd. §2 non hab. P §3 [9] τοῦ P^G : om. S : διὰ τοῦ P^BE^Q || ψυχρομιγῆς S : ψυχροειδὲς P^E : ψυχρομιγῆς P^BG : denn sie ist leblos und aus kalter und erdachtiger Substanz gemischt Q || [10] τὰ μὲν ... κοῖλα S (γαιῶδες S^F, ψηλὰ S^P, corr. edd.) : om. P || [10–12] verba καὶ ... ἀστέρα repetita (praeter ὧν ... σκιερὸν) ex §5 seclusimus, ret. Diels, non ret. Laks–Most, vid. comm. infra || [10–11] καὶ παραμεμῖχθαι SP^Q(ut vid.) : παραμεμῖχθαι γὰρ P^BE (δὲ P^G) || [11] πυροειδεῖ] πυρώδει P^G || ζοφῶδες] γεῶδες P^Q(ut vid.) || ὧν ... σκιερὸν S : desunt in P : ὥστε τὸ πάθος ὑποφαίνειν τὸ σκιερὸν suspicimus || [12] ψευδοφανῇ S : ψευδοφαῖ P (–φανῇ P^{(11)α} a.c.) et con. Meineke in S §4 [13] ἀποσκιάματα S : ἀποσκιάμα τι con. Canter prob. Diels Wachsmuth || ἄγκη S : ἀνάγκη mss., corr. Canter

- §5 Παρμενίδης διὰ τὸ παραμεμῖχθαι τῷ περὶ αὐτὴν πυρώδει τὸ ζοφῶδες, 15
(ὧν τὸ πάθος ὑποφαίνει τὸ σκιερὸν) ὅθεν ψευδοφανῇ λέγεσθαι τὸν
ἀστέρα. (S5)
- §6 οἱ Στωικοὶ διὰ τὸ ἀερομιγῆς τῆς οὐσίας μὴ εἶναι αὐτῆς ἀκήρατον τὸ 20
σύγκριμα. (P3,S6)
- §7 Ἀριστοτέλης μὴ εἶναι αὐτῆς ἀκήρατον τὸ σύγκριμα διὰ τὰ πρόσγεια 20
ἀερώματα τοῦ αἰθέρος, ὃν προσαγορεύει σῶμα πέμπτον. (S7)
- §8 οἱ ἀπὸ τῶν μαθηματικῶν τὸ ἀνώμαλον συγκριτικὸν αἰτιῶνται. καθάπερ 25
οὖν τῶν προσαναγαζομένων ὑπὸ τοῦ ἡλίου νεφῶν τὰ μὲν ἀραιότερα μέρη
λαμπρότερα φαίνεσθαι, τὰ δὲ πυκνότερα ἀμαυρότερα, οὕτως καὶ τῆς
σελήνης εἰοικίας μὲν νεφελοειδεῖ πιλήματι, προσαναγαζομένης δ' ὑπὸ 25
τοῦ ἡλίου. (S8)
- §9 Ξενοφάνης τὸν μὲν ἥλιον χρήσιμον εἶναι πρὸς τὴν τοῦ κόσμου καὶ τὴν
τῶν ἐν αὐτῷ ζῶων γένεσιν τε καὶ διοίκησιν, τὴν δὲ σελήνην παρέλκειν.
(S9)

§5 Parmenides 28B21 DK; §6 Stoici SVF 2.66g; §7 Aristoteles cf. GA 3.11 761b23; §8 mathematici —; §9 Xenophanes 21A42 DK

§5 [16] ὧν ... σκιερὸν transposuimus ex §3, vid. comm. infra || ψευδοφανῇ S : ψευδοφαῇ coni. Meineke §6 non hab. PG || [18] ἀερομιγῆς PEQ(ut vid.) S Diels Lachenaud : ἑτεροειδὲς PB crucif. Mau §7–9 non hab. P §8 [23] τὰ μὲν SF: γάρ add. SP

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 71 (~ tit.) Διὰ τί γεώδης φαίνεται ἡ σελήνη (text Diels)

71.1 (~ P1) οἱ Πυθαγόρειοι γεώδη φαίνεσθαι τὴν σελήνην οἴονται διὰ τὸ περιοικεῖσθαι αὐτὴν ὑπὸ μειζόνων ζῶων καὶ φυτῶν καὶ καλλιόνων. εἶναι γὰρ πεντεκαίδεκα-πλάσια τὰ ἐπ' αὐτῆς ζῶα τῇ δυνάμει μηδὲν περιττωματικὸν ἀποκρίνοντα· καὶ τὴν ἡμέραν τοσαύτην εἶναι τῷ μήκει.

71.2 (~ P2). Ἀναξαγόρας ἀνωμαλότητα τοῦ συγκρίματος διὰ τὸ ψυχρομιγῆς ἄμα καὶ γεώδες· παραμεμῖχθαι δὲ τῷ πυρώδει τὸ ζοφῶδες.

Loci Aetiani:

titulus et quaestio A 2.25 Περί οὐσίας σελήνης. A 2.28 Περί φωτισμῶν σελήνης.

§2 A 2.25.13 (de luna) Πυθαγόρας κατοπτροειδὲς σῶμα.

§§3–4 A 2.25.10 (de luna) Ἀναξαγόρας Δημόκριτος στερέωμα διάπυρον, ἔχον ἐν ἑαυτῷ πεδία καὶ ὄρη καὶ φάραγγας.

§5 A 2.7.1 Παρμενίδης ... καὶ τῆς μὲν γῆς ἀπόκρισιν εἶναι τὸν ἀέρα, διὰ τὴν βιαιότεραν αὐτῆς ἐξατμισθέντα πῖλιν, τοῦ δὲ πυρὸς ἀναπνοὴν τὸν ἥλιον καὶ τὸν γαλαξίαν κύκλον· συμμιγῇ δ' ἐξ ἀμφοῖν εἶναι τὴν σελήνην, τοῦ τ' ἀέρος καὶ τοῦ πυρὸς. sed A 2.25.2 Ἀναξίμενης Παρμενίδης Ἡράκλειτος πυρίνην.

§6 A 2.25.5 (de luna) Ποσειδώνιος δὲ καὶ οἱ πλείστοι τῶν Στωικῶν μικτὴν ἐκ πυρὸς καὶ ἀέρος. A 2.28.3 οἱ Στωικοὶ ἀμαυροφανές, ἀεροειδὲς γάρ.

§7 A 2.28.2 (de luna) Ἀριστοτέλης ἴδιον μὲν, ἀραιότερον δέ πως.

§8 A 2.25.3 (de luna) Ξενοφάνης νέφος εἶναι πεπυρωμένον πεπιλημένον.

§9 cf. A 2.28.9 (de luna) Ἡράκλειτος ... φωτίζεσθαι πρὸς τὴν φαντασίαν, λαμπρότερος μὲν τὸν ἥλιον, ἐν καθαρωτέρῳ γὰρ ἀέρι φέρεσθαι, τὴν δὲ σελήνην ἐν θολωτέρῳ καὶ διὰ τοῦτο ἀμαυροτέραν φαίνεσθαι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) In this chapter, as in the case of the previous two, S appears to write out the chapter he had in front of him in full. There is, however, one difficulty that gives rise to suspicion. The doxai ascribed to Anaxagoras (§3) and Parmenides (§5) have an almost identical common element. This might suggest an original multiple name-label, which S may have split up. We analyse these lemmata further below, section D(b).

(2) P preserves only three doxai of the original nine. His modifications can again be easily tracked.

(a) On the longer title compared with S see below section C.

(b) In the first doxa the name-label is the simpler οἱ Πυθαγόρειοι. S's longer version τῶν Πυθαγορείων τινὲς μὲν, ὧν ἐστὶ Φιλόλαος is to be preferred (P often abridges name-labels). It is difficult to choose between the two sets of opening words, P's γεώδη φαίνεσθαι τὴν σελήνην versus S's τὸ γεωφανὲς αὐτῆς εἶναι. If the longer version of the title is chosen (see below C), then P's words simply repeat the title, whereas S's words offer a variation on it. We opt for S in this case. See section D(d)§1 below

(c) P then records the third doxa attributed to Anaxagoras, but appears to shorten it by leaving out parts of both the first and the second sentence.

(d) Of the remaining doxai P writes out only the Stoic doxa (S6). The text is unaltered (on the textual problem in P^B see detailed comments below).

Of P's three doxai G preserves only the first two.

(3) T makes no reference to this chapter.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* From references in Diogenes Laertius and Hippolytus we know that there was discussion on the nature of the moon's earthlike surface in reports on Anaxagorean doctrine (see texts below section E(a)§§3–4), but it is not certain that this was connected to the question of its face-like appearance

from the earth. Welcome evidence in Philo, however, has preserved an anonymous doxa (text below section E(a) General texts) with patent similarities to the doxai of the Stoics and Aristotle in A (§§6–7) which does refer explicitly to the moon's face (πρόσωπον). The emphasis on the 'mixed' nature of the moon (οὐκ ἄκρατον, κράμα) is parallel to the same emphasis in §§5–8 of A's chapter. It is very likely that this Philonic material goes back to the anterior doxographical source used elsewhere in his treatise *De somniis* (see above on ch. 2.11, Commentary B).

Plutarch's famous treatise on the face in the moon focuses in its entirety on the subject of this chapter. The use of the participle ἐμφαινόμενου in the title of the work recalls the chapter heading in A, but like Philo it also refers to the moon's face (πρόσωπον), which is missing in A. Many passages can be adduced which contain material that is parallel to A's doxai. Unfortunately the beginning of the dialogue is lost, but when it commences the speaker Sulla asks whether the conversation should revert 'to those δόξαι concerning the face of the moon which are current and on the lips of everyone' (920B, text below section E(a) General texts). Plutarch replies that 'in obscure and difficult investigations, when common and reputable and customary accounts do not persuade, one should try those that are more unusual.' This seems like a covert reference to the kind of more archaic material recorded in some of A's doxai. For the various parallels that can be found see a selection in the apparatus below. The subject of the precise relation between Plutarch's playful dialogue and the doxographical tradition deserves a fuller study than we can give it here. It should be noted that the diaeresis between fiery and earthy views that is prominent in chs. 2.25 and 29–30 is also a key to his treatment. In addition, for Plutarch the notion of mixture is crucial and it provides the ultimate solution to the question posed by the dialogue: see the doxa of Xenocrates at 943E inspired by Plato, ἄστρου σύγκραμα καὶ γῆς, and the analogy between soul and the moon in the final words of the treatise (945D), τῶν ἄνω καὶ κάτω σύμμιγμα καὶ μετακέρασμα.

It should also be noted that the first two of A's doxai reappear in a very compact form the moon's speech in Lucian's satire *Icaromenippus*, which we have already cited in relation to A 2.25–27. It is not too fanciful to surmise that Lucian knew a doxographical source similar to A.

(2) *Sources.* Aristotle briefly refers to the face of the moon at *Cael.* 2.8 290a27 when he says it is always facing the earth, but does not discuss the reason why it has the face that it does. Other discussions are uncommon. For example, no atomist texts (including Epicurus) mention the face of the moon. For later texts which may record doxographical material see section D(e) below.

C Chapter Heading

The Byzantine mss. of P have a longer heading for the chapter than S. It is confirmed for P by E (who often abridges but not this time) and Q, as well as by G who bases his title on the second half missing in S. It is possible that it was added on the basis of the first lemma in the P tradition (but not in S), as pointed out by Mansfeld (2000b) 180. As in the case of the two previous chapters S places a version of the heading within his longer chapter on the moon, *Ecl.* 1.26. He exhibits the same heading (except the added δέ) as the first part of P, but without the additional phrase. It is difficult to decide whether P lengthened or S shortened. An additional factor is the difference between P and S when they repeat the subject of the chapter in the opening lemma. If we opt for the *lectio difficilior* in S (see further below D(d)§1), then it becomes very possible that the additional title in the phrase has been added by P. In general it is more likely that the epitomator would retain what he found in A rather than lengthen it. It is true that we have to take into account that elements of a text can be modified and developed in the course of the centuries, but the agreement of all four witnesses of P is significant. (In this regard the present chapter differs from ch. 2.20, where only two of the main mss. of P^B have the longer title.) A further problem arises with the pronoun. It is found in the headings of both the representatives of P (except Q, who writes ‘des Mondes’, but he may have modified his original) and S, but if it goes back to A, this would make this chapter different from any other in the sequence 2.20–31 in not referring specifically to the sun or moon (cf. also 3.9–15 on the earth). The probability is that both P and S had their own reasons for abridging just slightly by means of the pronoun. On the basis of the above considerations we retain the title as in P, but substitute *σελήνης* for *αὐτῆς*. It must be recognized that this is one of those cases where it is quite impossible to reach certainty on what A actually wrote. The formula *διὰ τί*, indicating cause, recurs in the titles of a number of headings in Book 5 (chs. §§9, 14, 18). But there are no other examples of a heading which combines this formula with the most common umbrella formula *Περὶ x*. The question involved is again specifically in relation to the moon. Its formulation emphasises appearance rather than substance, for this reason asking for the cause (*διὰ τί*), but the question of substance as presented in ch. 2.25 continues to play a role.

D Analysis

a Context

The question raised in the chapter is peculiar to the moon, so finds no equivalent in earlier chapters on the heavenly bodies. Its subject is closely related to that of chs. 2.25 (substance) and 2.28 (illuminations). We note that all the

name-labels in the present chapter also occur in one of both of the earlier two except the astronomers in §8 (but they appear in ch. 2.29) and the slight change from Pythagoras to Pythagoreans.

b Number–Order of Lemmata

As noted above, S appears to write out the chapter as he found it in his copy of A. But there is a difficulty. The lemmata §§3 and 5 seem to contain a reduplicated element, as can be seen as follows:

§3 Ἀναξαγόρας ἀνωμαλότητα τοῦ συγ-
κρίματος διὰ τὸ ψυχρομιγῆς ἅμα καὶ
γεῶδες, τὰ μὲν ἐχούσης ὑψηλά, τὰ δὲ
ταπεινά, τὰ δὲ κοίλα¹· καὶ παραμεμί-
χθαι² τῷ πυροειδεῖ τὸ ζοφῶδες, ὦν τὸ
πάθος ὑποφαίνει τὸ σκιερὸν³. ὅθεν ψευ-
δοφανὴ λέγεσθαι τὸν ἄστέρα.

¹ τὰ μὲν ... κοίλα not in P || ² S, παραμεμίχθαι
γάρ P^{BE} || ³ ὦν ... σκιερὸν S, not in P

§5 Παρμενίδης

διὰ τὸ παραμεμίχθαι
τῷ περὶ αὐτὴν πυρώδει τὸ ζοφῶδες·
ὅθεν ψευδοφανὴ
λέγεσθαι τὸν ἄστέρα.

Bottler (2014) 478 suggests that we may have a case of ‘Clusterbildung’, i.e. coalescence here. What she means exactly is not entirely clear, but the suggestion is valuable in that it may point to what happened during the transmission of the text. It is clear that the first part of the Anaxagorean doxa (up to κοίλα) links up well with the following doxa of Democritus. This coheres perfectly with the doxa at A 2.25.10 that the moon has ‘plains and mountains and ravines’, where the two name-labels are conjoined. The remaining part of §3, including the words ὦν τὸ πάθος ὑποφαίνει τὸ σκιερὸν, would then not originally have belonged here, but was mistakenly copied out in anticipation of the Parmenides doxa in §5. In M–R 2.628 we suggested that the error might have been made by A. Certainly the evidence of P indicates that it occurred very early before he compiled his epitome. If this analysis of the text is accepted, then there are still nine doxai in all, but the third needs to be shortened, as we have done in our text. See further below section D(d)§5.

c Rationale–Structure of Chapter

The structure of the chapter is not strongly systematic. But it is apparent that, as noted above in section C, the question of substance discussed in ch. 2.25 continues to play a role, and in particular the basic diaeresis between fiery and earthy views of the moon’s substance exerts an influence on this chapter. The order of the two groups of views is, however, reversed. The first four doxai all relate

to the 'earthy' view, as is made very clear in the opening lemma. In the second group of four (§§5–8) the fiery or etherial nature of the moon is implied, but is not made very explicit. Only the final doxa, involving another comparison between the sun and the moon, falls outside the diaeresis. The main diaeresis of ch. 2.28 between the views that the moon has its own light or is illuminated by the sun plays a much lesser role in the chapter, but is relevant to the second group of four doxai.

In the first group (§§1–4) the opening doxa of the Pythagoreans (including Philolaus) makes the moon as earth-like as possible. It is inhabited by plants and creatures just as in the case of the earth, but these are fifteen times the size of their equivalents on earth. No doubt this last detail is based on the further view that the lunar day is fifteen times the length of the earthly day. On this doxa see further the extensive commentary in Huffman (1993) 270–276, who concludes that there is no reason to doubt its authenticity and that its details most likely do go back to Philolaus himself. The emphasis on the earth-like nature of the moon is continued in the doxai of Anaxagoras and Democritus, which expand on details already introduced at A 2.25.10. There A uses a double name-label for a single doxa. Here the two names are separated. The Democritean view relates more directly to the earlier doxa. The Anaxagorean doxa is expanded and explains the unevenness of its composite substance through the cold mixed into its composition (an analogy with solidified lava?). The heights, depths and hollows clearly relate to the 'glens and vales' of Democritus' view. There remains the second doxa in the first group, related to the first doxa in a μέν ... δέ construction. Since the view fits in well with the doxa ascribed to Pythagoras in A 2.25.15 (moon as a mirror-like body) it might be concluded that these 'others' are also Pythagoreans. Diels, perhaps influenced by the attribution of exactly the same theory to the Peripatetic Clearchus in Plutarch (text below section E(a)§2), did not include it in his collection of Pythagorean material in *VS.* Wehrli (1969²), 80 argues that Clearchus, like Heraclides, may have shown Pythagoreanizing tendencies.

In the second group (§§5–8) the Parmenidean doxa forms the transition to the 'fiery' views (note τὸ πυρῶδες familiar from A 2.25.7). The doxa itself does not indicate what the dark component (τὸ ζοφῶδες) is, but if we compare A 2.7.1, it must be the air. This forms an excellent transition to the doxai of the Stoics and Aristotle, which are very similar to each other, the difference being that in the former the air is mixed in with fire (cf. A 2.25.5 but not made clear here) and in the latter with the fifth element (cf. A 2.25.8). In the last doxa in the group the dark patches are also attributed to irregularity of mixture (cf. §3), but this time they are explicitly related to the reflected light of the sun, recalling the main diaeresis of ch. 2.28 between idiophotic and heliophotic light.

The final Xenophanean doxa has no direct relation to the rest of the chapter. It joins three other final doxai that all contain joint statements about the sun and the moon (A 2.20.15, 2.24.9, 2.28.7). See further our comments above on the structure of ch. 2.28 (D(c)). The second of these is also attributed to Xenophanes, while the contrast between ‘lighter’ and heavier also occurs in A 2.20.15. It is probable that earlier versions of the doxographies on the sun and the moon contained some comparative material on the two bodies (perhaps even a separate chapter), at least some of which A wished to include in his compendium.

d Further Comments

Individual Points

§1 As noted above, the opening words of the lemma differ quite markedly in S and the P tradition. S’s τὸ γεωφανὲς αὐτῆς εἶναι διὰ τὸ περιρικεῖσθαι τὴν σελήνην might be seen as a paraphrase of P’s γεώδη φαίνεσθαι τὴν σελήνην διὰ τὸ περιρικεῖσθαι αὐτήν. But, as Mansfeld (2000b) 181 (= M–R 3.453) points out, γεωφανής is an extremely rare word, used in the sense of ‘looking or shining like the earth’ in only this text (in different senses only at Thphr. *Lap.* 61, Orib. *Coll. med.* 8.2.4), whereas γεώδης is very common. So there can be no doubt that it is the *lectio difficilior*. An argument in favour of its authenticity is that in the same chapter A uses the equally rare word ψευδοφανής (see below on §3). The use of the pronoun αὐτῆς first in S rather than τὴν σελήνην as in P can also be explained as a continuation of the reference to the moon in the title (see section C above). S’s text should therefore be preferred, though certainty cannot be attained. See further the discussion in Mansfeld (2000b) 180–181 (= M–R 3.451–453).

§3 Q translates ψυχρομιγὲς ἄμα καὶ γεώδες with *denn sie is leblos und aus kalter und erdarter Substanz gemischt*. *Sie ist leblos* is most likely an addition of the translator, for it is hard to see how it can point to the alternative reading ψυχρομιγὲς in P^B and G.

§4 It is striking that the phrase ἄγκη καὶ νάπας is paralleled exactly at Philo *Somn.* 1.22, even though Philo there is speaking of the heavenly bodies in general. The terminology thus derives from the anterior doxographical tradition. For the first word of the doxa both mss. of S read ἀποσκιάσματα, but since Canter all the editors have adopted his conjecture ἀποσκιάσμα τι (the mss. reading is not even mentioned by Diels at *DG* 361). The reason was presumably because all the other nouns used to explain the appearance were in the singular. But this is hardly compelling. It can be explained by ‘shadow effects’ in the plural. We have retained the mss. reading.

§5 Diels regarded this doxa as a doublet of that of Anaxagoras, and therefore not an authentic report of Parmenides’ doctrine (1897, 110–112). In the first edition of his *VS*, therefore, he placed among the ‘Unechtes’ (B21, p. 129)

and there is has languished ever since (= 28B21 DK). The impression might be given, he notes, that ψευδοφανής is a word from Parmenides' poem (it fits in the hexameter), but that is not the case, because the doxa itself is incoherent. He compares it with the line in 28B14 cited by Plutarch in which the moon is said to have a νυκτιφάεξ and ἀλλότριον φῶς, i.e. a light that shines in the night and is derived from elsewhere (cf. also 28B15 DK; texts cited on ch. 2.28.6). Thus according to Diels ψευδοφανής means the same as ψευδοφαής, to be translated 'mit tauschendem Lichte' and refers to the fact that the moon displays not its own but the sun's (modified) light, as postulated by Anaxagoras. In our view, however, the doxa does belong to Parmenides, and not Anaxagoras. The clue to its interpretation is that this light does not have to be reflected light. It can also appear because the moon's fiery nature is kindled by the sun, as in the Stoic doctrine reported by Cleomedes (see ch. 2.28 Commentary D(d)§3). So the falsity of the moonlight can be due not to the fact that it is not its own light, but to the shadows caused by the dark component, which give it an appearance that is not 'fire-like' but rather earthy (though the term is not used).

§6 The reading ἑτεροειδές in P^B, which deviates from the correct ἀερομυγές in all the other witnesses, is a good example of how corruptions have occurred in the Byzantine mss. Clearly the word became unreadable in the archetype and what we have is simply a scribal guess. The crux in Mau's edition is wholly unjustified and is a clear example of how his edition gives the text of P^B rather than the P tradition (Lachenaud gives the right reading, as did Diels).

§7 This doctrine is not found in this exact form in the extant works of Aristotle, but it is Aristotelian in spirit. At *GA* 3.11 761b21 he states the fire animals should be sought on the moon, since it has a share in the fourth element fire; text below section E(b)§1. On the expression 'fifth body' see our comment at ch. 2.11 Commentary D(d)§5.

e Other Evidence

A distant echo of A's views can be found in the great Arabic scientist ibn al-Haytham (Alhacen) (965–1039), mentioned by Cherniss–Hembold (1957) 19–20; see the text cited below section E(b) General texts. Various opinions are given, including some reminiscent of the doxai in A, e.g. that the facial features are traces of mountains (cf. §§3–4) or reflections of the seas on earth (cf. §2). In addition his own view on the subject recalls the doxa of the scientists in §8, namely that the moon's composition varies from place to place and this affects the transparency of the sun's light that falls on it. Unfortunately Daiber is silent on these parallels in the Arabic tradition and the connection between the doxographical tradition and the author remains a mystery.

Earlier Simplicius in his commentary on Aristotle's mention of the face of the moon in the *De caelo* makes reference to various doxai on the moon's appearance in both Alexander and Iamblichus, including the same theories on reflection or the marks made by earth or sea of mountains. Another doxa on effluences rising from beneath its surface and disturbing its brilliance is not paralleled in A (and also not found in Plutarch).

Finally some more late evidence on this question is found in Philoponus. Huffman (1993) 272 notes that a striking parallel to the first doxa, attributed *inter alios* to Philolaus, is found in his commentary on the reference to the fire-animals on the moon in Aristotle *GA* 761b21. The correspondences are general and not in relation to points of detail. Philoponus asserts that the creatures neither eat nor drink. As Huffman observes, this would mean that they would not produce any excrement either, precisely the detail that A records.

It must be concluded that a great deal of doxographical material on the cause of the face in the moon was built up over the centuries. Some of this has been distilled in A and given elaboration in Plutarch's treatise, but certainly not all of it.

E Further Related Texts

a Proximate Tradition

General texts: Philo *Somn.* 1.145 λέγεται γοῦν, ὅτι σελήνη πύλημα μὲν ἄκρατον αἰθέρος οὐκ ἔστιν, ὡς ἕκαστος τῶν ἄλλων ἀστέρων, κράμα δὲ ἔκ τε αἰθερώδους οὐσίας καὶ ἀερώδους· καὶ τό γε ἐμφαινόμενον αὐτῇ μέλαν, ὃ καλοῦσιν τινες πρόσωπον, οὐδὲν ἄλλο εἶναι ἢ τὸν ἀναμειγμένον ἀέρα, ὃς κατὰ φύσιν μέλας ὢν ἄχρις οὐρανοῦ τείνεται. cf. Ioannes Lydus *Mens.* 3.12, p. 53.¹² Wuensch (from Philo). Plutarch *Fac.Lun.* 920B–C ἀλλ' εἰ δεῖ τι πρὸς τὰς ἀνὰ χεῖρα ταύτας καὶ διὰ στόματος πᾶσι δόξας περὶ τοῦ προσώπου τῆς σελήνης προσανακρούσασθαι ... ἀναγκαῖον ἐν δυσθεωρήτοις καὶ ἀπόροις σκέψασιν, ὅταν οἱ κοινοὶ καὶ ἔνδοξοι καὶ συνήθεις λόγοι μὴ πείθωσι, πειρᾶσθαι τῶν ἀτοπωτέρων καὶ μὴ καταφρονεῖν ἀλλ' ἐπάδειν ἀτεχνῶς ἑαυτοῖς τὰ τῶν παλαιῶν καὶ διὰ πάντων ἀληθὲς ἐξελέγχειν. Lucian *Icar.* 20 (follows on from the text cited on A 2.25) καὶ οἱ μὲν κατοικεῖσθαι μέ φασιν, οἱ δὲ κατόπτρου δίκην ἐπικρέμασθαι τῇ θαλάττῃ, οἱ δὲ ὅ τι ἂν ἕκαστος ἐπινοήσῃ τοῦτο μοι προσάπτουσι.

Chapter heading: cf. Plutarch Περὶ τοῦ ἐμφαινόμενου προσώπου τῷ κύκλῳ τῆς σελήνης (*Fac.Lun.* 920B). also Symeon Seth *CRN* 21 Περὶ τοῦ τῆς σελήνης προσώπου.

§1 *Pythagoreans:* Plutarch *Fac.Lun.* 937D πρότερον δ' ἂν ἡδέως ἀκούσαιμι περὶ τῶν οἰκεῖν λεγομένων ἐπὶ τῆς σελήνης, οὐκ εἰ κατοικοῦσιν τινες ἀλλ' εἰ δυνατόν ἐκεῖ κατοικεῖν. εἰ γὰρ οὐ δυνατόν, ἄλογον καὶ τὸ γῆν εἶναι τὴν σελήνην. δόξει γὰρ πρὸς οὐθὲν ἀλλὰ μάτην γεγενῆσθαι μήτε καρποὺς ἐκφέρουσα μήτ' ἀνθρώποις τισὶν ἔδραν παρέχουσα καὶ γένεσιν καὶ διαίταν. Lucian see above General texts.

§2 *Others:* Plutarch *Fac.Lun.* 920F–921A (on Clearchus the Peripatetic, not in Wehrli) λέγει γὰρ ἀνὴρ εἰκόνας ἐσοπτρικὰς εἶναι καὶ εἰδῶλα τῆς μεγάλης θαλάσ-

σης ἐμφαινόμενα τῇ σελήνῃ τὸ καλούμενον πρόσωπον. ἢ τε γὰρ ἀκτὶς ἀνακλωμένη πολλαχόθεν ἄπτεσθαι τῶν οὐ κατ' εὐθυωρίαν ὀρωμένων πέφυκεν, ἢ τε πανσέληνος αὐτὴ πάντων ἐσόπτρων ὁμαλότῃ καὶ στιλπνότῃ κάλλιστόν ἐστι καὶ καθαρώτατον. **Lucian** see above General texts.

§§3–4 **Anaxagoras Democritus: Plutarch *Fac.Lun.* 935C** ὥστε μὴδὲν οἰώμεθα πλημμελεῖν γῆν αὐτὴν θέμενοι, τὸ δὲ φαινόμενον τουτοὶ πρόσωπον αὐτῆς, ὥσπερ ἢ παρ' ἡμῖν ἔχει γῆ κόλπους τινὰς μεγάλους, οὕτως ἐκείνην ἀνεπτύχθαι βάθσει μεγάλοις καὶ ῥήξεσιν ὕδωρ ἢ ζοφερὸν ἀέρα περιέχουσιν, ὧν ἐντὸς οὐ καθήσιν οὐδ' ἐπιψαύει τὸ τοῦ ἡλίου φῶς, ἀλλ' ἐκλείπει καὶ διεσπασμένην ἐνταῦθα τὴν σἀνάκλασιν ἀποδίδωσιν (cf. also *Fac.Lun.* 934E–F). **Diogenes Laertius *V.P.* 2.8** (on Anaxagoras, 59A1 DK) τὴν δὲ σελήνην οἰκῆσεις ἔχειν, ἀλλὰ καὶ λόφους καὶ φάραγγας. **Hippolytus *Ref.* 1.8.10** (on Anaxagoras, 59A42 DK) ἔφη δὲ γῆν εἶναι τὴν σελήνην ἔχειν τε ἐν αὐτῇ πεδία καὶ φάραγγας.

§5 **Parmenides:** See on A 2.29.6 and below on §7.

§6 **Stoics: Plutarch *Fac.Lun.* 921F** ἀλλὰ μὴ δόξωμεν ... κομιδῇ προπηλακίζειν τὸν Φαρνάκην, οὕτω τὴν Στωικὴν δόξαν (*SVF* 2.673) ἀπροσάυδητον ὑπερβαίνοντες, εἰπέ δὴ τι πρὸς τὸν ἄνδρα, πα(γέ)ντος ἀέρος μίγμα καὶ μαλακοῦ πυρὸς ὑποτιθέμενον τὴν σελήνην ... see also on A 2.25.5.

§7 **Aristotle: Plutarch *Fac.Lun.* 928F** (on Aristotelian doctrine) ὅλως γάρ, ὦ φίλε Ἀριστότελες, γῆ μὲν οὖσα πάγκαλόν τι χρῆμα καὶ σεμνὸν ἀναφαίνεται καὶ κεκοσμημένον, ὥς δ' ἄστρον ἢ φῶς ἢ τι σῶμα θεῖον καὶ οὐράνιον δέδια μὴ ἄμορφος ἢ καὶ ἀπρεπὴς καὶ καταισχνύουσα τὴν καλὴν ἐπωνυμίαν· εἴ γε τῶν ἐν οὐρανῷ τοσοῦτων τὸ πλῆθος ὄντων μόνῃ φωτὸς ἀλλοτρίου δεομένη περίεσι, κατὰ Παρμενίδην (28B15 DK) 'αἰεὶ παπταίνουσα πρὸς αὐγὰς ἡελίοιο'.

b Sources and Other Parallel Texts

General texts: Aristotle *Cael.* 2.8 290a24–27 ἀλλὰ μὴν ὅτι οὐδὲ κυλιέται τὰ ἄστρα, φανερόν· τὸ μὲν γὰρ κυλιόμενον στρέφεσθαι ἀνάγκη, τῆς δὲ σελήνης αἰεὶ δῆλόν ἐστι τὸ καλούμενον πρόσωπον. **Alexander of Aphrodisias at *Simp. in Cael.* 457.9–30** (on 290a27) ἀλλ' εἰ μὲν τὸ ἐμφαινόμενον πρόσωπον διαφορὰ τις οὐσιώδης ἐστὶ τοῦ σεληνιακοῦ σώματος ἢ παραδειγματικῶς περιέχοντος τὸ πολυειδὲς καὶ διάφορον τῆς γενέσεως, ὥς Ἰάμβλιχός φησιν (fr. 153 Dalsgaard Larsen), ἢ διὰ τὸ μεσότης εἶναι τῶν οὐρανίων καὶ τῶν ὑπὸ σελήνην τὸ μὲν εὐφώτιστον ἔχει, τὸ δὲ σκιερώτερον κατ' οὐσίαν, ὥς ἄλλοις ἀρέσκει, ἰσχυρὸν δοκεῖ πρὸς ἀπόδειξιν τὸ εἰρημένον· πῶς γὰρ τοῦ ὅλου σώματος κυλιόμενου τὴν αὐτὴν ἐκεῖνο θέσιν ἐφύλαττε συνεχὲς ὄν πρὸς τὸ ὅλον; εἰ δέ, ὥς τινες λέγουσιν, ἔμφασις τίς ἐστίν ὥς ἐν κατόπτρῳ ἦτοι τῆς γῆς ἢ τῆς θαλάσσης ἢ τῶν ὀρών, δύναται, φησὶν ὁ Ἀλέξανδρος, καὶ κυλιομένης αὐτῆς ὁμοία μένειν ἢ ἔμφασις τῷ καὶ ταῦτα ἀφ' ὧν ἢ ἔμφασις τὰ αὐτὰ μένειν κἀκείνην πρὸς τὸ δέχεσθαι τὴν τοιαύτην ἔμφασιν κατὰ πάντα αὐτῆς μέρη ὁμοίαν ἔχειν ἐπιτηδεσιότητα καὶ κατὰ τὴν τοῦ σώματος φύσιν καὶ κατὰ τὴν τοῦ σχήματος ὁμοιότητα. ἀλλ' εἰ μὲν ἢ ἔμφασις κατὰ τὴν ἀπὸ τοῦ κατόπτρου τῶν ἀκτίνων ἀνάκλασιν ἐπὶ τὸ ἐμφαινόμενον γίνεται, ὥς τοῖς πολλοῖς δοκεῖ, οὐκ ἂν ἀπὸ παντὸς τόπου ὀρώντι τὸ αὐτὸ ἂν ἐμφαίνοιτο, ὥσπερ νῦν τὸ τῆς σελήνης πρόσωπον καὶ ἀπὸ μεσημβρινωτάτων τόπων καὶ ἀπὸ βορειοτάτων καὶ ἀπὸ

ἀνατολικῶν καὶ δυτικῶν ὁρῶντι τὸ αὐτὸ φαίνεται. εἰ μέντοι ἀπόρροιαί τῶν ὑπὸ σελήνην ἀναθέουσαι ἄλλαι ἀπ' ἄλλων αἰεὶ περὶ τὸ στιλπνὸν τῆς σελήνης τοιαύτην λαμβάνουσι σύστασιν, ὥς καὶ ἐν τοῖς κατόπτοις εἰδῶλῳ ἔμφασιν συνίστασθαι λέγουσί τινες, δυνατόν ἂν εἴη καὶ κυλιομένης καὶ δινομένης τὴν αὐτὴν ἔμφασιν ὁρᾶσθαι ἀπὸ παντὸς τόπου. **ibn al-Haytham (Alhacen)** *Über die Natur der Spuren (Flecken), die man auf der Oberfläche des Mondes sieht* pp. 1–3 Schoy 'Wenn man diese Zeichen der Oberfläche aufmerksam betrachtet und beobachtet, so findet man sie immerfort von derselben Beschaffenheit, und keinerlei Veränderung zeigt sich an ihnen ... Abergläubische und nicht ernst zu nehmende Menschen haben ihre eigene und abweichende Meinung darüber. Gewisse Leute halten dafür, daß die Spuren dem Mondkörper selbst angehören, andere glauben, daß sie sich außerhalb desselben, nämlich zwischen dem Mondkörper und dem Gesicht des Beobachters, befänden, wieder andere glauben, daß sich ihnen ein umgekehrtes Bild darbiete, weil die Mondoberfläche glatt und reflektierend sei ... So gibt es denn auch Leute, die behaupten, daß sie die Figur der irdischen Meere im Spiegelbilde erblicken würden, andere sagen, es seien die Spuren die Bilder der Berge und Gebirge unserer Erde, wieder andere glauben, das Gesehene sei eine Figur, die von den auf die Erde fallenden Reflektionsstrahlen aus ihr ausgeschnitten würde ... Aber alle diese bis jetzt vorgetragenen Meinungen sind unzutreffend und daher wertlos, und wir schicken uns jetzt an, das Irrige all dieser Ansichten darzutun. Danach studieren wir die wahre Natur der Spuren ...' pp. 29–30 'Wir behaupten also, daß der Mond sein Licht von der Sonne empfängt, daß er ohne Transparenzvermögen ist, und daß ihn kein Licht durchdringt. Der lichtabsorbierenden Kraft des Mondes mangelt also die Transparenz. Dafür ist ein deutlicher Fingerzeig in der Tatsache gegeben, daß diese Kraft die Durchdringungskraft für Licht verändert. Und in diesem Hinweis liegt eine Bestätigung für das, was wir schon früher gesagt haben, nämlich, daß die Absorptionskraft die Durchlässigkeit für Licht verändert, welche den durchsichtigen Körpern eignet, daß die Aufnahmefähigkeit des Mondes für Licht eine verschiedene ist, indem einzelne Partien desselben das Licht vollständig aufnehmen, während dies mit anderen—und das sind diejenigen der Spuren—in nur unvollkommenem Grade der Fall ist, und daß dieser Umstand eine Behinderung der Stelle der Spur für eine vollkommene Lichtaufnahmefähigkeit bedeutet.'

Chapter heading: —

§1 Pythagoreans: cf. Aristotle *GA* 3.11 761b15–23 τὸ δὲ τέταρτον γένος οὐκ ἐπὶ τούτων τῶν τόπων δεῖ ζητεῖν· αἰτοὶ βούλεται γέ τι κατὰ τὴν τοῦ πυρός εἶναι τάξιν· τοῦτο γὰρ τέταρτον ἀριθμεῖται τῶν σωμάτων. ἀλλὰ τὸ μὲν πῦρ αἰεὶ φαίνεται τὴν μορφήν οὐκ ἰδίαν ἔχον, ἀλλ' ἐν ἐτέρῳ τῶν σωμάτων· ἢ γὰρ ἀήρ ἢ καπνὸς ἢ γῆ φαίνεται τὸ πεπυρωμένον. ἀλλὰ δεῖ τὸ τοιοῦτον γένος (sc. fire animals) ζητεῖν ἐπὶ τῆς σελήνης· αὕτη γὰρ φαίνεται κοινωνοῦσα τῆς τετάρτης ἀποστάσεως (i.e. fire). ἀλλὰ περὶ μὲν τούτων ἄλλος ἂν εἴη λόγος. **John Philoponus** in *GA* 160.14–21 τὰ γεγονότα καὶ γινόμενα ἐξ αὐτοῦ (sc. πυρός) ζῶα ἐν τῇ σεληνιακῇ τυγχάνουσιν ὄντα σφαίρα. εἰσὶ

γὰρ καὶ γίνονται μερικὰ λογικὰ αἰθέρια ζῶα μήτε ἐσθίοντα μήτε πίνοντα, ἀσχολούμενα δὲ περὶ μόνην τὴν ὁρατικωτέραν καὶ θεωρητικωτέραν διατριβὴν καὶ ἔχοντα τὴν οἴκησιν ἐν αἰθέρι καὶ ἀέρι, καὶ ζῇ ἕκαστον αὐτῶν καὶ ὑπὲρ τὰ τρισχίλια ἔτη, θνήσκει δὲ ὅμως.

§6 Stoics: cf. *Cleomedes Cael.* 1.2.37 (fuller text cited on A 2.25.5) ὅθεν καὶ ζοφῶδες αὐτῆς τὸ οἰκεῖον ὁράται σῶμα.

§7 Aristotle: cf. §1 above.

Liber 2 Caput 31

- P^B**: ps.Plutarchus *Plac.* 892B; pp. 362^a19–363^a4 Diels—**P^E**: Eusebius *PE* 15.53, p. 417.1–7 Mras—**P^G**: ps.Galenus *HPh* c. 72; p. 628.18–22 Diels; pp. 217–225 Jas—**P^Q**: Qustā ibn Lūqā pp. 164–165 Daiber—**P^{Sch}**: Scholion ad Ptole-
mei *Alm.* 5.1, p. 1.350 Heiberg—**P^L**: Ioannes Lydus *Mens.* 3.12, p. 54.7–10
Wuensch
S: Stobaeus *Ecl.* 1.26.5, pp. 223.8 (tit.), 10–23 Wachsmuth; cf. Phot. *Bibl.* 167,
p. 112b13 Henry (titulus solus)
T: Theodoretus *CAG* 4.24, p. 106.15–16 Raeder; cf. 1.96, p. 27.17–25 Raeder
Cf. *Scholia in Aratum, Proleg.* 19, p. 28.3–4 Martin (titulus solus); Isidorus Pelu-
siota *Ep.* 2.273, MPG 78.704A

Titulus λα'. Περὶ τῶν ἀποστημάτων τῆς σελήνης (P,S,cf.T)

- §1 Ἐμπεδοκλῆς διπλάσιον ἀπέχειν τὴν σελήνην ἀπὸ τοῦ ἡλίου ἥπερ ἀπὸ
τῆς γῆς. (P1,S1,T1)
§2 οἱ ἀπὸ τῶν μαθηματικῶν ὀκτωκαίδεκαπλάσιον. (P2,S2)
§3 Ἐρατοσθένης τὸν ἥλιον ἀπέχειν τῆς γῆς σταδίων μυριάδας τετρακο- 5
σίας καὶ ὀκτακισμυρίας, τὴν δὲ σελήνην ἀπέχειν τῆς γῆς μυριάδας
ἑβδομήκοντα ὀκτὼ σταδίων. (P3,S3,T2)
§4 Ἐμπεδοκλῆς τοῦ ὕψους τοῦ ἀπὸ τῆς γῆς εἰς (τὸν) οὐρανόν, ἥτις ἐστὶν
ἂφ' ἡμῶν ἀνάτασις, πλείονα εἶναι τὴν κατὰ τὸ πλάτος διάστασιν, κατὰ
τοῦτο τοῦ οὐρανοῦ μᾶλλον ἀναπεπταμένου διὰ τὸ ὦψ παραπλησίως τὸν 10
κόσμον κείσθαι. (S4)
§5 Βόηθος δὲ πρὸς τὴν φαντασίαν δέχεται τὸ ἀναπεπταμένον, οὐ κατὰ τὴν
ὑπόστασιν. (S5)

§1 Empedocles 31A61 DK; §2 anonymi, cf. Aristarchus *Magn.* p. 352 Heath; §3 Eratosthenes
fr. I.40 Berhardy; §4 Empedocles 31A50 DK; §5 Boethus *SVF* fr. 9

titulus Περὶ ... σελήνης scripsimus, cf. P^Q (*Über die Entfernungen des Mondes* Q), τῆς σελή-
νης secl. Diels : Περὶ τῶν ἀποστημάτων αὐτῆς (sc. σελήνης) P^E : Περὶ τῶν διαστημάτων τῆς
σελήνης καὶ τοῦ ἡλίου P^{G1} Jas ex Nicolao (om. καὶ τοῦ ἡλίου P^{G2} Diels) : Περὶ τῶν ἀποστημά-
των (ἀποστημάτων P^{B(III)}) τῆς σελήνης πόσον (δ P^{B(III)}) ἀφέστηκε τοῦ ἡλίου P^B : Περὶ δὲ τῶν
ἀποστημάτων S §1 [2–3] τὴν ... γῆς P^{BEGQ} : τῆς σελήνης ἀπὸ γῆς (τῆς γῆς coni. Meineke
Wachsmuth) ἥπερ ἀπὸ τοῦ ἡλίου S : τὴν σελήνην ἀπὸ τῆς γῆς P^{Sch} : τὸν ἥλιον ἀπὸ τῆς γῆς
ἥπερ τὴν σελήνην coni. Diels §2 [4] οἱ P^{BEGQ} : οἱ δὲ S^{P^{Sch}} || ἀπὸ τῶν μαθηματικῶν] μαθη-
ματικοὶ P^G §3 [5] post ἀπέχειν add. ἀπὸ P^E || [5–6] σταδίων ... ὀκτακισμυρίας scripsimus,
Diels Mau secuti, cf. P^{EQS} : σταδίων -ιάδων -σίων καὶ -ρίων P^E (cf. P^L) : σταδίων μυριάδας
τρεῖς (cf. τ' = τριακοσίας P^{Sch}) καὶ ὀκτάκις μυριάδας P^G : 408,000 *Stadien* Q (vid. comm.
infra) : σταδίων μυριάδας μυριάδων τετρακοσίας καὶ σταδία ὀκτακίς μύρια S (μυριάδων secl.
Diels Wachsmuth) || τετρακοσίας ... μυριάδας desunt in P^B, rest. edd. || [6] τῆς γῆς] *von der*
Sonne Q || [7] σταδίων P^{EQSchS} : om. P^B : ante μυριάδας P^{GL} : 78,000 *Stadien* Q (vid. comm.
infra) §§4–5 non hab. P §4 [8] εἰς (τὸν) Diels Wachsmuth : οἶον S^{F^{P1}}, εἰς S^{P2}

Testes primi:

Theodoretus CAG 4.24 καὶ τί δεῖ λέγειν, ὅσα ἐκεῖνοι σχημάτων περί καὶ ἐκλείψεων καὶ διαστημάτων μυθολογοῦσιν; οὐ γὰρ μόνον ὅσον ἀλλήλων διεστήκασιν (cf. §1), λέγουσιν, ἀλλὰ καὶ ὅσον τῆς γῆς ἀφεστήκασιν καὶ τετρακοσίας ἀριθμοῦσι καὶ μέντοι καὶ πλείους σταδίων μυριάδας (cf. §3), τὰς μὲν ἀπὸ γῆς μέχρι σελήνης, τὰς δὲ ἐκεῖθεν μέχρι ἡλίου.

cf. 1.96 οὕτω τοῖς ἀστρονόμοις οἱ φοιτῶντες πιστεύουσι, καὶ τῶν ἄστρον τὸν ἀριθμὸν λέγουσι καὶ τὰ διαστήματα μετροῦσιν, οἷς ἀφεστήκασιν ἀλλήλων (cf. §1), καὶ πόσαις μυριάσι σταδίων τῆς γῆς ἀφέστηκεν ὁ ὀρώμενος οὐρανός· καὶ πολλῆς οὕσης ἐν τῷ μέτρῳ διαφωνίας, καὶ τῶν μὲν τετρακοσίας καὶ ἑβδομήκοντα σταδίων μυριάδας εἶναι λεγόντων (cf. §3), τῶν δὲ ἐλάττους, τῶν δὲ πολλῷ πλείους, ὅμως πείθονται οἱ φοιτηταὶ τοῖς διδασκάλοις καὶ τοῖς παρ' αὐτῶν λεγομένοις πιστεύουσιν.

Traditio ps.Plutarchi:

ps.Galenus HPh c. 72 (~ tit.) Περί τῶν διαστημάτων τῆς σελήνης καὶ τοῦ ἡλίου (text Jas)

72.1 (~ P1) Ἐμπεδοκλῆς διπλάσιον ἀπέχειν τὴν σελήνην ἀπὸ τοῦ ἡλίου ἤπερ ἀπὸ τῆς γῆς.

72.2 (~ P2) οἱ μαθηματικοὶ ὀκτωκαίδεκαπλάσιον.

72.3 (~ P3) Ἐρατοσθένης τὸν ἥλιον ἀπέχειν τῆς γῆς σταδίων μυριάδας τρεῖς καὶ ὀκτάκις μυριάδας, τὴν δὲ σελήνην τῆς γῆς ἀπέχειν σταδίων μυριάδας ἑβδομήκοντα ὀκτώ.

Scholion ad Ptolem. *Alm.* 5.1 (ex P) Ἐμπεδοκλῆς διπλάσιον ἀπέχειν τὴν ∞ ἀπὸ τῆς γῆς ἐδόξαζεν (~ P1), οἱ δὲ ἀπὸ τῶν μαθηματικῶν ἀκριβέστερον ἐπιβάλλοντες ὀκτωκαίδεκαπλάσιον (~ P2):—Ἐρατοσθένης τὸν ἥλιον ἀπέχειν σταδίων ἀπὸ τῆς γῆς μυριάδας τ' καὶ ὀκτακίς μυρίων:—τὴν δὲ σελήνην ἀπέχειν τῆς γῆς μυριάδων ἑβδομήκοντα ὀκτὼ σταδίων (~ P3).

Ioannes Lydus 3.12 (ex P) ἀφεστάναι δὲ λόγος ἀπὸ τῆς γῆς κατὰ τὸν Ἐρατοσθένην τὴν μὲν σελήνην σταδίων μυριάδας ἑβδομήκοντα ὀκτὼ, τὸν δὲ ἥλιον τετρακοσίας καὶ ὀκτάκις μυριάδας (~ P3).

Testes secundi:

Scholia in Aratum, *Proleg.* 19, p. 28.3–4 Martin Περί ἀποστάσεως τοῦ οὐρανοῦ ἀπὸ τῆς γῆς (~ tit.)

Isidorus Pelusiota *Ep.* 2.273 σκοπήσωμεν οὖν, τί ἡμῖν λυσιτελεῖ εἰς μακαριότητα, τί δ' οὐ· ... καὶ τὸ πολυπραγμονεῖν, ... καὶ τὸ τὰ ἐκεῖνου (sc. οὐρανῷ) ἢ ταύτης (sc. γῆς) διαστήματα εἰδέναι· ...

Loci Aetiani:

§1 cf. A 2.1.8 τῶν ἀπείρους ἀποφνημαμένων τοὺς κόσμους Ἀναξίμανδρος τὸ ἴσον αὐτοὺς ἀπέχειν ἀλλήλων, Ἐπίκουρος ἄνισον εἶναι τὸ μεταξὺ τῶν κόσμων διάστημα.

§4 A 2.2.3 (de figura mundi) οἱ δ' ὠοειδῆ.

§5 cf. A 3.5.1 τῶν μεταρσίων παθῶν τὰ μὲν καθ' ὑπόστασιν γίνεται οἷον ὄμβρος χάλαζα, τὰ δὲ κατ' ἔμφασιν ἰδίαν οὐκ ἔχοντα ὑπόστασιν· αὐτίκα γοῦν πλεόντων ἡμῶν ἢ ἡπειρος κινεῖσθαι δοκεῖ· ἔστιν οὖν κατ' ἔμφασιν ἢ ἱρις.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) There are five doxai in S's version of the text, which no doubt he has again written out in full, as he did for the preceding four chapters. None of the doxai raise any suspicion that they may have come from another source such as AD.

(2) P takes over only the first three doxai (the last two in S patently introduce a new subject not covered by the chapter heading). All three are also found in G. For this chapter there are two extra witnesses to P's tradition. A scholion to Ptolemy's *Almagest* writes out all three doxai. The text is found in manuscripts that are considerably older than the Byzantine manuscripts of P; cf. Mansfeld (2000b) 177 with n. 5 (= M–R 3.448–449). Lydus utilizes only the lemma on Eratosthenes.

(3) T refers to the chapter when continuing his scathing report on Greek astronomy. He mentions the subject of distances and then gives a very loose report of the first and third doxai. There is nothing that might indicate extra material not in S or P. More interesting perhaps is an earlier passage at 1.96, in which he notes the faith that people place in the teachings of the astronomers. The passage seems loosely based on 2.31, with particularly the reference to the number 470 myriads of stades a tell-tale sign of dependence. There is no need to speculate that there might be evidence of a chapter on the distance of the earth from the heaven, since the theme could have easily have been suggested by the Empedoclean doxa in this chapter. Given T's loose way of writing in these two passages, there is also no need to conclude that his remarks are based on a different *Vorlage*, *pace* Bottler (2014) 481 (who does not refer to the 1.96 passage). Two texts in the wider tradition, however, do suggest that there may have been chapters on this other theme; see the texts from the Aratea and Isidore of Pelusium in the *Testes secundi* above.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Authors prominent in the proximate tradition seldom refer to views from the early period of Greek philosophy on this subject. In

his vast compendium on natural philosophy Pliny regards attempts to tackle the subject as rather hubristic, but gives a valuable doxography in which the first two views are the same as in A though in reverse order (A's first doxa is attributed to Pythagoras and exact figures are given as well as the ratio). Most intriguingly, all three of A's doxai can be recognized in the same order in Plutarch's treatise *De facie* (discussed at length above on ch. 2.30) (1) Empedocles' view that the moon almost grazes the earth; (2) Aristarchus' view in his treatise that the distance of the sun from the earth is more than 18 and less than 20 times the distance of the moon from the earth; (3) the highest estimate of 4030 myriads of stades, i.e. a very high figure like that in the doxa of Eratosthenes in A (but he is not named by Plutarch). Mansfeld (2000b) 192 = M–R 3.464 argues that Plutarch may have been indebted to the *Placita* literature, but 'that he preferred to substitute more detailed and more accurate data concerning Empedocles and Aristarchus, and replaced Eratosthenes' tenet by an equally spectacular though quite similar view.' For Galen, revealing an attitude opposite to that of Pliny, regards the subject as an example of the extent of the powers of the human mind. Commentators on Plato's astronomy in the *Timaeus*, as witnessed by Hippolytus, Calcidius, and Macrobius (citing Porphyry) also touch on cosmic distances, but they attempt to see a correlation with numbers and ratios based on the construction of the World Soul in 35a–c. A could have used this kind of material but evidently chose not to. See references below in section E(a) General texts.

Ach does not include any material on this subject in his compendium. However, in a brief set of excerpts from introductory material to the poem of Aratus there is a chapter heading *Περὶ ἀποστάσεως τοῦ οὐρανοῦ ἀπὸ τῆς γῆς*. The material in the chapter that follows is not relevant, but the heading itself is of some significance for our analysis. We return to it below.

We have found no direct parallels for the brief diaeresis in §§4–5 on the distance of the earth to the heaven, i.e. the rim of the cosmos, but the subject is briefly raised in comments appended to the discussions of distances in both Pliny *Nat.* 2.87 and Plutarch *Fac.Lun.* 925B–C (texts below section E(a) General texts).

(2) *Sources*. The theme of the chapter is twice briefly mentioned by Aristotle (texts below section E(b) General texts). On both occasions he mentions work done by astronomers, but does not go into detail himself. It is not part of what he considers the subject matter of natural philosophy. Importantly Simplicius informs us that Eudemus discussed the subject of cosmic distances in his account of astronomical researches and made reference to early views (Anaximander, Pythagoreans). This raises the possibility suggested by Mansfeld (2000b) 201 = M–R 3.467–468 that the ultimate source of A's material

might be he rather than Theophrastus as postulated in the Dielsian hypothesis. Posidonius too raises the subject in the context of pointing out the difference between astronomy and physics. But A does not follow this division rigidly in his understanding of the φυσικὸς λόγος, as witnessed in the present chapter with its inclusion of doxai attributed to ‘the followers of the μαθηματικοί and Eratosthenes’. Scientific works with detailed measurements, or at least information from them, were available to later authors such as Plutarch (see below) and Theon of Smyrna.

C Chapter Heading

The heading is of the common umbrella Περί x type. The quaestio is asked in the category of quantity, as is indicated by the use of the word πόσον in P^B’s heading. However, as in ch. 2.30 there is considerable variation in the witnesses for the chapter’s heading. S and P^E have the shortest title without mention of the moon (as in the previous three chapters S places it separately within his longer chapter on the moon, *Ecl.* 1.26). P^B, as in ch. 2.30, has an expanded title. It is not wholly accurate, since in the first and third lemmata the doxai discuss distances of the moon and the sun, not just ‘from the sun’. There can be no doubt that the heading of intermediate length in G and Q is to be preferred. G reads τῆς σελήνης rather than just the bare noun as in all other titles in chs. 2.20–31. It is perhaps to be explained as following on from the earlier use of the article in τῶν ἀποστημάτων, which occurs in all the witnesses. *Pace* M–R 2.2.642, the article should be retained. A more accurate heading would have been Περί τῶν ἀποστημάτων τοῦ ἡλίου καὶ τῆς σελήνης. A similar heading is in fact found in the mss. tradition of G as indicated by Nicolaus’ translation; see Jas (2018a) 217–218. It is consistent with a number of other scattered doxai which deal with both sun and moon together (see our remarks on A 2.28.7). But even this heading in no way covers the final two doxai of the chapter. We return to this problem in our analysis below.

D Analysis

a Context

The final chapter in the sequence of seven chapters on the moon reverts to the category of quantity (made explicit in the long title of P^B), namely the distances of the moon from its adjacent cosmic bodies, the earth and the sun. It is not paralleled in the other chapters on the stars and the sun.

b Number–Order of Lemmata

As in the previous three chapters, it can be assumed that S wrote the chapter out in full. It contains no material that gives rise to suspicion that it might have been added from elsewhere.

c Rationale–Structure of Chapter

The first three doxai focus on the chapter’s subject as indicated in the chapter heading. The first lemma in the reading of the P tradition makes very good sense as the kind of straightforward doxa we might expect from the early period of Greek philosophy: the moon is twice as far from the sun as it is from the earth. The version in S reverses the distances and clearly involves a misreading of A’s original. See further the detailed comment below. The second doxa, increasing the ratio of the distances to 18 times, is unproblematic in both P and S. This is clearly a reference to the view of Aristarchus, who however is not named, in contrast to A 1.15.5 & 9, 2.24.7.

The third doxa, giving the view of Eratosthenes (the only reference to him in Book 2, elsewhere in the surviving *Placita* only at 1.21.3 on time), moves to two specific distances in stades, which have proved a headache for the scribal transmission. The Byzantine mss. again have a case of haplography resulting in only the second figure being preserved. In the remaining witnesses there is a great deal of variation as emerges in the following table:

	First figure	Second figure
Byzantine mss.	missing	78 myriads
E	400 myriads + 8 myriads	78 myriads
S	400 myriad myriads + 8 myriads	78 myriads
G	3 myriads + 8 myriads	78 myriads
Lydus	400 + 8 myriads	78 myriads
Q	408,000	78 thousands
Scholion	300 myriads + 8 myriads	78 myriads
T	more than 400 myriads	none given

The second figure is thus unproblematic, Q obviously having made a mistake (cf. Daiber 1980, 28). In the case of the first number, the variants involving three in G and 300 in the Scholion can be explained. The scholiast’s τ’ (i.e. 300) will be derived from the abbreviation of τετρακοσίας, which in the case of G, as suggested by Jas, the majuscule T’ will have been corrupted to Γ’. The number in S seems excessively high. Diels and Wachsmuth are justified in bracketing the genitive μυριάδων. The most likely number is that in E and L, i.e. 4,080,000. The ratio between the two numbers is closest to 5:1 in round figures. Given the usual methods of the *Placita* one might have expected an ascending sequence. But another option is that A first gave the two whole number ratios, followed by

the figures in real numbers. For further analysis of these numbers see Mansfeld (2000b) 184–188 = M–R 3.456–460, and also section D(d)§3 below.

The final two doxai embark on a different subject, still involving distances but not those of the moon, i.e. the distance from the earth to heaven. Its subject is exactly that of the title of a brief chapter in a small collection of excerpts furnishing introductory material on Aratus' poem (called *Isagoga bis excerpta* by Maass), Περὶ ἀποστάσεως τοῦ οὐρανοῦ ἀπὸ τῆς γῆς. The name-label Empedocles is repeated from the first doxa. In the Presocratic's view the distance from the earth to the heaven is less than the breadth of the heaven, e.g. the cosmos resembles an egg lying on its side. In the final doxa attributed to Boethus, this is a matter of appearance, not reality. We may presume that Boethus espoused the spherical cosmos, which had become standard by his time (on his identity see comment below). Thus these two doxai form a very clear diaeresis, with the 'epistemological' view coming second and last, as more often in the *Placita*. It is very likely that A combined two related subjects that in his source-material had separate chapter headings into a single chapter.

d Further Comments

Individual Points

§1 The genitive τῆς σελήνης in S can be explained if one understands τὸ ἀπό-στημα from the chapter heading. Mansfeld (2000b) 185 puts forward another explanation: 'the genitive ... is an obvious mistake ... Stobaeus decided to delete τῆς σελήνης in his sub-heading, and this decision was still on his mind when he copied out the first lemma so he wrote a genitive instead of the required accusative'. However this may be, the reading τὴν σελήνην uniformly found in the tradition of P is certainly to be preferred.

§3 The reading ὀκτακισμυρίας (fem. plur.) might seem to be dubious Greek, since ὀκτακισμύριος is an adjective and here it does not appear to qualify a noun. We assume that it has been formed through attraction to τετρακοσίας. The reading in S, στάδια ὀκτάκις μύρια, can be read as a somewhat clumsy attempt to remedy the solecism, involving the repetition σταδίων ... στάδια.

For an analysis of the distances attributed to Eratosthenes see Carman–Evans (2015) 7–11. They argue that (1) it is plausible that Eratosthenes dealt with the subject of the distances of the sun and moon from the earth in the context of his work *On the Measurement of the Earth*, and that (2) 'all ambiguity' in relation to which number to read for the distance of the sun from the earth 'can be removed, for only the solar distance of 4,080,000 stades is consistent with Eratosthenes' second value for the size of the earth.' They then conclude (p. 16) 'we can now understand why Eratosthenes treated the distances of the Sun and Moon in a work supposedly devoted to the measurement of the Earth.'

The distances of the Sun and Moon are entangled, for example, in Aristarchus' method and must be found together. And the distance of the Sun is required for Eratosthenes' calculation of the upper limit for the size of the Earth.' If these scholars are correct in their assumptions and conclusions, therefore, there is a good chance that the numbers attributed to Eratosthenes in A are correct.

§4 One would expect on the basis of this information that the 'egg-like' cosmos lying on its side would do so lying horizontally and not standing vertically. The verb κείσθαι certainly suggests the former. Couprie (2020) argues, however, that a visualisation of Empedocles' cosmology requires the latter and that this is compatible with the present doxa (though only just). It is certainly true that a standing egg is more likely to tip to one side than a lying one. Strictly speaking, of course, the cosmos will be 'ovoid' in shape, i.e. symmetrical (unlike an egg). But since the comparison here is explicitly with an egg, we translate the term ὠοειδής used at A 2.2.3 with 'egg-like' similarly to other -ειδής terms.

§5 Boethus of Sidon, a second cent. BCE Stoic, wrote a Commentary on Aratus' poem, which is cited by the *Isagoga bis Excerpta* 5 = 324.8–9 Maass (on the work and this reference see Goulet at *DPhA* 2.124). According to Von Arnim *RE* 3.602, it is likely, but not certain that the doxographical material attributed to him was derived from this work. Boethus the Peripatetic, also from Sidon, is dated to the end of the first cent. BCE, so is very likely too late for the *Placita* (though he is contemporary with Xenarchus, the latest philosopher to be cited). Boethus is only cited here in Book 2, but elsewhere also at A 1.7.16 and 3.2.7.

E Further Related Texts

a Proximate Tradition

General texts: Posidonius F 18 E.-K., 255 Theiler at Simp. in *Phys.* 291.26 (on astronomy compared to physics, see text cited on A 2.11) ἡ δὲ ἀστρολογία περὶ τοιούτου μὲν οὐδενὸς ἐπιχειρεῖ λέγειν, ἀποδείκνυσι δὲ τὴν τάξιν τῶν οὐρανίων κόσμον ὄντως ἀποφύνασα τὸν οὐρανόν, περὶ τε σχημάτων λέγει καὶ μεγεθῶν καὶ ἀποστημάτων γῆς τε καὶ ἡλίου καὶ σελήνης καὶ περὶ ἐκλείψεων καὶ συνάψεων τῶν ἄστρον καὶ περὶ τῆς ἐν ταῖς φοραῖς αὐτῶν ποιότητος καὶ ποσότητος. **Pliny** *Nat.* 2.83 *intervalla quoque siderum a terra multi indagare temptarunt, et solem abesse a luna undeviginti partes quantam lunam ipsam a terra prodiderunt. Pythagoras* (—) *vero, vir sagacis animi, a terra ad lunam CXXVI milia stadiorum esse collegit, ad solem ab ea duplum, inde ad duodecim signa triplicatum, in qua sententia et Gallus Sulpicius fuit noster ...* *Nat.* 2.85 *Posidonius* (F 120 E.-K., 297 Theiler) ... *a turbido ad lunam viciens centum milia stadiorum, inde ad solem quinquiens miliens ... inconperta haec et inextricabilia, sed prodenda quia sunt prodita ...* *Nat.* 2.87 *mirum quo precedat improbitas cordis humani parvulo aliquo invitata successu, sicut in supra dictis occasionem inprudenciae ratio largitur. ausique divinare solis ad terram spatia eadem ad*

caelum agunt, quoniam medius sol, ut protinus mundi quoque ipsius mensura veniat ad digitos. **Plutarch** *Fac.Lun.* 925A–D ἄλλ' ἥλιον μὲν ἀπλέτους μυριάδας ἀπέχειν τῆς ἄνω περιφορᾶς φατε ... καὶ φωσφόρον ἐπ' αὐτῷ καὶ στίλβοντα καὶ τοὺς ἄλλους πλάνητας ὑφιεμένους τε τῶν ἀπλανῶν καὶ πρὸς ἀλλήλους ἐν διαστάσεσι μεγάλαις φέρεσθαι, τοῖς δὲ βαρέσι καὶ γεώδεσιν οὐδεμίαν οἴεσθε τὸν κόσμον εὐρυχωρίαν παρέχειν ἐν ἑαυτῷ καὶ διάστασιν; ὁράτε ὅτι γελοῖόν ἐστιν, εἰ γῆν οὐ φήσομεν εἶναι τὴν σελήνην, ὅτι τῆς κάτω χώρας ἀφέστηκεν, ἄστρον δὲ φήσομεν, ὁρῶντες ἀπωσμένην τῆς ἄνω περιφορᾶς μυριάσι σταδίω τσσαύταις ὥσπερ (εἰς) βυθόν τινα καταδεδουκυῖαν. τῶν μὲν γ' ἄστρον κατωτέρω τοσοῦτόν ἐστιν, ὅσον οὐκ ἂν τις εἴποι μέτρον, ἀλλ' ἐπιλείπουσιν ὑμᾶς τοὺς μαθηματικούς ἐκλογιζομένους οἱ ἀριθμοί, τῆς δὲ γῆς τρόπον τινὰ ψαύει καὶ περιφερομένη πλησίον, ἄρματος ὡς πὲρ χονοῖ ἑλίσσεται' φησὶν Ἐμπεδοκλῆς (31B46 DK) ... σκόπει δὲ τοὺς ἄλλους ἀφείς ἀπλανεῖς καὶ πλανήτας ἃ δεικνυσιν Ἀρίσταρχος ἐν τῷ Περὶ μεγεθῶν καὶ ἀποστημάτων ὅτι τὸ τοῦ ἡλίου ἀπόστημα τοῦ ἀποστήματος τῆς σελήνης ὁ ἀφέστηκεν ἡμῶν πλέον μὲν ἢ ὀκτωκαὶδεκαπλάσιον ἔλαττον δ' ἢ εἰκοσαπλάσιόν ἐστι. καίτοι ὁ τὴν σελήνην ἐπὶ μήκιστον αἶρων ἀπέχειν φησὶν ἡμῶν ἕξ καὶ πεντηκονταπλάσιον τῆς ἐκ τοῦ κέντρου τῆς γῆς. αὕτη δ' ἐστὶ τεσσάρων μυριάδων καὶ κατὰ τοὺς μέσως ἀναμετροῦντας· καὶ ἀπὸ ταύτης συλλογιζομένοις ἀπέχει ὁ ἥλιος τῆς σελήνης πλέον ἢ τετρακισχιλίας τριάκοντα μυριάδας· οὕτως ἀπώκισται τοῦ ἡλίου διὰ βάρους καὶ τοσοῦτο τῇ γῇ προσκεχώρηκε ... **Galen** *Cur.Rat.Ven.Sect.* 3, p. 11.256.11 K. (on the use of reason) ὥστε ἔρχεσθαι ποτε τὴν δεῖξιν αὐτῶν ἄχρι τῶν τοῖς ἰδιώταις ἀπίστων, ἡλίου καὶ σελήνης καὶ γῆς, οὐ μόνον τῶν μεγεθῶν, ἀλλὰ καὶ τῶν διαστημάτων τῆς γνώσεως ... **Inst.Log.** 12.2–3, p. 26.20–27.12 Kalbfleisch ἐν μὲν γὰρ τῷ ζητεῖν εἰ ὁρθῶς Ἐρατοσθένους (—) ἔδειξε τὸν μέγιστον ἐν τῇ γ(ῆ) κύκλον ἔχειν σταδίων) μυριάδ(ας) κε δισχίλια, ἡ ζήτησίς ἐστι τῆς τοῦ κύκλου πηλικότητος ἢ τοῦ μεγέθους ἢ τῆς ποσότητος ἢ ὅπως ἂν θέλης ὀνομάζειν μέγεθος δὲ καὶ ἡλίου (καὶ) σελήνης καὶ τῶν κατ' αὐτοὺς ἀποστημάτων ἐζήτηται καὶ δέδεικται τοῖς ἀστρονόμοις. **Hippolytus** *Ref.* 4.10.4 εἰ δὴ κατὰ τὸν Ἀρχιμήδην ἀπὸ τῆς ἐπιφανείας τῆς γῆς ἡ σελήνη ἀφέστηκε σταδίω μυριάδας φνδ', σταδίου δ', ῥάδιον τούτους τοὺς ἀριθμούς αὖξοντας κατὰ τὸ διπλάσιον καὶ τριπλάσιον, (ὡς ἀξιοὶ Πλάτων,) καὶ τὰ τῶν λοιπῶν εὐρεῖν διαστήματα, ὡς μίς μοῖρας λαμβανομένης τοῦ τῶν σταδίων ἀριθμοῦ οὗς ἡ σελήνη τῆς γῆς ἀφέστηκεν. **Calcidius** *in Tim.* c. 96 Waszink *sectioni quoque partium ex quibus animam constituit positio planetum conveniens videtur, cum unam ab universo facit sumptam primitus portionem, id est minimam, a terra ad lunam; cuius duplicem secundam, id est quae inter lunam solemque interiacet ...* **Macrobius** *in Somn.* 2.3.13 et **Archimedes** *quidem stadiorum numerum deprehendisse se credidit quibus a terrae superficie luna distaret et a luna Mercurius, a Mercurio Venus, sol a Venere, Mars a sole, a Marte Iuppiter, Saturnus a Iove; sed et a Saturni orbe usque ad ipsum stelliferum caelum omne spatium se ratione mensum putavit. quae tamen Archimedis dimensio a Platonis repudiata est, quasi dupla et tripla intervalla non servans; et statuerunt hoc esse credendum, ut quantum est a terra usque ad lunam, duplum sit a terra usque ad solem ... hanc Platonis persuasionem Porphyrius (fr. 72 Sodano) libris inseruit quibus Timaeus obscuritatibus non nihil lucis infudit ...*

Chapter heading: cf. *Isagoga bis excerpta* 19 cited above under *Testes secundi*.

Quaestiones-exempla physica (cf. A 1.procēm. §3): **Strabo** 2.5.2 τούτοις δὲ πιστεῦσαντες ἢ πᾶσιν ἢ τισὶν οἱ ἀστρονομικοὶ τὰ ἐξῆς πραγματεύονται, ... καὶ ἀποστάσεις (fuller text at ch. 2.21). **Lucian** *Paras.* 11 ὁ ... ζητῶν περὶ σχήματος γῆς ... καὶ ἀποστημάτων (fuller text at ch. 2.21). **Quintilian** *Inst.* 2.17.38 *nec qui intervalla siderum ... colligunt* (fuller text at A 1.procēm. §3). **Augustine** *Conf.* 10.16.25 *neque enim nunc scrutamur plagas caeli aut siderum intervalla dimentimus vel terrae libramenta quaerimus*.

§1 **Empedocles**: cf. **Hippolytus**, **Calcidius**, **Macrobius** cited above.

§3 **Eratosthenes**: cf. **Plutarch** *Fac.Lun.* 925D and **Galen** *Inst.Log.* 12.2–3 cited above.

b Sources and Other Parallel Texts

General texts: **Aristotle** *Cael.* 2.10 291a29–32 περὶ δὲ τάξεως αὐτῶν (sc. τῶν ἄστρον) ὃν μὲν τρόπον ἕκαστον κεῖται (v.l. κινεῖται) τῷ τὰ μὲν εἶναι πρότερα τὰ δ' ὕστερα, καὶ πῶς ἔχει πρὸς ἄλληλα τοῖς ἀποστήμασιν, ἐκ τῶν περὶ ἀστρολογίαν θεωρεῖσθαι λέγεται γὰρ ἰκανῶς. cf. also 291b9–11 τὰ δὲ μεταξὺ κατὰ λόγον ἦδη τῆς ἀποστάσεως, ὥσπερ καὶ δεικνύουσιν οἱ μαθηματικοί. **Mete.** 1.8 345b1–5 εἰ καθάπερ δέικνυται νῦν ἐν τοῖς περὶ ἀστρολογίαν θεωρήμασιν, τὸ τοῦ ἡλίου μέγεθος μείζον ἐστὶν ἢ τὸ τῆς γῆς καὶ τὸ διάστημα πολλαπλασίως μείζον τὸ τῶν ἄστρον πρὸς τὴν γῆν ἢ τὸ τοῦ ἡλίου, καθάπερ τὸ τοῦ ἡλίου πρὸς τὴν γῆν ἢ τὸ τῆς σελήνης. **Eudemus** at **Simp.** in *Cael.* 471.2–11 (on the text cited above) καὶ γὰρ ἐκεῖ (sc. ἐν τῇ ἀστρολογίᾳ) περὶ τῆς τάξεως τῶν πλανωμένων καὶ περὶ μεγεθῶν καὶ ἀποστημάτων ἀποδέδεικται Ἀναξίμανδρου (12A19 DK) πρώτου τὸν περὶ μεγεθῶν καὶ ἀποστημάτων λόγον εὐρηκότος, ὡς Εὐδημος ἱστορεῖ (fr. 146 Wehrli) τὴν τῆς θέσεως τάξιν εἰς τοὺς Πυθαγορείους πρώτους ἀναφέρων. **Theon of Smyrna** *Exp.* 197.8–12 **Hiller** ἐπεὶ τοίνυν διὰ τῆς περὶ ἀποστημάτων καὶ μεγεθῶν πραγματείας ἡλίου καὶ σελήνης δείκνυσιν Ἰππαρχος τὸν μὲν ἥλιον σύνεγγυς χιλιοκτακοσιογδοηκονταπλασίονα τῆς γῆς, τὴν γῆν ἑπταεικοσαπλασίονα μάλιστα τῆς σελήνης ...

Chapter heading: **Eudemus** (fr. 146 Wehrli) at **Simp.** in *Cael.* 471.4–5 (on the heavenly bodies, cited above) περὶ μεγεθῶν καὶ ἀποστημάτων (twice). **Aristarchus** *Περὶ μεγεθῶν καὶ ἀποστημάτων ἡλίου καὶ σελήνης* (*Magn.*).

§2 **Mathematicians**: cf. **Aristarchus** *Magn.* prop. 7, pp. 352, 377 **Heath** ἐπιλογίζεται οὖν τὸ τοῦ ἡλίου ἀπόστημα ἀπὸ τῆς γῆς τοῦ τῆς σελήνης ἀποστήματος μείζον μὲν ἢ ὀκτωκαίδεκαπλάσιον, ἔλασσον δὲ ἢ εἰκοσαπλάσιον ... note that this work is referred to in **Plutarch** *Fac.Lun.* 925C cited above. also cited by **Pappus** *Syn.* 6, p. 556.26 **Hultsch**.

Liber 2 Caput 32

P^B: ps.Plutarchus *Plac.* 892B–C; pp. 363^a5–364^a7 Diels—**P^E**: Eusebius *PE* 15.54, p. 417.9–18 Mras—**P^G**: ps.Galenus *HPh* c. 73; pp. 628.23–629.3 Diels—**P^Q**: Qustā ibn Lūqā pp. 164–167 Daiber—**P^S**: Psellus *Omn.Doctr.* C. 137, p. 71 Westerink (titulus solus)
S: Stobaeus *Ecl.* 1.8, p. 93.15 (tit.) + 1.8.42, pp. 107.14–108.5 Wachsmuth
Cf. Ach: Achilles *Univ.* c. 18, p. 25.6–20; c. 19, p. 28.18–29.2 Di Maria

- Titulus* λβ'. Περὶ ἐνιαυτοῦ, πόσος ἐκάστου τῶν πλανητῶν χρόνος, καὶ τίς ὁ μέγας ἐνιαυτός (P,cf.S)
- §1 ἐνιαυτός ἐστὶ Κρόνου μὲν ἐνιαυτῶν περίοδος τριάκοντα, Διὸς δὲ δώδεκα, Ἄρεος δυεῖν, Ἥλιου δώδεκα μῆνες· οἱ δ' αὐτοὶ Ἑρμοῦ καὶ Ἀφροδίτης, ἰσόδρομοι γάρ· σελήνης ἡμέραι τριάκοντα· οὗτος γὰρ ὁ τέλειος μὴν ἀπὸ φάσεως εἰς σύνοδον. (P1,S1) 5
- §2 γίνεσθαι δὲ τὸν λεγόμενον μέγαν ἐνιαυτόν, ὅταν ἐπὶ τοὺς (αὐτοὺς) ἀφ' ὧν ἤρξαντο τῆς κινήσεως ἀφίκωνται τόπους. (S2)
- §3 τὸν δέ γε μέγαν ἐνιαυτόν οἱ μὲν ἐν τῇ ὀκταετηρίδι τίθενται, (P2,S3)
- §4 οἱ δ' ἐν τῇ ἐννεακαίδεκαετηρίδι, (P3,S4) 10
- §5 οἱ δ' ἐν τοῖς τετραπλασίοις ἔτεσιν, (S5)
- §6 οἱ δ' ἐν τοῖς ἐξήκοντα ἐνὸς δέουσιν, ἐν οἷς Οἰνοπίδης καὶ Πυθαγόρας· (P4,S6)
- §7 οἱ δ' ἐν τῇ λεγομένῃ κεφαλῇ τοῦ χρόνου, αὕτη δ' ἐστὶ τῶν ἐπτὰ πλανητῶν ἐπὶ ταύτῃ ἡμέρᾳ τῆς ἐξ ἀρχῆς φορᾶς ἐπάνοδος. (S7) 15

§6 Oenopides 41.9 DK; Pythagoras —

titulus Περὶ ἐνιαυτοῦ **P^BE** : Περὶ ἐνιαυτῶν **P^GQ** || πόσος ... ἐνιαυτός **P^{B(L11)}** : πόσος ἐκάστου τῶν πλανωμένων ὁ μέγας ἐνιαυτός **P^{B(L11)}**, om. **P^EG** : *Über die Jahre, wie lange die Zeit jedes einzelnen von den Planeten währt und was das ganz große Jahr ist* **Q** : πόσος ἐκάστου τῶν πλανήτων ὁ χρόνος τῆς περιόδου **P^S** : cf. **S** Περὶ χρόνου οὐσίας (cf. 1.22) καὶ μερῶν (—) καὶ πόσων εἴη αἵτιος §1 [3] μὲν hab. post ἐνιαυτός **P^G** || ἐνιαυτῶν περίοδος] ἐτῶν **P^G** || δὲ **P^B** : om. **P^GS** || [4] δυεῖν] δέκα πέντε μηνῶν **P^G** || [4–5] Ἥλιου ... γάρ] om. **P^G** || [5] post σελήνης add. δὲ **P^E** || [5–6] οὗτος ... σύνοδον] al. **P^G** τοσοῦτος γὰρ ὁ τέλειος || [6] φάσεως **P^{B(L11)E1Q}** **S** : φάνσεως **P^{B(L11)E2}** : φάσσεως **P^{B(L11)E3}** §2 non hab. **P** || [7] (αὐτοὺς) add Canter Diels Wachsmuth §3 [9] γε **S** : om. **P** || ἐν τῇ ὀκταετηρίδι] ὀκταετηρίδα **P^G**, cf. *setzen die einen auf 8 Jahre fest* **Q** §4 [10] ἐν τῇ ἐννεακαίδεκαετηρίδι] ἐννεακαίδεκαετηρίδα **P^G**, cf. *auf 19 Jahre fest* **Q** §5 non hab. **P** §6 [12] ἐνὸς δέουσιν **P^BEQ** : om. **S**, add. Heeren Wachsmuth || ἐν οἷς ... Πυθαγόρας **S** : om. **P** §7 non hab. **P** || [14] χρόνου coni. Taylor prob. Bodnár : Κρόνου **S** Diels *DG* Wachsmuth, κόσμου Kroll, prob. Diels *VS*² **DK** || [15] ταύτῃ corr. Heeren Diels Wachsmuth : ταύτας **S** || ἀρχῆς coni. Taylor prob. Bodnár : ἀρκτου **S**

- §8 Ἡράκλειτος ἐκ μυρίων ὀκτακισχιλίων ἡλιακῶν. (P5,S8)
 §9 Διογένης ὁ Στωϊκὸς ἐκ πέντε καὶ ἐξήκοντα καὶ τριακοσίων ἐνιαυτῶν
 τοσούτων ὅσος ἦν ὁ καθ' Ἡράκλειτον ἐνιαυτός. (P6,S9)
 §10 ἄλλοι δὲ δι' ἑπτακισχιλίων ἑπτακοσίων ἐβδομήκοντα ἐπτά. (P7)

§8 Heraclitus 22A13 DK; §9 Diogenes Babylonius SVF fr. 28

§8 [16] ὀκτακισχιλίων PS Diels DG DK : ὀκτακοσίων coni. Diels VS¹ Tannery secutus, prob. Marcovich Mouraviev || ante ἡλιακῶν add. P^G ἐνιαυτῶν §9 [17] ὁ Στωϊκὸς S : om. P || [17–§10[19]] καὶ¹ ... ἐβδομήκοντα om. P^G (lac. pos. Diels) || [17] ἐνιαυτῶν] ἐτῶν P^{B(11)} || [18] ὅσος ἦν S : ὅσων P §10 [19] ἄλλοι ... ἐπτά P^{BQ} : lemma deest in P^{ES} (P^G vid. supra ad §9)

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 73 Περί ἐνιαυτοῦ (text Diels)

- 73.1 (~ P1) ἐνιαυτὸς μὲν (Κρόνου) ἐστὶν ἐτῶν τριάκοντα, Διὸς δώδεκα, Ἄρεος δέκα πέντε μηνῶν· σελήνης ἡμέραι τριάκοντα· τοσούτος γὰρ ὁ τέλειος.
 73.2 (~ P2) τὸν δὲ μέγαν ἐνιαυτὸν οἱ μὲν ὀκταετηρίδα τίθενται,
 73.3 (~ P3) οἱ δὲ ἐννεακαίδεκαετηρίδα.
 73.4 (~ P4) ἔτεροι δὲ ἐν τοῖς ἐξήκοντα ἐνὸς (δέουσιν).
 73.5 (~ P5) Ἡράκλειτος ἐκ μυρίων ὀκτακισχιλίων ἐνιαυτῶν ἡλιακῶν.
 73.6 (~ P6) Διογένης ἐκ πέντε καὶ * * * ἐπτά.

Psellus Omn.Doctr. c. 137 Πόσος ἐκάστῳ τῶν πλανήτων ὁ χρόνος τῆς περιόδου (~ tit.)

Testes secundi:

Achilles Univ. c. 18, p. 25.6–7 Τίς ὁ καλούμενος μέγας ἐνιαυτός, καὶ ἐν πόσοις χρόνοις ἕκαστος τῶν πλανήτων ἀποκαθίσταται (~ tit.)

p. 25.8–20 πάλιν ὁ πρῶτος, ὁ τοῦ Κρόνου, ἀστὴρ παραγίνεται ἀπὸ ζῳδίου ἐπὶ ζῳδίου παχυμερῶς μὲν καὶ πλατυκῶς ἔτεσι τριάκοντα, ἀπὸ δὲ σημείου ἐπὶ σημείον ἀποκαθίσταται ἐν ἐτῶν μυριάσι τριακονταπέντε καὶ ἔτεσιν ἑξακοσίοις τριακονταπέντε. οὗτος δὲ ἐστὶν ὁ καλούμενος μέγας ἐνιαυτός. ὁ δὲ τοῦ Διὸς ἀστὴρ, ὁ δεύτερος, παραγίνεται ἀπὸ ζῳδίου ἐπὶ ζῳδίου πλατυκῶς καὶ παχυμερῶς ἔτεσιν δυοκαίδεκα, ἀπὸ δὲ σημείου ἐπὶ σημείον ἀποκαθίσταται ἐν μυριάσιν ἐτῶν δεκαεπτά καὶ ἔτεσι χκ'. ὁ δὲ τοῦ Ἄρεος περιέρχεται ἀπὸ ζῳδίου ἐπὶ ζῳδίου δι' ἐτῶν δύο καὶ ἀπὸ σημείου ἐπὶ σημείον ἐν μυριάσιν ἐτῶν δυοκαίδεκα. ὁ δὲ τῆς σελήνης περιέρχεται ἀπὸ ζῳδίου ἐπὶ ζῳδίου κατὰ μῆνα ἕκαστον, ὁ δὲ ἥλιος ἐν τξε' ἡμέραις καὶ λεπτῷ, ὃς δὴ χρόνος καλεῖται ἐνιαυτὸς ἡλιακός. ὁμοίως δὲ καὶ ὁ τῆς Ἀφροδίτης καὶ (ὁ) τοῦ Ἑρμοῦ τῷ ἡλίῳ δι' ἐνιαυτοῦ ἀπὸ ζῳδίου ἐπὶ ζῳδίου παραγίνονται· σχεδὸν γὰρ ἰσοταχεῖς εἰσιν. §19, p. 28.18–29.2 λέγεται δὲ ἐνιαυτός ἡ ἀπὸ ζῳδίου ἐπὶ ζῳδίου ἀποκατάστασις αὐτοῦ ἐν ἡμέραις τξε' καὶ ἐλαχίστῳ μορίῳ. ἀπὸ δὲ σημείου ἐπὶ σημείον ἀποκαθίσταται ἐν ὀκταετηρίδι (ὡς λέγει Εὐδόξος (F 132 Lasserre) ἐν τῇ Ὀκταετηρίδι) (εἶγε γνήσιόν ἐστι τὸ σύγγραμμα· Ἑρατοσθένους γὰρ ἀντέγραψεν δεικνύς, ὡς οὐκ εἶη Εὐδόξου), κατὰ δὲ τινὰς ἐν (ἐξ καὶ)

έβδομήκοντα ἔτεσιν (ἥς δόξης ἐστὶ καὶ Κάλλιππος), κατὰ δὲ Μέτωνα δι' ἑννεα-
καιδεκαετηρίδος. ταύτη κατηκολούθησεν Ἄρατος· φησὶ γάρ ...

Loci Aetiani:

§1 A 1.9.1 ὕλη ἐστὶ ... A 1.10.1 ἰδέα ἐστὶν ... A 1.11.1 αἰτίον ἐστὶ ... ἀρκεῖ γὰρ ὑπο-
γραφικῶς. A 1.12.1 σῶμά ἐστι ... ἦ ... ἦ ... A 1.14.1 σχήμα ἐστὶν ... A1.15.1 χρώμα
ἐστὶ ... A 1.23.1 ... κίνησίς ἐστι διαφορὰ τις ἢ ἑτερότης ἐν ὕλῃ, ἣ ἔστιν ὕλη. οὗτος
πάσης κινήσεως κοινὸς ὅρος. A 3.1.1 (γαλαξίος) κύκλος ἐστὶ ... cf. A 2.15.4–5
Πλάτων μετὰ τὴν τῶν ἀπλανῶν θέσιν πρῶτον φαίνοντα λεγόμενον τὸν τοῦ Κρό-
νου, δεῦτερον φαέθοντα τὸν τοῦ Διός, τρίτον πυρόεντα τὸν τοῦ Ἄρεος, τέταρτον
ἑωσφόρον τὸν τῆς Ἄφροδίτης, πέμπτον στίλβοντα τὸν τοῦ Ἑρμοῦ, ἕκτον ἥλιον,
ἑβδομον σελήνην. τῶν μαθηματικῶν τινὲς μὲν ὡς Πλάτων, τινὲς δὲ μέσον πάντων
τὸν ἥλιον.

§6 cf. A 2.12.2 Πυθαγόρας πρῶτος ἐπινοηκέναι λέγεται τὴν λόξωσιν τοῦ ζῳδιακοῦ
κύκλου, ἦντινα Οἰνοπίδης ὁ Χίος ὡς ἰδίαν ἐπίνοιαν σφετερίζεται.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The final chapter of Book 2 leaves the subject of the moon and returns to the heavenly bodies as a group (cf. ch. 2.13–19). After the (for us) pleasant interlude of ch. 2.28–31, when S writes out A's chapters in full, we must return to our usual practice of commencing with the tradition of P.

(1) The Byzantine mss. preserve seven doxai (if name-labels separated by μέν ... δέ are separately counted). E omits the final anonymous doxa, but it is retained in G and Q (G's text is damaged towards the end, but the word ἐπτά indicates that his text originally contained it). Psellus adapts the title heading. His list of the length of the planetary revolutions is parallel to what is found in P, but not dependent on it for any of the details.

(2) S makes use of this chapter in his source in a quite different place than the other chapters on the heavenly bodies, namely in the early ch. 8 Περί χρόνου οὐσίας καὶ μερῶν καὶ πόσων εἴη αἴτιος. In this chapter, after various poetical quotes and apophthegmata, he quotes material from chs. 1.21–22 and 3.8, interspersed with copious excerpts from AD. He then appears to write out the contents of ch. 2.32 almost in full, just like later he was to do with chs. 2.28–31. Certainly all the material in the tradition of P can be located in his extract except the final anonymous doxa. His evidence also reveals three additional doxai and some expanded name-labels. The order of the material in both P and

S is the same, which encourages the conclusion that in S we have the chapter complete except the final doxa.

(3) There is again no trace of this chapter in T.

B Proximate Tradition and Sources

(1) *Proximate tradition.* Cicero calls the theme of the Great year a *magna quaestio* at ND 2.51 and goes on to list the lengths of the revolutions of the planets, but he does not provide any doxographical information for either subject (apparently he expanded on it the question of the great year in his lost *Hortensius*; a text in Servius records the numbers 12,454 and 12,954). Material parallel to A is found compactly presented in Ach (in the second of the two pages cited above), but above all in a most extensive account in the third century Roman writer Censorinus, a crucial passage which gives us a unique insight into some of the riches of the doxographical tradition that have not come down to us. We study these texts in more detail below in section D(e) and cited them in section E(a).

(2) *Sources.* There is a good deal of evidence to show that early Greek philosophers and scientists, no doubt borrowing from Babylonian predecessors, were not only acquainted with the length of the planetary years (which was uncontroversial and recorded in numerous texts), but were also preoccupied with the length of two more complex years, the luni-solar year and the so-called 'Great year' encompassing the revolutions of all seven planets. The earliest evidence relates to Heraclitus in our chapter and has been linked to his interest in the regularity of natural processes, e.g. in a Great winter and a great Summer presumably related to the Flood and the Fire, on which see below; cf. Marcovich (2001a) 347–349. The evidence of Oenopides and Philolaus points to the calculation of the luni-solar year, on which see Huffman (1993) 277–279. Democritus wrote a treatise entitled 'Great year', also called 'Astronomy' (D.L. 9.48), from which we may deduce that he discussed a Great year as part of his treatment of astronomy. Plato famously mentions the Great year at *Tim.* 39d, calling it the 'perfect year' but giving no indication of its length.

Both ancient sources and modern scholars have frequently linked the question of the great year to various other themes, e.g. the reincarnation of the soul (Empedocles), periodic natural disasters (cf. Aristotle's comment at *Mete.* 1.14), the periodic conflagration of the universe (esp. the Stoa), the theory of eternal cyclical return (mentioned by Origen *Cels.* 5.20–21 in relation to the Christian doctrine of ἀποκατάστασις), and so on. None of these related themes are explicitly mentioned in A's chapter (and we shall not discuss them in any further detail). He confines himself to the astronomical facts (and speculations).

Many ancient texts combine information about the length of the planetary revolutions and the much longer period of the Great year, a practice that goes back at least to Plato *Tim.* 39c–d. In addition, numerous texts record a diversity of computations for the Great year. For very full lists see Adam's note on *Resp.* 546b (1902, 2.302–305), Pease's note on Cic. *ND* 2.52, Rocca-Serra (1980) 61–64, Sallmann (1983) 39–44. We cite a generous selection of these texts below.

C Chapter Heading

P^B has a lengthy chapter heading consisting of three parts, which must have also been present in Q's exemplar. E and G just take over the first part, using the umbrella formula Περὶ x, with P^B and E having the singular ἐνιαυτοῦ (Mras emends) and G and Q the plural ἐνιαυτῶν. Both are possible (S cannot help us, for he preserves only the single adapted word πόσων in his composite title for *Ecl.* 1.8). The early witness E tips the balance. But should the longer heading in P^B be retained? It could have been deduced from the contents of the chapter. But it is possible that the word πόσων in S's chapter heading is a pointer to the heading that he had before him (cf. P^BQ πόσος). It is thus justified to retain the longer heading. As in the previous chapter the term πόσος indicates that the question is in the category of quantity.

D Analysis

a Context

The chapter returns to a treatment of all the planets, which had earlier been discussed in chs. 2.13–19. Since time, or at least its measurement, was commonly regarded as resulting from planetary movement (cf. various doxai in chs. 1.21–22 and Plato's classic treatment in the *Timaeus*, where the genesis of time is described in 38b–39e after the creation of the heavenly bodies in 36d–38b), and since moreover the yearly revolution of the sun and the monthly revolution of the moon play a key role in the measurement of time, it was logical to place the discussion of cosmic time after the treatment of these two bodies. In addition, the subject of the Great year involves the combined movement of all the planets, so forms a fitting climax for the treatment of cosmology in Book 2.

b Number–Order of Lemmata

As argued above, the chapter is most likely complete if the final lemma in P is added to the sequence of doxai in S. There is also no conflict between the two witnesses on the order of the doxai. It is possible that the introductory lemma on the Great year (S₂), which is missing in P, was added from elsewhere. This is argued by Bottler (2014) 488, who notes the interposition of *oratio obliqua*

in between two passages of *oratio recta* and the repetition of the term ὁ μέγας ἐνιαυτός in §2 and §3. She argues that it derives from another source such as AD or another place in A. However, without it the concept of the Great year is not explained. The philological argument is far from compelling. Changes between *oratio recta* and *oratio obliqua* and vice-versa are common in the *Placita*. A good parallel is located at A 2.12.2, where the doxa with name-labels is in *oratio obliqua* and the explanation of the heavenly circles in *oratio recta*. In fact, in the present chapter the first two doxai, as we shall soon see, are best seen as nominal definitions. The lemma must be retained in our reconstruction.

c Rationale–Structure of Chapter

The chapter opens with a straightforward listing of the planetary ‘years’, which are taken to be the time of their revolution around the earth in the geocentric standard model of ancient astronomy. It is presented in the indicative without any name-labels. This is best taken as a nominal definition, i.e. preliminary to the discussion. But in this case there is no discussion because the contents were universally acknowledged and there are no alternative views (*pace* G, who gives 15 months for Mars). The numbers are presented in round figures (30 years, 12 years, 2 years, 12 months, 30 days) with symmetrical neatness very typical of our author. A month for the moon is taken to be equivalent to a year for the sun, i.e. a complete revolution.

The remainder of the chapter treats the ‘Great year’. It is first explained in a second nominal definition (though this time in *oratio obliqua*). It too is generally accepted, but it will emerge that it is in fact deficient because it fails to distinguish sufficiently clearly between two kinds of ‘Great year’: (a) the shorter luni-solar year which measures the perfect conjunction between solar and lunar cycles (§§3–6); and (b) the much longer ‘Great year’ which calculates the conjunction between the revolutions of all seven planets (§§7–10). In contrast to Censorinus (see below section D(e)), who distinguishes between an *annus magnus* and an *annus maximus*, A uses the term μέγας ἐνιαυτός for both. It might be argued, however, that the obscure statement in §7 is meant to mark the transition between the two kinds. of year.

The doxai in the first group refer to the luni-solar year and give the lengths of 8, 19, 76 and 59 years. For only the last doxa does A give name-labels, i.e. Oenopides and Pythagoras (only in S); on these see detailed comments below. The order is basically ascending in magnitude. 76 precedes 59 perhaps because of the neatness of it being exact four times the length of the preceding doxa, or because the last doxa is the only one with name-labels (although, as Ach and Censorinus show, these were readily available).

The next doxa (§7) is quite puzzling. Formally it seems to just continue the list of anonymous doxai, but its contents make clear that it actually introduces the final group of four doxai (§§7–10) which give views on the length of the ‘Greatest year’, i.e. the length of time it takes for all seven planets to line up in single plane. The expression ‘in the head of Kronos’ is highly obscure; see our further comment below. No figure is given in this doxa, but it is followed by three doxai with very large figures, the first two with name-labels, the final one anonymous. Here too the order is basically ascending, but the final number is less than the previous two.

The structure of the chapter can thus be summarized as follows. Its first part gives the length of planetary ‘years’ without any differences of opinion. Its second part divides into two. First various views on the length of the smaller ‘Great year’, i.e. the luni-solar year, are given. Secondly some opinions on the length of the ‘Great year proper’ are presented. The sequence of figures is basically ascending in length, but in both groups there is an exception. We shall see below in section D(e) that this manner of presenting figures in an ascending sequence is a standard doxographical technique. Both parts commence with a nominal definition.

d Further Comments

Individual Points

§1 There will have been numerous accounts of the length of the planetary years in all manner of handbooks. Below we cite passages from Cicero (drawing on such material), Geminus, Cleomedes and Theon of Smyrna. A uses the mythological names only, namely (apart from the sun and moon) Kronos, Zeus, Ares, Hermes and Aphrodite. These he had already introduced in ch. 2.15. The handbook accounts use both the mythological and the phenomenological names; see further our comments on A 2.15.4–5.

A’s use of the μέν ... δέ construction in §1 is difficult to reconstruct. P^B has Κρόνου μέν and Διὸς δέ, but P^G and S delete the δέ. It is best to retain it because otherwise the μέν remains without a pendant. The reading in G of ἐνιαυτός μέν ἐστὶ is attractive, because it suggests a pendant in the next doxa γίνεσθαι δέ ...

§6 The two name-labels are presented in a non-chronological order, Oenopides being generally dated to the fifth cent. BCE. The unexpected order can be taken to mean that this length of the Great year is above all associated with Oenopides (fifth cent. BCE), but that in fact he took the measurement from Pythagoras. One recalls A 2.12.2, where he is said to have plagiarized Pythagoras’ discovery of the Zodiac circle. See further Burkert (1972) 306, Bodnár (2008) 9–10. Censorinus, however, mentions only Philolaus.

§7 The manuscript reading Κρόνου is unlikely to be correct. There is most likely a link with Plato's description of the periods of time of the heavenly bodies at *Tim.* 39c–d, where κεφαλή may mean 'starting-point', as translated by Cicero, i.e. the aligned position of the planets as indicated by the place of Saturn. So we have overcome our hesitation in M–R 2.653 and now agree with Taylor (1928) 220 that it should be emended. The proposed emendation χρόνου is taken over (without acknowledgement) by Bodnár (2008) 26 (but the translation 'consummation of time' is less persuasive). The further expression 'return of the movement from the North' (τῆς ἐξ ἄρκτου φορᾶς ἐπάνοδος) in the mss. is altogether too obscure and Taylor's emendation ἐξ ἀρχῆς should be accepted.

§8 For various considerations that make it probable that Heraclitus' original number was 10,800, including the evidence of Censorinus, see the commentary of Marcovich (2001a) 347. But the mistake could have occurred already in the doxographical tradition. Mindful that we reconstructing A and not Heraclitus, however, we retain the mss. reading.

§10 For the number 7777, for which there is no close equivalent in Censorinus, one might compare the number 9977 in Sextus Empiricus (text below section E(a) §§7–10).

e Other Evidence

As noted above in section B, two passages in Ach cover similar ground to our chapter. The title of his ch. 18, Τίς ὁ καλούμενος μέγας ἐνιαυτός, καὶ ἐν πόσοις χρόνοις ἕκαστος τῶν πλανήτων ἀποκαθίσταται, is not dissimilar to that in P, with the two parts reversed. More detail is given than in A, but the figures for the solar revolutions are the same. The figure that he gives for the Great year of Saturn, 350,635 years, does not correspond with any figure in A (he also gives a figure for a 'Great year' of Jupiter, 170,620 years). In the following ch. 19 on the sun there is also a relevant section on its revolutions. Three views are given on the length of the luni-solar year, of which two are found in A (8, 76, 19 years). Differently from A, however, Ach supplies name-labels (Eudoxus, Callippus, Meton, followed by Aratus). Of these names the first and last appear in A at 2.19.3.

But by far the most interesting text for comparison with A is the massive doxographical account given by the third cent. rhetor Censorinus when congratulating his patron Caerilius on his 49th birthday in 238 CE. As noted above, in his account Censorinus makes a clear distinction between an *annus magnus*, i.e. 'solar year' (18.2), and an *annus maximus*, which is not only associated with the return of all the planetary bodies to the same point, but also with the life-cycle of the entire universe (18.11). We cite the complete text below in section E(a) §§2–10. In relation to A's chapter it can be summarized as follows (corresponding doxai in A are indicated in square brackets):

Doxa	Name-label	
18.2	annus magnus (cf. 18.11)	
18.2	διετηρίς/τριετηρίς (2–3)	ancient Greeks
18.3	τετραετηρίς/πενταετηρίς (4–5)	ancient Greeks
18.5	ὀκταετηρίς/ἐννεατηρίς (8) [2.32.3]	some say Eudoxus of Cnidus others Cleostratus of Tenedos then Harpalus, Nauteles, Menestratus others Dositheus
18.7	δωδεκαετηρίς (12)	Chaldeans
18.8	ἐννεαδωδεκαετηρίς (19) [2.32.4]	Meton
	59 years [2.32.6]	Philolaus the Pythagorean
	76 years [2.32.5]	Calippus of Cyzicus
	82 years	Democritus
18.9	204 years	Hipparchus
18.10	1461 years	Egyptian calendar
18.11	annus maximus	(Aristotle)
	2484 years	Aristarchus
	5552 years	Aretes of Dyrrachium
	10,800 [cf. 2.32.8]	Heraclitus and Linus
	10,884	Dion
	120,000	Orpheus
	3,600,000	Cassander
	infinite	others

Although the doxography is much fuller and more detailed, the structure is very similar to that of A. There is a long list of numbers ascending (more consistently than in A) from small to very large, with a main division made between the two types of Great year (only implicit in A). The parallels for the various 'luni-solar' years are striking. Like Ach Censorinus gives name-labels. A for whatever reason left most of them out. The only name-label held in common is Heraclitus. The confusion between the two figures 18,000 and 10,800 could easily occur. Both may well have a Babylonian origin, 5×3600 and 3×3600 , 3600 being a Babylonian sar; cf. Van der Waerden (1952) 142.

Diels in *DG* 186–199 devoted much attention to Censorinus' book in relation to significant doxographical parallels to A's books 4 and 5. But oddly he does not touch on this chapter. As Rocca-Serra (1980) ix notes, it is very likely that the material ultimately derives from the *Placita* tradition. The intermediary is

most likely to have been Varro, as elsewhere in Censorinus. A strong hint in this direction is given by the name Dion (of Naples), who elsewhere is only mentioned by Augustine *C.D.* 21.8 in a verbatim quote from Varro *De gente populi Romani* (Sallmann 1988, 129). A, Ach and Censorinus are drawing on a common fund of material going back at least to the early first cent. BCE or earlier, and in the case of A and Censorinus, using a similar method to organize and structure it.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *ND* 2.51 *maxume vero sunt admirabiles motus earum quinque stellarum quae falso vocantur errantes; nihil enim errat quod in omni aeternitate conservat progressus et regressus reliquosque motus constantis et ratos. quod eo est admirabilius in is stellis quas dicimus, quia tum occultantur tum rursus aperiuntur, tum adeunt tum recedunt, tum antecedunt tum autem subsequuntur, tum celerius moventur tum tardius, tum omnino ne moventur quidem sed ad quoddam tempus insistunt. quarum ex disparibus motionibus magnum annum mathematici nominaverunt, qui tum efficitur cum solis et lunae et quinque errantium ad eandem inter se comparisonem confectis omnium spatiis est facta conversio; quae quam longa sit magna quaestio est, esse vero certam et definitam necesse est* (continues below §1). Pliny *Nat.* 2.39 *ideo et peculiaris horum siderum ratio est neque communis cum supra dictis. nam ea et quarta parte caeli a sole abesse et tertia, et adversa soli saepe cernuntur, maioresque alios habent cuncta plenae conversionis ambitus in magni anni ratione dicendos.* Clement of Alexandria *Strom.* 6.140.2 (on the number eight) τὴν τε ὀγδοάδα κύβον καλοῦσι, μετὰ τῶν ἑπτὰ πλανωμένων τὴν ἀπλανῆ συγκαταριθμοῦντες σφαίραν, δι' ᾧ ὁ μέγας ἐνιαυτός γίνεται ὅλον περίοδός τις τῆς τῶν ἐπηγγελμένων ἀνταποδόσεως. Augustine *De Gen. ad litt. imperf. liber* 13, p. 487.17–18 *Zycha cum omnia sidera ad idem redierint, annus magnus peragitur, de quo multi multa dixerunt.*

Chapter heading: —

§1 *Revolutions of planets:* Cicero *ND* 2.52–53 (follows on from text cited above) *nam ea quae Saturni stella dicitur Φαίνωνque a Graecis nominatur, quae a terra abest plurimum, XXX fere annis cursum suum conficit, in quo cursu multa mirabiliter efficiens tum antecedendo tum retardando, tum vespertinis temporibus delitiscendo tum matutinis rursum se aperiendo nihil inmutat sempiternis saeculorum aetatibus quin eadem isdem temporibus efficiat. infra autem hanc propius a terra Iovis stella fertur, quae Φαέθων dicitur, eaque eundem duodecim signorum orbem annis duodecim conficit easdemque quas Saturni stella efficit in cursu varietates.* (53) *huic autem proximum inferiorem orbem tenet Πυρρόεις, quae stella Martis appellatur, eaque quattuor et viginti mensibus sex ut opinor diebus minus eundem lustrat orbem quem duae superiores. infra hanc autem stella Mercuri est (ea Στίλβων appellatur a Graecis), quae*

anno fere vertenti signiferum lustrat orbem neque a sole longius umquam unius signi intervallo discedit tum antevertens tum subsequens. infima est quinque errantium terraeque proxuma stella Veneris, quae Φωσφόρος Graece Lucifer Latine dicitur cum antegreditur solem, cum subsequitur autem Ἑσπερος; ea cursum anno conficit et latitudinem lustrans signiferi orbis et longitudinem, quod idem faciunt stellae superiores, neque umquam ab sole duorum signorum intervallo longius discedit tum antecedens tum subsequens. also Resp. 6.24 (Somnium Scipionis), Fin. 2.102. **Pliny** Nat. 2.31–39 nunc relicto mundi ipsius corpore reliqua inter caelum terrasque tractentur. summum esse quod vocant Saturni sidus ideoque minimum videri et maximo ambire circulo ac tricesimo anno ad brevissima sedis suae principia regredi certum est ... Saturni autem sidus gelidae ac rigentis esse naturae, multumque ex eo inferiorem Iovis circumulum et ideo motu celeriore duodenis circumagi annis. tertium Martis, quod quidam Herculis vocant, igne ardens solis vicinitate, binis fere annis converti, ideoque huius ardore nimio et rigore Saturni, interiectum ambobus, ex utroque temperari Iovem salutaremque fieri. deinde solis meatum esse partium quidem trecentarum sexaginta ... infra solem ambit ingens sidus appellatum Veneris, alterno meatu vagum ipsisque cognominibus aemulum solis ac lunae ... signiferi autem ambitum peragit trecentis et duodequinguenis diebus ... simili ratione, sed nequaquam magnitudine aut vi, proximum illi Mercurii sidus, a quibusdam appellatum Apollinis ... **Scholia in Basilium I** 14, p. 198.12–199.3 Pasquali πλανώμενοι ἀστέρες τὸν ἀριθμὸν εἰσὶν ζ', οὓς καὶ πλανήτας καλοῦσιν, ἐπειδὴ τὴν ἐναντίαν φέρονται τῷ παντὶ καὶ ἐν ἄλλοις ἄλλοτε τόποις ὀρώνται· ἐοίκασιν οὖν οὗτοι μόνου μὴ ἐμπεπῆχθαι τῷ οὐρανῷ (cf. ch. 2.14) καθάπερ οἱ ἀπλανεῖς λεγόμενοι. ἔστιν δὲ αὐτῶν τάξις τοιαύτη (cf. ch. 2.15) ... ἀποκαθίσταται δὲ ἡ σελήνη ἀπὸ <σημείου ἐπὶ> σημείου ἐν μηνὶ τὸν ἑαυτῆς δρόμον πληροῦσα· ὁ δὲ ἥλιος ἐν ἐνιαυτῷ· ὁ δὲ τῆς Ἀφροδίτης καὶ τοῦ Ἑρμοῦ ὁμοίως ἐν ἐνιαυτῷ· ἰσοταχεῖς γάρ εἰσιν οἱ τρεῖς· ὅθεν καὶ διὰ <φωνος αὐτῶν ἢ τάξεως>. **Isidore of Seville** Nat. 23 anni autem singularum stellarum hii sunt qui in sphaera subiecta continentur. quibus peractis ad reversionem circuli sui hisdem signis et partibus veniunt. nam luna octo annis fertur explere circulum suum; Mercurius annis XX; Lucifer annis VIII; sol annis XVIII; Vesper XV; Phaeton XII; Saturnus XXX.

§§2–10 **Great year.** Censorinus DN 18.1–15, pp. 39.17–45.12 Sallmann ... nunc de annis maioribus dicam, quorum magnitudo adeo diverse tam gentibus observata quam auctoribus tradita est, ut alii annum magnum esse in annis vertentibus duobus, alii in multis milibus annorum arbitrati sint. quod quale sit, iam hinc conabor absolvere. (2) veteres in Graecia civitates cum animadverterent, dum sol annuo cursu orbem suum circumit, lunam novam interdum <duodecies, interdum> tridecies exoriri idque saepe alternis fieri, arbitrati sunt lunares duodecim menses et dimidiatum ad annum naturalem convenire. itaque annos civiles sic statuerunt, ut intercalando facerent alternos duodecim mensum, alternos tredecim, utrumque annum separatim vertentem, iunctos ambo annum magnum vocantes. idque tempus τριετηρίδα appellabant, quod tertio quoque anno intercalabatur, quamvis biennii circuitus et re vera διετηρίς esset; unde

mysteria, quae Libero alternis fiunt annis, trieterica a poetis dicuntur. (3) postea cognito errore hoc tempus duplicarunt et τετραετηρίδα fecerunt. sed eam, quod quinto quoque anno redibat, πενταετηρίδα nominabant, qui annus magnus ex quadriennio commodior visus est, (cum cognitum esset) solis annum constare ex diebus CCCLXV et diei parte circiter quarta, quae I in quadriennium diem conficeret. (4) quare agon et in Elide Jovi Olympio et Romae Capitolino quinto quoque anno redeunte celebratur. hoc quoque tempus, quod ad solis modo cursum nec ad lunae congruere videbatur, duplicatum est et ὀκταετηρίς facta, quae tunc ἑννεατηρίς vocitata, quia primus eius annus nono quoque anno redibat. (5) hunc circuitum vere annum magnum esse pleraque Graecia existimavit, quod ex annis vertentibus solidis (et mensibus solidis) constaret, ut proprie in anno magno fieri par est. nam dies sunt soli (di IDCCCCXXII, menses solidi) uno minus centum, annique vertentes solidi octo. Hanc ὀκταετηρίδα vulgo creditum est ab Eudoxo Cnidio institutam, sed alii Cleostratum Tenedium (6B4 DK) primum ferunt conposuisse et postea alios aliter, qui mensibus varie intercalandis suas ὀκταετηρίδας protulerunt, ut fecit Harpalus, Nauteles, Menestratus, item alii, in quis Dositheus, cuius maxime ὀκταετηρίς Eudoxi inscribitur (fr. 131 Lasserre). (6) ob hoc in Graecia multae religiones hoc intervallo temporis summa caerimonia coluntur. Delphis quoque ludi, qui vocantur Pythia, post annum octavum olim conficiebantur. proxima est hanc magnitudinem quae vocatur δωδεκαετηρίς ex annis vertentibus duodecim. (7) huic anno Chaldaico nomen est, quem genethliaci non ad solis lunaeque cursus, sed ad observationes alias habent adcommodatam, quod in eo dicunt tempestates frugumque proventus ac sterilitates, item morbos salubritatesque circumire. (8) praeterea sunt anni magni conplures, ut Metonicus, quem Meton Atheniensis ex annis undeviginti constituit, eoque ἑννεαδεκαετηρίς appellatur et intercalatur septies, inque eo anno sunt dierum VIDCCCCXL. est et Philolai (44A22 DK) Pythagorici annus ex annis quinquaginta novem, in quo sunt menses intercalares viginti et unus; item Callippi Cyziceni ex annis septuaginta sex, ita ut menses duodetriginta intercalentur; et Democriti (fr. 423 Luria) ex annis LXXXII cum intercalaris perinde viginti octo; sed et Hipparchi ex annis CCCIII, in quo intercaletur centies decies bis. (9) haec annorum magnitudo eo discrepat, quod inter astrologos non convenit, quanto vel sol plus quam CCCLXV dies in anno conficiat, vel luna minus quam triginta in mense. (10) ad Aegyptiorum vero annum magnum luna non pertinet, quem Graeci κυνικόν, Latine canicularem vocamus, propterea quod initium illius sumitur, cum primo die eius mensis, quem vocant Aegyptii Θωυθί, caniculae sidus exoritur. nam eorum annus civilis solidus habet dies CCCLXV sine ullo intercalari. itaque quadriennium apud eos uno circiter die minus est, quam naturale quadriennium, eoque fit ut anno MCCCCLXI ad idem revolvatur principium. hic annus etiam ἡλιακός a quibusdam dicitur, et ab aliis θεοῦ ἑνιαυτός. (11) est praeterea annus, quem Aristoteles (Protr. fr. 19 Ross) maximum potius, quam magnum appellat, quem solis et lunae vagarumque quinque stellarum orbis conficiunt, cum ad idem signum, ubi quondam simul fuerunt, una referuntur. cuius anni hiemps summa est κατακλυσμός, quam nostri diluvionem vocant, aes-

*tas autem ἐκπύρωσις, quod est mundi incendium: nam his alternis temporibus mundus tum exignescere tum exauescere videtur. hunc Aristarchus putavit esse annorum vertentium $\overline{\text{IICCCCLXXXIII}}$, Aretes Dyrrachinus $\overline{\text{VDLII}}$, Herac- litus et Linus $\overline{\text{XDCCC}}$, Dion $\overline{\text{XDCCCLXXXIII}}$, Orpheus $\overline{\text{CXX}}$, Cassandrus tricies sexies centum milium; alii vero infinitum esse nec umquam in se reverti existi- marunt ... (15) quod ad annos pertinet magnos, in praesentia satis dictum: nunc de annis vertentibus dicendi locus. cf. Servius auctus in *Aen.* 1.269, p. 99.16–19 Thilo-Hagen *tria sunt genera annorum: aut enim lunaris annus est $\overline{\text{XXX}}$ dierum, aut solstitialis $\overline{\text{XII}}$ mensum, aut secundum Tullium magnus, qui tenet $\overline{\text{XIICCCCLIIII}}$ annos, ut in Hortensio (fr. 67 Ruch) horum annorum quos in fas- tis habemus magnus $\overline{\text{XIIDCCCLIIII}}$ amplectitur. cf. Ioannes Lydus *Mens.* 3.16 (three kinds of τελεία περίοδος).**

§2 Lucretius *DRN* 1.1027–1030 (atoms forming world) *tandem deveniunt in talis disposituras, / qualibus haec rerum consistit summa creata, / et multos etiam magnos servata per annos / ut semel in motus coniectast convenientis ...* cf. *DRN* 5.644 (on the heavenly bodies) *quae volunt magnos in magnis orbibus annos.*

§3 Diogenes Laertius *VP.* 8.87 (on Eudoxus, F 130 Lasserre) τὴν Ὀκτα- ετηρίδα κατὰ τινὰς συγγράψαι. *Suda* s.v. E 3429, p. 2.445.26–29 Adler Εὐδο- ξος (fr. 129 Lasserre), Αἰσχίνου, Κνίδιος, φιλόσοφος, Πλάτωνος ἡλικιώτης ᾧ τρεῖς ἐγένοντο θυγατέρες, Ἀκτίς, Δελφίς, Φιλίτις. καὶ ἔσχε πρὸς ἀστρολογίαν ὑπερφυῶς ἔγραψέ τε πλείστα τοῦ εἰδους τούτου· καὶ Ὀκταετηρίδα, ἔτι δὲ δι' ἐπὼν Ἀστρονο- μίαν. also K 2454 s.v. Κρίτων.

§§7–10 *Great(est) year*: cf. Cicero *ND* 2.51 cited above; see also Tacitus *Dial.* 16.7 *nam si, ut Cicero in Hortensio (fr. 80 Grilli) scribit, is est magnus et verus annus, quo eadem positio caeli siderumque, quae cum maxime est, rursum existet, isque annus horum quos nos vocamus annorum duodecim milia nongentos quinquaginta quattuor complectitur ...* Servius auctus cited above under General texts §§2–10. Arius Didymus fr. 37 Diels at Eus. *PE* 15.19 (on the Stoics, *SVF* 2.699) ἐπὶ τοσοῦτον δὲ προελθὼν ὁ κοινὸς λόγος καὶ κοινὴ φύσις μείζων καὶ πλείων γενομένη τέλος ἀναξηράνασα πάντα καὶ εἰς ἑαυτὴν ἀναλαβοῦσα ἐν τῇ πάσῃ οὐσίᾳ γίνεται, ἐπανελθοῦσα εἰς τὸν πρῶτον ῥηθέντα λόγον καὶ εἰς τὴν ἀνάστασιν ἐκέλην τὴν ποιοῦσαν ἐνιαυτὸν τὸν μέγιστον, καθ' ὃν ἀπ' αὐτῆς μόνῃς εἰς αὐτὴν πάλιν γίνεται ἡ ἀποκατάστασις. Sextus Empiricus *M.* 5.105 ἐπεὶ οὖν ὁ αὐτὸς τῶν ἀστέρων σχηματισμὸς διὰ μακρῶν, ὥς φασι, χρόνων θεωρεῖται, ἀπο- καταστάσεως γινομένης τοῦ μεγάλου ἐνιαυτοῦ δι' ἐννεακισχιλίων ἐννακοσίων καὶ ἑβδομήκοντα καὶ ἑπτὰ ἐτῶν, οὐ φθάσει ἀνθρωπίνῃ τήρησις τοῖς τοσοῦτοις αἰώσι συνδραμεῖν ἐπὶ μιᾷς γενέσεως ... Macrobius in *Somn.* 2.11.11 *hoc* (sc. end of the cosmic year) *autem, ut physici volunt, post annorum quindecim milia peracta contingit. ergo sicut annus lunae mensis est et annus solis duodecim menses, et aliarum stellarum hi sunt anni quos supra rettulimus, ita mundanum annum quindecim milia annorum quales nunc computamus efficiunt.*

b Sources and Other Parallel Texts

General texts: *Aratus Phaen.* 454–459 οἱ δ' ἐπιμῖξ ἄλλοι πέντ' ἀστέρες οὐδὲν ὁμοιοί / πάντοθεν εἰδῶλων δυοκαίδεκα δινεύονται. / οὐκ ἂν ἔτ' εἰς ἄλλους ὁρώων ἐπιτεκμήριοι / κείνων ἤχι κέονται, ἐπεὶ πάντες μετανάσται. / μακροὶ δὲ σφεῶν εἰσιν ἔλισσομένων ἐνιαυτοί, / μακρὰ δὲ σήματα κείται ἀπόπροθεν εἰς ἔν ἰόντων. *Cicero Arat.* 230–233 *sic malunt errare uagae per nubila caeli / atque suos uario motu metirier orbes. / haec faciunt magnos longinqui temporis annos, / cum redeunt ad idem caeli sub tegmine signum.*

Chapter heading: cf. *Democritus* at D.L. 9.48 (68A33 DK) Μέγας ἐνιαυτὸς ἡ Ἀστρονομία, παρὰ πηγμῃ. *Aelian VH* 10.7 cited below on §4.

§1 *Revolutions of planets:* ps.*Aristotle Mu.* 6 399a6–11 σελήνη μὲν γὰρ ἐν μηνί τὸν ἑαυτῆς διαπεραίνεται κύκλον αὐξομένην τε καὶ μειομένην καὶ φθίνουσα, ἥλιος δὲ ἐν ἐνιαυτῷ καὶ οἱ τούτου ἰσόδρομοι, ὃ τε Φωσφόρος καὶ ὁ Ἑρμοῦ λεγόμενος, ὁ δὲ Πυρρόεις ἐν διπλασίονι τούτων χρόνῳ, ὁ δὲ Διὸς ἐν ἑξαπλασίονι τούτου, καὶ τελευταῖος ὁ Κρόνου λεγόμενος ἐν διπλασίονι καὶ ἡμίσει τοῦ ὑποκάτω. *Geminus Elem.* 1.24–30, p. 6 Aujac ὑπὸ δὲ τὴν τῶν ἀπλανῶν ἀστέρων σφαῖραν κεῖται Φαίνων, ὁ τοῦ Κρόνου προσαγορευόμενος ἀστήρ· οὗτος τὸν μὲν ζωδιακὸν κύκλον ἐν ἔτεσι λ' ὡς ἔγγιστα διαπορεύεται, τὸ δὲ ἐν ζῳδίῳ ἐν β' ἔτεσι καὶ 5' μηνί. (25) ὑπὸ δὲ τὸν Φαίνοντα κατώτερον αὐτοῦ φέρεται Φαέθων, ὁ τοῦ Διὸς προσαγορευόμενος ἀστήρ· οὗτος δὲ τὸν μὲν ζωδιακὸν κύκλον διαπορεύεται ἐν ιβ' ἔτεσι, τὸ δὲ ἐν ζῳδίῳ ἐν ἐνιαυτῷ. (26) ὑπὸ δὲ τοῦτον τέτακται Πυρρόεις ὁ τοῦ Ἄρεος· οὗτος δὲ τὸν μὲν ζωδιακὸν κύκλον διέρχεται ἐν δυσὶν ἔτεσι καὶ ἑξαμήνῳ, τὸ δὲ ζῳδίῳ ἐν δυσὶ μηνί καὶ ἡμίσει. (27) τὴν δὲ ἐχομένην χώραν κατέχει ὁ ἥλιος, ἐνιαυτῷ διαπορευόμενος τὸν ζωδιακὸν κύκλον, τὸ δὲ ζῳδίῳ ὡς ἔγγιστα ἐνὶ μηνί. (28) κατώτερος δὲ τούτου κεῖται Φωσφόρος, ὁ τῆς Ἀφροδίτης ἀστήρ· οὗτος δὲ ὡς ἔγγιστα ἰσοσταχῶς κινεῖται τῷ ἡλίῳ. (29) Ὑπὸ τοῦτον δὲ (Στίλβων) ὁ τοῦ Ἑρμοῦ ἀστήρ κεῖται, καὶ αὐτὸς δὲ ἰσοσταχῶς τῷ ἡλίῳ κινεῖται. (30) κατώτερω δὲ πάντων φέρεται ἡ σελήνη, ἐν ἡμέραις κζ' γ' διαπορευομένη τὸν ζωδιακὸν κύκλον, τὸ δὲ ζῳδίῳ ἐν ἡμέραις β' καὶ 8^ο μέρει τῆς μιᾶς ἡμέρας ὡς ἔγγιστα. *Cleomedes Cael.* 1.2.20–42 Todd ὦν (sc. the planets) ὑψηλότατος μὲν εἶναι δοκεῖ ὁ Φαίνων καλούμενος, ὁ τοῦ Κρόνου ἀστήρ, τριακονταετὶ χρόνῳ τὸν οἰκεῖον κύκλον ἀπαρτίζων κατὰ τὴν προαιρετικὴν τῶν κινήσεων. ὑπὸ τοῦτον ἐστὶν ὁ τοῦ Διὸς, καλεῖται δὲ Φαέθων, δωδεκαετὶ τὸν οἰκεῖον ἀμείβων κύκλον. ὑπὸ τοῦτον Πυρρόεις, ὁ τοῦ Ἄρεως, ἀτακτοτέρων μὲν τὴν κίνησιν ἔχων, δοκεῖ δ' οὖν καὶ οὗτος διετὶς καὶ πέντε μηνί τὸν οἰκεῖον ἀνυεῖν κύκλον. ὑπὸ τοῦτον ὁ ἥλιος εἶναι ὑπονοεῖται, μέσος ὑπάρχων τῶν ἄλλων. οὗτος ἐνιαυτῷ περιερχόμενος τὸν οἰκεῖον κύκλον κατὰ ταύτην μὲν τὴν κίνησιν τὰς ὥρας ἀπαρτίζει, κατὰ δὲ τὴν σὺν τῷ κόσμῳ τὰς ἡμέρας ἐπιτελεῖ. ὑπὸ τοῦτον ὁ τῆς Ἀφροδίτης ἐστὶ, καὶ αὐτὸς ἐνιαυσιαίαν τὴν περίοδον ἔχων. καλεῖται δὲ, ὅποταν μὲν ἐπικαταδύηται τῷ ἡλίῳ, Ἑσπερος, ὅποταν δὲ προανίσχη αὐτοῦ, Ἑωσφόρος. τινὲς δὲ τὸν αὐτὸν τοῦτον καὶ Φωσφόρον καλεῖν εἰώθασιν. ὑπὸ δὲ τὴν Ἀφροδίτην ἐστὶν ὁ τοῦ Ἑρμοῦ, Στίλβων καλούμενος, καὶ τοῦτον ἐνιαυτῷ περιεῖναι τὸν ἴδιον κύκλον φασίν. ὑπὸ τοῦτον ἐστὶν ἡ σελήνη, προσγειοτάτη πάντων τῶν ἀστρῶν ὑπάρχουσα ... αὕτη τὸν ἴδιον ἀπαρτίζει κύκλον ἐν ἑπτὰ καὶ εἴκοσι ἡμέραις καὶ ἡμίσει. συνοδεύει δὲ τῷ ἡλίῳ διὰ τριάκοντα. *Theon Exp.* p. 135.21–136.9 Hiller τὸ μήκος ἀπὸ σημείου ἐπὶ τὸ αὐτὸ σημεῖον, εἰς τὰ ἐπόμενα καὶ οὐκ εἰς

τὰ προηγούμενα, σελήνη μὲν ἐν ἡμέραις κζ' καὶ τρίτῳ μάλιστα ἡμέρας καὶ νυκτὸς διέρχεται· ὁ ἥλιος δ' ἐνιαυτῷ, ὅς ἐστιν ἡμερῶν ἐγγὺς τξε' δ''· φωσφόρος δὲ καὶ στίλβων καθ' ἕκαστα μὲν ἀνωμάλως, ὀλίγον παραλλάττοντες τοῖς χρόνοις, ὥς δὲ τὸ ὅλον εἰπεῖν ἰσόδρομοι ἡλίῳ εἰσίν, αἰεὶ περὶ τοῦτον ὀρώμενοι· διὸ καταλαμβάνουσί τε αὐτὸν καὶ καταλαμβάνονται· πυρόεις δὲ ὀλίγου δεῖν διετίξαι, καὶ φαέθων μὲν σύνεγγυς ἔτεσι δώδεκα, φαίνων δὲ παρ' ὀλίγον ἔτεσι λ'.

§2 Great year: Plato *Tim.* 39d ἔστιν δ' ὅμως οὐδὲν ἦρτον κατανοῆσαι δυνατὸν ὥς ὅ γε τέλος ἀριθμὸς χρόνου τὸν τέλος ἐνιαυτὸν πληροῖ τότε, ὅταν ἀπασῶν τῶν ὀκτῶ περιόδων τὰ πρὸς ἀλλήλα συμπερανθέντα τάχῃ σχῇ κεφαλὴν τῷ τοῦ ταύτου καὶ ὁμοίως ἰόντος ἀναμετρηθέντα κύκλῳ. **Alcinous *Did.*** 14, p. 170.37–42 H. ἐκ δὲ πασῶν τῶν περιόδων ὁ τέλειος ἀριθμὸς καὶ χρόνος συμπεραιούται ὁπότεν ἐπὶ τὸ αὐτὸ σημεῖον πάντες οἱ πλανῆται ἐλθόντες ταύτην τὴν τάξιν λάβωσιν, ὥστε εὐθείας νοηθείσης ἀπὸ τῆς ἀπλανοῦς σφαίρας ἐπὶ τὴν γῆν νεούσης κατὰ κάθετον τὰ κέντρα αὐτῶν ἐπὶ ταύτης θεωρεῖται. **Apuleius *Plat.*** 1.10 *unde fit ut et magnus ille vocitatus annus facile noscatur; cuius tempus implebitur cum vagantium stellarum comitatus ad eundem pervenerit finem novumque sibi exordium et itinera per vias mundi reparaverit.* **Proclus in *Tim.*** 3.91.20–93.19 εἰώθασιν γὰρ οὕτω τινὲς λέγειν, λαμβάνοντες τὴν ἀκριβῆ τῆς σελήνης ἀποκατάστασιν καὶ τὴν ἡλιακὴν ὁμοίως καὶ ποιοῦντες τὴν ἐτέραν ἐπὶ τὴν λοιπὴν καὶ τὴν Ἑρμαϊκὴν ἐπὶ ταύτας καὶ τὴν Ἀφροδισιακὴν ἐπὶ τὰς τρεῖς καὶ τὴν Ἀρεΐκην ἐπὶ πάσας καὶ τὴν Δίον ὁμοίως καὶ λοιπὴν τὴν Κρόνιον ἐπὶ ταύτας ὅλας καὶ τὴν τῆς ἀπλανοῦς ἐπὶ τὴν μίαν καὶ κοινὴν τῶν πλανωμένων ἀποκατάστασιν. οὕτω μὲν οὖν λέγουσιν, εἴπερ εἶεν οἱ ἀποκαταστατικοὶ χρόνοι πρῶτοι πρὸς ἀλλήλους οἱ προσβαλλόμενοι· ... καὶ δῆλον ἐκ τῶν εἰρημένων, τίς τέ ἐστι καὶ πόθεν ὑφίσταται καὶ τίνα παρέχεται συντέλειαν τῷ παντί.

§3 cf. Censorinus 18.5 cited above. cf. **Scholion on Lucan *Bell. Civ.*** 10.185 Eudoxus (F 134 Lasserre) *enim ad cursum suum post octo annos solem reverti dixit et esse annum magnum ...* **Geminus *Elem.*** 8.27, p. 52 Aujac πρῶτην δὲ συνεστήσαντο (sc. the Egyptians) τὴν περίοδον τῆς ὀκταετηρίδος, ἣτις περιέχει μὲν μῆνας 28, ἐν οἷς ἐμβολίμους γ', ἡμέρας δὲ 365, ἔτη δὲ ὀκτὴ.

§4 ps.Theophrastus *Sign.* 4 διὸ καὶ ἀγαθοὶ γεγέννηται κατὰ τόπους τινὰς ἀστρονόμοι ἔνιοι οἷον Ματρικέτας ... καὶ Φαεινὸς ... παρ' οὗ Μέτων ἀκούσας τὸν τοῦ ἐνὸς δέοντα εἰκοσιν ἐνιαυτὸν συνέταξεν. **Diodorus Siculus** 12.36.2 ἐν δὲ ταῖς Ἀθήναις Μέτων ὁ Παισανίου μὲν υἱός, δεδοξασμένος δὲ ἐν ἀστρολογίᾳ, ἐξέθηκε τὴν ὀνομαζομένην ἐννεακαιδεκαετηρίδα, τὴν ἀρχὴν ποιησάμενος ἀπὸ μηνὸς ἐν Ἀθήναις σκιροφοριῶνος τρισκαιδεκάτης. ἐν δὲ τοῖς εἰρημένοις ἔτεσι τὰ ἄστρα τὴν ἀποκατάστασιν ποιεῖται καὶ καθάπερ ἐνιαυτοῦ τινος μεγάλου τὸν ἀνακυκλισμὸν λαμβάνει· διὸ καὶ τινες αὐτὸν Μέτωνος ἐνιαυτὸν ὀνομάζουσι. see also 2.47.6. **Geminus *Elem.*** 8.50, p. 56 Aujac διόπερ ἐπειδὴ δημαρτημένην εἶναι συνέβαινε τὴν ὀκταετηρίδα κατὰ πάντα, ἐτέραν περίοδον συνεστήσαντο τὴν τῆς ἐννεακαιδεκαετηρίδος οἱ περὶ Εὐκτῆμονα καὶ Φίλιππον καὶ Κάλλιππον ἀστρολόγοι. **Aelian *V.H.*** 10.7 ὅτι Μέτων ὁ Λευκονοεὺς ἀστρολόγος ἀνέστησε στήλας, καὶ τὰς τοῦ ἡλίου τροπὰς κατεγράψατο, καὶ τὸν μέγαν ἐνιαυτὸν ὥς ἔλεγεν εὖρε, καὶ ἔφατο αὐτὸν ἐνὸς δέοντα εἰκοσιν ἐτῶν. cf. **Censorinus *DN*** 18.8 cited above.

§5 **Geminus** *Elem.* 8.59, pp. 57–58 Aujac δι' ἣν αἰτίαν οἱ περὶ Κάλλιππον γενόμενοι ἀστρολόγοι διωρθώσαντο τὸ πλεονάζον τῆς ἡμέρας καὶ συνεστήσαντο τὴν ἐκκαιεβδομηκονταετηρίδα συνεστηκυῖαν ἐκ δ' ἑννεακαίδεκαετηρίδων ... cf. **Censorinus** 18.8 cited above.

§6 **Aelian** *V.H.* 10.7 Οἰνοπίδης ὁ Χῖος (41A9 DK) ἀστρολόγος ἀνέθηκεν ἐν Ὀλυμπίῳ τὸ χαλκοῦν γραμματεῖον, ἐγγράψας ἐν αὐτῷ τὴν ἀστρολογίαν τῶν ἐνὸς δεόντων ἐξήκοντα ἐτῶν, φήσας τὸν μέγαν ἐνιαυτὸν εἶναι τοῦτον. **Theon of Smyrna** *Exp.* 198.14–16 Hiller cited above ch. 2.12.

§§7–10 **Great(est) year: Aristotle** *Mete.* 1.14 352a28–31 ἀλλὰ πάντων τούτων (sc. periodic deluges) αἴτιον ὑποληπτέον ὅτι γίγνεται διὰ χρόνων εἰμαρμένων, οἷον ἐν ταῖς κατ' ἐνιαυτὸν ὥραις χειμῶν, οὕτως περιόδου τινὸς μεγάλης μέγας χειμῶν καὶ ὑπερβολὴ δμβρων.

§7 see **Plato** *Tim.* 39d cited above on §2.

§§8–9 **Heraclitus Diogenes: Philo** *Aet.* 77 λέγεται δὲ καὶ Διογένης (*SVF* fr. 27) ἡνίκα νέος ἦν συνεπιγραψάμενος τῷ δόγματι τῆς ἐκπυρώσεως ὅψ' ἐτῆς ἡλικίας ἐνδοιάσας ἐπισχεῖν. **Plutarch** *Def.Or.* 415F καὶ ὁ Κλεόμβροτος 'ἀκούω ταῦτ' ἔφη 'πολλῶν καὶ ὁρῶ τὴν Στωικὴν ἐκπύρωσιν ὥσπερ τὰ Ἡρακλείτου καὶ τὰ Ὀρφέως ἐπινομένην ἔπη οὕτω καὶ τὰ Ἡσιόδου καὶ συνεξάπτουσιν' ...' cf. **Censorinus** *DN* 18.11 cited above.

Aetius Placita
Book 3 Meteorology and the Earth:
Text and Commentary



Introduction to Book 3

1 Transmission

Book 3 of A's compendium is not very well attested. In its present condition it is by far the shortest in terms of chapters (18), doxai (109) and absolute length (2811 words), and like Book 5 it is quite incomplete.¹ P^B and P^Q are available for all of its eighteen chapters, and E copied out P 3.9–11, the heading of P 3.12 but with the text of P 3.13, and P 3.16, so five chapters in all. G excerpted P 3.1–5, 3.7–11, and 3.13–16, thus omitting P's chs. 6, 12 and 18, but still preserves a lot of P's Book 3 (about 60%) and so provides valuable evidence to complement P^B and P^Q for relatively large sections of the book. In addition there are four very small scraps from the Antinoopolis papyrus, while some headings and lemmata are confirmed by Psellus. Due to Byzantine abridgement S, omitting all of chs. 3.9–14, 3.16 and 3.18, is only available for sections of chs. 3.1–8, 3.15 (where only the Plato doxa remains out of 11 lemmata preserved in P), and 3.17. S therefore unusually provides only 60 doxai to P's 91. Similarly to Books 1 and 4, therefore, one can make a division between the part for which S is available and the part where there is only P. T leaves aside this book entirely. In addition, chs. 3.9–14 on the earth, where only P and his tradition are available, have clearly been drastically epitomized. The number and order of the lemmata of these chapters must remain fixed as we find them there. At most we can speculate on how P might have epitomized the material he found in A, in some cases comparing material found in proximate and other sources or extrapolating from what we know about P's methods elsewhere in his *Epitome* (for example his manipulation of name-labels). In those cases we shall speak primarily about P, though it must always be borne in mind that A will be hovering in the background.

2 Subject Matter and Macrostructure

There is a division of subject matter between Books 2 and 3, which at first glance seems quite strict. Moreover the Book itself consists of two different parts.

The prooemium of our Book states that in the preceding Book the 'things in the heavens' (*ta ourania*) have been treated, and that it is now the turn of 'what is in the atmosphere' (*ta metarsia*) 'in the third (Book)'. By mentioning

¹ For the statistics in this section see further Appendix 3 to the General Introduction.

both the *ourania* and *metarsia*, it emphasizes the unity of the work. Ch. 3.1 on the Milky Way has a transitional function, as the first and highest of the *metarsia* so closest to the *ourania*, see ch. 3.1 Commentary D(a). The procemium also draws attention to the unity of the book because it not only mentions the *metarsia* but also the ‘position of the earth’, i.e. refers to ch. 3.11 and its immediate context. In the introductory passage at ch. 3.8.2 below both these parts are mentioned again, the one as having been treated, the other as to be treated now. Here we should note that ch. 3.18 ‘On the halo’, at the end of Book 3 in P (a chapter not paralleled in S), is in the wrong place, as Diels already saw. It belongs with the *metarsia*, not with the *prosgeia*. We have therefore decided to put it back to where it belongs, that is after ch. 3.5 ‘On the rainbow’, and to give it the new number ‘3.5a *olim* 18’. After all, we are reconstructing A, not editing P. An unintended benefit of this rearrangement is that we get two successive series of exactly nine chapters each, with first the *metarsia* and then the *prosgeia*, which, as a neat division of the Book’s overarching themes, is a good result. So Book 3 as reconstructed neatly splits into two equal halves.

Even so, it has to be admitted that P 3.18 could have been shifted to the end of the Book to strengthen the impression, by returning after the *prosgeia* to the *metarsia* with which it begins, that it is a unity. And there are other considerations in favour of leaving P 3.18 in its present anomalous position. In Aristotle the phenomena of reflection (rainbows, halos, mock suns) are found at the end, in *Meteorology* Book 3. In A these phenomena, except the chapter on the halo, have been moved forward in order to be included among the meteorological phenomena and so make room for the terrestrial phenomena. One could argue that the chapter on the halo was forgotten and remained stuck in its original final position. A further possibility is that originally it was omitted and subsequently reinserted where room was available, namely, at the end of a scroll. It is in our view more likely, however, that it has been misplaced, and for this reason we have moved it to after ch. 3.5 in our reconstruction.

A subsidiary argument in favour of this decision is that the division between Books 3 and 4 is less clear-cut than that between Books 2 and 3. The two chapters dealing with the sea at 3.16–17 are followed beyond the Book division by the remaining chapter on terrestrial waters, ch. 4.1 on the Nile. In its final position, as occurs in P, the chapter on the halo gets in the way, and as we have seen at ch. 3.5a Commentary A and D(a) it is not found in G, whose abridged version of 4.1 follows on directly after that of 3.17. Moreover both ch. 3.17 and ch. 4.1, as we shall see below, present *recherché* name-labels not or very rarely found elsewhere in the *Placita*.

An important contrast resulting in a further subdivision in the first part of the Book (chs. 3.1–8) is between meteorological phenomena that are real (καθ’

ὑπόστασιν) and those that are merely optical (κατ' ἔμφασιν). This is only made explicit quite a long time after the prooemium, viz. at the beginning of ch. 3.5 'On the rainbow'. The postponement of the expression of this preliminary consideration (which puzzled Diels) faithfully echoes the procedure of Aristotle's *Meteorology*, where this is made an important thematic issue as late as, and only in, Book 3, in which the rainbow and similar phenomena are treated. There is no need to link this contrast with the name of Posidonius, as used to be the *opinio communis*; thus e.g. Strohm (1953) 286: 'Die kluge Einteilung ... in Vorgänge, die der Substanz nach, und solche, die nur nach dem optischen Eindruck existieren (κατ' ἔμφασιν/καθ' ὑπόστασιν), gilt seit langem mit Recht als eine Art Leitfossil für Poseidonios.'

On the divisions and unity of the treatise see also above, General Introduction section 2.7.

A is bent on following an order which goes from the periphery to the centre not only in the treatise as a whole (see M–R 2.1.40–41, 50–59 and *passim*), but also in the present Book: atmospheric phenomena from Milky Way via comets (ch. 3.2), thunder and lightning (ch. 3.3), clouds (ch. 3.4), rainbow (ch. 3.5), rods (ch. 3.6), winds (ch. 3.7), and summer and winter (ch. 3.8) to a cluster of chapters dealing with the earth and the sea. (P 3.18, on the halo, as we have seen is actually in the wrong place.)

Because of this arrangement all the issues concerned with the earth, even those regarding its position and behaviour as a cosmic body, are treated in Book 3 after those in the atmosphere. In Aristotle's *On the Heavens* the earth (*Cael.* 2.13) is part of the cosmic system, like the sun and the moon. It looks like Aristotle included this discussion mainly because of the theory of the Pythagoreans. In A the themes of Aristotle's chapter and related issues have been interpolated in the meteorology, between the chapters on winds and on summer and winter on the one hand and that on earthquakes on the other, both winds and earthquakes having been treated at length in the *Meteorology*. The macro-structure of Book 3 is thus the outcome of a rearrangement of the Aristotelian template, or templates. That this did not have to be the case is clear from Seneca's different approach in the *Naturales quaestiones* (see for example *Nat.* 2.1.4–5) and other parallels. Seneca's treatise begins the other way round, namely with phenomena that are close to the centre, that is, with the terrestrial waters of the present Book 3 according to a later reordering, but Book 1 according to Seneca's own and original order. See further M–R 2.1.110–125.

It should be noted, finally, that—unlike in most other books, but like chs. 1.9–30—all the chapters without exception begin with the umbrella heading περὶ τοῦ δεῖναι, for which see above, ch. 1.3, Commentary C.

3 Name Labels

In several respects this Book is rather different from the others. The name-labels of chs. 1–15 are of philosophers only, but ch. 16 includes the Sophist Antiphon who dabbled in natural philosophy, and in ch. 17 on the tides we encounter no less than five non-philosophers: Pytheas, Timaeus, Crates, Apollodorus (unknown), and Seleucus (a comparable bevy of non-philosophers is found only in ch. 4.1, likewise treating a subject not dealt with by Aristotle). As to schools, apart from Stoics we only have Peripatetics at ch. 3.2.6. Anonymi are limited to just five examples. This incidence of name-label and diversity differs markedly from the other four books. The following name-labels are represented with an unusually high number of doxai: Metrodorus (9 doxai, i.e. top of the list!), Anaxagoras (8 doxai), Anaximenes (6 doxai), Anaximander (4 doxai), Heraclides (3 out of 9 doxai in the whole treatise), while Plato (2 doxai), Empedocles (3 doxai), Pythagoras (1 doxa), and Heraclitus (1 doxa) are unusually low. Atomists are cited separately, not lumped together as occurs so often elsewhere. The number of multiple name-labels is the lowest of all the Books, also relative to its size, namely 8, all just consisting of 2 name-labels. Not surprisingly, therefore, in terms of name-labels, Book 3 has least overlap with other Books.

4 Successions and Historical Presentation

Book 3 is the most historical of all the Books in terms of the chronological ordering of sequences of name-labels. It also appears to be the least dialectical, so contrasts strongly with Book 2, where these two positions are reversed. Successions play a minor role, but we still find Thales first in chs. 3.9–11 and 15 (including ‘the successors of Thales’ in 3.11), and Pythagoras or Pythagoreans first in chs. 3.1, 3.2 and 3.14. For the present sections 3 and 4 see further the statistics of Jeremiah (2018) at M–R 4.301, 314–316, 321, 324, and 335.

5 Sources: Proximate Tradition

For the proximate tradition of A’s material in this Book there are substantial parallels to be found in a number of texts, though such evidence is poor or virtually absent for chs. 3.8–9 and 3.12. Among these the most prominent are Lucretius *De rerum natura* Books 5–6, Seneca *Naturales quaestiones*; then Strabo, Manilius, ps.Aristotle *De mundo*, Pliny *Naturalis historia* Book 2, the physical fragments of Arrian, Diogenes Laertius, Hippolytus *Refutatio omnium*

haeresium Book 1, Macrobius in *Somnium Ciceronis*, and Achilles *De universo* (see below) as well as the *Scholia* on Aratus. For the Lucretian texts the great Léon Robin, in the Ernout–Robin commentary of 1925–1928, already appealed successfully to the doxographical context of the arguments on meteorology and psychology. The sequences of meteorological themes in Lucretius parallel to A Book 3 are listed in Runia (1997) 96–97, repr. M–R 3.260–261. Sedley (1998b) 157–160 puts the closely parallel themes of *DRN* book 6 and A Book 3.1–4.1 [note misprint: 4.7], plus the less complete evidence of *Metarsiology* (for which see the next section) in parallel columns. Dependence of Lucretius for this material on Epicurus cannot be proved, but according to Sedley is plausible in view of Lucretius’ dependence on Epicurus’ *On Nature* which, as he posits, can be demonstrated for the rest of the *DRN*. Epicurus, in his turn, would depend on Theophrastus, with a key role for the *Physikai Doxai* (*ibid.* 166–185). Obviously, Sedley’s interesting and at a first glance seductive source-critical hypothesis cannot be discussed here. But it is worth repeating that the similarities in macro-organisation between Lucretius and A on meteorology cannot be a matter of coincidence, see Runia at M–R 4.409–411. For the situation in Book 4 on psychology see below Book 4, Introduction, section 6, Parallels in Lucretius and Tertullian. Detailed discussions, overviews, and lists in parallel columns of meteorological phenomena in a multiplicity of related sources are found in Bakker (2016) 76–161, ch. 3 ‘Range and order of subjects in ancient meteorology’. For literature on sources and predecessors of Seneca in the *Naturales quaestiones* see Hine (2009–2010) 2.38–50.

In Achilles *De universo* three meteorological chapters have been inserted near the end: Ach. c. 32 ‘On things in heaven and things on high’ (Περὶ μεταρσίῳν καὶ μετεώρων), with a full list of the latter, cf. the whole of chs. 3.2–8; Ach. c. 33 ‘On winds, and that wind differs from exhalation’ (Περὶ ἀνέμων, καὶ ὅτι διαφέρει αὔρα ἀναθυμιάσεως) cf. ch. 3.7; Ach. c. 34 ‘On comets’ (Περὶ κομητῶν) cf. ch. 3.2. The sparse parallels as to content, not mentioned by Diels, Maass, or Di Maria, will be cited at the witnesses for chs. 3.2 and 3.7. But Ach. c. 35 ‘On position’ (Περὶ θέσεως) and c. 36 ‘On motion’ are not about the earth but provide advice about how to use the armillary sphere, as is only proper in what has become an Introduction to Aratus. These chapters are followed by three more on the heavenly bodies.

6 Other Source Material

For the ultimate sources of much of the material contained in the Book we must go back to the Peripatos, and think of the otherwise lost sources used and

cited by Aristotle, Theophrastus and their predecessors. Important parallels for the meteorological chapters in A, including 3.15 on earthquakes (and also for the wider proximate tradition), are provided by the *Metarsiology* attributed *disertis verbis* to Theophrastus in two manuscripts. This text, now to be consulted in the edition with translation of the first complete version and provided with an extensive commentary by Hans Daiber (1992), may be no more than an (incomplete?) compendium (see overview at Sharples 1998b, 16–18), and its precise nature is not clear (see references at Taub 2003, 116). According to the catalogue of Theophrastus' works at Diogenes Laertius *V.P.* 5.44 the work consisted of two Books (Μεταρσιολογικῶν α' β'). The attribution is accepted by a majority of scholars, but has been challenged by Bakker (2010) 71–73, 95–97, 132–141, who adverts to the mixture of Peripatetic and purported Epicurean ingredients. But we see no cogent reason to question the attribution to Theophrastus; see below on the evidence in Proclus. Reitzenstein's study of 1928, containing as an appendix a German translation of the text as known at the time, with comments and parallels in the meteorological literature, is also still useful. The *Metarsiology*, extant as an independent *opusculum*, is relevant as a source and testifies to the (limited) influence of Theophrastus in the present Book. The absence of name-labels makes it even less likely that (originally) it belonged with the *Physikai Doxai* than the *De sensibus*, which does have them. The first editor and translator of this text, Bergsträsser (1918), followed by others, believed that an excerptor had removed the name-labels, but this seems unlikely.

Aristotelian and Theophrastean precedent is cited at the individual chapters below. Material deriving from or rather attributed to Plato is limited: a single reference pertaining to the *Theaetetus* in the meteorological section of the Book, one reference pertaining to the *Phaedo* and another one pertaining to the *Timaeus* in the section concerned with terrestrial matters. For many of the chapters it emerges again that the general approach depends on the (Aristotelian) methodology of question types, categories and diaeresis (often turned into diaphonia), while quite a few headings as well as issues and even the contents of several lemmata go back to Aristotle's *Meteorology* (in some cases via *Epitomai* of this work) in the meteorological part, and to *De caelo* 2.13 in the part concerned with terrestrial matters. For the grouping of phenomena in Aristotle's *Meteorology* according to material cause, efficient cause, and location see Wilson (2009) and (2013). *More scholastico* the *Placita* separate and distribute over different mostly very short chapters a series of individual themes relating to the earth (thus chs. 3.8–14), which Aristotle and the wider doxographical tradition use to discuss in connection with each other. But the short ch. 3.9 combines several issues, and we note that some of these issues are not par-

alleled in Aristotle. The earlier, properly meteorological chapters of the Book, on the other hand, tend to collect under one heading subjects treated by Aristotle in different (sets of) chapters of the *Meteorologica*.

Later Hellenistic sources are also utilized, though sparsely, with the exception of ch. 3.17 on tides, which treats an issue that became important only after Aristotle. Again we note its affinity with ch. 4.1, which likewise treats an issue that was not on Aristotle's agenda, and was only later discussed in the ps.Aristotelian *De inundatione Nili*. Hence the unusual name-labels in both these chapters. Otherwise updating is rather rare, the name-label Posidonius only being found in chs. 3.1 and 3.17.

A list of themes treated in Theophrastus' *Metarsiology* is found at Proclus in *Tim.* 2.120.30–121.7 (fr. 159 FHS&G): 'Theophrastus ... investigating whence the thunders, and whence the winds, and *what kinds of causes* there are of thunderbolts, lightnings, *presteres*, rains, snow, hail, which in his causal explanation of meteorological phenomena he rightly judged to be deserving of the appropriate conjectural account' (τὸν Θεόφραστον ... ζητοῦντος, πόθεν μὲν αἱ βρονταί, πόθεν δὲ ἄνεμοι, ποῖαι δὲ αἰτίαι κεραυνῶν, ἀστραπῶν, πρηστήρων, ὑετῶν, χιόνος, χαλάζης, ἃ δὴ καλῶς ποιῶν ἐν τῇ τῶν μετεώρων ἀ(τι)ολογίᾳ τῆς πρεπούσης εἰκοτολογίας καὶ αὐτὸς ἡξίωσεν.) In spite of the ascription in the manuscripts the attribution of this work to Theophrastus has been doubted, or even rejected, because of its penchant for multiple explanations, believed to be more appropriately Epicurean. See most recently the thorough discussion of Bakker (2016) 106–108, 145–153, who however admits that several chapters can only be of Peripatetic provenance (*ibid.* 148–152) and so comes down in favour of a treatise of mixed descent. But Proclus' list of phenomena—all of which as to content rather precisely correspond to themes in the *Metarsiology*, though the earthquakes are missing (but Proclus' list is not a pinax)—in our view alludes to multiple explanations. The plural ποῖαι δὲ αἰτίαι hardly means one single cause for each of the following, but alludes to the various options in each particular case and thus fits the layout of the *Metarsiology*. And Proclus explicitly attributes this treatment to *Theophrastus*. See also Sharples (1998b) xv and 228. For the chapter on winds see below, ch. 3.7 Commentary D(d). In several fragments attributed to Theophrastus *On Waters*, too, more than one causal explanation for a single phenomenon is mentioned, see frs. 211A FHS&G in Proclus (esp. τοῦτο ἐν εἶναι αἵτιον ὁμβρων) and 211B in Olympiodorus, cited below at E(b) General texts. Though we ourselves do not share them, we cite this work as by 'Theophrastus(?)' to indicate that doubts have been expressed.

7 Further Parallels and Sources

Meteorology as a separate subdiscipline of physics was established, as we know and have just recalled, by Aristotle in his *Meteorology*. For details see above, section 2, also for treatment of the earth in the *De caelo*; for references see below. A rough list of subjects treated in the part of theoretical philosophy ‘called meteorological theory’ (i.e. by Stoics) is found at Galen *Propr.Plac.* 8, p. 180.23–31 Boudon-Millot–Pietrobelli, text Lami: ‘Chrysippus and his followers’ (Χρύσιππος καὶ οἱ μετ’ αὐτοῦ) have shown what knowing about ‘the thunders and lightnings (cf. ch. 3.3) and earthquakes (cf. ch. 3.15) and hail and snow (cf. ch. 3.4) and rainbows (cf. ch. 3.5) and mock sun and streaks (cf. ch. 3.6) and the single or double halo often occurring about the sun or the moon or the triple (halo) sometimes appearing (there) (cf. ch. 3.5a), and everything else that belongs with what is called meteorological theory, is useful for’ (Greek text cited at Book 1.titulus et index, *capitulationes*). This information has only been available since the *editio princeps* of the full text of the *De propriis placitis* in 2005, so is not (yet) found in collections of Stoic fragments. Galen points out that this study is only useful for those who study theoretical philosophy, not for the practising physician. An even more cursory overview is found in the concluding paragraph of Seneca *Dial.* 12.20.2: ‘then (the mind) examines everything which, filled with terrors, lies between heaven and earth, this expanse disturbed by thunder, lightning (cf. ch. 3.3), blasts of winds (cf. ch. 3.7), and the rain and snow and hail (cf. ch. 3.4) that fall upon our heads’ (trans. Davie–Reinhardt LCL, slightly modified; Latin text cited below at Book 3.prooem. E(a)). We note a reference to the fear of these phenomena that is entirely lacking in A. An anonymous list is at Ioannes Lydus *De ostentis* c. 4.

The Stoic diaereses of the *physikos logos* (‘physical theory’, ‘account of physics’) at Diogenes Laertius *V.P.* 7.133, for which see M–R 2.1.96–110 and above, General Introduction section 2.8, mention meteorological subjects *ad finem* after subjects in psychology (see Introduction to Book 4 section 6), in the second subdivision of the *aitiologikon*. The study of these matters is shared between *mathematikoi* and philosophers. The examples given are ‘how clouds are formed (cf. ch. 3.4) and thunders (cf. ch. 3.3) and rainbows (cf. ch. 3.5) and halos (cf. ch. 3.5a) and comets (cf. ch. 3.2) and similar things (cf. ch. 3.1, 3.6–9)’. Diogenes next treats these subjects in the succinct overview of Stoic physics at *V.P.* 7.152–156, ll. 1294–1346 Dorandi. Discussion of matters concerning the earth here follows on after the treatment of the aerial phenomena just as in A. This treatment of things terrestrial, perhaps rather surprisingly, is interrupted by the division of the heavens in zones (cf. ch. 2.12), which is then followed by that of the earth in zones cf. ch. 3.14. This highlights the parallelism we have

noted in our commentaries on these two chapters. Accordingly, the Stoic system presented by him clearly shares a common tradition with the *Placita*.

In Epicurus' *Letter to Pythocles*, which makes no distinction in principle between celestial and meteorological phenomena, there is also no separate treatment of the topics concerned with the earth. Of those found in the Stoic system and in the *Placita*, only the earthquakes are mentioned, namely at Diogenes Laertius *VP.* 10.105–106, wedged in between *presteres* and hail (this is because of the way they are explained). Individual parallels between alternative explanations of meteorological phenomena listed by Epicurus and mutually conflicting Aëtian doxai will be cited and discussed at the chapters that are involved.

Liber 3 Titulus et index

T: Theodoretus CAG 4.31 Raeder, cf. 2.95, 5.16 (titulus)—P^B: ps.Plutarchus 892C–D; pp. 268–269 Diels—P^Q: Qusṭā ibn Lūqā p. 166 Daiber (titulus), pinax in ms. Damascenus fol. 7^v (ineditus)—P^E: Eusebius PE 15.32.10, p. 407.1–5 Mras—P^{Sy}: Symeon Seth CRN praef., p. 18.1–10 Delatte

Titulus ΑΕΤΙΟΥ ΠΕΡΙ ΤΩΝ ΑΡΕΣΚΟΝΤΩΝ ΤΟ Γ', ἐν ᾧ κεφάλαια τάδε·

Index

- α'. Περὶ τοῦ γαλαξίου κύκλου
β'. Περὶ κομήτων καὶ διαττόντων καὶ δοκίδων
γ'. Περὶ βροντῶν ἀστραπῶν κεραυνῶν πρηστήρων τε καὶ τυφῶνων 5
δ'. Περὶ νεφῶν ὁμίχλης ὑετῶν δρόσου χιόνος πάχνης χαλάξης
ε'. Περὶ Ἰριδος
ϵ⁺. Περὶ ἄλλω)
ς'. Περὶ ῥάβδων
ζ'. Περὶ ἀνέμων 10
η'. Περὶ χειμῶνος καὶ θέρους
θ'. Περὶ γῆς καὶ τίς ἡ αὐτῆς οὐσία καὶ πόσαι
ι'. Περὶ σχήματος γῆς
ια'. Περὶ θέσεως γῆς
ιβ'. Περὶ ἐγκλίσεως γῆς 15
ιγ'. Πότερα μένει ἡ γῆ ἢ κινεῖται
ιδ'. Περὶ διαιρέσεως γῆς, πόσαι εἰσὶν ζῶναι αὐτῆς
ιε'. Περὶ σεισμῶν γῆς

titulus : scripsimus, cf. T 4.31 et M–R 1.326 : Πλουτάρχου φιλοσόφου Περὶ τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν ἐν ἐπιτομῇ τὸ γ', ἐν ᾧ κεφάλαια τάδε P^{B(I)} : βίβλιον τρίτον ἐν ᾧ κεφάλαια τάδε P^{B(II)} : Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις βίβλιον τρίτον P^{B(III:E)} : *Die dritte Abhandlung aus dem Buch des Plutarchos über das, was die Philosophen von den naturwissenschaftlichen Ansichten billigten* Q

index : totum indicem om. P^{B(III:α)} : exstat in P^Q, sed hactenus ineditus (habemus versionem Daiberi; vid. append. infra t. 4) || [3] τοῦ P^{B(I,II)}, cf. tit. c. 3.1 : om. P^{B(III)} : *lichterfüllte Himmelssphäre* Q [4] καὶ ... δοκίδων P^B : *Über die beschweiften Sterne* Q [5] πρηστήρων ... τυφῶνων P^B : *das, was „Prester“ und „Typhon“ genannt wird* Q || τε P^{B(II,II)Q} : om. P^{B(III)} [6] Περὶ ... χαλάξης P^B : ὁμίχλης δρόσου πάχνης om. Q [8] *transposuimus ex huius libri loco ultimo*; vid. comm. c. 3.5a || [9] ῥάβδων P^B : *das, was sich in dem „Ruten“ genannten Licht zeigt* Q [12] καὶ¹ ... πόσαι P^B, cf. tit. c. 3.9 : om. P^Q || αὐτῆς ... πόσαι P^{B(II,II)Q} : οὐσία αὐτῆς καὶ πόση P^{B(III)} [13] γῆς P^{B(III)}, cf. tit. c. 3.10 : om. P^{B(I,II)} [16] Πότερα μένει ἡ γῆ ἢ κινεῖται, cf. tit. c. 3.13 : Περὶ κινήσεως γῆς P^{BGQ} || [17] πόσαι ... αὐτῆς tit. c. 3.14 : post γῆς hab. P^B καὶ : πόσαι ... αὐτῆς om. P^Q

ις'. Περὶ θαλάττης, πῶς συνέστη καὶ πῶς ἐστι πικρά

ις'. Πῶς αἱ ἀμπώτιδες γίνονται καὶ πλημύραι

20

[19] συνέστη P^{B(III.E)}, cf. tit. c. 3.16 : συνέστηκεν P^{B(I.II)}, *Zustand ist* Q [20] Πῶς αἱ P^{B(I.II)}, cf. tit. c. 3.17 : Περὶ τοῦ πῶς P^{B(III)} || post πλημύραι add. ιη' Περὶ ἄλλω P^{B(I-II)} (ἄλλως P^{B(I)}, ἄλλως P^{B(II)}), vid. supra ad l. 8

Testes primi:

Theodoretus CAG 4.31 vid. lib. 1.titulus et index

Eusebius PE 15.32.10 vid. lib. 1.titulus et index

Symeon Seth CRN Praef. p. 18.1–10 Delatte vid. lib. 1.titulus et index

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

As discussed in the equivalent chapter of Book 1, for the title of the entire work and its individual books we must rely on the evidence of T, the only witness to cite the title of the original work and give the name of its author. The titles in P and those witnesses dependent on its tradition are expanded versions of the original title. For the title at the head of P's Book 3 the evidence in P^B is supplemented by the title in Q's translation, which he has this time cited in a very full version. On these titles see further Book 1.titulus et index Commentary C.

For the index of chapters P^B is the chief witness, though not all mss. contain it. One of the mss. of Q, Zāhirīya (Damascenus) 4871 contains a translation of the list and thus provides valuable additional evidence on the manuscript tradition. Daiber did not include it in his edition, but he has kindly provided the editors with a translation (see Appendix in vol. 4). On this translation and its source see further the Book 1.titulus et index Commentary A.

For this book Eusebius again supplies some additional evidence. In PE Book 15 he cites the chapter headings of chs. 3.9–12, 15 both in the pinax at the beginning of the book and in the excerpts themselves. He also mentions the headings of chs. 3.10–12, 15 in his summary at 15.32.8–10. The only reading of note is συνέστη in the heading of 3.15. Symeon Seth in his Preface also cites some titles and doxai from Book 3. See the texts cited in Book 1.titulus et index, *testes primi*.

For the question whether A's text contained the index see Book 1.titulus et index Commentary D. On the practice of prefacing texts with tables of content and chapter headings see Book 1.titulus et index Commentary D(e).

C *Book Title*

As emphasised in our discussion in Book 1.titulus et index Commentary A, the title for the entire work and each of its books must be based on the evidence of T. The titles in the tradition of P are secondary. P's title in the ms. Mosquensis for this book differs from that of Book 2, with the phrase ἐν ἐπιτομῇ qualifying Περί τῶν ἀρεσκόντων and indicating the method of the work. In fact this phrase is also found in the proem to Book 3 in A's original work. See our discussion on the relation between the titles of A and P in Book 1.titulus et index Commentary C.

D *Analysis of the Index*

(1) For a discussion giving the reasons why we are convinced that A's original compendium contained these indices at the beginning of each book, see M–R 2.196–204 and Book 1.titulus et index Commentary D(6) and D(e).

(2) For the methodology of the reconstruction of the index see Book 1.titulus et index Commentary D(3). We argue that priority must be given to the chapter headings in the text of the chapters themselves, since A will have based his index on these when he compiled the work. It is thus to be assumed that the list of chapter headings in the index accurately reflects the chapter headings in the text of the Book. In this book there are only two chapters for which the heading in the reconstructed list differs from what is transmitted in the manuscripts: for ch. 3.13 we have given the preference to the chapter heading in S; in ch. 3.14 in the mss. the two parts of the heading are connected with καί. In all other cases the intra-textual chapter heading has differing degrees of support in the pinax as recorded in the manuscripts. The reader is advised to study the apparatus criticus both above and to the headings of individual chapters.

(3) For discussion of chapter headings in P^B, who often opts for the longer variants, see the comments in our Commentary on individual chapters below (section C). As was the case in Book 2, Q shortens or alters the headings in a number of cases: see chs. 3.1, 3.2, 3.3, 3.9. On Q's headings see further Book 2 titulus et index Commentary D(3).

D(e) *Other Evidence*

For further discussion on the use of pinakes (tables of contents) in ancient works see Book 1.titulus et index Commentary D(e).

E *Further Related Texts*

For an extensive list of parallel texts relating to the compilation and use of pinakes (tables of contents) or indices of chapter headings, see Book 1.titulus et index Commentary E.

Liber 3 (Procœmium)

P^B: ps.Plutarchus *Plac.* 892E; *DG* pp. 364*8–17 Diels—P^G: ps.Galenus *HPh* c. 73 *ad finem*; *DG* p. 629.3 Diels—P^Q: Qusṭā ibn Lūqā p. 167 Daiber

Cf. Ach: Achilles *Univ.* c. 32, p. 50.8–14, c. 34, p. 51.14, p. 52.12 Di Maria; *Commentaria in Aratum*, Anon. II *Isag.* 8, pp. 126.18–127.12 Maass; *Scholia in Aratum* schol. 811 p. 403.17–404.5 Martin; Eusebius *PE* 15.32.10, p. 407.1–5, 15.54.3, p. 407.17–18, 15.58.4, p. 419.19–20 Mras

(Procœmium)

περιωδευκώς ἐν τοῖς προτέροις ἐν ἐπιτομῇ τὸν περὶ τῶν οὐρανίων λόγον, σελήνη δ' αὐτῶν τὸ μεθόριον, τρέψομαι ἐν τῷ τρίτῳ πρὸς τὰ μετάρσια· ταῦτα δ' ἐστὶ τὰ ἀπὸ τοῦ κύκλου τῆς σελήνης καθήκοντα μέχρι πρὸς τὴν θέσιν τῆς γῆς, ἥντινα κέντρου τάξιν ἐπέχειν τῇ περιοχῇ τῆς σφαίρας νενομίκασιν. ἄρξομαι δ' ἐντεῦθεν. (P)

5

procœmium non hab. S || [2–5] περιωδευκώς ... ἥντινα om. P^G, lac. ind. Diels || [5] κέντρου ... περιοχῇ P^{BQ} : † καὶ τῶν κέντρων καὶ P^G, crucif. Diels || [6] νενομίκασιν P^{BQ} : τὴν γῆν νομίζουσι P^G || ἄρξομαι ... ἐντεῦθεν P^{BQ} : om. P^G

Testes primi:

ps.Galenus *HPh* c. 73 ad fin. (text Diels)

* * * † καὶ τῶν κέντρων καὶ τῆς σφαίρας τὴν γῆν νομίζουσι (~ lib. 3 procœm.).

Testes secundi:

Achilles *Univ.* c. 32, p. 50.8–14 (~ P₁) (cf. *Scholia in Platonem*, *Sis.* 389a, below section E(a) General texts μεταρσιολέσχας) Περὶ μεταρσίων καὶ μετεώρων. διαφέρει δὲ μετέωρα μεταρσίων, ἥ τὰ μὲν μετέωρα ἐν οὐρανῷ καὶ αἰθέρι ἐστίν, ὡς ἥλιος καὶ τὰ λοιπὰ καὶ οὐρανὸς καὶ αἰθήρ, μετάρσια δὲ τὰ μεταξὺ τοῦ αἰθέρος καὶ τῆς γῆς, οἷον ἄνεμοι νεφέλαι ὄμβροι ἀστραπαὶ βρονταὶ κομήται δοκίδες πώγωνες λαμπάδες ἱριδες ἄλλως διαίττοντες ῥυμοὶ ῥυάκες. λεκτέον δὲ περὶ μεταρσίων· περὶ γὰρ μετεώρων προεῖρηται (sc. Ach cc. 10 ff.). c. 34, p. 51.13–14 περὶ δὲ κομητῶν καὶ δοκίδων ἐπραγματεύσαντο πολλοί, εἰσι δὲ οὐκ ἐν οὐρανῷ, ἀλλ' ἐν τῷ αἰέρι. c. 34, p. 52.12 ταῦτα μὲν οὖν ὡς ἐν ὀλίγῳ περὶ μεταρσίων.

Commentaria in Aratum, Anon. II *Isag.* 8, pp. 126.18–127.12 Maass Περὶ μεταρσίων. φίνονται οὖν (φησὶν) ἀναθυμιάσεις ἐκ τῶν ὑδάτων τῆς γῆς, ἡ μὲν ὑγρὰ καὶ ἀτμώδης, ἡ δὲ ξηρὰ καὶ καπνώδης. καὶ ἡ πλεονάζουσα ὑγρὰ καὶ συνιστάμενη νέφη ποιεῖ καὶ κατὰ μεταβολὴν ὑετοὺς καὶ ὄμβρους καὶ πνεύματα ὅσα ἐκ τούτων γίνονται. ἔστι δὲ ὁμίχλη νέφος ἄγονον ὕδατος ἡ ἀτμώδης ἀναθυμίασις, ζόφος δὲ νέφος μέλαν τε καὶ πεπληρωμένον, αἰθρία δὲ ἀήρ ἀνέφελος καὶ ἀνόμιχλος, ἀχλὺς δὲ πάχος ἀέρος ἀσύστατον, κνηκὶς δὲ νεφέλη λεπτοτάτη κενὴ ὕδατος, δρόσος δὲ ὑγρὸν ἐξ ἀέρος αἰθρίου κατὰ σύστασιν λεπτήν, ψακάς δὲ ὕδωρ

λεπτῶς διεσπασμένον ἐπὶ τῆς γῆς, ὑετὸς δὲ ψακάς ἀδρὰ καὶ συνεχής, ὄμβρος δὲ μικρὰ συστήματα ὕδατος ἐκ νέφους κατὰ μεταβολήν, πάγος δὲ ἐστὶν ὕδωρ πεπηγός, πάχνη δὲ ἡμιπαγῆς δρόσος, χιών δὲ ὑετῶν ψακάς ἐν νέφει πεπηγότι, νιφὰς δὲ ἐστὶ χιών πίπτουσα λεπτῶς, χάλαζα δὲ ἐστὶν ὄμβρος πεπηγός. ἡ δὲ ξηρὰ ἀναθυμίασις ἐκ τοῦ (ὕδατος) ὑπὸ ψύχους μὲν ὠσθεῖσ' ἀνέμους ἐμποιεῖ, ἐμπίπτουσα δὲ διάπυρος γενομένη κεραυνούς, ἀθρόα ἐμποιεῖ, ἐμπίπτουσα δὲ διάπυρος γενομένη κεραυνούς, ἀθρόα δὲ φερομένη ἡμίπυρος οὖσα πρηστήρας, μὴ πεπυρωμένη δὲ πῶς τυφώνας, ἀνειμένη δὲ ἡ αὕτῃ ἐκνεφίας ποιεῖ. κεραυνὸς δὲ καὶ πρηστήρ καὶ τυφὼς κατασκήψας σκηπτὸς λέγεται. τοσαῦτα μὲν ἀρκέσει ὥς ἐν ἐπιτομῇ περὶ τούτων εἰρησθαι, ἐξῆς δὲ τὰ ἀκόλουθα τούτων ἐροῦμεν (~ P₁).

Scholia in Aratum schol. 811 p. 403.17–404.5 Martin τῶν γινομένων καὶ ἐν τῷ μετεώρῳ συνισταμένων μεταξύ (αἰθέρος καὶ) γῆς τὰ μὲν ἐστὶ κατ' ἔμφασιν, τὰ δὲ μικτὰ, τὰ δὲ καθ' ὑπόστασιν κατ' ἔμφασιν μὲν οἶον ἱρις, ἄλλως, μικτὰ δὲ παρήλιοι, καθ' ὑπόστασιν δὲ κομήται, πωγωνία, δοκίδες, λαμπάδες, ἄττοντες (~ P₁).

Eusebius *PE* 15.32.10 θήσω δὲ ἐξῆς τοῖς εἰρημένοις ὅσα καὶ περὶ τῶν προσγειοτέρων ἐπηπόρησαν, περὶ γῆς σχήματος (~ tit. c. 3.10) καὶ περὶ θέσεως (~ c. tit. 3.11) καὶ ἐγκλίσεως (~ tit. c. 3.12) αὐτῆς καὶ ἔτι περὶ θαλάσσης (~ tit. c. 3.16), ὡς ἂν εἰδείης ὅτι μὴ (περὶ) μόνων τῶν μετεώρων (liber 2) καὶ μεταρσίων (cf. cc. 3.1–8) οἱ γενναῖοι διέστησαν, ἀλλ' ὅτι καὶ ἐν τοῖς περιγείοις διαπεφωνήκασιν. 15.54.3 καὶ περὶ μὲν τῶν οὐρανίων (cf. liber 2) καὶ μεταρσίων (cf. cc. 3.1–8) τοσαῦτα τοῖς δεδηλωμένοις πρὸς ἀλλήλους διεστασίασται. θέα δὲ καὶ τὰ περὶ γῆς (cf. cc. 3.9–17). *PE* 15.58.4 τούτων καὶ περὶ γῆς διαπεφωνημένων τοῖς γενναίοις ἄκουε καὶ τῶν περὶ θαλάσσης (~ tit. c. 3.16).

Loci Aetiani:

§1 A 3.4.4 Ξενοφάνης ἀπὸ τῆς τοῦ ἡλίου θερμότητος ὡς (προκατ)αρκτικῆς αἰτίας τὰν τοῖς μεταρσίοις συμβαίνειν. A 3.5.1 τῶν μεταρσίων παθῶν. A 3.6.1 τὰ κατὰ τὰς ῥάβδους καὶ ἀνθηλίου συμβαίνοντα μίξει τῆς ὑποστάσεως καὶ ἐμφάσεως ὑπάρχει. A 3.8.2 περιγεγραμμένων δέ μοι τῶν μεταρσίων, ἐφοδευθήσεται καὶ τὰ πρόσγεια. || ἐν ἐπιτομῇ: cf. tit. libri secundi Περὶ τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν δογμάτων ἐν ἐπιτομῇ τὸ β', et tit. operis P^B Περὶ τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν δογμάτων ἐπιτομῆς βίβλια ε' (cf. T 4.31 Πλουτάρχου τὴν Περὶ τῶν τοῖς φιλοσόφοις δοξάντων ἐπιτομήν).

Commentary

A Witnesses

The witnesses are limited. They are restricted to P^B and P^Q, with further only a corrupt remnant of the lemma in P^G, which has been added to the end of ch. 73,

the last chapter from Book 2. It is surprising that he appears to have included this brief section. The other procœmia in Books 1, 2 and 4 were omitted.

B *Proximate Tradition and Sources*

The representatives of the proximate tradition, viz. Ach, *Scholia in Aratum*, Pliny, Seneca, and Eusebius all dwell explicitly at greater or lesser length on the distinctions between the main divisions of physics, the boundaries between them, and the places where they are to be treated. The famous proem of Aristotle's *Meteorology* is the ultimate source of inspiration. Its reverberation in the *De mundo* is quite close to the proximate tradition, and also to A.

C *Chapter Heading*

The introductory comments in Books 1, 2, 3 (twice) and 4 fall outside the division into chapters and consequently have no chapter heading.

D *Analysis*

a Context

These lines indicate the opening of a new Book, starting a further division of physics, namely what happens in the atmosphere (τὰ μετάρσια). The next subdivision is announced at ch. 3.8.2, namely the series of chapters dealing with the 'things relating to the earth' (τὰ πρόσγεια).

A is bent on following and establishing an order which goes from the periphery to the centre not only in the treatise as a whole (see M–R 2.1.40–41, above General Introduction section 2.8), but also in the present book: a cluster of nine chapters dealing with atmospheric phenomena from the Milky Way (ch. 3.1) via comets (ch. 3.2), thunder and lightning (ch. 3.3), clouds etc. (ch. 3.4), rainbow (ch. 3.5), halo (ch. 5.a), rods (ch. 3.6), winds (ch. 3.7) and summer and winter (ch. 3.8), to a cluster of nine chapters (ch. 3.9–17) dealing with earth and sea. P ch. 1.18, on the halo, an atmospheric phenomenon, is in the wrong place.

b Number–Order of Lemmata

There is only one lemma, which is found only in P and his tradition. S and T write their own treatises, so obviously have no use for the introductory passages of A.

c Rationale–Structure of Procœmium

It provides a brief description of the contents of what follows in relation to what precedes, thus emphasizing the unity of the work, since it mentions not only the *ourania* but also the *metarsia*. It also highlights the unity of the Book, because it mentions not only the *metarsia* but also the 'position of the earth',

i.e. refers to ch. 3.11 and its immediate context. In the introductory passage at ch. 3.8.2 below both these parts are mentioned, the one as having been treated, the other as to be treated. For such authorial passages cf. the proems of Books 1, 2 and 4, and the embedded introductory passages at chs. 3.5.1 (3.8.2 has been cited at loci Aetiani above); see further M–R 2.1.42–59.

d Further Comments

§1 Such staunchly traditional passages introduce the writer in an authorial role.

e Further Evidence

From the proem of Aristotle's *Meteorology* to substantial passages in the *De mundo*, Seneca, Diogenes Laertius and Eusebius, see above, *Testes secundi*, and section E(a) & (b) below.

E Further Related texts

a Proximate Tradition

§1 Seneca *Dial.* 12.20.2 *tunc quidquid inter caelum terrasque plenum formidinis interiacet perspicit et hoc tonitribus fulminibus ventorum flatibus ac nimborum nivisque et grandinis iactu tumultuosum spatium.* *Nat.* 2.1.1–3 (Posidonius fr. 331 Theiler) *omnis de universo quaestio in caelestia, sublimia, terrena dividitur. ... secunda pars tractat inter caelum terramque versantia. hic sunt nubila, imbres, nives, <venti, terrae motus, fulgura> et humanas motura tonitrua mentes; quaecumque aer facit patiturve, haec sublimia dicimus, quia editiora imis sunt. ... —quomodo, inquis, de terrarum motu quaestionem eo posuisti loco quo de tonitribus fulguribusque dicturus es?—quia, cum motus spiritu fiat, spiritus autem aer sit agitatus, etiamsi subit terras, non ibi spectandus est; cogitetur in ea sede in qua illum natura disposuit.* Pliny *Nat.* 2.102–103 *hactenus de mundo ipso sideribusque: nunc reliqua caeli memorabilia. namque et hoc caelum appellare maiores quod alio nomine aëra, omne quod inani simile vitalem hunc spiritum fundit. infra lunam haec sedes multoque inferior, ut animadverto prope modum constare, infinitum ex superiore natura aëris, infinitum terreni halitus miscens utraque sorte confunditur. hinc nubila, tonitrua et alia fulmina, hinc grandines, pruinae, imbres, procellae, turbines, (103) decidunt imbres, nebulae subeunt, siccantur amnes, ruunt grandines. ... venti ingruunt inanes iidemque cum rapina remeant.* *Scholia Platonica in Sisyph.* 389a Greene μεταρσιολέσχας. διαφέρει μετέωρα μεταρσίων, ἦ τὰ μὲν μετέωρα ἐν οὐρανῷ καὶ αἰθέρι ἐστίν, ὡς ἥλιος καὶ τὰ λοιπὰ καὶ οὐρανὸς καὶ αἰθήρ, μετάρσια δὲ τὰ μεταξὺ τοῦ αἰθέρος καὶ γῆς ἐν ἀέρι συνιστάμενα, ὡς ἄνεμοι, νεφέλαι, ὄμβροι, ἀστραπαί, βρονταί, κομήται, δοκίδες, πῶγῳνες, λαμπάδες, ἱριδες, ἄλῳες, διάττοντες, ῥυμοί, ῥύακες καὶ τὰ τοιαῦτα.

b Sources and Other Parallel Texts

§1 Aristotle *Mete.* 1.1 338a20–339a5 περί μὲν οὖν ... τῶν κατὰ τὴν ἄνω φορὰν διακεκοσμημένων ἄστρον ... εἴρηται πρότερον. λοιπὸν δ' ἐστὶ μέρος τῆς μεθόδου ταύτης ἔτι θεωρητέον, ὃ πάντες οἱ πρότεροι μετεωρολογίαν ἐκάλουν· ταῦτα δ' ἐστὶν ὅσα συμβαίνει κατὰ φύσιν μὲν, ἀτακτοτέραν μέντοι τῆς τοῦ πρώτου στοιχείου τῶν σωμάτων, περὶ τὸν γειτνιῶντα μάλιστα τόπον τῇ φορᾷ τῇ τῶν ἄστρον, οἷον περὶ τε γάλακτος καὶ κομητῶν καὶ τῶν ἐκπυρουμένων καὶ κινουμένων φασμάτων, ὅσα τε θεῖημεν ἂν ἀέρος εἶναι κοινὰ πάθη καὶ ὕδατος, ἔτι δὲ γῆς ὅσα μέρη καὶ εἶδη καὶ πάθη τῶν μερῶν, ἐξ ὧν περὶ τε πνευμάτων καὶ σεισμῶν θεωρήσαιμεν ἂν τὰς αἰτίας καὶ περὶ πάντων τῶν γιγνομένων κατὰ τὰς κινήσεις τὰς τούτων· ἐν οἷς τὰ μὲν ἀπορούμεν, τῶν δὲ ἐφαπτόμεθα τίνα τρόπον· ἔτι δὲ περὶ κεραυνῶν πτώσεως καὶ τυφῶνων καὶ πρηστήρων καὶ τῶν ἄλλων τῶν ἐγκυκλίων, ὅσα διὰ πῆξιν συμβαίνει πάθη τῶν αὐτῶν σωμάτων τούτων. *Mete.* 1.3 339b13–15 τὸ δὲ δὴ μεταξὺ τῆς γῆς τε καὶ τῶν ἐσχάτων ἄστρον πότερον ἔν τι νομιστέον εἶναι σῶμα τὴν φύσιν ἢ πλείω, κἂν εἰ πλείω, πόσα κτλ. *Mete.* 1.9–10. ps.Aristotle *Mu.* 2 392a31–b13 μετὰ δὲ τὴν αἰθέριον καὶ θείαν φύσιν ... συνεχὴς ἐστὶν ἢ δι' ὅλων παθητὴ τε καὶ τρεπτὴ, καί, τὸ σύμπαν εἰπεῖν, φθαρτὴ τε καὶ ἐπίκηρος. ταύτης δὲ αὐτῆς πρώτη μὲν ἐστὶν ἡ λεπτομερὴς καὶ φιλογώδης οὐσία, ὑπὸ τῆς αἰθερίου πυρουμένη διὰ τὸ μέγεθος αὐτῆς καὶ τὴν ὀξύτητα τῆς κινήσεως· ἐν δὲ τῇ πυρώδει καὶ ἀτάκτῳ λεγομένη τὰ τε σέλα διάττει καὶ φλόγες ἀκοντίζονται καὶ δοκίδες τε καὶ βόθυνοι καὶ κομήται λεγόμενοι στηρίζονται καὶ σβέννυνται πολλάκις. ἐξῆς δὲ ταύτης ὁ ἀήρ ὑποκέχυται, ζοφώδης ὢν καὶ παγετώδης τὴν φύσιν· ὑπὸ δὲ ἐκείνης λαμπόμενος ἅμα καὶ διακαιόμενος λαμπρός τε γίνεται καὶ ἀλεινός. ἐν δὲ τούτῳ, τῆς παθητῆς ὄντι καὶ αὐτῷ δυνάμειος καὶ παντοδαπῶς ἀλλοιούμενῳ, νέφη τε συνίσταται καὶ ὄμβροι καταράσσουσι, χιόνες τε καὶ πάχυναι καὶ χάλαζαι πνοαὶ τε ἀνέμων καὶ τυφῶνων, ἔτι τε βρονταὶ καὶ ἀστραπαὶ καὶ πτώσεις κεραυνῶν μυρίων τε γνόφων συμπληγάδες. also *Mu.* 4. Diogenes Laertius *VP.* 7.133 τοῦ δ' ἑτέρου (sc. ἐπισκέψει τοῦ αἰτιολογικοῦ) καὶ τοὺς ἀπὸ τῶν μαθημάτων ἀντιποιεῖσθαι, οἷον πῶς ὀρώμεν, τίς ἡ αἰτία τῆς κατοπτρικῆς φαντασίας, ὅπως νέφη συνίσταται, βρονταὶ καὶ ἱριδες καὶ ἄλλως καὶ κομήται καὶ τὰ παραπλήσια. *VP.* 7.151 (*SVF* 2.693) τῶν δ' ἐν ἀέρι γινομένων (introducing the meteorological section Diogenes Laertius *VP.* 7.151 fin.–154). cf. Arius Didymus at Stob. *Ecl.* 2.7.12, p. 116.15–18 ἐγὼ δὲ ὅποσα προϋθέμην ἐπελθεῖν ἐν κεφαλαίῳ τῶν ἡθικῶν δογμάτων κατὰ τὴν τῶν Στωϊκῶν φιλοσόφων αἵρεσιν διεληλυθῶς ἱκανῶς, ἥδη τοῦτον τὸν ὑπομνηματισμὸν αὐτόθι καταπαύσω.

§1[5] ἄρξομαι δ' ἐντεῦθεν cf. Demosthenes *Or.* 57.17.8 etc., Arius Didymus at Stob. *Ecl.* 2.7.5, p. 57.17 (partly derived from Aristotle, cf. ps.Arist. *Mu.* c. 4 according to Maass).

Liber 3 Caput 1

- P^B**: ps.Plutarchus *Plac.* 892E–893A; pp. 364^a18–366^a3 Diels—**P^G**: ps.Galenus *HPh* c. 74; p. 629.4–19 Diels; pp. 225–244 Jas—**P^Q**: Qustā ibn Lūqā pp. 166–169 Daiber—**P^s**: Psellus *Omn.Doctr.* c. 123, p. 66 Westerink; *Phil.Min.* 1 24, p. 89 Duffy (titulus solus)
S: Stobaeus *Ecl.* 1.27.1–8, pp. 225.21–227.3 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b14 Henry (titulus solus)
 Cf. Ach: Achilles *Univ.* c. 22; p. 34.11–13; c. 24, p. 37.3–6 Di Maria; *Scholia in Aratum schol.* 231, p. 189.5–6; *schol.* 462, pp. 291.19–292.1; *schol.* 469, p. 298.8–10 Martin

Titulus α'. Περὶ τοῦ γαλαξίου κύκλου (P,S)

- §1 κύκλος ἐστὶ νεφελοειδὴς ἐν μὲν τῷ ἀέρι διὰ παντὸς φαινόμενος, διὰ δὲ τὴν λευκόχροϊαν γαλαξίας ὀνομαζόμενος. (P1,S1)
 §2 τῶν Πυθαγορείων οἱ μὲν ἔφασαν ἀστέρος εἶναι διάκαυσιν, ἐκπεσόντος μὲν ἀπὸ τῆς ἰδίας ἔδρας, δι' οὗ δὲ ἐπέδραμε χωρίου κυκλοτερώς αὐτὸ καταφλέξαντος ἐπὶ τοῦ κατὰ Φαέθοντα ἔμπρησμοῦ· (P2,S2) 5
 §3 οἱ δὲ τὸν ἡλιακὸν ταύτη φασὶ κατ' ἀρχὰς γεγενῆσθαι δρόμον. (S3)
 §4 τινὲς δὲ κατοπτρικὴν εἶναι φαντασίαν τοῦ ἡλίου τὰς αὐγὰς πρὸς τὸν οὐρανὸν ἀνακλῶντος, ὅπερ καὶ ἐπὶ τῆς Ἰριδος καὶ ἐπὶ τῶν νεφῶν συμβαίνει. (S4) 10
 §5 Μητρόδωρος διὰ τὴν πάροδον τοῦ ἡλίου· τοῦτον γὰρ εἶναι τὸν ἡλιακὸν κύκλον. (P3,S5)

§1—; §§2–4 Pythagorei 58B.37c DK; §3 cf. Oenopides 41.10 DK; §4 cf. Hippocrates 42.6 DK; §5 Metrodorus 70A13 DK

titulus Περὶ ... κύκλου ^{PB(II)G2Q}; τοῦ om. ^{PB(II)}; κύκλου om. ^{PG1} || Περὶ τοῦ φαινομένου ἐν τῷ οὐρανῷ γαλακτοειδοῦς κύκλου καὶ λεγομένου γαλαξίου ^{PPs} || Περὶ γάλακτος ^S (cf. index Phot.) : Περὶ γαλαξίου Meineke (cf. Ach) §1 [2] κύκλος ^{PBGS} : *Himmelssphäre* ^Q || ὁ γαλαξίας ante κύκλος ^{PG} §2 [4] τῶν ... ἔφασαν ^{PBSF} : οἱ μὲν Πυθαγόρειοι ^{SP} : οἱ τῶν Πυθαγορείων τινὲς ^{PG} || [5] μὲν ἀπὸ ^{PBQS} : ἐκ ^{PG} || ἰδίας ^{PB(II,III)GS} prob. Laks–Most : οἰκείας ^{PB(II)} : *in welchem er verwurzelt war* ^Q || δὲ om. ^{PG} || ἐπέδραμε ^{PB(I–III exc. E)QS} : περιέδραμε ^{PB(III,E)G} prob. Laks–Most || χωρίου ^{PSF} : χωρίον ^{SP} || [5–6] κυκλοτερώς ... ἔμπρησμοῦ ^{PSF} : om. ^{SP} || κυκλοτερώς ... καταφλέξαντος ^{PBQS} : γλαφυρώτερον αὐτὸ περικαύσαντος ^{PG} || [6] φαέθοντα ^{PB(II,III)SP} : φαέθοντος ^{PB(II)SF} || post ἔμπρησμοῦ add. διὰ τῆς ἐκείνου παρόδου ^{PG}, secl. Diels Jas §3 [7] τὸν ἡλιακὸν ^{PBQS} : τὴν ἡλιακὴν ^{PG} || φασὶ ^{PBSF} : φησὶ ^{SP} || δρόμον ^{PBQS} : δίοδον ^{PG} §4 [8] post δὲ add. καὶ ^{PB(II)} || κατοπτρικὴν ^{PBQS} : τοῦτο μικρὰν ^{PG} || τοῦ ἡλίου ^{PBQS} : τοῦ πλείονος οὐρανοῦ ^{PG} || [8–9] τὰς ... οὐρανὸν ^{PBS} : πρὸς τὸν οὐρανὸν τὰς αὐγὰς ^{PG} || πρὸς τὸν οὐρανὸν ^{PBS} : *auf sie* ^Q || [9–10] καὶ² ... συμβαίνει ^{PBS} : ἐπὶ τῶν τῆς Ἰριδος νεφῶν συμβαίνειν εἰώθεν ^{PG} : *was sich ... infolge einer Einwirkung auf die Wolken zeigt* ^Q || [9] καὶ² ^{PB} : om. ^{PGQS} §§5 [11]–6 [13] τοῦτον ... πυκνοῦ om. ^{PG} §5 [11–12] τοῦτον ... κύκλον ^{PBQS} : om. ^{PG}, lac. ind. Diels

- §6 Παρμενίδης τὸ τοῦ πυκνοῦ καὶ ἀραιοῦ μίγμα γαλακτοειδὲς ἀποτελέσαι
χρῶμα. (P4,S6)
- §7 Ἀναξαγόρας τὴν σκιὰν τῆς γῆς κατὰ τοῦτο τὸ μέρος ἴστασθαι τοῦ 15
οὐρανοῦ, ὅταν ὑπὸ τὴν γῆν ὁ ἥλιος γινόμενος μὴ πάντα φωτίζει. (P5,S7)
- §8 Δημόκριτος πολλῶν καὶ μικρῶν καὶ συνεχῶν ἀστέρων συμφωτιζομένων
ἀλλήλοις συναυγασμὸν διὰ τὴν πύκνωσιν. (P6,S8)
- §9 Ἀριστοτέλης ἀναθυμιάσεως ξηρᾶς ἕξαψιν πολλῆς τε καὶ συνεχοῦς· καὶ
οὕτω κόμην πυρὸς ὑπὸ τὸν αἰθέρα κατωτέρω τῶν πλανητῶν. (P7,S9) 20
- §10 οἱ Στωικοὶ τοῦ αἰθερίου πυρὸς ἀραιότητα ἀνώτερον τῶν πλανητῶν.
(G7)
- §11 Ποσειδώνιος πυρὸς σύστασιν, ἄστρου μὲν μανώτερον, αὐγῆς δὲ
πυκνότερον. (P8,S10)

§6 Parmenides 28A43a DK; §7 Anaxagoras 59A8o DK; §8 Democritus 68A9i DK; §9 Aristoteles cf. *Mete.* 1.8 345b31–346b6; §10 Stoici —; §11 Posidonius F 129 E.-K., 298b Theiler

§6 [13] Παρμενίδης ... πυκνοῦ ^{PB(II,III)QS} : om. PG, lac. ind. Diels || πυκνοῦ ^{PB(II,III)} : κενοῦ ^{PB(II)} ||
ἀραιοῦ ^{PBQS} : τὸ τῆς δρόσου PG, τὸ τοῦ ἀραιοῦ S || ἀποτελέσαι ^{PBQS} : ἀποτελεῖν PG §7 [15] τοῦτο
^{PBQS} : τόδε PG prob. Laks–Most || [16] ὑπὸ ^{PB(II,III)G} : ἐπὶ ^{PB(II)} : περὶ S, corr. Heeren || [16] ὁ
... γινόμενος ^{PB(II,III)} (γενόμενος S) : γινόμενος ὁ ἥλιος ^{PB(II)} || post πάντα add. *mit dem Feuer,*
welches in ihr ist Q || φωτίζει ^{PBQS} : περιφωτίζει PG prob. Laks–Most §8 [17] Δημόκριτος
^{PBQG} : om. S || post Δημόκριτος hab. PG περὶ || καὶ¹ ^{PB(II,III)G} : om. ^{PB(II)} || [18] ἀλλήλοις ...
πύκνωσιν ^{PBQS} : εἶναι PG || συναυγασμὸν ... πύκνωσιν ^{PBS} (inv. S) : διὰ τὴν πύκνωσιν om. PQ
§9 [19] ἀναθυμιάσεως ... συνεχοῦς ^{PBQS} : om. PG || ξηρᾶς ante πολλῆς ^{PBS} : *vielen trockenen*
(Dampfes) Q || ξηρᾶς ^{PSP} : μικρᾶς ^{SF} || [19–20] καὶ ... πλανητῶν om. S, qui add. alia verisimi-
liter ex AD || [19–20] καὶ οὕτω ^{PBQS} : ὥσπερ PG || [20] ὑπὸ τὸν αἰθέρα ^{PB} : om. PQ || αἰθέρα
^{PB} : ἀέρα PG || κατωτέρω ^{PBQ} : καὶ τὸν τόπον PG || τῶν πλανητῶν ^{PB} : *des Planeten* Q || post πλα-
νητῶν add. φαίνεσθαι PG prob. Gigon §10 lemma non hab. ^{PBQS}, abnuit Aetio Diels *DG* 15,
citant in app. Laks–Most §11 [23] σύστασιν || τάσιν PG (v.l. πάσιν) || μανώτερον scripsimus :
μανωτέραν S edd. : λαμπρότερον ^{PB} : *stärker* Q || [23–24] ἄστρου ... πυκνότερον/αν ^{PBQS} : om.
PG || [24] πυκνότερον ^{PBQ} : πυκνότεραν S, edd.

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 74 Περί τοῦ γαλαξίου

- 74.1 (~ P1) ὁ γαλαξίας κύκλος ἐστὶ νεφελοειδὴς ἐν μὲν τῷ ἀέρι διὰ παντὸς φαινόμε-
νος, διὰ (δὲ) τὴν λευκόχροιαν ὀνομαζόμενος γαλαξίας.
- 74.2 (~ P2) οἱ τῶν Πυθαγορείων τινὲς ἀστέρος εἶναι διάκνουσιν ἐκπεσόντος ἐκ τῆς
ἰδίας ἔδρας, δι' οὗ περιέδραμε χωρίου γλαφυρώτερον αὐτὸ περικαύσαντος ἐπὶ
τοῦ κατὰ Φαέθοντα {ἐμπρησμοῦ διὰ τῆς ἐκείνου παρόδου}.
- 74.3 (~ P3) οἱ δὲ τὴν ἡλιακὴν ταύτη φασὶ κατ' ἀρχὰς γεγενέναι δίοδον.
- 74.4 (~ P4) τινὲς δὲ τοῦτο μικρὰν εἶναι φαντασίαν τοῦ πλείονος οὐρανοῦ πυρὸς πρὸς
τὸν οὐρανὸν τὰς αὐγὰς ἀνακλῶντος· ὅπερ ἐπὶ τῶν τῆς Ἰριδος νεφῶν συμβαίνειν
εἶωθεν.
- 74.5 (~ P5–6) Μητρόδωρος διὰ τὴν πάροδον τοῦ ἡλίου [...] καὶ τὸ τῆς δρόσου μίγμα
γαλακτοειδὲς ἀποτελεῖν χρῶμα. (= §3 Jas)

- 74.6 (~ P7) Ἀναξαγόρας τὴν σκιὰν τῆς γῆς κατὰ τόδε τὸ μέρος ἵστασθαι τοῦ οὐρανοῦ, ὅταν ὑπὸ τὴν γῆν ὁ ἥλιος γίνομενος μὴ πάντα περιφωτίζῃ. (= §4 Jas)
- 74.7 (~ P8) Δημόκριτος περὶ πολλῶν καὶ μικρῶν καὶ συνεχῶν ἀστέρων συμφωτιζομένων εἶναι. (= §5 Jas)
- 74.8 (~ P9) Ἀριστοτέλης ὥσπερ εἰ κόμην πυρὸς ὑπὸ τὸν ἀέρα καὶ τὸν τρόπον πλανητῶν φαίνεσθαι. (= §6 Jas)
- 74.9 (~ P10) οἱ Στωικοὶ τοῦ αἰθερίου πυρὸς ἀραιότητα ἀνώτερον τῶν πλανητῶν. (= §7 Jas)
- 74.10 (~ P11) Ποσειδώνιος πυρὸς τάσιν. (= §8 Jas)

Psellus *Omn.Doctr.* c. 123.1

Περὶ τοῦ φαινομένου ἐν τῷ οὐρανῷ γαλακτοειδοῦς κύκλου (~ tit. et §1).

Phil.Min. 1 op. 24, p. 89 Duffy

Περὶ τῶν κατ' οὐρανὸν φασμάτων καὶ περὶ κομητῶν [i.q. tit. c. 3.2] καὶ γαλαξίου (~ tit.)

Testes secundi:

Achilles *Univ.* c. 22, p. 34.11–13 τοὺς δὲ λοξοὺς (sc. κύκλους) οἱ μὲν αἰσθητοὺς, οἱ δὲ πλείους τὸν γαλαξίαν μόνον (sc. αἰσθητὸν) εἶναι βούλονται, τοὺς δὲ λοιποὺς πάντας νοητοὺς (~§1).

c. 24, p. 37.3 Περὶ τοῦ γαλαξίου (~ tit.).

c. 24, p. 37.4–21 ὁ δὲ γαλαξίας εἴρηται (c. 22) μὲν ὥς ἐστιν ὁρατὸς καὶ μόνος ἐπὶ τῆς σφαίρας αἰσθητός, τῶν ἄλλων ὄντων νοητῶν (~ §1). περὶ δὲ τούτου φησὶν Ἑρατοσθένης ἐν τῷ Καταμερισμῷ (nr. 44 Pàmias y Massana–Zucker) μυθικώτερον τὸν γαλαξίαν κύκλον γεγενῆσθαι ἐκ τοῦ τῆς Ἥρας γάλακτος ... ἕτεροι δὲ φασιν, ὧν ἐστὶν καὶ Οἰνοπίδης ὁ Χίος (41.10 DK), ὅτι πρότερον διὰ τούτου ἐφέρετο ὁ ἥλιος, διὰ δὲ τὰ Θυέστεια δεῖπνα ἀπεστράφη καὶ τὴν ἐναντίαν τούτῳ πεποιήται περιφορὰν, ἣν νῦν περιγράφει ὁ ζωδιακός. ἔστι δὲ μυθῶδες τοῦτο καὶ ψευδὸς. τί γὰρ ἐροῦσιν οἱ ταῦτα λέγοντες περὶ τῆς σελήνης καὶ τῶν πέντε ἀστέρων; οὐ γὰρ δὴ καὶ οὗτοι διὰ τὰ Θυέστεια δεῖπνα ἀπεστράφησαν (~ §3). ἄλλοι δὲ (Democritus 68A91 DK) ἐκ μικρῶν πάνυ καὶ πεπυκνωμένων καὶ ἡμῖν δοκοῦντων ἠνώσθαι διὰ τὸ διάστημα τὸ ἀπὸ τοῦ οὐρανοῦ ἐπὶ τὴν γῆν ἀστέρων αὐτὸν εἶναι φασιν, ὥς εἴ τις ἀλάσι λεπτοῖς καὶ πολλοῖς καταπάσειέ τι (~ §8).

Scholia in Aratum *schol.* 231, p. 189.5–6 Martin ὅψι οὐκ εἰσὶν οἱ κύκλοι καταληπτοί, πλὴν μόνου τοῦ γαλαξίου (cf. §1). *schol.* 462, pp. 291.19–292.1 Martin αὐτοὶ μὲν καθ' ἑαυτοὺς ἀφανεῖς εἰσὶ πλὴν τοῦ γαλαξίου, ὅτι ἐστὶ νεφελῶδης. *schol.* 469, p. 298.8–10 Martin λέγει δὲ τὸν γαλαξίαν κύκλον, οὗτος γὰρ μόνος παρὰ τοὺς ἄλλους πάντας ὅψι ἐστὶν εὐκατάληπτος διὰ τὴν ἐν αὐτῷ ὥσπερ νεφελῶδι πύλησιν (cf. §1).

Loci Aetiani:

§1 A 1.9.1 ὕλη ἐστὶ ... A 1.10.1 ἰδέα ἐστὶν ... A 1.11.1 αἰτίον ἐστὶ ... ἀρκεῖ γὰρ ὑπογραφικῶς. A 1.12.1 σῶμά ἐστι ... ἢ ... ἢ ... A 1.14.1 σχῆμά ἐστιν ... A 1.15.1 χρῶμα ἐστὶ ...

- A 1.23.1 ... κίνησίς ἐστι διαφορά τις ἢ ἑτερότης ἐν ὕλῃ, ἣ ἔστιν ὕλη. οὗτος πάσης κινήσεως κοινὸς ὅρος. A 2.32.1 ἐνιαυτός ἐστι ...
- §4 A 3.2.2 ἄλλοι δὲ ἀνάκλασιν τῆς ἡμετέρας ὄψεως εἰς τὸν ἥλιον παραπλησίαν ταῖς κατοπτρικαῖς ἐμφάσεσιν.
- §6 A 2.7.1 Παρμενίδης στεφάνας εἶναι περιπεπλεγμένας ἐπαλλήλους, τὴν μὲν ἐκ τοῦ ἀραιοῦ, τὴν δὲ ἐκ τοῦ πυκνοῦ. τοῦ δὲ πυρὸς ἀναπνοὴν τὸν ἥλιον καὶ τὸν γαλαξίαν κύκλον. A 2.8.15 Παρμενίδης τὸν ἥλιον καὶ τὴν σελήνην ἐκ τοῦ γαλαξίου κύκλου ἀποκριθῆναι, τὸν μὲν ἀπὸ τοῦ ἀραιότερου μίγματος ὃ δὴ θερμόν, τὴν δὲ ἀπὸ τοῦ πυκνότερου ὅπερ ψυχρόν.
- §§7–8 A 3.2.3 Ἀναξαγόρας Δημόκριτος σύνοδον ἀστέρων δεῦν ἢ καὶ πλείονων κατὰ συναυασμόν.
- §9 A 3.2.3 Ἀριστοτέλης τῆς ξηρᾶς ἐκ γῆς ἀναθυμιάσεως διάπυρον σύστασιν (sc. εἶναι τὸν κομήτην). A 3.3.13 Ἀριστοτέλης ἐξ ἀναθυμιάσεως καὶ τὰ τοιαῦτα (sc. ἀστραπὴν βροντὴν κτλ.) γίνεσθαι τῆς ξηρᾶς. A 3.15.4 Ἀριστοτέλης ... ἐν ἀπολήψει γινομένης τῆς ξηρᾶς ἀναθυμιάσεως.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The witnesses for P are P^B and P^Q with ten lemmata, P^G with eleven lemmata (i.e. one extra), and P^S for the heading only. Psellus includes several headings from the meteorological section of the *Placita* in his *De omnifaria doctrina*, but the contents of his chapters derive from elsewhere. E does not copy out any of the first eight chapters of the book.

(2) The brief chapter of S, which has the same ten lemmata in the same order as the matching lemmata in P, combines the first sentence of the Aristotle lemma with a short excerpt from AD, a type of coalescence found more often in the *Anthology*, see Diels *DG* 75 n. 2, M–R 1.249–254, and Jeremiah at M–R 4.286 and 353. S appears to have written out the chapter in full minus one lemma, and P to have refrained from abridging it.

(3) G has combined P§5 and §6, omitting the name-label Parmenides. It should also be noted that he has preserved an interesting lemma dealing with the Stoics, which would appear to have been lost in both S and the further tradition of P, a rare event; see discussion at section D(c)(3) below, and for a preliminary overview of extra lemmata in G see M–R 1.149–150. For comparable extra evidence in chapters of G cf. also above, ch. 1.1, Commentary A. One would have assumed that the chapter has survived in full because of the complete agreement between P and S and the continuous sequence of lemmata in

S, of which those corresponding with lemmata in P are in the same order as in P. Surprisingly, however, the extra lemma in G—rejected by Diels—shows that this is not the case. That it is complete when we include this lemma is not certain either, because the proximate tradition provides doxai (of Theophrastus and Diodorus) not represented here.

We note, finally, that T does not make use of any material from Book 3.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Quite numerous parallels are found, not only in the usual more or less historiographical sources, but also in literature concerned with celestial phenomena, both in scientific or partly scientific contexts (Lucretius, Manilius, *Scholia on Aratus* and literature deriving from Aratus) as well as in literature with a moral purpose (Cicero's *Somnium Scipionis*, Philo's *De providentia*, Macrobius' *Commentary*). There is no discussion of the Milky Way in Theophrastus(?) *Metarsiology* and Seneca's *Naturales quaestiones*.

(2) *Sources.* The matrix of the chapter derives from Arist. *Mete.* 1.8, where the topic to be treated, the cause and nature of the Milky Way, is formulated and dialectical discussion of the views of others announced. More particularly, our §§2–4 (some Pythagoreans, other Pythagoreans, some people) and §§7–8 (Democritus and Anaxagoras) are derived from this Aristotelian chapter virtually verbatim. §9 as to contents represents the doctrine of *Mete.* 1.7–8. Aristotle too includes a mythical explanation in his overview, but only at second hand, namely the Phaethon story attributed to 'some Pythagoreans' (refuted by him along with the others cited).

Diels in the *Theophrasteorum conspectus* at DG 138 places the indeed virtually identical formulations of the Anaxagorean tenet cited by Diogenes Laertius and Hippolytus (see below section E(a)§7) next to §5 of the present chapter in his parallel columns, thus deriving them from Theophrastus. But they are closer to the original presentation by Aristotle (see below section E(b)§7) than to the *Placita* lemma. Neither in Aristotle nor in §5 do we find the ἀνάκλασις of Hippolytus and Diogenes Laertius. But the two parallel versions of section E(a)§7 will certainly derive from a common intermediary source, perhaps Theophrastus. For parallel evidence related to the issue of the salinity of the sea see below, ch. 3.16 Commentary B.

In his wonderful and unjustly forgotten, or at least neglected, commentary on the *Meteorology* Ideler (1834) 1.409 pointed out that the meteorological *placita* in Stobaeus, and in those sources with which Stobaeus as a rule agrees (i.e. ps.Plutarch etc.), *depend on Aristotle*: 'quibus accedit, quod Stobaeus et reliqui, quibuscum ille [sc. Stobaeus] consentire solet, in enumeratione placitorum, fere unice ab Aristotele pendere soleant', etc. See also *ad* chs. 3.5 and 3.5a (olim 3.18)

below. Diels unfortunately failed to profit from this invaluable insight, or maybe chose to ignore it because it conflicts with the Diels/Usener hypothesis regarding Theophrastus as the source of such parallel later accounts. There is nevertheless a telltale item at Democritus 68A91 DK 'über die Milchstr.', where a reference to the *Meteorology* cited in the Anaxagoras chapter is followed by an abstract from Alexander's comments, and by quotations of A 3.1.8 and the parallel in Ach. Elsewhere, too, such or similar sequences are to be found, e.g. Aristotle plus A at Anaxagoras 59A81 DK and 59A84 DK, at Empedocles 31A63 DK, at Xenophanes 21A47 DK, at Anaximenes 13A21 DK, and A plus Aristotle at Anaxagoras 59A85 DK.

C Chapter Heading

Of the standard umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C), covering the question types of substance and cause (διὰ τί), and the category of place. It is not easy to choose between P's version Περὶ τοῦ γαλαξίου with κύκλου and S's Περὶ γάλακτος without it, as κύκλου's presence may be an anticipation of the first word of §1, and its absence an instance of the usual sort of Stobaeian heading abridgement. The word is not really needed when the substantive used is γαλαξίας, which also occurs in §1 in both P and S, while Περὶ γάλακτος is perhaps not immediately clear. Ach and G (text Jas) at any rate have Περὶ τοῦ γαλαξίου without κύκλου, which might tip the balance towards leaving it out. S's γάλακτος may reflect Aristotle's earlier usage, to which Alexander adverts. It may do so either via the tradition or as the result of an archaizing move, as Aristotle's embedded heading is περὶ ... γάλακτος. Ach's remark *Isag.* c. 24, p. 38.4–5, that Aratus l. 476 uses γάλα because γαλαξίας does not fit the metre (διὰ τὸ μὴ δύνασθαι αὐτὸ ἐντεθῆναι εἰς ἔπος τοῦ γαλαξίου τὸ ὄνομα) is not wrong, but he fails to note the Aristotelian usage (cf. Ideler 1834, 1.411, who calls this observation 'inept' and cites Parmenides 28B11.2 DK γάλα τ' οὐράνιον as precedent). Psellus' long and composite heading is not relevant for the *constitutio*. With some misgivings we have preferred P's reading nevertheless.

D Analysis

a Context

The chapters in A Book 3 dealing with meteorological subjects for a substantial part derive from specific sections, or proto-chapters, in Aristotle's *Meteorology*, the first work, as far as we know, to bring these topics together in a systematic way. The derivation holds for the issues themselves as well as for part of the actual contents. But the order of treatment in the *Placita* is not the same as in the *Meteorology*, and not the same as in Seneca's *Naturales quaestiones* either.

A begins with the Milky Way at ch. 3.1 to continue at ch. 3.2 with comets and shooting stars, whereas Aristotle discusses shooting stars and similar phenomena at *Mete.* 1.4–5, continues with comets in *Mete.* 1.6–7, and only then discusses the Milky Way in *Mete.* 1.8. Note however that in the proem the order of themes to be discussed is different from the actual order of treatment, namely the Milky Way first and not third, and then the others (*Mete.* 1.1 338b22–24 περί τε γάλακτος καὶ κομητῶν καὶ τῶν ἐκπυρουμένων καὶ κινουμένων φασμάτων). This again shows that such an overview is not an index of contents in our sense of the word (or in that of the pinax of later literature). Aristotle has just said that phenomena such as these take place in the region *bordering on* that of the movements of the stars, and therefore not *in* the astral region. He presumably has Anaxagoras' and Democritus' theory of the Milky Way in mind (discussed *Mete.* 1.8 345a25 ff.), who explain it as the light produced by a collection of small (fixed) stars. It is therefore a matter of some programmatic importance to mention the Milky Way qua non-astral phenomenon first, and only then the comets, who according to the same authorities are to be counted among the *planets* (*Mete.* 1.6 342b27 ff.). By moving the chapter on the Milky Way, which contains references to the stars, to the very beginning of the Book A has it immediately follow upon the heavenly phenomena treated in Book 2, so gives it a transitional function, just as ch. 1.30 at the end of Book 1 has.

A may be indebted to the tradition and view represented by Ptolemy and al-Bitriq's source and echoed in the late commentators, for which see below, Section D(e). As a matter of fact the Milky Way is the first and highest phenomenon in Aristotle's sublunary cosmos, so treating it first restores the hierarchy. Aristotle bundles things more roughly together in two successive layers of the sublunary cosmos, viz. the upper region where shooting stars, comets and the Milky Way are found (*Mete.* 1.4–8), and the layer following upon this one and closer to the earth, where we have rain (and similar phenomena, treated a bit later), and clouds, and winter and summer, and winds (*Mete.* 1.8–13). For the explanation of A's order see further Introduction to Book 3, section 2, on the subject matter of the Book, and Book 3, *Prooemium* at Commentary D(a).

b Number–Order of Lemmata

P^B, confirmed by P^Q, has ten lemmata, and S has ten lemmata too, the same as P^{BQ}. P^G seems to have ten lemmata as well, but because in P^G §5 has been coalesced with §6 and the name-label Parmenides has dropped out, this additional witness in fact has, or rather attests to, eleven lemmata, ten of which are paralleled in P^{BQ} and S while one, §10, is not paralleled in either P^{BQ} or S. As the lemmata order is the same in all witnesses (assuming that G's §10 is found in its

original position, see below), this order has to be preserved unchanged. Unsurprisingly our order is the same as that of Diels in the *DG*. We have however augmented the number of lemmata not only by including the extra paragraph preserved by G, but also by splitting up Diels' first lemma into three separate paragraphs, following our practice of having a separate lemma for every doxa if it is introduced by a different name-label.

c Rationale–Structure of Chapter

(1) *The definition.* This is one of the eight *Placita* chapters to begin with an anonymous definition, clearly meant to be nominal (or conceptual) and valid in all cases (see above ch. 1.9, Commentary D(c)(1) and D(b)(2)). The diaphonia starts at §2.

(2) The chapter's contents are paralleled in a multiplicity of other sources. There is a clear and crucial diaphonia between §§2–3 (two groups of Pythagoreans), lemmata that attribute real existence to the Milky Way, and §4 (doxa purported to be of other Pythagoreans?), a lemma that declares it to be an optical illusion. §§5–§11, too, in various ways declare the Milky Way to be real, so not illusory. This general diaphonia is of decisive importance for the account of the meteorology as a whole. In the remainder of the chapter the view represented by §4 does not occur again, unless one wishes to include the views listed at §§6–7 in the class of optical illusions, which however is hardly feasible. To be sure, the Anaxagorean parallels at Hippolytus *Ref.* 1.8.8, and Diogenes Laertius *V.P.* 2.9 posit that the Milky Way is a reflection (ἀνάκλασις) of stars that are not illuminated by the sun, but no reflection is mentioned in our §7, while the συναυγασμός of our §8 is, so to speak, *toto caelo* different from ἀνάκλασις. One also wonders how these stars come to be reflected, so what is in Hippolytus and Diogenes must derive from a garbled interpretation of a formula similar to what is found in A. In the next chapter moreover, 3.2.3, a similar doctrine as applied to comets etc. is attributed (as in Aristotle) to both physicists together: 'Anaxagoras Democritus (say they are) a combination of two or even more stars according to their giving off light together (κατὰ συναυγασμόν).'

From §5 to §11 we accordingly have various explanations of the Milky Way as a real physical phenomenon. The first of these, §5 Metrodorus, is similar to the anonymous doxa of §3, the difference being that the (Pythagorean?) Anonymi speak of the past and Metrodorus of the present. §6 Parmenides is the first to provide a characterization in terms of physical elements (cf. §§9–11), but the reference to the milky colour also turns it into an appendix to the descriptive definition of §1. §7 Anaxagoras would be incomprehensible without its Aristotelian precedent; in fact, §§7–8 derive from a single sentence in Aristotle.

(3) §§9–11 (Aristotle, the Stoics, Posidonius) take us beyond the Presocratics and are additions to the originally for the most part Aristotelian data concerned with the views of others. The substance of the Milky Way is fiery: an inflammation of the dry exhalation that becomes a tail of fire according to Aristotle §9, a loose-textured form of aetherial fire according to the Stoics §10, and a solid fiery structure according to Posidonius §11. The fineness of texture of §10 provides a contrast with the blend of fine and compact elements of §6, as does the term in between the opposed terms ‘rare’ and ‘compact’ of §11.

(4) The rather unsatisfactory structure of the chapter can be explained as the result of a restructuring by means of successive additions to this Aristotelian matrix, which nevertheless still determines the exposition. The tenets of §§2–4 plus §§7–8 derive from Aristotle, but in *Mete.* 1.8 the order is different, namely tenets anticipating §§2–3 followed by tenets anticipating §§7–8 followed by a tenet anticipating §4. There are no Aristotelian antecedents of §§5–6 (and neither, of course, of §§9–11). The restructuring, locating the view that the Milky Way is an optical illusion immediately after the Pythagorean views, thus bypassing those attributed to Anaxagoras and Democritus, has the effect of stating a crucial diaphonia (already prefigured in Aristotle) at the very beginning. The views of §5 Metrodorus and §6 Parmenides come next, as appendixes to respectively §3 (Pythagoreans?) and §1 (definition). §§6–7, tenets that in Aristotle came after those corresponding to §§2–3, thus come after and not (as in Aristotle) before the paragraph about the optical illusion.

What is more, the single view attributed in Aristotle to both Anaxagoras and Democritus has now been split up into two different views. Even so, the Aristotelian sequence is followed and its peculiarities are preserved, though modified by the switch between the contents of §§7–8 and §4, the interpolation of §§5–6, and the splitting-up of §§7–8. It is obvious that the material referring to Aristotle himself and the Stoics could only be introduced *ad finem*.

A sort of ring composition effect is involved in the presence of specific diaphoniae at the beginning and end of the chapter, an important one first, a less important one last. The first, as noted, is the result of a modification of the Aristotelian order, the purpose of which is the enhancing of diaphonic clarity *more doxographico*. The tail of the chapter has likewise been arranged according to doxographical custom.

d Further Comments

General Points

What is new in comparison with Aristotle, and quite interesting, is the explicit effort to connect the Milky Way (according to some) qua optical phenomenon,

as in ch. 3.1, with the discussion of the rainbow qua optical phenomenon in ch. 3.5 (the latter, as it turns out, according to Aristotle himself) by means of the remark (at A 3.1.4) ‘just as what happens in the case of the rainbow and the clouds’ (ὅπερ καὶ ἐπὶ τῆς ἱριδος καὶ ἐπὶ τῶν νεφῶν συμβαίνει).

Individual Points

§1 Visibility and colour: see Pàmias y Massana–Zucker (2013) nn. 682–683.

§3 Doxa attributed to Oenopides of Chios and others at Ach c. 24, p. 37.13–16; for Oenopides cf. section D(e) below.

§4 Doxa attributed to the mathematician Hippocrates of Chios by Alex. in *Mete.* 38.28–32. This theory as applied to comets is attributed to Hippocrates at Aristotle *Mete.* 2.6 342b35–343a4, and cited (without name-label) in a similar diaphonia at the beginning of the next chapter, 3.2.2, *ubi vide*. Because he was a mathematician this Hippocrates was later considered to be a Pythagorean (Burkert 1972, 314 n. 77, 322 n. 115), though not always, see Alexander in *Mete.* 26.27–28 and, following him, John Philoponus in *Mete.* 77.8–9. Note that the phrase formulating the present doxa is a modified echo of Aristotle’s sentence: Aristotle writes that our visual rays are reflected to the sun (so also the parallel doxa at ch. 3.2.2), while our lemma posits that the sun’s rays are reflected towards the heaven. (The heavenly vault is of course the place where we ‘see’ this projection and so locate the Milky Way). We then hear that this is just like what happens with the rainbow and with the clouds. The rainbow qua phenomenon of reflection is the theme of a large section of ch. 3.5, ‘On the rainbow’, while clouds as involved with other optical phenomena are found in the next chapter, 3.2.5–6. We note that it concerns *both* rainbow and clouds; accordingly, we have retained the καὶ between ἱριδος and ἐπὶ τῶν νεφῶν as found in P^B. That the sun bends back its rays by way of a cloud that serves as a mirror is not stated explicitly, but only suggested.

The parallels for these views of Hippocrates (and Aeschylus) in Aristotle and elsewhere are cited below, section E(b)§4 and at ch. 3.2, section E(b)§4. Most remarkably, views concerned with *physics* (cosmology, or meteorology) are attributed to a famous *mathematician* concerned with reflection from the point of view of optics or catoptrics. For the views of Aristotle and the Stoics on fields of study shared by philosophers on the one hand and mathematicians and (mathematical) astronomers on the other see M–R 2.1.97–109. Diogenes Laertius *V.P.* 7.133 on the subpart of physics shared by (Stoic) philosophers and these scientists mentions as examples the theory of vision and the explanation of mirror images, and ‘how ... rainbows and haloes and comets and similar things come to be’ (πῶς ὁρῶμεν, τίς ἡ αἰτία τῆς κατοπτρικῆς φαντασίας, ὅπως νέφη συνίσταται, βρονταὶ καὶ ἱριδες καὶ ἄλλως καὶ κομήται καὶ τὰ παραπλήσια). Hippo-

crates on the Milky Way, the rainbow and clouds constitutes the earliest known example of this collaboration between philosophers and mathematicians, in the form of a personal union.

§6 We know that Parmenides did in fact discuss the origin of the Milky Way; see the announcement at 28B1 DK.

§10 It is quite certain in our view that §10, name-label the Stoics, though rejected by Diels, is Aëtian. One would not expect G to add this *sua sponte*. Diels did not always pay sufficient attention to diaphonic structures. The diaphonia of §10 Stoics with §9 Aristotle is impeccable. Aristotle's Milky Way is said to be located 'underneath the aether and lower than the planets'. These two qualifications are tautological *ad sententiam* in the context of Aristotle's cosmology (maybe this is why Q omits to translate ὑπὸ τὸν αἰθέρα), and specifically serve to make explicit the opposition to the Stoic Milky Way, whose double qualification 'of aetherial fire, higher than the planets' is not tautological. The condition of the Milky Way according to the Stoics in general is also opposed to that of Posidonius according to §11: a loose-textured structure according to the former, a solid one according to the latter. What is more, it follows that according to Posidonius the Milky Way is located even higher than the stars, viz. between the sphere of the fixed stars and the highest zone, that of the pure αὐγή; see Boyancé (1936) 68–70. Thus the order *ad finem* is: (§9) Milky Way lower than the planets, (§10) higher than the planets, (§11) higher than the stars—an interesting application of the category of place.

A 'new' Stoic fragment: Because Diels rejected the contribution of G the general Stoic view has remained unknown! The lemma should be added to our collections of Stoic fragments. The doctrine fits in well with Stoic cosmology. The formula αἰθερίου πυρὸς ἀραιότητα is paralleled at Sen. *Nat.* 1.2.4: *tenuis aether*. See further above, section D(c).

§11 Kidd (1999) 182, commenting on this lemma and its parallel in Macrobius, says that 'it is the only certain surviving reference to the Milky Way in Stoicism'. But see the previous paragraph, §10, *ad finem*.

e Other Evidence

At the beginning of his account of the Milky Way (*in Somn.* 1.15.3–8; 1.15.3–7 are printed as Posidonius F 130 E.-K., 298a Th.) Macrobius *disertis verbis* not only tells us that the authorities to be cited differ among themselves, but also that some of them provided mythical and others physical explanations. He will only provide the latter: views of Theophrastus (fr. 166 FHS&G, paralleled in Philo), Diodorus, Democritus (68A91 DK, paralleled in A, viz. §8), and Posidonius (T 68 E.-K., 298a Theiler), mentioned last apparently because the most influential

(*cuius definitioni plurium consensus accessit*). The Posidonius lemma is only partly paralleled in the brief lemma at ch. 3.1.11.

Such a blend of the mythical and the scientific is indeed found in other representatives of the proximate tradition, namely in Philo of Alexandria, Achilles, and Manilius, who refer to the stories of Phaethon and of the milk from Hera's breasts. Philo, too, rejects certain explanations because they are mythical. Both Achilles and Philo (the latter missed by Pàmias i Massana–Zucker) refer to Eratosthenes *Cat.* c. 44. Olympiodorus, who closely follows Aristotle and (apparently) Alexander of Aphrodisias' paraphrastic commentary of the *Meteorologica*, also dwells on the mythical nature of some of the explanations that are cited by Aristotle, and rejects these explanations. For Alexander, who does mention this mythical status, this is no big issue, while Aristotle himself does not refer to it at all (see Mansfeld 2013a).

Ach c. 24 begins with the definition, paralleled in §1, then tells the story of Hera's spent milk after Eratosthenes, next briefly cites Theophrastus' view but not his name, and continues with Oenopides' view (41.10 DK) that the Milky Way is the former orbit of the sun (a view paralleled at §2, where no name-label), which arrived in its present orbit along the Zodiac because of the dinner of Thyestes (a detail not paralleled in A, but briefly cited by John Philoponus *in Mete.* 101.34–36). This explanation is rejected by Ach, because those who defend it are hard put to justify in the same way the actual orbits of the moon and the five planets along the Zodiac. Then, anonymously, the view of Democritus paralleled in A (and Manilius), but with a different explanation: the many starlets seem to be one because of the distance of the heaven from the earth, compare what happens when you besprinkle something with numerous fine grains of salt. But presumably it is better to say that it is derived from clouds, or a transparent compression of air of a circular shape. Then line 476 of Aratus' poem is quoted, who is said to have called it γάλα because the word γαλαξίας does not fit the hexameter. In conclusion the name is explained (it is 'white and transparent'), and its position on the heavenly globe described.

Manilius deals with the Milky Way at 1.684–804. He describes its position on the heavenly globe in astronomical detail, then tells us that it is very visible (cf. A§1 and Ach), suggests that maybe the firmament is coming apart (a scary explanation unparalleled elsewhere, but the converse of the next view cited), or that this is the scar marking the place where the skies came together (a blend of the tenets of Theophrastus and Diodorus, cf. Philo, Manilius and Ach; here too without name-label). Then we have a reference to the possibility that the sun's horses travelled this path in the past, paralleled in Ach, Aristotle, and §3 (see below). Next are the mythical stories of the consequences of Phaethon's heavenly voyage, paralleled in Aristotle, Philo and §2, and of the milk flowing from

the breast of the queen of the heavens (cf. Philo and Ach). These are followed by a brief version of the tenet of Democritus (paralleled in A, Ach and Macrobius), without name-label. Manilius ends with a long account of the heroic souls who have gone up to the Milky Way as their dwelling place.

A's deviation in chs. 3.1–3 from Aristotle's actual order of treatment is precisely paralleled in ibn al-Bitriq's Arabic paraphrase of Aristotle's *Meteorology*, which derives from a Greek original (published by Schoonheim 2000). Lettinck (1999) 76 points out that al-Bitriq's text differs from Aristotle's view in considering the Milky Way to be a heavenly phenomenon, not an atmospheric one, and that this may have been his reason for moving the theme to the beginning. (But as we have noticed in Aristotle's sublunary cosmos the Milky Way actually comes first, although it is discussed later.) Aristotle's view of the Milky Way qua atmospheric phenomenon is criticized by Olympiodorus (who cites 'the great Ammonius') and John Philoponus. See below section E(b) General texts, and Tihon (1976) 167–172 and Lettinck (1999) 73–74. The compendium of Hunayn ibn-Ishaq published and translated by Daiber (1975) has the comets and meteors (ch. 11), red colouring of the air i.e. aurora borealis (?) (ch. 12), and Milky Way (ch. 13) in an idiosyncratic position *ad finem*, with the Milky Way at its very end; according to Daiber (1975) 7 it is clear that in this final section 'ausschliesslich Lichterscheinungen behandelt werden'. Isidore of Seville, on the other hand, follows the trend by placing the Milky Way among the celestial phenomena in Book 3 of the *Etymologiae*.

E Further Related Texts

a Proximate Tradition

General texts: Lucretius *DRN* 6.524–526 *hic ubi sol radiis tempestatem inter opacam / adversa fulsit nimborum aspargine contra, / tum color in nigris existit nubibus arqui*. Philo of Alexandria *Prov.* 2.89 *Aucher circulus tamen lacteus ad quid est? etenim qui de meteoris agunt, ita inter se dimicant ut dissimilia de illo sentiant. siquidem nonnulli arbitrantur luminis esse revibrationem, ex stellis refulgentibus* (cf. §7); *quidam vero commissuram totius caeli, ubi coaptantur haemispharia* (cf. Macrobius *in Somn.* 1.15.4); *aliqui antiquum ab initio via solis* (cf. §3); *alii Geryonis pecudum viam, per quam eas duxit Hercules; alii vero ex γαλακτικοῖς sc. lacte plenis Ivnonis uberibus, quod etiam Heratosthenes sensit, quare dicit: 'miror, si aggrediar Jovis sacra vestigia pedis,' quod cornu appellat hucusque, et circum festinantis velocisque suffurantis paleas* (cf. Eratosth. *Cat.* 44, p. 131 Pàmias i Massana–Zucker). *praetermisse itaque istorum adinventionibus minus probandis, quae ardore dimicandi sunt prolatae, convenit dicere quod ignis est ista glomeratio ab aethere causata naturali necessitate, non providentia* (cf. Macrobius *in Somn.* 1.15.3). Manilius 1.684–804. Macrobius *in Somn.* 1.15.1–3 (Posidonius F 130 E.-K, 298a Theiler) *ostendens lacteum cir-*

culum ... cuius meminit (sc. Cic. *Somn.* 16) *his verbis: 'erat autem is splendidissimo candore inter flammās circus elucens, quem vos ut a Graīs accepistis orbem lacteum nuncupatis'. ... (3) de hoc lacteo multi inter se diversa senserunt, causasque eius alii fabulosas, naturales alii protulerunt. sed nos fabulosa reticentes ea tantum quae ad naturam eius visa sunt pertinere dicemus* (see below, §1, §8, §11).

§1 definition: Manilius 1.701–703 *nec quaerendus erit: visus incurrit in ipsos / sponte sua seque ipse docet cogitque notari. / namque in caeruleo candens nitet orbita mundo.* **Scholia in Germanicum** p. 3711–7 Dell'Era *lacteus vocatur quod albis nubibus denotetur circuitus eius, quod Iuno (lac) mamillis effudisse dicitur, cum animadvertisset Herculem filium suum non esse. ... effusum est lac et facta est circuli albi species.* **Macrobius in Somn.** 1.15.1–2 (Cic. *Somn.* 16) *'erat autem is splendidissimo candore inter flammās circus elucens, quem vos ut a Graīs accepistis orbem lacteum nuncupatis'. (2) 'orbis' hic idem quod circus in lactei appellatione significat. solus ex omnibus his est subiectus oculis, ceteris circulis magis cogitatione quam visu comprehendendis.*

§2 Pythagoreans: Manilius 1.735–749 *fama etiam antiquis ad nos descendit ab annis / Phaethontem patrio curru per signa volantem, / dum nova miratur propius spectacula mundi / et puer in caelo ludit curruque superbus / luxuriat nitido, cupit et maiora parente, / deflexum solito cursu, curvisque quadrigis / monstratas liquisse vias orbemque recentem / imposuisse polo, nec signa insueta tulisse / errantis meta flammās currumque solutum. / quid querimur flammās totum saevisse per orbem / terrarumque rogum cunctas arsisse per urbes? / cum vaga dispersi fluitarunt fragmina currus, / et caelum exustum est: luit ipse incendia mundus, / et vicina novis flagrarunt sidera flammis / nunc quoque praeteriti faciem referentia casus.* **Capitula Lucretiana** at DRN 5.396 *de Phaetonte solis filio.*

§3 other Pythagoreans: Manilius 1.729–734 *an melius manet illa fides, per saecula prisca / illac solis equos diversis cursibus isse / atque aliam trivisse viam, longumque per aevum / exustas sedes incoctaque sidera flammis / caeruleam verso speciem mutasse colore, / infusumque loco cinerem mundumque sepul-tum?*

§7 Anaxagoras: Diogenes Laertius V.P. 2.9 (on Anaxagoras, 59A1 DK) καὶ τὸν γαλαξίαν ἀνάκλασιν εἶναι φωτὸς (τῶν ὑπὸ) ἡλίου μὴ καταλαμπομένων {τῶν} ἄστρον. **Hippolytus** Ref. 1.8.10 (on Anaxagoras, 59A42 DK) τὸν δὲ γαλαξίαν ἀνάκλασιν εἶναι τοῦ φωτὸς τῶν ἄστρον, τῶν μὴ καταλαμπομένων ὑπὸ τοῦ ἡλίου.

§8 Democritus: Manilius 1.755–757 *an maior densa stellarum turba corona / contextit flammās et crasso lumine candet, / et fulgore nitet collato clarior orbis?* **Macrobius in Somn.** 1.15.6 *Democritus (—) innumeras stellas brevesque omnes, quae spisso tractu in unum coactae, spatiis quae angustissima interiacent opertis, vicinae sibi undique et ideo passim diffusae lucis aspergine continuum iuncti luminis corpus ostendunt.* **Kompendium der aristotelischen Meteorologie** c. xiii.325 ff. Daiber *Der Bericht über die Milchstrasse.* Ihre Ursache ist: ... [see below, ad §8] *an der Stelle, an welcher die Milchstrasse*

erscheint, sind viele nahe beieinanderliegende leuchtende und nicht leuchtende Sterne. Wenn nun ihr Licht sich in der entflammten Luft ausbreitet, erscheint in ihr jenes Licht, welches 'milchartige Milchstrasse' genannt wird.

§9 **Aristotle:** Arius Didymus at Stob. *Ecl.* 1.27.7 [attributed to 'perhaps' AD by Diels ad loc, but printed as A 3.1.7], p. 226.21–26 (on Aristotle) τὸν γὰρ κύκλον ἐν ᾧ δοκεῖ θεωρεῖσθαι μέγιστον ὄντα, πλήρη τῶν μεγίστων ὑπάρχειν καὶ λαμπροτάτων ἄστρον καὶ ἔτι τῶν σποράδων καλουμένων, διὰ ταῦτα συνεχῶς πλείστην περὶ τοῦτον ἀθροίζεσθαι τὸν τόπον τὴν ἀπὸ τῆς γῆς ἀναθυμίασιν καὶ ποιεῖν τὴν τοῦ γάλακτος φαντασίαν. **Olympiodorus in Mete.** 45.14–16 μετὰ δὲ τὸν κομήτην ἐρεῖ καὶ περὶ γαλαξίου, ἐπειδὴ ὁ γαλαξίας οὐδὲν ἕτερόν ἐστιν εἰ μὴ κομήτης κυκλικός. **Kompendium der aristotelischen Meteorologie** c. xiii.323 ff. Daiber *Der Bericht über die Milchstrasse. Ihre Ursache ist: Die der Himmelssphäre benachbarte Luft ist entflammt und feurig* (for the sequel see above §8).

§11 **Posidonius:** Macrobius in *Somn.* 1.15.7 sed Posidonius (F 130 E.-K., 298a Theiler), cuius definitioni plurium consensus accessit, ait lacteum caloris esse siderei infusionem quam ideo adversa zodiaco curvitas obliquavit, ut quoniam sol numquam zodiaci excedendo terminos expertem fervoris sui partem caeli reliquam deserebat, hic circus a via solis in obliquum recedens universitatem flexu calido temperaret.

b Sources and Other Parallel Texts

General texts: Aristotle *Mete.* 1.8 345a11–13 ὅπως δὲ καὶ διὰ τίν' αἰτίαν γίγνεται καὶ τί ἐστὶ τὸ γάλα, λέγωμεν ἤδη. προδιέλθωμεν δὲ καὶ περὶ τοῦτου τὰ παρὰ τῶν ἄλλων εἰρημμένα πρῶτον. **Eratosthenes Cat.** 44, p. 131 Pāmias I Massana–Zucker Γαλαξίας. οὗτος γίνεται ἐν τοῖς φαινομένοις κύκλοις, ὃν προσαγορεύεσθαί φασι γαλαξίαν· οὐ γὰρ ἔξῃν τοῖς Διὸς υἱοῖς τῆς οὐρανίου τιμῆς μετασχεῖν εἰ μὴ τις αὐτῶν θηλάσειε τὸν τῆς Ἥρας μαστόν. διόπερ φασὶ τὸν Ἑρμῆν ὑπὸ τὴν γένεσιν ἀνακομίσεια τὸν Ἡρακλέα καὶ προσσχεῖν αὐτὸν τῷ τῆς Ἥρας μαστῷ, τὸν δὲ θηλάζειν· ἐπινοήσασαν δὲ τὴν Ἥραν ἀποσεῖσασθαι αὐτόν, καὶ οὕτως ἐκχυθέντος τοῦ περισσεύματος ἀποτελεσθῆναι τὸν Γαλαξίαν κύκλον. **Ptolemy Alm.** 8 c. 2, 2.1.170.1–179.22 Heiberg περὶ τῆς θέσεως τοῦ γαλακτίου κύκλου (too long to quote). **Alexander of Aphrodisias in Mete.** 37.8–39.4 ἰστορεῖ (sc. Aristotle whom Alexander is paraphrasing) δὲ τῶν μὲν καλουμένων Πυθαγορείων τινάς (cf. §2) ὁδὸν λέγειν εἶναι τὸν κύκλον τοῦτον τοὺς μὲν τῶν ἀστέρων τινὸς τῶν ἐκπεσόντων κατὰ τὴν λεγόμενῃ ἐπὶ Φαέθοντος γενέσθαι φθορὰν ἐκπυρώσεως γενομένης, οἱ δὲ τινές (cf. §3) φασιν αὐτὸν τὸν ἥλιον πρότερον ταύτην φέρεσθαι· διὸ καὶ διακεκαῦσθαι τὸν τόπον τοῦτον ὑπὸ τῆς φορᾶς αὐτοῦ. ... Ἀναξαγόρας (cf. 59A80 DK) δὲ καὶ Δημόκριτος (68A91 DK) (cf. §§7–8) φῶς εἶναι τὸ γάλα λέγουσιν ἄστρον τινῶν. ὁ γὰρ ἥλιος νύκτωρ ὑπὸ γῆν ἰὼν ὅσα μὲν περιλάμπει τῶν ὑπὲρ γῆς ὄντων ἄστρον, τούτων μὲν μὴ γίνεσθαι φασιν φανερόν τὸ οἰκεῖον φῶς ἐμποδιζόμενον ὑπὸ τῶν τοῦ ἡλίου ἀκτίνων· ὅσοις δὲ ἡ σκιά τῆς γῆς ἐπιπροσθούσα ἐπισκοτεῖ, ὥς μὴ ἐπιλάμπεσθαι τῷ ἀπὸ τοῦ ἡλίου φωτὶ, τούτων δὲ τὸ οἰκεῖον φῶς ὁράσθαι, καὶ τοῦτο εἶναι τὸ γάλα. ... τρίτην δὲ φησι δόξαν (cf. §4) εἶναι περὶ τοῦ γάλακτος τὴν λέγουσαν ἀνάκλασιν εἶναι τὸ γάλα τῆς ἡμετέρας ὕψεως ἀπὸ τινος ἀναθυμιάσεως, ἥ τις εἶναι δοκεῖ τὸ γάλα, ἐπὶ

τὸν ἥλιον, ἐνοπτρον γινόμενον τῇ ὀψει τῷ ἀπὸ τοῦ ἡλίου ὑπ' αὐτῆς ὁρμμένῳ φωτί, ὡς ἔλεγον οἱ περὶ Ἱπποκράτην καὶ τὸν κομήτην γίνεσθαι. τρίτην δὲ δόξαν εἴρηκε ταύτην εἶναι, καίτοι τετάρτης μνημονεύσας, ἥτοι εἰς μίαν συνάγων τὰς τῶν Πυθαγορικῶν, οἱ ὁδὸν μὲν ἔλεγον τὸ γάλα, ἀλλ' οἱ μὲν τοῦ ἡλίου οἱ δὲ ἄστρου τινὸς τῶν ἐκπεσόντων ἐκ τοῦ οὐρανοῦ κατὰ τὴν ἐπὶ Φαέθοντος φθοράν, ἡ ταύτην τὴν δόξαν ὡς τέλεον κενὴν τε καὶ μυθώδη παραιτούμενος. **Olympiodorus in Mete.** 66.7–68.34 τῶν δὲ περὶ γαλαξίου ψευδῶν δοξῶν τεσσάρων οὐσῶν δύο Πυθαγόρειοι εἰσι (cf. §2–3), τῶν δὲ ἄλλων ἡ μὲν Ἀναξαγόρειός ἐστιν (cf. §7), ἡ δὲ λοιπὴ Ἱπποκράτειος (cf. §4). ἔστι δὲ ἡ πρώτη τοιαύτη (cf. §2)· Φαέθων, φησὶν, ὁ ἀπὸ Ἥλιου καὶ Κλυμένης ἦτησε τὸν ἴδιον (67) πατέρα παραδοῦναι αὐτῷ τὸ ἄρμα, ἐφ' ᾧ ἠνιοχεῖται. ἐπέστη, ἔδωκεν, ἔλαβεν, ἀτεχνῶς ἤλασεν, ἐλάσας κατέφλεξε, καὶ ὁ τόπος ἐκεῖνος ὁ καταφλεχθεὶς ἐστὶν ὁ γαλαξίας. ἀλλ' ἐπειδὴ μυθῶδες τὸ λεγόμενον, ἄτοπον δὲ μυθώδη ταῦτα νομίζειν Πυθαγορείου τῆς δόξης καθεστηκυίας, φέρε ταύτην ἀλληγορήσωμεν κτλ. ... αὕτη πρώτη Πυθαγόρειος δόξα. ταύτης ὡς μυθώδους παρασιωπᾷ ὁ Ἀριστοτέλης τὸν ἔλεγχον· τὸ γὰρ καταδήλως ἐλεγχόμενον περιττὸν εἰς ἐξέτασιν προφέρεσθαι, διὸ καὶ μόνας τρεῖς ἐν τῷ πέρατι λέγει δόξας ὡς ἂν μὴδὲ λογισάμενος ταύτην. δευτέρα δόξα καὶ αὕτη Πυθαγόρειος οὖσα (cf. §3), ἔχει δὲ οὕτως· ὁ ἥλιός ποτε μὴ τὴν τοῦ ζωδιακοῦ καὶ κατὰ φύσιν ὁδὸν βαδίσας, ἀλλ' ἑτέραν ἀτραπὸν διανύσας ἐξέπύρρωσεν αὐτὴν καὶ ὥσπερ λεωφόρον ὁδὸν ὑπὸ ἀμάξης κατατριβείσαν εἰργάασατο, καὶ ἐκεῖνος ὁ τόπος ἐστὶν ὁ γαλαξίας ὀνομαζόμενος. ἀλλὰ, φησὶν, ἄτοπος ὑπόθεσις· κτλ. ... τρίτη δόξα Ἀναξαγόρου καὶ Δημοκρίτου (cf. §§7–8). οὗτοί φασι τὸν γαλαξίαν εἶναι τὸ ἴδιον φῶς τῶν ἀστέρων τῶν μὴ φωτιζομένων ὑπὸ τοῦ ἡλίου. ἔχουσι γάρ, φησί, τὰ ἄστρα τὸ ἴδιον φῶς καὶ ἐπὶ κτήν τὸ ἀπὸ τοῦ ἡλίου. καὶ δηλοῖ ἡ σελήνη. ταύτης γὰρ ἕτερον μὲν τὸ ἴδιον φῶς, ἕτερον δὲ τὸ ἀπὸ ἡλίου· τὸ γὰρ ἴδιον αὐτῆς φῶς ἀνθρακῶδες ἐστὶν, ὡς δηλοῖ ἡμῖν ἡ ἔλλειψις αὐτῆς. (68) ἀλλ' οὐ πάντα, φησί, τὸ ἐπὶ κτήν δέχονται· τὰ οὖν μὴ δεχόμενα ἐκεῖνα τὸν κύκλον τοῦ γαλαξίου ἀπεργάζονται. ἐλέγχει δὲ καὶ ταύτην τὴν δόξαν Ἀριστοτέλης κτλ. ... τετάρτη δόξα Ἱπποκράτους τοῦ Χίου (cf. §4). οὗτός φησι τὸν γαλαξίαν γίνεσθαι ἀνακλάσεως γενομένης πρὸς τὸν ἥλιον, ἀλλ' ἀνακλάσεως οὐκ ἀπὸ ἀτιμίδος, καθάπερ ἔφαμεν ἐπὶ τοῦ κομήτου, ἀλλ' ἀπὸ ἀστέρων. φέρεται οὖν, φησὶν, ἡ ὀψις πρὸς τοὺς ἀστέρας, καὶ ἐκεῖθεν ἀνακλάται πρὸς τὸν ἥλιον καὶ οὕτω φέρεται πρὸς ἡμᾶς. οὕτως ὁ Ἱπποκράτης. *in Mete.* 75.24–76.5 (refutation of Aristotle) ὁ δὲ μέγας Ἀμμόνιος διὰ ἰσαρίθμων ἐπιχειρημάτων ἀποδείκνυσιν, ὅτι οὐκ ἔστι πάθος ἀέρος (sc. ὁ γαλαξίας), καὶ ἔστι πρῶτον τὸ ἐκ τοῦ ἀναλλοιώτου. εἰ γὰρ πάθος ἦν ὁ γαλαξίας, ἔδει αὐτὸν ἀλλοίωσιν ἀναδέχεσθαι καὶ ἐν μὲν τῷ θέρει τυχόν διὰ τὸ εἶναι πλείονα τὴν καπνώδη ἀναθυμίασιν λαμπρότερον γίνεσθαι, ἐν δὲ τῷ χειμῶνι ἀμαυροῦσθαι. δεύτερον ἐπιχείρημα τὸ ἐκ τοῦ καθόλου. καθόλου γὰρ οὐδὲν τῶν γινομένων ἐκ πάθους ἀέρος ἐν δὴ κατ' ἀριθμὸν πάσῃ τῇ γῇ ὁράται· νῦν δ' ὁ γαλαξίας πᾶσι τοῖς ἐν τῇ γῇ ὁμοίως ὁράται. τρίτον ἐπιχείρημα ἐκ τῆς σελήνης. αὕτη γὰρ ὑποκάτω ἐστὶ τοῦ γαλαξίου, διότι αὕτῃ μὲν παραλλάττει. δείκνυται δὲ τοῦτο ἐν τῇ συντάξει Πτολεμαίῳ (*Alm.* 1, pp. 401–402), ὅτι τὰ μὲν παραλλάσσοντα κατωτέρω εἰσὶ, τὰ δὲ ἥττον ἀνωτέρω. τέταρτον ἐπιχείρημα ἐκ τῶν ὑπολοίπων πλανωμένων, ὅτι καὶ τούτων ἐπάνω τον ἐπιχείρημα ἐκ τῶν ὑπολοίπων πλανωμένων, ὅτι καὶ τούτων ἐπάνω ἐστὶν ὁ ζωδιακὸς ἐν αὐτῇ ὡν τῇ ἀπλανεῖ. εἰ γὰρ ἦν κατωτέρω τῆς ἀπλανοῦς, ἡνίκα ὑπερεῖχε τὸν Τοξότην καὶ Διδύμους, καθ' οὓς καὶ συμβάλλει (76) ὁ κύκλος

αὐτοῦ, νοθεύειν ἤμελλεν αὐτοῦ τὴν χροίαν, καὶ ὁμῶς λευκότερά ἐστι ταῦτα ὀράν. ἔστι δὲ καὶ ἔξωθεν προσευπορήσαι καὶ ἄλλο ἐπιχειρήμα, ὅτι εἰ ἦν πάθος τοῦ ἀέρος, ἔδει, καθὰ συμβάλλει τῷ Τοξότη καὶ Διδύμοις, ἐκεῖνα μὴδὲ ὅλως φαίνεσθαι· ἡ γὰρ οὐ δύναται πλησίον τῆς ὁδοῦ τοῦ ἡλίου συνίστασθαι, ὥς καὶ αὐτὸς ἔφη Ἀριστοτέλης. **John Philoponus in Mete.** 75.17–21 ἔστι δὲ τὰ περὶ ὧν διδάσκει νῦν οἱ τε κομῆται καὶ ὁ καλούμενος γαλαξίας κύκλος. ὅπερ δὲ τῷ φιλοσόφῳ ποιεῖν ἔθος ἐπὶ τῶν φυσικῶν ζητημάτων ἐκάστου, τοῦτο ποιεῖ καὶ νῦν τὰς τῶν παλαιοτέρων περὶ τοῦ προκειμένου δόξας προίστορων καὶ τὰς οὐ καλῶς ἐχούσας ἐλέγχων πρῶτον, εἶτα τὴν οἰκείαν περὶ τοῦ ζητουμένου διδάσκων ὑπόληψιν. *in Mete.* 114.31 ff. καὶ ἄλλως δὲ δεικνύειν εὐχερὲς ὥς οὐκ ἔστι τοῦ ἀέρος τὸ γάλα πάθος (κτλ.).

Chapter heading: Aristotle Mete. 1.1 338b22 περὶ τε γάλακτος. *Mete.* 1.3 339a34–35 λέγωμεν περὶ τε τῆς τοῦ γάλακτος φαντασίας. *Mete.* 1.8 346b13 περὶ τε ... τοῦ καλουμένου γάλακτος. **Eratosthenes Cat. Cat.** 44, p. 131.1 Pámias I Massana–Zucker Γαλαξίας. **Hipparchus in Arat.** 1.9.14 ἐν δὲ τοῖς ἐξῆς περὶ τοῦ γαλαξίου κύκλου εἰπὼν ἐπιφέρει (sc. Aratus) κτλ. **Alexander of Aphrodisias in Mete.** 37.2–3 προτίθεται μὲν περὶ τοῦ γαλαξίου κύκλου ποιήσασθαι τὸν λόγον, καλεῖ δ' αὐτὸν γάλα. **Macrobius in Somn.** 1.15.8 *haec de lacteo*. **John Philoponus in Mete.** 2.42–3.1 περὶ ... τοῦ καλουμένου γάλακτος. (Περὶ γάλακτος in medical writers pertains to milk.)

§1 Nominal definition: Aristotle Mete. 1.8 346a16–17 οὗτος δ' ὁ κύκλος ἐν ᾧ τὸ γάλα φαίνεται τοῖς ὁρώσιν. **Cicero Rep.** 6.16 (= *Somn. Scip.* 8) *illum incolunt locum, quem vides—erat autem is splendidissimo candore inter flammas circus elucens—quem vos, ut a Graiis accepistis, orbem lacteum nuncupatis*. **Geminus Elem.** 5.11 μόνος γὰρ ἐν τῷ κόσμῳ κύκλος ἐστὶ θεωρητὸς ὁ τοῦ γάλακτος, οἱ δὲ λοιποὶ λόγῳ εἰσὶ θεωρητοί. *Elem.* 5.68 λοξὸς δὲ ἐστὶ κύκλος καὶ ὁ τοῦ γάλακτος. ... συνέστηκε δὲ ἐκ βραχυμερίας νεφελοειδοῦς καὶ ἔστιν ἐν τῷ κόσμῳ μόνος θεωρητός. **Ovid Met.** 1.167–168 *est via sublimis, caelo manifesta sereno; / lactea nomen habet, candore notabilis ipso*. **Pliny Nat.** 18.280 *est praeterea in caelo qui vocatur lacteus circulus, etiam visu facilis*. **Martianus Capella** 8.826 *galaxias vero {lacteus} obliquorum multo maiore ambitu porrectus etiam visibus approbatur*. **Isidore of Seville Etym.** 3.46.1 *lacteus circulus via est, quae in sphaera videtur, a candore dicta, quia alba est*.

§2 Pythagoreans: Aristotle Mete. 1.8 345a13–16 τῶν μὲν οὖν καλουμένων Πυθαγορείων (58B37b, Oenopides 41.10 DK) φασὶ τινες ὁδὸν εἶναι ταύτην οἱ μὲν τῶν ἐκπεσόντων τινὸς ἀστέρων, κατὰ τὴν λεγομένην ἐπὶ Φαέθοντος φθοράν. **Lucretius DRN** 5.396–406 *ignis enim superavit et ambiens multa perussit, / avia cum Phaethonta rapax vis solis equorum / aethere raptavit toto terrasque per omnis. / at pater omnipotens ira tum percitus acri / magnanimum Phaethonta repenti fulminis ictu / deturbavit equis in terram, Solque cadenti / obviis aeternam suscepit lampada mundi / disiectosque redegit equos iunxitque tremantis, / inde suum per iter recreavit cuncta gubernans, / scilicet ut veteres Graium cecinere poëtae. / quod procul a vera nimis est ratione repulsum*. **Diodorus Siculus** 5.23.2 πολλοὶ ... τῶν τε ποιητῶν καὶ τῶν συγγραφέων φασὶ Φαέθοντα τὸν Ἥλιου μὲν υἷον, παῖδα δὲ τὴν ἡλικίαν ὄντα, πείσαι τὸν πατέρα μίαν ἡμέραν παραχω-

ρῆσαι τοῦ τεθρίππου· συγχωρηθέντος δ' αὐτῷ τούτου, τὸν μὲν Φαέθοντα ἐλαύνοντα τὸ τέθριππον μὴ δύνασθαι κρατεῖν τῶν ἡνίων, τοὺς δ' ἵππους καταφρονήσαντας τοῦ παιδὸς ἐξενεχθῆναι τοῦ συνήθους δρόμου, καὶ τὸ μὲν πρῶτον κατὰ τὸν οὐρανὸν πλανωμένους ἐκπυρῶσαι τοῦτον καὶ ποιῆσαι τὸν νῦν γαλαξίαν καλούμενον κύκλον κτλ. **John Philoponus in Mete.** 101.25–32 τὸ μὲν οὖν κατὰ τὸν Φαέθοντα πλάσμα πολλοῦ διαβεβόηται τῆς ποιήσεως, ὡς νέος ὢν καὶ τοῦ πατρὸς Ἥλιου τὸ ἄρμα διφρηλατεῖν ἐπιθυμήσας οὗτος καὶ τυχὼν τούτου νεανικώτερον ἢ σοφώτερον ἐλαύνων οὐδὲ νόφ κατὰ τὸν ποιητὴν (*Od.* 6.320) ἐπιβάλλων ἰμάσθλην πολὺ τοῦ κόσμου μέρος κατέφλεξεν· ὦν καὶ ἡ διακεκαυμένη ζώνη ἐστὶ καὶ κατὰ τοὺς Πυθαγορείους (—) ὁ γαλαξίας ἐμφαίνων ἔτι νῦν χρώμα τῆς ἐκεῖθεν γενομένης πυρώσεως καὶ τῶν ἐνταῦθα πεσόντων ἀστέρων.

§3 Other Pythagoreans: Aristotle Mete. 1.8 345a16–18 (*Oenopides* 41.10 DK, cf. *Pythagorei* 58B.37b) οἱ δὲ τὸν ἥλιον τοῦτον τὸν κύκλον φέρεσθαι ποτέ φασιν· (§§2–3) οἷον οὖν διακεκαῦσθαι τὸν τόπον τοῦτον ἢ τι τοιοῦτον ἄλλο πεπονθέναι πάθος ὑπὸ τῆς φορᾶς αὐτῶν. **John Philoponus in Mete.** 101.32–34 ἔτεροι δὲ τῶν Πυθαγορείων (—) πάλιν τὸν ἥλιόν φασί ποτε τοῦτον ἐκπειριέναι κύκλον, οὐ τὸν ζῶδιακόν, ὃν νῦν δίδεισιν, ἀλλὰ τὸν τοῦ γάλακτος, ὅθεν ἐκπυρωθέντα τοῦτο ποιῆσαι τὸ χρώμα.

§4 Other Pythagoreans: Aristotle Mete. 1.8 345b9–12 (*Hippocrates of Chios* + *Aeschylus* 42.6 DK) ἔτι δ' ἐστὶν τρίτη τις ὑπόληψις περὶ αὐτοῦ· λέγουσιν γάρ τινες ἀνάκλασιν εἶναι τὸ γάλα τῆς ἡμετέρας ὄψεως πρὸς τὸν ἥλιον, ὥσπερ καὶ τὸν ἀστέρα τὸν κομήτην. **Diogenes Laertius VP.** 7.133 (*Stoics*) τίς ἡ αἰτία τῆς κατοπτρικῆς φαντασίας.

§5 again other anonymi: Beda venerabilis de Nat. 18 *lacteus circulus est figura candidior per medium caeli verticem, quem vulgo dicunt ex splendore solis in eo currentis ita fulgere.*

§6 Parmenides: Parmenides 28B8.55–59 DK τάντ' αἶ δ' ἐκρίναντο δέμας καὶ σήματ' ἔθεντο / χωρὶς ἀπ' ἀλλήλων, τῇ μὲν φλογὸς αἰθέριον πῦρ, / ἥπιον ὃν, μέγ' ἀραιὸν {ἐλαφρόν}, ἐωυτῶι πάντοσε τωῦτόν, / τῶι δ' ἑτέρωι μὴ τωῦτόν· ἀτὰρ κάκεινο κατ' αὐτό / τάντ' αἶ νύκτ' ἀδαῇ, πυκινὸν δέμας ἐμβριθές τε. 28B11.1–4 DK πῶς ... (2) ... γάλα τ' οὐράνιον ... / (3) ... ὠρμήθησαν / γίγνεσθαι.

§§7–8 Anaxagoras Democritus: Aristotle Mete. 1.8 345a25–31 οἱ δὲ περὶ Ἀναξαγόραν (59A80 DK) καὶ Δημόκριτον (cf. 68A91 DK) φῶς εἶναι τὸ γάλα λέγουσιν ἄστρον τινῶν· τὸν γὰρ ἥλιον ὑπὸ τὴν γῆν φερόμενον οὐχ ὁρᾶν ἔνια τῶν ἄστρον. ὅσα μὲν οὖν περιορᾶται ὑπ' αὐτοῦ, τούτων μὲν οὐ φαίνεσθαι τὸ φῶς (κωλύεσθαι γὰρ ὑπὸ τῶν τοῦ ἡλίου ἀκτίνων)· ὅσοις δ' ἀντιφράττει ἡ γῆ ὥστε μὴ ὁρᾶσθαι ὑπὸ τοῦ ἡλίου, τὸ τούτων οἰκεῖον φῶς εἶναι φασὶ τὸ γάλα.

§7 Anaxagoras: Aristotle Mete. 1.8 346b5–6 ἔστιν τὸ γάλα, ὡς εἰπεῖν οἷον ὀριζόμενον, ἢ τοῦ μεγίστου διὰ τὴν ἑκκρισιν κύκλου κόμη.

§8 Democritus: Damascius at John Philoponus in Mete. 118.9–10 (perhaps quoting *Heraclides Ponticus*) εἶναι γάρ φησι τὸν γαλαξίαν τοῦ οὐρανοῦ τινα διάθεσιν ἄφθαρτον, ἀστρώων, μικρῶν ἀστέρων πυκνότητι γαλακτίζουσιν. cf. *Thucydides* 2.28.

§9 Aristotle: Aristotle Mete. 1.7 344a8–10 ὑπόκειται γὰρ ἡμῖν τοῦ κόσμου τοῦ περὶ τὴν γῆν, ὅσον ὑπὸ τὴν ἐγκύκλιόν ἐστιν φοράν, εἶναι τὸ πρῶτον μέρος ἀναθυ-

μίαςιν ξηράν καὶ θερμήν. *Mete.* 1.8 346b1–6 ὥστ' εἴπερ καὶ περὶ τοῦ φαίνεσθαι κομήτας ἀποδεχόμεθα τὴν αἰτίαν ὡς εἰρημένην μετρίως, καὶ περὶ τοῦ γάλακτος τὸν αὐτὸν ὑποληπτέον τρόπον ἔχειν· ὁ γὰρ ἐκεῖ περὶ ἓνα ἐστὶν πάθος ἡ κόμη, τοῦτο περὶ κύκλον τινὰ συμβαίνει γίγνεσθαι τὸ αὐτό, καὶ ἔστιν τὸ γάλα, ὡς εἰπεῖν οἶον ὀριζόμενον, ἢ τοῦ μεγίστου διὰ τὴν ἔκκρισιν κύκλου κόμη. **Alexander of Aphrodisias** in *Mete.* 41.14–17 ἀλλὰ καὶ τὸ γάλα ὁμοία τις ἀναθυμίασις τῇ κόμῃ. ὁ γὰρ ἐπ' ἐκείνων ἢ περὶ ἓν ἄστρον ἀναθυμίασις τοιαύτη γενομένη κομήτην ποιεῖ, τοῦτο περὶ τοὺς ἀστέρας ἅμα γενόμενον τοὺς καθ' ὃ τὸ γάλα φαίνεται τὸν καλούμενον ποιεῖ γαλαξίαν κύκλον.

§10 *Stoics: ps.Galen Qual.Incorp.* 19.478.1–2 K., p. 13.14–15 Westenberger (*SVF* 2.327) τὸ αἰθέριον δὴ ἐκεῖνο πῦρ, ὃ φ' οἷ φασὶ τὰ τε στοιχεῖα καὶ τὸν κόσμον γεγονέναι.

Liber 3 Caput 2

P^B: ps.Plutarchus *Plac.* 893A–D; pp. 366^a4–367^a19 Diels—**P^G**: ps.Galenus *HPh* c. 75; pp. 629.20–630.10 Diels; pp. 244–256 Jas—**P^{Jn}**: Julianus Arianista *Comm. in Job* p. 272.4–6 Hagedorn—**P^L**: Ioannes Lydus *Ost.* 4, p. 9.1–5 Wachsmuth (titulus solus), *Mens.* 4.116, p. 154.9–10 Wuensch (titulus solus)—**P^Q**: Qustā ibn Lūqā pp. 168–171 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 139, p. 72 Westerink (titulus solus), cf. *Omn.Doctr.* c. 140. 1–3, p. 72 Westerink; *Phil.Min.* 1 op. 24, p. 89 Duffy (titulus solus)—cf. **P^{Sy}**: *CRN* 2.23, p. 33.8 Delatte (titulus solus)

S: Stobaeus *Ecl.* 1.28.1a, pp. 227.5–228.14 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b14–15 Henry (titulus solus)

Cf. Ach: Achilles *Univ.* c. 34, p. 51.13–17, p. 52.3–5 Di Maria; *Scholia in Aratum schol.* 811, p. 404.4–5; *schol.* 926, p. 450.3–9; *schol.* 927, p. 451.2–15; *schol.* 1091, p. 509.2–12 (cf. p. 511.13–16); *schol.* 1091, p. 510.15–19; *schol.* 1093, p. 510.20–511.5; *schol.* 1093, p. 511.21–512.11 Martin

Titulus β'. Περὶ κομητῶν καὶ διαττόντων καὶ δοκίδων (P,S)

- §1 τῶν ἀπὸ Πυθαγόρου τινὲς μὲν ἀστέρα φασὶν εἶναι τὸν κομήτην τῶν οὐκ αἰεὶ φαινομένων, διὰ τινος δ' ὠρισμένου χρόνου περιοδικῶς ἀνατελλόντων. (P1,S1)
- §2 ἄλλοι δ' ἀνάκλασιν τῆς ἡμετέρας ὀψεως πρὸς τὸν ἥλιον, παραπλησίαν ταῖς κατοπτρικαῖς ἐμφάσεσιν. (P2,S2)
- §3 Ἀναξαγόρας Δημόκριτος σύνοδον ἀστέρων δυοῖν ἢ καὶ πλειόνων κατὰ συναυγασμόν. (P3,S3)
- §4 Ἀριστοτέλης τῆς ξηρᾶς ἐκ γῆς ἀναθυμιάσεως διάπυρον σύστασιν. (P4,S4)

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§§1–2 Pythagorei—§3 Anaxagoras 59A81 DK; Democritus—; §4 Aristoteles cf. *Mete.* 1.7 344a8–15

titulus Περὶ ... δοκίδων **P^B** : Περὶ κομήτου **P^S** c. 139, sed. cf. c. 140, p. 72.28 || καὶ δοκίδων **P^B** : ἀστέρων **P^G** : *die längliche Rote, welche im Himmel erscheint, als ob sie eine Rute wäre* Q : καὶ τῶν τοιούτων S §1 [2] τῶν¹] om. **P^G** || ἀπὸ Πυθαγόρου **P^BGQ** : Πυθαγορείων τινὲς S || [3] φαινομένων **P^BQS** : μενόντων **P^G** || διὰ τινος δ' P : διὰ δέ τινος S || §2 [5] πρὸς **P^{B(II,III)GS}** : εἰς **P^{B(I)}** : von Q || παραπλησίαν **P^{B(II,III)GS}** : παραπλησίως **P^{B(III)}** §3 [7] post Ἀναξαγόρας add. καὶ **P^{GS}** || δυοῖν **P^{B(II)GS}** : δυεῖν **P^{B(II,III)}** : vieler Q || [8] συναυγασμόν] *der Verbindung des Lichtes und der Erleuchtung von jedem durch den anderen* Q §4 [9] τῆς ... σύστασιν **P^{BS}** : *ein fester, glühender Dampf aus dem trockenem Dampf* Q || τῆς ... ἀναθυμιάσεως **P^{B(II,III)GS}** : τὴν ἐκ τῆς ξηρᾶς ἀναθυμιάσεως **P^{B(II,III)}** || post ἐκ add. τῆς **P^G** || διάπυρον σύστασιν **P^{BS}** : διὰ τὴν ἔμπυρον ἐπίτασιν **P^G** || post σύστασιν add. S fragm. AD, cuius ante init. lac. sign. Wachsmuth

- §5 Στράτων ἄστρου φῶς περιληφθὲν νέφει πυκνῷ, καθάπερ ἐπὶ τῶν λαμπτήρων γίνεται. (P5,S5)
- §6 Ἡρακλείδης ὁ Ποντικός νέφος μετάρσιον ὑπὸ μεταρσίου φωτὸς καταυγαζόμενον. ὁμοίως δ' αἰτιολογεῖ πωγωνίαν ἄλλω δοκίδα κίονα καὶ τὰ συγγενῇ τούτοις, καθάπερ ἀμέλει πάντες οἱ Περιπατητικοί, παρὰ τοὺς τοῦ νέφους ταυτὶ γίνεσθαι σχηματισμούς. (P6,S6) 15
- §7 Ἐπιγένης πνεύματος ἀναφορὰν γεωμιγούς πεπυρωμένου. (P7,S7)
- §8 Βόηθος ἀέρος ἀνημμένου φαντασίαν. (P8,S8)
- §9 Διογένης ἀστέρας εἶναι τοὺς κομήτας. (P9,S9)
- §10 Ἀναξαγόρας τοὺς καλουμένους διάττοντας καὶ ἄπτοντας ἀπὸ τοῦ αἰθέρος σπινθήρων δίκην καταφέρεισθαι· διὸ καὶ παραυτίκα σβέννυσθαι. (P10,S10) 20
- §11 Μητρόδωρος τὴν εἰς τὰ νέφη τοῦ ἡλίου βιαίαν ἔμπωσιν ὡς βέλος πολλάκις σπινθηρίζειν. (P11,S11)
- §12 Ξενοφάνης πάντα τὰ τοιαῦτα νεφῶν πεπυρωμένων συστήματα ἢ κινήματα. (P12,S12) 25

§5 Strato fr. 86 Wehrli, 51 Sharples; §6 Heraclides Ponticus fr. 116 Wehrli, 77 Schütrumpf; §7 Epigenes—; §8 Boethus SVF 3 Boeth. g; §9 Diogenes 64A15 DK, T30 Laks; §10 Anaxagoras 59A82 DK; §11 Metrodorus 70A14 DK; §12 Xenophanes 21A44 DK

§5 [11] post φῶς add. πεπληρωμένον P^G || νέφει πυκνῷ P^{BS} (*dichte Wolken* Q) : ψυχῇ τι P^G : ψύχει dub. Sharples in app. || [11–12] καθάπερ ... γίνεται om. P^G §6 om. P^G || [13] post ὑπὸ add. τοῦ P^{B(II)} || φωτὸς P^{BS} : Stern Q || [14] ὁμοίως δ' αἰτιολογεῖ P^{BS} : *Außerdem erwähnt er* Q || *verba halo dokis kion* transcr. Q || ἄλλω P^{B(LII)Q} : ἄλλο P^{B(III)} : om. S || [15] τοὺς om. P^{B(II)} [16] ταυτὶ corr. ms. Voss. 2 corr. : ταύτη P^B : ταῦτα S §7–8 πνεύματος ... Βόηθος om. P^{B(III)E} §7 om. P^G || [17] ἀναφορὰν P^B : ἀναφορᾶ S || πεπυρωμένου P^{B(LII)QS} : πεπυκνωμένου P^{B(II)} §8 om. P^G || [18] ἀνημμένου P^{B(II)QS} : ἀνειμένου P^{B(LIII)} §9 [19] ἀστέρας P^{BQS^F} (lemma om. S^P) : al. P^G σημείον ἐπὶ τοῦ θυμοῦ καὶ ἐπισφαλῶς τινος §10 [20] διάττοντας καὶ ἄπτοντας : *diattontes et aptontes* P^{G(Nic)}, διάττοντας P^{BQS}, ἄπτοντας P^G ἄττοντας corr. Diels || [20–21] τοῦ αἰθέρος P^{BQS} (τοῦ om. P^{B(II)}) : τοῦ αἰθερίου πυρὸς P^G || [21] σπινθήρων P^{BS^P} : σπινθήρος P^{GQS^F} || διὸ om. P^G || σβέννυσθαι P^{B(LIIG)Q} : κατασβέννυσθαι P^{B(II)} §11 [23] τὴν P^{BQS^F} : om S^P || βιαίαν om. P^G || ἔμπωσιν ἔμπρησιν P^G || ὡς βέλος P^G : *Eindringen des Zündfunkens* Q : om. P^{BS} prob. Diels Mau Lachenaud || [24] πολλάκις P^{GS} Diels : om. P^{BQ} || σπινθηρίζειν P : σφιντήρισιν S, σφινθηρίζειν Meineke §12 [25] post τοιαῦτα add. τῶν P^{B(III:αA)} || [25–26] P^{BS} νεφῶν ... κινήματα : *das Entstehen von all dem aus glühenden oder sich bewegenden Wolken* Q || συστήματα ... κινήματα P^{B(IIII)S} (πυλῆματα con. Zeller) : σύστημα ἢ κίνημα P^G : κινήματα ἢ συστήματα P^{B(II)} || [26] post κινήματα add. εἶναι P^G

Testes primi:

Traditio ps.Plutarchi:

ps. Galenus HPh c. 75 Περὶ κομητῶν καὶ διαττόντων ἀστέρων (~ tit.) (text Jas)

75.1 (~ P1) ἀπὸ Πυθαγόρου τινὲς μὲν ἀστέρα φασὶν εἶναι τὸν κομήτην τῶν οὐκ αἰετ μενόντων, διὰ τινος δὲ ὠρισμένου χρόνου περιοδικῶς ἀνατελλόντων.

- 75.2 (~ P2) ἄλλοι δὲ ἀνάκλασιν τῆς ἡμετέρας ὄψεως πρὸς τὸν ἥλιον παραπλησίαν ταῖς κατοπτρικαῖς ἐμφάσεσιν.
 74.3 (~ P3) Ἀναξαγόρας καὶ Δημόκριτος σύνοδον ἀστέρων δυοῖν ἢ καὶ πλείονων κατὰ συναυασμόν.
 75.4 (~ P4) Ἀριστοτέλης δὲ τῆς ξηρᾶς ἐκ τῆς γῆς ἀναθυμιάσεως διὰ τὴν ἔμπυρον ἐπίτασιν.
 75.5 (~ P5) Στράτων ἄστρου φῶς {πεπληρωμένον} περιληφθὲν ψυχῇ τι.
 75.6 (~ P9) Διογένης σημειὸν ἐπὶ τοῦ θυμοῦ καὶ ἐπισφαλῶς τιнос εἶναι τοὺς κομήτας.
 75.7 (~ P10) Ἀναξαγόρας τοὺς καλουμένους διαττόντας ἀπὸ τοῦ αἰθερίου πυρὸς σπινθήρος δίκην καταφέρεισθαι καὶ παραυτίκα σβέννυσθαι.
 75.8 (~ P11) Μητρόδωρος τὴν εἰς τὰ νέφη τοῦ ἡλίου ἔμπρησιν ὡς βέλος πολλάκις σπινθηρίζειν.
 75.9 (~ P12) Ξενοφάνης τὰ τοιαῦτα νεφῶν πεπυρωμένων σύστημα ἢ κίνημα εἶναι.

Julianus Arianista *Comm. in Job* p. 272.4–6 Hagedorn (~ §1) εἰσὶ δὲ τινες κομήται προσαγορευόμενοι, οὐκ αἰεὶ μὲν φαινόμενοι, διὰ τιнос δὲ χρόνου περιοδικοῦ ἐπιτέλλοντες·
 (~ §5) οἱ δὲ πωγωνίαι καλοῦνται καὶ δοκίδες καὶ κίονες.

Ioannes Lydus

Ost. 4, p. 9.1–5 (~ tit.) σπουδὴ δὲ ἡμῖν ἐστὶν εἰπεῖν περὶ τε ... κομητῶν τε καὶ τῆς κατ' αὐτοὺς διαφορᾶς, αὐλακισμῶν τε καὶ διαττόντων.
Mens. 4.116, p. 154.9–10 (~ tit.) ὅτι τῶν κομητῶν εἶδη κατὰ μὲν τὸν Ἀριστοτέλην ἐννέα κτλ.

Psellus *Omn. Doctr.* c. 139 Περὶ κομητοῦ (~ tit.)

c. 140.1–3 Περὶ ὑετοῦ, χαλάζης, χιόνος, πάχνης καὶ δρόσου (cf. tit. c. 3.4) κομήται μὲν καὶ γαλαξίας, ἔτι δὲ δοκίδες καὶ διὰττοντες, καὶ τᾶλλα τὰ εἰρημένα, ἐτὴ καπνώδει γίνονται ἀναθυμιάσει κτλ. (~ tit.)

Phil. Min. 1 op. 24, p. 89 Duffy Περὶ τῶν κατ' οὐρανὸν φασμάτων καὶ περὶ κομητῶν (~ tit.) καὶ γαλαξίου (~ tit. c. 3.1)

Symeon Seth *CRN* 2.23 Περὶ κομητῶν ἀστέρων (~ tit.)

Testes secundi:

Achilles *Univ.* c. 34, p. 51.13 Περὶ κομητῶν (~ tit.). p. 51.14–17 περὶ δὲ κομητῶν καὶ δοκίδων ἐπραγματεύσαντο πολλοί (~ tit.). οἱ μὲν οὖν κάτω τὸ φῶς ἔχοντες καὶ τὰς μαρμαρυγὰς κάτω νεοῦσας καλοῦνται κομήται, ... ὅποτε δὲ ἐπίμηκες ἔχουσι τὸ φῶς, καλοῦνται δοκίδες (~ quaestio). p. 52.3–4 τοὺς δὲ κομήτας καὶ τοὺς τοιοῦτους οἱ μὲν λέγουσιν ἐξ ἀστέρων συνερχομένων γίνεσθαι καὶ ἐμφωτισμένων (~ §3). p. 52.4–5 οἱ δὲ ἐκ νεφῶν περιπεφωτισμένων (sc. τοὺς δὲ κομήτας καὶ τοὺς τοιοῦτους) λέγουσιν γίνεσθαι (~ §6). p. 52.5–6 οὐ φαίνονται δὲ αἰεὶ, ἀλλὰ γίνονται κατὰ περιόδους χρόνων (~ §1).

Scholia in Aratum *schol.* 811, p. 404.4–5 Martin καθ' ὑπόστασιν δὲ κομήται, παγωνίαι, δοκίδες, λαμπάδες, ἄττοντες (~ *quaestio*). *schol.* 927, p. 451.2–15 Martin ὁ διὰ ττων ἀστήρ μὲν οὐκ ἔστιν, (ἐκ) παρατρίψεως δὲ ἀέρος γένεσις πυρὸς φερομένου. ... καὶ οἱ διὰ ττων ἀστέρες ὅθεν ἐκπηδῶσιν, ἐκείθεν τὸ πνεῦμα δεῖ προσδοκᾶν· ὥθει γὰρ αὐτοὺς ἐκείθεν. ὅθεν καὶ ἡ κατὰ τὴν ὁδὸν λευκότης φαίνεται. ἐξωθουμένων γὰρ ὑπὸ τῆς πνοῆς τῶν ἀστέρων καὶ πιπτόντων ὀλίγον ἐκ τοῦ αἰθέρος εἰς τὸν ἀέρα, αὕτη ἡ πορεία λευκαίνεται, κατὰ φύσιν ποιούντος τοῦτο τοῦ ἀέρος, καὶ μένει ἐπ' ὀλίγον ἄχρις ἂν πάλιν εἰς τὸν αἰθέρα ἀνελθοῦσα ἡ ἔκλαμψις σβεσθῇ ὑπὸ τῆς θερμότητος τοῦ αἰθέρος (~ *quaestio*). *schol.* 1091, p. 509.2–6 Martin τοὺς μὲν αὐτῶν κομήτας λέγουσι, τοὺς δὲ παγωνίας, τοὺς δὲ ξιφηφόρους, καὶ ἄλλους ἄλλως ἔχοντας· κομήτας μὲν τοὺς ἄνω τῶν ἀστέρων ἔχοντας τὴν κόμην, παγωνίας δὲ τοὺς κάτω, ξιφηφόρους δὲ τοὺς ἐκατέρωθεν (~ *quaestio*). *schol.* 1093, p. 511.20–512.11 Martin ὁ δὲ Ποσειδώνιος (F 131a E.-K., 316 Theiler) ἀρχὴν γενέσεώς φησι τοὺς κομήτας ἔχειν ὅταν {τῇ} τοῦ ἀέρος παχυμερέστερόν τι εἰς τὸν αἰθέρα ἐκθλιβὲν ἐν τῇ τοῦ ἀέρος δίνῃ ἐνδεθῇ, εἴτα πρὸς πλείονα δίνην ἐπιρρεούσης τῆς ὕλης αὐξόμενοι ἐπιφαίνωνται· ἔνθεν καὶ μείζοντας αὐτοὺς αὐτῶν ὀράσθαι καὶ ἡττονας, ὡς ἂν ποτὲ μὲν πλεῖον ἐπιδιδούσης αὐξεσθαι, ποτὲ δὲ λειπούσης συστέλλεσθαι. ταύτη γοῦν καὶ τοῖς ἀρκτικοῖς συνίστασθαι μάλιστα τόποις, ἔνθα παχυμερὴς καὶ πεπιλημένος ἐστὶν ὁ ἀήρ. κατὰ δὲ τὰς φαύσεις αὐτῶν καὶ πάλιν διαλύσεις τροπὰς γίνεσθαι τοῦ ἀέρος· αὐχμούς τε γὰρ καὶ τῶν ἐναντίων ῥαγδαίους ὄμβρους κατὰ τὴν διάλυσιν αὐτῶν γίνεσθαι, ἅτε δὴ τῆς συστάσεως αὐτῶν ἐν ἀέρι γενομένης. ὅπερ καὶ ὁ Ἄρατος λέγει κτλ. (~ *quaestio*). *schol.* 1091, p. 508.8–12 Martin (cf. p. 511.13–16) τοὺς κομήτας οἱ Πυθαγορικοὶ (—) τοῖς πλανωμένοις συγκατηρίθμουν, κατὰ μακρὰς ἀνακυκλήσεις χρόνων ἄλλοτε ἄλλῃ προφαινομένους, ἓνα τοῦτον ὑποτιθέμενοι καὶ κατὰ τὰ βόρεια ἐκτὸς τοῦ ζωδιακοῦ φαινόμενον (~ §1). *schol.* 1091, p. 510.15–19 Martin Ἰπποκράτης μέντοι ὁ Πυθαγορικός (—) ἓνα λέγει τὸν κομήτην. καὶ οἱ μὲν λοιποὶ ἰδίας αὐτῶν τὰς κόμας ἀποφαίνονται, ὃ δὲ κατὰ ἀνάκλασιν τὴν ὡς ἐπὶ τὸν ἥλιον ἀπὸ τῶν ὀψεων διὰ τὴν τῶν ὕγρων ἀναθυμίασιν εἰς αὐτὸν ὀλκὴν φαίνεσθαι (~ §2). *schol.* 1093, p. 510.20–511.5 Martin ἡ ξηρὰ ἀναθυμίασις ξηρὰς τῆς γῆς καὶ αὐχμηρὰς τυγχανούσης ἀναδιδομένη ποιεῖ τοὺς κομήτας ἀστέρας καλουμένους, ὑπὸ τῆς ἰδίας θερμότητος ἐξαπτομένη ῥαδίως ἐκ τῶν ὑποκειμένων, καὶ οἷον ἀκτίνας ἀναπέμπει πρὸς τὸ ἄνω. τὸ γὰρ πῦρ ἄνω πέφυκε φέρεσθαι. τὰς δὲ ἀκτίνας τοῦ παντὸς ἀστέρος κόμας εἶναι νομίζουσιν (~ §4). *schol.* 1091, p. 509.7–11 Martin Δημόκριτος (—) δὲ καὶ Ἀναξαγόρας (—) κατὰ σύλληψιν δύο πλανωμένων ἡνίκα πλησίον ἀλλήλων γένωνται καθάπερ ἐσόπτρων ἀντιλαμπόντων ἀλλήλοις τοὺς κομήτας συνίστασθαι λέγουσι (~ §6). *schol.* 926, p. 450.3–9 Martin ὁ αἰθὴρ σφόδρα ἐστὶ διάπυρος. ἔστι δὲ ὑπὲρ τοῦ ἡλίου. οὗτος δὲ ὅταν ξηρὰς ἀναθυμιάσεις δέξηται, ξηρὸς ὢν καὶ αὐτὸς καὶ πυρῶδης, πυκνούμενος ἀποπέμπει τινὰς ὥσπερ σπινθήρας. ταύτας ὑπονοοῦμεν ἀστέρων εἶναι διαδρομάς. οὐ γὰρ ἀστέρες ἐκδρομὴν ποιοῦσιν, ἀλλὰ ὁ αἰθὴρ ἐστὶν ὁ τὰς στιλβηδόνας τὰς πυροειδεῖς ἐκπέμπων· διὸ καὶ ὀλίγον διαδραμοῦσαι παύονται (~ §10).

Loci Aetiani:

quaestio A 1.2.2 πάντα γὰρ τὰ ὀρώμενα, ὅσα μήτε ὑπὸ τύχης μήτε ὑπ' ἀνάγκης μήτ' ἐστὶ θεῖα μήτε τοιαύτην αἰτίαν ἔχει, φυσικὰ λέγεται καὶ φύσιν ἔχει ἰδίαν. ... ἔτι δὲ ταῦτα τὰ γινόμενα, ὄμβροι χάλαζαι κεραυνοὶ ἄνεμοι· ταῦτα γὰρ ἔχει ἀρχὴν τινὰ· οὐ γὰρ ἐξ αἰῶνος ἕκαστον τούτων ἐστὶν ἀλλ' ἀπὸ τίνος ἀρχῆς γίνεται.

§2 A 3.1.4 τινὲς δὲ κατοπτρικὴν εἶναι φαντασίαν τοῦ ἡλίου τὰς αὐγὰς πρὸς τὸν οὐρανὸν ἀνακλῶντος, ὅπερ καὶ ἐπὶ τῆς Ἰριδος καὶ ἐπὶ τῶν νεφῶν συμβαίνει.

§3 A 3.1.8 Δημόκριτος πολλῶν καὶ μικρῶν καὶ συνεχῶν ἀστέρων συμφωτιζομένων ἀλλήλοις συναυγασμὸν διὰ τὴν πύκνωσιν.

§4 A 3.1.9 Ἀριστοτέλης ἀναθυμιάσεως ξηρᾶς ἔξαψιν πολλῆς τε καὶ συνεχοῦς. A 3.3.13 Ἀριστοτέλης ἐξ ἀναθυμιάσεως καὶ τὰ τοιαῦτα [sc. ἀστραπὴν βροντὴν κτλ.] γίνεσθαι τῆς ξηρᾶς. A 3.15.4 Ἀριστοτέλης ... ἐν ἀπολήψει γινομένης τῆς ξηρᾶς ἀναθυμιάσεως.

§6 A 3.5a (olim 18) titulus Περί ἄλλω A 3.5a.1 ἢ δ' ἄλλως κτλ.

§12 A 2.13.13 Ξενοφάνης ἐκ νεφῶν μὲν πεπυρωμένων (sc. τὰ ἄστρα). A 2.20.2 Ξενοφάνης ἐκ νεφῶν πεπυρωμένων εἶναι τὸν ἥλιον. T 4.21 καὶ μέντοι καὶ τὸν ἥλιον καὶ τὴν σελήνην ὁ Ξενοφάνης νέφη εἶναι πεπυρωμένα φησίν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The number of witnesses for this chapter is similar to those for the previous chapter 3.1. They preserve the contents of the chapter well. Both witnesses preserve the same twelve lemmata in the same order. S appears to have written out the chapter in full, and P to have refrained from abridging it.

(1) The tradition of P is represented by P^B, P^G, P^Q and P^{Ps} (the last for the heading only). Ps.Galen leaves out a block of three doxai (§§6–8). Psellus includes several headings from the meteorological section of the *Placita* in his *De omnifaria doctrina* and elsewhere, but the contents of the chapters derive from elsewhere.

(2) The chapter in S combines the first sentence of the Aristotle lemma with a short excerpt from AD, a type of coalescence found more often in the *Anthology*, see Diels *DG* 75 n. 2, M–R 1.249–254, and Jeremiah at M–R 4.286 and 352.

(3) T does not make use of any material from Book 3.

B Proximate Tradition and Sources

(1) *Proximate tradition.* There are parallels in ps.Aristotle *De mundo*, the quite substantial physical fragments of Arrian, and several noteworthy general and

individual parallels in Seneca *Naturales quaestiones* Book 7. A remarkable collection of meteorological doxai is found in various passages in the late historian Ammianus Marcellinus. The *Metarsiology* of Theophrastus(?) lacks one or more chapters on meteors and comets, just as it lacks one on the Milky Way (see above, ch. 3.1 at Commentary B), and one on the rainbow (see below ch. 3.5 at Commentary B).

(2) *Sources*. §§1–3 derive from Aristotle's dialectical overview, *Mete.* 1.6, while §4 summarizes Aristotle's own view at *Mete.* 1.7. We do not know from what sources the other lemmata derive.

C Chapter Heading

It is of the umbrella type (περί τοῦ δεινῶ) that dominates in the *Placita*, see above, ch. 1.3 Commentary C. The umbrella here (like that of the next two chapters) covers a number of different phenomena collected in a single chapter rather than distributed over several. The most important question type/category is that of essence/substance; that of cause (διὰ τῆς) also plays a part, and the categories of place and quality are of secondary interest.

P^{BQ} has a long heading including 'beams' (δοκίδες). The shorter headings of G and S are presumably due to the abridgment that is habitual with these authors, while the headings of P^Ps are formulated rather freely (but it should be noted that δοκίδες are mentioned at the beginning of c. 140). In view of the fact that the 'beams' are only mentioned explicitly in §6 as part of a list, one might be tempted to conclude that the shorter version has more chance of being originally A's. One wonders what would have motivated the heading's purported extension in P. Because of these uncertainties we retain the longer heading.

D Analysis

a Context

For the explanation of A's order in general see above, Book 3.prooem., at Commentary D(a). Just like the previous chapter this one too is related to its predecessors in Aristotle's treatise. But as we have seen the order of treatment in the *Placita* is not the same as in the *Meteorology*. Aristotle discusses shooting stars and similar phenomena at *Mete.* 1.4–5, continuing with comets in *Mete.* 1.6–7, while A in this chapter begins with comets and has the shooting stars come second. And Aristotle deals with the comets before the Milky Way, while A begins with the Milky Way. The next chapter, 4.3, is about lightning and similar phenomena, which are treated in Aristotle as far away as *Mete.* 2.9–3.1. In Seneca's *Naturales quaestiones* comets and shooting stars respectively are treated in two different books, viz. *Nat.* 7 (sixth in the original order) and *Nat.* 1

(seventh in the original order), so at least after one the other as in A, contrasting with the order in Aristotle.

For the explanation of A's order in general see above Book 3.prooem., at Commentary D(a).

b Number–Order of Lemmata

P^B, confirmed by P^Q, has twelve lemmata, and S has twelve lemmata too, the same as P^{BQ} and in the same order. P^G has nine lemmata, leaving out §§6–8 in the middle. As the lemmata order is the same in all witnesses, this has to be preserved unchanged. Accordingly our order is the same as that of Diels in the *DG*. We have however augmented the number of lemmata by splitting up Diels' first lemma into two separate ones for the sake of convenience, thus getting §§1–2.

c Rationale–Structure of Chapter

Broadly speaking the chapter falls into two parts, the first, §§1–9 dealing with comets, the second, §§10–11, with shooting stars. But §6 also makes reference to a list of other phenomena similar to comets qua atmospherical phenomena, viz. 'bearded star, halo, beam, pillar etc.', while the final lemma, §12, refers to all these phenomena together, including (by implication) comets.

The main diaphonia of the first part is between comets as being real (§1: a star, §3: two stars or even more, §4: a structure, *σύστασις*, §7: a compound of pneuma and earth, and §9: stars again) as opposed to comets as phenomenal or illusory (§2: reflection of vision and §8: appearance of ignited air). It includes two compromise views in a block of two lemmata, §5: light trapped in a dense cloud, and §6: high clouds illuminated by lights high in the sky. These are compromise views, because the phenomena involved fit a qualification formulated further down in Book 3, namely at A 3.6.1: they are a mix of substance and appearance, because what is seen is clouds (and clouds are real), but not according to their own colour but with a different colour seen in the manner of a reflection (*μίξει τῆς ὑποστάσεως καὶ ἐμφάσεως ὑπάρχει, τῶν μὲν νεφῶν ὁρωμένων, οὐ κατ' οἰκείον δὲ χρῶμα, ἀλλ' ἕτερον ὅπερ κατ' ἔμφασιν φαίνεται*). Furthermore, within one horn of the diaphonia, that of reality, there is a sub-diaeresis between stars (§1, §3 and §9) and atmospherical phenomena, or quasi-phenomena (the block of §§4–7).

We also note the role explicitly played by clouds in three lemmata: §5, §6 and §12. In §5 we meet the comet in the guise of the light of a star enclosed in a cloud, whereas in §6 a comet, like other similar phenomena, is (just) a high cloud that has been illuminated from above. §2 does not mention clouds, but presumably the reflection as through a mirror of our vision to the sun can only happen via a cloud. In the previous chapter, 3.1.4, such a cloud may be believed

to be involved in the appearance of the Milky Way qua optical phenomenon, and this earlier lemma in fact refers forward to §§5–6 of our present chapter and to ch. 3.5, the role of clouds in the production of the rainbow. Finally, in §12 we have Xenophanes' ignited clouds, familiar from the cosmological chapters in Book 2 where his suns, moon and stars are all said to consist of ignited clouds (see *Loci Aetiani* §12). This time comets, shooting stars and other similar phenomena are regarded as combinations or movements (for the latter think of shooting stars) of such clouds. The combinations or gatherings of clouds recall the combined little stars of Democritus, but this is by the way.

Compare the useful headings in Gundel (1922) 1164–1170: comets as (1) 'Erzeugnis der Atmosphäre rein meteorologischer Natur'; (2) as 'beleuchtete Wolken'; (3) as 'Vereinigung verschiedener Sterne'; and (4) as 'Weltkörper mit bestimmten Umlaufszeiten'.

The organization of the first section of the first part of the chapter resembles that of its predecessor at ch. 3.1: §§1–2 a diaphonia of (purported Pythagorean?) views to begin with, this time however followed immediately by a lemma for Anaxagoras and Democritus at §3 (no interpolated Metrodorus and Parmenides as in ch. 3.1.4–5). §§1–3 derive from Aristotle *Mete.* 1.6 342b25–343a20. But Aristotle begins with Anaxagoras and Democritus (corresponding to §3), continues with the Pythagoreans (corresponding to §1), and as a third view cites that of (the mathematician) Hippocrates of Chios and his pupil Aeschylus (corresponding to §2). This modification of the sequence seems in the first place to be inspired by the conviction that the 'others' of §2 (in Aristotle Hippocrates and Aeschylus) are Pythagoreans, just as the related 'some people' at A 3.1.4 and the bearers of the name-label in §1.

As a consequence the diaphonia between §1 and §2 mirrors that between the lemmata at ch. 3.1.2–3 and 3.1.4. This first diaphonia, as in the previous chapter, is between reality (the comet qua star) and optical phenomenon (the comet qua the result of the reflection of the visual rays). A similar diaphonia occurs further down, in a bilemmatic block at the end of the presentation of the doxai dealing with comets, viz. between §9: the comet as the 'appearance' (φαντασία) of air that has been ignited, over against §10: comets as stars (as in §1). This produces a ring-compositional effect between end and beginning, not unlike the one we discerned in the previous chapter, 3.1.

Nevertheless the structure of our chapter is not entirely satisfactory, just as in the case of the previous one. This time, too, the sequence of lemmata at the beginning (§§1–3), not so good from a diaeretical point of view, is to be explained as the result of a restructuring of the Aristotelian matrix, which nevertheless continues to be present. We note an unsystematic series of elemental substances or combinations thereof in various locations: §4 red-hot dry vapour

from the earth, §5 light in dense cloud, §6 high cloud illuminated by light, §7 ignited blend of air and earth, §8 inflamed air. Atmospheric phenomena are complicated. Arranging this series in a diaeretically correct and worthwhile succession was perhaps too great a challenge.

d Further Comments

General Points

Epicurus mentions these phenomena at some length in his *Letter to Pythocles* (see below section E(b) General texts). But this material is absent in the present chapter, perhaps because his multiple solutions are adequately represented by other doxai. In the meteorological section he first appears in ch. 3.4 below, though not with a multiplicity of doxai. For the complicated role of Epicurus in the *Placita* see Runia (2018) at M–R 4.

Individual Points

Chapter heading ‘Beams’ are a kind of meteor. For ‘rods’, another kind of meteor or another name for the same kind, see below, ch. 3.6.

§2 For Hippocrates of Chius and Aeschylus see above, ch. 3.1.4 Commentary D(d)§4.

§11 We have included the words ὥς βέλος preserved by P^G, because they explain the violence of the immission.

§12 κινήματα] i.e. νέφη κινούμενα, e.g. διαίττοντες according to DK ad loc.

e Other Evidence

The whole of Seneca *Naturales quaestiones* Book 7 (Book 6 according to the original order) is about comets. But unlike Aristotle and his tradition, to which A belongs as well, Seneca posits that comets are not atmospheric but celestial phenomena. This point of view is also that of Pliny, *Nat.* 2.94. Such shared views used to be regarded as derived from Posidonius, and are still so attributed by Theiler. Because of its irregular behaviour a comet could not be a heavenly body consisting of aether in Aristotle’s system. For Seneca this behaviour was not an impediment in view of the homogeneity of nature: the stars, too, consist of fire.

E Further Related Texts

a Proximate Tradition

General texts: Seneca *Nat.* 7.4.1 *duo certe, qui apud Chaldaeos studuisse se dicunt, Epigenes et Apollonius Myndius, peritissimus inspicendorum natalium, inter se dissident. hic enim ait cometas in numero stellarum errantium poni a Chaldaeis tenerique cursus eorum. Epigenes contra ait Chaldaeos nihil de*

cometis habere compensi, sed videri illos accendi turbine quodam aëris concitati et intorti. Nat. 7.19.1–2 quidam (sc. Zeno of Citium, Artemidorus of Paros) *nullos esse cometas existimant sed speciem illorum per repercussus vicinorum siderum aut per coniunctionem cohaerentium reddi; quidam* (sc. Pythagoreans) *aiunt esse quidem sed habere cursus suos et post certa lustra in conspectum mortalium exire; quidam* (sc. Aristotle, Epigenes, Posidonius) *esse quidem sed non quibus siderum nomen imponas, quia dilabuntur nec diu durant et exigui temporis mora dissipantur. Nat. 7.22.1 ego nostris* (sc. Stoicis) *non assentior. non enim existimo cometen subitaneum ignem sed inter aeterna opera naturae. Pliny Nat. 2.89 namque et in ipso caelo stellae repente nascuntur. plura earum genera. cometas Graeci vocant, nostri crinitas, horrentes crine sanguineo et comarum modo in vertice hispidas. iidem pogonias quibus inferiore ex parte in speciem barbae longae promittitur iuba. acontiae iaculi modo vibrantur, ocissimo significatu. Nat. 2.94 sunt qui et haec sidera perpetua esse credant suoque ambitu ire, sed non nisi relictā ab sole cerni; alii vero qui nasci umore fortuito et ignea vi ideoque solvi. ps.Aristotle Mu. 2 392b2–5 ἐν δὲ τῇ πυρώδει καὶ ἀτάκτῳ λεγομένη* (sc. οὐσίᾳ) *τά τε σέλα διάττει καὶ φλόγες ἀκοντίζονται καὶ δοκίδες τε καὶ βόθυνοι καὶ κομήται λεγόμενοι στηρίζονται καὶ σβέννυνται πολλάκις. Mu. 4 395b7–12 (Posidonius fr. 340a Theiler) ὁ δὲ στηριγμός ἐστὶ χωρὶς φορὰς προμήκης ἔκτασις καὶ οἷον ἄστρου ῥύσις· πλατυνομένη δὲ κατὰ θάτερον κομήτης καλεῖται. πολλοὶ δὲ καὶ ἄλλοι φαντασμάτων ἰδέαι θεωροῦνται, λαμπάδες τε καλοῦμεναι καὶ δοκίδες καὶ πίθοι καὶ βόθυνοι. Stobaeus Ecl. 1.28.1a, p. 227.17–21 Wachsmuth (under the name of A; doubtfully attributed to AD by Diels DG, but printed as A 3.2.3) κομήτας δὲ ὅταν ἐπὶ πλεόν ἑξαφθῇ καὶ πρὸς πλείονα διαμένη χρόνον, τοῦ μὲν ἀστέρος φαινομένου κάτωθεν, τῆς δὲ κόμης ἄνωθεν ἐπιλαμπούσης· πωγωνίας δὲ ὅταν ἔμπαλιν ὁ μὲν ἀστήρ ἄνωθεν θεωρῇται, ἡ δὲ κόμη κάτωθεν, παρεχομένη τῷ σχήματι πώγωνος ἔμφασιν. Manilius 1.813–851 sunt etenim raris orti natalibus ignes, / protinus et rapti. subitas candescere flammās / aëra per liquidum natosque perire cometas / rara per ingentis viderunt saecula motus. / sive, quod ingenitum terra spirante vaporem / umidior sicca superatur spiritus aura, / nubila cum longo cessant depulsa sereno / et solis radiis arescit torridus aër. / apta alimenta sibi demissus corripit ignis / materiamque sui deprendit flamma capacem, / et, quia non solidum est corpus, sed rara vagantur / principia aurarum volucrique simillima fumo, / in breve vivit opus coeptusque incendia fine / subsistunt pariterque cadunt fulgentque cometae. / ... / (831) tum, quia non una specie dispergitur omnis / aridior terrae vapor et comprehenditur igni, / diversas quoque per facies accensa feruntur / lumina, quae ruptis exsistunt nata tenebris. | nam modo, ceu longi fluitent de vertice crines, / flamma comas imitata volat, tenuisque capillos; / diffusos radiis ardentibus explicat ignis; / nunc prior haec facies dispersis crinibus exit, / et glomus ardentis sequitur sub imagine barbae. / ... / (849) et tenuem longis iaculantur tractibus ignem / (847) praecipites stellae passimque volare videntur, / cum vaga per liquidum scintillant lumina mundum / exsiliuntque procul volucris imitata sagittas, / ardua cum gracili tenuatur semita filo / diffusos radiis ardentibus explicat ignis. Arius*

Didymus fr. 11 Diels at Stob. *Ecl.* 1.31.6, p. 243.22–244.2 (on Aristotle) ἐκ δὲ τῆς ὑγρᾶς καὶ ἀτμώδους ἀναθυμιάσεως ὑετούς τε καὶ δρόσους καὶ πάχνας, ὁμίχλας τε καὶ νέφη καὶ χιόνας καὶ χαλάζας. **Arrian** *Reb.Phys.* fr. 6, pp. 2.193–195 Roos–Wirth at Stob. *Ecl.* 1.2.8.1b–2, pp. 228.15–231.4 (Posidonius fr. 340b Theiler) Χαλδαίους μὲν δὴ λόγος περὶ κομητῶν ᾧδε γινώσκειν ... οἱ δὲ ... Δημοκρίτου δὲ ὁ λόγος λεγόμενός ἐστιν (see below §§1, 4, 7). ... Ἀρριανός φησιν· ὅσα δὲ μένει ἐπὶ χρόνον, τὰ μὲν ὡς συμπεριφέρεσθαι τῷ οὐρανῷ, τὰ δὲ ἤδη τινὰ κατ' ἰδίαν πλάνην πλανώμενα, οὗτοί εἰσιν οἱ κομηταὶ ἀστέρες καὶ λαμπάδες καὶ πωγωνίαι καὶ πίθοι καὶ δοκίδες, καθ' ὁμοιότητα ἕκαστα ιδέας τῆς ἐπωνυμίας λαχόντα. ... καὶ ταῦτα, ὅπως ἂν τύχη, ἀπὸ τῆς ιδέας ἐπικληῖζεσθαι ἕκαστον· κομήτας μὲν ἅφ' ὧν ὥσπερ κόμη εἰς τὰ κύκλω ἀπολάμπει αὐγὴ πυρός· πωγωνίας δὲ ἅφ' ὅτων εἰς πώγωνος σχῆμα ἀπῆρτηται αὐγὴ ἐς τὸ ἐπὶ θάτερα· πίθους δὲ ὅσα μεγάλα (καὶ) κυκλοτερὴ καὶ τι καὶ βάθους ἔν σφισιν ἐξέφηγε· δοκοὺς δὲ αὖ καὶ λαμπάδας καθ' ὁμοιότητα τοῦ εἶδους (οὐ)τως ἐπιφημιζέσθαι. **Ammianus Marcellinus** 25.10.2–3 *cum horrendo stridore sonuerunt in consistorio trabes et visa sunt interdiu sidera cometarum, super quorum natura ratiocinantes physici variant.* (see further quotations below). ... *plura alia de cometis apud peritos mundanae rationis sunt lecta, quae digerere nunc vetat aliorum oratio properans.* cf. 25.2.5 *erat autem nitor igneus iste, quem diaissonta nos appellamus, nec cadens unquam nec terram contingens. corpora enim qui credit caelitus posse labi, profanus merito iudicatur et demens. fit autem hic habitus modis compluribus, e quibus sufficet pauca monstrare.*

Chapter heading: **Pliny** *Nat.* 1 p. 11.32–34 *de cometis. natura et situs et genera eorum.* **Arrian** *Reb.Phys.* fr. 6, pp. 192–193 Roos–Wirth at Photius *Bibl. cod.* 250, p. 460b17–18 (Posidonius fr. 340b Theiler) ὅτι Ἀρριανὸς Περὶ κομητῶν φύσεώς τε καὶ συστάσεως καὶ φασμάτων βιβλιδαρίον γράψας.

§0 **Question of existence:** **Seneca** *Nat.* 7.19.1 *quidam* (sc. Zeno of Citium, Artemidorus of Paros) *nullos esse cometas existimant sed speciem illorum per repercussus vicinorum siderum aut per coniunctionem cohaerentium reddi.*

§1 **some Pythagoreans:** **Seneca** *Nat.* 7.4.1 *duo certe qui apud Chaldaeos studeisse se dicunt, Epigenes et Apollonius Myndius, peritissimus inspicendorum natalium, inter se dissident. hic* (sc. Apollonius) *enim ait cometas in numero stellarum errantium poni a Chaldaeis tenerique cursus eorum.* **Arrian** *Reb.Phys.* fr. 6, pp. 192–193 Roos–Wirth at Stob. *Ecl.* 1.28.1b, p. 228.15–21 (Posidonius fr. 340b Theiler) Χαλδαίους μὲν δὴ λόγος περὶ κομητῶν ᾧδε γινώσκειν, ὅτι εἰσὶ τινες καὶ ἄλλοι ἕξω τῶν φαινομένων πλανητῶν ἀστέρες, οἱ τέως μὲν ἀφανεῖς εἰσιν, ὅτι ἐπὶ πολὺ ἄνω που ἅφ' ἡμῶν φέρονται, ἤδη δὲ καὶ ταπεινωθέντες ὥφθησαν οὕτως ξυνήνεγκόν τε εἰς τὰ ὅλα· καὶ τούτους κομήτας καλεῖν φίλον τοῖς οὐ γινώσκουσιν, ὅτι καὶ αὐτοὶ ἐκ τῶν πολλῶν ἀστέρων εἰσίν. κτλ. **Ammianus Marcellinus** 25.10.3 *sedit quorundam opinioni hanc speciem tunc apparere, cum erecta solito celsius nubes aeternorum ignium vicinitate colluceat, vel certe stellas esse quasdam ceteris similes, quarum ortus obitusque, quibus sint temporibus praestituti, humanis mentibus ignorari.*

§3 **Anaxagoras Democritus:** **Seneca** *Nat.* 7.12.1 *quibusdam antiquorum haec placet ratio: cum ex stellis errantibus altera se alteri adplicuit, confuso in unum duarum lumine facies longioris sideris redditur; nec hoc tunc tantum*

evenit, cum stella stellam attigit, sed etiam cum appropinquavi. intervallum enim quod inter duas est illustratur ab utraque inflammaturque et longum ignem efficit. **Arrian** *Reb.Phys.* fr. 6, p. 2.193 Roos–Wirth at Stob. *Ecl.* 1.28.1b, p. 229.5–9 (Posidonius fr. 340b Theiler) Δημοκρίτου (—) δὲ ὁ λόγος λεγόμενός ἐστιν, ὥς κατ’ ἀντιλαμψιν τῶν πλανωμένων ἀστέρων πρὸς ἀλλήλους τε καὶ τοὺς ἀπλανεῖς οἱ κομῆται ξυνίστασθαι δοκοῦσι, καθάπερ πλείονων κατόπτρων ἀντιλαμπόντων σφίσιν ἤδη τινὰ ὥφθη ἀστεροειδῆ φαντάσματα. **Ammianus Marcellinus** 25.10.3 *quidam enim eos hoc nomine ideo existimant appellari, quod tortos ignes spargunt ut crines in unum stellis multiplicibus congregatis.*

§4 Aristotle: **Stobaeus** 1.28.1a, p. 227.17–21 quoted above under General texts. **Ammianus Marcellinus** 25.10.3 *alii eos arbitrantur ex halitu sicciore terrarum ignescere paulatim in sublimiora surgentes.*

§5 Strato: **Ammianus Marcellinus** 25.10.3 *quidam *** currentesque radios solis densiore nube obiecta degredi ad inferiora prohibitos splendore infuso corpori crasso lucem velut stellis distinctam mortali conspectu monstrare.*

§7 Epigenes: **Seneca** *Nat.* 7.4.1 + 4 *Epigenes contra ait Chaldaeos nihil de cometis habere comprensi, sed videri illos accendi turbine quodam aëris concitati et intorti. ... (4) ‘cum umida terrenaque in se globus aliquis aëris clusit, quem turbinem dicimus, quacumque fertur, praebet speciem ignis extenti, quae tam diu durat quamdiu mansit aëris illa complexio umidi intra se terrenique multum vehens.’* **Arrian** *Reb.Phys.* fr. 6, p. 2.193 Roos–Wirth at Stob. *Ecl.* 1.28.1b, pp. 228.24–229.4 (Posidonius fr. 340b Theiler) οἱ δὲ ὑπ’ ἀνέμων ἢ θυέλλης ἀναφέρεσθαι ἔστιν ἃ γαιώδη ἐς τὸν ἄνω ἀέρα ἐδόξασαν καὶ ταῦτα ἐκπυρωθέντα καὶ εἰς τὴν δίνην ἐμπεσόντα τοῦ αἰθέρος ξυμπερινοστεῖν τῷ παντὶ ἐπὶ χρόνον, ἔπειτα ἀπανάλωθέντα πρὸς τοῦ πυρὸς ἀφανῆ καθίστασθαι, καὶ τοὺς κομήτας δὲ καλουμένους ἀστέρας ταῦτα εἶναι. **Ammianus Marcellinus** 25.10.3 *alii eos arbitrantur ex halitu sicciore terrarum ignescere paulatim in sublimiora surgentes.*

§10 Anaxagoras: **Hippolytus** *Ref.* 1.8.10 (on Anaxagoras, 59A44 DK) τοὺς δὲ μεταβαίνοντας ἀστέρας ὥσει σπινθήρας ἀφαλλομένους γίνεσθαι ἐκ τῆς κινήσεως τοῦ πύλου. **Ammianus Marcellinus** 25.2.6 *scintillas quidam putant ab aethereo candentes vigore parumque porrectius tendere sufficientes exstingui.*

§11 Metrodorus: **Ammianus Marcellinus** 25.2.6 *vel certe radiorum flammās iniectas nubibus densis acri scintillare contactu aut, cum lumen aliquod cohaeserit nubi. id enim in stellae speciem figuratum decurrit quidem, dum viribus ignium sustentatur; amplitudine vero spatiorum exinanitum in aërium soluitur corpus ad substantiam migrans, cuius attritu incaluit nimio.*

§12 Xenophanes: **Seneca** *Nat.* 2.12.3 (on lightning etc.) *quidam putant inesse ignem nubibus.*

b Sources and Other Parallel Texts

General texts: **Aristotle** *Mete.* 1.1 338b22–23 περὶ τε ... καὶ κομητῶν. *Mete.* 1 6 342b25–27 περὶ δὲ τῶν κομητῶν ... λέγωμεν, διαπορήσαντες πρὸς τὰ παρὰ τῶν ἄλλων εἰρημένα πρῶτον. **Epicurus** *Ep.Pyth.* at D.L. 10.111 κομῆται ἀστέρες γίνονται ἤτοι πυρὸς ἐν τόποις τισὶ διὰ χρόνων τινῶν ἐν τοῖς μετεώροις συντρεφομένου

περιστάσεως γινομένης, ἢ ἰδίαν τινὰ κίνησιν διὰ χρόνων τοῦ οὐρανοῦ ἴσχοντος ὑπὲρ ἡμᾶς, ὥστε τὰ τοιαῦτα ἄστρα ἀναφανῆναι, ἢ αὐτὰ ἐν χρόνοις τισὶν ὀρμήσαι διὰ τινὰ περιστάσιν καὶ εἰς τοὺς καθ' ἡμᾶς τόπους ἔλθειν καὶ ἐκφανῆ γενέσθαι τὴν τε ἀφάνισιν τούτων γίνεσθαι παρὰ τὰς ἀντικειμένους ταύταις αἰτίας. *Ep.Pyth.* at D.L. 10.114–115 οἱ λεγόμενοι ἀστέρες ἐκπίπτειν καὶ παρὰ μέρος καὶ παρὰ τριψὶν ἐαυτῶν δύνανται συντελεῖσθαι καὶ παρὰ ἔκπτωσιν οὐ ἂν ἢ ἐκπνευμάτωσις γένηται, καθάπερ καὶ ἐπὶ τῶν ἀστραπῶν ἐλέγομεν (115) καὶ κατὰ σύνοδον δὲ ἀτόμων πυρὸς ἀποτελεστικῶν, συμφυλίας γενομένης εἰς τὸ τοῦτο τελέσαι, καὶ κατὰ κίνησιν οὐ ἂν ἢ ὀρμὴ ἐξ ἀρχῆς κατὰ τὴν σύνοδον γένηται· καὶ κατὰ πνεύματος δὲ συλλογὴν ἐν πυκνώμασί τισιν {ἐν} ὀμιχλοειδέσι, καὶ ἐκπύρωσιν τούτων διὰ τὴν κατείλησιν, εἴτ' ἐπέκρηξιν (ἐκ) τῶν περιεχόντων, καὶ ἐφ' ὃν ἂν τόπον ἢ ὀρμὴ γένηται τῆς φορᾶς, εἰς τοῦτον φερομένου. καὶ ἄλλοι δὲ τρόποι εἰς τὸ τοῦτο τελέσαι ἀμύθητοί εἰσιν. *Plutarch Lys.* 12.3 ἔστι δὲ τις πιθανωτέρα δόξα ταύτης (sc. of Anaxagoras'), εἰρηκώτων ἐνίων ὡς οἱ διάττοντες ἀστέρες οὐ ῥύσις εἰσὶν οὐδ' ἐπινέμησις αἰθερίου πυρὸς ἐν ἀέρι κατασβεννυμένου περὶ τὴν ἕξαψιν αὐτὴν, οὐδὲ ἄερος εἰς τὴν ἄνω χώραν πληθὲι λυθέντος ἔκρηξις καὶ ἀνάφλεξις, ῥίψις δὲ καὶ πτώσις οὐρανίων σωμάτων οἷον ἐνδόσει τινὶ τόνου καὶ περιτρόπου κινήσεως ἐκπαλῶν φερομένων οὐ πρὸς τὸν οἰκούμενον τόπον τῆς γῆς, ἀλλὰ τῶν πλείστων ἐκτὸς εἰς τὴν μεγάλην ἐκπιπτόντων θάλατταν· διὸ καὶ λανθάνουσι. **Diogenes Laertius V.P.** 7.132–133 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. the Stoics) ... ζητοῦσι ... ὅπως νέφη συνίσταται, βρονταὶ καὶ ἴριδες καὶ ἄλλως καὶ κομήται καὶ τὰ παραπλήσια. *VP.* 7.153 (*SVF* 2.692) κομήτας δὲ καὶ παγωνίας καὶ λαμπαδίας πυρὰ εἶναι ὑφ' ἐστῶτα πάχους ἄερος εἰς τὸν αἰθερώδη τόπον ἀνενεχθέντος. **Proclus in Tim.** 2.120.19–221.5. **John Philoponus in Mete.** 75.17–21 ἔστι δὲ τὰ περὶ ὧν διδάσκει νῦν οἱ τε κομήται καὶ ὁ καλούμενος γαλαξίας κύκλος. ὅπερ δὲ τῷ φιλοσόφῳ ποιεῖν ἔθος ἐπὶ τῶν φυσικῶν ζητημάτων ἐκάστου, τοῦτο ποιεῖ καὶ νῦν τὰς τῶν παλαιωτέρων περὶ τοῦ προκειμένου δόξας προϊστορῶν καὶ τὰς οὐ καλῶς ἐχούσας ἐλέγχων πρῶτον, εἶτα τὴν οἰκείαν περὶ τοῦ ζητουμένου διδάσκων ὑπόληψιν.

Chapter heading: Aristotle Mete. 1.1 338b22–24 περὶ τε ... καὶ κομητῶν καὶ τῶν ἐκπυρουμένων καὶ κινουμένων φασμάτων. *Mete.* 1.6 342b25 περὶ δὲ τῶν κομητῶν. *Mete.* 1.8 346b13 περὶ τε κομητῶν. **John Philoponus in Mete.** 2.42–3.1 περὶ ... κομητῶν.

§1 some Pythagoreans: Aristotle Mete. 1.6 342b29–35 τῶν δ' Ἰταλικῶν τινες καλούμενων Πυθαγορείων (42.5 DK) ἕνα λέγουσιν αὐτὸν εἶναι τῶν πλανήτων ἀστέρων, ἀλλὰ διὰ πολλοῦ τε χρόνου τὴν φαντασίαν αὐτοῦ εἶναι καὶ τὴν ὑπερβολὴν ἐπὶ μικρὸν, ὅπερ συμβαίνει καὶ περὶ τὸν τοῦ Ἑρμοῦ ἀστέρα· διὰ γὰρ τὸ μικρὸν ἐπαναβαίνειν πολλὰς ἐκλείπει φάσεις, ὥστε διὰ χρόνου φαίνεσθαι πολλοῦ. **Olympiodorus in Mete.** 50.8–9–11 ὁ μὲν Πυθαγόρας Σάμιος ἦν, πλὴν πρόσσεσι τοῦ Ἰταλικοῦ διδασκαλία· διὸ εἶπε 'τῶν Ἰταλικῶν τινες'. οὗτος οὖν τὸν κομήτην ἔκτον ὤτετο πλάνητα ἔχοντα ἐκ τοῦ πέμπτου σώματος καὶ τὴν κόμην. **John Philoponus in Mete.** 76.11–12 τούτων οὖν τινες μετὰ τοὺς πλανωμένους πέντε, ὧν ἀρτίως ἐμνήσθημεν, ἔκτον ἀστέρα πλανώμενον ὑπετίθεντο τὸν κομήτην.

§2 other Pythagoreans: Aristotle Mete. 1.6 342b35–343a20 παραπλησίως δὲ τούτοις (see above §1) καὶ οἱ περὶ Ἱπποκράτην τὸν Χίον καὶ τὸν μαθητὴν αὐτοῦ Αἰσχύλον (42.5 DK) ἀπεφώνησαν, πλὴν τὴν γε κόμην οὐκ ἐξ αὐτοῦ φασιν ἔχειν, ἀλλὰ

πλανώμενον διὰ τὸν τόπον ἐνίστε λαμβάνειν ἀνακλωμένης τῆς ἡμετέρας ὀψεως ἀπὸ τῆς ἐλκομένης ὑγρότητος ὑπ' αὐτοῦ πρὸς τὸν ἥλιον. ... ἐν μὲν οὖν τῷ μεταξύ τόπῳ τῶν τροπικῶν οὐχ ἔλκειν τὸ ὕδωρ πρὸς ἑαυτὸν διὰ τὸ κεκαῦσθαι ὑπὸ τῆς τοῦ ἡλίου φορᾶς· πρὸς δὲ νότον ὅταν φέρεται, δαψίλειαν μὲν ἔχειν τῆς τοιαύτης νοτίδος, ἀλλὰ διὰ τὸ μικρὸν εἶναι τὸ ὑπὲρ τῆς γῆς τμήμα τοῦ κύκλου, τὸ δὲ κάτω πολλαπλάσιον, οὐ δύνασθαι τὴν ὕψιν τῶν ἀνθρώπων φέρεσθαι κλωμένην πρὸς τὸν ἥλιον οὔτε τῷ τροπικῷ τόπῳ πλησιάζοντος οὔτ' ἐπὶ θεριναῖς τροπαῖς ὄντος τοῦ ἡλίου· διόπερ ἐν τούτοις μὲν τοῖς τόποις οὐ γίνεσθαι κομήτην αὐτόν· ὅταν δὲ πρὸς βορέαν ὑπολειφθεὶς τύχη, λαμβάνειν κόμην διὰ τὸ μεγάλην εἶναι τὴν περιφέρειαν τὴν ἄνωθεν τοῦ ὀρίζοντος, τὸ δὲ κάτω μέρος τοῦ κύκλου μικρόν· βᾶδιως γὰρ τὴν ὕψιν τῶν ἀνθρώπων ἀφικνεῖσθαι τότε πρὸς τὸν ἥλιον. **Olympiodorus in Mete.** 51.3–6 τουτέστι τοῖς περὶ Πυθαγόραν. καὶ οὗτοι γὰρ ἔκτον ἔλεγον πλάνητα τὸν κομήτην εἶναι. πλὴν ἐν τούτῳ ἡ διαφορὰ, ὅτι Πυθαγόρας μὲν καὶ τὴν κόμην ἔλεγεν ἐκ τοῦ πέμπτου σώματος εἶναι, ὁ δὲ Ἰπποκράτης ἐκ τοῦ ὑπὸ σελήνην ἔλεγεν αὐτὴν γίνεσθαι. **John Philoponus in Mete.** 77.8–14 Ἰπποκράτης ὁ Χῖος (—), φησὶν (μαθηματικὸς δὲ ὑπῆρχεν οὗτος, οὗ καὶ ὁ τοῦ κύκλου τετραγωνισμὸς διὰ τῶν μηνίσκων εἶναι λέγεται) καὶ ὁ τούτου μαθητὴς Αἰσχύλος τοῖς Πυθαγορείοις παραπλησίως ἔκτον πλάνητην ἀστέρα τὸν κομήτην εἶναι λέγουσι, τὴν δὲ κόμην οὐκ οἴκοθεν ἔχειν αὐτόν, ὡς οἱ Πυθαγόρειοι (—) βούλονται. ἐκεῖνοι γὰρ τοῦ ἀστέρος εἶναι μέρος τὴν κόμην ἔλεγον, Ἰπποκράτης δὲ ἔξωθεν αὐτῷ φησι τὴν κόμην προσγίνεσθαι, τούτου πίστιν ἐπαγόμενος τὸ μὴ ἐν παντὶ τόπῳ κόμην ἔχειν αὐτὸν δύνασθαι. **Aristotle Mete.** 1.7 344b1–18 οὐ γὰρ πρὸς αὐτοῖς ἡ κόμη γίνεταί τοις ἀστροῖς, ἀλλ' ὥσπερ αἱ ἄλλαι περὶ τὸν ἥλιον φαίνονται καὶ τὴν σελήνην παρακολουθοῦσαι, καίπερ μεθισταμένων, ὅταν οὕτως ἢ πεπυκνωμένος ὁ ἀήρ ὥστε τοῦτο γίνεσθαι τὸ πάθος ὑπὸ τὴν τοῦ ἡλίου πορείαν, οὕτω καὶ ἡ κόμη τοῖς ἀστροῖς οἷον ἄλλως ἐστίν· πλὴν ἡ μὲν γίνεταί δι' ἀνάγκασιν τοιαύτη τὴν χρῶαν, ἐκεῖ δ' ἐπ' αὐτῶν τὸ χρῶμα φαινόμενόν ἐστιν. ... τοῦτο γὰρ μάλιστα μηνύει μὴ εἶναι ἀνάγκασιν τινα τὸν κομήτην, ὡς ἄλλω ἐν ὑπεκκαύματι καθαρῷ πρὸς αὐτὸν τὸν ἀστέρα γιγνομένην, καὶ μὴ ὡς λέγουσιν οἱ περὶ Ἰπποκράτην, πρὸς τὸν ἥλιον, ὅτι καὶ καθ' αὐτὸν γίνεταί κομήτης πολλάκις καὶ πλεονάκις ἢ περὶ τῶν ὠρισμένων τινὰς ἀστέρων. περὶ μὲν οὖν τῆς ἄλλω τὴν αἰτίαν ὕστερον (*Mete.* 3.3) ἐροῦμεν.

§3 Anaxagoras Democritus: Aristotle Mete. 1.6 342b27–29 Ἀναξαγόρας (59A81 DK) μὲν οὖν καὶ Δημόκριτός (68A92 DK) φασιν εἶναι τοὺς κομήτας σύμφασιν τῶν πλάνητων ἀστέρων, ὅταν διὰ τὸ πλησίον ἔλθειν δόξῃσι θιγγάνειν ἀλλήλων. cited verbatim at **John Philoponus in Mete.** 75.21–24, who glosses τῶν πλάνητων ἀστέρων with τῶν πέντε πλανωμένων ἅμα δηλονότι.

§4 Aristotle: Aristotle Mete. 1.7 344a8–23 ὑπόκειται γὰρ ἡμῖν τοῦ κόσμου τοῦ περὶ τὴν γῆν, ὅσον ὑπὸ τὴν ἐγκύκλιόν ἐστιν φοράν, εἶναι τὸ πρῶτον μέρος ἀναθυμίασιν ξηρὰν καὶ θερμὴν· ... φερομένη δὲ καὶ κινουμένη ... πολλάκις ἐκπυροῦται· ... ὅταν οὖν εἰς τὴν τοιαύτην πύκνωσιν ἐμπέσῃ διὰ τὴν ἄνωθεν κίνησιν ἀρχὴ πυρώδης, μήτε οὕτω πολλὴ λίαν ὥστε ταχὺ καὶ ἐπὶ πολὺ ἐκκαίειν, μήθ' οὕτως ἀσθενὴς ὥστε ἀποσβεσθῆναι ταχὺ, ἀλλὰ πλείων καὶ ἐπὶ πολὺ, ἅμα δὲ κάτωθεν συμπίπτῃ ἀναβαίνειν εὐκρατον ἀναθυμίασιν, ἀστὴρ τοῦτο γίνεταί κομήτης, ὅπως ἂν τὸ ἀναθυμιάμενον τύχῃ ἐσχηματισμένον· ἔαν μὲν γὰρ πάντῃ ὁμοίως, κομήτης, ἔαν δ' ἐπὶ μῆκος, καλεῖται πωγωνίας.

Liber 3 Caput 3

- P^B**: ps.Plutarchus *Plac.* 893D–F; pp. 367^a20–370^a11 Diels—**P^G**: ps.Galenus *HPh* c. 76; p. 630.11–29 Diels—**P^{ln}**: Julianus Arianista *Comm. in Job* p. 273.8–11 Hagedorn—**P^L**: Ioannes Lydus *Ost.* 4, p. 9.1–5 Wachsmuth (titulus solus)—**P^Q**: Qustā ibn Lūqā pp. 170–173 Daiber—**P^S**: Psellus *Omn.Doctr.* cc. 147, 149, 150, pp. 77–78 Westerink; *Phil.Min.* 1 op. 24, p. 83; op. 27, p. 94; op. 28, p. 95 Duffy (tituli soli)—cf. **P^{Sy}** *CRN* 2.15, p. 28.4–5 (pars tituli), c. 2.19, p. 30.9–10, p. 31.1–6 Delatte
- S**: Stobaeus *Ecl.* 1.29, pp. 231.10–234.3 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b15–16 Henry (titulus solus)
- Cf. Ach: Achilles *Univ.* c. 34, p. 52.6–11 Di Maria; *Scholia in Aratum schol.* 924, p. 448.13–15; *schol.* 927, p. 451.5–7 Martin

Titulus γ'. Περὶ βροντῶν ἀστραπῶν κεραυνῶν πρηστήρων τε καὶ τυφῶνων (P,S)

- §1 Ἀναξίμανδρος ἐκ τοῦ πνεύματος ταυτὶ πάντα συμβαίνειν· ὅταν γὰρ περιληφθὲν νέφει παχεῖ βιασάμενον ἐκπέσῃ τῇ λεπτομερείᾳ καὶ 5
κουφότητι, τόθ' ἡ μὲν ῥῆξις τὸν ψόφον, ἡ δὲ διαστολὴ παρὰ τὴν μελανείαν τοῦ νέφους τὸν διαυγασμὸν ἀποτελεῖ. (P1,S1)
- §2 Ἀναξιμένης ταῦτ' αὐτῷ παρατιθεῖς τὸ ἐπὶ τῆς θαλάσσης, ἥτις 5
σχιζομένη ταῖς κώπαις παραστίλβει. (S2)
- §3 Μητρόδωρος ὅταν εἰς νέφος πεπηγὸς ὑπὸ πυκνότητος ἐμπέσῃ πνεῦμα, 10
τῇ μὲν συνθραύσει τὸν κτύπον ἀποτελεῖ, τῇ δὲ πληγῇ καὶ τῷ σχισμῷ διαυγάζει, τῇ δ' ὀξύτητι τῆς φορᾶς προσλαμβάνον τὴν ἀπὸ τοῦ ἡλίου θερμότητα κεραυνοβολεῖ· τοῦ δὲ κεραυνοῦ τὴν ἀσθένειαν εἰς πρηστήρα περιίστησιν. (P2,S3)

§1 Anaximander 12A23 DK; §2 Anaximenes 13A17 DK; §3 Metrodorus 70A15 DK

titulus ἀστραπῶν ... τυφῶνων **P^{BQS}** (sed. inv. ord. *Über den Blitz, den Donner* Q) : κεραυνῶν ... τυφῶνων om. **P^G** || post κεραυνῶν *und das, was 'Prester' und 'Typhon' genannt wird* Q || post βροντῶν add. καὶ **P^G** || τε καὶ om. S (et ind. Phot.) §1 [3] ταυτὶ πάντα om. **P^G** : ταῦτ' εἶπε S 'fort. ex ταυτὶ πάντα corruptum' Diels || συμβαίνειν **P^{BQ}** : συμβαίνει S : ὑπιόντος **P^G** || [4] βιασάμενον **P^{BS}** : βιαζόμενον **P^G** : *Gewalt ausübt / unter Zwang fällt* Q ('Doppelübersetzung') §2 lemma om. P || [7] ταῦτ' αὐτῷ corr. Heeren prob. Diels Wachsmuth Laks–Most : ταῦτα τοῦτο S || παρατιθεῖς corr. Usener conl. §5[19], prob. Wachsmuth : προστιθεῖς S prob. Diels Bollack §3 [9] πνεῦμα τὸ add. **P^{B(11)}** || [10] συνθραύσει θραύσει **P^G** || πληγῇ ... σχισμῷ **P^{BG}** : ord. inv. Q || σχισμῷ P : σεισμῷ S || [11] προσλαμβάνον] προλαμβάνον **P^{B(111)}**

- §4 Ἀναξαγόρας, ὅταν τὸ θερμὸν εἰς τὸ ψυχρὸν ἐμπέσῃ (τοῦτο δ' ἐστὶν αἰθέριον μέρος εἰς ἀερῶδες) τῷ μὲν ψόφῳ τὴν βροντὴν ἀποτελεῖ, τῷ δὲ 15
παρὰ τὴν μελανίαν τοῦ νέφους χρώματι τὴν ἀστραπὴν· τῷ δὲ πλήθει
καὶ μεγέθει τοῦ φωτὸς τὸν κεραυνόν· τῷ δὲ πολυσωματωτέρῳ πυρὶ τὸν
τυφῶνα· τῷ δὲ νεφελομιγεί τὸν πρηστήρα. (P3,S4)
- §5 Ἀρχέλαος ταῦτὸ λέγει παρατιθεῖς τὸ τῶν διαπύρων λίθων καθιεμένων 20
εἰς ψυχρὸν ὕδωρ πάθος. (S5)
- §6 Ξενοφάνης ἀστραπὰς γίνεσθαι λαμπруνομένων τῶν νεφῶν κατὰ τὴν
κίνησιν. (S6)
- §7 Ἐμπεδοκλῆς ἔμπτωσιν φωτὸς εἰς νέφος ἐξείργοντος τὸν ἀνθεστῶτα 25
ἀέρα, οὗ τὴν μὲν σβέσιν καὶ τὴν θραύσιν κτύπον ἀπεργάζεσθαι, τὴν δὲ
λάμψιν ἀστραπὴν, κεραυνὸν δὲ τὸν τῆς ἀστραπῆς τόνον. (S7)
- §8 Διογένης ἔμπτωσιν πυρὸς εἰς νέφος ὑγρόν, βροντὴν μὲν τῇ σβέσει
ποιοῦν, τῇ δὲ λαμπηδόνι τὴν ἀστραπὴν. συναιτιᾶται δὲ καὶ τὸ πνεῦμα. 30
(S8)
- §9 Ἡράκλειτος βροντὴν μὲν κατὰ συστροφὰς ἀνέμων καὶ νεφῶν καὶ
ἐμπτώσεις πνευμάτων εἰς τὰ νέφη, ἀστραπὰς δὲ κατὰ τὰς τῶν (ἀνα)- 30
θυμιωμένων ἐξάψεις, πρηστήρας δὲ κατὰ νεφῶν ἐμπρήσεις καὶ σβέσεις.
(S9)
- §10 Λεύκιππος πυρὸς ἐναποληφθέντος νέφεσι παχυτάτοις ἔκπτωσιν
ἰσχυρὰν βροντὴν ἀποτελεῖν ἀποφαίνεται. (S10)
- §11 Δημόκριτος βροντὴν μὲν ἐκ συγκρίματος ἀνωμάλου, τὸ περιειληφὸς 35
αὐτὸ νέφος πρὸς τὴν κάτω φορὰν ἐκβιαζομένου· ἀστραπὴν δὲ σύγ-
κρουσιν νεφῶν, ὅφ' ἥς τὰ γεννητικὰ τοῦ πυρὸς διὰ τῶν πολυκέων

§4 Anaxagoras 59A84 DK; §5 Archelaus 60A16 DK; §6 Xenophanes 21A45 DK; §7 Empedocles 31A63 DK; §8 Diogenes 64A16 DK, T 31a Laks; §9 Heraclitus 22A14 DK; §10 Leucippus 67A25 DK; §11 Democritus 68A93 DK

§4 [14] τὸ¹ om. S || [15] εἰς om. PG || τὴν PB : om. S || βροντὴν μελανίαν PG ex §4[16] || [15–16] τῷ ... ἀστραπὴν] al. PG τῷ δὲ χρώματι τοῦ νεφώδους τὴν ἀστραπὴν || [16] παρὰ τὴν μελαν(ε)ίαν] aus der schwarzen Farbe Q || νέφους PB(11)S : νεφώδους PB(11)G, prob. Mau Lachenaud Graham || παρὰ ... νεφ(ώδ)ους olim secl. Beck ut ex §1 repetita || χρώματι] χρώματος PB(11) || [17] πολυσωματωτέρῳ] πολυσωμάτῳ SF || [18] νεφελομιγεί PB(11)QS : νεφελοειδεί PB(11) : νεφώ-
δει PG §5 om. P || [19] ταῦτὸ corr. Meineke prob. Diels Wachsmuth Laks–Most : τοῦτο S §§6–12 om. P §8 [26] ἔμπτωσιν corr. Canter prob. Diels Wachsmuth Laks : ἐμπύρσιν S || [27] ποιοῦν] coni. ποιοῦντος Natorp §9 [31–32] (ἀνα)θυμιωμένων corr. Schuster prob. Laks–Most : θυμιωμένων S prob. VS Bollack [31] post θυμιωμένων add. (πνευμάτων) Ernout–Robin p. 3.213 §10 [33] ἐναποληφθέντος corr. Canter prob. Diels Wachsmuth Laks–Most : -λειφθέντος S §11 [36–37] σύγκρουσιν corr. Diels conl. D.L. VP. 10.101 prob. Wachsmuth : σύγκρασιν S prob. Bollack Laks–Most, σύγκρισιν Schneider (1813) ad D.L. VP. 10.101

- ἀραιωμάτων ταῖς παρατρίψεσιν εἰς τὸ αὐτὸ συναλιζόμενα διηθεῖται·
κεραυνὸν δὲ ὅταν ἐκ καθαρωτέρων καὶ λεπτοτέρων, ὁμαλωτέρων τε καὶ
‘πυκναρμώνων’, καθάπερ αὐτὸς γράφει, γεννητικῶν τοῦ πυρὸς ἡ φορὰ 40
βιάσῃται· πρηστήρα δ’, ὅταν πολυκενώτερα συγκρίματα πυρὸς ἐν
πολυκένοις κατασχεθέντα χώραις καὶ περιοχαῖς ὑμένων ἰδίων
σωματοποιούμενα τῷ πολυμυγεῖ τὴν ἐπὶ τὸ βάρος ὁρμὴν λάβῃ. (S11)
- §12 Χρύσιππος ἀστραπὴν ἔξαψιν νεφῶν ἐκτριβομένων ἢ ῥηγνυμένων ὑπὸ
πνεύματος, βροντὴν δ’ εἶναι τὸν τούτων ψόφον· ἅμα δὲ γίνεσθαι ἐν τῷ 45
ἀέρι βροντὴν τε καὶ ἀστραπὴν, πρότερον δὲ τῆς ἀστραπῆς ἀντιλαμ-
βάνεσθαι ἡμᾶς διὰ τὸ τῆς ἀκοῆς ὀξυτέραν εἶναι τὴν ὄρασιν· ὅταν δ’ ἡ τοῦ
πνεύματος φορὰ σφοδρότερα γένηται καὶ πυρώδης, κεραυνὸν ἀποτελεῖ-
σθαι· ὅταν δὲ ἄθρουν ἐκπέσῃ τὸ πνεῦμα καὶ ἦττον πεπυρωμένον, πρη-
στήρα γίγνεσθαι, ὅταν δ’ ἔτι ἦττον ἢ πεπυρωμένον τὸ πνεῦμα, τυφῶνα. 50
(S12)
- §13 Ἀριστοτέλης ἐξ ἀναθυμιάσεως καὶ τὰ τοιαῦτα γίνεσθαι τῆς ξηρᾶς· ὅταν
οὖν ἐντύχη μὲν τῇ ὑγρᾷ, παραβιάζεται δὲ τὴν ἔξοδον, τῇ μὲν
παρατρίψει καὶ τῇ ῥήξει τὸν ψόφον τῆς βροντῆς γίνεσθαι, τῇ δ’ ἐξάψει
τῆς ξηρότητος τὴν ἀστραπὴν παρίστησι. (P5a,S13) 55
- §14 Στράτων θερμοῦ ψυχρῷ παρείξαντος, ὅταν ἐκβιασθὲν τύχη, τὰ τοιαῦτα
γίνεσθαι, βροντὴν μὲν ἀπορρήξει, φάει δ’ ἀστραπὴν, τάχει δὲ κεραυνόν,
πρηστήρας δὲ καὶ τυφῶνας τῷ πλεονασμῷ τῷ τῆς ὕλης, ἢν ἐκάτερος
αὐτῶν ἐφέλλεται, θερμότεραν μὲν ὁ πρηστήρ, παχυτέραν δὲ ὁ τυφών.
(P5b,S14) 60

§12 cf. Chrysippus *SVF* 2.703; §13 Aristoteles cf. *Mete.* 2.9 369a10–b11; §14 Strato fr. 87 Wehrli, 52 Sharples

[38] παρατρίψεσιν et συναλιζόμενα corr. Meineke prob. Wachsmuth VS : παρατρέψεσιν et συναλιζόμενα S || [41] βιάσῃται corr. Gaisford prob. Wachsmuth Laks–Most : βιώσῃται S : βιάζεται coni. Diels || [43] βάρος S prob. Wachsmuth (‘quo pondus vergit’) : βάθος coni. Diels (*DG* et VS) prob. Laks–Most || ὁρμὴν S prob. Wachsmuth : ῥοπὴν coni. Usener §12 [46] τῆς ἀστραπῆς S^F : ταῖς ἀστραπαῖς S^P || [49–50] ἦττον ... τυφῶνα S^F prob. Diels Wachsmuth : ἦττον πνεῦμα καὶ ἦττον πεπυρωμένον τυφῶνα S^P || [50] δ’ ἔτι corr. Ideler prob. Diels Wachsmuth : δέ τι S §13 [52] post Ἀριστοτέλης hab. P^G δὲ || καὶ πάντα P^G || γίνεσθαι τῆς ξηρᾶς] (om. P^{B(II)}) : συμβαίνειν P^G || τοιαῦτα] ταῦτα P^{B(II)} || [53] οὖν ἐντύχη] τύχη S^P || παραβιάζεται P^{B(II,III)} : παραβιάζεται P^{B(II)G} : παραβιάζεται S || ante τῇ habet P^G καὶ || [54] τῆς ... γίνεσθαι P : om. S || ἐξάψει P^{BG} : *Aufreten* Q : ἐμφάσει S || [55] παρίστησι post ἀστραπὴν om. P §14 [56–57] Στράτων ... κεραυνόν S : om. P^{BGQ} qui add. [58–59] πρηστήρας ... τυφών ad lemma Aristotelis (§13) nomine Stratonis omisso || [57] φάει] φαύσει Usener || [58] πρηστήρας ... τυφῶνας] πρηστήρα ... τυφῶνα P^G || τῷ om. P^G || τῷ² om. P || [59] ἐφέλλεται S : συνεφέλλεται P || θερμότεραν] θερμότερος P^G || παχυτέραν P^{BQ} : παχύτερος P^G : ταχυτέραν S

§15 οἱ Στωικοὶ βροντὴν μὲν προσκρουσμὸν νεφῶν, ἀστραπὴν δὲ ἔξαψιν ἐκ παρατρίψεως, κεραυνὸν δὲ σφοδροτέραν ἔκλαμψιν, πρηστήρα δὲ νωθεστέραν. (P4, S15)

§15 Stoici SVF 2.705

§15 [61] προσκρουσμὸν S : συγκρουσμὸν P^B : κρουσμὸν P^G || ἀστραπὴν δὲ] τὴν δὲ ἀστραπὴν P^G [63] νωθεστέραν S : νωχλεστέραν P, cf. *erfolgt aus einem schwachen Leuchten* Q

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 76 Περὶ βροντῶν καὶ ἀστραπῶν (~ tit.) (text Diels)

76.1 (~ P1) Ἀναξίμανδρος ἐκ τοῦ πνεύματος ὑπiónτος, ὅταν περιληφθὲν νέφει παχεῖ βιαζόμενον ἐκπέσῃ τῇ λεπτομερείᾳ καὶ κουφότητι, τότε ἢ μὲν ῥῆξις τὸν ψόφον ἀποτελεῖ, ἢ δὲ διαστολὴ μελανίαν τοῦ νέφους.

76.2 (~ P2) Μητρόδωρος ὅταν εἰς νέφος πεπηγὸς ὑπὸ πυκνότητος ἐμπέσῃ πνεῦμα, τῇ μὲν θραύσει τὸν κτύπον ποιεῖ, τῇ δὲ πληγῇ καὶ τῷ σχισμῷ διαυγάζει, τῇ δ' ὀξύτητι τῆς φορᾶς προσλαμβάνον τὴν ἀπὸ τοῦ ἡλίου θερμότητα κεραυνοβολεῖ. τοῦ δὲ κεραυνοῦ τὴν ἀσθένειαν εἰς πρηστήρα περιίστησιν.

76.3 (~ P3) Ἀναξαγόρας δὲ ὅταν τὸ θερμὸν εἰς ψυχρὸν ἐμπέσῃ—τοῦτο δὲ ἐστὶν αἰθέριον μέρος ἀερῶδες—τῷ μὲν ζόφῳ μελανίαν ἀποτελεῖ, τῷ δὲ χρώματι τοῦ νεφώδους τὴν ἀστραπὴν, τῷ δὲ πλήθει τοῦ φωτὸς τὸν κεραυνόν, τῷ δὲ πολυσωματωτέρῳ πυρὶ τὸν τυφῶνα, τῷ δὲ νεφώδει τὸν πρηστήρα.

76.4 (~ P4) οἱ Στωικοὶ βροντὴν μὲν κρουσμὸν νεφῶν, τὴν δὲ ἀστραπὴν ἔξαψιν ἐκ παρατρίψεως, κεραυνὸν δὲ σφοδροτέραν ἔκλαμψιν, πρηστήρα δὲ νωχλεστέραν.

76.5 (~ P5a) Ἀριστοτέλης δὲ ἐξ ἀναθυμιάσεως πάντα τὰ τοιαῦτα συμβαίνειν· ὅταν οὖν ἐντύχη τῇ ὑγρᾷ, παραβιάζεται τὴν ἔξοδον, καὶ τῇ μὲν παρατρίψει καὶ τῇ ῥῆξει τὸν ψόφον τῆς βροντῆς γίνεσθαι, τῇ δ' ἐξάψει τῆς ξηρότητος τὴν ἀστραπὴν.

76.6 (~ P5b) πρηστήρα δὲ καὶ τυφῶνα πλεονασμῷ τῆς ὕλης, ἢν ἑκάτερος αὐτῶν ἐφέλκεται· θερμότερος μὲν ὁ πρηστήρ, παχύτερος δὲ ὁ τυφῶν.

Julianus Arianista Comm. in Job p. 273.8–11 Hagedorn (~ §15) ... βροντῆς μὲν ἐξαισιῶς ἐκρηγνυμένης προσκρούσματι τῶν νεφῶν, ἀστραπῆς δὲ ἐκλαμπόυσης τῇ σφοδρότάτῃ κινήσει τοῦ πνεύματος, τῆς δ' ἐκ παρατρίψεως ἐκσπινθηρίζεται ἢ κεραυνὸς ἢ σπινθήρ πρὸς ἐπιστροφὴν τῶν ἀμαρτανόντων.

Ioannes Lydus Ost. 4, p. 9.1–5 σπουδῇ δὲ ἡμῖν ἐστὶν εἰπεῖν περὶ τε ... ἀστραπῶν τε καὶ βροντῶν καὶ κεραυνῶν (~ tit.)

Psellus

Omn.Doctr. c. 147 Περὶ τυφῶνος; c. 149 Περὶ κεραυνοῦ; c. 150 Περὶ πρηστήρος (~ tit.)

Op.Phil. 1. c. 22 Περὶ βροντῆς ἀστραπῆς κεραυνοῦ πρηστήρος ἐκνεφίου καὶ τυφώνος;
c. 27 Περὶ βροντῶν; c. 28 Περὶ κεραυνῶν (~ tit.)

Symeon Seth *CRN* 2.15, 2.19

2.15 Περὶ ἀέρος καὶ πυρός (—) καὶ νεφῶν καὶ ὑετῶν (cf. tit. 3.4) καὶ ἀστραπῶν καὶ βροντῶν (~ tit.)

2.19 αἱ δὲ ἀστραπαὶ καὶ βρονταὶ οὐκ ἀποτελοῦνται συγκρουομένων ἀλλήλοις τῶν νεφῶν, ἀλλ' ... προηγείται δὲ ἡ ἀστραπὴ τῆς βροντῆς ἅμα ταύτῃ γινομένη διὰ τοιαύτην αἰτίαν. ἡ δ' ὕψις πρώτη τῶν αἰσθήσεων οὕσα ἀχρόνως ὁρᾷ τὸ ὁρατόν, ἡ δὲ ἀκοὴ διὰ χρόνου αἰσθάνεται τοῦ ἀκουστοῦ καὶ διὰ τοῦτο πρῶτον ὁρῶμεν τὸ τῆς ἀστραπῆς φῶς, εἶτα ἀκούομεν τῆς βροντῆς (~ quaestio).

Testes secundi:

Achilles *Univ.* c. 34, p. 52.6–11 ὅτε μὲν οὖν συγκρούονται αἱ νεφέλαι πρὸς ἀλλήλας, βροντὰς ποιοῦσι, ῥαγεῖσαι δὲ καὶ πνεῦμα μετὰ ῥύμης καὶ σφοδρᾶς ὀρμῆς ἀφείσαι κεραυνοὺς ποιοῦσι διὰ τῆς ῥύμης ἀναπτομένου τοῦ πνεύματος. ἀστραπαὶ δὲ γίνονται ἥτοι ἐξ αὐτῶν πάλιν τῶν νεφῶν φωτὸς ἀναπτομένου καὶ σβεννυμένου ἢ ἐκ πυρὸς μαρμαρυγῆς ἐκπεμπομένης (~ quaestio).

Scholia in Aratum *schol.* 924, p. 448.13–15 Martin ἄλλως· τὴν βροντὴν φησι (sc. Aratus) κατὰ ῥῆξιν γίνεσθαι τῶν νεφῶν, τὴν δὲ ἀστραπὴν κατὰ παράτριψιν τῶν ῥηγνυμένων νεφῶν (~ quaestio). *schol.* 927, p. 451.5–7 Martin ἡ ἀστραπὴ δὲ γίνεται ἐκ τῆς τῶν νεφῶν ἐκθλίψεως, ἡ δὲ ἐκθλίψις ἐκ τοῦ πλησίον πνεύματος γίνεται (~ quaestio).

Loci Aetiani:

quaestio A 1.2.2 πάντα γὰρ τὰ ὁρώμενα, ὅσα μῆτε ὑπὸ τύχης μῆτε ὑπ' ἀνάγκης μῆτ' ἐστὶ θεῖα μῆτε τοιαύτην αἰτίαν ἔχει, φυσικὰ λέγεται καὶ φύσιν ἔχει ἰδίαν' ... ἔτι δὲ ταῦτα τὰ γινόμενα, ὅμβριοι χάλαζαι κεραυνοὶ πρηστήρες ἄνεμοι· ταῦτα γὰρ ἔχει ἀρχὴν τινα· οὐ γὰρ ἐξ αἰῶνος ἕκαστον τούτων ἐστὶν ἀλλ' ἀπὸ τίνος ἀρχῆς γίνεται.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The witnesses are both P, represented by P^B, P^G and P^Q, and S. P has 5 and S 15 lemmata, so P has considerably abridged the chapter, going even so far as to reduce §§13–14 to a single lemma by leaving out the name-label Strato and the first part of the text of §14.

Such false coalescences happened more often, see already Diels *DG* 64. To cite some instances: something similar has occurred at ch. 1.20.1–2, where P,

eliminating the Epicurus lemma extant in A at S 1.18.4a, simply added its name-label Epicurus to the lemma with name-label 'Zeno and his followers' (thus S 1.18.1d), replaced A's formula with the simpler name-label 'the Stoics', and consequently attributed a Stoic doctrine to Epicurus as well, though in reality Epicurus' view is the opposite to that of the Stoics. In A 4.13.12–13 Histiaeus' doxa has been coalesced in P with the name-label Empedocles from another lemma that has been left out. Also compare A at P 4.7.1–2, where the name-label Heraclitus, attested by T, has been eliminated in what originally was the second lemma, and a Pythagoreanizing and Platonizing new lemma is created through coalescence. An interesting case is found in only a part of P's tradition for ch. 4.23, where a new lemma has been produced by haplography (see at ch. 4.23, Commentary D(d)§§1–2). On P's procedure in the present chapter see also our analysis at M–R 1.188.

G this time abstracted all of P's 5 lemmata from a text in which the false coalescence had already taken place.

S appears to have written out the chapter in full. The lemmata order is the same in P and S, with an exception at the end for the order Stoics/Aristotle (+ Strato) in P 4/5a/5b as opposed to Aristotle/Strato/Stoics in S 13/14/15, see below section D(b).

As we have noted T does not make use of any material from Book 3.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The proximate tradition is for the most part limited to generalities and anonymous doxai. Worthwhile individual accounts are extant in Seneca's *Naturales quaestiones* Book 8 (Book 2 according to the original order), which deals with lightning and thunder, and at Lucretius *DRN* 6.96–450. From Theophrastus(?) *Metarsiology* (for this treatise see Introduction to Book 3, section 6) we must cite, as providing parallel evidence the following chapters, citing Daiber's headings (quoted below under section E(b)): *Metars.* [1.] *The account of the causes of thunder*; [2.] *The account of the causes of lightning*; [3.] *The account of the causes of thunder occurring without lightning*; [4.] *The account of the causes of lightning occurring without thunder*; [5.] *The account of the reasons why lightning precedes thunder*; and [6.] *The account of the causes of thunderbolts*. In this treatise the firewind is not treated together with thunder and lightning, but this occurs in the last section of ch. [13.], *The account of the causes of different winds*, at lines (43)–(54). We note that the same holds for Seneca's Book on winds, where the *turbo* and its stronger variety, the firewind, are discussed near the end, at *Nat.* 5.13.

(2) *Sources.* Plato's *Timaeus* is silent on these subjects (see Solmsen 1960, 416). Two chapters in Aristotle's *Meteorology*, 2.9–3.1 are the ultimate inspiration for a systematic treatment of the issues our chapter is concerned with.

C Chapter Heading

Again of the umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C). The umbrella here (like that of the previous chapter and the next) shelters a number of different phenomena collected in a single chapter rather than distributed over several, as in the *Metarsiology* attributed *disertis verbis* to Theophrastus. The most important question type/category is that of essence/substance, that of cause (διὰ τί) also plays a part, and the sub-question *unde* and the categories of place, quality and action and passion are involved as well. It is virtually identical in P^{BQ} and S, shorter in P^G. It adequately lists and sums up the various phenomena treated in the chapter, which can be amply paralleled in headings or heading-like phrases in both the proximate and the wider tradition. Thunder (sometimes represented not by its name but by its audible effect) is the first, lightning (sometimes represented not by its name but by its visual effect) the second phenomenon in the heading, and also in the majority of the lemmata. §6 mentions only lightning, §10 only thunder, but only §12 has lightning first and thunder second. The other phenomena occur in those lemmata where they do occur in the order in which they are cited in the heading.

Gregory (2013) 42–48 combines the heading with §1 (name-label Anaximander), and argues that the resulting combination derives from the Milesian and should be seen as important testimony. As to the heading itself, he claims that ‘this is an odd collection of phenomena for a doxographer to bring together in one heading especially as typical headings in ps.-Plutarch and Stobaeus are brief’. But as we know by no means all headings in P and S are brief, and both the preceding chapter, ch. 3.2 (3 items in the heading), and the next, ch. 3.4 (no less than 7 items in the heading)—not cited by Gregory—contain similar collections of related meteorological phenomena. But then Aristotle’s announcement of his treatment of all five subjects mentioned in the embedded heading of ch. 3.3 at *Mete.* 2.9 369a10–12 should also have been derived by him from Anaximander, because it would be an equally odd and also unusually long list for Aristotle. This passage is cited below at section E(b) Chapter heading, together with a few excellent Aristotelian parallels (one even with three specified items and an unspecified number of others of the same kind, derived from the list of subjects already treated and still to be treated in the proem at *Mete.* 1.1 339a3–5). Moreover, Wilson (2013) 76–77 with nn. 6–7 and 227–235, argues that this collection of ‘violent atmospheric phenomena: thunder, lightning, hurricanes, whirlwinds, firewinds and thunderbolts’ is the seventh of the ten groups into which Aristotle divides the phenomena studied and explained in the *Meteorologica*, and shows that this classification and ordering depend on his specific and original meteorological physics.

What we have in our chapter is of course an instance of the reverberations of Aristotelian embedded headings found throughout the *Placita*, cf. e.g. ch. 3.1 with *Mete.* 1.8 345a11–13, ch. 3.4 with 2.12 349a9–11. As a reference ('eorum fit mentio quae proxime vel antecedunt vel sequuntur', Bonitz 95b33) such an Aristotelian formula is the predecessor or equivalent of a heading, or title, see M–R 2.1.48, 159–161, 162–163, 170, 202–204.

Gregory's suggestion that Anaximander may have targeted passages in Homer and above all Hesiod (esp. *Theog.* 845–846) is irrelevant.

D Analysis

a Context

For the explanation of A's order in general see above, A Book 3.prooem. at Commentary D(a). The present chapter is concerned with phenomena mainly connected with fire and *pneuma*, the next (3.4) with phenomena mainly connected with air and water. It follows upon ch. 3.2 on comets and precedes ch. 3.4 on clouds. In Aristotle's *Meteorology* the chapters parallel in contents to ch. 3.3 on thunder and lightning etc. (viz. the mini-treatise 2.9–3 1, which now rather awkwardly spans two Books), following upon the treatment of earthquakes (*Mete.* 2.7–8 corresponding to ch. 3.15) and preceding that of haloes and rainbows (*Mete.* 3.2–5 corresponding to the brief ch. 3.16 plus the long ch. 3.5), are located at quite a distance from the chapters of which the contents correspond to chs. 3.1–2 (see ad loc.). A's arrangement may be compared with the sequence in Seneca's *Naturales quaestiones*, where the Book on lightning and thunder, the final Book according to the original order (Book 8 = Book 2 in the disturbed order), follows upon Book 7 in the disturbed order = originally Book 1, which is about comets. Both chapters are near the beginning in A, while the two books in Seneca's original order are actually the first ones. For the parallelism of the themes of chs. 3.3–7 + 14–15 + 4.1 with Lucretius' series at *DRN* 6.96–737 see Ernout–Robin (1928) 3.253–254 and Runia (1997) 97, reprinted at M–R 3.260, and for details in the present chapter Ernout–Robin (1928) 3.199–208 (on thunder), 3.213–221 (on lightning, 'éclair', *fulguratio*, ἀστραπή), 3.224–235 (on thunderbolt, 'foudre', *fulmen*, κεραυνός), and 3.247–252 (on *pres-teres*, πρηστήρες, translated 'trombes').

b Number–Order of Lemmata

P^B, confirmed by P^Q and P^G, at a first glance has five lemmata, while S has fifteen lemmata. Comparison of P^{5a}–b with S¹³–14 reveals that P, omitting the first lines of §14 including the name-label Strato, has coalesced the Aristotle-plus-Strato lemmata, as Diels ad loc. already pointed out. The cause is either an unfortunate application of the technique of abridgement or a mechanical

accident in the tradition; for parallel cases see above section A. P's new lemma augments Aristotle's doxa with explicit views on the firewind and the *typhon*, not found in the original §13 (which only implicitly includes them in τὰ τοιαῦτα), so may have been constructed for a reason. Although P also omitted παρίστησι at the end of §13[53], homoioteleuton from ἀστραπήν in §13[53] to ἀστραπήν at §14[55] is unlikely because of the intervening words τάχει δὲ κεραιὸν at §14[55].

The order of the lemmata (taking into account those lacking in P) is the same in both witnesses, with the exception of P4 = S 15. That P interfered with the original order by putting its final lemma before §13 one can understand, because he replaced §12, the Chrysippus lemma, with §15, the Stoic lemma, demonstrating again that he prefers a more general name-label to an individual one, in the present case taking the doxa along as well. And he also coalesced the Aristotle and Strato lemmata, placing this new lemma in the final position. Diels in the *DG* more or less mechanically adopted P's modified order, but we feel justified in following that of S.

c Rationale–Structure of Chapter

Thunder (sometimes represented by what we hear) comes first in the majority of lemmata and clearly is the major phenomenon requiring an explanation. Lightning (sometimes represented by what we see) is a sort of epiphenomenon, ensuing when clouds produce thunder when they are bursting on being invaded by *pneuma* or a hotter element, such as aether or the hot exhalation, or are struck by winds, or collide, etc. The thunderbolt is mentioned in §3, §4, §7, §11, §12, §14 and §15, so in only seven out of fifteen lemmata. The firewind occurs in §3, §4, §9, §11, §12, §14 and §15, so also in only seven out of fifteen. The *typhon* occurs in §4, §12 and §14, so in only three out of fifteen. Constructing a diaeresis on the basis of these numerical differences as to the presence in lemmata of the five phenomena is impossible.

What is rather remarkable, in view of the preference of the *Placita* for arrangement according to doxa rather than chronology or affiliation (though these too play a part, see M–R 2.73–96 and passim, also Jeremiah (2018) at M–R 4.310–319), is that here we do have examples of both these alternative principles of organization. The first two lemmata, §§1–2, present the early Milesians Anaximenes and Anaximander. Metrodorus is at §3 for another reason (see below), but §§4–5 continue with the Ionian Succession by presenting Anaxagoras and (his follower) Archelaus, another duo. Xenophanes at §6 may represent the Pythagorean (or Italic) Succession to which also Empedocles at §7 may be assumed to belong. Skipping §§8 and §9, Diogenes and Heraclitus, we arrive at §§10–11, presenting the Presocratic Atomists Leucippus and

Democritus in chronological order. Note that all these eleven figures are Presocratic philosophers (so-called). Post-Socratic philosophy is represented at the end of the chapter by only four lemmata out of fifteen. Chrysippus and the Stoics (both listed because of some theoretical differences) at §12 and §15 come before and after the Peripatetics Aristotle and Strato, another duo in chronological order. Plato and Epicurus are conspicuously absent. A similar mixed organization can be observed in chs. 1.3 and 1.7.

A's diaeresis is for the most part based on differences in the explanation of the cause of thunder by the interaction of external factors and clouds, on a gliding scale. In §§1–3 *pneuma* interfering with clouds is at issue, which explains how Metrodorus in §3 comes to be grouped with Anaximander and Anaximenes. Moreover *pneuma* falling upon a frozen cloud (εἰς νέφος πεπηγὸς ... ἐμπέσῃ πνεύμα) preludes upon the conflict between hot and cold in §§4–5. In §§4–5 the cause is the hot falling upon the cold, which Archelaus is said to have illustrated with an example from our ordinary experience (hot stones plunged into cold water). §§6–7 are about the effects of light on clouds, with §7 Xenophanes exceptionally explaining only lightning, while Empedocles explains thunder as the effect of 'light falling upon a cloud' (ἐμπτωσιν φωτὸς εἰς νέφος). §8 Diogenes is aptly joined with §7 Empedocles because he mentions 'fire falling upon a cloud' (ἐμπτωσιν πυρὸς εἰς νέφος)—note the similar expression. Among the causes mentioned in §9 Heraclitus we next find 'fallings of *pneumata* upon the clouds' (ἐμπτώσεις πνευμάτων εἰς τὰ νέφη). Thus, a series of impacting substances consisting of light–fire–*pneumata* in what seems a descending scale corresponding to their location, in principle, in the cosmos. §§10–11, Leucippus and Democritus, do not speak of a 'falling upon' (ἐμπωσις, impact) of fire or whatever upon clouds, but, on the contrary, of a 'falling from' (emission) or 'being forced out of a cloud' of 'fire' (πυρὸς ... ἔκπτωσιν), or of a peculiar atomic 'compound of uneven composition' (συγκρίματος ἀνωμάλου ... ἐκβιαζομένου). Force is also involved in Democritus' explanation of the thunderbolt (ἡ φορὰ βιάσεται).

In the four lemmata that follow the explanations resemble those of the preceding lemmata in various ways, but there are also important differences. §12 Chrysippus explains lightning plus thunder as the effect of clouds being 'rubbed and ruptured by *pneuma*' (νεφῶν ἐκτριβομένων ἢ ῥηγνυμένων ὑπὸ πνεύματος), which comes close to saying that this *pneuma* forces its way out. And a little later he indeed speaks in these same terms when explaining the 'movement of the *pneuma*' (ἡ τοῦ πνεύματος φορὰ) that causes the thunderbolt, and its 'falling out' (ὅταν ... ἐκπέσῃ τὸ πνεῦμα) that causes the firewind. This *pneuma* is warmer (when producing the thunderbolt) than in the case of thunder plus lightning, or less warm than in the case of the thunderbolt (when pro-

ducing the firewind). §13 Aristotle of course avails himself of the famous hot and dry exhalation, which when encountering the wet—and also colder—exhalation (compare Archelaus in §5) produces all these phenomena by ‘forcing its way out’ (παραβιάζεται ... τὴν ἔξοδον), just as Democritus’ compounds in §11 are doing. §14 Strato likewise speaks of a conflict between hot and cold and of emission, the hot giving in and being forced out (ἐκβιασθῆν), of the cloud presumably. §15 the Stoics is aptly placed in the ultimate position because, exceptionally, no external factors are mentioned, the phenomena being produced by the clouds themselves as they collide and rub against each other.

d Further Comments

General Points

It is not clear what phenomena are meant by the terms *prester* and *typhon*. Possible renderings are whirlwind, hurricane, water-spout and firewind. We have used ‘firewind’ throughout for *prester*, because the word shows that the phenomenon is ‘burning’; one thinks of the scirocco. For options see Taub (2003) 177 n. 28, Bakker (2016) 120–121, 133.

The absence of detailed parallels elsewhere in A for the individual lemmata is noteworthy. The prologue of the *Placita* lists lightning etc. *disertis verbis* with other phenomena that fall within the scope of natural philosophy, so highlights their importance, no doubt also for traditional reasons (when we are aware of their rational explanation we need not worry about divine intervention).

Individual Points

§2 & §5 παρατιθείς: appeals to common experience are a feature of meteorological theorizing; numerous examples in Aristotle’s *Meteorology*, Theophrastus’(?) *Metarsiology*, Epicurus *Ad Pythoclem*, and Lucretius.

§3 Heat acquired by a moving object may be attributed to its movement alone. Here the movement enables the wind to gather hot particles of solar origin.

§§10–11 Leucippus and (generously) Democritus are present, but Epicurus is absent, perhaps because his multiple solutions are adequately represented by other doxai collected in the present chapter.

§13 Ideler’s comment (1836) 2. 251 on the parallel AD fragment, which he quotes in full omitting only the final colon, is very much worth quoting: ‘Quae Aristoteles hoc paragrapho ac sequentibus disseruit, succincte exposita reperiuntur apud eos, qui placita philosophorum composuerunt, velut apud Stobaeum *Eclog.* 1.30’ [= 1.29 Wachsmuth]. We also note that the ultimate source for this lemma is Arist. *Mete.* 2.9.

§15 Bollack (1978) 492 has not seen that the lemma is extant at S 1.29.1, p. 234.1–3.

e Other Evidence

The parallel accounts in widely scattered proximate sources such as Lucretius, Seneca (who cites some little known authorities by name), Pliny, Arrian and the *Scholia on Aratus* show that a rich intermediate tradition must have been available that dealt with these topics (for which Theiler still made Posidonius responsible). In Seneca *Naturales quaestiones* Book 8 (Book 2 according to the original order), which deals with lightning and thunder, the succession of *opinionēs* is rather different from that in A, though equally concerned with a relative chronology to which exceptions are allowed. (In *Nat.* Book 4.a, on the Nile, he begins *disertis verbis* with the views of the ancients: 2.17.2 *ab antiquissimis incipiam*). In *Nat.* Book 2 Thales is not first but second, as he is preceded by the *opinio* of Empedocles (whose name is not mentioned: *Nat.* 2.12.3, *quidam*). Anaxagoras and Aristotle follow (also at A 2.12.3). A second group consists of Anaximenes, Anaximander (in that order), Anaxagoras, and Diogenes (*Nat.* 2.17–20). A third group appears much later, at 2.54–56, viz. Posidonius, Clidemus and Heraclitus. For suggestions about this division into groups see Setaioli (1988) 386–398. We note that Seneca includes less doxai than A, but those of Clidemus and Posidonius are not present in A.

Robin at Ernout–Robin (1925–1928) 3.254, comparing A 3.3–4 with Lucretius *DRN* 6.451–494, meritoriously identifies Lucretius’ ‘modèle’ as ‘tel manuel doxographique’ which would have the same ‘origine prochaine’ as A (but the tradition he mentions is that of the Dielsian hypothesis with the questionable title: Theophrastus’ Φυσικῶν δόξαι via Posidonius).

E Further Related Texts

a Proximate Tradition

General texts: Epicurus *Ep.Pyth.* at D.L. 10.100–105 βροντὰς ἐνδέχεται γίνεσθαι ... (101) καὶ ἀστραπαὶ δ’ ὡσαύτως γίνονται κατὰ πλείους ... (102) ... προτερεῖ δὲ ἀστραπὴ βροντῆς ... (105) καὶ ἔως μὲν γῆς τοῦ πρηστήρος καθιεμένου σπρόβιλοι γίνονται ... ἔως δὲ θαλάττης δῖνοι ἀποτελοῦνται. **Lucretius** *DRN* 6.96–450: 96 ... *tonitru* ..., 160 *fulgit* ..., 220 *fulmina* ..., 424 *presteras* **Manilius** 1.99 *nubila cur tanto quaterentur pulsa fragore*. 1.104–105 *eripuitque Iovi fulmen viresque tonandi / et sonitum ventis concessit, nubibus ignem*. **Seneca** *Nat.* 2.1.3 (Posidonius fr. 331 Theiler) ‘*quomodo*’ *inquis ‘de terrarum motu quaestionem eo posuisti loco quo de tonitribus fulminibusque dicturus es?’ quia cum motus spiritu fiat, spiritus autem aër sit agitatus, etiamsi subit terras non ibi spectandus est: cogitetur in ea sede in qua illum natura disposuit*. *Nat.* 2.21.3 *ergo et utramque rem ignem esse constat et utramque rem inter se meando distare;*

*fulguratio enim est non perlatum usque in terras fulmen, et rursus licet dicas fulmen esse fulgurationem usque in terras perductam. Pliny Nat. 2.112–113 hinc nasci procellas et, si in nube luctetur flatus aut vapor, tonitrua edi; si erumpat ardens, fulmina; si longiore tractu nitatur, fulgetras. his findi nubem, illis per-rumpi, et esse tonitrua inceptorum ignium plagas, ideoque protinus coruscare igneas nubium rimas. (113) ... posse et conflictu nubium elidi, ut duorum lapidum, scintillantibus fulgetris. Nat. 2.131–133 sin vero depresso sinu artius rotati effregerunt, sine igni, hoc est sine fulmine, verticem faciunt, qui typhon vocatur. ... (133) quod si maiore depressae nubis eruperit specu, sed minus lato quam pro-cella, nec sine fragore, turbinem vocant, proxima quaeque prosternentem. idem ardentior accensusque, dum furit, prester vocatur, amburens contacta pariter et proterens. Arius Didymus fr. 12 Diels at Stob. Ecl. 1.29.1, pp. 234.5–236.8 Wachsmuth Ἀριστοτέλης. τυφῶνας μὲν ὅταν ... πρηστήρας δ' ὅταν ... κεραυνὸν δ' ὅταν ... Aquilius Def. 86 Rashed ἀστραπή ἐστὶν ἑξαψὶς ξηρᾶς ἀναθυμιάσεως ἢ ἐκτριψὶς πυρὸς διὰ πληγῆς νεφῶν. ps.Aristotle Mu. 2 392b8–13 ἐν δὲ τούτῳ (sc. τῷ ἀέρι) ... βρονταὶ καὶ ἀστραπαὶ καὶ πτώσεις κεραυνῶν μυρίων τε γνόφων συμπληγάδες. Mu. 4 394a15–19 (Posidonius fr. 336a Theiler) γίνονται δὲ ... ἀπὸ δὲ τῆς ξηρᾶς (sc. ἀναθυμιάσεως) ... βρονταὶ τε καὶ ἀστραπαὶ καὶ πρηστήρες καὶ κεραυνοὶ καὶ τὰ ἄλλα ἃ δὴ τούτοις ἐστὶ σύμφυλα. Mu. 4 395a10–28 (Posidonius fr. 338a Theiler) βροντὴ ... ἀστραπή ... κεραυνὸς ... πρηστήρ ... τυφῶν. Galen Inst.Log.13.9–10 κατὰ δὲ τὸ ποιεῖν καὶ πάσχειν αἱ τῶν αἰτίων γίνονται ζητήσεις: ἐν ἰατρικῇ μὲν οὖν ἐ(κ) τίνος αἰτίας γίνονται ... ἐν φιλοσοφίᾳ δὲ (10) σεισμὸς κεραυνὸς ἀστραπή τε καὶ βροντὴ. Arrian Reb.Phys. fr. 3, p. 2.187–198 Roos–Wirth at Stob. Ecl. 1.29.2, pp. 235.9–237.6 (Posidonius fr. 338b Theiler) Ἀρριανοῦ. ὅσοι δὲ ξηροὶ ἄτμοι ... ἐν νέφει δὲ ἀποληφθέντες, ἔπειτα ῥηγνύντες βίᾳ τὸ νέφος βροντάς τε καὶ ἀστραπάς ἐξέφευγαν· ἐκπύοντες δ' ἐπὶ μέγα διάπυροι μὲν κεραυνοί, ἀθρόοι δὲ καὶ ἡμίπυροι πρηστήρες, ὅσοι δὲ ῥημοὶ πυρὸς τυφῶνες ... κληῖζονται. ... ἀστραπή δὲ ὑπὸ ... κεραυνὸς δὲ ὅτι ... οἱ δὲ τυφῶνες ... κεραυνῶν δὲ πολλὰ ἰδέαι τε καὶ ὀνόματά εἰσιν. Diogenes Laertius V.P. 7.153–154 see below section E(b)§12. Irenaeus of Lyon Haer. 2.28.2 Rousseau–Doutreleau (trans. Rufini) *vel quid dicere possumus quomodo ... coruscationes et tonitrua ... efficiuntur. Ammianus Marcellinus 23.5.14 contra philosophi candorem ignis sacri repente conspecti nihil significare aiebant, sed esse acrioris spiritus cursum ex aethere aliqua vi ad inferiora detrusum aut, si exinde praenoscitur aliquid, incrementa claritudinis imperatori portendi gloriosa coeptanti, cum constet flammam suapte natura nullo obstante ad sublimia convolare.**

Chapter heading: Seneca Nat. 2.1.3 (Posidonius fr. 331 Theiler) *de tonitribus fulminibusque. Nat. 2.12.1 tria sunt quae accidunt: fulgurationes fulmina tonitrua. Pliny Nat. 1 p. 12.28 de tonitribus et fulgetris. Nat. 1 p. 12.36 de fulminibus. Nat. 1 p. 12.34–35 ecnephias typhon turbines presteres vertices alia prodigiosa genera tempestatum. Capitula Lucretiana at DRN 6.96 de tonitru. at DRN 6.160 de fulgure. at DRN 6.204 in nubibus semina ignea inesse. at DRN 6.219 de fulmine. at DRN 6.225 ignis ex fulmine natura. at DRN 6.246 fulmina in crassioribus nubibus et alte gigni. at DRN 6.285 de*

tonitribus. **Isidore of Seville** *de Nat.* capitul. 29 *De tonitruo*. 30 *De fulminibus* (headings also in the body of the text). *Etym.* 13.6 *De tonitruo* (13.8 in the body of the work). *Etym.* 13.7 *De fulminibus* (13.9 in the body of the work). *Etym.* 13.8 *De tonitruo* (in the body of the work). **Diogenes Laertius** *V.P.* 7.132–133 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. the Stoics) ... ζητοῦσι ... ὅπως νέφη συνίσταται, βρονταὶ καὶ ἱριδες καὶ ἄλως καὶ κομήται καὶ τὰ παραπλήσια, excerpted at **Suda** s.v. Φ 862, pp. 4-775.28–776.3 Adler φυσικὸς λόγος παρὰ φιλοσόφοις. ... περὶ νεφῶν, βροντῶν, ἱριδος.

§§1–2 **Anaximander Anaximenes**: **Epicurus** *Ep.Pyth.* at D.L. 10.100 βροντὰς ἐνδέχεται γίνεσθαι καὶ κατὰ πνεύματος ἐν τοῖς κοιλώμασι τῶν νεφῶν ἀνείλῃσιν. **Lucretius** *DRN* 6.121–129 *hoc etiam pacto tonitru concussa ... moenia mundi, / cum subito validi venti conlecta procella / nubibus intorsit sese conclusaque ibidem / turbine versanti magis ac magis undique nubem / cogit uti fiat spisso cava corpore circum, post ubi conminuit vis eius et impetus acer, / tum perterricrepo sonitu dat scissa fragorem*. **Seneca** *Nat.* 2.27.2–3 *cum spiritum intra se clausere nubes, in concavis partibus earum volutatus aër similem agit mugitibus sonum, raucum et aequalem et continuum, utique ubi etiam umida illa regio est et exitum claudit. ... (3) aliud genus est acre, quod acerbum magis dixerim quam sonorum ... talia eduntur tonitrua, cum conglobata nubes dissolvitur et eum quo distenta fuerat spiritum emittit*.

§1 **Anaximander**: **Seneca** *Nat.* 2.18 *Anaximandros* (12A23 DK) *omnia (ista) ad spiritum rettulit: 'tonitrua' inquit 'sunt nubis ictae sonu'. quare inaequalia sunt? quia et ipse (spiritus). quare et sereno tonat? quia tunc quoque per crassum et scissum aëra spiritus prosilit. at quare aliquando non fulgurat, et tonat? quia spiritus infirmior non valuit in flammam, in sonum valuit. quid est ergo ipsa fulguratio? aëris diducentis se corruentisque iactatio, languidum ignem nec exiturum aperiens. quid est fulmen? acrioris densiorisque spiritus cursus*. **Hippolytus** *Ref.* 1.6.7 (on Anaximander, 12A11 DK) ἀστραπὰς δέ (sc. γίνεσθαι), ὅταν ἄνεμος ἐκπίπτων διιστᾷ τὰς νεφέλας.

§2 **Anaximenes**: **Seneca** *Nat.* 2.17 *ut Anaximenes* (fr. 24 Wöhrle) *ait, spiritus incidens nubibus tonitrua edit, et dum luctatur per obstantia atque inter-scissa vadere, ipsa ignem fuga accendit*. **Seneca** *Nat.* 2.55.4 *Clidemos* (cf. ad 62.1 DK and below section E(b)§2) *ait fulgurationem speciem inanem esse, non ignem; sic enim per noctem splendere motu remor(um m)are*. **Hippolytus** *Ref.* 1.7.8 (on Anaximenes, 13A7 DK) ἀστραπὴν (sc. γίνεσθαι) δ' ὅταν τὰ νέφη διίστηται βίᾳ πνευμάτων· τούτων γὰρ διίσταμένων λαμπράν καὶ πυρῶδη γίνεσθαι τὴν αὐγὴν.

§3 **Metrodorus**: **Lucretius** *DRN* 6.137–138 *fit quoque ut interdum validi vis incita venti / perscindat nubem perfringens impete recto*. *DRN* 6.175–179 *ventus ubi invasit nubem et versatus ibidem / fecit ut ante cavam docui spissescere nubem, / mobilitate sua fervescit; ut omnia motu / percalefacta vides ardescere, plumbea vero / glans etiam longo cursu volvenda liquescit* (cf. 6.306–308). *DRN* 6.271–273 *quippe etenim supra docui permulta vaporis / semina habere cavas nubes, et multa necessest / concipere ex solis radiis ardoreque eorum*. **Pliny** *Nat.* 2.113 *posse et attritu, dum praeceps feratur, illum, quisquis est, spir-*

itum accendi. posse et conflictu nubium elidi, ut duorum lapidum, scintillantibus fulgetris.

§4 **Anaxagoras:** Epicurus *Ep.Pyth.* at D.L. 10.100 βροντὰς ἐνδέχεται γίνεσθαι ... καὶ παρὰ πυρὸς πεπνευματωμένου βόμβον ἐν αὐτοῖς (sc. τοῖς κοιλώμασι τῶν νεφῶν). **Seneca** *Nat.* 2.12.3 *Anaxagoras* (59A84 DK) *ait illum* (sc. ignem) *ex aethere destillare, et ex tanto ardore caeli multa decidere, quae nubes diu inclusa custodiant.* *Nat.* 2.19 †*Anaxandros* [prob. *Anaxagoras* 59A84 DK] *ait omnia ista sic fieri ut ex aethere aliqua vis in inferiora descendat. ita ignis impactus nubibus frigidis sonat; at, cum illas interscindit, fulget, et minor vis ignium fulgurationes facit, maior fulmina.* **Hippolytus** *Ref.* 1.8.11 (on *Anaxagoras*, 59A42 DK) βροντὰς δὲ καὶ ἀστραπὰς ἀπὸ (τοῦ) θερμοῦ γίνεσθαι, ἐμπίπτοντος εἰς τὰ νέφη. **Diogenes Laertius** *V.P.* 2.9 (on *Anaxagoras*, 59A1 DK) βροντὰς σύγκρουσιν νεφῶν· ἀστραπὰς ἔκτριψιν νεφῶν.

§5 **Archelaus:** **Lucretius** *DRN* 6.146–149 ... *haec* (sc. nubes) *multo si forte umore recepit / ignem, continuo magno clamore trucidat, / ut calidis candens ferrum e fornacibus olim / stridit, ubi in gelidum propter demersimus imbrem.* **Seneca** *Nat.* 2.17.1 *quidam existimant igneum spiritum per frigida atque umida meantem sonum reddere. nam ne ferrum quidem ardens silentio tinguatur, sed si in aquam fervens massa descendit, cum multo murmure extinguitur.* **Pliny** *Nat.* 2.112 *igitur non eam infitias posse in has et ignes superne stellarum decidere. ... cum vero in nubem perveniunt, vaporem dissonum gigni, ut candente ferro in aquam demerso, et fumidum verticem volvi. hinc nasci procellas et, si in nube luctetur flatus aut vapor, tonitrua edi; si erumpat ardens, fulmina; si longiore tractu nitatur, fulgetras.*

§7 **Empedocles:** **Lucretius** *DRN* 6.146–152 *haec* (sc. nubes) *multo si forte umore recepit / ignem, continuo magno clamore trucidat. ... aridior porro si nubes accipit ignem, / uritur ingenti sonitu succensa repente.* **Seneca** *Nat.* 2.12.3 *quidam aiunt radios solis introcurrentis recurrentisque et saepius in se relatos ignem excitare.*

§8 **Diogenes:** **Lucretius** *DRN* 6.146–147 *haec* (sc. nubes) *multo si forte umore recepit / ignem, continuo magno clamore trucidat.* **Seneca** *Nat.* 2.20.1 **Diogenes Apolloniates** (64A16 DK, T31b Laks) *ait quaedam tonitrua igne, quaedam spiritu fieri: illa ignis facit quae ipse antecedit et nuntiat; illa spiritus quae sine splendore crepuerunt.*

§9 **Heraclitus:** **Lucretius** *DRN* 6.96–98 *principio tonitru quatiuntur caerulea caeli / propterea quia concurrunt sublime volantes / aetheriae nubes contra pugnantibu' ventis.* *DRN* 6.137–138 *fit quoque ut interdum validi vis incita venti / perscindat nubem perfringens impete recto.* **Seneca** *Nat.* 2.56.1 **Heraclitus** (DK 1 Nachtrag p. 492.6, fr. 61(b²) Marcovich) *existimat fulgurationem esse velut apud nos incipientium ignium conatum et primam flammam incertam, modo intereuntem, modo resurgentem.*

§§10–11 **Leucippus Democritus:** **Lucretius** *DRN* 6.145–155 *fit quoque, ubi e nubi in nubem vis incidit ardens / fulminis; haec multo si forte umore recepit / ignem, continuo magno clamore trucidat; / ... / aridior porro si nubes accipit*

ignem, / uritur ingenti sonitu succensa repente, / lauricomos ut si per montis flamma vagetur / turbine ventorum comburens impete magno.

§11 **Democritus:** Epicurus *Ep.Pyth.* at D.L. 101 καὶ γὰρ κατὰ παράτριψιν καὶ σύγκρουσιν νεφῶν ὁ πυρὸς ἀποτελεστικὸς σχηματισμὸς ἐξολισθαίνων ἀστραπὴν γεννᾷ. **Lucretius** *DRN* 2.381–387 *perfacile est animi ratione exsolvere nobis / quare fulmineus multo penetralior ignis / quam noster fluat e taedis terrestribus ortus; / dicere enim possis caelestem fulminis ignem / subtilem magis e parvis constare figuris / atque ideo transire foramina quae nequit ignis / noster hic e lignis ortus taedaeque creatus.* *DRN* 6.160–161 *fulgit item, nubes ignis cum semina multa / excussere suo concursu.* **Servius** in *Aen.* 1.42, p. 30.23–24 Thilo e nubibus: secundum physicos qui dicunt conlisione nubium fulmen creari.

§12 **Chrysippus:** **Lucretius** *DRN* 6.164–166 *sed tonitrum fit uti post auribus accipiamus, / fulgere quam cernant oculi, quia semper ad aures / tardius adveniunt quam visum quae moveant res.* **Pliny** *Nat.* 2.142 *fulgetrum prius cerni quam tonitrua audiri, cum simulfiant, certum est, nec mirum, quoniam lux sonitu velocior.* **ps.Aristotle** *Mu.* 4 395a21– τὸ δὲ ἀστράψαν ἀναπτρωθέν, βιαίως ἄχρι τῆς γῆς διεκθέον, κεραυνὸς καλεῖται, ἐὰν δὲ ἡμίπυρον ᾗ, σφοδρὸν δὲ ἄλλως καὶ ἀθρόον, πρηστήρ, ἐὰν δὲ ἄπυρον παντελῶς, τυφών. **Arrian** *Reb.Phys.* fr. 3, p. 2.187 Roos–Wirth at *Stob. Ecl.* 1.29.2, 235.9–15 (Posidonius fr. 338b Theiler) καὶ γίγνεται μὲν ἀστραπὴ μετὰ βροντῇ, ὁξυτέρα δὲ τοσόνδε ὅσον ὅψις ἀκοῆς ὁξύτερον· καθότι ἀκοὴ μὲν πελαζούσης τῆς φωνῆς αἰσθάνεται, ὅψις δὲ ἐπὶ τὸ ὀρώμενον αὐτὸ ἐκπέμπεται. *Reb.Phys.* fr. 2, p. 2.187 Roos–Wirth at *Stob. Ecl.* 1.29.2 (Posidonius fr. 338b Theiler) Ἀρριανοῦ. ὅσοι δὲ ξηροὶ ἀτμοί, ρυέντες μὲν εὐθύς ἀνέμους εἰργάσαντο, ἐν νέφει δὲ ἀποληφθέντες, ἔπειτα ῥηγνύντες βίᾳ τὸ νέφος βροντάς τε καὶ ἀστραπὰς ἐξέφηναν· ἐκπίπτοντες δ' ἐπὶ μέγα διάπυροι μὲν κεραυνοί, ἀθρόοι δὲ καὶ ἡμίπυροι πρηστήρες, ὅσοι δὲ ἔρημοι πυρὸς τυφῶνες. **Commentaria in Aratum**, Anonymus II *Isag.* 8, p. 127.5–9 Maass ἡ δὲ ξηρὰ ἀναθυμίασις ἐκ τοῦ (ὑδατος) ὑπὸ ψύχους μὲν ὠσθεῖσ' ἀνέμους ἐμποιεῖ, ἐκπίπτουσα δὲ διάπυρος γενομένη κεραυνούς, ἀθρόα δὲ φερομένη ἡμίπυρος οὖσα πρηστήρας, μὴ πεπυρωμένη δὲ πῶς τυφῶνας. **Servius** *auctus* in *Aen.* 8.392, p. 258.20–24 Thilo *igne rima micans: id est fulmen, cuius naturam expressit; namque nubes vento coactae plerumque rumpuntur et ex se fulmen emittunt. [quamvis philosophi fulgura et tonitrua simul exprimi dicant, sed illud celerius videri, quia clarum est, tonitrua autem ad aures tardius pervenire]*. **Ioannes Lydus** *Ost.* 44, p. 97.6–7 Wachsmuth καὶ οἱ μὲν διάπυροι *** πρηστήρες, οἱ δὲ μὴ πυρῶδεις τυφῶνες.

§13 **Aristotle:** **Seneca** *Nat.* 2.12.4–6 *Aristoteles* (cf. *Mete.* 2.9 369a10–14, 369a25–b11) *multo ante ignem colligi non putat, sed eodem momento exilire quo fiat; cuius sententia talis est: 'duae partes mundi in imo iacent, terra et aqua. utraque ex se reddit aliquid: terrenus vapor siccus est et fumo similis, qui ventos fulmina tonitrua facit; aquarum halitus umidus est, in imbres et nives cedit. sed siccus ille terrarum vapor unde ventis origo est, cum coacervatus est, coitu nubium vehementer actarum eliditur; deinde vi latus nubes proximas feriet. haec plaga cum sono incutitur, qualis in nostris ignibus redditur cum flamma vitio lignorum virentium crepat; et illic enim spiritus habens aliquid*

*umidi secum conglobatusque rumpitur flamma. eodem modo spiritus ille, quem paulo ante exprimi collis nubibus dixi, impactus aliis nec (***nec) rumpi silentio potest. dissimilis autem crepitus fit ob dissimilitudinem nubium, quarum aliae maiorem sinum habent, aliae minorem. ceterum illa vis expressi spiritus ignis est, qui fulgurationis nomen habet, levi impetu accensus et vanus. ante autem videmus fulgorem quam sonum audimus, quia oculorum velocior sensus est et multum aures antecedit.* Nat. 2.54.1 nunc ad opinionem Posidonii (F 135 E.-K, 325 Theiler) revertar. e terra terrenisque omnibus pars umida efflatur, pars sicca et fumida; haec fulminibus alimentum est, illa imbris.

§15 Strato: Epicurus Ep.Pyth. at D.L. 10.100 βροντάς ἐνδέχεται γίνεσθαι ... καὶ κατὰ παρατρίψεις νεφῶν καὶ † τάξεις. **Lucretius DRN** 6.96–98 *principio tonitru quatiuntur caerula caeli / propterea quia concurrunt sublime volantes / aetheriae nubes.* **Seneca Nat.** 1.1.6 *quemadmodum nubes conlisae mediocriter fulgurationes efficient, maiore impetu impulsae fulmina.* Nat. 2.27.4 *non quemadmodum inlisae inter se manus plausum edunt, sic inlisarum inter se nubium sonus potest esse, magnus, quia magna concurrunt?*

b Sources and Other Parallel Texts

General texts: Aristophanes Nu. 374–378 (Στ.) ἀλλ' ὅστις ὁ βροντῶν ἐστὶ φράσσον, τοῦθ' ὁ με ποιεῖ τετραμαίνειν. / (Σω.) αὐταὶ (sc. αἱ νεφέλαι) βροντῶσι κυλινδόμεναι. (Στ.) τῷ τρόπῳ, ὃ πάντα σὺ τολμῶν; (Σω.) ὅταν ἐμπλησθῶσ' ὕδατος πολλοῦ κἀναγκασθῶσι φέρεσθαι / κατακριμνάμεναι πλήρεις δμβρου δι' ἀνάγκην, εἴτα βαρεῖται / εἰς ἀλλήλας ἐμπίπτουσαι ῥήγνυνται καὶ παταγοῦσιν. **Nu.** 403–407 (Στ.) τί γάρ ἐστιν δῆθ' ὁ κεραυνός; / (Σω.) ὅταν εἰς ταύτας (sc. τὰς νεφέλας) ἄνεμος ξηρὸς μετεωρισθεὶς κατακλησθῇ, / ἐνδοθεν αὐτὰς ὥσπερ κύστιν φουσᾷ, ἀπειθ' ὑπ' ἀνάγκης / ῥήξας αὐτὰς ἔξω φέρεται σοβαρὸς διὰ τὴν πυκνότητα, / ὑπὸ τοῦ ροίβδου καὶ τῆς ῥύμης αὐτὸς ἑαυτὸν κατακαίειν. **Aristotle APo.** 2.8 93a21–23 τὸ δ' εἰ ἔστιν ὅτε μὲν κατὰ συμβεβηκὸς ἔχομεν, ὅτε δ' ἔχοντές τι αὐτοῦ τοῦ πράγματος, οἷον βροντὴν, ὅτι ψόφος τις νεφῶν. **APo.** 2.8 93b7–12 τί ἐστὶ βροντή; πυρὸς ἀπόσβεσις ἐν νέφει. διὰ τί βροντᾷ; διὰ τὸ ἀποσβέννυσθαι τὸ πῦρ ἐν τῷ νέφει. νέφος Γ, βροντὴ Α, ἀπόσβεσις πυρὸς τὸ Β. τῷ δὲ Γ τῷ νέφει ὑπάρχει τὸ Β (ἀποσβέννυται γὰρ ἐν αὐτῷ τὸ πῦρ), τοῦτω δὲ τὸ Α, ψόφος. **APo.** 2.10 94a3–9 διαφέρει ... εἰπεῖν διὰ τί βροντᾷ καὶ τί ἐστὶ βροντὴ· ἐρεῖ γὰρ οὕτω μὲν 'διότι ἀποσβέννυται τὸ πῦρ ἐν τοῖς νέφεσι· τί δ' ἐστὶ βροντὴ; ψόφος ἀποσβεννυμένου πυρὸς ἐν νέφεσιν. ὥστε ὁ αὐτὸς λόγος ἄλλον τρόπον λέγεται, καὶ ὡδὶ μὲν ἀποδείξεις συνεχῆς, ὡδὶ δὲ ὀρισμός. (ἔτι ἐστὶν ὁρος βροντῆς ψόφος ἐν νέφεσι· τοῦτο δ' ἐστὶ τῆς τοῦ τί ἐστὶν ἀποδείξεως συμπέρασμα.) **Mete.** 1.1 339a3–5 ἔτι δὲ περὶ κεραυνῶν πτώσεως καὶ τυφῶνων καὶ πρηστήρων καὶ τῶν ἄλλων τῶν ἐγκυκλιῶν, ὅσα διὰ πῆξιν συμβαίνει πάθη τῶν αὐτῶν σωμάτων τούτων. **Mete.** 2.9 369a10–12 περὶ δὲ ἀστραπῆς καὶ βροντῆς, ἔτι δὲ περὶ τυφῶνος καὶ πρηστήρος καὶ κεραυνῶν λέγωμεν· καὶ γὰρ τούτων τὴν αὐτὴν ἀρχὴν ὑπολαβεῖν δεῖ πάντων. **Mete.** 2.9 370a21–25 τὰ μὲν οὖν λεγόμενα περὶ βροντῆς τε καὶ ἀστραπῆς παρὰ τῶν ἄλλων ταύτ' ἐστὶ, τῶν μὲν ὅτι ἀνάγκασις ἡ ἀστραπή, τῶν δ' ὅτι πυρὸς μὲν ἡ ἀστραπή διάλαμψις, ἡ δὲ βροντὴ σβέσις, οὐκ ἐγγιγνομένου παρ' ἑκάστον πάθος τοῦ πυρὸς ἀλλ' ἐνυπάρχοντος. ἡμεῖς δὲ φαμεν κτλ. **Mete.** 3.1 371a9–19 γίγνεται μὲν

οὖν τυφῶν, ὅταν ἐκνεφίας γιγνόμενος μὴ δύνῃται ἐκκριθῆναι τοῦ νέφους· ... ὅταν δὲ κατασπώμενον ἐκπυρωθῇ (τοῦτο δ' ἐστὶν ἐὰν λεπτότερον τὸ πνεῦμα γένηται), καλεῖται πρηστήρ· συνεκπίμπρησι γὰρ τὸν ἀέρα τῇ πυρώσει χρωματίζων. ἐὰν δ' ἐν αὐτῷ τῷ νέφει πολὺ καὶ λεπτὸν ἐκθλιφθῇ πνεῦμα, τοῦτο γίγνεται κεραυνός. *Mete.* 3.1 371b14–17 περὶ μὲν οὖν βροντῆς καὶ ἀστραπῆς καὶ ἐκνεφίου, ἔτι δὲ πρηστήρων τε καὶ τυφῶνων καὶ κεραυνῶν, εἴρηται, καὶ ὅτι ταῦτ' πάντα, καὶ τίς ἡ διαφορὰ πάντων αὐτῶν. *Met.* Z.17 1041a23–25 τί ἄρα κατὰ τινος ζητεῖ διὰ τί ὑπάρχει (ὅτι δ' ὑπάρχει, δεῖ δὴλον εἶναι· εἰ γὰρ μὴ οὕτως, οὐδὲν ζητεῖ), οἷον διὰ τί βροντᾷ; διὰ τί ψόφος γίγνεται ἐν τοῖς νέφεσιν; **Theophrastus** at *Procl. in Tim.* 2.119.29–120.7 ἡδέως δ' ἂν ἐροίμεθα τὸν Θεόφραστον (fr. 159 FHS&G) ... ζητοῦντος, πόθεν μὲν αἱ βρονταί, ..., ποῖαι δὲ αἰτίαι κεραυνῶν, ἀστραπῶν, πρηστήρων, ... ἃ δὴ καλῶς ποιῶν ἐν τῇ τῶν Μετεώρων αἰτολογία τῆς πρεπούσης τῆς εἰκοτολογίας καὶ αὐτὸς ἠξίωσεν. **Plutarch** *Quaest. Conv.* 665E παρὰ πότον διαλέγεσθαι περὶ κεραυνῶν. **Galen** *Inst. Log.* 13.9–10 κατὰ δὲ τὸ ποιεῖν καὶ πάσχειν αἱ τῶν αἰτίων γίνονται ζητήσεις· ἐν ἱατρικῇ μὲν οὖν ..., ἐν φιλοσοφίᾳ δὲ σεισμὸς (cf. ch. 3.15) κεραυνὸς ἀστραπή τε καὶ βροντή. *in Epid. vi.* 17B.187.7–189.10 K. διὰ τί δὲ καὶ τὸ βρονταῖον ἀποδέχεται μᾶλλον ἢ τὸ λαίλαπῶδες ἐφεξῆς ἴδωμεν. ἐμοὶ μὲν δοκεῖ, διότι τὰς βροντὰς οἶδε γινομένης ἦτοι διὰ πυρὸς ἐναπόληψιν, ὅταν ἐκκρινόμενον οἶον ῥήξιν τινα ποιήσῃ τοῦ περιέχοντος αὐτὸ νέφους, ἥνικα καὶ κεραυνοὶ πίπτουσιν, ἢ παρατριβομένων ἀλλήλοις τῶν νεφῶν, (ῶν) οὐδέτερον ὑπάρχει τῷ λαίλαπῶδει. πεπύκνωται γὰρ ὁ ἀήρ ἐν τῇ τοιαύτῃ καταστάσει συνεχοῦς καὶ μέλανος ἐνὸς νέφους ἅπαντα αὐτὸν κατελιγφότος. εἰκότως οὖν οὐ γίνονται βρονταὶ κατὰ τὴν τοιαύτην διάθεσιν τοῦ περὶ τὴν γῆν ἀέρος. ἐν γὰρ τοῖς διεσπασμένοις καὶ κατὰ τὴν περιγραφὴν ἰδίαν φερομένοις νέφεσιν, ὅτ(αν) ἀλλήλοις ἐντύχη, τὴν παράτριψιν εὐλογον γίνεσθαι. τοῦ δ' ὅλου συνεχοῦς τε καὶ ἠνωμένου παράτριψις οὐκ ἂν γένοιτο. διὰ τοῦτο οὐδὲ κεραυνοὶ πίπτουσιν ἐν τῇ τοιαύτῃ καταστάσει, μήτ' ἀέρος ἐν τοῖς νέφεσι περιλαμβανομένου θερμοῦ μήτε παρατρίψεως ἰσχυρᾶς γινομένης. ὅταν γὰρ ἀλλήλοις ἅπαντῶντα τὰ νέφη τὸ μεταξὺ πυρῶδες εἰς ἑαυτὰ συνελαύνοντα καὶ σφίγγοντα πυκνώσῃ τελῶς, ἐκθλίβεται τῆν-καῦτα ποτὲ μὲν εἰς τὴν ἄνω χώραν ὁ κεραυνὸς ἢ τὴν εἰς τὸ πλάγιον, ἐνίοτε δ' ἐπὶ τὴν γῆν. ταύτην μὲν τὴν φορὰν αὐτοῦ ὀρώμεν μόνην, αἱ δ' ἄλλαι λανθάνουσιν ἡμᾶς. ... καλῶς ἂν εἴημεν εἰρηκότες τὴν περὶ γενέσεως βροντῶν φυσιολογίαν. **Hermogenes** *Id.* 1.6.5.11–14 Patillon τοῦ δ' αὖ λόγου πολιτικοῦ τὸ ζητεῖν ... περὶ σκηπτῶν φορὰς ἢ τὰ τοιαῦτα;

Chapter heading: **Aristotle** *Mete.* 1.1 339a3 ἔτι δὲ περὶ κεραυνῶν πτώσεως καὶ τυφῶνων καὶ πρηστήρων. *Mete.* 2.9 369a10–12 περὶ δὲ ἀστραπῆς καὶ βροντῆς, ἔτι δὲ περὶ τυφῶνος καὶ πρηστήρος καὶ κεραυνῶν λέγωμεν· καὶ γὰρ τούτων τὴν αὐτὴν ἀρχὴν ὑπολαβεῖν δεῖ πάντων. *Mete.* 2.9 370a32–33 καὶ περὶ μὲν βροντῆς εἴρηται καὶ ἀστραπῆς. *Mete.* 3.1 371b14–16 περὶ μὲν οὖν βροντῆς καὶ ἀστραπῆς καὶ ἐκνεφίου, ἔτι δὲ πρηστήρων τε καὶ τυφῶνων καὶ κεραυνῶν, εἴρηται. **Ovid** *Met.* 1.53–56 *inminet his aër, illic consistere ... / iussit et humanas motura tonitrua mentes / et cum fulminibus facientes fulgura ventos.* **Agatharchides** *Mar. Erythr.* 107.8 Müller περὶ ... κεραυνῶν. **ps.Aristotle** *Mu.* 2 392b8–13 ἐν δὲ τούτῳ (sc. τῷ ἀέρι) πνοαί τε ἀνέμων καὶ τυφῶνων ... ἔτι τε βρονταὶ καὶ ἀστραπαὶ καὶ πτώσεις κεραυνῶν μυρίων τε γνόφων συμπληγάδες. *Mu.* 4 394a15–19 (Posidonius fr. 336a Theiler)

γίνονται ... ἀπὸ δὲ τῆς ξηρᾶς (sc. ἀναθυμιάσεως) ... βρονταί τε καὶ ἀστραπαὶ καὶ πρηστήρες καὶ κεραυνοὶ καὶ τὰ ἄλλα ἃ δὴ τούτοις ἐστὶ σύμφυλα. **Hermogenes** *Id.* 1.4.5–8 Patillon εἰ ἐξετάζοι τις, ὅπως τε καὶ καθ' ἃς αἰτίας γίνονται ... ἢ σκηπτῶν φορὰς ἢ ὅλως τοιαῦτα. **John Philoponus** in *Mete.* 3.11 περὶ τε κεραυνῶν βροντῶν τε καὶ ἀστραπῶν. **Suda** s.v. Φ 418 φιλόσοφος (i.e. **Philip of Opus** fr. i Tarán, F 27 Lasserre) l. 9, p. 4.733 Adler Περὶ ἀστραπῶν.

§§1–2 **Theophrastus(?)** *Metars.* c. 1.18–19 Daiber (thunder arises) when much wind is congested in a hollow cloud and when the cloud is split open.

§2 **Anaximenes:** **Aristotle** *Mete.* 2.9 370a10–15 εἰσὶ δὲ τινες οἱ τὴν ἀστραπὴν, ὥσπερ καὶ Κλείδῆμος (62.1 DK), οὐκ εἶναι φασιν ἀλλὰ φαίνεσθαι, παρεικάζοντες ὡς τὸ πάθος ὅμοιον ὃν καὶ ὅταν τὴν θάλαττάν τις ῥάβδῳ τύπτῃ· φαίνεται γὰρ τὸ ὕδωρ ἀποστίλβον τῆς νυκτός· οὕτως ἐν τῇ νεφέλῃ ῥαπιζομένου τοῦ ὕγρου τὴν φάντασιν τῆς λαμπρότητος εἶναι τὴν ἀστραπὴν.

§3 **Metrodorus:** **Aristotle** *Cael.* 2.7 289a21–25 πέφυκε γὰρ ἡ κίνησις ἐκπυροῦν καὶ ξύλα καὶ λίθους καὶ σίδηρον· εὐλογώτερον οὖν τὸ ἐγγύτερον τοῦ πυρός, ἐγγύτερον δὲ ὁ ἀήρ· οἷον καὶ ἐπὶ τῶν φερομένων βελῶν· ταῦτα γὰρ αὐτὰ ἐκπυροῦται οὕτως ὥστε τήκεσθαι τὰς μολυβδίδας. **Theophrastus(?)** *Metars.* c. 1.12 Daiber (thunder arises) when the wind violently strikes a broad and icy cloud. **Ovid** *Met.* 2.727–727 *non secus exarsit, quam cum Balearica plumbum / funda iacit: volat illud et incandescit eundo / et, quos non habuit, sub nubibus invenit ignes.*

§4 **Anaxagoras:** **Aristotle** *Mete.* 2.9 369b11–19 καίτοι τινές λέγουσιν ὡς ἐν τοῖς νέφεσιν ἐγγίγνεται πῦρ· τοῦτο ... Ἀναξαγόρας (59A84 DK) δὲ τοῦ ἄνωθεν αἰθέρος (sc. φησιν εἶναι τὸ ἐμπεριλαμβανόμενον), ὃ δὴ ἐκεῖνος καλεῖ πῦρ κατενεχθὲν ἄνωθεν κάτω. τὴν μὲν οὖν διάλαμψιν ἀστραπὴν εἶναι τὴν τούτου τοῦ πυρός, τὸν δὲ ψόφον ἐναποσβεννυμένου καὶ τὴν σίξιν βροντὴν, ὡς καθάπερ φαίνεται καὶ γιγνόμενον οὕτως καὶ πρότερον τὴν ἀστραπὴν οὔσαν τῆς βροντῆς.

§5 **Archelaus:** **Theophrastus(?)** *Metars.* c. 1.10–11 Daiber (thunder arises) when an ironsmith throws glowing iron into water, a great noise is the result.

§7 **Empedocles:** **Aristotle** *Mete.* 2.9 369b11–14 καίτοι τινές λέγουσιν ὡς ἐν τοῖς νέφεσιν ἐγγίγνεται πῦρ· τοῦτο δ' Ἐμπεδοκλῆς (31A63 DK) μὲν φησιν εἶναι τὸ ἐμπεριλαμβανόμενον τῶν τοῦ ἡλίου ἀκτίνων. **Theophrastus(?)** *Metars.* c. 1.9 Daiber (thunder arises) when fire falls into a humid cloud and then is extinguished.

§8 **Diogenes:** **Theophrastus(?)** *Metars.* c. 1.9 Daiber (thunder arises) when fire falls into a humid cloud and then is extinguished.

§9 **Heraclitus:** **Heraclitus** 22B31 DK at **Clem.Alex.** *Strom.* 5.104.3 πυρὸς τροπαὶ πρῶτον θάλασσα, θαλάσσης δὲ τὸ μὲν ἥμισυ γῆ, τὸ δὲ ἥμισυ πρηστήρ. **Theophrastus(?)** *Metars.* c. 1.3 Daiber (thunder arises) when two hollow clouds collide and therefore the one strikes against the other. [...] (6) When the wind enters a hollow cloud and then rotates in it.

§11 **Democritus:** **Theophrastus(?)** *Metars.* c. 1.21–22 Daiber (thunder arises) when rough clouds rub against each other. **Epicurus** *Ep. Pyth.* at D.L. 10. 101 καὶ ἀστραπαὶ δ' ὡσαύτως γίνονται κατὰ πλείους τρόπους· καὶ γὰρ κατὰ παράτριψιν καὶ σύγκρουσιν νεφῶν ὁ πυρὸς ἀποτελεσματικὸς σχηματισμὸς ἐξολισθαίνων ἀστραπὴν γεννᾷ.

§12 Chrysippus: Aristotle *Mete.* 2.9 369b7–11 γίγνεται (sc. ἡ ἀστραπή) δὲ μετὰ τὴν πληγὴν καὶ ὕστερον τῆς βροντῆς· ἀλλὰ φαίνεται πρότερον διὰ τὸ τὴν ὕψιν προτερεῖν τῆς ἀκοῆς. δηλοῖ δ' ἐπὶ τῆς εἰρεσίας τῶν τριήρων· ἤδη γὰρ ἀναφερόντων πάλιν τὰς κώπας ὁ πρῶτος ἀφικνεῖται ψόφος τῆς κωπηλασίας. **Theophrastus(?) Metars.** c. 2.2–3 Daiber lightning happens because of ... beating and friction. *Metars.* [1] (18–19) (thunder arises) when much wind is congested in a hollow cloud and when (the cloud) is split open. *Metars.* c. 5.2–4 Daiber lightning precedes thunder ... because ..., or because lightning and thunder occur at the same time, but we see the lightning more quickly than we can hear the thunder. **Epicurus Ep. Pyth.** at D.L. 10.101 ἀστραπαὶ δ' ὡσαύτως γίνονται κατὰ πλείους τρόπους· ... καὶ κατ' ἐκπιασμόν, θλίψεως τῶν νεφῶν γινομένης εἴθ' ὑπ' ἀλλήλων εἴθ' ὑπὸ πνευμάτων. **Cicero Div.** 2.44 *placet enim Stoicis (SVF 2.699) eos anhelitus terrae, qui frigidi sint, cum fluere coeperint, ventos esse; cum autem se in nubem induerint eiusque tenuissimam quamque partem coeperint dividere atque disrumpere idque crebrius facere et vehementius, tum et fulgores et tonitrua existere; si autem nubium flictu ardor expressus se emisit, id esse fulmen.* **Diogenes Laertius V.P.** 7.153–154 (SVF 2.704) ἀστραπὴν δ' ἔξαψιν νεφῶν παρατριβομένων ἢ ῥηγνυμένων ὑπὸ πνεύματος, ὡς Ζήνων (SVF 1.117) ἐν τῷ Περὶ τοῦ ὅλου· βροντὴν δὲ τὸν τοῦτων ψόφον ἐκ παρατρίψεως ἢ ῥήξεως· κεραυνὸν δ' ἔξαψιν σφοδρὰν μετὰ πολλῆς βίας πίπτουσιν ἐπὶ γῆς, νεφῶν παρατριβομένων ἢ ῥηγνυμένων. οἱ δὲ (SVF 2.704) συστροφὴν πυρώδους ἀέρος βιαίως καταφερομένην. τυφῶνα κεραυνὸν βίαιον, πολὺν καὶ πνευματώδη ἢ πνεῦμα καπνῶδες ἐρρωγότες ἀπὸ νέφους· πρηστήρα νέφος περισχισθὲν πυρὶ μετὰ πνεύματος. **Porphyrus in Harm.** p. 32.10–16 ἀλλ', ὡς φησὶν ὁ Δημόκριτος (68A126a DK), ἐκδοχεῖον μύθων οὐσα μένει τὴν φωνὴν ἀγγεῖου δίκην· ἡ δὲ γὰρ εἰσκρίνεται καὶ ἐνρεῖ, παρ' ἣν αἰτίαν καὶ θάττον ὁρώμεν ἢ ἀκούομεν. ἀστραπῆς γὰρ καὶ βροντῆς ἅμα γενομένης τὴν μὲν ὁρώμεν ἅμα τῷ γενέσθαι, τὴν δ' οὐκ ἀκούομεν ἢ μετὰ πολὺ ἀκούομεν, οὐ παρ' ἄλλο τι συμβαίνειν ἢ παρὰ τὸ τῇ μὲν ὕψει ἡμῶν ἀπαντᾶν τὸ φῶς, τὴν δὲ βροντὴν παραγίνεσθαι ἐπὶ τὴν ἀκοὴν ἐκδεχομένης τῆς ἀκοῆς τὴν βροντὴν.

§13 Aristotle: Aristotle *Mete.* 2.9 369a10–b7 περὶ δὲ ἀστραπῆς καὶ βροντῆς, ἔτι δὲ περὶ τυφῶνος καὶ πρηστήρος καὶ κεραυνῶν λέγωμεν· καὶ γὰρ τούτων τὴν αὐτὴν ἀρχὴν ὑπολαβεῖν δεῖ πάντων. τῆς γὰρ ἀναθυμιάσεως, ὡς περ εἵπομεν, οὐσης διττῆς, τῆς μὲν ὑγρᾶς τῆς δὲ ξηρᾶς, καὶ τῆς συγκρίσεως ἐχούσης ἄμφω ταῦτα δυνάμει καὶ συνισταμένης εἰς νέφος, ὡς περ εἴρηται πρότερον, ἔτι δὲ πυκνοτέρας τῆς συστάσεως τῶν νεφῶν γιγνομένης πρὸς τὸ ἔσχατον πέρας. ... ἡ μὲν οὖν ἐκκρινομένη θερμότης εἰς τὸν ἄνω διασπείρεται τόπον· ὅση δ' ἐμπεριλαμβάνεται τῆς ξηρᾶς ἀναθυμιάσεως ἐν τῇ μεταβολῇ ψυχομένου τοῦ ἀέρος, αὕτη συνιδόντων τῶν νεφῶν ἐκκρίνεται, βία δὲ φερομένη καὶ προσπίπτουσα τοῖς περιεχομένοις νέφεσι ποιεῖ πληγὴν, ἣς ὁ ψόφος καλεῖται βροντὴ. γίγνεται δ' ἡ πληγὴ τὸν αὐτὸν τρόπον, ὡς παρεικάσαι μείζονι μικρὸν πάθος, τῷ ἐν τῇ φλογὶ γιγνομένῳ ψόφῳ, ὃν καλοῦσιν οἱ μὲν τὸν Ἥφαιστον γελάν, οἱ δὲ τὴν Ἑστίαν, οἱ δ' ἀπειλὴν τούτων. γίγνεται δ' ὅταν ἡ ἀναθυμίασις εἰς τὴν φλόγα συνεστραμμένη φέρεται, ῥηγνυμένων καὶ ξηραίνοντων τῶν ξύλων· οὕτως γὰρ καὶ ἐν τοῖς νέφεσι ἡ γιγνομένη τοῦ πνεύματος ἔκκρισις πρὸς τὴν πυκνότητά τῶν νεφῶν ἐμπίπτουσα ποιεῖ τὴν βροντὴν. παντοδαποὶ δὲ ψόφοι διὰ τὴν

ἀνωμαλίαν τε γίγονται τῶν νεφῶν καὶ διὰ τὰς μεταξὺ κοιλίας, ἥ τὸ συνεχὲς ἐκλείπει τῆς πυκνότητος. ἡ μὲν οὖν βροντὴ τοῦτ' ἔστι, καὶ γίγνεται διὰ ταύτην τὴν αἰτίαν· τὸ δὲ πνεῦμα τὸ ἐκθλιβόμενον τὰ πολλὰ μὲν ἐκπυροῦται λεπτῇ καὶ ἀσθενεῖ πυρώσει, καὶ τοῦτ' ἔστιν ἣν καλοῦμεν ἀστραπὴν, ἥ ἂν ὥσπερ ἐκπίπτον τὸ πνεῦμα χρωματισθὲν ὁφθῇ. (For what follows see above §12)

§15 Stoics: Diogenes Laertius *V.P.* 7.153 see above §12.

Liber 3 Caput 4

- P^B**: ps.Plutarchus *Plac.* 894A; pp. 370^a13–371^a5 Diels—**P^G**: ps.Galenus *HPh* c. 77; p. 631.1–8 Diels—**P^{ln}**: Julianus Arianista *Comm. in Job* p. 269.16–18 Hagedorn—**P^Q**: Qustā ibn Lūqā pp. 172–173 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* cc. 140, 141, pp. 72–73 Westerink (tituli soli), cf. *Op.Phil.* 1 op. 20, p. 77 Duffy (titulus solus)—cf. **P^{Sy}**: Symeon Seth *CRN* c. 2.15, p. 28.4–5 (pars tituli) + c. 2.17, p. 29.13 + c. 2.18, p. 29.16 Delatte
S: Stobaeus *Ecl.* 1.31.1–5, pp. 242.19–243.21 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b18–19 Henry (titulus solus)
 Cf. Ach: Achilles *Univ.* c. 34, p. 52.11–12 Di Maria

Titulus δ'. Περί νεφῶν ὁμίχλης ὑετῶν δρόσου χιόνος πάχνης χαλάζης (P,S)

- §1 Ἀναξιμένης νέφη μὲν γίνεσθαι παχυνθέντος ἐπὶ πλεῖον τοῦ ἀέρος, μάλλον δ' ἐπισυναχθέντος ἐκθλίβεσθαι τοὺς ὄμβρους, χιόνα δέ, ἐπειδὴ τὸ καταφερόμενον ὕδωρ παγῇ, χάλαζαν δ' ὅταν συμπεριληφθῇ τι τῷ ὑγρῷ πνευματικόν. (P₁,S₁) 5
- §2 Ἀναξαγόρας νέφη μὲν καὶ χιόνα παραπλησίως, χάλαζαν δ' ὅταν ἀπὸ τῶν παγέντων νεφῶν προωσθῇ τινα πρὸς τὴν γῆν, ἃ δὴ ταῖς καταφοραῖς ἀποψυχούμενα στρογγυλοῦται. (S₂)
- §3 Μητρόδωρος ἀπὸ τῆς ὑδατώδους ἀναφορᾶς ὑπὸ τοῦ ἀέρος συνίστασθαι τὰ νέφη. (P₂,S₃) 10
- §4 Ξενοφάνης ἀπὸ τῆς τοῦ ἡλίου θερμότητος ὡς (προκατ)αρκτικῆς αἰτίας τὰν τοῖς μεταρσίοις συμβαίνειν· ἀνελκομένον γὰρ ἐκ τῆς θαλάττης τοῦ

§1 Anaximenes 13A17 DK; §2 Anaxagoras 59A85 DK; §3 Metrodorus 70A16 DK; §4 Xenophanes 21A46, B30.1 DK

titulus Περί ... χαλάζης S : Περί νεφῶν ὑετῶν χιόνων χαλαζῶν P^B (ante add. καὶ P^{B(II)}), cf. P^Q : Περί νεφῶν καὶ χιόνων P^G : Περί ὑετοῦ χαλάζης χιόνος πάχνης καὶ δρόσου P^{Ps} [2] νέφη μὲν γίνεσθαι] ἔφη συμβαίνειν P^G || ἐπὶ πλεῖον P^{GS} prob. Diels : ὅτι πλείστον P^B, om. P^Q || [3–4] 'sedem mutarunt' χιόνα et χάλαζαν Diels *DG* 136 qui mutavit in ed., non prob. Bollack Laks–Most (error antiquus A trib.) || [4] χάλαζαν] χάλαζα P^{B(II)} || [4–5] συμπεριληφθῇ] τι περισυλληφθῇ P^B || [5] τι S : om. P || τῷ om. P^(I,III) || πνευματικόν P^{GQ(ut vid.)} S Diels : πνεῦμά τι (Mau Lachenaud) sive πνεύματι P^B §2 lemma om. P || [7] ἃ δὴ corr. Usener prob. Wachsmuth Diels VS¹ : ἦδη S^L ret. Diels *DG* || [8] ἀποψυχούμενα scripsimus : ἀποψυχρούμενα S || στρογγυλοῦται S prob. Wachsmuth VS : -οῦσθαι coni. Diels VS¹, sed in Diels *DG* post verbum lac. ind. ubi (δὲ) ἀπὸ τῆς μακρᾶς καταφορᾶς ex §5[17] suppl. Meineke (sed non prob. Wachsmuth) §3 [9] ὑπὸ τοῦ ἀέρος S (ἐπὶ S^L prob. Bollack, corr. Diels prob. Wachsmuth) : om. P^{BG} : aus der feinen Substanz Q §4 lemma om. P || [11] (προκατ)αρκτικῆς scripsimus : ἀρκτικῆς S edd. omnes || [12] τὰν coni. Karsten prob. Diels Wachsmuth : καὶ S^L prob. Bollack

ύγρου τὸ γλυκὺ διὰ τὴν λεπτομέρειαν διακρινόμενον νέφη τε συνιστά-
ναι ὁμιχλούμενον καὶ καταστάζειν ὄμβρους ὑπὸ πιλήσεως καὶ
διατμίζειν τὰ πνεύματα. γράφει γὰρ διαρρήδην 'πηγὴ δ' ἐστὶ θάλασσ' 15
ὑδατος'. (S4)

§5 Ἐπίκουρος ἀπὸ τῶν ἀτόμων· στρογγυλαίνεσθαι δὲ τὴν χάλαζαν καὶ τὸν
ὑετὸν ἀπὸ τῆς μακρᾶς καταφορᾶς ὑποπεπλασμένον. (P3,S5)

§6 *** καὶ πνεῦμα μὲν ἀποτελεῖν παρῶσαν τὰ νέφη, ὄμβρους δὲ διαχέαν,
χάλαζαν δὲ πιλῆσαν, χιόνα δὲ συμπεριλαβόμενόν τι τοῦ ἀερώδους. (S6) 20

§5 Epicurus fr. 349 Usener; §6—

[13] τε corr. Karsten prob. Diels *DG* Wachsmuth : τὸ S^L §5 [17] post nomen habet P^B
δ' || ἀτόμων S^LP^G : ἀτμῶν P^BQ || δὲ P^B : om. S^L (suppl. Wachsmuth) P^G Diels *DG* || χάλα-
ζαν καὶ P : θαλάσσαν S^L || [18] ὑποπεπλασμένον P^B(I,II)S^L prob. Diels (etiam *DG* 54, vert.
'sensim conformatum') Usener Mau Lachenaud : ὑποπεπλησμένον P^B(III) : *rund* wird Q :
ὑποκεκλασμένον olim Beck : συμπεπληγμένον corr. ms. Voss. 2 || post ὑποπεπλασμένον hab.
S Ἐμπεδοκλῆς ἔμπωσιν φωτὸς εἰς νέφος, ex A c. 3.3.7 ap. S 1.29.1, p. 232.13 Wachsmuth hic
interpol., secl. Diels Wachsmuth §6 lemma om. P || [19] lac. ind. Karsten prob. Usener
Wachsmuth : Ἀριστοτέλης τὸ ξηρὸν καὶ καπνώδες φησι conl. ante πνεῦμα Karsten : lemma
Epicuro trib. Diels *DG*

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus c. 77 (text Diels)

77.1 (~ P1) Ἀναξιμένης ἔφη συμβαίνειν παχυνθέντος ἐπὶ πλείον τοῦ ἀέρος, μάλλον
δὲ ἐπισυναχθέντος ἐκθλίβεσθαι τοὺς ὄμβρους, {γίγνεσθαι} χιόνα δέ, ἐπειδὴν τὸ
καταφερόμενον ὕδωρ παγῇ ὑπὸ ψύξεως, χάλαζαν δέ, ὅταν τι περισυλληφθῇ τῷ
ὑγρῷ πνευματικόν.

77.2 (~ P2) Μητρόδωρος ἀπὸ τῆς ὑδατώδους ἀναφορᾶς συνίστασθαι τὰ νέφη.

77.3 (~ P3) Ἐπίκουρος ἀπὸ τῶν ἀτόμων. στρογγυλοῦσθαι τὴν χάλαζαν καὶ τὸν ὑετὸν
γίγνεσθαι ἀπὸ τῆς μακροτέρας φορᾶς διὰ τοῦ ἀέρος συμβαινούσης ἀποπληττό-
μενον.

Julianus Arianista *Comm. in Job* p. 269.16–18 Hagedorn (~ P1) παχύνας τὸν ἀέρα
γνώμη τῇ ἐμῇ καὶ ἐπισυναγαγὼν τὰ νέφη ἐκθλίβω τοὺς ὄμβρους. ἐπειδὴν δὲ
κατιὸν τὸ ὕδωρ παγῇ ἐκ τῆς ἄγαν ψυχρότητος, χιόνα ἀποστέλλω, τῷ δὲ ὑγρῷ
πνευμά τι συμπλέξας μεταβάλλω εἰς χάλαζαν.

Psellus *Omn.Doctr.* c. 140 Περὶ ὑετοῦ, χαλάζης, χιόνος, πάχνης καὶ δρόσου (~ tit.)

Omn.Doctr. c. 141 Περὶ δρόσου καὶ πάχνης (~ tit.)

Phil.Min. 1 op. 20 Περὶ ὑετοῦ χαλάζης χιόνος πάχνης καὶ δρόσου (~ tit.)

Symeon Seth *CRN* 2.15 tit. Περὶ ἀέρος καὶ πυρὸς (—) καὶ νεφῶν καὶ ὑετῶν (~ tit.)
καὶ ἀστραπῶν καὶ βροντῶν (cf. tit. c. 3.3).

CRN 2.18.6–10 καὶ ἐν μὲν τῷ ἀέρι γίνονται ταῦτα· νέφος, ὑετός, χιών, χάλαζα. ὁμοια δὲ τούτοις γίνονται καὶ πρὸς τῇ γῇ· τῷ μὲν νέφει ἀνάλογος ἡ ὀμίχλη, τῷ δὲ ὑετῷ ἡ δρόσος, τῇ δὲ χιόνι ἡ πάχνη, τῇ δὲ χαλάζῃ ὁ κρύσταλλος (~ quaestio).

Testes secundi:

Achilles *Univ.* c. 34, p. 52.11–12 ὄμβροι δὲ ἐξ ὑγρασίας ἀναδόσεως καὶ νεφελῶν ὑγρῶν γίνονται.

Loci Aetiani:

quaestio A 1.2.2 πάντα γὰρ τὰ ὁρώμενα, ὅσα μῆτε ὑπὸ τύχης μῆτε ὑπ' ἀνάγκης μῆτ' ἐστὶ θεῖα μῆτε τοιαύτην αἰτίαν ἔχει, φυσικὰ λέγεται καὶ φύσιν ἔχει ἰδίαν· ... ἔτι δὲ ταῦτα τὰ γινόμενα, ὄμβροι χάλαζαι κεραυνοὶ πρηστῆρες ἄνεμοι· ταῦτα γὰρ ἔχει ἀρχὴν τινα· οὐ γὰρ ἐξ αἰῶνος ἕκαστον τούτων ἐστὶν ἀλλ' ἀπὸ τινος ἀρχῆς γίνονται. A 3.5.1 τῶν μεταρσίων παθῶν τὰ μὲν καθ' ὑπόστασιν γίνεται οἷον ὄμβρος χάλαζα.

§4 A 3.16.1 Ἀναξίμανδρος τὴν θάλασσαν φησιν εἶναι τῆς πρώτης ὑγρασίας λείψανον, ἥς τὸ μὲν πλεῖον μέρος ἀνεξήρανε τὸ πῦρ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses are P, represented by P^B, P^G, P^Q, and S, for these doxai extant only in S^L. P has three lemmata, S six, so at most P retained only half the chapter. P's lemmata are matched in S, and so is their order. Psellus is a witness to the heading and the contents in general, and so is Symeon Seth. The chapter of S treating of clouds etc. (1.31) in which he cites the present ch. 3.4 follows after the chapter (1.30) in which he cites A ch. 3.5, so here he has inverted the order of the Aëtian chapters. His lemmata form a continuous excerpt, so he again appears to have written out a chapter in full. His final lemma lacks the beginning including its name-label. And we have noted that T does not use any material from Book 3.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition is again for the most part limited to generalities and nameless doxai, but Seneca *Naturales quaestiones* Book 4B (originally Book 3) is more specific. For the parallelism of the themes of chs. 3.3–7 + 14–15 + 4.1 with Lucretius' series at *DRN* 6.96–737 see Runia (1997) 97.

(2) *Sources*. The subjects assembled here are treated systematically by Aristotle in no less than four chapters, *Mete.* 1.9–12. We may also cite (to use Daiber's headings) Theophrastus *Metarsiology* [c. 7] *The account of the causes of clouds*; [c. 8] *The account of the causes of different kinds of rain*; [c. 9] *The account of the causes of snow*; [c. 10] *The account of the causes of hail*; [c. 11] *The account of the causes of dew*; [c. 12] *The account of the causes of hoar-frost*. These texts are cited below under section E(b).

C Chapter Heading

The heading, of the umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C), lists in S all of the seven phenomena that are at issue in various ways in the lemmata of the chapter. The umbrella here (like that of the two previous chapters) shelters a number of different phenomena collected in a single chapter rather than distributed over several, as in the *Metarsiology*. The most important question type/category is that of essence/substance, that of cause (διὰ τῆς) is also involved, while the question *unde* and the categories of place and quality occur as well. In the headings of P and its tradition several of these items are variously omitted. Most of its ingredients are anticipated in the embedded heading in Aristotle *Mete.* 1.12 349a9–11. Wilson (2013) 76–77 with nn. 6–7, and 146–155, argues that the 'condensations'—rain, snow, dew, frost, and hail—form the second of the ten groups into which Aristotle divided the meteorological phenomena; cf. above, ch. 3.3 Commentary C ad fin.

D Analysis

a Context

For the explanation of A's order in general see above, Introduction to Book 3, section 2, and also Book 3.prooem. at Commentary D(a). The present chapter is concerned with phenomena mainly connected with air and water, while the previous chapter (3.3) deals with phenomena mainly connected with fire and *pneuma*: we are nearing the earth. It comes before ch. 3.5, 'On the rainbow'. In Aristotle these subjects are discussed in a rather different order; ch. 3.3 may be placed alongside *Mete.* 2.9–3.1, ch. 3.4 alongside *Mete.* 1.9–12, while ch. 3.5 may be placed next to *Mete.* 3.2–5. In Seneca's *Naturales quaestiones* rainbows are treated in Book 1 (Book 7 according to the original order), lightning and thunder in Book 2 (Book 8 according to the original order), while clouds etc. are the subject of Book 4B (originally Book 3). So the order of A chs. 3.4 and 3.5 is the opposite of that of Seneca's Books 7 and 8, while the theme of the preceding ch. 3.3 is found at a considerable distance in Seneca's work.

b Number–Order of Lemmata

S has six lemmata, P^{BQ} and P^G three. In so far as these correspond they are in exactly the same order, which there is no reason to change and which is already that of Diels in the *DG*.

c Rationale–Structure of Chapter

The important term is ‘clouds’, νέφη, and the structure of the chapter depends on the differences among the stuffs from which these clouds are said to be formed. §1 Anaximenes and §2 Anaxagoras derive the clouds from air, §3 Metrodorus and §4 Xenophanes from something moist, or moisture, §5 Epicurus from atoms. But for §4 Xenophanes the hot, i.e. fire, also plays a part. We do seem to have a diaeretic list consisting of, in somewhat irregular succession, the terms air–moisture (i.e. water)–moisture (plus fire)—atoms. §4 Xenophanes is linked with the atoms of §5 because the freshwater part of the moisture has a fine-particled structure, is ‘fine-grained’. The mutilated final lemma cannot be integrated in this diaeresis.

What causes some surprise is that the role of the sun in bringing up moisture from the sea is attributed to Xenophanes in §4 only, although an evaporation of sorts is also attributed to Metrodorus in §3.

d Further Comments

General Points

The phenomena listed in the heading are far from equally represented in the lemmata, and in some cases not at all, presumably a sign of abridgement. Clouds (νέφη), the first and clearly most important item, occur in five out of six lemmata (not in §5). Nothing is said about ὀμίχλη, apart from §4[14] ὀμιχλούμενον. The rains (ὑετῶν) are paralleled *ad litteram* only in §5 ὑετόν, represented by ὄμβρους in §1, §4 and §6, and absent from §2 and §3. Dew (δρόσος) and hoar-frost (πάχνη) are entirely absent. Snow only occurs in §1 and §6, but hail is found four times, viz. in §1, §2, §5 and §6. Precipitation is mentioned four times: in §1 τὸ καταφερόμενον ὕδωρ, §2 πρὸς τὴν γῆν and ταῖς καταφοραῖς, §4 καταστᾶζειν, and §5 τῆς μακρᾶς καταφορᾶς, while evaporation is represented by §3 τῆς ὑδατώδους ἀναφορᾶς and §4 ἀνελκομένου ... τοῦ ὕγρου τὸ γλυκύ, so occurs twice. These processes are not mentioned together in any of the lemmata.

Individual Points

§1 The production by compression of clouds from air and of rain from clouds rather precisely parallels the series of transmutations of air according to Anaximenes at Simp. in *Phys.* 24.29–31 (13A5 DK), ‘air when condensed becomes

wind, and then cloud, and when even more condensed water', and Hipp. *Ref.* 1.7.3 (13A7 DK), 'winds are compressed air, from air a cloud is formed by compression, and when even more (compressed), water'.

The information about hail and snow in the mss., as Diels saw, is certainly mistaken, because it is always snow that is said to contain pneuma (this explains its colour). The mistake, shared by P and S, is to be attributed to A, which is why we have not interfered with the transmitted text.

§4 The combination ἀρκτική αἰτία cannot be paralleled. The adjective means either 'northern' or 'placed at the beginning of a sentence'. προκαταρκτική αἰτία, 'antecedent cause', on the other hand, is standard Stoic and then more general terminology (as in medical literature). The mistake is easily explained, viz. through contrasting association ('cold') with the preceding word θερμότητος. For causal terminology in the *Placita* cf. the auxiliary cause in the previous chapter, A 3.3.8, συναιτιᾶται δὲ καὶ τὸ πνεῦμα, and the originally Stoic cohesive cause at A 5.30.1, Ἀλκμαίων τῆς μὲν ὑγείας εἶναι συνεκτικὴν τὴν ἰσονομίαν τῶν δυνάμεων.

§5 This is Epicurus' first appearance in Book 3, not, however, with a plurality of equivalent doxai. This happens only at ch. 3.15.11 below, where he appears for the second and last time in this Book. See further Runia (2018) at M–R 4.382.

§§5–6 The not entirely intelligible remains of the doxa in the name-label-less *lemma mutilum* at the end cannot plausibly be attributed to any individual or school. Diels' suggestion ad loc. in the *DG* that it may nevertheless be Epicurean was rejected by Wachsmuth and (implicitly) Usener, and has not found favour. Even so, the combined doxai may well have been meant as a single lemma by P.

e Other Evidence

Of Seneca's *Naturales quaestiones* Book 4B (originally Book 3) only the second part, treating hail and snow, is extant, but in the lost part Seneca (preserved in excerpts by Ioannes Lydus) also discussed cloud, rain, dew and frost. For Lucretian parallels to the present chapter see Ernout–Robin (1928) 3.253–257, 259–260 (on clouds), 3.261–266 (on rain), 269–270 (on snow, winds, hail, cold frosts, ice).

E Further Related Texts

a Proximate Tradition

General texts: Aristophanes *Nu.* 368–370 (Στ.) ἀλλὰ τίς ὕει; τουτὶ γὰρ ἔμοιγ' ἀπόφηναι πρῶτον ἀπάντων. / (Σω.) αὐταὶ δὴ πού· μεγάλοις δέ σ' ἐγὼ σημείοις αὐτὸ διδάξω. / φέρε, ποῦ γὰρ πώποτ' ἄνευ νεφελῶν ὕοντ' ἤδη τεθέασαι. **Epicurus**

Ep.Pyth. at D.L. 10.99 νέφη δύναται γίνεσθαι καὶ συνίστασθαι καὶ παρὰ πλῆ-
σεις ἀέρος (ὑπὸ) πνευμάτων συνώσεως καὶ παρὰ περιπλοκάς ἀλληλοῦχων ἀτό-
μων καὶ ἐπιτηδείων εἰς τὸ τοῦτο τελέσαι καὶ κατὰ βρυμάτων συλλογὴν ἀπὸ τε
γῆς καὶ ὑδάτων· καὶ κατ' ἄλλους δὲ τρόπους πλείους αἱ τῶν τοιούτων συστάσεις
οὐκ ἀδυνατοῦσι συντελεῖσθαι. ἦδη δ' ἀπ' αὐτῶν ἡ μὲν θλιβομένων ἡ δὲ μεταβαλ-
λόντων ὕδατα δύναται συντελεῖσθαι. *Ep.Pyth.* 10.106–108 χάλαζα συντελεῖται ...
(107) ... χιόνα δὲ ἐνδέχεται συντελεῖσθαι ... (108) ... δρόσος συντελεῖται ... (πάχνη
δὲ συντελεῖται). **Lucretius** *DRN* 6.495–504 *nunc age, quo pacto pluvius con-*
crescat in altis / nubibus umor et in terras demissus ut imber / decidat, expe-
diam. primum iam semina aquae / multa simul vincam consurgere nubibus
ipsis / omnibus ex rebus, pariterque ita crescere utrumque, / et nubis et aquam,
quaecumque in nubibus extat, / ... / concipiunt etiam multum quoque saepe
marinum / umorem etc. *DRN* 6.527–532 *cetera quae sursum crescunt sur-*
sumque creantur, / et quae concrescunt in nubibus, omnia, prorsum / omnia,
nix venti grando gelidaeque pruinae / et vis magna geli, magnum duramen
aquarum, / et mora quae fluvios passim refrenat aventis, / perfacilest tamen
haec reperire animoque videre. **ps.Vergil** *Etna* 237 (scire) *nubila cur Panope*
caelo denuntiet imbres. **Propertius** 3.5.25.30 *tum mihi naturae libeat perdis-*
cere mores / ... / in nubes unde perennis aqua. **ps.Aristotle** *Mu.* 2 392b8–11 ἐν
δὲ τοῦτῳ (sc. τῷ ἀέρι) νέφη τε συνίσταται καὶ ὄμβροι καταράσσουσι, χιόνες τε καὶ
πάχνη καὶ χάλαζαι. *Mu.* 4 394a15–17 (Posidonius fr. 336a Theiler) γίνονται δὲ
ἀπὸ μὲν ταύτης (sc. τῆς ὑγρᾶς ἀναθυμιάσεως) ὀμίχλαι καὶ δρόσοι καὶ πάγων ιδεαὶ
νέφη τε καὶ ὄμβροι καὶ χιόνες καὶ χάλαζαι. **Manilius** 1.100–103 *hiberna aestiva*
nix grandine mollior esset / ... / (102) cur imbres ruerent ... / pervidit. **Pliny**
Nat. 2.152 *grandinem congeliato imbre gigni et nivem eodem umore mollius*
coacto, pruinaem autem ex rore gelido; per hiemem nives cadere, non grandines,
ipsasque grandines interdiu saepius quam noctu, et multo celerius resolvi quam
nives; nebulas nec aestate nec maximo frigore exsistere, rores neque gelu neque
ardoribus neque ventis nec nisi serena nocte; gelando liquorem minu(i), resol-
utaeque glacie non eundem inveniri modum; varietates colorum figurarumque
in nubibus cerni, prout admixtus ignis superet aut vincatur. **ps.Aristotle** *Mu.*
4 394a19–b5 (Posidonius fr. 336a Theiler) ἔστι δὲ ὀμίχλη ... δρόσος δὲ ἐστὶν
... κρύσταλλος δὲ ... πάχνη δὲ ... νέφος δὲ ... ὄμβρος δὲ γίνεται μὲν κατ' ἐκπιε-
σμόν νέφους ... καὶ τοῦτο καλοῦμεν ὑετὸν ... χιῶν δὲ γίνεται ... χάλαζα δὲ γίνε-
ται. **Arius Didymus** fr. 11 Diels at Stob. *Ecl.* 1.31.6, pp. 243.23–245.21 Wachs-
muth (on Aristotle) ἐκ δὲ τῆς ὑγρᾶς καὶ ἀτμώδους (sc. ἀναθυμιάσεως) ὑετοῦς τε
καὶ δρόσου καὶ πάχνης ὀμίχλας τε καὶ νέφη καὶ χιόνας καὶ χαλάζας κτλ. fr. 35
Diels at Stob. *Ecl.* 1.31.7, pp. 245.23–29 (SVF 2.701) Χρύσιππος ἔφησε τὴν ὀμί-
χλην νέφος διακεχυμένον ἢ ἀέρα πάχος ἔχοντα, δρόσον δὲ ἐξ ὀμίχλης καταφε-
ρόμενον ὑγρόν, ὑετὸν δὲ φορὰν ὕδατος ἐκ νεφῶν, ὄμβρον δὲ λάβρου ὕδατος καὶ
πολλοῦ ἐκ νεφῶν φορὰν, χάλαζαν δὲ ὑετοῦ πεπηγὸς διάθρουσιν, χιόνα δὲ νέφος
πεπηγὸς ἢ νέφους πῆξιν, τὸ δ' ἐπὶ τῆς γῆς πεπηγὸς ὕδωρ κρύσταλλον, πάχνην
δὲ δρόσον πεπηγυῖαν. **Arrian** *Reb.Phys.* fr. 4, pp. 190–192 Roos–Wirth at Stob.
Ecl. 1.31.8, pp. 246.2–247.5 (Posidonius fr. 336b Theiler) Ἀρριανὸς φησι τὴν ὀμί-

χλην τῇ μὲν πρὸ νέφους ξυνίστασθαι πρὶν ἐξαναστήναι, ἐπὶ πολὺ δὲ ἀπὸ νέφους ἐκχυθέντος καὶ σκεδασθέντος· ... ὑετοὺς ἐκ νεφῶν γενῶσι. ... δρόσος γίγνεται· ... πάχνη γίνεται. καὶ ἔστι ὅ τι περ πάχνη πρὸς δρόσον, τοῦτο χιών πρὸς ὑετόν, ὅτι καὶ τὸ νέφος ξυνελθὼν μὲν ἄνευ πῆξεως εἰς ὑετόν διακρίνεται, παγὲν δὲ εἰς νιφετόν συνάγεται. **Diogenes Laertius** *V.P.* 7.153 (*SVF* 2.702) ὑετόν δ' ἐκ νέφους μεταβολὴν εἰς ὕδωρ, ἐπειδὴν ἢ ἐκ γῆς ἢ ἐκ θαλάττης ἀνενεχθεῖσα ὕγρασία ὕφ' ἡλίου {καὶ} μὴ τυγχάνῃ κατεργασίας· καταψυχθὲν δὲ τοῦτο πάχνην καλεῖσθαι. χάλαζαν δὲ νέφος πεπηγός, ὑπὸ πνεύματος διαθρυφθέν· χιόνα δ' ὕγρον ἐκ νέφους πεπηγότος, ὡς Ποσειδώνιος (*F* 11 *E.-K.*, 263 Theiler) ἐν τῷ ὀγδόῳ τοῦ Φυσικοῦ λόγου. **Irenaeus of Lyon** *Haer.* 2.28.2 (tr. lat.) *vel quid dicere possumus quomodo pluviae ... et collectiones nubium et nebulae ... et similia his efficiuntur, adnuntiare quoque et thesauros nivium et grandinis et eorum quae his proxima sunt, quae autem haec nubium praeparatio, aut quis status nebulae ... est.* **Arnobius of Sicca** *Adv.Nat.* 2.59, pp. 133.20–134.4 *si praesto est quod libuerit scire et in aperto rerum est scientia constituta, edissertate nobis et dicite, quibus modis fiant et rationibus pluviae, ut in superis partibus atque in aeris hoc medio suspensa aqua teneatur, natura res labilis et ad fluorem semper decursionemque tam prona? edissertate, inquam, et dicite, quid sit quod grandinem torqueat, quod guttatim faciat pluviam labi, quod imbres ruat, nivis plumas et foliola dilatarit.*

Chapter heading: Diogenes Laertius *V.P.* 7.132–133 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. Stoics) ... ζητοῦσι ... ὅπως νέφη συνίσταται, βρονταὶ καὶ ῥιδες καὶ ἄλως καὶ κομήται καὶ τὰ παραπλήσια, excerpted at **Suda** s.v. Φ 862, p. 4.775.28–32 Adler φυσικὸς λόγος παρὰ φιλοσόφοις ... περὶ νεφῶν, βροντῶν, ῥιδος. **Capitula Lucretiana** at 6.451 *de nubibus.* at 6.495 *de imbris.* **Pliny** *Nat.* 1 p. 12.54–56 *natura grandinis, nivis, pruinae, nebulae, roris. nubium imagines.* *Nat.* 1 p. 12.25–26 *de imbris.* **Isidore of Seville** *de Nat. capitul.* 32 *De nubibus.* 33 *De pluviis.* 34 *De nive.* 35 *De grandine* (these headings also occur in the body of the work). *Etym.* 13.5 *De aere et nube* (13.7 in the body of the work).

§1 **Anaximenes: Epicurus** *Ep.Pyth.* at D.L. 10.106 χάλαζα συντελεῖται καὶ κατὰ πῆξιν ἰσχυροτέραν, πάντοθεν δὲ πνευματωδῶν περιστάσιν τινων καὶ καταμέρισιν. **Lucretius** *DRN* 6.517–518 *sed vehemens imber fit, ubi vehementer utraque / nubila vi cumulata premuntur et impete venti.* **Seneca** *Nat.* 4b.13.2 *cum quaerimus quomodo nix fiat, et dicimus illam pruinae similem habere naturam, plus illi spiritus quam aquae inesse.* **ps.Aristotle** *Mu.* 4 394a32–34 (Posidonius fr. 336a Theiler) χιών δὲ γίνεται κατὰ νεφῶν πεπυκνωμένων ἀπόθραυσιν πρὸ τῆς εἰς ὕδωρ μεταβολῆς ἀνασκοπέντων· ἐργάζεται δὲ ἡ μὲν κοπή τὸ ἀφρώδες καὶ ἐκλευκόν. **Hippolytus** *Ref.* 1.7.3 + 7.7 (on Anaximenes, 13A7 DK) ἐξ ἀέρος (δέ) νέφος ἀποτελε(ῖ)σθαι κατὰ τὴν πῆξιν. ... (7.7) συνελθόντα δὲ καὶ ἐπὶ πλείον παχυ(ν)θέντα νέφη γεννάσθαι, καὶ οὕτως εἰς ὕδωρ μεταβάλλειν. χάλαζαν δὲ γίνεσθαι, ὅταν ἀπὸ τῶν νεφῶν τὸ ὕδωρ καταφερόμενον παγῇ· χιόνα δὲ, ὅταν αὐτὰ ταῦτα ἐνυγρότερα ὄντα πῆξιν λάβῃ. **Simplicius** in *Phys.* 24.28–30 (Anaximenes 13A5 DK, Theophrastus fr. 226A FHS&G) ἀέρα ... γίνεσθαι πυκνούμενον δὲ ἄνεμον, εἴτα νέφος.

§2 **Anaxagoras:** Seneca *Nat.* 4b.3.5–6 (cf. addenda to Anaxagoras 59A85 at DK p. 2.420.15–18, Posidonius fr. 318 Theiler) *praeterea potest, etiamsi non fuit grando talis, dum defertur corrotundari, et totiens per spatium iacens aëris densi devoluta, aequabiliter atque in orbem teri. quod nix pati non potest, quia non est tam solida, immo quia fusa est, et non per magnam altitudinem cadit, sed circa terras initium eius est. ita non longus illi per aera sed ex proximo lapsus est.* (6) *quare non et ego mihi idem permittam quod Anaxagoras? ... grando nihil aliud est quam suspensa glacies, nix {in} pruina pendens {congelatio}. illud enim iam diximus, quod inter rorem et aquam interest, hoc inter pruinam et glaciem, nec non inter nivem et grandinem interesse.*

§3 **Metrodorus:** see at §4.

§4 **Xenophanes:** Theophrastus(?) *Metars.* c. 7.2–5 Daiber the clouds come into existence ... because of much vapour which ascends and with which the ascending vapours of the sea as well as the remaining fluids become mixed. *Metars.* c. 8.3–4 Daiber continuous rain occurs, if many vapours ascend from the sea. **Lucretius** *DRN* 6.470–475 *praeterea permulta mari quoque tollere toto / corpora naturam declarant litore vestes / suspensae, cum concipiunt umoris adhaesum. / quo magis ad nubis augendas multa videntur / posse quoque e salso consurgere momine ponti; / nam ratio consanguineast umoribus omnis.* **Diogenes Laertius** *V.P.* 9.19 (Xenophanes A1 DK) τὰ νέφη συνίστασθαι τῆς ἀφ' ἡλίου ἀτμίδος ἀναφερομένης καὶ αἰρούσης αὐτὰ εἰς τὸ περιέχον.

§5 **Epicurus:** Epicurus *Ep.Pyth.* at D.L. 10.99 νέφη ... ἡδὴ δ' ἀπ' αὐτῶν ἦ μὲν θλιβομένων ἦ δὲ μεταβαλλόντων ὕδατα δύνатаи συντελεῖσθαι. *Ep.Pyth.* at D.L. 10.106–107 χάλαζα συντελεῖται ... πάντοθεν δὲ πνευματωδῶν περιστάσιν τινων καὶ καταμέρισιν ... (107) ἡ δὲ περιφέρεια οὐκ ἀδυνάτως μὲν ἔχει γίνεσθαι πάντοθεν τῶν ἄκρων ἀποτηχομένων καὶ ἐν τῇ συστάσει πάντοθεν, ὡς λέγεται, κατὰ μέρη ὁμαλῶς περισταμένων εἴτε ὕδατοειδῶν τινων, εἴτε πνευματωδῶν. **Lucretius** *DRN* 6.451–455 *nubila concrescunt, ubi corpora multa volando / hoc super in caeli spatio coiere repente / asperiora, modis quae possint indupedita / exiguis tamen inter se compressa teneri. / haec faciunt primum parvas consistere nubes.*

§6 ***: Seneca *Nat.* 4b.3.5 *praeterea potest, etiamsi non fuit grando talis, dum defertur, corrotundari et, totiens per spatium aeris densi devoluta, aequabiliter atque in orbem teri.* *Nat.* 4b.4.2 *ideo, ut ait Vergilius noster (Georg. 1.31), 'cum ruit imbriferum ver' vehementior mutatio est aëris undique patefacti et solventis se ipso tepore adiuvante.* see also at §1 above.

b Sources and Other Parallel Texts

General texts: Plato *Tim.* 49c καὶ πάλιν ἀέρα συνιόντα καὶ πυκνούμενον νέφος καὶ ὁμίχλην, ἐκ δὲ τούτων ἔτι μάλλον συμπιλουμένων ῥέον ὕδωρ κτλ. *Tim.* 59d–e τὸ πυρὶ μεμειγμένον ὕδωρ ... ὅταν πυρὸς ἀποχωρισθὲν ἀέρος τε μονωθῇ, γέγονεν μὲν ὁμαλώτερον, συνέωσται δὲ ὑπὸ τῶν ἐξιόντων εἰς αὐτό, παγέν τε οὕτως τὸ μὲν ὑπὲρ γῆς μάλιστα παθὼν ταῦτα χάλαζα, τὸ δ' ἐπὶ γῆς κρύσταλλος, τὸ δὲ

ἦττον, ἡμιπαγές τε ὄν ἔτι, τὸ μὲν ὑπὲρ γῆς αὖ χιῶν, τὸ δ' ἐπὶ γῆς συμπαγὲν ἐκ δρόσου γενόμενον πάχνη λέγεται. **Aristotle** *Top.* 7.5 146b27–30 ἢ πάλιν, ὡς ὀρίζονται ... τὸ νέφος πύκνωσιν ἀέρος, ... προσθετέον γὰρ πόσου καὶ ποίου καὶ ποῦ καὶ ὑπὸ τίνος. **Theophrastus**(?) *Metars.* c. 7.2–3 Daiber the clouds come into existence ... because of the accumulation and thickness of air and its transformation into the nature of water. **Themistius** *Or.* 26, p. 2.145.11–16 Schenkl ἀλλ' οὐδὲ τὰ ἐγγὺς ἡμῶν καὶ χαμαιζήλα καὶ ἐν ποσὶ, ... καὶ ὑετῶν (sc. πέρι), οὐδὲ τί ὑπομένουσα ἢ χιῶν λευκὴ οὕτως ἐστὶ καίτοι ἐξ ὕδατος πεπηγυῖα, οὐδὲ τί παθοῦσα ἢ χάλαζα τοῦ μὲν χειμῶνος οὐ καταπίπτει, θέρους δὲ τὰ πολλὰ, καίτοι ψυχρότητι ὑπερβάλλουσα. **Olympiodorus** *in Mete.* 80.30–33 ἰστέον δέ, ὅτι ὁ μὲν Ἀριστοτέλης (*Mete.* 1.9 346b26–31) αἴτιον λέγει τῆς εἰς ὕδωρ μεταβολῆς τὴν ψύξιν μόνον. Θεόφραστος (fr. 211B FHS&G) δὲ οὐ μόνον τὴν ψύξιν αἰτίαν φησὶ τῆς τοῦ ὕδατος γενέσεως, ἀλλὰ καὶ τὴν πύκνωσιν. **Alexander of Aphrodisias** *in Top.* 466.26–27 τῷ δὲ τῆς νεφέλης ὀρισμῷ, ὅτι πύκνωσις ἀέρος, ἔδει προσκεῖσθαι τὸ τοιάδε, ἡγουν σφοδρά. **Aristotle** *Mete.* 1.1 338b24 ὅσα τε θείημεν ἂν ἀέρος εἶναι κοινὰ πάθη καὶ ὕδατος. *Mete.* 1.9 346b32–a12 ἐστὶ δ' ἢ μὲν ἐξ ὕδατος ἀναθυμίασις ἀτμὶς, ἢ δ' ἐξ ἀέρος εἰς ὕδωρ νέφος· ὁμίχλη δὲ νεφέλης περίττωμα τῆς εἰς ὕδωρ συγκρίσεως. ... ἀναγομένου δὲ τοῦ ὕγρου αἰεὶ διὰ τὴν τοῦ θερμοῦ δύναμιν καὶ πάλιν φερομένου κάτω διὰ τὴν ψύξιν πρὸς τὴν γῆν ..., ὅταν ... κατὰ μικρὰ φέρεται, ψακάδες, ὅταν δὲ κατὰ μείζω μόρια, ὑετὸς καλεῖται. *Mete.* 1.10 347a13–16 ἐκ δὲ τοῦ καθ' ἡμέραν ἀτμίζοντος ὅσον ἂν μὴ μετεωρισθῇ ... πάλιν καταφερόμενον ὅταν ψυχθῇ νύκτωρ, καλεῖται δρόσος καὶ πάχνη. *Mete.* 1.11 347b12–14 ἐκείθεν (sc. ex nubibus) ... τρία φοιτᾷ σώματα συνιστάμενα διὰ τὴν ψύξιν, ὕδωρ καὶ χιῶν καὶ χάλαζα. **Proclus** *in Tim.* 1.20.30–121.1 καὶ γὰρ τοῦτο ἔν εἶναι αἴτιον ὁμβρων φησὶν ὁ Θεόφραστος (fr. 210 FHS&G), τὴν τῶν νεφῶν πύκνωσιν πρὸς τινὰ τῶν ὁρῶν. *in Tim.* 2.119.29–120.7 ἥδεως δ' ἐν ἐροίμεθα τὸν Θεόφραστον (fr. 159 FHS&G) ... ζητοῦντος ... ποῖα δὲ αἰτίαι ... ὑετῶν, χιόνος, χαλάζης, ἃ δὴ καλῶς ποιῶν ἐν τῇ τῶν Μετεώρων αἰτολογίᾳ τῆς πρεπούσης εἰκοτολογίας καὶ αὐτὸς ἠξίωσεν. **Theophrastus**(?) *Metars.* c. 7.2–3 Daiber the clouds come into existence ... because of the accumulation and thickness of air. **Ovid** *Met.* 1.52–55 *inminet his aer, illic et nebulas, illic consistere nubes / iussit.*

Chapter heading: **Aristotle** *Mete.* 2.12 349a9–11 περὶ μὲν οὖν ὑετοῦ καὶ δρόσου καὶ νιφετοῦ καὶ πάχνης καὶ χαλάζης, διὰ τίν' αἰτίαν γίνεταί καὶ τίς ἡ φύσις αὐτῶν ἐστίν, εἰρήσθω τοσαῦτα. **John Philoponus** *in Mete.* 3.1–3 περὶ νεφῶν ... καὶ ὁμίχλης ψεκάδων τε καὶ ὑετοῦ, δρόσου καὶ πάχνης χαλάζης τε καὶ χιόνος καὶ κρυστάλλου.

§1 Anaximenes: **Aristotle** *Mete.* 1.12 348b15–18 ὅταν δ' ἔτι μάλλον ἀντιπεριστῇ ἐντὸς τὸ ψυχρὸν ὑπὸ τοῦ ἕξω θερμοῦ, ὕδωρ ποιήσαν ἐξηξεν καὶ γίνεταί χάλαζα. συμβαίνει δὲ τοῦτο ὅταν θάττον ἢ ἢ πῆξις ἢ ἢ τοῦ ὕδατος φορὰ ἢ κάτω. *GA* 2.2 735b19–22 αἴτιον δ' ὅτι ἐγκαταμίγνυται πνεῦμα ὃ τὸν τε ὄγκον ποιεῖ καὶ τὴν λευκότητα διαφαίνει, ὥσπερ ἐν τῷ ἀφρῷ καὶ τῇ χιόνι· καὶ γὰρ ἢ χιῶν ἐστὶν ἀφρός. **ps.Aristotle** *Probl.* fr. 214R³, 760 Gigon at Gell. 19.5.7 *manet autem* (sc. cum aqua frigore aeris duratur et coit), *quod est gravius et sordidius et insalubrius,*

atque id pulsu aeris verberatum in modum coloremque spumae candidae oritur.

Theophrastus *CP* 5.13.7 ἡ μὲν (sc. χιῶν) ἐκ νέφους καὶ οἶον ἀφρός τις ἐμπεριειληφυῖα πνεῦμα, ἡ δ' αὐτὴ καθ' αὐτὴν συνεστηκυῖα καὶ ἐκ λεπτοτέρου τινὸς ἀέρος καὶ ὕγρου. **Theophrastus(?) Metars.** c. 8.2 Daiber heavy rain occurs, if very hard winds squeeze and accumulate the clouds. *Metars.* c. 10.2–3 Daiber hail comes into existence when big drops of water are transformed and are hardened by coldness. *Metars.* c. 9.4–5 Daiber for we can see with our own eyes that in snow much air is contained.

§2 **Theophrastus(?) Metars.** c. 10.3–6 Daiber the hailstone is round because its edges are broken off during its descent ... or because the coldness has hardened and compacted it from all sides in an equal manner.

§§2–3 **Anaxagoras Metrodorus: Aristotle Top.** 4.5 127a13–16 τὴν μὲν γὰρ χιόνα φασὶν ὕδωρ εἶναι πεπηγός, τὸν δὲ πηλὸν γῆν ὑγρῷ πεφυραμένην· ἔστι δ' οὐθ' ἡ χιῶν ὕδωρ οὐθ' ὁ πηλὸς γῆ.

§2 **Anaxagoras: Aristotle Mete.** 1.12 348a14–18 (Anaxagoras 59A85 DK) τοῖς μὲν οὖν δοκεῖ τοῦ πάθους (sc. τῆς χαλαζης) αἴτιον εἶναι τούτου καὶ τῆς γενέσεως, ὅταν ἀπωσθῇ τὸ νέφος εἰς τὸν ἄνω τόπον μάλλον ὄντα ψυχρόν διὰ τὸ λήγειν ἐκεῖ τὰς ἀπὸ τῆς γῆς τῶν ἀκτίνων ἀνακλάσεις, ἔλθον δ' ἐκεῖ πηγνυσθαι τὸ ὕδωρ.

§4 **Xenophanes: Xenophanes** 21B30 DK at *Schol. Genav. ad Il.* 21.196 Ξενοφάνης ἐν τῷ (Περὶ φύσεως)· ‘πηγὴ δ' ἐστὶ θάλασσ(α) ὕδατος, πηγὴ δ' ἀνέμοιο· / οὕτε γὰρ ἐν νέφεσιν (γίνοιτό κε ἱς ἀνέμοιο / ἐκπνεῖοντος) ἔσωθεν ἄνευ πόντου μεγάλιο / οὕτε ῥοαὶ ποταμῶν οὐτ' αἰ(θέρος) ὄμβριον ὕδωρ, / ἀλλὰ μέγας πόντος γενέτωρ νεφέων ἀνέμων τε / καὶ ποταμῶν’. **Theophrastus(?) Metars.** c. 7.2–5 Daiber the clouds come into existence ... because of much vapour which ascends and with which the ascending vapours of the sea as well as the remaining fluids become mixed. *Metars.* c. 8.3–4 Daiber continuous rain occurs, if many vapours ascend from the sea.

§5 **Epicurus: Aristoteles Mete.** 1.12 348a34–36 αἱ γὰρ φερόμεναι πόρρωθεν διὰ τὸ φέρεσθαι μακρὰν περιθραυόμεναι γίγνονται τό τε σχῆμα περιφέρεις. **Theophrastus(?) Metars.** c. 10.3–4 Daiber cited above on §2.

§6 **Theophrastus(?) CP** 5.13.7 τὸ δ' ὅλον καὶ τμητικωτέρα δοκεῖ ἡ πάχνη τῆς χιόνος εἶναι ... · λεπτοτέρα δ' ἐστὶ τῆς χιόνος ὅτι ἡ μὲν ἐκ νέφους καὶ οἶον ἀφρός τις ἐμπεριειληφυῖα πνεῦμα, ἡ δ' αὐτὴ καθ' αὐτὴν συνεστηκυῖα καὶ ἐκ λεπτοτέρου τινὸς ἀέρος καὶ ὕγρου. *Metars.* c. 9.4–5 Daiber cited above §1.

Liber 3 Caput 5

- P^B**: ps.Plutarchus *Plac.* 894B–F; pp. 371^a27–374^a8 Diels—**P^G**: ps.Galenus *HPh* c. 78; pp. 631.9–632.5—**P^J**: Julianus Arianista *Comm. in Job* p. 269.18–270.9 Hagedorn—**P^Q**: Qustā ibn Lūqā pp. 172–177 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 142, p. 73 Westerink (titulus solus); *Phil.Min.* op. 23, p. 86 Duffy (titulus solus)—cf. **P^{Sy}**: Symeon Seth *CRN* 2.25, p. 34.12–16 Delatte
S: Stobaeus *Ecl.* 1.30.1a, pp. 238.21–240.11 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b16–17 Henry (titulus solus)
 Cf. Ach: Achilles *Univ.* c. 24, p. 51.17–18 Di Maria; Nem: Nemesius *NH* c. 7, p. 59.19 Morani; *Scholia in Aratum schol.* 829, p. 412.4–14; *schol.* 940, pp. 455.1–456.6 Martin

Titulus ε'. Περὶ ἱριδος (P,S)

- §1 Τῶν μεταρσίων παθῶν τὰ μὲν καθ' ὑπόστασιν γίνεται οἷον ὄμβρος χάλαζα, τὰ δὲ κατ' ἔμφασιν ἰδίαν οὐκ ἔχοντα ὑπόστασιν· αὐτίκα γοῦν πλεόντων ἡμῶν ἢ ἡπειρος κινεῖσθαι δοκεῖ· ἔστιν οὖν κατ' ἔμφασιν ἢ ἱρίς. (P₁,S₁) 5
- §2 Πλάτων φησὶ Θαύμαντος αὐτὴν γενεαλογῆσαι τοὺς ἀνθρώπους διὰ τὸ θαυμάσαι ταύτην. "Ὁμηρος 'ἤυτε πορφυρέην ἱρίν θνητοῖσι τανύσσει'. διὸ καὶ ἐμυθεύσαντό τινες αὐτὴν ταύρου κεφαλὴν ἔχουσαν ἀναρροφεῖν τοὺς ποταμούς. (P₂,S₂)
- §3 πῶς οὖν γίνεται ἱρίς; ὁρώμεν δὴ κατὰ γραμμάς ἢ κατ' εὐθείας ἢ κατὰ 10 καμπύλας ἢ κατ' ἀνακλωμένας, γραμμάς ἀδήλους λόγῳ θεωρητάς καὶ ἀσωμάτους. κατὰ μὲν οὖν εὐθείας ὁρώμεν τὰ ἐν ἀέρι καὶ τὰ διὰ τῶν λίθων τῶν διαυγῶν καὶ κεράτων· λεπτομερῇ γὰρ ταῦτα πάντα. καμπύλας δὲ γραμμάς καθ' ὕδατος βλέπομεν γινομένας· κάμπτεται γὰρ ἢ ὅψις βίᾳ διὰ τὴν πυκνοτέραν τοῦ ὕδατος ὕλην· διὸ καὶ τὴν κώπην 15 ἐν τῇ θαλάσῃ μακρόθεν καμπτομένην ὁρώμεν. τρίτος τρόπος τοῦ βλέπειν τὰ ἀνακλώμενα ὡς τὰ κατοπτρικά. (P₃,S₃)

§1—; §2 Plato *Thet.* 155d, Homerus *Il.* 17.547; §3—

§1 [2] γίνεται οἷον P : οἷον γίνεται S, transp. Heeren Diels Wachsmuth || [3] ἰδίαν post σύστασιν pos. P^G || ὑπόστασιν] σύστασιν P^G || [4] ἡπειρος] ἄπειρος S^P §2 om. P^{GQ} || [6] Θαύμαντος P^{B(III)S²} (Plat.) : (ἐκ) θαύματος P^{B(II)} : θαυμαστώ S^{FP1} || [7] ἤυτε P (Hom.) : ἦντε S || ἱρίν P (Hom. *Il.* 17.547) : νεφέλην S (ex *Il.* 17.551) || διὸ P : om. S §3 [10] πῶς ... ἱρίς om. P^{GQ} || [11] ἀδήλους P^{BQ} (secl. Diels) : δὲ S, δὴ conl. Wachsmuth || λόγῳ] λέγῳ S, emend. Diels Wachsmuth || [12] τὰ2] dub. del. Wachsmuth in app. || [13] καὶ κεράτων P^{BG} : om. P^Q || post λεπτομερῇ add. und leuchtend Q || [14] ante καμπύλας add. κατὰ Wachsmuth || γινομένας P^{BQ} : om. S || [15] βίᾳ] om. P^{GQ} || [17] τὰ ἀνακλώμενα] τὰ ἀνακλώμενα P^{B(I)} (κατ' ἀνακλώμενας dub. prop. Wachsmuth in app.) || κατοπτρικά] κατόπτρα P^G

- §4 ἔστιν οὖν τὸ τῆς ἱριδος πάθος τοιοῦτον. δεῖ γὰρ ἐπινοῆσαι τὴν ὑγρὰν ἀναθυμίασιν εἰς νέφος μεταβάλλουσιν, εἴτ' ἐκ τούτου κατὰ βραχὺ εἰς μικράς ῥανίδας νοτιζούσας· ὅταν οὖν ὁ ἥλιος γένηται ἐν δυσμαῖς, 20 ἀνάγκη πᾶσα ἱριν ἄντικρυς ἡλίου φαίνεσθαι, ὅτε ἡ ὄψις προσπεσούσα ταῖς ῥανίσιν ἀνακλᾶται, ὥστε γίνεσθαι τὴν ἱριν. (P4,S4)
- §5 εἰσὶ δ' αἱ ῥανίδες οὐ σχήματος μορφαί, ἀλλὰ χρώματος· καὶ ἔχει τὸ μὲν πρῶτον φοινικοῦν, τὸ δὲ δεύτερον ἄλουργές καὶ πορφυροῦν, τὸ δὲ τρίτον κυάνεον καὶ πράσινον· μήποτε τὸ μὲν φοινικοῦν, ὅτι ἡ λαμπρότης 25 τοῦ ἡλίου προσπεσούσα καὶ ἡ ἀκραιφνὴς λαμπρηδὼν ἀνακλωμένη ἐρυθρὸν ποιεῖ καὶ φοινικοῦν τὸ χρῶμα· τὸ δὲ δεύτερον μέρος ἐπιθολούμενον καὶ ἐκλυόμενον μάλλον τῆς λαμπρηδόνος διὰ τὰς ῥανίδας ἄλουργές· ἄνεσις γὰρ τοῦ ἐρυθροῦ τοῦτο. ἔτι δὲ μάλλον ἐπιθολούμενον τὸ διορίζον εἰς τὸ πράσινον μεταβάλλει. (P5,S5) 30
- §6 ἔστιν οὖν τοῦτο δοκιμάσαι δι' ἔργων· εἰ γὰρ τις ἄντικρυς στὰς τοῦ ἡλίου λάβῃ ὕδωρ καὶ πυτίσῃ, αἱ δὲ ῥανίδες ἀνάκλασιν πρὸς τὸν ἥλιον λάβωσιν, εὐρήσει γινομένην ἱριν· καὶ οἱ ὀφθαλμίωντες δὲ τοῦτο ἀσχοῦσιν, ὅταν εἰς τὸν λύχνον ἀποβλέψωσιν. (P6,S6)
- §7 Ἀναξιμένης ἱριν γίνεσθαι κατ' αὐγασμὸν ἡλίου πρὸς νέφει πυκνῷ καὶ 35 παχεὶ καὶ μέλανι παρὰ τὸ μὴ δύνασθαι τὰς ἀκτῖνας εἰς τὸ πέραν διακόπτειν ἐπισυνισταμένας αὐτῷ. (P7)

§§4–6 excerpta anonyma ex Aristotele: §4 cf. *Mete.* 3.4 373b32–34; §5 cf. *Mete.* 3.4 374a8–11, 374b32–375a1; §6 cf. *Mete.* 3.4 373b2–10, 374a22–24; §7 Anaximenes 13A18 DK

§4 [18] πάθος] εἶδος P^G || [19] τούτου P^GQS : τοῦ P^{B(I,II)} : om. P^{B(II)} || [20] post νοτιζούσας add. *entsteht daraus ein Regenbogen* Q || ἐν δυσμαῖς P^{QS} : ἐν δυσμῇ P^G : εἰς δυσμάς P^B || [21] πᾶσαν] πᾶσαν P^{B(II)G} || ὅτε ἡ P : τότε γὰρ S || ἡ ὄψις P^{BS} : *die Strahlen* Q || [22] γίνεσθαι] συμβαίνειν P^G §5 [23] μορφαί P^{GS} prob. Diels : μορφή P^B prob. Mau (cf. *Aber aus diesen Tropfen erscheint etwas, das ihnen nicht ähnlich ist* Q) || σχήματος ... χρώματος] inv. S, corr. edd. || post χρώματος add. φαίνεται P^G || [24] φοινικοῦν P : φοινίκιον S || [25] μήποτε] *wenn* Q || ante τὸ leg. P^B οὖν || φοινικοῦν P^G (φοινίκεον P^B corr. Diels) : φοινίκειον S || [26] ἡλίου] πυρὸς P^G || ἀκραιφνὴς λαμπρηδὼν P : inv. S || ἀκραιφνῆς] ἀκραιφανῆς S, corr. edd. : om. P^Q || [27] ἐρυθρὸν ... φοινικοῦν] *klar rot gefärbt* Q || [27] δὲ P : om. S || [28] ἐκλυόμενον P : ἐκκαϊόμενον S || [29] ἄλουργές P^{BGS} : om. P^Q || post ἄλουργές ins. δοκεῖ P^G || ἄνεσις ... ἐπιθολούμενον lac. in S, suppl. Wachsmuth e P || ἄνεσις ... τοῦτο P : om. P^{GQ} || [29] μάλλον P^{B(II)Q} : πάλιν P^{B(III)} (μάλλον ἐπιθολούμενον om. P^G) || [30] διορίζον P^{BS} prob. Mau : δροσίζον P^G prob. Diels Wachsmuth || εἰς τὸ πράσινον] om. P^G §6 [31] οὖν P : δὲ S || δοκιμάσαι P : διορίσαι S || δι' ἔργων P : διείργων S corr. edd. || ἄντικρυς ... ἡλίου P^{GS} : ἄντικρυς τῶν ἡλίου ἀκτῖνων P^B || [32] post καὶ add. *zwischen beiden* Q || πυτίσῃ corr. Diels prob. Wachsmuth Lachenaud (πτύσῃ Heeren) : πιτύσει P^B : πιτύσει S^P : πιτύσει S^F : πιτύ (crucif. Diels) || [33] εὐρήσει γινομένην P^B : εὐρήσει ἐγγινομένην P^G prob. Diels : εὐρῇ εἰσγινομένην S, corr. Wachsmuth ex P §§7–9 non hab. S §7 [35] αὐγασμὸν P^B : ἀνταυγασμὸν P^G || [36–37] διακόπτειν P^{B(II)G} : διακόψαι P^{B(III)}

- §8 Ἀναξαγόρας ἀνάκλασιν ἀπὸ νέφους πυκνοῦ τῆς ἡλιακῆς περιφεγγείας, καταντικρὺ δὲ τοῦ κατοπτρίζοντος αὐτὴν ἀστέρος διὰ παντὸς ἴστασθαι. παραπλησίως δὲ αἰτιολογεῖται τὰ καλούμενα παρήλια, γινόμενα δὲ 40 κατὰ τὸν Πόντον. (P8)
- §9 Μητρόδωρος ὅταν διὰ νεφῶν ἥλιος διαλάμπῃ τὸ μὲν νέφος κυανίζειν, τὴν δ' αὐγὴν ἐρυθραίνεισθαι. (P9)

§8 Anaxagoras 59A86 DK; §9 Metrodorus 70A17 DK

§8 om. PG || [40] αἰτιολογεῖται P^{B(I,II)} : φυσιοιογεῖται P^{B(III)} : *sprach er* Q : φυσιοιογεῖ καὶ prop. Reiske || [41] τὸν P^{B(I,III)} : om. P^{B(II)} §9 [42] post nomen add. δὲ PG || ante ἥλιος add. ὁ P^{B(III)}

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 78 (~ tit.) Περὶ Ἰριδος (text Diels)

- 78.1 (~ P1) τῶν μεταρσίῳ παθῶν τὰ μὲν καθ' ὑπόστασιν γίγνεται οἷον ὄμβρος χάλαζα, τὰ δὲ κατ' ἔμφασιν οὐκ ἔχοντα σύστασιν ἰδίαν,
- 78.2 (~ P3) ὥσπερ ὅταν καμπύλας γραμμὰς ὁρώμεν, τὰ δὲ κατὰ τῶν λίθων τῶν διαυγῶν καὶ κεράτων (λεπτομερὴ γὰρ ταῦτα πάντα) καὶ καμπύλας δὲ γραμμὰς, ὥσπερ τὰ καθ' ὕδατος ὁράται· κάμπτεται γὰρ πρὸς τὴν πυκνοτέραν τοῦ ὕδατος ὕλην ἢ ὄψις. διὸ τὴν κώπην ἐν τῇ θαλάττῃ ὁρώμεν κεκλασμένην.
- 78.3 (~ P4) τρίτος δὲ τρόπος τοῦ βλέπειν τὰ ἀνακλῶμενα ὥσπερ τὰ κάτοπτρα. ἔστιν οὖν τὸ τῆς Ἰριδος εἶδος τοιοῦτον. (δεῖ) γὰρ ἐπινοῆσαι τὴν ἀναθυμίασιν τὴν ὑγρὰν εἰς νέφος μεταβάλλουσαν, εἶτα ἐκ τούτου κατὰ βραχὺ εἰς μικρὰς ῥανίδας δροσιζούσας μετιοῦσαν· ὅταν ὁ ἥλιος γένηται ἐν δυσμῇ (ἀνάγκη γὰρ πάσαν Ἰριν ἀντικρυς τοῦ ἡλίου γίγνεσθαι), τότε ἡ ὄψις προσπεσοῦσα ταῖς ῥανίσιν ἀνακλᾶται, ὥστε συμβαίνει τὴν Ἰριν.
- 78.4 (~ P5) εἰσὶ δὲ αἱ ῥανίδες οὐ σχήματος μορφαὶ ἀλλὰ χρώματα φαίνεται. τὸ μὲν γὰρ πρῶτον ἔχει φοινικούν, τὸ δὲ δεύτερον ἀλουργές καὶ πορφυρίζον, τὸ δὲ τρίτον κυανούν καὶ πράσινον. μήποτε τὸ μὲν φοινικούν, ὅταν ἡ λαμπρότης τοῦ πυρὸς προσπεσοῦσα ἀνακλᾷ τὸ χρῶμα. τὸ δὲ δεύτερον μέρος ἐπιθολούμενον καὶ ἐκλυόμενον μάλλον τῆς λαμπρότητος διὰ τὰς ῥανίδας ἀλουργές δοκεῖ. ἔτι δὲ μάλλον τὸ δροσιζόν μεταβάλλεται.
- 78.5 (~ P6) ἔστι γὰρ τοῦτο δοκιμάσαι δι' ἔργων· εἰ γὰρ τις εἰς τὸ ἀντικρὺ τοῦ ἡλίου λάβῃ ὕδωρ καὶ † πιτύι, αἱ δὲ ῥανίδες ἀνάκλασιν λάβωσι πρὸς τὸν ἥλιον, εὐρήσει ἐγγιγνομένην Ἰριν. καὶ οἱ ὀφθαλμιῶντες δὲ τοῦτο πάσχουσιν, ὥς ὅταν εἰς τὸν λύχον ἀποβλέψωσιν.
- 78.6 (~ P7) Ἀναξιμένης δὲ Ἰριν γίγνεσθαι νομίζει κατ' ἀνταυγασμὸν ἡλίου πρὸς νέφει πυκνῷ καὶ παχεῖ καὶ μέλανι παρὰ τὸ μὴ δύνασθαι τὰς ἀκτῖνας εἰς τὸ πέραν διακόπτειν ἐπισυνισταμένας αὐτῷ.
- 78.7 (~ P9) Μητρόδωρος δὲ ὅταν διὰ νεφῶν ὁ ἥλιος διαλάμπῃ, τὸ μὲν νέφος κυανίζειν, τὴν δ' αὐγὴν ἐρυθραίνεισθαι φησιν.

Julianus Arianista in Job p. 269.18–270.9 Hagedorn (~ P3–5) καὶ τούτου ἱρὶν θαυμαστὴν ἀποστέλλω σοφίᾳ τῇ ἐμῇ ὥσπερ γραμμαῖς τιςιν εὐθείαις λόγῳ θεωρηταῖς καὶ νῶ περιληπταῖς. ἡ γὰρ ὑγρὰ οὐσία εἰς νέφος μεταβαλλομένη ἐκ τοῦ κατὰ βραχὺ εἰς μικρὰς ῥανίδας νοτίζεται· ἐπὶ δὲ ὁ ἥλιος γένηται ἐν δυσμαῖς, εὐθὺς ἡ ἀψὶς αὐτῆς κυρτοῦται εἰς κάλλος ἀμύχανον. ἡ γὰρ ὄψις προσπεσούσα ταῖς ῥανίσιν ἀνακλᾶται, καὶ γίνεται (τὸ) τόξον. αἱ δὲ ῥανίδες οὐ σχήματος μορφὴ ἀλλὰ χρώματος, τὸ μὲν πρῶτον φοινικοῦν, τὸ δὲ δεύτερον ἀλουργές, καὶ τὸ τρίτον κυανοῦν καὶ πράσινον. τὸ φοινικοῦν γὰρ ὑπὸ τῆς λαμπρότητος τοῦ ἡλίου καταυγασθὲν ἀκραιφνῶς τῇ ἀνακλάσει ἐρυθραίνεται, τὸ δὲ δεύτερον ἐπιθολούμενον καὶ ἐκλύομενον μᾶλλον τῆς λαμπηδόνης διὰ τὰς ῥανίδας ἀλουργές γίνεται (ἄνεσις γὰρ τοῦ ἐρυθροῦ (τούτου)), ἔτι δὲ μᾶλλον ἐπιθολούμενον τὸ διορίζον εἰς τὸ πράσι-
νον μεταβάλλει.

Psellus Omn.Doctr. c. 142 Περί ἱριδος (~ tit.)

142.2–5 ἡ ἱρίς ... τῇ φύσει μὲν ἀνυπόστατον ἐστίν, ἐμφασίς δέ ἐστι καὶ φάντασμα τῆς ὁρώσης ὀψεως, ἀκτίνων ἀπὸ τῶν ὀφθαλμῶν προσπιπτουσῶν, εἴτα δὴ ἀνακλωμέ-
νων (~ P3).

142.11–12 ἔστι δὲ πᾶσα ἱρίς τρίχρους· ἡ μὲν γὰρ ἐντὸς αὐτῆς ζῶνῃ φοινικῇ, ἡ δὲ δευ-
τέρα πράσινος, ἡ δὲ τρίτη ἀλουργὸς καὶ οἷον ὑποπόρφυρος (~ P5).

Phil.Min. 1 op. 23 Περί ἄλλω (i.q. tit. 3.5a). καὶ ἱριδος (~ tit.) ῥάβδων τε καὶ παρηλίω
(i.q. tit. 3.6).

Symeon Seth CRN 2.25 (~ tit.) Περί ἱριδος

2.25 ἡ λεγομένη ἱρίς ἰδίαν ὑπόστασιν οὐκ ἔχει, ἀλλ' ἐμφασίς τις ἐστὶ. τοῦ γὰρ νέφους
μικρὰς ῥανίδας ἔχοντος καὶ ἐξ ἐναντίας κειμένου τῷ ἡλίῳ, ἀνακλᾶται ἡ ἡμετέρα
ὄψις πρὸς τὸν ἥλιον καὶ δοκεῖ τι κύκλου τμήμα ἐν τῷ νέφει εἶναι (~ P3–4).

Testes secundi:

quaestio Achilles Univ. c. 24, p. 51.17–18 ὁπότε δὲ ἱκματῶδες φῶς ὁράται, καλεῖται
ἱρίς (~ §1).

§3 Nemesius NH c. 7, p. 59.18–19 ὁρᾷ δὲ ἡ ὄψις κατ' εὐθείας γραμμὰς (~ §3). *NH*
c. 7, p. 62.14–15 καὶ γὰρ ἐν τῇ θαλάσῃ τὴν κώπην ὥς κεκλασμένην ὁρᾷ (~ §3).

§4 Scholia in Aratum schol. 940, pp. 455.16–456.6 Martin ἄλλως· Ἀριστοτέλης
(*Mete.* 3.4) κατοπτρικὴν ἐποιήσατο ἐμφασιν. πέφυκε γὰρ {τοῦτο} ἄσπειν τὴν
ὄψιν προσπίπτουσιν τοῖς λείοις σώμασιν ἀνακλωμένην καὶ κατακλωμένην. τοι-
οῦτον δὲ εἶναι τὸν ἀέρα καὶ τὸ ὕδωρ. ἐπὶ τὸν τοῖνον ἀντικρὺς τοῦ ἡλίου νέφος συστή
{συνεστῶς} κατὰ ῥανίδα, ἐγγίνεσθαι τὴν ὄψιν καθ' ἐκάστην ῥανίδα, καὶ τὴν ἐπὶ
τὸν ἥλιον ἀνάκλασιν ἴσχειν, δόξαν δ' ἐμποιεῖν τοῦ συνεχεῖς εἶναι τὰς ἐμφάσεις
καὶ {τὸ} πόσῃ ἐχούσας διάστασιν, διὰ τὸ ἀφ' ἡμῶν ἐπ' ἐκείνους τοὺς τόπους
διάστημα (~ §4).

§6 Scholia in Aratum schol. 829, p. 412.4–14 Martin ὥσπερ καὶ ἐπὶ τῶν ὀφθαλμι-
κῶν, ὅτε συμβαίνει κοιλαίνεσθαι τοὺς ὀφθαλμούς, δηλονότι ἐξασθενήσαντος τοῦ

σώματος [prob. Maas, πώματος ms. M prob. Martin]. ἢ ὥσπερ ὅταν βλέφαρον καταγαγόντες ἢ περιθλίψαντες τῷ λύχνῳ τὴν ὕψιν προσβάλλωμεν, οὐ φαίνεται συνεχές τὸ φῶς, ἀλλὰ πλάγιοι καὶ σποράδες αἱ αὐγαί, οὕτως, ὅταν ἀχλὺς ἢ νέφωσις ἀνώμαλος πρὸ τοῦ ἡλίου στάσα περιθλίψῃ καὶ σείσῃ τὸν τῆς ὕψεως κῶνον εἰς λεπτὰς ἀκτίνας καὶ ῥαβδοειδεῖς, ὃ πάσχομεν αὐτοὶ τῇ αἰσθήσει, τοῦτο περὶ τὸν ἥλιον εἶναι δοκοῦμεν. οὕτω Πλούταρχος (fr. 15 Sandbach) (~ §4).

§7 al. *Scholia in Aratum schol.* 940, p. 455.1–9 Martin ἄλλως· τὴν ἱρὶν Ἀναξιμένης (13A18 DK) φησὶ γίνεσθαι ἡνίκα ἂν ἐμπέσωσιν αἱ τοῦ ἡλίου αὐγαὶ εἰς παχὺν καὶ πυκνὸν τὸν ἀέρα. ὅθεν τὸ μὲν πρότερον αὐτῆς {τοῦ ἡλίου secl. Martin, non prob. Laks–Most} φοινικοῦν φαίνεται διακαίόμενον ὑπὸ τῶν ἀκτίνων (τοῦ ἡλίου supplevimus), τὸ δὲ μέλαν κατακρατούμενον ὑπὸ τῆς ὑγρότητος. καὶ νυκτὸς δὲ φησὶ γίνεσθαι τὴν ἱρὶν ἀπὸ τῆς σελήνης, ἀλλ’ οὐ πολλάκις, διὰ τὸ μὴ πανσέληνον εἶναι διὰ παντός, καὶ ἀσθενέστερον αὐτὴν φῶς ἔχειν τοῦ ἡλίου (~ §7).

§9 al. *Scholia in Aratum schol.* 940, p. 455.10–15 Martin ἄλλως· Μητροδωρος (70A17 DK) τὴν ἱρὶν αἰτιολογῶν φησιν, ὅταν ἐξ ἐναντίας τῷ ἡλίῳ ἐνσταθῇ νέφος πεπυκνωμένον, τηνικαῦτα ἐμπίπτουσης τῆς αὐγῆς, τὸ μὲν νέφος φαίνεσθαι κυανοῦν διὰ τὴν κράσιν, τὸ δὲ περιφαινόμενον τῇ αὐγῇ φοινικοῦν, τὸ δὲ ὃν κάτω λευκόν. τοῦτο εἶναι ἔθεσαν ἡλιακὸν φέγγος (~ §9).

Loci Aetiani:

§1 A 3.4.4 Ξενοφάνης ἀπὸ τῆς τοῦ ἡλίου θερμότητος ὡς (προκατ)αρκτικῆς αἰτίας τὰν τοῖς μεταρσίοις συμβαίνειν. A 3.6.1 τὰ κατὰ τὰς ῥάβδους καὶ ἀνθηλίους συμβαίνοντα μίξει τῆς ὑποστάσεως καὶ ἐμφάσεως ὑπάρχει, τῶν μὲν νεφῶν ὀρωμένων, οὐ κατ’ οἰκείον δὲ χρῶμα, ἀλλ’ ἕτερον ὅπερ κατ’ ἔμφασιν φαίνεται. A 3.8.2 περιγεγραμμένων δέ μοι τῶν μεταρσίων, ἐφοδευθήσεται καὶ τὰ πρόσγεια.

§3 A 4.20.1 ὥσπερ ἐπὶ τῆς καμπομένης ῥάβδου ἢ μὲν ἐπιφάνεια οὐδὲν πάσχει ἢ δ’ ὕλη ἐστὶν ἢ καμπομένη.

§7 A 3.6.1 τὰ κατὰ τὰς ῥάβδους καὶ ἀνθηλίους.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses are P, variously represented by P^B, P^G, P^G and P^Ps, and S. The first part of the chapter consists of six lemmata presented by P and S and in the same order. P^G, as usual, leaves out several lemmata (this time two), while Q omits one lemma, viz. §2 with its references to myth and its poetic quotation. One suspects that he found this doxa a bit awkward for religious reasons (he was a Syrian Christian). The chapter of S treating of the rainbow etc. (1.30) in which he cites the present chapter comes before the chapter (1.31) in which he cites A ch. 3.4, so he has inverted the order of the Aëtian chapters. And his text, which

misses the final three lemmata, is (exceptionally) not so good in the part that has been preserved. The Byzantine excerptors of S are probably responsible for the loss of these lemmata *ad finem*, because it is hard to believe that S would not have been interested in the three Presocratic doxai that are cited, and there was nothing to replace them by.

T, as we know, had no use for Book 3.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The rich proximate tradition is represented mainly by Seneca (the substantial account *Nat.* 1.3–9 (= Book 7 in the original order)), ps.Aristotle *De mundo*, Arius Didymus, the *Scholia in Aratum*, Calcidius and the *Epitomai* of the Aristotelian *Meteorology* mentioned below. Lucretius is surprisingly brief. The Aristotelian abstract at Seneca *Nat.* 1.3.8, only partly reproduced below section E(a)§3, is somewhat better than the one in our present chapter. The *Metarsiology* of Theophrastus(?) lacks a chapter on the rainbow (just as is the case for the Milky Way, see above ad ch. 3.1 Commentary B, and also for meteors and comets, see above ad 3.2 Commentary B).

(2) *Sources.* For §§1–6 we may think of a treatise (or part of a larger work) ‘On the Rainbow’, with a carefully written introduction (represented by §§1–3) that is both systematic and not without literary pretensions with its references to Plato, Homer, and an unknown mythographer. §3 is a digest of contemporary optical theory that provides an update of the optics of Aristotle in *Mete.* Book 3 (on §3 see further section D(d) below). §§4–6 ultimately derive from Aristotle’s *Meteorology*, as e.g. already Ideler and Diels, and now Daiber (commenting on Q), have pointed out. But the name-label ‘Aristotle’ is conspicuously absent. Ideler (1834) 1.268 writes: ‘Excerpta ex capitibus II–V [sc. of *Mete.* Book 3] reperiuntur apud Stobaeum Eclog. I, 31 [= c. 1.30 Wachsmuth] ..., nullo tamen in iis exscribendis a scriptore certo ordine observato.’ Daiber (1980) 423 refers to *Mete.* 3.4 373a32–375b15. Diels *DG* 60–61 (cf. *ibid.* 178) thought of an intermediate source: ‘suspicio Aëtio hic praesto fuisse quoddam de meteoris enchiridion, quod in opinionibus minus quam in rebus ipsis explicandis versabatur’. Such a source, though not entirely the sort Diels had in mind, has since become available; see below section D(e).

There is no precedent in Aristotle’s *Meteorology* for the final three lemmata. For the proximate tradition to these lemmata in Lucretius and others see Ernout–Robin (1928) 3.267–269.

C *Chapter Heading*

Of the umbrella type (περί τοῦ δεινᾶ) that dominates in the *Placita* (see above, ch. 1.3 Commentary C). The contents of the chapter shows that under it fall the

question types/categories of substance, quality, and the question type of cause ((διὰ τῆς), as well as the sub-question *unde*.

§3 begins with a formula closely resembling a certain type of chapter heading, viz. πῶς οὖν γίνεται ἱρις, but the οὖν shows it is not a heading (or is so no longer). Even so, the contents of this paragraph are analogous to those of a chapter beginning with Πῶς or having πῶς a little later. We are dealing with a problem and its solution (cf. ζητεῖται πῶς, a formula already used by Aristotle). We may compare *Placita* headings beginning with πῶς γίνεται (or γίνονται), as for instance at chs. 2.19 and 4.11, and quite often in Book 5. See further above, ch. 1.4 at Commentary C.

D Analysis

a Context

For the explanation of A's order in general see above, Introduction to Book 3, section 2. The chapter on the rainbow, number five of the nine chapters dedicated to atmospherical phenomena, follows upon ch. 3.4 on clouds etc. and comes before ch. 3.6 on rods. But in Aristotle's *Meteorology* the rainbow is treated quite far away from the clouds etc., namely at *Mete.* 3.4–5, after the halo *Mete.* 3.2–3. Epicurus *Ep.Pyth.* at Diogenes Laertius *V.P.* 10.110 discusses the halo after the rainbow.

b Number–Order of Lemmata

We have numbered the lemmata of this long chapter for the sake of convenience (Diels divided the text into twelve parts). According to this numbering P has nine lemmata—that is, P^B alone, because not only G, but Q, too, lacks §2. S, lacking the final three items, has six lemmata. In both sources the lemmata order is the same, and like Diels we have of course seen no reason to change it.

c Rationale–Structure of Chapter

The chapter on the rainbow consists of two main parts. The long first part (§§1–6) is a mini-treatise on the rainbow without a name-label for the doxa it contains, the second a block of three doxai with name-labels after the usual fashion of the *Placita*. Diels already pointed this out, *DG* 60: 'genuina sunt ... [3]5.10–12 [our §§7–9]. plane diversae farinae est eiusdem capitis initium [sc. our §§1–6]. neque enim placitorum est enarratio, sed ipsius doctrinae, cui Platonis Homerique nomina dumtaxat decoris causa interponuntur. ... accersita est prior de iride disputatio et ex alieno conexu divulsa, limpidus autem Placitorum fons in extremis paragraphis agnoscitur'.

As to the doxai there is a clear diaphonia between the (Aristotelian) section at §§4–5, according to which the rainbow is the result of the reflection

of the visual rays from the droplets of the cloud to the sun, and §§7–8, name-labels Anaximenes and Anaxagoras (both belonging to the Ionian succession and mentioned in chronological order), according to which it is on the contrary the light of the sun that is reflected towards our eyes via a cloud. The doxa of Metrodorus, §9, is not clear about this opposition, so fails to fit the diaeresis and therefore is aptly located in the ultimate position. This diaphonia is in favour of accepting the pseudonymous doxa as belonging with the original chapter structure (or replacing an original more compact set of doxai).

At the beginning of his chapter on the rainbow, *Mete.* 3.4 373a32–34, Aristotle states that it has been established that the rainbow is a reflection (category of substance, or rather quasi-substance), but that what sort of reflection it is (question-type of quality), and how and because of what (question-type of cause) it comes to be still has to be determined. These categorical and causal approaches to the issue are also well represented in our present chapter.

d Further Comments

General Points

An important contrast in Book 3 is between phenomena that are real (καθ' ὑπόστασιν), and those that are merely optical (κατ' ἔμφασιν), or rather optical illusions, as the comparison with the land that seems to move when we are sailing past it shows (πλεόντων ἡμῶν ἢ ἡπειρος κινεῖσθαι δοκεῖ). See also above, Introduction to Book 3, section 2. It is the only piece of general introductory material that is found in both P and S, or rather that is copied out by S, who omitted all other introductory material.

In A this contrast is made explicit only here, at the beginning of ch. 3.5. This postponement of the stipulation of this preliminary consideration (which puzzled Diels) faithfully reproduces the procedure of Aristotle's *Meteorology*, where it is made a thematic issue as late as and only in Book 3, which treats the rainbow and similar phenomena in chs. 3.2–6. In A it is already present at the beginning of chs. 3.1 and 3.2, just as in the dialectical passages in the *Meteorology* that correspond to these lemmata, as well as in other lemmata. See further M–R 2.1.43–46.

Apart from these dialectical passages there are only a few incidental remarks dealing with this contrast in *Mete.* Book 1 (not discussed in Mansfeld 2005a). See *Mete.* 1.5 342b5–15, in the discussion of the aurora borealis: the phenomena may be appearances of burning substances, but the air by reflection (ἀνάκλασις) may produce various colours too, since (as with the rainbow in Book 3) not shape but only colour is rendered. It will do so only briefly, because the composition (σύστασις, sc. of the condensed air) lasts only briefly—thus a blend of σύστασις and ἀνάκλασις, as of ὑπόστασις and ἔμφασις at ch. 3.6. At *Mete.* 1.7

344b1–18 Aristotle argues that the tail of the comet is a kind of stellar halo, though its colour is real and not, like that of the sun's halo, due to reflection (ἀνάκλασις). Against Hippocrates and Aeschylus he then argues that the comet cannot be a reflection (ἀνάκλασις), and certainly not one towards the sun (ἀνάκλασις), cf. Strohm (1984) 146. But 'the cause of the halo will be treated later'. For the phenomena of reflection (reflection, echo, rainbow) as a separate set see *APo.* 2.15 98a24–29, cited below section E(b) General texts.

Wilson (2013) 236–238, admitting that in view of the description of the meteorological phenomena, proceeding from the sphere below the heavenly bodies to what is underneath the surface of the earth, the reflections could very well have been discussed somewhere before, argues that Aristotle postpones their treatment to Book 3 'almost certainly ... for architectonic and etiological reasons'. He compares the position of special and valuable themes reserved for the final books of *Physics* (First Mover) and *Nicomachean Ethics* (contemplative life). In the *Meteorologica* this role would have been given to the mathematical explanations of the reflections. Though this interesting motif may have played a part, we believe that the distinction between phenomena that are real, or have some sort of real subsistence however temporary this turns out to be, and those that are a matter of optical illusion, is more important. This aspect has been argued in a paper overlooked by Wilson, namely Mansfeld (2005a), repr. in M–R 3.476–514. Wilson argues that the method of dichotomous division is not applied in the *Meteorologica*, but this does not entail that we cannot have polar oppositions, or one or more divisions that begin as dichotomous ones and go on in a non-dichotomous way (as instanced in quite a few *Placita* chapters). As a matter of fact, another dichotomous division, or polar opposition, is found at the beginning of the concluding passage (assuming this is authentic and not a later fabrication introducing Book 4) of *Mete.* 3.6 378a12–16, where the effects of the exhalations above the earth's surface (namely both the real and the optical phenomena treated so far) are contrasted with those enclosed in the earth, the latter very briefly mentioned in what follows. John Philoponus in *Mete.* 1.24–2.7 is very clear about this bipartite deep structure of the *Meteorology*. Providing a list of meteorological phenomena from rains to thunderbolts, he tells us that these 'have existence and are really what they appear to be' (ὑπαρξιν ἔχει καὶ ἔστιν ἀληθῶς οἷα περ φαίνεται), while others have 'only appearance and (generate) optical illusion, as they are not as to existence what they appear to be (μόνην ἔμφασιν ἔχει καὶ ὄψεων ἀπάτην οὐκ ὄντα καθ' ὑπαρξιν οἷα φαίνεται), such as rainbow and halo and rods and mock suns and the like'.

The didactic nature and structure of the mini-treatise on the rainbow of ch. 3.5.1–6 are clearly brought out by the formulas at the end of §1 and the beginning of §3, §4 and §6. At §1[4] ἔστιν οὖν κατ' ἔμφασιν ἢ ἱρις, the scientific

treatment of subject is announced. At §3[10] πῶς οὖν γίνεται ἱρις; the problem is formulated, while §4[18] ἔστιν οὖν τὸ τῆς ἱριδος πάθος τοιοῦτον its solution is introduced. At §6[31] ff. ἔστιν οὖν τοῦτο δοκιμάσαι δι' ἔργων, this solution is verified by a homely experiment that was already known to Aristotle (and presumably to most of us). The link between the formulas πῶς οὖν, introducing a problem, and ἔστιν οὖν, introducing a solution, can be paralleled from technical literature: see e.g. Herodian Περὶ παθῶν, *Gr.Gr.* 3.2, p. 329.13–17 Lenz, πῶς οὖν κτλ.—ἔστιν οὖν εἰπεῖν, ὅτι κτλ., and *Scholia vetera in Iliadem* E 576, Vol. 2 p. 81 Erbse, πῶς οὖν τῷ υἱῷ ἔπεται κτλ.—ἔστιν οὖν ὁμωνυμία κτλ. The question πῶς οὖν γίνεται ἱρις; is also answered by ἱρὶν γίνεσθαι spelled out in §7 and implied in §§8–9.

Individual Points

§2 'Regarding the rainbow, all that the doxographers could find in Plato was that Iris is the daughter of Thaumas (would Plato not have been amused to see the mild joke of the *Theaetetus* solemnly booked among his 'physical opinions?'). Thus Solmsen (1960) 416. True enough, but one should also take into account the quotation of Homer and the anonymous mythographer adverted to at section B above.

§3 Straight, bent, and reflected lines (γραμμὰς εὐθείας, καμπύλας, and ἀνακλωμένας) correspond to the tripartition of optics into respectively general optics (direct vision), dioptrics (refraction, as of the stick seemingly broken in water), and catoptrics (reflection, i.e. vision via mirrors as explained in §4 of the present chapter). The lines are theoretical and incorporeal, which means that they are the mathematical lines of theoretical optics. The assumption is that the visual rays can be imagined to move along such lines. So the present terse summary gives an outline of contemporary theoretical optics. As to optics and catoptrics it is rather precisely paralleled several centuries later in Calcidius' account and explanation, at *in Tim.* c. 238 and c. 242, of what (he says) the geometers and Peripatetics respectively call *phasis* (direct vision—the Greek term is unparalleled in this sense, but Ptolemy used φάσις for the apparition of a heavenly body), *emphasis* (reflection) and *paraphasis* (not refraction but vision via a dark or muddled medium—the Greek term is unparalleled in this sense). Damianus (cited by Waszink on Calcidius ad loc.) uses the equally rare terms ἰθυφάνεια ('direct vision'), ἀντιφάνεια ('reflection'—but he also uses the standard term ἀνάκλασις), and διάκλασις/διαφάνεια ('refraction'). Geminus' account of mathematics cited by Proclus *in Eucl.* 40.8–22 describes optics, catoptrics and 'scenography' as related disciplines. Ptolemy's and the great Arabic scientist ibn al-Haytham's (Alhacen's) *Optics* deal with, successively, optics (direct vision), catoptrics (reflection), and dioptrics (refracted vision). Ptolemy's

Optics is too late for A (note that §§3–4 are found in both P and S), so for the *Placita* a predecessor of Ptolemy would be relevant, e.g. Euclid, the author of both an Ὀπτικά and a Κατοπτρικά. Heron may also be involved, presumably indirectly; he is the author of a Περί διόπτρας and cited as that of a Κατοπτρικά (at Damian. *Opt.* 14.5–6, but identification of ps.Ptolemy *De speculis* as a Latin translation of this work is no longer accepted by Jones 2001, 149–151). We can also think of Geminus on mathematics as cited by Proclus (see above). One cannot, however, exclude that Ptolemy's *Optics* has in some way left its mark on Calcidius' presentation. (Ps.Ptolemy's *De speculis* did leave its mark, for Calcidius' account of *paraphasis* is paralleled at *Spec.* [5].8–12 Jones, as Waszink points out ad loc.). We have not found (but may have missed) a discussion of the Aëtian and Calcidian evidence in the learned literature concerned with the history of (ancient) optics, which is why we deal with this issue here at some length.

§§4–6 Aristotle's use of the (mathematical) visual ray in *Meteorology* Book 3 contradicts his theory of visual perception in the *De anima* and *De sensu*, esp. ch. 2, where the visual ray is strongly criticized, as was already seen by the ancient commentators, e.g. Alexander in *Mete.* 141.3–142.20. See also *Top.* 1.14 105b6–11 (cited below, section E(b) General texts), where on the other hand the view that visual perception is a matter of intromission is cited as being close to an *endoxon* or reputable opinion. Intromission is also rejected at *de An.* 2.10 422a14–15 and *Sens.* 3. 440a15–17. That 'seeing' means 'emitting rays' is also presupposed in Aristotle's mathematical account at *Mete.* 1.8 345a25–31 of the explanation of the Milky Way by Anaxagoras (59A80 DK) and Democritus (68A91 DK): 'they say that the Milky Way is the light of certain stars, for the sun, when moving underneath the earth, does not see some of the stars' (φῶς εἶναι τὸ γάλα λέγουσιν ἀστρων τινῶν· τὸν γὰρ ἥλιον ὑπὸ τὴν γῆν φερόμενον οὐχ ὁρᾶν ἔνια τῶν ἀστρων κτλ.). This use of ὁρᾶν and περιορᾶται, unique for the genuine Aristotle—Bonitz 520b17–20 cites parallels from two chapters in the *Problemata* for 'ὁ ἥλιος ὁρᾶν dicitur eos locos quos collustrat'—echoes the idiom found in poetry, e.g. *Od.* 11.16 Ἥελιος φάεθων καταδέρεται ἀκτίνεσσιν; see further at ch. 4.13 below, Commentary D(c) ad init. Perhaps Aristotle quotes something actually said by Anaxagoras or even Democritus. For this issue in general cf. again ch. 4.13 below, Commentary D(c).

This inconsistency is sharply criticized by Galen, *PHP* 7.7.10–15. Alexander sticks to the rival doctrine of the *De anima*, see in *Mete.* 141.3–12 (Greek text quoted at section E(b) §§4–6): 'he does not agree with the doxa that tells us that we see by means of the effusion of rays, as the followers of the mathematicians say, an implication of which doxa is the doxa that tells us that we see all that is seen through an appearance in mirrors by a reflection of these very rays.

... That this is impossible has been demonstrated in (our) *On How we See*, and Aristotle himself refers to these matters in his *On the Soul*. But in the *De anima* Aristotle mentions visual reflection only once. He does so in the context of his preference for the stimulation of sight by the unified intermediate air (affected by the shape or colour of an object via a smooth surface), over against the idea that sight proceeds from the eye; see *de An.* 3.12 435a5–8. ‘Although this passage speaks of reflection, it is not an explanation of reflection but rather of all vision through a medium’ (Jones 1994, 58 n. 18). The noun ἀνάκλασις as well as the verb ἀνακλᾶσθαι do occur here, and ἀνάκλασις is also mentioned in the account of sound, *de An.* 2.8 419b15–18. The word also occurs three times in Aristotle *De sensu*, namely 2 437b10, 438a8–10, but not as an ingredient of a worked-out theory. Merker (2002) 195 points out that in the *Meteorology* Aristotle does not provide a theory of visual perception, but ‘utilise la vision pour expliquer un phénomène météorologique’. We may add that Aristotle elsewhere (*GA* 5.1 781a3–8, cited below, ch. 4.13 section E(b) General texts) says that it *does not matter* (!) whether one explains vision by means of extramission or intromission. Galen *PHP* 7.7.11–12 (cited below section E(b) General texts), referring to what must be this passage, is scandalized by this cavalier attitude. On the other hand, the *Vita Marciana* 38–39 attributes to Aristotle the addition to physics of the extramission theory, and of the visual cone. See also below at ch. 4.13 Commentary D(d) individual points, §9.

The passage at *APo* 2.13 79a10–14, cited below section E(b) General texts, may perhaps be interpreted in the sense that the rainbow is to be explained optically in general terms on the one hand, namely as an optical and not a substantial phenomenon, and in strictly mathematical terms (κατὰ τὸ μάθημα, which implies the use of the visual ray in a diagram) on the other.

Mansfeld (2005a) 24–25, points out that the contradiction between the *Meteorology* and the psychological treatises noticed by the Aristotelian commentators is not an issue in the *Placita* and related literature. He also argues, *ibid.* 50, that the name-label Aristotle is absent in the present chapter because the author of the *Placita* may (exceptionally) have believed this explanation of the rainbow to be correct. But the reason may also be that there is no good reason. The (Aristotelian) doxa is after all in a state of diaphonia with two of the Presocratic doctrines cited ad fin., so can hardly be assumed to be correct.

There is also the further question of the real or possible interpolations in Aristotle’s mathematical proofs concerned with the rainbow at *Mete.* 3.5, see Vitrac (2002) and Wilson (2013) 251–270, with references to earlier discussions (among which the pioneering article by Tannery 1886), but this is not relevant in our context. For the problems (which we do not have to solve here)

concerned with the references in various *pragmateiai* to optical rays and the transparent medium see further e.g. Hahm (1978) 63 and Jones (1994) 56–64. Aristotle's standard view of the transparent intermediate medium is cited in A's chapter 'On vision' at 4.13.9, but there is no reference to his views in ch. 4.14, 'On mirror images'.

§4 Catoptrics is perhaps mentioned not second but last because seeing a rainbow is explained *more aristotelico* by referring to the reflection of the visual rays. But note that the same order is found at ps.Ptolemy *Spec.* [2].1–5 Jones, cited section E(b)§3.

For 'scenography' see below, ch. 4.13 at Commentary B.

§5 The query πῶς οὖν γίνεται ἶρις is not followed by a formal ἢ δ' ἶρις οὕτως ἀποτελεῖται (for such a formula cf. 3.5a(olim 18).1) but immediately by the solution.

Daiber (1980) 423–424 points out that the Aristotelian order of the colours of the rainbow (1. φοινικοῦν 2. πράσινον 3. ἀλουργές 4. πορφυροῦν) has been modified to 1. φοινικοῦν 2. ἀλουργές and πορφυροῦν 3. κυάνεον καὶ πράσινον. He also adverts to the fact that they fade as the clouds become moister, which is not paralleled in Aristotle.

§8 It is an interesting coincidence, and perhaps more than a coincidence, that the line of the *Iliad* (17.547), a scholion on which preserves the Anaxagoras fragment cited on this paragraph in section E(b) below, is also cited at the beginning of the present chapter in §2.

Also note that an explanation of mock suns is included, the only reference to this phenomenon in the present chapter. In Aristotle's *Meteorology* παρήλιοι are treated in Book 3, along with rainbows and halos, etc. See e.g. the announcement at 3.2 371b18–19.

e Other Evidence

A late *Epitome* of Aristotle's *Meteorology*, comparable to the source postulated by Diels for the Aristotelian section of our chapter, has since come to light and been translated from the Arabic (itself a translation of a lost Greek original) by Daiber (1975). The longer version of this work has been made accessible in its Arabic translation by ibn al-Bitriq and the Latin translation of this text by Gerardus of Cremona by Schoonheim (2000), but there is as yet no translation into a modern language. Much information on these works through comparison with Aristotle himself and the commentators is provided by Lettinck (1999). Seneca may well have availed himself of a similar *Epitome*.

E Further Related Texts

a Proximate Tradition

General texts: **Propertius** 3.5.25–32 *tum mihi naturae libeat perdiscere mores / ... / purpureus pluvias cur bibit arcus aquas.* **Seneca** *Nat.* 1.15.6–7 *de his* (sc. comets, lightning etc.) *nemo dubitat quin habeant flammam quam ostendunt: certa illis substantia est. ... (7) nobis non placet in arcu aut corona subesse aliquid corporis certi, sed illam iudicamus speculi esse fallaciam alienum corpus nihil amplius quam mentientis.* **Pliny** *Nat.* 2.150 *arcus vocamus extra miraculum frequentes et extra ostentum. ... manifestum est radium solis inmissum cavae nubi repulsa acie in solem refringi, colorumque varietatem mixtura nubium, ignium, aëris fieri. certe nisi sole adverso non fiunt nec umquam nisi dimidia circuli forma nec noctu, quamvis Aristoteles prodat aliquando visum, quod tamen fatetur idem non nisi xxx luna posse fieri.* **Arius Didymus** fr. 14 *Diels* at *Stob. Ecl.* 1.30, p. 240.13–17 Ἀριστοτέλους. ἄλλω δὲ καὶ ἵριδας καὶ παρήλιον καὶ ῥάβδους καὶ τᾶλλα τὰ κατὰ τὰς ἐμφάσεις ὑπὸ μὲν τῆς αὐτῆς αἰτίας γίνεσθαι (πάντα γὰρ εἶναι ταῦτα τῆς ὀψεως ἀνάκλασιν), διαφέρειν δὲ τοῖς τόποις καὶ ἀφ' ὧν καὶ ὥς ἔχει συμβαίνειν τὴν ἀνάκλασιν. **ps.Aristotle** *Mu.* 4 395a28–35 (**Posidonius** fr. 339 *Theiler*) συλλήβδην δὲ τῶν ἐν ἀέρι φαντασμάτων τὰ μὲν ἐστὶ κατ' ἔμφασιν, τὰ δὲ καθ' ὑπόστασιν—κατ' ἔμφασιν μὲν ἵριδες καὶ ῥάβδοι καὶ τὰ τοιαῦτα, καθ' ὑπόστασιν δὲ σέλα τε καὶ διὰττοντες καὶ κομήται καὶ τὰ τοῦτοις παραπλήσια. **Ammianus Marcellinus** 20.11.26 *accedebant arcus caelestes conspectus assidui. quae species unde ita figurari est solita, expositio brevis ostendet. halitus terrae calidiores et umoris spiramina conglobata in nubes exindeque disiecta in aspergines parvas ac radiorum fusione splendida facta supinantur volubiliter contra ipsum igneum orbem irimque conformant, ideo spatioso curuamine sinuosam, quod in nostro panditur mundo, quem sphaerae dimidiae parti rationes physicae superponunt.* 20.11.30 *suppetunt aliae multae opiniones et variae* (sc. de iride), *quas dinumerare nunc est superuacuum narratione redire, unde digressa est, festinante.*

Chapter heading: *Capitula Lucretiana* at *DRN* 6.526 *de arquo.* **Pliny** *Nat.* 1 p. 12.53 *arcus caelistis.* **Isidore of Seville** *de Nat. capitul.* 31 *De arcu* (heading also in the body of the work). *Etym.* 13.8 *De arcu et nubium effectibus* (heading also in the body of the work, 13.10) **Diogenes Laertius** *V.P.* 7.132–133 τὸν δὲ φυσικὸν λόγον διαίρουσιν (sc. the Stoics) ... ζητοῦσι ... ὅπως νέφη συνίσταται, βρονταὶ καὶ ἵριδες καὶ ἄλλως καὶ κομήται καὶ τὰ παραπλήσια, excerpted at *Suda* s.v. Φ 862, pp. 4.775.28–29 + 4.776.3 **Adler** φυσικὸς λόγος παρὰ φιλοσόφοις ... περὶ νεφῶν, βροντῶν, ἱρίδος. **Psellus** *Philos.Min.* 1 op. 23 Περὶ ἄλλω καὶ ἱρίδος ῥάβδων τε καὶ παρηλίων.

§1 definition: **Cicero** *Luc.* 81 *vides ne navem illam: stare nobis videtur; at iis qui in nave sunt moveri haec villa.* *Div.* 2.120 *nam et navigantibus moveri videntur ea, quae stant.* *Div.* 2.130 *navigantibus moveri videntur ea, quae stant.* **Lucretius** *DRN* 4.387–390 *qua vehimur navi, fertur, cum stare videtur; / quae manet in statione, ea praeter creditur ire. / et fugere ad puppim colles campique videntur / quos agimus praeter navem velisque volamus.* **Seneca** *Nat.* 1.6.4 *non*

est ergo propria in ista nube substantia, nec corpus est, sed mendacium et sine re similitudo. **Sextus Empiricus** *M.* 7.414 τὸ γὰρ αὐτὸ ... ὑποπίπτει ... ἐπὶ κινήσεως κινούμενον καὶ ἡρεμοῦν, ὡς ἐπὶ τῶν ἐν νηὶ καθεζομένων ἢ ἐπὶ τῶν ἐν αἰγιαλοῖς ἐστῶτων. **Servius auctus** in *Aen.* 3.72, pp. 374–375 Thilo *‘terraeque urbesque recedunt’*: *physicam rem dixit: ita enim navigantibus videtur, quasi ab his terra discedat.*

§3 modes of vision: **Lucretius** *DRN* 4.438–442 *nam quaecumque supra rorem salis edita pars est / remorum, recta est, et recta superne gubernata; / quae demersa liquore obeunt, refracta videntur / omnia converti sursumque supina reverti / et reflexa prope in summo fluitare liquore.* **Cicero** *Luc.* 19 and 79. **Vitruvius** 6.2.2 *in navibus remi, cum sint sub aqua directi, tamen oculis infracti videntur; et quatenus eorum partes tangunt summam planitiem liquoris, apparent, uti sunt, directi, cum vero sub aqua sunt demissi, per naturae perlucidam raritatem remittunt enatantes ab suis corporibus fluentes imagines ad summam aquae planitiem, atque eae ibi commotae efficere videntur infractum remorum oculis aspectum.* **Seneca** *Nat.* 1.3.9 *remus tenui aqua tegitur, et fracti speciem reddit.* *Nat.* 1.4.1 (Posidonius fr. 323 Theiler) *rationes quae non persuadent sed cogunt a geometris adferuntur.* *Nat.* 1.4.3 *Parianus Artemidorus adicit etiam quale genus nubis esse debeat quod talem soli imaginem reddat: ‘si speculum’ inquit ‘concavum feceris quod sit sectae pilae pars, si extra medium constiteris, quicumque iuxta te steterint inversi tibi videbuntur et propiores a te quam a speculo’.* **Calcidius** in *Tim.* cc. 239 + 242 *idem (sc. geometrae cum Peripateticis concinentes) aiunt videre nos vel tuitione, quam phasin (sc. φάσιν) vocant, vel intuitione, quam emphasin (sc. ἔμφασιν) appellant, vel detuitione, quam paraphasin (sc. παραφάσιν) nominant. tuitione quidem, ut quae simpliciter et prompte videntur quaeque clementer visum recipientia minime eum a se repellunt, ut flexus quin immo fractus rursus ad oculos redeat. intuitione vero, ut quae fragmento radii recurrente ad oculorum aciem videntur, qualia sunt quae in speculis et aqua considerantur, ceteris item, quorum tersa est quidem superficies, sed ob nimiam densitatem idoneus vigor ad repellendum quod offenderit. ... (242) quae autem paraphasis ab his appellatur, provenit quotiens non in cute speculi, sed introrsum et tamquam in penetralibus simulacrum invenitur obumbrante aliqua nigredine, ut in pellucidi quidem sed fuscis vitri lamina vel stagnis atris ex alto profundo; tunc quippe visus ingreditur non adeo densam cutem et videt interiora, sed non adeo clare.* **Seneca** *Nat.* 1.3.8–9 *longe autem magis visum nobis nostrum remittit aqua, quia crassior est et pervinci non potest; radios luminum nostrorum moratur et eo unde exierunt reflectit. ... (9) remus tenui aqua tegitur, et fracti speciem reddit.* **Tertullian** *de An.* c. 17.2 *mendacium visui obicitur, quod remos in aqua inflexos vel infractos adseverat adversus conscientiam integritatis. + c. 17.6 ut in aqua remus inflexus vel infractus appareat, aqua in causa est; denique extra aquam integer visui remus. teneritas autem substantiae illius, qua speculum ex lumine efficitur, prout icta seu mota est, ita et imaginem vibrans evertit lineam recti.* **Sextus Empiricus** *M.* 7.414 τὸ γὰρ αὐτὸ ... ὑποπίπτει ... εὐθύ τε καὶ κεκλασμένον ὡς ἐπὶ τῆς ἐξάλου τε καὶ ἐνάλου κώπης.

§4 **Aristotle: Seneca Nat.** 1.3.11 *illud dubium esse nulli potest, quin arcus imago solis sit roscida et cava nube concepta. quod ex hoc tibi appareat: numquam non adversa soli est.* **ps.Aristotle Mu.** 4 395a32–35 (Posidonius fr. 339 Theiler) ἴρις μὲν οὖν ἐστὶν ἔμφασις ἡλίου τμήματος ἢ σελήνης, ἐν νέφει νοτερῶ καὶ κοίλῳ καὶ συνεχεῖ πρὸς φαντασίαν, ὡς ἐν κατόπτρῳ, θεωρουμένη κατὰ κύκλου περιφέρειαν. **Arius Didymus** fr. 14 Diels at Stob. *Ecl.* 1.30.2, p. 241.6–9 (on Aristotle) ἴριν δὲ περὶ μόνον ἥλιον καὶ σελήνην συνίστασθαι, γίνεσθαι δὲ καὶ νύκτωρ, ὀλιγάκις δὲ καὶ πάνυ διὰ πολλοῦ. κύκλον δὲ μηδέποτε φαίνεσθαι τῆς ἴριδος μηδὲ μείζον ἡμικύκλιου τμήμα. ... p. 241.22–24 (cf. Posidonius F 15 E.-K., 335 Theiler) τὸ δ' ὅλον εἶναι τὴν ἴριν ἔμφασιν ἡλίου τμήματος ἢ σελήνης ἐν νέφει κοίλῳ καὶ δεδρυσισμένῳ κατὰ κύκλου περιφέρειαν ὁρωμένην.

§5 **Aristotle: Seneca Nat.** 1.3.4 *videmus in eo aliquid flammei aliquid lutei aliquid caerulei et alia in picturae modum subtilibus lineis ducta.* **Arius Didymus** fr. 14 Diels at Stob. *Ecl.* 1.30.2, p. 241.9–22 ποικίλῃν δ' ἔχειν τὴν ἔμφασιν διὰ τὸ κατὰ τὴν τῆς ὀψews ἀνάκλασιν φοινικοῦν καὶ πράσινον καὶ ἄλουργόν προσπίπτειν ἀπ' αὐτῆς χρώμα. φοινικοῦν μὲν, ὅτι τὸ λαμπρόν ἐν μέλανι καὶ διὰ μέλανος ὁρώμενον τοιαύτην ἀποτελεῖ χροάν. τοῖς γοῦν θεωμένοις τὸν ἥλιον δι' ὀμίχλης ἢ διὰ καπνοῦ δοκεῖν ἐρυθρόν εἶναι· ἢ τὴν ἀπὸ τῶν φλόγα πεφοινιγμένην διὰ τὸ πολὺν αὐτῇ καταμεμίχθαι καπνόν. κατὰ τοῦτο δὴ καὶ τὴν ἐξωτάτῳ καὶ μείζονα περιφέρειαν τῆς ἴριδος ἐμφαίνειν τὸ φοινικοῦν· διὰ γὰρ μέλανος τοῦ νέφους ἀνακλωμένην τὴν ὄψιν πρὸς λαμπρότατον ὄντα τὸν ἥλιον ἀντιλαμβάνεσθαι τοιοῦδε χρώματος. τὴν δὲ δευτέραν καὶ τρίτην περιφέρειαν διὰ τὴν τῆς ὀψews ἀσθένειαν τό τε πράσινον καὶ τὸ ἄλουργές ἐμφαίνειν. **Ammianus Marcellinus** 20.11.27 *cuius species, quantum mortalis oculus contuetur, prima lutea visitur, secunda flavescens vel fulva, punicea tertia, quarta purpurea, postrema caeruleo concreta et viridi.*

§§6–7 **Aristotle–Anaximenes: Seneca Nat.** 1.3.7–8 *Aristoteles idem iudicat. ... (8) longe autem magis visum nobis nostrum remittit aqua, quia crassior est et pervinci non potest; radios luminum nostrorum moratur et eo unde exierunt reflectit. ergo cum multa in pluvia stillicidia sint, totidem specula sunt; sed quia parva sunt, solis colorem sine figura expriment. deinde cum in stillicidiis innumerabilibus et sine intervallo cadentibus reddatur idem color, incipit facies esse non multarum imaginum et intermissarum sed unius longae atque continuatae.*

§6 **Aristotle: Seneca Nat.** 1.3.2 *altera causa arcus eiusmodi redditur: videmus, cum fistula aliquo loco rupta est, aquam per tenue foramen elidi, quae sparsa contra solem oblique positum faciem arcus repraesentat. idem videbis accidere si quando volueris observare fullonem: cum os aqua implevit et vestimenta tendiculis diducta leviter aspergit, apparet varios edi colores in illo aëre asperso, quales fulgere in arcu solent.*

§7 **Anaximenes: Hippolytus Ref.** 1.7.8 (on Anaximenes, 13A7 DK) ἴριν δὲ γεννάσθαι τῶν ἡλιακῶν αὐγῶν εἰς ἀέρα συνεστῶτα πιπτουσῶν. **Ammianus Marcellinus** 20.11.29 *arbitrantur alii tunc iridis formam rebus apparere mundanis, cum altius delatae nubi crassae radii solis infusi lucem iniecerint liquidam, quae non repperiens exitum in se conglobata nimio splendet attritu et proximos*

quidem albo colores a sole sublimiore decerpit, subvirides vero a nubis similitudine superiectae, ut in mari solet usu venire, ubi candidae sunt undae, quae litoribus illiduntur, interiores sine ulla concretionem caeruleae.

§8 *Anaxagoras*: Seneca Nat. 1.11.2 Graeci παρήλια appellant, quia in propinquo fere a sole visuntur aut quia accedunt ad aliquam similitudinem solis. Arius Didymus fr. 14 Diels at Stob. Ecl. 1.30.2, p. 242.4–5 (on Aristotle) παραπλήσιον γὰρ ἡλίῳ κατὰ τε τὴν χροάν καὶ τὸ σχῆμα φαίνεσθαι τὸν παρήλιον. Cleomedes Mete. 2.6.169–177 Todd πολλῶν δὲ καὶ παντοδαπῶν περὶ τὸν ἀέρα παθῶν συνίστασθαι πεφυκότων οὐκ ἂν εἴη ἀδύνατον, ἥδη καταδεδυκότος τοῦ ἡλίου καὶ ὑπὸ τὸν ὀρίζοντα ὄντος φαντασίαν ἡμῖν προσπεσεῖν ὡς μηδέπω καταδεδυκότος αὐτοῦ, ἢ νέφους παχυτέρου πρὸς τῇ δῦσει ὄντος καὶ λαμπρυνομένου ὑπὸ τῶν ἡλιακῶν ἀκτίνων καὶ ἡλίου ἡμῖν φαντασίαν ἀποπέμποντος ἢ ἀνθῆλίου γενομένου. καὶ γὰρ τοιαῦτα πολλὰ φαντάζεται ἐν τῷ ἀέρι, καὶ μάλιστα περὶ τὸν Πόντον. δύναιτο δ' ἂν καὶ ἡ ἀπὸ τῶν ὁμμάτων ἀπερχομένη ἀκτὶς ἐνίκμῳ καὶ νοτερῷ τῷ ἀέρι ἐντυγχάνουσα κατακαλᾶσθαι καὶ ἐντυγχάνειν τῷ ἡλίῳ ἥδη ὑπὸ τοῦ ὀρίζοντος κεκρυμμένη.

b Sources and Other Parallel Texts

General texts: Aristotle *APo.* 1.13 79a10–14 ἔχει δὲ καὶ πρὸς τὴν ὀπτικήν, ὡς αὕτη πρὸς τὴν γεωμετρίαν, ἄλλη πρὸς ταύτην, οἷον τὸ περὶ τῆς ἱριδος· τὸ μὲν γὰρ ὅτι φυσικοῦ εἶδέναι, τὸ δὲ διότι ὀπτικοῦ, ἢ ἀπλῶς ἢ {τοῦ om. Aldina alii, prob. Brunschwig (1983)} κατὰ τὸ μάθημα. *APo.* 2.15 98a24–29 τὰ δ' αὐτὰ προβλήματά ἐστι τὰ μὲν τῷ τὸ αὐτὸ μέσον ἔχειν, οἷον ὅτι πάντα ἀντιπερίστασις. τούτων δ' ἓναι τῷ γένει ταῦτά, ὅσα ἔχει διαφορὰς τῷ ἄλλων ἢ ἄλλως εἶναι, οἷον διὰ τί ἡχεῖ, ἢ διὰ τί ἐμφαίνεται, καὶ διὰ τί ἱρις· ἅπαντα γὰρ ταῦτα τὸ αὐτὸ πρόβλημά ἐστι γένει (πάντα γὰρ ἀνάκλασις), ἀλλ' εἶδει ἕτερα. *Top.* 1.14 105b6–11 (doxai close to endoxa) ὅτι ὁρώμεν εἰσδεχόμενοι τι, οὐκ ἐκπέμποντες· καὶ γὰρ ἐπὶ τῶν ἄλλων αἰσθήσεων οὕτως· ἀκούομεν τε γὰρ εἰσδεχόμενοι τι, οὐκ ἐκπέμποντες, καὶ γενομένη ὡσαύτως· ὁμοίως δὲ καὶ ἐπὶ τῶν ἄλλων. ἔτι ὅσα ἐπὶ πάντων ἢ τῶν πλείστων φαίνεται, ληπτέον ὡς ἀρχὴν καὶ δοκοῦσαν θέσιν. *Mete.* 3.4 372b32–34 ἢ δ' ἱρις ὅτι μὲν ἐστὶν ἀνάκλασις, εἴρηται πρότερον· ποία δὲ τις ἀνάκλασις, καὶ πῶς καὶ διὰ τίν' αἰτίαν ἕκαστα γίνονται τῶν συμβαινόντων περὶ ταύτην, λέγωμεν νῦν. *Epicurus Ep. Pyth.* at D.L. 10.109 ἱρις γίνεται κατὰ πρόσλαμψιν {ὑπὸ} τοῦ ἡλίου πρὸς ἀέρα ὑδατοειδῆ· ἢ κατὰ πρόσφυσιν ἰδίαν τοῦ τε φωτὸς καὶ τοῦ ἀέρος, ἢ τὰ τῶν χρωμάτων τούτων ἰδιώματα ποιήσει εἴτε πάντα εἴτε μονοειδῶς· ἀφ' οὗ πάλιν ἀπολάμποντος τὰ ὁμοιοῦντα τοῦ ἀέρος χρώσιν ταύτην λήψεται, οἷαν θεωροῦμεν, κατὰ πρόσλαμψιν πρὸς τὰ μέρη. *Lucretius DRN* 6.524–526 *hic ubi sol radiis tempestatem inter opacam / adversa fulsit nimborum asparagine contra, / tum color in nigris existit nubibus arqui.* *Alexander of Aphrodisias in Sens.* 25.11–13 ἢ γὰρ ἔμφασιν πάθος τί ἐστὶ κατὰ ἀνάκλασιν γινόμενον ἐν τοῖς λείοις τε καὶ σύστασιν τινα ἔχουσιν, ὡς δύνασθαι σφῆξιν τὸ ἐμφαινόμενον διὰ τοῦ μεταξὺ διαφανοῦς γινόμενον. *Galen PHP* 7.7.11–12 καὶ γὰρ ὅπως ἢ ἱρις γίνεταί καὶ ὅπως ἄλλως ἦτοι περὶ τὸν ἥλιον ἢ τὴν σελήνην οἷ τ' ἀνθῆλιοι καὶ οἱ παρήλιοι καλούμενοι τὰ τε διὰ τῶν κατόπτρων ὁρώμενα διερχόμενος (sc. ὁ Ἀριστοτέλης), εἰς ἀνάκλασιν ὁψεως ἀναφέρει πάντα, μηδὲν διαφέρειν λέγων (*Mete.* 3.4 374b22–23, *GA* 5.1 781a2–7) ἢ τὴν ὁψιν ἀνακλᾶσθαι νομίζειν ἢ τὰς ἀπὸ τῶν ὁρωμέ-

νων ἀλλοιώσεις τοῦ περιέχοντος ἡμᾶς ἀέρος, οὕτως οὖν καὶ ὁ Ἀριστοτέλης ἐπειδὴ σαφῶς ἠπίστατο τῶν κατὰ μέρος ἀπιθάνους ἐρεῖν τὰς ὀπτικάς αἰτίας εἰ φυλάττοι τὴν ἑαυτοῦ δόξαν, ἐπὶ τὴν ἀλλοτρίαν ἀφίκετο μὴδὲν διαφέρειν λέγων ὁποτέρως ἂν ἐρμηνεύῃ. **Themistius** *Or.* 26, p. 2.145.17–19 μὴδὲ ὑπὲρ τῆς ἱριδος ἡμᾶς διδάσκειν πότερον ἰνδαλμά ἐστι καὶ δόκησις τῶν ὁμμάτων, ἢ τὰ χρώματα αὐτῆς ἀληθινὰ καὶ ἡ ποικιλία. **Olympiodorus** *in Mete.* 209.20–26 ταῦτα τὰ τέσσαρα ἐπιχειρήματα (sc. περὶ ἱριδὸς ἄλλω παρηλίω ῥάβδων) ἔχουσιν τινα κοινωνίαν πρὸς ἄλληλα, οὐ μόνον ὅτι ἐκ τῆς ἀτμιδῶδους ἀναθυμιάσεως ὑπάρχουσιν, ὡς ἂν τις ὑπολάβοι, (ἀλλὰ καὶ) ὅτι κοινῶς κατ' ἐμφασιν γίνονται καὶ οὐ καθ' ὑπόστασιν, εἰ καὶ τὰ μάλιστα τῷ Ἀλεξάνδρῳ δοκεῖ τινὰ μὲν αὐτῶν καθ' ὑπόστασιν γίνεσθαι, τινὰ δὲ κατὰ ἐμφασιν [*'male intellexit noster Aphrodisiensem'* Stüve]. πρὸς δὲ τούτοις ἔχουσι καὶ ἄλλο κοινόν, ὅτι ἕκαστον αὐτῶν κατὰ ἀνάγκασιν γίνεται, οὐ κατὰ διάκλασιν. **Elias** *in Isag.* 40.17–41.1 θαυμάζομεν τὸ βιβλίον (sc. *Isagoge*) διὰ τὸ χρησίμον αὐτοῦ, καθὰ φησι καὶ Ἀριστοτέλης ὅτι 'θαυμάσαντες τὸ ὅτι ἐπὶ τὴν ζήτησιν τοῦ διότι ἐρχόμεθα' (cf. *APo.* 2.1.89b29), τοῦτ' ἐστὶ τὸ φιλοσοφεῖν. καὶ παρὰ τοῖς ποιηταῖς (sc. *Hes. Th.* 265–266, 780) ἡ Ἴρις Θαύμαντος λέγεται θυγάτηρ ὡς φιλοσοφία τις οὕσα καὶ ἀγγελίς τῶν ὑπ' αὐτῶν λεγομένων θεῶν, παρὰ τὸ ἐρεῖν ὀνομασθεῖσα Ἴρις. θαυμαστή δὲ καὶ ἡ ὁμώνυμος αὐτῇ Ἴρις ἐν ὑγρῷ καὶ ῥευστῷ ὑποκειμένῳ τῷ ἀέρι τοιοῦτον ἀποτετορνευμένον καὶ μαθηματικὸν φυλάξασα σχῆμα καὶ τὸ ἀσύγχυτον τῶν χρωμάτων. **Suda** s.v. I 598, p. 2.666.3–4 Adler Ἴρις· νέφους ὑγρότης κατ' ἐμπυτῶσιν ἡλίου πεποικιλμένου, οἷον τὸ τόξον.

Chapter heading: **Aristotle** *Mete.* 3.2 371b18–19 περὶ δὲ ἄλλω καὶ ἱριδος, τί τε ἐκάτερον καὶ διὰ τίν' αἰτίαν γίγνεται, λέγωμεν. **Alexander of Aphrodisias** *in Mete.* 146.31 μέτεσιν ἐπὶ τὸν περὶ τῆς ἱριδος λόγον. **John Philoponus** *in Mete.* 3.11 εἶτα περὶ ... ἱριδος.

§1 definition: **Aristotle** *Mete.* 3.4 373a32 ἡ δ' ἱρις ὅτι μὲν ἐστὶν ἀνάγκασις, εἴρηται πρότερον. *Insomn.* 2 459b18–20 καὶ ἀπὸ τῶν κινουμένων δὲ μεταβάλλουσιν, οἷον ἀπὸ τῶν ποταμῶν, μάλιστα δὲ ἀπὸ τῶν τάχιστα ῥεόντων, φαίνεται {γὰρ} τὰ ἡρεμοῦντα κινούμενα. *Insomn.* 2 460b26–27 λέγω δ' οἷον ἡ γῆ δοκεῖ τοῖς πλείουσι κινεῖσθαι κινουμένης τῆς ὀψεως ὑπ' ἄλλου. **Sextus Empiricus** *P.* 1.107 παρὰ δὲ τὸ κινεῖσθαι ἡ ἡρεμεία ἀνόμοια φαίνεται τὰ πράγματα, ἐπεὶ ἅπερ ἐστῶτες ὁρῶμεν ἀτρεμοῦντα, ταῦτα παραπλέοντες κινεῖσθαι δοκοῦμεν. **Alexander of Aphrodisias** *in Mete.* 152.10–13 οἱ δὲ περὶ Γέμινον καὶ Αἴλιον εἰς δεῖξιν τοῦ ἐμφασιν τὴν ἱριν εἶναι προσχρῶνται καὶ τῷ προσιόντων τε αὐτῇ δοκεῖν καὶ αὐτὴν προσιέναι καὶ ἀποχωρούντων ἀποχωρεῖν, ὥσπερ ὁράται ποιοῦντα καὶ τὰ ἐν τοῖς κατόπτοις ἐμφαινόμενα. **Augustine** *de Gen. ad litt.* 12.25, p. 417.25–31 *fallitur ergo in visione corporali, cum in ipsis corporibus fieri putat, quod fit in corporis sensibus—sicut navigantibus videntur in terra moveri quae stant et intuentibus caelum stare sidera, quae moventur, et divaricatis radiis oculorum duae lucernae species adparere et in aqua remus infractus et multa huius modi.* **John Philoponus** *in Mete.* 1.24–2.7 βούλεται γὰρ ἡμᾶς ὁ φιλόσοφος ... διδάξαι πάντα τὰ μεταξὺ γῆς τε καὶ οὐρανοῦ συμβαίνοντα πάθῃ ..., οἷον περὶ ὑετῶν, χαλάζης, χιόνος, βροντῶν, ἀστραπῶν, ἀνέμων, διαττόντων, κεραυνῶν, καὶ ὅσα τούτοις ἐστὶ συγγενή ... καὶ ὅτι τινὰ μὲν τῶν τοιούτων ὑπαρξιν ἔχει καὶ ἔστιν ἀληθῶς οἷα περ φαίνεται, ὡς τὰ προειρημένα, τὰ δὲ

μόνην ἔμφασιν ἔχει καὶ ὄψεων ἀπάτην οὐκ ὄντα καθ' ὑπαρξιν οἷα φαίνεται, ὡς ἱρις καὶ ἄλλως καὶ ῥάβδοι καὶ τὰ παρήλια καὶ εἴ τι τοιοῦτον.

§2 Plato Homer anonymi: Hesiod Th. 265–266 Θαύμας δ' Ὀκεανοῖο βαθυρρεῖταιο θυγάτρα ἡγάγετ' / Ἥλεκτρην· ἡ δ' ὠκεῖαν τέκεν Ἴριν. *Th.* 780 Θαύμαντος θυγάτηρ πόδας ὠκέα Ἴρις. **Plato Tht.** 155d μάλα γὰρ φιλοσόφου τοῦτο τὸ πάθος, τὸ θαυμάζειν· οὐ γὰρ ἄλλη ἀρχὴ φιλοσοφίας ἢ αὕτη, καὶ ἔοικεν ὁ τὴν Ἴριν Θαύμαντος ἔκγονον φήσας (sc. Hes. *Th.* 265–266, 780) οὐ κακῶς γενεαλογεῖν. **Vergil Georg.** 1. 380–381 *et bibit ingens / arcus* (cited by Seneca *Nat.* 1.6.1). **Ovid Met.** 1.271 *concipit arcus aquas*.

§3 modes of vision: Aristotle PA 2.10 656b26–31 τέτακται ... τὰ αἰσθητήρια τῇ φύσει καλῶς, ... ἡ δ' ὄψις εἰς τὸ ἔμπροσθεν (ὁρᾷ γὰρ κατ' εὐθυωρίαν, ἡ δὲ κίνησις εἰς τὸ ἔμπροσθεν, προορᾷ δὲ δεῖ ἐφ' ὃ ἡ κίνησις). *Mete.* 3.4 373a32–34 ἡ δ' ἱρις ὅτι μὲν ἐστὶν ἀνάκλασις, εἰρηται πρότερον· ποία δὲ τις ἀνάκλασις, καὶ πῶς καὶ διὰ τίν' αἰτίαν ἕκαστα γίγνεται τῶν συμβαινόντων περὶ ταύτην, λέγωμεν νῦν. **ps.Ptolemy Spec.** 2.1–4 Jones *negotium autem quod circa visus dividitur in opticam, id est visivam, et dioptricam, id est perspectivam, et katoptricum, id est inspectivum negotium. et opticum quidem opportune ab hiis qui ante nos descriptum est et maxime ab Aristotele. de dioptrico autem a nobis in aliis dictum est copiose quanta videbantur. videntes autem et katoptricum negotium esse dignum studio* etc. **Damianus Opt.** pinax p. 2.20–23 Schöne β'. ὅτι τὰ ὁρώμενα ἦτοι κατ' ἰθυφανείαν ὁράται ἢ κατὰ ἀνάκλασιν ἢ κατὰ διάκλασιν τῆς ὄψεως τῆς ἡμετέρας. *Opt.* c. 7 ὁράται δὲ τὰ ὁρώμενα ἦτοι κατ' ὀρθὰς γωνίας ἢ κατ' ὀξείας, κατὰ δὲ ἀμβλείας οὐδέποτε· συνίστανται γὰρ αἱ γωνίαι, καθ' ἃς ὁρώμεν, πρὸς αὐτῇ τῇ κορυφῇ τοῦ τῆς ὄψεως κώνου. καὶ αἱ μὲν ὀρθαὶ ἐπὶ διαμέτρων βεβήκασι τῆς βάσεως τοῦ κώνου, αἱ δὲ ὀξεῖαι ἐπὶ τινων εὐθειῶν, αἱ εἰσιν καὶ αὐταὶ ἐν τῇ βάσει τοῦ κώνου ἐλαττούμεναι τῆς διαμέτρου, ἦτοι δὲ ἀρμόζουσαι εἰς τὸν κύκλον ἢ οὐ. *Opt.* c. 12 λέγειν ἔθος τοῖς παλαιοῖς, ὅσα μὲν δι' ἄερος καὶ ἀκλάστου φερομένης τῆς ὄψεως θεωροῦμεν, ταῦτα κατ' ἰθυφανὲς πάντα θεωρεῖσθαι, ὧν δὲ τὰς ἐμφάσεις ὁρώμεν ἐν ὕδασι ἢ ὕλῃς ἐν κατόπτρῳ, ταῦτα κατὰ ἀντιφάνειαν ὁρᾶσθαι, τὰ δὲ καθ' ὕδατος ἢ διὰ διαφανῶν θεωρούμενα ταῦτα κατὰ διαφάνειαν ἅπαντα καθορᾶσθαι. **Vita Aristotelis Marciana** 37–38 Düring τῇ δὲ φυσιολογίᾳ προσέθηκε ... τὸ κατ' εἰσδοχὴν ὁρᾶν· τῇ δὲ μαθηματικῇ τὸ ὀξυγώνιον εἶναι τὸν κώνον τῶν ὄψεων διὰ τὸ ἐπὶ πλεόν προιέναι τὴν ὄψιν οὐ ὁρᾷ μεγέθους· καὶ κατὰ τοῦτο γὰρ οὐδὲν τῶν ὁρωμένων ὅλον ἅμα ὁράται, καὶ ταύτη μείζονα γίνεσθαι τὸν ἄξονα τῆς ἐκ τούτου τῆς βάσεως καὶ ὀξυγώνιον τὸν κώνον ἀποτελεῖσθαι.

§§4–6 Aristotle: Alexander of Aphrodisias in Mete. 141.3–12: οὐκ ἀρέσκεται (sc. Aristotle) μὲν τῇ δόξῃ τῇ δι' ἀκτίνων ἐκχύσεως ὁρᾶν ἡμᾶς λεγούσῃ, καθὰ φασιν οἱ ἀπὸ τῶν μαθημάτων, ἣ δόξῃ ἀκόλουθός ἐστι καὶ ἡ δι' ἀνακλάσεως τῶν αὐτῶν τούτων ἀκτίνων ὁρᾶν ἡμᾶς πάντα τὰ δι' ἐμφάσεως ὁρώμενα λέγουσα· οὔτε γὰρ ἀπὸ τῆς ὄψεως ἀκτίνας τινὰς ἐκχεομένας καὶ προσπιπτούσας τῷ ὁρατῷ τοῦ ὁρᾶν αἰτίας ἡμῖν οἶόν τε γίνεσθαι οὔτε τὰς αὐτάς ταύτας ἀνακλωμένας ἀπὸ τῶν κατόπτρων καὶ πάντων τῶν διὰ τοιούτων ὁρωμένων ἐπὶ τὸ ὁρώμενον τὴν αἰτίαν πάλιν ἡμῖν παρέχειν τοῦ ταῦτα ὁρᾶν, τῆς τῶν ἀκτίνων ἀνακλάσεως πρὸς ἴσας γινομένης γωνίας. ὅτι γὰρ ἀδύνατα ταῦτα, ἐδείχθη ἐν τοῖς Περὶ τοῦ πῶς ὁρώμεν, ὧν καὶ αὐτὸς ἐν τοῖς Περὶ ψυχῆς

(*de An.* 3.12 435a5–8) ἐμνημόνευσε. cf. Aristotle *Top.* 1.14 105b6–10 cited above
General texts.

§§4–6 Aristotle: Aristotle *de An.* 2.10 422a14–15 τὸ δὲ χρῶμα οὐχ οὕτως ὁράται τῷ μίγνυσθαι, οὐδὲ ταῖς ἀπορροαῖς. *Sens.* 3 440a15–17 τὸ μὲν οὖν, ὥσπερ οἱ ἀρχαῖοι, λέγειν ἀπόρροϊαν εἶναι τὴν χροάν καὶ ὁρᾶσθαι διὰ τοιαύτην αἰτίαν ἄτοπον.

§§4–5 Aristotle: Aristotle *Mete.* 3.2 372a29–b1 ὅτι μὲν οὖν ἡ ὄψις ἀνακλάται, ὥσπερ καὶ ἀφ' ὕδατος, οὕτω καὶ ἀπὸ ἀέρος καὶ πάντων τῶν ἐχόντων τὴν ἐπιφάνειαν λείαν, ἐκ τῶν περὶ τὴν ὄψιν δεικνυμένων δεῖ λαμβάνειν τὴν πίστιν, καὶ διότι τῶν ἐνόπτρων ἐν ἐνίοις μὲν καὶ τὰ σχήματα ἐμφαίνεται, ἐν ἐνίοις δὲ τὰ χρώματα μόνον· τοιαῦτα δ' ἐστὶν ὅσα μικρὰ τῶν ἐνόπτρων, καὶ μηδεμίαν αἰσθητὴν ἔχει διαίρεσιν.

§4 Aristotle: Aristotle *Mete.* 3.4 374a9–10 ἀπὸ ῥανίδων γὰρ μικρῶν γίνεταί ἡ ἀνάκλασις. *Mete.* 3.4 373b32–34 ὅτι μὲν οὖν ἀνάκλασις ἡ ἱρίς τῆς ὄψεως πρὸς τὸν ἥλιόν ἐστι, φανερόν· διὸ καὶ ἐξ ἐναντίας αἰεὶ γίνεταί. Proclus in *Eucl.* 40.8–22 (quoting Geminus) πάλιν ὀπτική καὶ κανονικὴ γεωμετρίας εἰσὶ καὶ ἀριθμητικῆς ἔκγονοι, ἡ μὲν ταῖς ὄψεσι γραμμαῖς χρωμένη καὶ ταῖς ἐκ τούτων συνισταμέναις γωνίαις, διαιρουμένη δὲ εἰς τε τὴν ἰδίως καλουμένην ὀπτικὴν, ἣτις τῶν ψευδῶς φαινομένων παρὰ τὰς ἀποστάσεις τῶν ὁρατῶν τὴν αἰτίαν ἀποδίδωσιν, οἷον τῆς τῶν παραλλήλων συμπτώσεως ἢ τῆς τῶν τετραγώνων ὡς κύκλων θεωρίας, καὶ εἰς τὴν κατοπτρικὴν σύμπασαν τὴν περὶ τὰς ἀνακλάσεις τὰς παντοίας πραγματευομένην καὶ τῇ εἰκαστικῇ γνῶσει συμπλεκομένην, καὶ τὴν λεγομένην σκηνογραφικὴν δεικνύσαν, πῶς ἂν τὰ φαινόμενα μὴ ἄρρυθμα ἢ ἄμορφα φαντάζοιτο ἐν ταῖς εἰκόσι παρὰ τὰς ἀποστάσεις καὶ τὰ ὕψη τῶν γεγραμμένων. Hero *Def.* c. 125.12 ὀπτικῆς μέρη λέγοιτο μὲν ἂν κατὰ τὰς διαφόρους ὕλας καὶ πλείω, τὰ δὲ γενικώτατα τρία τὸ μὲν ὁμωνύμως τῷ ὅλῳ καλούμενον ὀπτικόν, τὸ δὲ κατοπτρικόν, τὸ δὲ σκηνογραφικόν. κατοπτρικὸν δὲ λέγεται ὁλοσχερέστερον μὲν τὸ περὶ τὰς ἀνακλάσεις τὰς ἀπὸ τῶν λείων, οὐ μόνον περὶ ἐν κάτοπτρον, ἔστι δ' ὅτε καὶ περὶ πλείω στρεφόμενον, ἔτι μὴν καὶ περὶ τὰ ἐν ἀέρι δι' ὑγρῶν ἐμφαινόμενα χρώματα, ὅποιά ἐστι τὰ κατὰ τὰς ἱρίδας. Plutarch *Is.Osir.* 358F καὶ καθάπερ οἱ μαθηματικοὶ τὴν ἱρὶν ἔμφασιν εἶναι τοῦ ἡλίου λέγουσι ποικιλομένην τῇ πρὸς τὸ νέφος ἀναχωρήσει τῆς ὄψεως. Amat. 765E–F ἀνάκλασις δὴ που τὸ περὶ τὴν ἱρὶν ἐστὶ τῆς ὄψεως πάθος, ὅταν ἡ συχὴ νοτερῶ λείψ δὲ καὶ μέτριον πάχος ἔχοντι προσπεσοῦσα νέφει τοῦ ἡλίου ψαύσῃ κατ' ἀνάκλασιν καὶ τὴν περὶ ἐκεῖνον αὐγὴν ὁρώσα καὶ τὸ φῶς δόξας ἡμῖν ἐνεργάσθαι τοῦ φαντάσματος ὡς ἐν τῷ νέφει ὄντος. Fac.Lun. 921A ὥσπερ οὖν τὴν ἱ(ρὶν) οἶσθ' ὑμεῖς ἀνακλωμένης ἐπὶ τὸν ἥλιον τῆς ὄψεως ἐνορᾶσθαι τῷ νέφει λαβόντι νοτερὰν ἡσυχὴν λειότητά καὶ (πῇ)ξιν κτλ. differently Diogenes Laertius *V.P.* 7.152 (*SVF* 2.692, Posidonius *F* 15 E.-K., 335 Theiler; cited *Suda* s.v. I 598, p. 2.666.4–7 Adler) ἱρὶν δ' εἶναι αὐγὰς ἀφ' ὑγρῶν νεφῶν ἀνακεκλασμένας ἢ, ὡς Ποσειδωνίως φησιν ἐν τῇ Μετεωρολογικῇ, ἔμφασιν ἡλίου τμήματος ἢ σελήνης ἐν νέφει δεδρυσισμένῳ κοίλῳ καὶ συνεχεῖ πρὸς φαντασίαν, ὡς ἐν κατόπτρῳ φανταζομένην κατὰ κύκλου περιφέρειαν. Aquilius *Def.* 85 Rashed ἱρίς ἐστὶν ἡλίου ἔμφασις ἢ σελήνης ἐν νέφει κοίλῳ καὶ δρυσώδει κατὰ κύκλου περιφερείας ὡς ἐν κατόπτρῳ πρὸς αἴσθησιν. Alexander of Aphrodisias in *Mete.* 151.32–152.1 ὅτι δὲ ἡ ἱρίς κατὰ ἀνάκλασιν γίνεται καὶ ἔστιν αὐτῆς κατοπτρικὴ ἢ φαντασία Φίλιππος μὲν ὁ ἐταῖρος Πλάτωνος (Philippus Opuntius 13 Tarán, 33 Lasserre) δεικνύναι πειράται κτλ.

§§5–6 *Aristotle: ps.Aristotle* fr. 245.11, p. 188.6–11 R³ *yris nichil aliud est quam color solis apparens in nube remota, acciditque yridem a longe videri terre coniunctam nobisque accedentibus disparere ibidem tam yridem quam nubem altam, et apparere ulterius, pro eo quod reflectitur ab aëre remoto, quamvis sit parum remotus, dum modo sit nubilus et spissus.*

§5 *Aristotle: Xenophanes* 21B32 DK ἦν τ' Ἴριν καλέουσι, νέφος καὶ τοῦτο πέφυκε, / πορφύρεον καὶ φοινίκεον καὶ χλωρὸν ἰδέσθαι. *Aristotle Mete.* 1.5 342b5–13 (on the aurora borealis) διὰ τε γὰρ πυκνοτέρου διαφανιόμενον ἔλαττον φῶς καὶ ἀνάκλασιν δεχόμενος ὁ ἀήρ παντοδαπὰ χρώματα ποιήσει, μάλιστα δὲ φοινικοῦν ἢ πορφυροῦν, διὰ τὸ ταῦτα μάλιστα ἐκ τοῦ πυρώδους καὶ λευκοῦ φαίνεσθαι μειγνυμένων κατὰ τὰς ἐπιπροσθήσεις, οἷον ἀνίσχοντα τὰ ἄστρα καὶ θυόμενα, ἐὰν ἢ καῦμα, καὶ διὰ καπνοῦ φοινικὰ φαίνεται. καὶ τῇ ἀνακλάσει δὲ ποιήσει, ὅταν τὸ ἔνοπτρον ἢ τοιοῦτον ὥστε μὴ τὸ σχῆμα ἀλλὰ τὸ χρῶμα δέχεσθαι. *Mete.* 3.2 372a32–b6 τῶν ἐνόπτρων ἐν ἐνίοις μὲν καὶ τὰ σχήματα ἐμφαίνεται, ἐν ἐνίοις δὲ τὰ χρώματα μόνον· τοιαῦτα δ' ἐστὶν ὅσα μικρὰ τῶν ἐνόπτρων, καὶ μηδεμίαν αἰσθητὴν ἔχει διαίρεσιν· ἐν γὰρ τούτοις τὸ μὲν σχῆμα ἀδύνατον ἐμφαίνεσθαι ..., ἐπεὶ δ' ἐμφαίνεσθαι τι ἀναγκαῖον, τοῦτο δὲ ἀδύνατον, λείπεται τὸ χρῶμα μόνον ἐμφαίνεσθαι. *Mete.* 3.4 373b17–24 ἐπεὶ δὲ καὶ δῆλον καὶ εἴρηται πρότερον ὅτι ἐν τοῖς τοιούτοις ἐνόπτροις τὸ χρῶμα μόνον ἐμφαίνεται, τὸ δὲ σχῆμα ἀδῆλον, ἀναγκαῖον, ὅταν ἄρχηται ὑεὶν καὶ ἡδη μὲν συνιστῆται εἰς ψακάδας ὁ ἐν τοῖς νέφεσιν ἀήρ, ... γίνεσθαι ἐμφασιν χρώματος, οὐ σχήματος. *Mete.* 3.4 374b30–33 ἢ μὲν οὖν ἰσχυροτέρα ὕψις εἰς φοινικοῦν χρῶμα μετέβαλεν, ἢ δ' ἐχομένη εἰς τὸ πράσινον, ἢ δὲ ἔτι ἀσθενεστέρα εἰς τὸ ἀλουργόν. *Olympiodorus in Mete.* 211.13–18 οὕτω γοῦν μετὰ τὸ φοινικοῦν εὐθὺς πράσινον, εἴθ' ἀλουργὸν χρῶμα δείκνυσιν ὡς ἡδη ἐξασθενήσαν, ἢ καὶ ἴριδος σχῆμα, ἐπὶ ἀμελέστερον κατανοήσωμεν. τοῦτο δὲ τὸ σημεῖον ἐστὶν ἐμφάσεως καὶ ἀνακλάσεως, καὶ ὅτι ἐν ἡλίῳ τινὸς ῥάναντος ὕδωρ, ὡς γενέσθαι πολλὰς ῥανίδας, ὥρμεν ἐν ταῖς ῥάνισι λαμπηδόνας ἀνακλωμένης τῆς ὕψεως ἀπὸ τῶν ῥανίδων πρὸς τὸν ἥλιον.

§6 *Aristotle: Aristotle Mete.* 3.4 374a35–b5 γίγνεται δὲ καὶ τις λεπταὶς ῥαίνῃ ῥανίσιν εἰς τι τοιοῦτον χωρίον ὃ τὴν θέσιν πρὸς τὸν ἥλιον ἐστραμμένον ἐστὶ καὶ τῇ μὲν ὁ ἥλιος ἀνέχῃ τῇ δὲ σκιαζῇ· ἐν τῷ τοιούτῳ γὰρ, ἐὰν εἴσω τις ῥαίνῃ, τῷ ἐστῶτι ἐκτός, ἢ ἐπαλλάττουσιν αἱ ἀκτίνες καὶ ποιοῦσι τὴν σκιά, φαίνεται ἴρις. *Mete.* 3.4 374a19–23 ἐφαίνετο ἂν ἡ ἴρις ὅλη, ὥσπερ ἡ περὶ τοὺς λύχνους. περὶ γὰρ τούτους τὰ πλείστα νοτίων ὄντων ἴρις γίγνεται τοῦ χειμῶνος, μάλιστα δὲ ὅλη γίγνεται τοῖς ὑγροῦς ἔχουσιν τοὺς ὀφθαλμούς· τούτων γὰρ ἡ ὕψις ταχὺ δι' ἀσθενεῖαν ἀνακλάται.

§8 *Anaxagoras: Scholia vetera in Iliadem* P 547b Erbse Ἴριν : ὅταν ἐξ ἐναντίας νέφος τῷ ἡλίῳ στῇ πεπιλημένον καὶ πλήρες ὕδατος, αἱ δὲ ἀκτίνες προσπίπτωσι τῷ νέφει καὶ καθάπερ ἀπὸ κέντρου τοῦ ἡλίου περιγράφωσι κύκλους, τότε τοῦ μὲν τῶν ἀκτίνων ἐρυθροῦ ἀνειμένου πρὸς τὸ κροκοειδές, τοῦ δὲ ἐν τῷ νέφει μέλανος ἐκλυομένου πρὸς κυάνεον, ἢ κρᾶσις ἀμφοῖν ἴρις ἐστὶ· καὶ Ἀναξαγόρας (59B19 DK) δὲ φησιν· Ἴριν δὲ καλέομεν τὸ ἐν τῇσι νεφέλῃσι ἀντιτάμπον τῷ ἡλίῳ· χειμῶνος οὖν ἐστὶ σύμβολον (cf. *Il.* 17.547)· τὸ γὰρ περιεχόμενον ὕδωρ τῷ νέφει ἄνεμον ἐποίησεν ἢ ἐξέχεεν ὄμβρον.

Liber 3 Caput 5a (olim 18)

P^B: ps.Plutarchus *Plac.* 897D; p. 384a1–14 Diels—**P^Q**: Qusṭā ibn Lūqā pp. 186–189 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 143, p. 74 Westerink; cf. *Phil.Min.* op. 23, p. 86 Duffy (titulus solus)—cf. **P^{Sy}** Symeon Seth *CRN* 2.26, p. 35.1 + 3–5 Delatte

S: Stobaeus, cf. Phot. *Bibl.* 167, p. 112b17 Henry (titulus solus)

Cf. Ach: Achilles *Univ.* c. 34, p. 51.18–19 Di Maria; *Scholia in Aratum schol.* 811, p. 404.6–17, 405.12–14; *schol.* 877, p. 427.10–12 Martin

Titulus ιη'. Περὶ ἄλῳ (P,S)

§1 ἡ δ' ἄλῳς οὕτως ἀποτελεῖται· μεταξὺ τῆς σελήνης ἥ τινος ἄλλου ἄστρου καὶ τῆς ὀψεως ἀήρ παχὺς καὶ ὀμιχλώδης ἴσταται· εἴτ' ἐν τούτῳ τῆς ὀψεως κατακλωμένης καὶ εὐρυνομένης καὶ οὕτως τῷ κύκλῳ τοῦ ἄστρου προσπιπτούσης κατὰ τὴν ἕξω περιφέρειαν, κύκλος δοκεῖ περὶ τὸ ἄστρον φαίνεσθαι (ὅς κύκλος φαινόμενος ἄλῳς καλεῖται, ὅτι ἐστὶν ἄλῳ προσεοικώς), ἐκεῖ δοκοῦντος τοῦ φάσματος γίνεσθαι, ἔνθα συνέπεσε τὸ πάθος τῆς ὀψεως. (P1)

§1 Cf. Aristoteles *Mete.* 3.2 371b18 + b22–24 + 3.3 373a21–22

lemma om. G, non hab. S **titulus** Περὶ ἄλῳ **P^{BPs}**: *wie entsteht der Hof um den Mond?* Q || ἄλῳ **P^{B(III-E)}** prob. Diels Mau Lachenaud: ἄλῳς **P^{B(I,III-ε)}**, ἄλῳνος **P^{B(II)}** §1 [2] οὕτως **P^B**: *wie ich es beschreibe* Q || [3] ἐν τούτῳ **P^B**: *von dieser Luft* Q || [5–6] κατὰ ... φαίνεσθαι **P^B**: *dann scheint es der Seh(kraft) ein Kreis zu sein; (das geschieht) den Strahlen zufolge, welche zu jenem Stern reflektiert werden* Q || [6–7] ὅτι ... προσεοικώς] om. Q || [6] ὅτι **P^{B(I,III)}** || ὅ **P^{B(II)}** || [7] ἄλῳ **P^{B(I,II)}** || ἄλῳς **P^{B(III)}** || προσεοικώς **P^{B(III)}**: προσεχώς **P^{B(I,II)}** || φάσματος **P^{B(III)}**: φαντάσματος **P^{B(I,II)}** || [7–8] συνέπεσε τὸ πάθος coni. Reiske 'et legit Ar ut vid.' (Daiber): νῦν ἔπεσε τὸ πάχος P: *und wovon die Einwirkung auf sie (die Sehkraft) stattfindet* Q

Testes primi:

Traditio ps.Plutarchi:

Psellus Omn.Doctr. c. 143 Περὶ ἄλῳ (~ tit.)

Phil.Min. op. 23 Περὶ ἄλῳ (~ tit.) καὶ ἱριδος (i.q. tit. c. 3.5) ῥάβδων τε καὶ παρηλίων (i.q. tit. c. 3.6).

Symeon Seth CRN 2.26 Περὶ ἄλῳ (~ tit.)

2.26 γίνεται δὲ ἀπὸ ἀντανακλάσεως τῆς ὀψεως πάντοθεν ὁμοίως ἀντανακλωμένης περὶ τὸν ἥλιον ἢ τὴν σελήνην (~ P1).

Testes secundi:

quaestio Achilles c. 34, p. 51.18–19 (sub capite Περὶ κομητῶν) ὅταν δὲ περὶ τὸν ἥλιον ἢ κύκλος (ἐνίοτε καὶ δύο καὶ τρεῖς γίνονται, ὅθεν καὶ Ἄρατος εἶπε (v. 816) 'τριέλικτον ἄλῳν'), ἄλῳς καλεῖται (~ §1).

Scholia in Aratum *schol.* 811, p. 404.6–8 Martin ἄλλως δὲ εἴρηται ὅτι τὰς ἄλωνας τῷ σχήματι κυκλοτερῶς διαγράφουσι. καὶ ἔστιν ἡ ἄλλως περὶ τὴν σελήνην κύκλος, καὶ αὐτὴ ἐν μέσῳ ἀμυδροτέρα φαίνεται (~ §1). *schol.* 877, p. 427.10–12 καὶ περὶ τὸν ἥλιον ἄλλως συνίστανται, ὥσπερ καὶ ἐπὶ τῆς σελήνης ἔφραμεν (~ §1). *schol.* 811, pp. 404.9–405.2 Martin ἡ τοῖνυν ὄψις κατὰ τὴν ἔνστασιν τοῦ ἀέρος τραχέσι μὲν προσπεσοῦσα αὐτοῦ που καταπαύεται, μηκέτι λαμβάνουσα ἐτέρας φορὰς ἀρχήν, λείοις δὲ καὶ ὁμαλοῖς προσφερομένη, οἷά ἐστι τὰ ἔσοπτρα καὶ τὰ ὕδατα, ἥτοι ἐνδοτέρῳ διαδύεται οἶονεὶ ἐγκατακλωμένη, ἥ, εἴπερ τοῦτο ἀδυνατεῖ ποιεῖν δι' ἀντιτυπίαν τῶν σωμάτων, ἀνακλᾶται ἐμφανίζουσα κατ' ἐκείνον τὸν τόπον τὰ ὁρώμενα ἀφ' οὗ καὶ τὴν ἀρχὴν τῆς ἀνακλάσεως ποιεῖται. ὅταν τοῖνυν περὶ τι ἄστρον νέφη συστῇ συνεχὴ καὶ κοῖλα, ἐνσταθῇ δὲ ὁ ἀήρ ἐπὶ ταῦτα, εἴτα ἀνάκλασιν σχῆμα εἰς αὐτὸ τὸ ἄστρον, ἐμφαίνεται τοῦτο καθ' ἑκάστην ἀνάκλασιν, καὶ οὕτως ἡ ἄλλως ἀποτελεῖται. *schol.* 811, p. 405.12–14 Martin, τί ἐστὶν ἄλλως; ἡ ὕρου τοῦ ἀέρος ἐπικειμένου καὶ παχέος ὄντος φαντασία φωτὸς κυκλοειδοῦς περὶ τὸν ἥλιον καὶ τὴν σελήνην συνισταμένη (~ §1).

Loci Aetiani:

§1 A 3.5.3–4 τρίτος τρόπος τοῦ βλέπειν τὰ ἀνακλώμενα ὡς τὰ κατοπτρικά. ἔστιν οὖν τὸ τῆς ἱριδος πάθος τοιοῦτον. A 4.14.3 οἱ ἀπὸ Πυθαγόρου καὶ τῶν μαθηματικῶν κατ' ἀντανakλάσεις τῆς ὀψεως.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The witnesses are limited to P^B and P^Q, P^{Sy} for an abstract, and P^{Ps} for the heading alone. P^Q, though (as usually) omitting a few words, seems to have had at his disposal a better text for the final clause. It is not found in G, whose c. 88 (corresponding to P 3.17, on the tides) is immediately followed by c. 89 (corresponding to the first chapter of the next Book, P 4.1 on the rising of the Nile), see below at section D(a). It may have been absent in G's copy of P, or been left out for the sake of abridgement (see section D(a) below), or through an oversight.

(2) The chapter heading Περί ἱριδος περὶ ἄλω καὶ παρηλίου καὶ ῥάβδων of S 1.30 suggests that the evidence for halo (cf. the present chapter), rods and countersuns (cf. ch. 3.6), which he included by quoting AD fr. 14 Diels, made the citation of A's chs. 5a and 6 superfluous. It also supports our relocation of the present chs. 3.5 and 3.6, for which see below section D(a).

(3) T, as we have seen, has no use for Book 3.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* This consists of a remark in Pliny, a few rather different passages in Seneca, *Naturales quaestiones* Book 1, part of AD fr. 14 Diels, and several scholia on Aratus. Ideler (1836) 268 writes: ‘Excerpta ex capitibus II–V [sc. of *Mete.* Book 3] reperiuntur apud Stobaeum Eclog. I, 31 [= c. 1.30 Wachsmuth] ..., nullo tamen in iis exscribendis a scriptore certo ordine observato.’ S 1.30 consists of on the one hand ch. 3.5.1–6 (= §§1–10 Diels) on the rainbow plus on the other Arius Didymus fr. 14 Diels on the halo, rainbows, mock suns, so-called streaks and other optical phenomena. These two sources of course had not yet been distinguished, which explains part of the confusion diagnosed by Ideler.

(2) *Sources.* The main source is Aristotle *Mete.* 3.3, where however A’s explanation of the name *halos*, paralleled in Seneca, is not found. As was the case for ch. 3.5.1–6, Diels for our chapter too thought of a meteorological handbook as A’s source, but we may also think of a compendium of Aristotle’s treatise, see above at ch. 3.5, Commentary D(e). The doxa is without name-label, just as the (Aristotelian) doctrine of the rainbow in ch. 3.5. There is a single parallel at Theophrastus *Metars.* c. 14.2 Daiber, cited at E(b).

C *Chapter Heading*

P^B has the umbrella version (περί τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C). The longer version of Q refers to the moon but not to other heavenly bodies; it is not clear which version is to be preferred. However this may be, the main question type at issue covered by the heading is that of cause; the question type/category of substance and the category of place are of secondary importance.

D *Analysis*

a Context

The chapter on the halo, a phenomenon included among the μετάρσια announced in the prooemium of the treatise, does not really belong at the end of Book 3, immediately before ch. 4.1 on the Nile and after ch. 3.17 on the tides of ebb and flood that conclude the πρόσγεια announced in the proem to the Book and are said to have now been treated at ch. 3.8.2. A better location for it is directly after ch. 3.5 on the rainbow. See already Diels *DG* 60–61, and also our observations on these earlier chapters. Its omission by G may be significant, because P 3.17 and 4.1 together deal with the terrestrial waters and are interrupted by the chapter on the halo (see ch. 3.17, Commentary D(a), and ch. 4.1, Commentary D(a)). Because we are trying to reconstruct A, not editing P, we have reinserted the chapter in what is its proper place. For confirmation

provided by the chapter title of S 1.30 see above, section A. However, it has to be admitted that it may have been moved to the end to lend an air of unity to the Book, providing a return to the *metarsia* of its first part after the treatment of the *prosgēia*.

Optical meteorological phenomena are discussed by Aristotle together in *Mete.* 3.2–5. In Theophrastus' (?) *Metarsiology* edited by Daiber, where no chapters on the earth or sea *per se* or, more remarkably, on the rainbow are found, the chapter on the halo (of the moon) is the penultimate ch. [14.], before ch. [15.] on earthquakes. Epicurus *Ep.Pyth.* at Diogenes Laertius *V.P.* 10.9–111 discusses the halo (of the moon) after the rainbow.

b Number–Order of Lemmata

There is only one lemma. This is exceptional (there are a few other instances, e.g. the long ch. 1.4, the brief ch. 3.6). Abridgement may be the cause, here as elsewhere.

c Rationale–Structure of Chapter

The lemma, the opening words of which are thetically formulated, has been articulated as if it answers the query πῶς οὖν γίνεται ἄλως; ('how does the halo occur?'), which in fact corresponds with the heading of Q! The main question type at issue is that of cause, the διὰ τί. In the Greek text of ch. 3.5.3, dealing with a related optical phenomenon, such a query is formulated *disertis verbis*: πῶς οὖν γίνεται ἱρις; No alternative explanations are extant in the present chapter, though a different view could have been added, namely that the halo around the heavenly body is not an optical phenomenon (δοκεῖ ... φαίνεσθαι, Seneca's *visus noster solita imbecillitate deceptus*) but a real one; it may have been omitted. It is the (only) view found at Theophrastus(?), *Metarsiology* ch. [14.] Daiber, *The account of the causes of the halo round the moon*.

d Further Comments

General Points

See above, section A.

Individual Points

§1 Diels unnecessarily brackets l. [6–7] ὃς κύκλος ... προσεικώς as a gloss.

e Other Evidence

The halo qua relatively important phenomenon of reflection is discussed in Epicurus (not in Lucretius), and in authors such as Seneca, Pliny, and Arius Didymus on Aristotle, and because of its treatment in Aristotle also in Alex-

ander's Commentary on the *Meteorology*. Seneca's account (cited section E(a) General texts) provides an excellent parallel to that of A.

E Further Related Texts

a Proximate Tradition

General texts: **Diogenes Laertius** *V.P.* 7.132–133 τὸν δὲ φυσικὸν λόγον διαιροῦσιν ... ζητοῦσι ... ὅπως νέφη συνίσταται, βρονταὶ καὶ ἱριδες καὶ ἄλλως καὶ κομήται καὶ τὰ παραπλήσια.

Chapter heading: **Pliny** *Nat.* 1.12.8–9 *de coronis caelestibus. de circulis repentinis.*

§1 **anonymus:** **Seneca** *Nat.* 1.2.1–4 *videamus nunc quemadmodum fiat is fulgor qui sidera circumvenit. memoriae proditum est ... circa solem visum coloris varii circum, qualis esse in arcu solet. hunc Graeci ἄλλω vocant, nos dicere coronam aptissime possumus. quae quemadmodum fieri dicatur, exponam.* (2) *cum in piscinam lapis missus est, videmus in multos orbes aquam discedere et fieri primum angustissimum orbem, deinde laxiorem, ac deinde alios maiores, donec evanescat impetus et in planitiem immotarum aquarum solvatur. tale quiddam cogitemus fieri etiam in aëre: cum spissior factus est sentire plagam potest; lux solis aut lunae vel cuiuslibet sideris incurrens recedere illum in circulos cogit. nam umor et aër et omne quod ex ictu formam accipit in talem habitum impellitur qualis est eius quod impellit; omne autem lumen rotundum est; ergo et aër in hunc modum lumine percussus exhibit.* (3) *ob hoc tales splendores Graeci 'areas' vocaverunt, quia fere terendis frugibus destinata loca rotunda sunt. non est autem quod existimemus istas, sive areae sive coronae sunt, in vicinia siderum fieri. plurimum enim ab his absunt, quamvis cingere ea et coronare videantur. non longe a terra fit talis effigies, quam visus noster solita imbecillitate deceptus circa ipsum sidus putat positam.* (4) *in vicinia autem stellarum et solis nihil tale fieri potest, quia illic tenuis aether est.* **Pliny** *Nat.* 2.98 *cernuntur ... plerumque et circa solis orbem ceu spicae coronae et versicolores circuli, ... existunt eadem coronae circa lunam et circa nobilia astra caeloque inhaerentia.* **Arius Didymus** fr. 14 Diels at Stob. *Ecl.* 1.30.2, pp. 240.13–241.3 Ἀριστοτέλους. ἄλλω δὲ καὶ ἱριδας καὶ παρήλιον καὶ ῥάβδους καὶ τᾶλλα τὰ κατὰ τὰς ἐμφάσεις ὑπὸ μὲν τῆς αὐτῆς αἰτίας γίνεσθαι (πάντα γὰρ εἶναι αὐτὰ τῆς ὕψεως ἀνάκλασιν), διαφέρειν δὲ τοῖς τόποις καὶ ἄφ' ὧν καὶ ὥς ἔχει συμβαίνειν τὴν ἀνάκλασιν. ἄλλω μὲν οὖν καὶ περὶ ἥλιον φαίνεσθαι καὶ περὶ σελήνην καὶ καθόλου περὶ τὰ λαμπρὰ τῶν ἄστρον ... συμβαίνειν δ' ὅταν διὰ τοῦ πέριξ ἀέρος ἀχλυώδους ὄντος ἐπιλάμπηται τὸ φῶς αὐτῶν, ὥσθ' ὅλον ὁρᾶσθαι τὸν κύκλον· περιφανὴ γὰρ εἶναι καὶ σφαιρικὴν κατὰ τὴν ἔμφασιν τὴν ἄλλω. **ps.Aristotle** *Mu.* 4 395a36–b3 ἄλλως δὲ ἐστὶν ἔμφασις λαμπρότητος ἄστρου περιάνυος· διαφέρει δὲ ἱριδος ὅτι ἡ μὲν ἱρις ἐξ ἐναντίας φαίνεται αἰλίου καὶ σελήνης, ἡ δὲ ἄλλως κύκλῳ παντὸς ἄστρου.

b Sources and Other Parallel Texts

General texts: **Theophrastus(?)** *Metars.* c. 14.2 Daiber the halo round the moon occurs when the air becomes thick and is filled with vapour. **Epicurus**

Ep.Pyth. at D.L. 10.110–111 ἄλως περὶ τὴν σελήνην γίνεται καὶ {κατὰ} πάντοθεν ἀέρος προσφερομένου πρὸς τὴν σελήνην, ἢ τὰ ἀπ' αὐτῆς ρεύματα ἀποφερόμενα ὁμαλῶς ἀναστέλλοντος ἐπὶ τοσοῦτον ἐφ' ὅσον κύκλῳ περιστῆσαι τὸ νεφοειδὲς τοῦτο καὶ μὴ τὸ παράπαν διακρίναι, ἢ καὶ τὸν πέριξ ἀέρα αὐτῆς ἀναστέλλοντος συμμετρως πάντοθεν εἰς τὸ περιφερὲς τὸ περὶ αὐτὴν καὶ παχυμερὲς περιστῆσαι. **Galen PHP** 7.7.11 καὶ γὰρ ὅπως ἡ ἱρις γίγνεται καὶ ὅπως ἄλως ἦτοι περὶ τὸν ἥλιον ἢ τὴν σελήνην οἷ τ' ἀνθήλιοι καὶ οἱ παρήλιοι καλοῦμενοι τὰ τε διὰ τῶν κατόπτρων ὁρώμενα διερχόμενος (sc. ὁ Ἀριστοτέλης), εἰς ἀνάκλασιν ὀψεως ἀναφέρει πάντα. **Alexander of Aphrodisias in Mete.** 142.34–143.14 ἀφ' οὗ τὸ ἐπέκεινα πάλιν μᾶλλον μὲν συνέστηκεν, ὁμαλὲς δ' ὃν καὶ μικρομερὲς συνεχὴ καὶ μικρὰ κάτοπτρα κατὰ τὴν τοῦ κύκλου περιφέρειαν ἴσχει, πρὸς ἃ κατὰ μὲν τοὺς τὴν τῆς ὀψεως ἀνάκλασιν αἰτιωμένους ἢ ὀψις προσπεσοῦσα ἀνακλασθεῖσα πρὸς τὸ ἄστρον τὴν τῆς ἄλλω φαντασίαν ποιεῖ, κατὰ δὲ τὸ ἀληθὲς τὸ φῶς τὸ τοῦ ἀστρου προσπίπτον τοῖς προειρημένοις κατόπτοις, ἔπειτα ἐπὶ τὴν ὕψιν τὴν ὁρώσαν ἀνακλασθέν τε καὶ διαδοθὲν ποιεῖ τὴν φαντασίαν τῆς ἄλλω. ἐν γὰρ τοῖς εἰρημένοις κατόπτοις διὰ μικρότητα, τοῦ χρώματος ἔμφασις γίνεται μόνου. καὶ ἡ μὲν Ἀριστοτέλους δόξα περὶ τῆς ἄλλω ὡς ἐπὶ κεφαλαίων τοιαύτη. ἐπηκολούθησε δὲ αὐτῷ καὶ Ποσειδώνιος (F 133 E.-K., 315 Theiler), πάντων σχεδὸν τῶν ἄλλων οὐ κατὰ ἀνάκλασιν, ἀλλὰ κατὰ κλάσεις ὀψεων αἰτιωμένων, ὡς ἐπὶ τῶν δι' ὕδατος ὁρωμένων γίνεται· ὑποτίθενται γὰρ σφαιροειδὲς καὶ κοῖλον τὸ νέφος, ἔπειτα τὸ ὑπερκείμενον ἄστρον αὐτοῦ κατὰ κύκλον φασι διεσπασμένον ἐν αὐτῷ ὁράσθαι. ἀλλ' ὅτι μὲν αἱ τοιαύται δόξαι περὶ τῆς ἄλλω ψευδεῖς, ἰκανῶς ὁ διδάσκαλος ἡμῶν Σωσιγένης ἐν τῷ ὁγδῶφ Περὶ ὀψεως ἔδειξεν.

Chapter heading: Aristotle Mete. 1.7 344b17–18 περὶ μὲν οὖν τῆς ἄλλω τὴν αἰτίαν ὕστερον ἐροῦμεν. 3.2 371b18–19 περὶ δὲ ἄλλω καὶ ἱριδος, τί τε ἐκάτερον καὶ διὰ τίν' αἰτίαν γίγνεται, λέγωμεν. **Alexander of Aphrodisias in Mete.** 138.24 προτίθεται εἰπεῖν περὶ ἄλλω. *in Mete.* 142.21 πρῶτον γε περὶ τῆς ἄλλω ποιεῖται λόγον. *in Mete.* 143.7–8 καὶ ἡ μὲν Ἀριστοτέλους δόξα περὶ τῆς ἄλλω ὡς ἐπὶ κεφαλαίων τοιαύτη. **John Philoponus in Mete.** 3.11 περὶ ἄλλω.

§1 anonymus: Aristotle Mete. 1.7 344b2–6 ἀλλ' ὥσπερ αἱ ἄλλω περὶ τὸν ἥλιον φαίνονται καὶ τὴν σελήνην παρακολουθοῦσαι, καίπερ μεθισταμένων, ὅταν οὕτως ἢ πεπυκνωμένος ὁ ἀήρ ὥστε τοῦτο γίγνεσθαι τὸ πάθος ὑπὸ τὴν τοῦ ἡλίου πορείαν. *Mete.* 3.2 371b22–25 τῆς μὲν οὖν ἄλλω φαίνεται πολλάκις κύκλος ὅλος, καὶ γίγνεται περὶ ἥλιον καὶ σελήνην καὶ περὶ τὰ λαμπρὰ τῶν ἀστρων. *Mete.* 3.3 372b12–17 πρῶτον δὲ περὶ τῆς ἄλλω τοῦ σχήματος εἵπωμεν, διότι τε κύκλος γίγνεται, καὶ διότι περὶ τὸν ἥλιον ἢ τὴν σελήνην, ὁμοίως δὲ καὶ περὶ τι τῶν ἄλλων ἀστρων· ὁ γὰρ αὐτὸς ἐπὶ πάντων ἀρμόσει λόγος. γίγνεται μὲν οὖν ἡ ἀνάκλασις τῆς ὀψεως συνισταμένου τοῦ ἀέρος καὶ τῆς ἀτμίδος εἰς νέφος, ἐὰν ὁμαλῆς καὶ μικρομερὲς συνισταμένη τύχη. *Mete.* 3.3 372b34–a2 ἀνακλάται δ' ἀπὸ τῆς συνισταμένης ἀχλύος περὶ τὸν ἥλιον ἢ τὴν σελήνην ἢ ὀψις. *Mete.* 3.3 373a21–22 φαίνεται δὲ τὸ μὲν λευκόν, ὁ ἥλιος, κύκλῳ συνεχῶς ἐν ἐκάστῳ φαινόμενος τῶν ἐνόπτρων. **Aratus Phaen.** 941 ἢ καὶ πού τις ἄλῳα μελαινομένην ἔχει ἀστήρ.

Liber 3 Caput 6

P^B: ps.Plutarchus *Plac.* 894F–895A; p. 374^a9–17 Diels—**P^Q**: Qustā ibn Lūqā pp. 176–177, 424 (!) Daiber—**P^S**: Psellus *Omn.Doctr.* c. 144, p. 74 Westerink (titulus solus); cf. *Op.log.* 23, p. 86 Duffy (titulus solus)
S: Stobaeus, cf. Phot. *Bibl.* 167, p. 112b17 Henry (titulus solus)
Cf. *Scholia in Aratum schol.* 811, p. 403.17–404.3; *schol.* 881, p. 430.11–12, 20, 413.6 Martin

Titulus ζ'. Περὶ ῥάβδων (P,S)

§1 τὰ κατὰ τὰς ῥάβδους καὶ ἀνθηλίους συμβαίνοντα μίξει τῆς ὑποστάσεως καὶ ἐμφάσεως ὑπάρχει, τῶν μὲν νεφῶν ὀρωμένων, οὐ κατ' οἰκεῖον δὲ χρῶμα, ἀλλ' ἕτερον ὅπερ κατ' ἔμφασιν φαίνεται. ἐν δὲ τοῦτοις πᾶσι τὰ τε κατὰ φύσιν καὶ τὰ ἐπίκτητα ὅμοια συμβαίνει πάθη. (P1)

5

§1 —

lemma om. G, non hab. S **titulus** Περὶ ῥάβδων **P^B** : περὶ ἄλλω (i.q. tit. c. 3.5a) καὶ παρηλίου καὶ ῥάβδων **S^{Phot}**; Ps *opusc.* 23 Περὶ ἄλλω καὶ ἱριδος ῥάβδων τε καὶ παρηλίων, fort. καὶ παρηλίων vel sim. addendum §1 [2] ἀνθηλίους **P^B** : *Abwechseln der Sonne* Q || [3] ἐμφάσεως **P^B** : *Einbildung* Q || ὑπάρχει] ὑπάρχει **P^{B(III)}** || [4] ante ἔμφασιν add. τὴν **P^{B(II,III)}Q** || [5] τὰ ἐπίκτητα **P^{B(II,III)Q}**(ut vid.) : κατ' ἐπίκτησιν **P^{B(III)}** || ὅμοια] ὁμοίως aut ὅμοια εἶναι prop. Diels in app. || [4–5] ἐν ... πάθη **P^B** : *Aber die Phänomene sind einander ähnlich in dem, was in diesen Gegenständen an Dingen erscheint, welche der Natur entsprechend sind und an Dingen, welche wieder erworben und angewendet werden* Q

Testes primi:

Psellus Omn.Doctr. c. 144 (~ tit.) Περὶ ῥάβδων

Op.log. 23 Περὶ ἄλλω (i.q. tit. c. 3.5a). καὶ ἱριδος (i.q. tit. c. 3.5) ῥάβδων τε καὶ παρηλίων (~ tit.)

Testes secundi:

§1 *Scholia in Aratum schol.* 811, pp. 403.17–404.3 Martin τῶν γινομένων καὶ ἐν τῷ μετεώρῳ συνισταμένων μεταξύ (αἰθέρος καὶ) γῆς τὰ μὲν ἐστὶ κατ' ἔμφασιν, τὰ δὲ μικτά, τὰ δὲ καθ' ὑπόστασιν (~ §1). *schol.* 829, p. 412.3–14 ὥσπερ καὶ ἐπὶ τῶν ὀφθαλμικῶν, ὅτε συμβαίνει κοιλαίνεσθαι τοὺς ὀφθαλμούς, δηλονότι ἐξασθενήσαντος τοῦ σώματος [prob. Maas, πώματος ms. M prob. Martin]. ἢ ὥσπερ ὅταν βλέφαρον καταγαγόντες ἢ περιθλίψαντες τῷ λύχνῳ τὴν ὕψιν προσβάλλωμεν, οὐ φαίνεται συνεχὲς τὸ φῶς, ἀλλὰ πλάγιοι καὶ σποράδες αἱ αὐγαί, οὕτως, ὅταν ἀχλὺς ἢ νέφους ἀνώμαλος πρὸ τοῦ ἡλίου στάσα περιθλίψῃ καὶ σείσῃ τὸν τῆς ὕψεως κῶνον εἰς λεπτὰς ἀκτῖνας καὶ ῥαβδοειδεῖς, δ' ἀσχομεν αὐτοὶ τῇ αἰσθήσει, τοῦτο περὶ τὸν ἥλιον εἶναι δοκοῦμεν. οὕτω Πλούταρχος (fr. 15 Sandbach) (~ §1). *schol.* 881, p. 430.11–12 Ἀριστοτέλης (*Mete.* 3.6) δὲ τὰ παρήλια φησιν ἔμφα-

σιν εἶναι, μὴ ἔχοντα ὑπόστασιν (~ §1). *schol.* 881, p. 430.20 ἄλλως: παρήλιόν ἐστιν ἔμφασις ἡλίῳ παρεμφερῆς κτλ. *schol.* 881, p. 431.6 ἄλλως: τὰ παρήλια ἀνθήλια μὲν καλεῖται κτλ. (~ §1).

Loci Aetiani:

§1 A 3.5.8 παραπλησίως δὲ αἰτιολογεῖται τὰ καλούμενα παρήλια, γινόμενα δὲ κατὰ τὸν Πόντον.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The only witness is P, represented by P^B, and P^Q or rather Q, who makes a mess of the translation. The Byzantine excerptors are probably responsible for the loss of the lemma in the text of S. T as we know did not excerpt Book 3.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* A substantial account of beams (or rods) and mock suns is given at Seneca *Nat.* 1.9–13. There is no section on rods etc. in Theophrastus' (?) *Metarsiology*.

(2) *Sources.* An ultimate source for systematic treatment in context is Aristotle *Mete.* 3.6, but A, highlighting the mixed nature of these phenomena, is closer to certain representatives of the proximate tradition such as the *Scholia* on Aratus.

C *Chapter Heading*

In P^{BQ} and confirmed by P^{Ps}. The longer version in Photius' index and an opusculum of Psellus suggest that we should perhaps reconstruct a longer title: 'On rods and counter-suns'. The title itself is of the standard umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C). Here it covers the question type of cause (and the sub-type *unde*) as well as the question types/categories of substance and quality, and the category of place.

D *Analysis*

a Context

For the explanation of A's chapter order in general see above, Book 3.proœm. at Commentary D(a). The present chapter on rods and mock suns, the sixth in the succession of eight (or rather nine) chapters dedicated to atmospheric

phenomena, follows upon that on the rainbow and ch. 5a(olim 18) on the halo, and comes before that on winds. Already in Aristotle mock suns and rods at *Mete.* 3.6 are discussed after halo and rainbow at *Mete.* 3.2 *ad init.* and 3.4–5. In Seneca, too, rods and mock suns are treated at *Nat.* 1.9–13 after the rainbow at 1.3–8, while the halo precedes this at 1.2. The structural point concerning the blend of semblance and reality is a sort of appendix to that about semblance as opposed to reality in the preceding ch. 3.5, and to some extent helps to secure the position of the chapter in the chapter series.

b Number–Order of Lemmata

There is only one lemma. This is exceptional (there are a few other instances, e.g. the long ch. 1.4, the short ch. 3.5a(olim 18)). Abridgement may be the cause, here as elsewhere. There may have been more, but we cannot know this because S is absent. Because of the general nature of the lemma no name-label is included. This too is exceptional, but also occurs in ch. 3.5a.

c Rationale–Structure of Chapter

The possibly abridged lemma fails to tell us in detail how rods and mock suns come to be. Perhaps Q missed this aspect and tried to make up for this lack by his idiosyncratic translation of ἀνθηλίους. The structural point concerning the blend of semblance and reality is linked to that about the opposition between semblance and reality in ch. 3.5.

d Further Comments

Individual Points

§1 Aristotle, too, *de facto* allows for such mixtures; see *Mete.* 1.5 342b1–15 on the aurora borealis and similar phenomena: they are produced by reflection, while their substance only lasts for a short time. See further Stothers (2009) 36: ‘I suggest that streak [i.e., rod] is simply a multicoloured mock sun’.

Daiber’s translation of Q at (1980) 177 is incomplete; for the full text see p. 424.

e Other Evidence

This limited theme is discussed more or less briefly in more or less contemporary sources such as Seneca, Pliny, and Arius Didymus. For Aristotle see at section B above.

E *Further Related Texts*

a Proximate Tradition

General texts: Seneca *Nat.* 1.9.1 *nunc de virgis dicendum est, quas non minus pictas variasque ... solemus accipere. in quibus non multum operae consumen-*

dum est, quia virgae nihil aliud sunt quam imperfecti arcus. **Arius Didymus** fr. 14 Diels at Stob. *Ecl.* 1.30.2, p. 242.4–10 παραπλήσιον γὰρ ἡλίω κατὰ τε τὴν χροάν καὶ τὸ σχῆμα φαίνεσθαι τὸν παρήλιον. τὴν μὲν γὰρ ὁμαλότητα τοῦ νέφους αἰτίαν εἶναι τοῦ χρώματος, τὴν δ' ἀνάκλασιν τῆς ὀψews τῆς τοῦ ἡλίου, διὰ τῆς ἀχλυώδους ἐμφάσεως προσπίπτουσιν ἀθρόως πρὸς πεπυκνωμένον ὥσπερ ἔνοπτρον οὐδέπω μὲν ὄν ὕδωρ, ἐγγὺς δ' ὑπάρχον τῆς πρὸς ὕδωρ μεταβολῆς.

Chapter heading: **Pliny Nat.** 1 p. 12.4 *trabes caelestes, chasma caeli.*

§1 anonymous: **Pliny Nat.** 2.99 *et rursus soles plures simul cernuntur, nec supra ipsum nec infra, sed ex obliquo, numquam iuxta nec contra terram nec noctu, sed aut oriente aut occidente. semel et meridie conspecti in Bosporo produntur, qui ab matutino tempore duraverunt.* **ps.Aristotle Mu.** 4 395a35–36 (Posidonius fr. 339 Theiler) ῥάβδος δέ ἐστιν ἱριδος ἔμφασις εὐθεία. **Arius Didymus** fr. 14 Diels at Stob. *Ecl.* 1.30.2, p. 240.13–17 Ἀριστοτέλους. ἄλλω δὲ καὶ ἱριδας καὶ παρήλιον καὶ ῥάβδους καὶ ἄλλα τὰ κατὰ τὰς ἐμφάσεις ὑπὸ μὲν τῆς αὐτῆς αἰτίας γίνεσθαι (πάντα γὰρ εἶναι ταῦτα τῆς ὀψews ἀνάκλασιν), διαφέρειν δὲ τοῖς τόποις καὶ ἄφ' ὧν καὶ ὡς ἔχει συμβαίνειν τὴν ἀνάκλασιν. fr. 14 Diels p. 242.4–17 (on Aristotle) παραπλήσιον ... ἡλίω κατὰ τε τὴν χροάν καὶ τὸ σχῆμα φαίνεσθαι τὸν παρήλιον. τὴν μὲν γὰρ ὁμαλότητα τοῦ νέφους αἰτίαν εἶναι τοῦ χρώματος, τὴν δ' ἀνάκλασιν τῆς ὀψews τῆς τοῦ ἡλίου, διὰ τῆς ἀχλυώδους ἐμφάσεως προσπίπτουσιν ἀθρόως πρὸς πεπυκνωμένον ὥσπερ ἔνοπτρον οὐδέπω μὲν ὄν ὕδωρ, ἐγγὺς δ' ὑπάρχον τῆς πρὸς ὕδωρ μεταβολῆς ... εἶναι δὲ {διὰ} τὰς καλουμένας ῥάβδους ἱριοειδεῖς εὐθείας ἐμφάσεις περὶ τὸν ἀέρα συνισταμένας δι' ἀνωμαλίαν τῶν ἐνοπτριζόντων νεφῶν.

b Sources and Other Parallel Texts

General texts: **Strabo** 7.3.18, 307C.24–25 ἢ καὶ τοῦ πάχους τοῦ ἀέρος ἐκθερμαίνονμένου πλέον, καθάπερ ἐν τοῖς νέφεσιν οἱ παρήλιοι ποιοῦσιν.

Chapter heading: **Aristotle Mete.** 3.2 371b18–19 περὶ δὲ ἄλλω καὶ ἱριδος, τί τε ἐκάτερον καὶ διὰ τίν' αἰτίαν γίγνεται, λέγωμεν, καὶ περὶ παρηλίων καὶ ῥάβδων. **John Philoponus in Mete.** 3.11–12 περὶ ... παρηλίων καὶ ῥάβδων.

§1 anonymous: **Aristotle Mete.** 3.6 377a30–377b4 γίγνεται γὰρ παρήλιος μὲν ἀνακλωμένης τῆς ὀψews πρὸς τὸν ἡλίον, ῥάβδοι δὲ διὰ τὸ προσπίπτειν τοιαύτην οὖσαν τὴν ὀψιν, οἷαν εἵπομεν αἰεὶ γίνεσθαι ὅταν πλησίον ὄντων τοῦ ἡλίου νεφῶν ἀπὸ τινος ἀνακλασθῇ τῶν ὑγρῶν πρὸς τὸ νέφος· φαίνεται γὰρ αὐτὰ μὲν ἀχρωματίστα τὰ νέφη κατ' εὐθυωρίαν εἰσβλέπουσιν, ἐν δὲ τῷ ὕδατι ῥάβδων μεστὸν τὸ νέφος· πλὴν τότε μὲν ἐν τῷ ὕδατι δοκεῖ τὸ χρῶμα τοῦ νέφους εἶναι, ἐν δὲ ταῖς ῥάβδοις ἐπ' αὐτοῦ τοῦ νέφους.

Liber 3 Caput 7

- P^P**: *Papyrus Antinoopolis* 85 fr. 2 verso, pp. 75–76 Barns–Zilliacus—**P^B**: ps.Plutarchus *Plac.* 895A–B; pp. 374^a18–375^a11 Diels—**P^G**: ps.Galenus *HPH* c. 79; p. 632.6–15 Diels; pp. 256–264 Jas—**PJⁿ**: Julianus Arianista *Comm. in Job* pp. 272.18–273.3 Hagedorn—**P^Q**: Qustā ibn Lūqā pp. 176–179 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 146, p. 75 Westerink (titulus solus)—**P^{Sy}**: Symeon Seth *CRN* 2.24, p. 21.16 Delatte (titulus solus)
- S**: Stobaeus *Ecl.* 1.32, p. 248.2–11 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b19 Henry (titulus solus)
- Cf. Ach: Achilles *Univ.* c. 32 p. 50.13–14; c. 33 p. 50.15–51.11 Di Maria; *Scholia in Aratum schol.* 786, p. 395.11–12; *schol.* 845, p. 418.7–8 Martin

Titulus ζ'. Περὶ ἀνέμων (P,S)

- §1 Ἀναξίμανδρος ἀνεμον εἶναι ῥύσιν ἀέρος, τῶν λεπτοτάτων ἐν αὐτῷ καὶ ὑγροτάτων ὑπὸ τοῦ ἡλίου κινουμένων ἢ τηκομένων. (P1)
- §2 οἱ Στωικοὶ πᾶν πνεῦμα ἀέρος εἶναι ῥύσιν, ταῖς τῶν τόπων δὲ παραλλαγαῖς τὰς ἐπωνυμίας παραλλάττουσαν· οἷον τὸν ἀπὸ τοῦ ζόφου καὶ τῆς 5 δύσεως ζέφυρον ὠνόμαζον, τὸν δ' ἀπὸ τῆς ἀνατολῆς καὶ τοῦ ἡλίου ἀπηλιώτην, τὸν δ' ἀπὸ τῶν ἄρκτων βορέαν, τὸν δ' ἀπὸ τῶν νοτίων λίβα. (P2)
- §3 Μητρόδωρος ἐξ ὑδατώδους ἀναθυμιάσεως διὰ τὴν ἡλιακὴν ἔκκαυσιν γίνεσθαι ὀρμὴν πνευμάτων θε(ρ)ι(ν)ῶν· τοὺς δ' ἑτησίας πνεῖν τοῦ πρὸς 10 ταῖς ἄρκτοις παχυνθέντος ἀέρος, ὑποχωροῦντι τῷ ἡλίῳ κατὰ τὴν θερινήν τροπὴν ἐπισυρρέοντος. (P3)

§1 Anaximander 12A24 DK; §2 Stoici SVF 2.697; §3 Metrodorus 70A18 DK

§§1–3 non hab. S §1 [2] post nomen hab. οἶται P^G || ῥύσιν P^G || [2–3] λεπτοτάτων–ὑγροτάτων–κινουμένων–τηκομένων] λεπτοτάτην–ὑγροτάτην–κινουμένην–τηκομένην P^{B(11)} || [3] κινουμένων ἢ τηκομένων inv. P^G §2 [4] πᾶν om. P^{GQ} || ῥύσιν om. P^G || [5] παραλλάττουσαν P^{B(11)} : παραλλάττουσιν P^{B(1,11)} : παραλλάττειν P^G || post παραλλάττουσιν add. *durch welche er fließt* Q || [5–6] τὸν^{1–2} P^G prob. Diels Mau : om. P^B || [5] τοῦ ζόφου τε ψόφου P^{B(11)} || [6] ὠνόμαζον P^G, cf. *Dieser Name ist in der Sprache der Griechen von der 'Dunkelheit' und vom 'Fließen' abgeleitet* Q : om. P || καὶ P^{B(11)G} : om. P^{B(1,11)} || [7] post ἄρκτων add. εἶναι P^{B(11)} || τὸν ... λίβα al. P^G τὸν ἀπὸ τῆς μεσημβρίας νότον (cf. Ach) §3 [9] post nomen hab. P^G δὲ || ἐξ P^{B(11)} : om. P^{B(1,11)G}, prob. Diels || [10] θε(ρ)ι(ν)ῶν scripsimus, vid. comm. D(d)§4 : †θειων† crucif. edd. : om. P^G : θερμῶν vel ἀθρόων dub. Diels DG in app. : ἰθ(ι)ων Kern ap. DK || ἑτησίας^{B(1,11)} : ἑτησίους^{B(11)} || [11] post παχυνθέντος lac. hab. P^G, ἀέρος ὑποχωροῦντος con. Diels, ἀέρος ὑποχωροῦντι (cf. P^B) Jas sed non in text. pos. || τῷ ἡλίῳ P^{BQG(1,Nic)} Diels DG : τοῦ ἡλίου P^{G2} Diels || [12] ἐπισυρρέοντος corr. Diels : ἐπισυρρέοντας P : om. P^G

§4 Ἀριστοτέλης τῆς ξηρᾶς ἀναθυμιάσεως τὴν πρώτην ἀναφοράν· γίνεσθαι δέ ποτε τῇ ξηρᾷ πρὸς τὴν ὑγρὰν μίξιν. (S1)

§4 cf. Aristoteles *Mete.* 2.4 360a12–13 + 361b1

§4 non hab. P || [14] δέ restituimus : μὲν S || post μίξιν in S sequuntur aliqua ex AD, cf. Diels DG ad loc., prob. Wachsmuth

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 2 verso (~ P§2)

] ... [
 τ]αῖς τ[ων
 ε]πωνυ[μίας
] καὶ τῆς δ[ύσεως
5 κ]αὶ τοῦ ἡλ[ίου]

ps.Galenus *HPh* c. 79 Περὶ ἀνέμων (~ tit.) (text Jas)

79.1 (~P1) Ἀναξίμανδρος οἶεται ἄνεμον εἶναι λύσιν ἀέρος τῶν λεπτοτάτων ἐν αὐτῷ καὶ ὑγροτάτων ὑπὸ τοῦ ἡλίου τηκομένων ἢ κινουμένων.

79.2 (~P2) οἱ Στωικοὶ πνεῦμα ἀέρος εἶναι λύσιν ἡγούνται τε τὸν τόπον παραλλαγαῖς τὰς ἐπωνυμίας παραλλάττειν, οἷον τὸν μὲν ἀπὸ ζόφου καὶ τῆς δύσεως ζέφυρον ὠνόμαζον, τὸν ἀπὸ τῆς ἀνατολῆς καὶ τοῦ ἡλίου ἀπηλιώτην, τὸν ἀπὸ τῶν ἄρκτων βορέαν, τὸν ἀπὸ τῆς μεσημβρίας νότον.

79.3 (~P3) Μητρόδωρος δὲ ὑδάτων ἀναθυμιάσιν διὰ τὴν ἡλιακὴν ἔκκαυσιν γίγνεσθαι ὀρμὴν πνευμάτων· τοὺς δὲ ἐτησίας πνεῖν τοῦ πρὸς ταῖς ἄρκτοις παχυνθέντος [...] τῷ ἡλίῳ κατὰ τὴν θερινὴν τροπὴν.

Julianus Arianista *Comm. in Job* p. 272.18–273.3 Hagedorn (~ P2–3) ἄνεμος γάρ ἐστι ρεύμα ἀέρος ταῖς τῶν τόπων ἐξαλλαγαῖς τὰς ἐπωνυμίας ἀμείβον· ἐκ μὲν γὰρ τοῦ ζοφώδους τῆς δύσεως ὅταν ῥέῃ ζέφυρος γίνεται, ἀπὸ δὲ τῆς ἀνατολῆς ἀπηλιώτης, καὶ ἀπὸ τῆς ἄρκτου βορρᾶς, λιψὶ δὲ ἀπὸ τῶν νοτίων. || τοὺς δὲ ἐτησίας πνεῖν (τοῦ) πρὸς ταῖς ἄρκτοις (παχυνθέντος ἀέρος ὑποχωροῦντι τῷ ἡλίῳ κατὰ τὴν θερινὴν τροπὴν ἐπισυρρέοντος).

Psellus *Omn.Doctr.* c. 146 (~ tit.) Περὶ ἀνέμων

Symeon Seth *CRN* 2.24 (~ tit.) Περὶ ἀνέμων

Testes secundi:

Achilles *Univ.* c. 32 p. 50.13–14 (~ tit.) πρῶτον δὲ περὶ ἀνέμων εἵπωμεν.

c. 33 p. 50.15–51.11 (~ tit.) Περὶ ἀνέμων, καὶ ὅτι διαφέρει αὖρα ἀναθυμιάσεως. Ἀναξίμανδρος (fr. 89 Wöhrle) τοῖνον ῥύσιν ἀέρος τὸν ἄνεμον εἶπε (~ §1), τινὲς δὲ ἀναθυμιάσιν ἀέρος (~ §3). ἄλλοι δὲ διαφέρειν ἄνεμον λέγουσιν αὖρας· ἄνεμον γὰρ εἶναι ῥύσιν ἀέρος, αὖραν δὲ ἀναθυμιάσιν γῆς, καὶ τοὺς μὲν ἐκ νεφῶν λέγουσιν

εἶναι ἀνέμους καὶ καλεῖσθαι ἐκνεφίας, τοὺς δὲ ἀπὸ γῆς φερομένους ἀπογε(ί)ους, τοὺς δὲ ἀπὸ ποταμῶν ἐξυδρίας, ἀπὸ δὲ κόλπων κολπίας, ἀπὸ δὲ ὀρώων ὀρίας ἢ ὀρεστίας καὶ παρὰ Ἀριστοτέλει ἐν τῷ Περὶ ἀνέμων (Aristotle fr. 250 Rose³, i.e. ps.Aristotle) καὶ παρὰ Καλλιμάχῳ (fr. 404 Pfeiffer), ὥστε καὶ ἀπὸ τόπων τινὰς λέγεσθαι, οἷον Καϊκίαν τὸν ἀπὸ Καΐκου τοῦ ποταμοῦ πνέοντα καὶ Σκεῖρωνα τὸν ἀπὸ τῶν Σκειρωνίδων πετρῶν. τινὲς δὲ ἀπὸ ὀρμῆς ὠνομάσθησαν, ὡς οἱ σφοδρῶς ῥέοντες καταγίδες καὶ οἱ μετὰ παλμοῦ τινος καὶ πηδήματος θύελλαι. οἱ δὲ ἀπὸ σχήματος λέγονται, ὥσπερ οἱ μετὰ δινήσεως στρόβιλοι καὶ οἱ κάτωθεν εἰς ὕψος φερόμενοι πρηστήρες. ἐπραγματεύσατο δὲ περὶ ἀνέμων καὶ Ἐρατοσθένης (fr. II.54 Bernhardt). οἱ δὲ γενικώτατοι ἄνεμοι τέσσαρές εἰσι, καὶ ὁ μὲν ἀπὸ ἀνατολῶν πνέων καλεῖται ἀπηνλιώτης, ὁ δὲ ἀπὸ τοῦ ἀρκτικού πόλου βορέας, ὁ δὲ ἀπὸ τοῦ ἀνταρκτικοῦ νότος, ὁ δὲ ἀπὸ δύσεως ζέφυρος· ζόφος γὰρ ἢ δύσις κατὰ τοὺς ποιητάς (~ §2).

Scholia in Aratum schol. 786, p. 395.11–12 Martin καὶ γὰρ οὐδὲν ἄλλο ἄνεμος ἢ ῥύσις ἀέρος (~ §1); **schol.** 845, p. 418.7–8 Martin καὶ γὰρ ὁ ἄνεμος οὐδὲν ἄλλο ἢ ἀήρ ῥέων καὶ ποῖαν λαμβάνων κίνησιν, ἅπερ ἐκ τῆς αὐτοῦ τροπῆς συμβαίνει γίνεσθαι (~ §1).

Loci Aetiani:

quaestio A 1.2.1 πάντα γὰρ τὰ ὀρώμενα, ὅσα μῆτε ὑπὸ τύχης μῆτε ὑπ' ἀνάγκης μῆτ' ἐστὶ θεία μῆτε τοιαύτην αἰτίαν ἔχει, φυσικὰ λέγεται καὶ φύσιν ἔχει ἰδίαν· οἷον γῆ πῦρ ὕδωρ ἀήρ φυτὰ ζῶα· ἔτι δὲ ταῦτα τὰ γινόμενα, ὅμβριοι χάλαζαι κεραυνοὶ πρηστήρες ἄνεμοι· ταῦτα γὰρ ἔχει ἀρχὴν τινα· οὐ γὰρ ἐξ αἰῶνος ἕκαστον τούτων ἐστὶν ἄλλ' ἀπὸ τινος ἀρχῆς γίνεσθαι.

§1 A 3.17.1 Ἀριστοτέλης καὶ Ἡρακλείδης ὑπὸ τοῦ ἡλίου τὰ πλεῖστα τῶν πνευμάτων κινούντος καὶ συμπεριφέροντος (sc. ἄμπωτιν καὶ πλήμμυραν γίνεσθαι).

§2 A 3.17.4 Ποσειδώνιος ὑπὸ μὲν τῆς σελήνης κινεῖσθαι τοὺς ἀνέμους.

§3 A 2.23 tit. Περὶ τροπῶν ἡλίου. 2.23.1 Ἀναξιμένης ὑπὸ πεπυκνωμένου ἀέρος καὶ ἀντιτύπου ἐξωθεῖσθαι τὰ ἄστρα. 2.23.2 Ἀναξαγόρας ἀνταπώσει τοῦ πρὸς ταῖς ἄρκτοις ἀέρος, ὃν αὐτοὶ συνωθῶν ἐκ τῆς πυκνώσεως ἰσχυροποιεῖ. 2.23.3 Διογένης ὑπὸ τοῦ ἀντιπίπτοντος τῇ θερμότητι ψυχροῦς σβέννυσθαι τὸν ἥλιον. **A 4.1.1** Θαλῆς τοὺς ἐτησίως ἀνέμους οἶεται πνέοντας τῇ Αἰγύπτῳ ἀντιπροσώπους ἐπαίρειν τοῦ Νείλου τὸν ὄγκον διὰ τὸ τὰς ἐκροὰς αὐτοῦ τῇ παροιδῆσει τοῦ ἀντιπαρήκοντος πελάγους ἀνακόπτεσθαι. **A 4.1.4** ὑπὸ τῶν ἐτησίων ἀνέμων.

§4 A 3.1.9 Ἀριστοτέλης ἀναθυμιάσεως ξηρὰς ἑξαψιν κτλ. **A 3.2.4** Ἀριστοτέλης τῆς ξηρὰς ἐκ γῆς ἀναθυμιάσεως κτλ. **3.3.13** Ἀριστοτέλης ἐξ ἀναθυμιάσεως καὶ τὰ τοιαῦτα γίνεσθαι τῆς ξηρὰς. ὅταν οὖν ἐντύχη μὲν τῇ ὕγρῃ κτλ. **3.15.5** Ἀριστοτέλης ... ἐν ἀπολήψει γινομένης τῆς ξηρὰς ἀναθυμιάσεως κτλ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses are P, represented by P^P (snippets of four lines of §2), P^B, P^G, P^{Ps} and P^Q, and S. P has omitted §4, perhaps because Aristotle's dry exhalation has already been amply treated elsewhere. On the other hand S' truncated ch. 1.32 consists of §4 only, so the loss of §§1–3 in this branch of the tradition must again be due to the Byzantine excerptors. As Diels noted, in S the lemma from A is coalesced with a fragment of AD; see M–R 1.249–254, 3.325, and Jeremiah at M–R 4.286 and 353. T, as always for Book 3, is absent.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Winds are the subject of Seneca *Nat.* Book 5 (= Book 4 according to the original order). Other relevant proximate sources are (as is usual in the present series of chapters) Pliny the Elder, ps.Aristotle *De mundo*, Arrian and the *Scholia* on Aratus, which used to be derived from Posidonius and are still so attributed by Theiler.

(2) *Sources.* §4, Aristotle, is a straightforward abstract from *Mete.* 2.4. The sources for the other lemmata are not known. We may also cite ch. [13.] of Theophrastus' (?) *Metarsiology*, though the contents of this substantial chapter have little in common with our ch. 3.7.

C *Chapter Heading*

The heading, of the umbrella type (περί τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C), is confirmed in all witnesses. It also occurs as a chapter heading elsewhere, and as a book title, e.g. of a tract of Theophrastus. Here it comprises the question type of cause (διὰ τί, and the sub-type *unde*) as well as the question types/categories of substance and quality, and the category of place.

D *Analysis*

a Context

For a general explanation of A's order see above, Introduction to Book 3, section 2, and Book 3.procēm. at Commentary D(a). In Aristotle the chapters on winds and *pneumata* in general, *Mete.* 2.4–6, are between those on the rivers (1.13–14) and the sea (2.1–3) and those on earthquakes (2.7–8). Treatment of this theme had been announced already at *Mete.* 1.13 349a12. Since *pneuma* plays an important part in the aetiology of earthquakes, the treatment of winds and all other *pneumata* appropriately comes before that of earthquakes. In Seneca's *Naturales quaestiones* Book 5 (originally Book 4), on winds, comes

before Book 6 (originally Book 5), on earthquakes, the same sequence as in Aristotle. In A the chapter on winds comes before ch. 3.8, on summer and winter as the last phenomena with an atmospheric aetiology (note the reference to summer in §3), while the chapter on earthquakes, 3.15, comes before the two chapters on the sea, 3.16–17.

b Number–Order of Lemmata

P has 3 lemmata, S only 1, and a different one at that. There is no need to interfere with P's order, for the doxai in §1 and §2 contrast with that of §3 (see below, section (c)). This order is also that of Diels in the *DG*. It seems reasonable to add S' lemma with name-label Aristotle at the end, after P's triad, minus the phrase from AD for which see below section (d)§4.

c Rationale–Structure of Chapter

The main diaphonia is between §§1–2, which explain wind as a flow of air, and §§3–4, which explain it as deriving from evaporation. The difference between §1 and §2 is slight, as it consists only in an explanation of the names of the winds in §2. A subsidiary diaphonia holds between the moist exhalation of §3 and the dry exhalation of §4 (with the second part of this doxa adding a compromise position as well). The question-type at issue is that of cause, the $\delta\iota\alpha\ \tau\iota$, and the category of place also plays a part (esp. in §2).

d Further Comments

General Points

Wilson (2013) 76–77 with nn. 6–7, and 196–216, argues that the wind forms the third of the ten groups into which Aristotle divided the meteorological phenomena; cf. above, ch. 3.3 Commentary C ad fin. The definition of wind as a flow of air was rejected by Aristotle but reinstalled by Theophrastus. The latter's *On Winds* begins with the statement 'The nature of the winds, from what and how and through what causes they come to be has been considered before' (Greek text quoted at section E(b) General texts). These aspects are therefore not the theme of this treatise, although they are not avoided, but they are discussed in the long c. 13 of Theophrastus' (?) *Metarsiology*, which is an additional argument in favour of the correctness of the attribution of the treatise.

Individual Points

§2 *Sprache der Griechen* (app. crit.): Q transliterates 'Zephyrus', meaningless in Arabic, and therefore adds an etymological derivation, i.e. *Dunkelheit* and *fließen*. Cf. chs. 2.1.1[2], 4.11.1[17], 4.12.1[9], and 4.19.3[7] and his adaptation of the chapter heading of 1.8.

§3 No satisfactory emendation of the corrupt word in this lemma has as yet been proposed (here one again misses the evidence of S). G omits it. We suggest that a 'Freudian lapsus' (as Timpanaro calls it) occurred, i.e. the easy corruption of a word, here because of the obvious association between πνεῦμα, 'spirit', and θεῖον 'divine' (or ἅγιον 'holy'). We therefore suggest θε(ρ)ι(ν)ῶν, 'summer winds', or perhaps rather 'breezes'. The Etesians blow from ca. 15 May to ca. 15 September, so are summer winds as well. Cf. §3[12] θερινήν and *Corpus Hippocraticum, Diaet.* 37.24 et 26 θερινῶν πνευμάτων, 'summer winds' (trans. Jones LCL). The summer solstice is at 21 June. Diels' suggestion ἀθρόων, based on Diogenes Laertius *V.P.* 10.104 and ps.Aristotle *Mu.* 4 394b9 is palaeographically unlikely.

For the formula ὁρμή τοῦ πνεύματος see e.g. Aristotle *Mete.* 2.8 368a9, ps.Aristotle *Probl.* 33.5 962a5.

§4 Diels and Wachsmuth attribute πνεῦμα μὲν ἐκ πολλῶν συνιουσῶν ἀναθυμιάσεων to A, but it seems more likely and simpler to have the Aristotelian doxa end at 3.4.2 μῆξιν and to attribute the phrase to AD's excerpt from Aristotle.

e Other Evidence

Not surprisingly, winds are among the most widely discussed atmospheric phenomena, and not only because the Greeks were a seafaring people. They are treated in substantial sections of Aristotle's *Meteorology*, namely chs. 1.13 and 2.4–6, in ps.Aristotle *On the Locations and Names of Winds*, in Theophrastus *On Winds*, in Theophrastus *On Weather Signs* 26–37, in ps.Aristotle *Probl.* 26 'What pertains to the winds', and also in ps.Aristotle *Mu.* 4 394b7–395a10. They also receive due treatment in the related literature, e.g. Seneca, Arrian, and Pliny (cf. B above), and in the architect Vitruvius. The *Placita* do not describe the various and more detailed wind roses that were current, but sticks to the early and principal rose of four winds. Seneca, for one, does discuss them: *Nat.* 5.16–17.

E Further Related Texts

a Proximate Tradition

General texts: Manilius 1.102–103 *ventos quae causa moveret / pervidit. Seneca Nat.* 5.7.1 *in universum de ventis diximus; nunc viritim illos incipiamus excutere.* Pliny *Nat.* 2.114 *simili modo ventos vel potius flatus posse et arido siccoque anhelitu terrae gigni non negaverim, posse et aquis aëra exspirantibus, qui neque in nebulam densetur nec crassescat in nubes, posse et solis impulsu agi, quoniam ventus haut aliud intellegatur quam fluctus aëris, pluribusque etiam modis.* *Nat.* 2.117 *viginti amplius auctores Graeci veteres prodidere de his observationes.* Propertius 3.5.25–29 *tum mihi naturae libeat perdiscere mores / ... / unde salo superant venti, quid flamine captet / Eur.* ps.Aristotle *Mu.* 2 392b11 *πνοαί τε ἀνέμων.* *Mu.* 4 394a15–19 (Posidonius fr. 336a Theiler) *γίνονται ... ἀπὸ δὲ τῆς ξηρᾶς (sc. ἀναθυμιάσεως) ἀνεμοί τε καὶ πνευμάτων διαφοραὶ ... καὶ τὰ ἄλλα*

ἃ δὴ τούτοις ἐστὶ σύμφυλα. *Mu.* 4 394b7–9 ἐκ δὲ τῆς ξηρᾶς (sc. ἀναθυμιάσεως) ὑπὸ ψύχους μὲν ὥσθεισθς ὥστε ρεῖν ἄνεμος ἐγένετο· οὐδὲν γάρ ἐστιν οὗτος πλὴν ἀήρ πολὺς ῥέων καὶ ἀθρόος· ὅστις ἅμα καὶ πνεῦμα λέγεται. *Arrian Reb.Phys.* fr. 3, p. 2.187 Roos–Wirth at Stob. *Ecl.* 1.29.2, p. 235.10–11 (Posidonius fr. 338b Theiler) Ἀρριανοῦ. ὅσοι δὲ ξηροὶ ἀτμοί, ῥύντες μὲν εὐθὺς ἀνέμους εἰργάσαντο. *Hippolytus Ref.* 1.8.11 (on Anaxagoras, 59A42 DK) ἀνέμους δὲ γίνεσθαι λεπτυνομένου τοῦ ἀέρος ὑπὸ τοῦ ἡλίου καὶ τῶν ἐκκαιομένων πρὸς τὸν πόλον ὑποχωρούντων καὶ ἀποφερομένων. *Arnobius Adv.Nat.* 2.59, p. 134.1–4 *edissertate, inquam, et dicite ... ventus unde oriatur et quid sit.*

Chapter heading: *Capitula Lucretiana* at DRN 1.277 *de vento*. *Seneca Nat. lib. 5 De ventis*. *Pliny Nat.* 1 p. 12.30–31 *ventorum genera, naturae, observationes*. *Aulus Gellius* 2.22.31 *P. enim Nigidii in secundo librorum, quos De vento composuit*. *Agatharchides Mar.Erythr.* 107 περὶ ... πνευμάτων. *Irenaeus of Lyon Haer.* 2.28.2 Rousseau–Doutreleau (trans. Rufini) *vel quid dicere possumus quomodo ... ventorum immissiones et similia his efficiuntur*. *Isidore of Seville de Nat. capitul.* 36 *De natura ventorum* (in the body of work the heading is *De ventis*). *Etym.* 13.9 *De ventis* (at 13.10 in the body of the work).

§1 Anaximander: *Theophrastus Vent.* 29 ἐν τοῖς στενοῖς αἰεὶ πνεῦμα· μένειν γὰρ ὁ ἀήρ οὐ δύναται διὰ τὸ πλῆθος, ἡ δὲ τούτου κίνησις ἄνεμος. *Corpus Hippocraticum Flat.* 3 (at Diogenes 64C2 DK) πνεύματα δὲ τὰ μὲν ἐν τοῖσι σώμασι φύσαι καλέονται, τὰ δὲ ἔξω τῶν σωμάτων ἀήρ. ... ἄνεμος γὰρ ἐστὶν ἡέρος ῥεῦμα καὶ χεῦμα (cited by *Alexander of Aphrodisias in Mete.* 53.27–28 and *Olympiodorus in Mete.* 171.30). *Lucretius DRN* 6.685 *ventus enim fit, ubi est agitando percitus / aër*. *Seneca Nat.* 5.1.1 *ventus est fluens aër*. *Pliny Nat.* 2.114 *ventus haud aliud intellegatur quam flatus aëris*.

§2 Stoics: *Homer Od.* 5.295–296 σὺν δ' Εὐρώς τε Νότος τ' ἔπесον Ζέφυρός τε δυσσῆς / καὶ Βορέης αἰθρηγενέτης. *Ovid Met.* 1.61–66 *Eurus ad Auroram Nabataeaeque regna recessit / Persidaeque et radiis iuga subdita matutinis; / vesper et occiduo quae litora sole tepescunt, / proxima sunt Zephyro; Scythiam septemque triones / horrifer invasit Boreas; contraria tellus / nubibus adsiduis pluviaeque madescit ab Austro*. *Vitruvius* 1.6.4 *nonnullis placuit esse ventos quattuor: ab oriente aequinoctiali Solanum, a meridie Austrum, ab occidente aequinoctiali Favonium, ab septentrionali Septentrionem*. *Seneca Nat.* 5.16.1–2 *venti quattuor sunt, in ortum occasum meridiem septemtrionemque divisi; ceteri, quos variis nominibus appellamus, his adplicantur. ... (2) vel, si brevius illos complecti mavis, in unam tempestatem, quod fieri nullo modo potest, congregentur*: (*Vergil Aen.* 1.85–86) *una Eurusque Notusque ruunt creberque procellis / Africus*; *et, qui locum in illa rixa non habuit, Aquilo*. *Pliny Nat.* 2.119 *veteres quattuor omnino servavere per totidem mundi partes (ideo nec Homerus plures nominat)*. *ps.Aristotle Mu.* 4 394b19–21 καὶ οἱ μὲν ἀπὸ ἀνατολῆς συνεχεῖς Εὐροὶ κέκληνται, Βορέαι δὲ οἱ ἀπὸ ἄρκτου, Ζέφυροὶ δὲ οἱ ἀπὸ δύσεως, Νότοὶ δὲ οἱ ἀπὸ μεσημβρίας. *Aulus Gellius* 2.22.16 *ex his octo ventis alii quattuor ventos detrahunt atque id facere se dicunt Homero auctore, qui solos quattuor ventos noverit: Eurum, Austrum, Aquilonem, Favonium, a quattuor caeli parti-*

bus, quas quasi primas nominavimus, oriente scilicet atque occidente latioribus atque simplicibus, non triperitis. see below, ch. 3.8 section E(a) for Lucretius DRN 5.736–748.

§3 **Metrodorus:** *Seneca Nat.* 5.10.1 + 4 *Etesiae quoque, qui in argumentum a quibusdam advocantur, non nimis propositum adiuvant. dicam primum quid illis placeat. ... (4) a solstitio illis (sc. Etesian winds) initium est. ... quia iam multum e frigida caeli parte in hanc egestum est, ac sol mutato cursu in nostram rector tendit{ur}, et alteram partem aëris attrahit, alteram vero impellit.*

§4 **Aristotle:** *Seneca Nat.* 5.4.1 *alias cum magna et continua e summo evaporatio in altum egit quae emiserat, luctatio ipsa halitus mixti in ventum vertitur.* **Arius Didymus** at *Stob. Ecl.* 1.32, p. 248.7–8 (and at *DG* p. 375^b5–7) πνεῦμα μὲν ἐκ πολλῶν συνιουσῶν ἀναθυμιάσεων· τὸν γὰρ ἄνεμον μὲν εἶναι ξηρὰς ἀναδόσεως πλήθος κινούμενον περὶ γῆν κτλ. cf. *Seneca Nat.* 5.2.1 (Democritus 68A93a DK).

b Sources and Other Parallel Texts

General texts: **Aristotle** *Top.* 4.5 127a3–8 πάλιν εἰ τοῦ πάθους, οὗ ἐστὶ πάθος, ἐκεῖνο {γένος} φασὶν εἶναι, ὅσον τὸ πνεῦμα ἀέρα κινούμενον· {μᾶλλον γὰρ κίνησις ἀέρος τὸ πνεῦμα} ὁ γὰρ αὐτὸς ἀήρ διαμένει, ὅταν τε κινήται καὶ ὅταν μένη. ὥστ' οὐκ ἔστιν ὅλως ἀήρ τὸ πνεῦμα· ἦν γὰρ ἂν καὶ μὴ κινουμένου τοῦ ἀέρος πνεῦμα, εἴπερ ὁ αὐτὸς ἀήρ διαμένει ὅσπερ ἦν πνεῦμα. *Top.* 7.5 146b27–35 ὀρίζονται ... τὸ πνεῦμα κίνησιν ἀέρος ... προσθετέον ... πόσου καὶ ποίου καὶ ποῦ καὶ ὑπὸ τίνος. οὐ γὰρ ... ἀέρος ὅπως οὐδ' ὅποσος οὐκ κινήθεις πνεῦμα. *Mete.* 2.6 363a21–26 περὶ δὲ θέσεως αὐτῶν, καὶ τίνες ἐναντίοι τίσι, καὶ ποίους ἅμα πνεῖν ἐνδέχεται καὶ ποίους οὐ, ἔτι δὲ καὶ τίνες καὶ πόσοι τυγχάνουσιν ὄντες, καὶ πρὸς τοῦτοις περὶ τῶν ἄλλων παθημάτων ὅσα μὴ συμβέβηκεν ἐν τοῖς Προβλήμασιν εἰρηῆσθαι τοῖς κατὰ μέρος, νῦν λέγωμεν. **Theophrastus** *Vent.* 1 ἡ τῶν ἀνέμων φύσις ἐκ τίνων μὲν καὶ πῶς καὶ διὰ τίνος αἰτίας γίνεται θεωρήσθαι πρότερον· ὅτι δ' ἐκάστοις αἱ δυνάμεις καὶ ὅλως τὰ παρακολουθοῦντα κατὰ λόγον ἀκολουθεῖ πειράσθαι χρὴ λέγειν οἷσπερ σχεδὸν διαφέρουσιν ἀλλήλων. **Theophrastus(?)** *Metars.* c. 13 tit. Daiber The account of the causes of different winds. **Ovid** *Met.* 1.52–56 *inminet his aër, illic consistere ... / iussit ... et ... ventos.* **Alexander of Aphrodisias** in *Top.* 466.27–28 τῷ δὲ ὀρισμῷ τοῦ πνεύματος, ὅτι κίνησις ἀέρος, (sc. ἔδει προσκεῖσθαι) τὸ ἐξ ἀναθυμιάσεως τῆς γῆς. **Themistius** *Or.* 26, p. 2.145.11–13 ἀλλ' οὐδὲ τὰ ἐγγὺς ἡμῶν καὶ χαμαιζήλα καὶ ἐν ποσὶ, ... καὶ πνευμάτων (sc. πέρι). **Proclus** in *Tim.* 2.119.29–120.7 ἡδέως δ' ἂν ἐροίμεθα τὸν Θεόφραστον (fr. 159 FHS&G) ... ζητοῦντος, ..., πόθεν δὲ ἄνεμοι, ... ἃ δὴ καλῶς ποιῶν ἐν τῇ τῶν Μετεώρων αἰτολογία τῆς πρεπούσης τῆς πρεπούσης εἰκοτολογίας καὶ αὐτὸς ἤξίωσεν.

Chapter heading: **Aristotle** *Mete.* 1.13 349a12–13 περὶ δὲ ἀνέμων καὶ πάντων πνευμάτων ... λέγωμεν. *Mete.* 2.4 359b27 περὶ δὲ πνευμάτων λέγωμεν, λαβόντες ἀρχὴν τὴν εἰρημένην ἡμῖν ἤδη πρότερον. **ps.Aristotle** *Probl.* 26 "Ὅσα περὶ τοὺς ἀνέμους. **Theophrastus** at **Diogenes Laertius** *VP.* 5.42 (fr. 137.16a FHS&G) Περὶ ἀνέμων α'. **Achilles** c. 33, p. 51.7 ἐπραγματεύσατο δὲ περὶ ἀνέμων καὶ Ἐρατοσθένης (fr. II.54 Bernhardt). **Alexander of Aphrodisias** in *Mete.* 97.10–11 (cf. *ibid.*

112.32–34) Θεόφραστος (fr. 189.1–2 FHS&G) δὲ ἐν τῷ Περὶ ἀνέμων. **Oribasius** *Coll.Med.* 9.7 Περὶ ἀνέμων. **John Philoponus** in *Mete.* 2.1–2 περὶ ... ἀνέμων.

§1 Anaximander: Aristotle *Mete.* 1.13 349a16–20 εἰσι δὲ τινες οἱ φασὶ τὸν καλούμενον ἀέρα κινούμενον μὲν καὶ ρέοντα ἄνεμον εἶναι, συνιστάμενον δὲ τὸν αὐτὸν τοῦτον πάλιν νέφος καὶ ὕδωρ, ὡς τῆς αὐτῆς φύσεως οὕσης ὕδατος καὶ πνεύματος, καὶ τὸν ἄνεμον εἶναι κίνησιν ἀέρος. *Mete.* 2.4 360a18–21 οὐχ ἡ αὕτη ἐστὶν ἢ τε ἀνέμου φύσις καὶ ἡ τοῦ ὑομένου ὕδατος, καθάπερ τινὲς λέγουσιν· τὸν γὰρ αὐτὸν ἀέρα κινούμενον μὲν ἄνεμον εἶναι, συνιστάμενον δὲ πάλιν ὕδωρ. **Theophrastus(?)** *Metars.* c. 13.6–8 Daiber the wind is ...—as we have said—compound vapour in which the fine is dominating. **Ennius** p. 220 Vahlen *istic est is Iupiter quem dico, quem Graeci vocant / aerem, qui ventus est et nubes, imber postea, / atque ex imbre frigus, ventus post fit, aer denuo*. **Vitruvius** 1.6.2 *ventus autem est aëris fluens unda cum certa motus redundantia*. **Arnobius** *Adv.Nat.* 6.10.6 *intellegimus omnes ventos aëris esse fluorem pulsi et mundanis rationibus concitati*.

§2 Stoics: Homer *Od.* 5.295–296 σὺν δ' Εὐρώς τε Νότος τ' ἔπεσον Ζέφυρός τε δυσαῆς / καὶ Βορέης αἰθρηγενέτης. **Aristotle** *Mete.* 2.6 363b11–17 καλεῖται δὲ κατὰ τὴν θέσιν τῶν τόπων τὰ πνεύματα ὧδε· Ζέφυρος μὲν τὸ ἀπὸ τοῦ Α· τοῦτο γὰρ δυσμὴ ἰσημερινῇ. ἐναντίος δὲ τούτῳ Ἀπηνιῶτης ἀπὸ τοῦ Β· τοῦτο γὰρ ἀνατολὴ ἰσημερινῇ. Βορέας δὲ (καὶ) Ἀπαρκτίας ἀπὸ τοῦ Η· ἐνταῦθα γὰρ ἡ ἄρκτος. ἐναντίος δὲ τούτῳ Νότος ἀπὸ τοῦ Θ· μεσημβρία τε γὰρ αὕτη ἀφ' ἧς πνεῖ, καὶ τὸ Θ τῷ Η ἐναντίον· κατὰ διάμετρον γάρ. **Cicero** *Div.* 2.44 *placet enim Stoicis (SVF 2.699) eos anhelitus terrae, qui frigidi sint, cum fluere coeperint, ventos esse*. **Strabo** 1.2.21, 29C.3–6 εἰσι δὲ τινες οἱ φασὶν εἶναι δύο τοὺς κυριωτάτους ἀνέμους Βορέαν καὶ Νότον, τοὺς δὲ ἄλλους κατὰ μικρὰν ἐγκλισιν διαφέρειν, τὸν μὲν ἀπὸ θερινῶν ἀνατολῶν Εὐρον χειμερινῶν δὲ Ἀπηνιῶτην, δύσεων δὲ θερινῶν μὲν Ζέφυρον χειμερινῶν δὲ Ἀργέστην. **Ovid** *Met.* 1.56–66 *Eurus ... Vesper ... Boreas ... Austro*. **Diogenes Laertius** *VP.* 7.152 (*SVF* 2.698) (τοὺς δ' ἀνέμους ἀέρος εἶναι ῥύσεις· παραλλαττούσας δὲ τὰς ἐπωνυμίας suppl. ab Arnim., lac. Dorandi) παρὰ τοὺς τόπους ἀφ' ὧν ῥέουσι. τῆς δὲ γενέσεως αὐτῶν αἴτιον γίνεσθαι τὸν ἥλιον ἐξατμίζοντα τὰ νέφη.

§3 Metrodorus: Epicurus *Ep.Pyth.* at D.L. 10.100 ἔτι τε (διὰ) πνεύματα κατὰ ἀποφορὰν ἀπὸ ἐπιτηδείων τόπων καὶ δι' ἀέρος κινουμένων, βιαιοτέρως ἐπαρδεύσεως γινομένης ἀπὸ τινων ἀθροισμάτων ἐπιτηδείων εἰς τὰς τοιαύτας ἐπιπέμψεις. **Vitruvius** 1.6.2 *ventus ... nascitur, cum fervor offendit umorem et impetus spiritus factionis exprimit vim flatus*.

§4 Aristotle: Aristotle *Mete.* 2.4 360a12–13 ἡ δὲ ξηρὰ (sc. ἀναθυμίασις) τῶν πνευμάτων ἀρχὴ καὶ φύσις πάντων + 359b32–34 ἔστι δ' οὕτε το ὑγρὸν ἄνευ τοῦ ξηροῦ οὕτε το ξηρὸν ἄνευ τοῦ ὑγροῦ, ἀλλὰ πάντα ταῦτα λέγεται κατὰ τὴν ὑπεροχὴν + 361b1 ἐκ πολλῶν ἀναθυμιάσεων συνιουσῶν. **Theophrastus(?)** *Metars.* c. 13.22 Daiber strong winds occur, when many vapours ascend.

Liber 3 Caput 8

P^B: ps.Plutarchus *Plac.* 895C; pp. 375^a12–376^a5 Diels—**P^G**: ps.Galenus *HPh* c. 80; p. 632.16–19 Diels; pp. 265–267 Jas—**P^Q**: Qustā ibn Lūqā pp. 178–179 Daiber
S: Stobaeus *Ecl.* 1.8.42b, p. 107.8–12 Wachsmuth
Cf. Eusebius *PE* 15.32.10, p. 407.1–5; 15.54.3, p. 417.17–18; 15.58.4, p. 419.19–20 Mras

Titulus η'. Περὶ χειμῶνος καὶ θέρους (P)

- §1 Ἐμπεδοκλῆς καὶ οἱ Στωικοὶ χειμῶνα μὲν γίνεσθαι τοῦ ἀέρος ἐπικρατοῦντος τῇ πυκνώσει καὶ εἰς τὸ ἀνωτέρω βιαζομένου, θερείαν δὲ τοῦ πυρός, ὅταν εἰς τὸ κατωτέρω βιάζεται. (P1,S1)
- §2 περιγεγραμμένων δέ μοι τῶν μεταρσίων, ἐφοδευθήσεται καὶ τὰ πρόσγεια. (P2) 5

§1 Empedocles 31A65 DK; Stoici *SVF* 2.696

titulus non hab. S §1 [2] ἀέρος] ἑάρος ^{S^F}: ἕαρος ^{S^P} || [3] καὶ P : om. S || ἀνωτέρω ^{P^B}: ἀνώτερον ^{P^GS} || βιαζομένου] *wendet* Q || [3] θερείαν] θέρος ^{P^G} || [4] κατωτέρω P : κατώτερον ^{S^F}, κατότερον ^{S^P} || βιάζεται P^(1,111)^{S^F}: βιάζεται P⁽¹⁾^{S^P}: *wendet* Q §2 lemma om. G, non hab. S

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus c. 80 (~ tit.) Περὶ χειμῶνος καὶ θέρους (text Jas)

80.1 (~ P1) Ἐμπεδοκλῆς καὶ οἱ Στωικοὶ χειμῶνα μὲν γίνεσθαι τοῦ ἀέρος ἐπικρατοῦντος τῇ πυκνώσει καὶ εἰς τὸ ἀνώτερον βιαζομένου, θέρος δὲ τοῦ πυρός, ὅταν εἰς τὸ κατωτέρω βιάζεται.

Testes secundi:

Eusebius *PE* 15.32.10 θῆσω δὲ ἐξῆς τοῖς εἰρημένοις ὅσα καὶ περὶ τῶν προσγειοτέρων ἐπηπόρησαν, περὶ γῆς σχήματος (~ tit. c. 3.10) καὶ περὶ θέσεως (~ tit. c. 3.11) καὶ ἐγκλίσεως (~ tit. c. 3.10) αὐτῆς καὶ ἔτι περὶ θαλάσσης (~ tit. c. 3.16), ὡς ἂν εἰδείης ὅτι μὴ (περὶ) μόνων τῶν μετεώρων (cf. liber 2) καὶ μεταρσίων (cf. cc. 3.1–8) οἱ γενναῖοι διέστησαν, ἀλλ' ὅτι καὶ ἐν τοῖς περιγείοις (cf. cc. 3.9–17) διαπεφωνήκασιν. *PE* 15.54.3 καὶ περὶ μὲν τῶν οὐρανίων (cf. liber 2) καὶ μεταρσίων (cf. chs. 3.1–8) τοσαῦτα τοῖς δεδηλωμένοις πρὸς ἀλλήλους διεστασίασαι. θέα δὲ καὶ τὰ περὶ γῆς (cf. cc. 3.9–17). *PE* 15.58.4 τούτων καὶ περὶ γῆς διαπεφωνημένων τοῖς γενναίοις ἄκουε καὶ τῶν περὶ θαλάσσης (cf. cc. 3.9–17).

Loci Aetiani:

titulus A 2.19 Περὶ ἐπισημασίας ἀστέρων καὶ πῶς γίνεται χειμῶν καὶ θερός.

§2 A 1.4.2 τὰ μὲν οὖν κυριώτατα μέρη τοῦ κόσμου τὸν τρόπον τοῦτον ἐγεννήθη.

A 3.prooem. περιωδευκῶς ἐν τοῖς προτέροις ἐν ἐπιτομῇ τὸν περὶ τῶν οὐρανίων λόγον, σελήνη δ' αὐτῶν τὸ μεθόριον, τρέψομαι ἐν τῷ τρίτῳ πρὸς τὰ μετάρσια.
A 3.5.1 τῶν μεταρσίῳν παθῶν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses are P, represented by P^B, P^G and P^Q, and S. §2 is only found in P^B, while §1 in S is preserved much earlier on at *Ecl.* ch. 1.8, under the heading 'On the substance of time and its parts and of how many things it is the cause'. This chapter in S also contains abstracts from ch. 1.21, 'On time', from ch. 1.22, 'On the substance of time', and from ch. 2.32, 'On the year' etc., which S has also collected by removing them from their original position in subsequent books of the *Placita*. T did not excerpt Book 3.

B *Proximate Tradition and Sources*

(1) *Proximate tradition*. The proximate tradition of §1 is rather sparse, apart from a rather general sentence in the Stoic Book 7 of Diogenes Laertius. Formulas resembling §1 are found in Seneca and Eusebius. There is no precedent in Theophrastus' (?) *Metarsiology*.

(2) *Sources*. The doctrine is Stoic, see Diogenes Laertius *VP*. 7.151 cited at section E(b)§1. There is virtually no precedent in Aristotle apart from general remarks about the motions of the sun.

C *Chapter Heading*

The heading, of the umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C), is only preserved in the tradition of P. We have found no parallel elsewhere. It covers the question type of cause (διὰ τί), the category of the substance ('air', 'fire'), and the category of place ('higher', 'lower').

D *Analysis*

a Context

For the explanation of A's chapter order in general see above, Book 3.prooem. at Commentary D(a). The present chapter is the last in the series of nine consecutive chapters (including ch. 5a) dealing with atmospheric phenomena. It follows upon the chapter on winds (Lucr. *DRN* 5.736–748 treats seasons and

winds together). The single doxa it presents, on the vertical motions of air and fire which by turns press each other up and down, may perhaps be interpreted as providing a sort of appendix to ch. 3.7.1–2, which are about air movements that are, for the most part, horizontal. In Seneca the parallel material is found in a different context, viz. in Book 2 (originally Book 8), ‘On lightning and thunder’. §2 provides the announcement of the treatment of the terrestrial matters that occupy chs. 3.9–17. P’s isolated final chapter, 3.18, actually belongs with the series of eight, and more particularly after ch. 3.5, so we have given it the position 3.5a.

b Number–Order of Lemmata

Diels in the *DG* left a blank line between §1 and §2, which he failed to do at ch. 1.4, where a lemma of the standard type is likewise followed by an authorial remark. He may have done so because in ch. 1.4 this is linked to a single chapter only, while here it is linked to multiple chapters. It is of course entirely clear that §2, also looking forward to what is to follow, has to come after §1, as in the *DG*.

The little chapter may well be complete, but in the absence of most of S we cannot know.

c Rationale–Structure of Chapter

If we include the second part, we have two lemmata of an entirely different nature. In fact the structure, if we may use the term here, is that of a doxa followed by an attached authorial note, which we could easily separate out as at the beginning of the book, but for the sake of convenience we have kept the two separate parts together. In effect this chapter is monolemmatic, but unlike chs. 3.5a and 3.7 it has name-labels. Though there is a suggestion that the seasons follow each other in a cycle, this is not stated explicitly, as the emphasis is on the causal explanation of the heat of summer and the cold of winter.

d Further Comments

General Points

There is another chapter dealing with summer and winter in the *Placita*, viz. ch. 2.19 according to the second part of the title in P, and the ‘signs relating to winter and summer’ mentioned in its first lemma. Lucretius discusses summer and winter among the *caelestia*.

Individual Points

§1 βιαζομένου] ‘sc. τὸν ἥλιον, was wohl im Original aus dem Zusammenhange klar war’, DK ad loc. We note that the heavenly bodies, esp. the sun, are not

mentioned explicitly in our lemma, though they do appear in the parallels quoted below in section E(a) and (b).

§2 On this lemma see M–R. 2.1.55.

e Other Evidence

In most related texts the emphasis is on the regularity of the seasons' following one after the other.

E Further Related Texts

a Proximate Tradition

General texts: Lucretius *DRN* 5.736–748 *ordine cum videas tam certo multa creari: / it Ver et Venus, et Veneris praenuntius ante / pennatus graditur, Zephyri vestigia propter / Flora quibus mater praespargens ante viai / cuncta coloribus egregiis et odoribus opplet. / inde loci sequitur Calor aridus et comes una / pulverulenta Ceres et etesia flabra Aquilonum. / inde Autumnus adit, graditur simul Euhius Euan; / inde aliae tempestates ventique secuntur, / altitonans Voltumnus et Auster fulmine pollens. / tandem Bruma nives adfert pigrumque rigorem / reddit. Hiemps sequitur crepitans hanc dentibus algu.* **Propertius** 3.5.25–38 *tum mihi naturae libeat perdiscere mores / ... / plenus et in partes quattuor annus eat.* **ps.Vergil** *Etna* 239–241 (*scire*) *tempora cur variant anni (ver, prima iuventa / cur aestate perit, cur aestas ipsa senescit / autumnoque obrepi hiemps et in orbe recurrit?)* **Hermogenes** *Id.* 1.6.4.5–6 *Patillon* οἶον ὥρων φύσεις εἰ ἐξετάζοι τις, ὅπως τε καὶ καθ' ἃς αἰτίας γίνονται. **Arnobius** *Adv.Nat.* 2.59, p. 134.15–17 *cur temporum vicissitudines institutae, cum statui unum posset et una esse species caeli, nihil ut rerum desideraret integritas?*

Chapter heading: *Capitula Lucretiana* at *DRN* 5.737 *de anni temporibus.* **Pliny** *Nat.* 1 p. 12.24 *vis temporum anni stata.*

§1 **Empedocles Stoics:** **Pliny** *Nat.* 2.105 *quis enim aestates et hiemes quaeque in temporibus annua vice intelleguntur siderum motu fieri dubitet? ergo ut solis natura temperando intellegitur anno etc.* **Seneca** *Nat.* 2.1.1 *quemadmodum anni vices servet (sc. caelum), solem retro flectat.* *Nat.* 2.11.1–2 *qui (sc. aër) cum sic divisus sit, ima sui parte maxime varius inconstans ac mutabilis est. circa terras plurimum audet plurimum patitur, exagitur exagitat, nec tamen eodem modo totus adficitur sed aliter alibi, et partibus inquietus ac turbidus est. (2) causas autem illi mutationis et inconstantiae alias terra praebet, cuius positiones hoc aut illo versae magna ad aëris temperiem momenta sunt, alias siderum cursus. ex quibus soli plurimum imputes: illum sequitur annus, ad illius flexus hiemes aestatesque vertuntur; lunae proximum ius est; sed ceterae quoque stellae non minus terrena quam incumbentem terris spiritum adficiunt, et cursu suo occursu contrario modo frigora modo imbres aliasque terris turbide iniurias movent.* **Arius Didymus** fr. 26 *Diels* at *Stob. Ecl.* 1.8.42a, p. 106.26–107.3 (on Chrysippus, *SVF* 2.693) ἔαρ δὲ ἔτους ὥραν κεκραμένην ἐκ χειμῶνος ἀπολήγοντος καὶ θέρους ἀρχομένου, ἣ τὴν μετὰ χειμῶνα ὥραν πρὸ θέρους. θέρους δὲ ὥραν ἔτους

τὴν μάλιστα ὕψ' ἡλίου διακεκαυμένην. μετόπωρον δὲ ὦραν ἔτους τὴν μετὰ θέρος μὲν πρὸ χειμῶνος δέ, κεκραμένην. χειμῶνα δὲ ὦραν ἔτους τὴν μάλιστα κατεψυγμένην, ἢ τὸν περὶ γῆν ἀέρα κατεψυγμένον.

§2 Proem to the rest of the Book: Seneca Nat. 2.1.1–4 *omnis de universo quaestio in caelestia sublimia terrena dividitur. ... (2) ... tertia illa pars de aquis terris arbustis satis quaerit, et, ut iurisconsultorum verbo utar, de omnibus quae solo continentur. ... (4) dicam quod magis tibi mirum videbitur: inter caelestia de terra dicendum erit. 'quare?' inquis. quia cum propria terrae ipsius excutimus suo loco, utrum (cf. ch. 3.10) lata sit et inaequalis et enormiter proiecta, an tota in formam pilae spectet et in orbem partes suas cogat, alliget aquas an aquis alligetur, ipsa animal sit an iners corpus et sine sensu, plenum quidem spiritus sed alieni, et cetera huiusmodi quotiens in manus venerint, terram sequentur et in imo collocabuntur.*

b Sources and Other Parallel Texts

§1 Empedocles Stoics: Aristotle Mete. 2.4 361a12–13 διὰ μὲν οὖν τὴν φορὰν (sc. τοῦ ἡλίου) τὴν ἐπὶ τροπὰς καὶ ἀπὸ τροπῶν θέρος γίγνεται καὶ χειμῶν. *GA* 4.2 767a5–6 ὁ μὲν γὰρ ἥλιος ἐν ὅλῳ τῷ ἐνιαυτῷ ποιεῖ χειμῶνα καὶ θέρος. **ps.Aristotle Probl.** 26.8 941a1–5 διὰ τί αἱ μὲν καθαραὶ δύσεις εὐδαιμονοῦν σημεῖον, αἱ δὲ τεταραγμέναι χειμερινόν; ἢ ὅτι χειμῶν ['storm'] γίγνεται συνισταμένου καὶ πυκνουμένου τοῦ ἀέρος; ὅταν μὲν οὖν κρατῇ ὁ ἥλιος, διακρίνει καὶ αἰθριάζει αὐτόν, ὅταν δὲ κρατῇται, ἐπινεφεῖ ποιεῖ. **Corpus Hippocraticum Flat.** 3 χειμῶνος καὶ θέρος αἴτιον, ἐν μὲν τῷ χειμῶνι πυκνὸν καὶ ψυχρὸν γινόμενον (sc. τὸν ἀέρα), ἐν δὲ τῷ θερεί πρηνὺ καὶ γαληνόν. **Cicero ND** 2.49 *inflectens autem sol cursum tum ad septemtriones tum ad meridiem aestates et hiemes efficit.* **Diogenes Laertius VP.** 7.151–152 (on Stoics, *SVF* 2.693) τῶν δ' ἐν ἀέρι γινομένων χειμῶνα μὲν εἶναι φασι τὸν ὑπὲρ γῆς ἀέρα κατεψυγμένον διὰ τὴν τοῦ ἡλίου πρόσω ἀφοδόν, ἔαρ δὲ τὴν εὐκρασίαν τοῦ ἀέρος κατὰ τὴν πρὸς ἡμᾶς πορείαν· θέρος δὲ τὸν ὑπὲρ γῆς ἀέρα καταθαλπόμενον τῇ τοῦ ἡλίου πρὸς ἄρκτον πορείᾳ, μετόπωρον δὲ τῇ παλινδρομίᾳ τοῦ ἡλίου ἀφ' ἡμῶν γίνεσθαι. **Pythagorica Hypomnemata** at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58Bia DK) at D.L. 8.26 ἰσόμοιρά τ' εἶναι ἐν τῷ κόσμῳ ... θερμὸν καὶ ψυχρὸν, καὶ ξηρὸν καὶ ὑγρὸν· ὧν κατ' ἐπικράτειαν θερμοῦ μὲν θέρος γίνεσθαι, ψυχροῦ δὲ χειμῶνα· ἐάν δὲ ἰσομοιρῇ, τὰ κάλλιστα εἶναι τοῦ ἔτους, οὗ τὸ μὲν θάλλον ἔαρ ὑγιεινόν, τὸ δὲ φθίνον φθινόπωρον νοσερόν.

Liber 3 Caput 9

P^B: ps.Plutarchus *Plac.* 895C–D; p. 376*6–19 Diels—**P^E**: Eusebius *PE* 15.55.1–5, p. 418.1–8 Mras—**P^G**: ps.Galenus *HPh* c. 81; p. 632.20–24 Diels—**P^Q**: Qusṭā ibn Lūqā pp. 178–179 Daiber—cf. **P^{Sy}**: Symeon Seth *CRN* 2.7, p. 21.16 Delatte
S: Stobaeus *Ecl.* 1.33, p. 248.13–14 Wachsmuth (titulus solus); cf. Phot. *Bibl.* 167, p. 112b19–20 Henry (titulus solus)
 Cf. Ach: Achilles *Univ.* c. 4, pp. 12.26–13.6 Di Maria; *Scholia in Basilium* II 4, pp. 368–369 Poljakov

Titulus θ'. Περὶ γῆς καὶ τίς ἡ ταύτης οὐσία καὶ πόσαι (P,S)

- §1 Θαλῆς καὶ οἱ ἀπ' αὐτοῦ μίαν εἶναι τὴν γῆν. (P1)
 §2 Ἰκέτης ὁ Πυθαγόρειος δύο, ταύτην καὶ τὴν ἀντίχθονα. (P2)
 §3 οἱ Στωικοὶ τὴν γῆν μίαν καὶ πεπερασμένην. (P3)
 §4 Ξενοφάνης ἐκ τοῦ κατωτέρω μέρους 'εἰς ἄπειρον' ἐρριζώσθαι, ἐξ ἀέρος 5
 δὲ καὶ πυρὸς συμπαγῆναι. (P4)
 §5 Μητρόδωρος τὴν μὲν γῆν ὑπόστασιν εἶναι καὶ τρύγα τοῦ ὕδατος, τὸν δ'
 ἥλιον τοῦ ἀέρος. (P5)

§1–2 Hicetas 50.2 DK; §3 Stoici *SVF* 2.647; §4 Xenophanes 21A47 DK, cf. B28.3; §5 Metrodorus 70A20 DK

lemmata non hab. S **titulus** καὶ¹ ... πόσαι **P^B** : εἰ μία καὶ πεπερασμένη καὶ περὶ ποίου μεγέθους καὶ περὶ θέσεως αὐτῆς (i.q. tit. c. 3.11) **S^{LPhot}** : non hab. **P^GEQ** || ταύτης οὐσία **P^{B(I,II)}** : οὐσία ταύτης **P^{B(III)}** || πόσαι **P^{B(I,II)}** || πόση **P^{B(III)}** || §1 [2] post γῆν hab. **P^G** ὑπολαμβάνουσιν §2 [3] Ἰκέτης ... Πυθαγόρειος **P^{BE}** : τῶν δὲ Πυθαγορείων τινὲς **P^G** || Ἰκέτης] οἰκέτης **P^{B(III)}** || ταύτην **P^{BG}** : αὐτὴν **P^E** §3 [4] post οἱ Στωικοὶ hab. **P^G** δὲ || καὶ] om. **P^(BIIDG)** §4 [5] κατωτέρω **P^{B(II)Q}**(ut vid.) : κάτω **P^{B(III,AE)}** : κατωτέρου **P^{B(I,II,III)}** || post ἄπειρον hab. μέρος **P^{B(I,II)E}** : del. Diels prob. edd. : βάθος **P^{B(III)}** prob. Laks–Most : πάθος **P^{B(II)}** : *bis zu ihren oberen (Teil)* Q || ἐρριζώσθαι] *dicht ist* Q || [6] συμπαγῆναι **P^B** : παγῆναι **P^E** prob. Mras ut poeticum §5 [7] post Μητρόδωρος hab. **P^G** δὲ || ὕδατος] ἀέρος **P^G** || [8] ἀέρος] πυρὸς **P^G**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 81 Περὶ γῆς (~ tit.) (text Diels)

- 81.1 (~ P1) Θαλῆς καὶ οἱ ἀπ' αὐτοῦ μίαν εἶναι τὴν γῆν ὑπολαμβάνουσιν.
 81.2 (~ P2) τῶν δὲ Πυθαγορείων τινὲς καὶ ταύτην εἶναι καὶ τὴν ἀντίχθονά φασιν.
 81.3 (~ P3) οἱ Στωικοὶ δὲ γῆν εἶναι μίαν καὶ πεπερασμένην.
 81.4 (~ P5) Μητρόδωρος δὲ τὴν γῆν ὑπόστασιν εἶναι καὶ οἰσινεὶ τρύγα τοῦ ἀέρος νομίζει, τὸν δὲ ἥλιον τοῦ πυρὸς.

Symeon Seth CRN 2.7 περὶ δὲ τοῦ μεγέθους τῆς γῆς πολλὰ γεγονάσι δόξαι (~ quaestio).

Testes secundi:

Achilles Univ. c. 4, pp. 12.26–13.6 Ξενοφάνης (21B28 DK) δὲ οὐκ οἶεται μετέωρον εἶναι τὴν γῆν, ἀλλὰ κάτω εἰς ἄπειρον καθήκειν· ‘γαίης μὲν’ γάρ φησι ‘τόδε πείραρ ἄνω παρὰ ποσσὶν ὁράται / αἰθέρι προσπλάζον, τὸ κάτω δ’ ἐς ἄπειρον ἰκνεῖται’ (~ §4).

Scholia in Basilium II 4 pp. 368–369 Ξενοφάνης ὁ Κολοφώνιος οὐκ οἶεται μετέωρον εἶναι τὴν γῆν, ἀλλὰ κάτω εἰς ἄπειρον(ον) καθήκειν (~ §4).

Loci Aetiani:

titulus A 2.11 Περὶ οὐρανοῦ, τίς ἢ τουτοῦ οὐσία. A 2.13 Τίς ἢ οὐσία τῶν ἄστρον κτλ.
 A 2.20 Περὶ οὐσίας ἡλίου καὶ ὅτι δύο καὶ τρεῖς εἰσὶν. A 2.21 Περὶ μεγέθους ἡλίου.
 A 2.25 Περὶ οὐσίας σελήνης. A 2.26 Περὶ μεγέθους σελήνης. A 1.3.27 ἄπειρα μὲν κατ’ ἀριθμόν, ὠρισμένα δὲ κατὰ μέγεθος. A 1.18.6 ἄπειρον δὲ οὐθὲν ἀπολείπει οὔτε κατὰ τὸ πλῆθος οὔτε κατὰ τὸ μέγεθος.
 §2 A 2.7.6 Φιλόλαος ... πρῶτον δ’ εἶναι φύσει τὸ μέσον, περὶ δὲ τοῦτο δέκα σώματα θεῖα χορεύειν, ... ὑφ’ ἧ τὴν γῆν, ὑφ’ ἧ τὴν ἀντίχθονα. A 3.11.3 Φιλόλαος ὁ Πυθαγόρειος τὸ μὲν πῦρ μέσον, ... δευτέραν δὲ τὴν ἀντίχθονα.
 §4 A 3.11.2 Ξενοφάνης πρῶτην, εἰς ἄπειρον γὰρ ἐρριζώσθαι.
 §5 A 2.20.8 ... Μητρόδωρος μύδρον ἢ πέτρον διάπυρον. A 3.15.6 Μητρόδωρος ... διὸ μηδὲ τὴν γῆν, ἅτε δὴ κειμένην φυσικῶς, κινεῖσθαι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The witnesses are P, represented by P^B, P^E, P^G and P^Q, and S, but for the title only. Because of the presence of the word μέγεθος in the heading according to S^{Phot}, Diels posited that a chapter on the size of the earth, analogous to the chapters on the size of the sun (2.21) and the moon (2.26) has been lost in P. This is of course possible but incapable of proof, though P the epitomator may have felt justified in omitting such a chapter because the terms ‘finite’ and ‘infinite’ already pertain to μέγεθος, ‘size’, in the present chapter.

The whole section on earth 3.9–16 in S has regrettably been excised by Byzantine excerptors. T did not excerpt Book 3.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The proximate tradition is limited.

(2) *Sources.* The main source is Aristotle, *De caelo* 2.13, the chapter on the earth, which discusses those issues in relation to each other, viz. substance and

number, shape, position, and motion or rest, that are treated separately in A's chs. 3.9, 3.10, 3.11 and 3.13. His methodology and terminology also shine through, while some name-labels of the *Placita* chapters on the earth are already found there as well.

C Chapter Heading

P^{EGQ} have the short title Περὶ γῆς, while P^B has a long title, namely Περὶ γῆς καὶ τίς ἡ αὐτῆς οὐσία καὶ πόσαι (or ποσὴ), one ingredient of which is confirmed by S^{LPhot} εἰ μία καὶ πεπερασμένη καὶ περὶ ποίου μεγέθους καὶ περὶ θέσεως αὐτῆς (who *ad finem* combines the heading with that of ch. 3.11). The convergent testimony of P^B and S regarding the category of quantity outweighs that of P^{EGQ}, who lack this specification. We have therefore opted for a longer heading, namely that of P^B and not of S, and have preserved P^B's reference to the category of substance not found in S.

In all our sources the heading starts out as a representative of the umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C). In P^B it continues with two of the issues represented in the chapter, pertaining to the category of substance and that of quantity, the latter not further specified. The heading in S^L omits the category of substance, but specifies the category of quantity as pertaining not only according to number (μία), but also to size (ποίου μεγέθους). Diels *DG* 62 as noted suggested that a chapter on the size of the earth has been lost. But Theon of Smyrna, *Exp.* p. 120.10–12 Hiller (ὅτι γὰρ σφαιρικὸς ὁ κόσμος καὶ ἡ γῆ σφαιρική, κέντρου μὲν κατὰ τὴν θέσιν, σημείου δὲ κατὰ τὸ μέγεθος πρὸς τὸ πᾶν λόγον ἔχουσα) and its sequel, shows that shape, location and size may be treated together. The limit of §3 and the one-sided infinity of §4 show that size is indeed included in the chapter.

D Analysis

a Context

This is the first of the seven consecutive chapters on the earth that have so to speak been interpolated in the series of meteorological chapters, beginning here with the earth's number, size, and substance, and concluding with ch. 3.15 on earthquakes. They are followed by chs. 3.16–17, on the sea. The background of chs. 3.9–14 is formed by ch. 2.13 of Aristotle's *De caelo*, while chs. 3.1–8 plus 3.15–17 (and the wrongly placed ch. 3.18, now 3.5a) relate to the *Meteorology*. Because A deals with his material from top to bottom, or from periphery to centre, he has so to speak interpolated the chapters on the earth (a cosmic body) between the two series of proper meteorological chapters. For Diels on a lost chapter see above at section C.

The categories of quantity and substance at issue in ch. 3.9 are appropriately followed by that of quality in the next, ch. 3.10. Compare the consecutive chs. 2.13 and 2.14, on the substance and shape of the stars, respectively; 2.20 (substance of sun and number of suns), 2.21 (size of sun), 2.22 (shape of sun); and 2.25 (substance of moon), 2.26 (size of moon), 2.26 (shape of moon). For the category of quantity in contexts like the present one see the statement of Gal. *Inst.Log.* 12.2, ἡ ζήτησίς ἐστι (τῆς) τοῦ κύκλου πηλικότητος ἢ τοῦ μεγέθους ἢ (τῆς) ποσότητος ἢ ὅπως ἂν θέλῃς ὀνομάζειν, cited more fully at ch. 3.14 section E(b).

b Number–Order of Lemmata

S only attests the heading. P^{BQ} have five lemmata, four of which are left in P^G, in the same relative order, which there is no reason to change.

c Rationale–Structure of Chapter

We may distinguish three blocks, two consisting of two lemmata and one of a single lemma. Their order is that of the themes at issue in the chapter, viz. number, size ('finite' vs. 'infinite'), and substance, with some emphasis on the origin of this substance. A neat diaphonia opposes and links the lemmata of the first block: the majority of §1 recognize a single earth, the Pythagoreans of §2 add a second one. An equally neat diaphonia opposes and links the lemmata of the second block: the earth of the Stoics of §3 is limited, that of Xenophanes in §4 is unlimited at one side. But the single earth of §§3–5, too, is opposed to the multiplicity of §2. The last lemma, Metrodorus' doxa in §5, does not come under the category of quantity of §§1–4, but pertains to that of substance; its final position is therefore the appropriate one of a maverick doxa.

See also Mansfeld (1992a) at M–R 3.75–94.

d Further Comments

Individual Points

§2 Here as elsewhere the *Placita* provide the name of an individual where Aristotle speaks of 'the Pythagoreans'. Hicetas is far more surprising than Philolaus would have been, esp. in view of the fact that Cicero *Luc.* 123 attributes the doxa that the earth turns about its axis and the other heavenly bodies are at rest to Hicetas on the authority of Theophrastus (*Phys.Op.* fr. 18 Diels, 240 FHS&G). Also cf. ch. 3.12.3 where this doxa is attributed to Heraclides and another Pythagorean again, Ecphantus.

§4 The lemma echoes Aristotle's description of the earth's infinity on one side, itself echoing a Xenophanes fragment that is extant verbatim. The second part of this paragraph on the earth's origin, which could constitute a separate lemma and originally maybe did so, links up with §5.

§5 The reference to the substance of the sun (which does not agree with the Metrodorus doxa at ch. 2.20.8) is extraneous to this chapter on the earth. Probably it is a remnant of a treatment of these matters in which the individual issues were kept apart a bit less rigorously than is generally the case in A.

e Other Evidence

For the present chapter (and chs. 3.10–11 and 3.10.13) we can cite Aristotle's treatment in *Cael.* 2.13, with echoes in the cousin writings, e.g. ps.Plutarch *Stromateis*, and related (esp. scientific) literature, e.g. Ptolemy.

E Further Related Texts

a Proximate Tradition

General texts: Eusebius *PE* 15.54.3 και περι ... τοσαύτα τοῖς δεδηλωμένοις πρὸς ἀλλήλους διεστασίαςται· θέα δὲ καὶ τὰ περι γῆς [chs. 3.9–13 follow at Eus. *PE* 15.55–58].

Chapter heading: Pliny *Nat.* 1 p. 12.58 *natura terrae. Capitula Lucretiana* at *DRN* 5.251 *de terra*.

Eusebius *PE* 15.54.3 περι γῆς. Isidore of Seville *Etym. capit.* 14.1 *De terra* (also at 14.1 in the body of the work).

§ο **Question of existence:** Basil of Caesarea *Hexaem.* 1.8, p. 15.3–5 Amand de Mendieta–Rudberg περι τῆς γῆς συμβουλευόμεν ἑαυτοῖς, μὴ πολυπραγμονεῖν αὐτῆς τὴν οὐσίαν ἥτις ποτὲ ἐστὶ, μὴδὲ κατατρίβεσθαι τοῖς λογισμοῖς αὐτὸ τὸ ὑποκείμενον ἐκζητοῦντας.

§4 **Xenophanes:** Cicero *Luc.* 122 (Xenophanes 21A47 DK) *ut videamus terra penitusne defixa sit et quasi radicibus suis haereat. Seneca Nat.* 2.1.4 *enormiter proiecta. Hippolytus Ref.* 1.14.3 (on Xenophanes, 21A33 DK) τὴν δὲ γῆν ἄπειρον εἶναι καὶ μήτε ὑπ' ἀέρος μήτε ὑπὸ τοῦ οὐρανοῦ περιέχεσθαι. ps.Plutarch *Strom.* 4 ap. Eus. *PE* 1.8.4 (on Xenophanes, 21A32 DK) ἀποφαίνεται δὲ καὶ τὴν γῆν ἄπειρον εἶναι καὶ κατὰ πᾶν μέρος μὴ περιέχεσθαι ὑπ' ἀέρος.

§5 **Metrodorus:** Lucretius *DRN* 5.495–497 *sic igitur terrae concreto corpore pondus / constitit atque omnis mundi quasi limus in imum / confluit gravis et subsedit funditus ut faex.* ps.Plutarch *Strom.* 5 (Plu. fr. 179 Sandbach) λέγει (Parmenides, 28A22 DK) δὲ τὴν γῆν τοῦ πυκνοῦ καταρρυέντος {ἀέρος} γεγονέναι.

b Sources and Other Parallel Texts

General texts: Aristotle *Cael.* 2.13 293a20–24 ἐναντίως οἱ περι τὴν Ἰταλίαν, καλούμενοι δὲ Πυθαγόρειοι (58B.37 DK) λέγουσιν· ... τὴν δὲ γῆν ... κύκλῳ φερομένην περι τὸ μέσον ἔτι δ' ἐναντίαν ἄλλην ταύτη κατασκευάζουσι γῆν, ἣν ἀντίχθονα ὄνομα καλοῦσιν. *Cael.* 2.13 293b18–20 ὅσοι μὲν μὴδ' ἐπὶ τοῦ μέσου κεῖσθαι φασιν (58B.37a DK) αὐτὴν, κινεῖσθαι κύκλῳ περι τὸ μέσον, οὐ μόνον δὲ ταύτην, ἀλλὰ καὶ τὴν ἀντίχθονα. *Cael.* 2.13 295a13–14 (Empedocles 31A67 DK) διὸ δὴ τὴν γῆν πάντες ὅσοι τὸν οὐρανὸν γεννώσιν, ἐπὶ τὸ μέσον συνελθεῖν φασίν (sc. αὐτὴν). Ptolemy *Geogr.* 1.1.6 προεσκέφθαι γὰρ δεῖ καὶ τῆς ὅλης γῆς τὸ τε σχῆμα (cf. ch. 3.10) καὶ τὸ μέγεθος ἔτι τε τὴν πρὸς τὸ περιέχον θέσιν (cf. ch. 3.11).

Chapter heading: Aristotle *Cael.* 2.13 293a15 λοιπόν δὲ περὶ τῆς γῆς εἰπεῖν.

§2 *Hicetas:* Aristotle *Cael.* 2.13 293b19–20 (Pythagorei 58B.37 DK) οὐ μόνον δὲ ταύτην, ἀλλὰ καὶ τὴν ἀντίχθονα. *Met.* A.5 986a11–12 (Pythagorei 58B4 DK) ὄντων δὲ ἐννέα μόνον τῶν φανερῶν διὰ τοῦτο δεκάτην τὴν ἀντίχθονα ποιοῦσιν. *Alexander of Aphrodisias in Met.* 39.2–3 (Aristotle fr. 203 R³ = *de Pyth.* fr. 13, p. 138 Ross) τὴν γῆν ἐννάτην, μεθ' ἣν τὴν ἀντίχθονα. *in Met.* 41.29–42.1 (Aristotle fr. 203 R³ = *de Pyth.* fr. 13, p. 140 Ross) ἐννάτην δὲ τὴν γῆν (καὶ γὰρ καὶ ταύτην ἡγοῦντο κινεῖσθαι κύκλῳ περὶ μένουσαν τὴν ἐστίαν, ὃ πῦρ ἐστὶ κατ' αὐτούς), αὐτοὶ προσέθεσαν ἐν τοῖς δόγμασι καὶ τὴν ἀντίχθονά τινα, ἣν ἀντικινεῖσθαι ὑπέθεντο τῇ γῇ καὶ διὰ τοῦτο τοῖς ἐπὶ τῆς γῆς ἄορατον εἶναι. λέγει δὲ περὶ τούτων καὶ ἐν τοῖς *Περὶ οὐρανοῦ* (2 13, see above) καὶ ἐν ταῖς τῶν Πυθαγορικῶν δόξαις ἀκριβέστερον.

§§4–5 *Xenophanes Metrodorus:* cf. *ps.Plutarch Strom.* (Plu. fr. 179 Sandbach) at Eus. *PE* 1.8.5 (on Parmenides, 28A22 DK) λέγει δὲ τὴν γῆν τοῦ πυκνοῦ καταρρυέντος ἄερος γεγενέναι. *Scholia in Hesiodum Th.* 117a Ζήνων δὲ ὁ Στωϊκὸς (*SVF* 1.105) ἐκ τοῦ ὕγρου τὴν ὑποσταθμὴν γῆν γεγενῆσθαι φησιν.

§4 *Xenophanes:* *Xenophanes* 21B28 DK γαίης μὲν τότε πείραρ ἄνω παρὰ ποσσὶν ὁράται / ἡέρι προσπλάζον, τὸ κάτω δ' ἐς ἄπειρον ἰκνεῖται. *Aristotle Cael.* 2.13 294a21–24 οἱ μὲν γὰρ ... ἄπειρον τὸ κάτω τῆς γῆς εἶναι φασιν, ἐπ' ἄπειρον αὐτὴν ἐρριζώσθαι λέγοντες, ὥσπερ Ξενοφάνης ὁ Κολοφώνιος (21A47 DK). *Simplicius in Cael.* 522.5–12 ὥσπερ Ξενοφάνης ὁ Κολοφώνιος (21A47 DK) τὸ ἄπειρον τὸ κάτω τῆς γῆς εἶναι καὶ διὰ τοῦτο μένειν αὐτὴν. ἀγνοῶ δὲ ἐγὼ τοῖς Ξενοφάνους ἔπεσι τοῖς περὶ τούτου μὴ ἐντυχῶν, πότερον τὸ κάτω μέρος τῆς γῆς ἄπειρον εἶναι λέγων διὰ τοῦτο μένειν αὐτὴν φησιν ἢ τὸν ὑποκάτω τῆς γῆς τόπον καὶ αἰθέρα ἄπειρον καὶ διὰ τοῦτο ἐπ' ἄπειρον καταφερομένην τὴν γῆν δοκεῖν ἡρεμεῖν· οὕτε γὰρ ὁ Ἀριστοτέλης διεσαφῶς· 'γῆς' γὰρ 'βάθη' λέγοιτο ἂν καὶ ἐκεῖνα, εἰς ἃ κάτεισιν. *Diogenes Laertius V.P.* 9.57 (Diogenes 62A1 DK) τὴν γῆν ... τὴν σύστασιν εἰληφυῖαν κατὰ τὴν ἐκ τοῦ θερμοῦ περιφορὰν καὶ πῆξιν ὑπὸ τοῦ ψυχροῦ.

Liber 3 Caput 10

P^B: ps.Plutarchus *Plac.* 895D; pp. 376^a20–377^a6 Diels—**P^E**: Eusebius *PE* 15.56.1–5, p. 418.9–14 Mras—**P^G**: ps.Galenus *HPh* c. 82; pp. 632.25–633.2 Diels—**P^Q**: Qustā ibn Lūqā pp. 179–180 Daiber—**P^{Sy}**: Symeon Seth *CRN* 2.3, p. 18.17 Delatte
S: Stobaeus *Ecl.* 1.34, p. 248.17 Wachsmuth (titulus solus); cf. Phot. *Bibl.* 167, p. 112b21 Henry (titulus solus)
Cf. Isidorus Pelusiota *Ep.* 2.273, MPG 78.704A

Titulus ι'. Περὶ σχήματος γῆς (P,S)

- §1 Θαλῆς καὶ οἱ Στωικοὶ σφαιροειδῆ τὴν γῆν. (P1)
§2 Ἀναξίμανδρος λίθω κίονι τὴν γῆν προσφερῆ, τῶν ἐπιπέδων (δὲ αὐτῆς γυρῶν). (P2)
§3 Ἀναξίμενης τραπεζοειδῆ. (P3)
§4 Λεύκιππος τυμπανοειδῆ. (P4)
§5 Δημόκριτος δισκοειδῆ μὲν τῷ πλάτει, κοίλῃν δὲ τῷ μέσῳ. (P5)

5

§1 Thales fr. 161 Wöhrlé; Stoici *SVF* 2.648; §2 Anaximander 12A25 DK; §3 Anaximenes 13A20 DK; §4 Leucippus 67A26 DK; §5 Democritus 68A94 DK

lemmata non hab. S §1 [2] Στωικοὶ **P^{EQ}**: ἀπ' αὐτοῦ **P^{BG}** || τὴν γῆν **P^{B(II)GQ}** : τῇ γῇ **P^{B(II)}** : om. **P^E** || post γῆν add. **P^G** νομίζουσιν §2 [3] λίθω κίονι] κίονος λίθω Teichmüller || τὴν γῆν] om. **P^{EG}** || ante τῶν hab. **P^G** τῇ περιφέρειᾳ ἐκ || ἐπιπέδων] ἐπὶ πέδων Mras || [3–4] <δὲ αὐτῆς γυρῶν> scripsimus : *** **P^{BEG}**, und ihre Flächen sind gebogen Q : '+ <αὐτῆς γυρῶν>' suppl. Daiber p. 428 : αὐτῆς γυρῶν Lachenaud in app. : <τῶν δὲ ἐπιπέδων ᾧ μὲν ἐπιβεβήκαμεν, ὃ δὲ ἀντίθετον ὑπάρχει> suppl. Diels *DG* p. 219 ex Hipp. *Ref.* 1.6.3, ubi etiam invenitur τὸ δὲ σχῆμα αὐτῆς γυρῶν [ὑγρόν mss., corr. Roepers prob. Diels], στρογγύλον, κίονι λίθω παραπλήσιον §5 [7] Δημόκριτος δισκοειδῆ μὲν om. **P^G** || μὲν] om. **P^E** || τῷ μέσῳ **P^E** prob. Diels edd. Laks–Most : τὸ μέσον **P^{BQ}**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 82 (~ tit.) Περὶ σχήματος γῆς (text Diels)

82.1 (~ P1) Θαλῆς καὶ οἱ ἀπ' αὐτοῦ σφαιροειδῆ τὴν γῆν νομίζουσιν.

82.2 (~ P2) Ἀναξίμανδρος δὲ λίθω κίονι τῇ περιφερείᾳ ἐκ τῶν ἐπιπέδων.

82.3 (~ P3) Ἀναξίμενης τραπεζοειδῆ.

82.4 (~ P4) Λεύκιππος τυμπανοειδῆ [...]

82.4 (~ P5) [...] τῷ πλάτει, κοίλῃν δὲ τῷ μεγέθει.

Symeon Seth *CRN* 2.3 Περὶ τοῦ εἶναι τὴν γῆν σφαιροειδῆ (~ P1).

Testes secundi:

Isidorus Pelusiota *Ep.* 2.273, καὶ τὸ ζητεῖν περὶ γῆς, ἢ κύλινδρός ἐστιν ἢ λικνοειδῆς (~ quaestio).

Loci Aetiani:

titulus A 2.2 Περὶ σχήματος κόσμου. A 2.14 Περὶ σχημάτων ἀστέρων. A 2.23 Περὶ σχήματος ἡλίου. A 2.27 Περὶ σχήματος σελήνης.

§2 A 2.23.7 ἄλλοι δὲ ἐπ' εὐθείας αὐτὸν κινεῖσθαι τὴν ἑλικά οὐ περὶ σφαῖραν ποιοῦντα, περὶ δὲ κύλινδρον. 3.15.8 Ἀναξιμένης διὰ τὸ πλάτος ἐποχεῖσθαι τῷ ἀέρι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The witnesses are P, represented by P^B, P^E, P^G and P^G, and S, who provides the title only. G coalesces §4 with the second half of §5 (τῷ πλάτει ... μέσῳ), and changes the final word μέσῳ to μεγέθει. T is again absent.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The proximate tradition is quite rich: not only the usual witnesses such as Pliny, Diogenes Laertius, and Hippolytus, but also astronomers such as Geminus, Cleomedes, and Ptolemy, and authors such as Marius Victorinus and Martianus Capella.

(2) *Sources.* The main source is Aristotle, *De caelo* 2.13, the chapter on the earth, which discusses those issues in relation to each other that are *more doxographico* treated separately here in chs. 3.9, 3.10, 3.11 and 3.13. Aristotle's methodology and terminology also shine through.

C Chapter Heading

Of the umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C), and confirmed in the extant sources. For S it has not been preserved in the *index Photianus*, but in that of S^L, as heading for the lost chapter *Ecl.* 1.34. For what is under the umbrella see at section D(a) below.

D Analysis

a Context

This is the second of the seven consecutive chapters on the earth, beginning with the previous chapter and ending with one on earthquakes.

The category at issue is that of quality, as we are told *disertis verbis* by Galen (cited at section E(b) General texts). It follows harmoniously upon those of substance and quantity (according to the order in the heading) at issue in the previous chapter, and aptly precedes the category of place (the ποῦ) at issue in the next. Compare e.g. chs. 2.24 and 2.25, on the shapes of the stars and on their order, i.e. their relative position.

b Number–Order of Lemmata

P^{BE} has five lemmata, G four. The relative order is the same.

c Rationale–Structure of Chapter

The sequence of the name-labels from Thales to Democritus is chronological. This to some extent agrees with the diaeresis of the shapes, from more or less round to more or less flat: §1 sphere and §2 cylinder, then §3 table or slab, §4 kettle-drum, §5 flat disk with a hole in the middle that the other shapes do not have.

d Further Comments

General Points

It is sometimes claimed that the earth has the shape of a cube (cf. the quotation from Cleomedes, above), the result of a confusion of the earth *qua* cosmic body and earth *qua* element (consisting of cubical molecules in Plato, *Tim.* 55d γῆ μὲν δὴ τὸ κυβικὸν εἶδος δῶμεν).

Individual Points

§1 We have preferred the reading of E as confirmed by Q to that of P^B and G.

§2 The full text of Q enables us to supply the words lost in the Greek tradition.

§4 τυμπανοειδής means ‘shaped like a (kettle-)drum’ (‘kalottenartige Ausbuchtung nach unten’, Gilbert 1907, 282 n. 1). The adjective τυμπανώδης, never connected with σχῆμα but always with ἦχος, means ‘sounding like a drum’. For the parallel passage Diogenes Laertius *V.P.* 9.30 (missed by Mansfeld 1992a at M–R 3.75–94) the early ms. Φ has preserved the correct reading. That of BPF, as Tiziano Dorandi tells us *per litt.*, is the result of a majuscule mistake: OEI is easily misread as Ω. Some of the *deteriores* read τυμπανοειδέες, possibly the result of conjecture, and so has Cobet’s edition, which once again proves his mastery of Greek even if this time he was inspired by one of these later mss.

τυμπανοειδής actually is a rare and *recherché* word, which is only used for the shape of Leucippus’ earth (with the exception of two purely mathematical instances in Ptolemy *Anal.* 210.20 and 212.18). The doxa cited in A and Diogenes

Laertius derives from Aristotle, while the name-label is added *more doxographico*; it is also found in the same context in Simplicius. The restoration of the correct reading in Diogenes helps to understand the nature of his chapters on Presocratic *areskonta* as a rearrangement of passages pertaining to a single figure taken from systematic tracts dealing with specific issues in the manner of A, which means as doxai abstracted from the wider doxographical tradition.

§5 The cavity in the middle of Democritus' flat earth may perhaps be placed alongside the cavity in the spherical earth of Plato's *Phaedo*, 111e–112e.

e Other Evidence

For the present chapter (and chs. 3.9, 3.11 and 10.13) we must cite Aristotle's treatment in *Cael.* 2.13. The shape of the earth is already a subject in Plato's *Phaedo*. It has been discussed rather widely, not only in literature parallel to or comparable with the *Placita*, but also in astronomical writers (Ptolemy). There is a long argument in favour of sphericity in Manilius, 1.173–235.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *Inv.* 1.8 *quae sit mundi forma?* Seneca *Nat.* 2.1.4 *cum propria terrae ipsius excutimus suo loco, utrum lata sit et inaequalis et enormiter proiecta, an tota in formam pilae spectet et in orbem partes suas cogat.* **Geminus** *Elem.* 16.27–28 Κράτης (F 34 Mette, 37 Broggiato) μὲν οὖν παραδοξολογῶν τὰ ὑφ' Ὀμήρου ἀρχαϊκῶς καὶ ἰδικῶς εἰρημένα (sc. *Od.* 1.23–24) μετάγει πρὸς τὴν κατ' ἀλήθειαν σφαιροποιάν. (28) Ὀμηρος μὲν γάρ καὶ οἱ ἀρχαῖοι ποιηταὶ σχεδὸν ὡς εἰπεῖν πάντες ἐπίπεδον ὕ(α)φίστανται τὴν γῆν. **Cleomedes** *Cael.* 1.5.10–23 Todd πλείους τοίνυν διαφοραὶ περὶ τοῦ κατὰ τὴν γῆν σχήματος παρὰ τοῖς παλαιότεροις τῶν φυσικῶν γεγόνασιν. οἱ μὲν γάρ αὐτῶν αὐτῇ τῇ κατὰ τὴν ὄψιν φαντασίᾳ ἀκολουθήσαντες πλατεῖ καὶ ἐπιπέδῳ τῷ σχήματι κεχρησθαι αὐτὴν ἀπεφάναντο. ἕτεροι δὲ ὑπονόησαντες, ὅτι μὴ ἂν διέμενε τὸ ὕδωρ ἐπ' αὐτῆς, εἰ μὴ βαθεῖα καὶ κοίλη τὸ σχῆμα ἦν, αὐτῷ τούτῳ κεχρησθαι τῷ σχήματι ἔφασαν αὐτήν. ἄλλοι δὲ κυβοειδῆ καὶ τετράγωνον εἶναι αὐτὴν ἀπεφάναντο, τινὲς δὲ πυραμοειδῆ. οἱ δὲ ἡμέτεροι καὶ οἱ ἀπὸ τῶν μαθημάτων πάντες καὶ οἱ πλείους τῶν ἀπὸ τοῦ Σωκρατικοῦ διδασκαλείου σφαιρικὸν εἶναι τὸ σχῆμα τῆς γῆς ἀπεφάναντο. ἑτέρου τοίνυν σχήματος παρὰ τὰ προειρημένα οὐκ ἂν εὐφυνῶς προσσφθέντος αὐτῇ, ἀναγκαίως ἂν τὸ τοιοῦτον διεzeugμένον ἀληθὲς γένοιτο· ἤτοι πλατεῖα καὶ ἐπίπεδός ἐστιν ἡ γῆ, ἢ κοίλη καὶ βαθεῖα, ἢ τετράγωνος ἢ πυραμοειδῆς ἢ σφαιρικῇ τὸ σχῆμα (see below). *Cael.* 1.5.98–101 Todd εἰ δὲ ἦν κυβοειδῆς καὶ τετράγωνος ἡ γῆ, συνέβαινε ἂν ἕξ μὲν ὥρων γίνεσθαι τὴν ἡμέραν, δέκα δὲ καὶ ὀκτὼ τὴν νύκτα, ἐκάστης πλευρᾶς τοῦ κύβου ἕξ ὥραις καταλαμπομένης. εἰ δὲ καὶ πυραμοειδῆς ἦν ἡ γῆ, ὀκτὼ ἂν ὥραις ἐκάστη πλευρὰ κατελάμπετο αὐτῆς. **Theon of Smyrna** *Exp.* p. 120.10 ff. Hiller ὅτι γὰρ σφαιρικὸς ὁ κόσμος καὶ ἡ γῆ σφαιρικῇ κτλ. **Ptolemy** *Synt.* 1.1, p. 14.19–15.27 ὅτι δὲ καὶ ἡ γῆ σφαιροειδῆς ἐστὶν πρὸς αἴσθησιν ὡς καθ' ὅλα μέρη λαμβανομένη, μάλιστα ἂν οὕτως

κατανοήσασιν· ... εἰ δέ γε ἦν τὸ σχῆμα ἕτερον, οὐκ ἂν τοῦτο συνέβαινεν, ὥς ἴδοι τις ἂν καὶ ἐκ τούτων. κοίλης μὲν γὰρ αὐτῆς ὑπαρχούσης προτέροις ἂν ἐφαίνετο ἀνατέλλοντα τὰ ἄστρα τοῖς δυσμικωτέροις, ἐπιπέδου δὲ πᾶσιν ἅμα καὶ κατὰ τὸν αὐτὸν χρόνον τοῖς ἐπὶ τῆς γῆς ἀνέτελλέν τε καὶ ἔδυνεν, τριγώνου δὲ ἢ τετραγώνου ἢ τινος ἄλλου σχήματος τῶν πολυγώνων πᾶσιν ἂν πάλιν ὁμοίως καὶ κατὰ τὸ αὐτὸ τοῖς ἐπὶ τῆς αὐτῆς εὐθείας οἰκοῦσιν, ὅπερ οὐδαμῶς φαίνεται γινόμενον. ὅτι δὲ οὐδὲ κυλινδροειδῆς ἂν εἴη, ... ἐκεῖθεν δῆλον. **Basil of Caesarea in Hexaem.** 9.1, p. 147.4–8 Amand de Mendieta–Rudberg οὐδὲ ἐπειδὴ οἱ τὰ περὶ κόσμου γράψαντες πολλὰ περὶ σχημάτων γῆς διελέχθησαν, εἴτε σφαῖρά ἐστιν, εἴτε κύλινδρος, εἴτε καὶ δίσκῳ ἐστὶν ἐμφορῆς ἢ γῆ, καὶ ἐξίσου πάντοθεν ἀποτετόρνενται, ἢ λικνοειδῆς ἐστὶ, καὶ μεσόκοιλος (πρὸς πάσας γὰρ ταύτας τὰς ὑπονοίας οἱ τὰ περὶ τοῦ κόσμου γράψαντες ὑπηνέχθησαν, τὰ ἀλλήλων ἕκαστος καταλύοντας). **Isidore of Pelusium Ep.** 2.273, MPG 78.704A = 773 *Évieux* καὶ τὸ ζητεῖν περὶ γῆς, ἢ κύλινδρός ἐστιν ἢ λικνοειδῆς, ἢ κέντρον τοῦ παντός (cf. ch. 3.11). **Martianus Capella** 6.590–592 (Dicaearchus fr. 108 Wehrli, 121 Mirhady) *formam totius terrae non planam, ut aestimant, positioni qui eam disci diffusioris assimilant, neque concavam, ut alii, qui descendere imbrem dixere telluris in gremium, sed rotundam, globosam etiam sicut Secund*(i)* [scripsimus, -us mss.; cf. Pliny Nat. 2.162 = Dicaearchus fr. 105 Wehrli, 118 Mirhady] Dicaearchus asseverat. ... (592) ... illam priorem, cui etiam physicus Anaxagoras (—) accessit, praestat exigere. Marius Victorinus in Rhet.* 1.8, p. 31.20–24 Riesenweber (on Cic. Inv. 1.8 *quae sit mundi forma?*) *'quae sit mundi facies': multi enim dicunt mundum in modum sphaerae esse collectum, multi oblonga rotunditate esse formatum, multi plana facie, multi quadrata, multi in camerae modum, scilicet ut sub terra non sit similis ac supra caput est mundi facies. Damascius in Phaed.* (versio 2) 116 ρις'. ὅτι προβλήματα τέσσαρα περὶ γῆς εἴωθε ζητεῖσθαι, περὶ θέσεως αὐτῆς (εἰ ἐν μέσῳ, cf. ch. 3.11), περὶ σχήματος (εἰ σφαιροειδῆς, ch. 3.10), περὶ τῆς μονῆς (cf. ch. 3.13), περὶ μεγέθους (—). ὦν δύο μὲν τὰ πρῶτα προεἰληφεν ὁ Σωκράτης, ὅτι τε ἐν μέσῳ καὶ ὅτι σφαιροειδῆς, τὰ δὲ ἄλλα δύο ἅπ' αὐτῶν τούτων δείκνυσιν. εἰ γὰρ ἐν μέσῳ ἐστί, τῷ κέντρῳ ὁμοίωται, ὥστε μένει, οἷα κέντρον τι ὁρατόν· καὶ εἰ σφαιροειδῆς, ὁμοίωται τῷ παντί, ὥστε ἐν τῷ αὐτῷ τόπῳ ὥσπερ τὸ πᾶν καὶ ὡς ὅγκος μένει, ἀλλ' οὐχ ὡς κέντρον ἀμερές. **Scholium Codicis Vaticani** 381 fol. 163, Maass 1881, 389 n. 3 ὅτι οὕτε κοίλη ἢ γῆ ὡς Δημόκριτος (cf. 68A94 DK) οὕτε πλατεία ὡς Ἀναξαγόρας (59A87 DK).

Chapter heading: Pliny Nat. 1 p. 12.59 *de forma eius*. Eusebius PE 15.32.10 περὶ γῆς σχήματος καὶ περὶ θέσεως καὶ ἐγκλίσεως αὐτῆς. Cassiodorus Inst. 2.6.4, p. 153.3–5 Mynors *unde librum Seneca consentanea philosophis disputatione formavit, cui titulus est De forma mundi* (T 56 Vottero).

§1 **Thales Stoics:** Pliny Nat. 2.160 *est autem figura prima, de qua consensus iudicat. orbem certe dicimus terrae globumque verticibus includi fatemur. Cornutus Comp.* p. 47.2–4 Torres ἀνατιθέασι δ' αὐτῇ (sc. τῇ Δήμητρει) καὶ τὰς μήκωνας κατὰ λόγον· τὸ τε γὰρ στρογγύλον καὶ περιφερὲς αὐτῶν παρίστησι τὸ σχῆμα τῆς γῆς σφαιροειδοῦς οὕσης. **Cleomedes Cael.** 1.5.17–19 Todd οἱ δὲ ἡμέτεροι καὶ οἱ ἀπὸ τῶν μαθημάτων πάντες καὶ οἱ πλείους τῶν ἀπὸ τοῦ Σωκρατικοῦ διδασκαλείου σφαιρικὸν εἶναι τὸ σχῆμα τῆς γῆς ἀπεφάναντο. **Galen Inst. Log.** 13.8 ὁ μέντοι ζητῶν

εἰ σφαιροειδὴς ἐστὶν ἡ γῆ, κατὰ τὴν τοῦ ποιοῦ κατηγορίαν ποιεῖται τὴν σκέψιν. **Diogenes Laertius V.P.** 2.1 Ἀναξίμανδρος (12A1 DK) ... μέσῃν τε τὴν γῆν κείσθαι, κέντρου τάξιν ἐπέχουσιν, οὕσαν σφαιροειδῆ. **V.P.** 7.145 (*SVF* 2.650) δοκεῖ δ' αὐτοῖς σφαιροειδῆ εἶναι καὶ τὰ ἄστρα καὶ τὴν γῆν ἀκίνητον οὖσαν. **V.P.** 8.48 ἀλλὰ μὴν ... πρῶτον ὀνομάσαι ... τὴν γῆν στρογγύλην (sc. Pythagoras)· ὥς δὲ Θεόφραστος (fr. 227E FHS&G) Παρμενίδην (28A44 DK), ὥς δὲ Ζήνων (*SVF* 1.276) Ἡσίοδον. **V.P.** 9.21 (on Parmenides, 28A1 DK) πρῶτος δ' οὗτος τὴν γῆν ἀπέφηνε σφαιροειδῆ καὶ ἐν μέσῳ κείσθαι. **V.P.** 9.57 (Diogenes 64A1 DK) τὴν γῆν στρογγύλην. **Calcidius in Tim.** c. 59 *ait Plato mundi formam rotundam esse et globosam, terram item globosam.* **Cassiodorus Inst.** 2.6.4, pp. 152.21–153.3 *Mynors nam mundus ipse, ut quidam dicunt, spherica fertur rotunditate collectus, ut diversas rerum formas ambitus sui circuituione concluderet. unde librum Seneca* (for what follows see above Chapter heading).

§2 **Anaximander: Hippolytus Ref.** 1.6.3 (on Anaximander, 12A1 DK) τὸ δὲ σχῆμα αὐτῆς γυρόν, στρογγύλον, κίονι λίθῳ παραπλήσιον· τῶν δὲ ἐπιπέδων ᾧ μὲν ἐπιβεβήκαμεν, ὃ δὲ ἀντίθετον ὑπάρχει. **ps.Plutarch Strom.** 2 (on Anaximander, 12A10 DK) ὑπάρχειν δὲ φησι τῷ μὲν σχήματι τὴν γῆν κυλινδροειδῆ, ἔχειν δὲ τοσοῦτον βάθος ὅσον ἂν εἴη τρίτον πρὸς τὸ πλάτος.

§3 **Anaximenes: Hippolytus Ref.** 1.7.4 (on Anaximenes, 13A7 DK) τὴν δὲ γῆν πλατεῖαν εἶναι.

§4 **Leucippus: Diogenes Laertius V.P.** 9.30 (on Leucippus, 67A1 DK) τὴν γῆν ... σχήμα τε αὐτῆς τυμπανοειδὲς [Φ, Cobet: τυμπανῶδες codd. BPF, wrongly Diels DK 2 2.70.25, Luria Democritus fr. 404, alii] εἶναι.

§5 **Democritus: Cleomedes Cael.** 1.5.13–15 Todd ἔτεροι δὲ ὑπονόησαντες, ὅτι μὴ ἂν διέμενε τὸ ὕδωρ ἐπ' αὐτῆς, εἰ μὴ βαθεῖα καὶ κοίλη τὸ σχῆμα ἦν, αὐτῷ τούτῳ κεχρησθαι τῷ σχήματι ἔφασαν αὐτήν. **Agathemerus Geogr. proem.** 2 πρῶτος δὲ Δημόκριτος (68B15 DK) πολὺπειρος ἀνὴρ συνείδεν ὅτι προμήκης ἐστὶν ἡ γῆ, ἡμιόλιον τὸ μήκος τοῦ πλάτους ἔχουσα. συνήνεσε τούτῳ καὶ Δικαίαρχος ὁ Περιπατητικὸς (fr. 109 Wehrli, 122 Mirhady).

b Sources and Other Parallel Texts

General texts: **Plato Phd.** 97d–e ταῦτα δὴ λογιζόμενος ἄσμενος ἡύρηκέναι ὥμην διδάσκαλον τῆς αἰτίας περὶ τῶν ὄντων κατὰ νοῦν ἐμαυτῷ, τὸν Ἀναξαγόραν, καὶ μοι φράσειν πρῶτον μὲν πότερον ἡ γῆ (e) πλατεῖα ἐστὶν ἢ στρογγύλη, ἐπειδὴ δὲ φράσειεν, ἐπεκδιηγῆσεσθαι τὴν αἰτίαν καὶ τὴν ἀνάγκην, λέγοντα τὸ ἄμεινον καὶ ὅτι αὐτὴν ἄμεινον ἦν τοιαύτην εἶναι. **Aristotle Phys.** 2.3 193b28–30 φαίνονται λέγοντες οἱ περὶ φύσεως ... πότερον σφαιροειδὴς ἡ γῆ ... ἢ οὐ. **Cael.** 2.13 293b32–33 παραπλησίως δὲ καὶ περὶ τοῦ σχήματος ἀμφισβητεῖται (see below). **Aratus Phaen.** 22–23 ἀλλὰ μάλ' αὕτως / ἄξων αἰὲν ἄρηρεν, ἔχει δ' ἀτάλαντον ἀπάντη / μεσσηγὺς γαίαν, περὶ δ' οὐρανὸν αὐτὸς ἀγινεῖ. **Scholia in Aratum schol.** 22, p. 67.10–13 Martin (ἡ) ἀτάλαντον ἀπάντη: ἴσην καὶ ὅμοιαν. καὶ αὕτη γὰρ σφαιροειδὴς (ὥς) καὶ ὁ οὐρανός. **Cornutus Comp.** 28, p. 44.9–11 Torres στρογγύλη δὲ πλάττεται (sc. ἡ Ἑστία) καὶ κατὰ μέσους ἰδρύεται τοὺς οἴκους διὰ τὸ καὶ τὴν γῆν τοιαύτην εἶναι καὶ οὕτως ἰδρῦσθαι συμπεπιλημένην. **Comp.** 28, p. 47.3–4 Torres τὸ

τε γάρ στρογγύλον καὶ περιφερὲς αὐτῶν (sc. τῶν μηκώνων) παρίστησι τὸ σχῆμα τῆς γῆς σφαιροειδοῦς οὕσης. **Galenus** *Inst. Log.* 13.8–9 ὁ μέντοι ζητῶν εἰ σφαιροειδὴς ἐστὶν ἡ γῆ, κατὰ τὴν τοῦ ποιοῦ κατηγορίαν ποιεῖται τὴν σκέψιν, ὥσπερ γε καὶ ὁ ἀποφηνάμενος εἶναι σφαιροειδῆ, ποιότητά τινα τῆς γῆς ἀπ(εφῆνα)το. **Ptolemy** *Geogr.* 1.1.6 προσεσκέφθαι γὰρ δεῖ καὶ τῆς ὅλης γῆς τὸ τε σχῆμα καὶ τὸ μέγεθος (cf. ch. 3.9) ἔτι τε τὴν πρὸς τὸ περιέχον θέσιν (cf. ch. 3.11). **Simplicius** in *Cael.* 511.15–20 τρία οὖν περὶ αὐτῆς προβαλλόμενος περὶ τε τῆς θέσεως αὐτῆς, ὅπου κειμένη τυγχάνει, καὶ δεύτερον, πότερον τῶν ἡρεμούντων ἐστὶν ἢ τῶν κινουμένων (cf. ch. 3.13), καὶ τρίτον περὶ τοῦ σχήματος αὐτῆς (cf. ch. 3.10), τὰς προκαταβεβλημένας καὶ περὶ τούτων δόξας πρῶτον ἐκτίθεται καὶ πρὸς αὐτάς ὑπαντήσας οὕτω τὰ δοκοῦντα ἑαυτῷ περὶ τούτων συλλογίζεται. in *Cael.* 519.12–13 καὶ περὶ τοῦ σχήματος διάφορον εἶναι τὴν ἱστορίαν φησὶ τῶν μὲν σφαιροειδῆ λεγόντων τὴν γῆν, τῶν δὲ πλατεῖαν καὶ τυμπανοειδῆ.

Chapter heading: —

§1 **Thales Stoics: Plato** *Phd.* 108e περιφερὲς οὐσα. **Aristotle** *Cael.* 2.13 293b33–34 τοῖς μὲν γὰρ δοκεῖ εἶναι σφαιροειδῆς. *Cael.* 2.14 297b17–18 κατὰ τοῦτόν τε δὴ τὸν λόγον ἀναγκαῖον εἶναι τὸ σχῆμα σφαιροειδὲς αὐτῆς κτλ. **Strabo** 2.5.2, 110C.20–21 ἡ γῆ σφαιροειδῶς ὁμόκεντρος τῷ μὲν οὐρανῷ μένει. 2.5.5, 112C.12–13 ὑποκείσθω δὴ σφαιροειδῆς ἡ γῆ σὺν τῇ θαλάττῃ, μίαν καὶ τὴν αὐτὴν ἐπιφάνειαν ἴσχουσα τοῖς πελάγεσι. **Posidonius** (F 18 E.-K., 255 Theiler) at **Geminus' Epitome** at **Alexander of Aphrodisias** at **Simp.** in *Phys.* 292.2–12 πολλαχοῦ τοίνυν ταυτὸν κεφάλαιον ἀποδείξαι προθήσεται ὃ τε ἀστρολόγος καὶ ὁ φυσικός, οἷον ... ὅτι σφαιροειδῆς ἡ γῆ, οὐ μὴν κατὰ τὰς αὐτάς ὁδοὺς βαδιοῦνται. ὁ μὲν γὰρ ἀπὸ τῆς οὐσίας ἢ τῆς δυνάμεως ἢ τοῦ ἁμεινον οὕτως ἔχειν ἢ ἀπὸ τῆς γενέσεως καὶ μεταβολῆς ἕκαστα ἀποδείξει, ὁ δὲ ἀπὸ τῶν συμβεβηκότων τοῖς σχήμασιν ἢ μεγέθεσιν ἢ ἀπὸ τῆς ποσότητος τῆς κινήσεως καὶ τοῦ ἐφαρμόττοντος αὐτῇ χρόνου. καὶ ὁ μὲν φυσικός τῆς αἰτίας πολλαχοῦ ἄψεται εἰς τὴν ποιητικὴν δύναμιν ἀποβλέπων, ὁ δὲ ἀστρολόγος ὅταν ἀπὸ τῶν ἔξωθεν συμβεβηκότων ἀποδεικνύῃ, οὐχ ἱκανὸς θεατῆς γίνεταί τῆς αἰτίας, οἷον ὅτε σφαιροειδῆ τὴν γῆν ἢ τὰ ἄστρα ἀποδίδωσιν. **Pythagorica** (Hypomnemata) at **Alex. Polyh.** fr. 9 **Giannatasio Andria** (Pythagorei 58Bia DK) at D.L. 8.25 τὴν γῆν καὶ αὐτὴν σφαιροειδῆ. **Cicero** *Tusc.* 1.68 *tum globum terrae*. **Manilius** 1.202–205, *est igitur tellus ... / (204) nec patulas distenta plagas, sed condita in orbem / undique surgentem pariter pariterque cadentem*. **Simplicius** in *Cael.* 519.7–8 τὸ σχῆμα οἱ μὲν σφαιροειδῆς ... λέγουσιν, etc.

§4 **Leucippus: Aristotle** *Cael.* 2.13 293b34–294a1 τοῖς δὲ πλατεῖα καὶ τὸ σχῆμα τυμπανοειδῆς. *Mete.* 2.5 362a32–b2 δύο γὰρ ὄντων τμημάτων τῆς δυνατῆς οἰκείσθαι χώρας, τῆς μὲν πρὸς τὸν ἄνω πόλον, καθ' ἡμᾶς, τῆς δὲ πρὸς τὸν ἔτερον καὶ πρὸς μεσημβρίαν, καὶ οὕσης οἷον τυμπάνου—(τοιοῦτον γὰρ σχῆμα τῆς γῆς ἐκτέμνουσιν αἱ ἐκ τοῦ κέντρου αὐτῆς ἀγόμεναι, καὶ ποιοῦσι δύο κῶνους κτλ.) **Simplicius** in *Cael.* 519.7–8 τὸ σχῆμα ... οἱ δὲ τυμπανοειδῆς λέγουσιν, etc.

Liber 3 Caput 11

PP: *Papyrus Antinoopolis* 85 fr. 2 recto, p. 76 Barns–Zilliacus—**PB:** ps.Plutarchus *Plac.* 895E; p. 377^a5–20 Diels—**PE:** Eusebius *PE* 15.57.1–4, p. 419.1–9 Mras—**PG:** ps.Galenus *HPH* c. 83; p. 633.3–9; pp. 268–272 Jas—**PQ:** Qusṭā ibn Lūqā pp. 180–181 Daiber—cf. **PSy** *CRN* 2.6, p. 21.3 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.33, p. 248.14 Wachsmuth (titulus solus); cf. Phot. *Bibl.* 167, p. 112b20 Henry (titulus solus)
 Cf. Isidorus Pelusiota *Ep.* 2.273, MPG 78.704A; Ach: Achilles *Univ.* c. 4, pp. 12.20–13.6; c. 28, p. 43.17–23 Di Maria; *Scholia in Basilium II* 4 pp. 368–369 Poljakov ~ *I* 21b, p. 201.2 Pasquali

Titulus 1α'. Περί θέσεως γῆς (P,S)

- §1 οἱ ἀπὸ Θάλεω τὴν γῆν μέσσην. (P1)
 §2 Ξενοφάνης πρῶτην, εἰς ἄπειρον γὰρ ἐρριζῶσθαι. (P2)
 §3 Φιλόλαος ὁ Πυθαγόρειος τὸ μὲν πῦρ μέσον (τοῦτο γὰρ εἶναι τοῦ παντὸς Ἑστίαν), δευτέραν δὲ τὴν ἀντίχθονα, τρίτην δ' ἣν οἰκοῦμεν γῆν, ἐξ ἐναντίας κειμένην τε καὶ περιφερομένην τῇ ἀντίχθονι· παρ' ὃ καὶ μὴ ὁρᾶσθαι ὑπὸ τῶν ἐν τῇδε τοὺς ἐν ἐκείνῃ. (P3) 5

§1 Thales 11A15 DK; §2 Xenophanes 21A47 DK; §3 Philolaus 44A17 DK

lemmata non hab. **S** **titulus** post θέσεως add. τῆς **PE** §1 [2] τὴν γῆν μέσσην] μέσσην τὴν γῆν οἶονται εἶναι **PG** §2 [3] πρῶτην] πρῶτον τὴν γῆν **PG** || γὰρ **PE** : om. **P** §3 [4] πῦρ] *Wasser* **Q**, 'mendum scriborum Arabum' non excl. Daiber || [5] Ἑστίαν] αἰτίαν **PG** Diels, corr. Jas || δευτέραν] ἐτέραν **PG** || δ' ἣν οἰκοῦμεν γῆν **PBQ** prob. Mau Lachenaud Graham : τὴν οἰκουμένην γῆν **PE** prob. Diels : τὴν οἰκουμένην **PG** || [6] post ἐναντίας add. δὲ **PE** || [6–7] παρ' ὃ ... ἐκείνῃ] om. **PG** || [7] ἐν¹] om. **PB(11)Q**

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 2 recto (~ P3)

...[
 εσ]τιαν [
 τρ]ιτην δε τ[ην οικουμενην γην εξ (?)
 εναντια]ς κειμενη[ν τη αντιχthonι παρ ο και μη (?)
 5] ορασθαι ὑπ[ο

ps.Galenus HPH c. 83 (~ tit.) Περί θέσεως γῆς (text Jas)

82.1 (~ P1) οἱ ἀπὸ Θαλοῦς μέσσην τὴν γῆν οἶονται εἶναι.

82.2 (~ P2) Ξενοφάνης πρῶτον τὴν γῆν εἰς ἄπειρον ἐρριζῶσθαι.

82.3 (~ P3) Φιλόλαος ὁ Πυθαγόρειος τὸ μὲν πῦρ μέσον. τοῦτο γὰρ εἶναι τοῦ παντὸς ἐστίαν, ἐτέραν δὲ τὴν ἀντίχθονα. τρίτην δὲ τὴν οἰκουμένην ἐξ ἐναντίας κειμένην καὶ περιφερομένην τῇ ἀντίχθονι.

82.4, vid. textum c. 3.14.

Symeon Seth *CRN* 2.6 ὅτι δὲ ἐν τῷ μέσῳ κείται ἡ γῆ τοῦ παντός δῆλον (~ P1).

Testes secundi:

Isidorus Pelusiota *Ep.* 2.273 καὶ τὸ ζητεῖν περὶ γῆς, ἡ κύλινδρός ἐστιν ἡ λικνοειδής (cf. c. 3.10), ἡ κέντρον τοῦ παντός (~ quaestio).

Achilles *Univ.* c. 4, pp. 12.20–13.6 ὅτι δὲ καὶ ἔστηκεν ἡ γῆ, παραδείγματι χρώνεται τούτῳ· εἴ τις (φασίν) εἰς φύσαν κέγχρον βάλοι ἢ κόκκον φακοῦ καὶ φυσησειε καὶ ἐμπλήσειεν αὐτὴν ἀέρος, συμβήσεται μετεωρισθέντα τὸν κόκκον ἐν μέσῳ τῆς κύστεως στήναι, καὶ τὴν γῆν δὲ πανταχόθεν ὑπὸ τοῦ ἀέρος ὠθουμένην ἰσορρόπως ἐν τῷ μέσῳ εἶναι καὶ ἐστάναι. ἢ πάλιν, ὥσπερ εἴ τις λαβὼν σῶμα δῆσειε πανταχόθεν ἐξ ἐκατέρου σχοινίοις καὶ δοίη τισὶν ἰσορρόπως ἔλκειν ἐπ' ἀκριβείας, συμβήσεται πανταχόθεν ἐπίσης περιελκόμενον στήναι καὶ ἀτρεμῆσαι (~ quaestio). Ξενοφάνης (21B28 DK) δὲ οὐκ οἶεται μετέωρον εἶναι τὴν γῆν, ἀλλὰ κάτω εἰς ἄπειρον καθήκειν· 'γαίης μὲν' γάρ φησι 'τόδε πείραρ ἄνω παρὰ ποσσὶν ὁράται / αἰθέρι προσπλάζον, τὸ κάτω δ' ἐς ἄπειρον ἰκνεῖται' (~ §2). c. 28, p. 43.17–23 μέμνηται δὲ αὐτοῦ (sc. τοῦ ἄξονος) Ἐρατοσθένους (fr. 16 Powell) ἐν τῷ Ἑρμῇ λέγων· 'αὐτὴν μὲν μιν ἔτετμε μεσήρεα παντός Ὀλύμπου / κέντρον ἄπο σφαίρας, διὰ δ' ἄξονος ἡρήρειστο', καὶ ὁ Ἄρατος (*Phaen.* 21–23) λέγων 'αὐτὰρ ὃ γ' οὐδ' ὀλίγον μετανίσσεται, ἀλλὰ μάλ' αὐτως / ἄξων αἰὲν ἄρρηρεν, ἔχει δ' ἀτάλαντον ἀπάντη / μεσσηγὺς γαίαν, περὶ δ' οὐρανὸς αὐτὸν ἄγειν' (~ quaestio).

Scholia in Basilium II 4, pp. 368–369 Polyakov, 21b, p. 201.2 Pasquali Διογένης ὁ Ἀπολλωνιάτης (—) ὑπὸ ἀέρος φέρεσθαι ἔφη τὴν γῆν· Παρμενίδης (28B15a DK) ἐν τῇ στιχοποιίᾳ 'ὕδατόριζον' 28B15a DK εἶπε τὴν γῆν· Ξενοφάνης ὁ Κολοφώνιος (cf. 21B28.2 DK) οὐκ οἶεται μετέωρον εἶναι τὴν γῆν, ἀλλὰ 'κάτω εἰς ἄπειρον' καθήκειν' (~ §2).

Loci Aetiani:

titulus A 3.proœm. μέχρι πρὸς τὴν θέσιν τῆς γῆς.

§1 A 3.15.7 Παρμενίδης Δημόκριτος διὰ τὸ πανταχόθεν ἶσον ἀφεστῶσαν μένειν ἐπὶ τῆς ἰσορροπίας, οὐκ ἔχουσαν αἰτίαν δι' ἣν δεῦρο μᾶλλον ἢ ἐκεῖσε ῥέψειεν ἄν.

§2 A 3.9.4 Ξενοφάνης ἐκ τοῦ κατωτέρω μέρους εἰς ἄπειρον {μέρος} ἐρριζῶσθαι, ἐξ ἀέρος δὲ καὶ πυρὸς συμπαγῆναι.

§3 A 2.5^a.4 Φιλόλαος (sc. τὸ ἡγεμονικὸν τοῦ κόσμου) ἐν τῷ μεσαιτάτῳ πυρί. A 2.7.6 Φιλόλαος πῦρ ἐν μέσῳ περὶ τὸ κέντρον, ὅπερ ἐστὶν τοῦ παντός καλεῖ ... πρῶτον δ' εἶναι φύσει τὸ μέσον, περὶ δὲ τοῦτο δέκα σώματα θεῖα χορεύειν, οὐρανόν, τοὺς <ε'> πλανήτας, μεθ' οὓς ἥλιον, ὕφ' ᾧ σελήνην, ὕφ' ἣ τὴν γῆν, ὕφ' ἣ τὴν ἀντίχθονα, μεθ' ᾧ σύμπαντα τὸ πῦρ, ἐστίας περὶ τὰ κέντρα τάξιν ἐπέχον. A 3.13.2 Φιλόλαος δ' ὁ Πυθαγόρειος κύκλῳ περιφέρεισθαι (sc. τὴν γῆν) περὶ τὸ πῦρ κατὰ κύκλον λοξὸν ὁμοιοτρόπως ἡλίῳ καὶ σελήνῃ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses are P, represented by P^B, P^E, P^G. There is also a fragment of four lines which imply no changes for the *constitutio* of §3 in P^P. S, however, provides the title only. G this time has not abridged the chapter further. T is again absent.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* A number of secondary witnesses give evidence of similar discussions, perhaps at greater length, in the wider *Placita* tradition. There are texts in Achilles and the *Scholia* to Basil's *Hexaemeron*. A brief reference to the subject of the chapter in a letter of Isidore would also seem to betray acquaintance with a parallel tradition, perhaps via Basil; see M–R 1.311. Cicero, Pliny, Seneca, and related literature provide copious parallels.

(2) *Sources.* The main ulterior source is Aristotle, *Cael.* 2.13, the chapter on the earth, which discusses the location of the earth in relation to its substance and number, shape, and motion or rest, which are *more doxographico* treated separately in A's chs. 3.9, 3.10, and 3.13. His methodology and terminology also shine through. See further Mansfeld (1992a) at M–R 3.75–94.

C *Chapter Heading*

Of the umbrella type (περί τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C), and found in P^B, P^G and P^Q. For S it has not been preserved in the *Index Photianus*, but in that of S^L as the last part of the heading of the lost chapter *Ecl.* 1.33, which combines the headings of chs. 3.9 and 3.11; see Wachsmuth (1882) 18. The category concerned is that of place (as Galen points out), while in §2 and §3 the question type of cause (διὰ τί) also plays a part.

D *Analysis*

a Context

This is the third of the seven consecutive chapters on the earth. The category at issue is that of place (the ποῦ), as we are told *disertis verbis* by Galen (*Inst. Log.* 13.7, text below in section E(b)§1). This aptly follows upon the category of quality of the previous chapter. It comes before four chapters dealing with specific issues that are relevant to the earth alone, just as in Book 2 the series of chapters on, respectively, the sun and the moon are concluded with groups of chapters pertaining to issues of specific interest for either the sun (chs. 2.23–24) or the moon (chs. 2.28–30); ch. 2.31 includes both moon and sun.

b Number–Order of Lemmata

P in all his representatives has four lemmata, of which we have transferred the final one to another chapter; see the discussion at section D(d) below. There is no reason to change the order of the remaining three.

c Rationale–Structure of Chapter

In terms of doxai the diaphonia is between §1, earth in the middle, and §§2–3, where there is no middle for the earth to be at (§2), or where there is something else, viz. fire, in the middle (§3). A further but rather slight disparity is found between §2, where our earth comes first, and §3, where it comes third and occupies a position after the counter-earth that comes second. As noted the category is place, while the question type in §2 and §3 is cause. In terms of name-labels the main contrast is between the Ionic Succession beginning with Thales and (a representative of) the Italic Succession, namely the Pythagorean Philolaus. A third position is given to Xenophanes, perhaps representing the Eleatic Succession of which he is the archegete; cf. below ch. 3.13 Commentary D(c).

d Further Comments

General Points

The fourth and final lemma transmitted in P (including G) is a doxa attributed to Parmenides on the inhabited zones of the earth. It has been displaced from ch. 3.14 and should be restored there. See our commentary ad loc.

Individual Points

§3 The *Placita* identify a person, Philolaus the Pythagorean, whereas Aristotle speaks of ‘the Pythagoreans’ in general. For this doxa and name-label cf. below, ch. 3.13.2.

e Other Evidence

For the present chapter (as for chs. 3.9, 3.10 and 10.13) we must again refer Aristotle’s treatment in *Cael.* 2.13. The position of the earth is already a subject in Plato’s *Phaedo*. It has been discussed rather widely, not only in literature depending on Plato or Aristotle, or parallel to or comparable with the *Placita*, but also in astronomical writers (Geminus, Cleomedes, Ptolemy).

E *Further Related Texts*

a Proximate Tradition

General texts: Cicero *Luc.* 122 *sed ecquid nos eodem modo rerum naturas persequere aperire dividere possumus, ut videamus terra penitusne defixa sit et quasi radicibus suis haereat an media pendeat* (cf. below §1, §2). **Silius Italicus**

14.345–346 *ille, haereat anne / pendeat instabilis tellus. Seneca Dial.* 10.19.1 *quid sit quod huius mundi gravissima quaeque in medio sustineat. Dial.* 12.20.2 *terras primum situmque earum quaerit. Nat.* 2.1.5 *ubi quaeretur quis terrae situs sit, qua parte mundi consederit. Theon of Smyrna Exp.* p. 198.13–20 Hiller Εὐδημος (fr. 145 Wehrli) ἱστορεῖ ἐν ταῖς Ἀστρολογίαις ὅτι ... εὗρε πρῶτος ... Ἀναξίμανδρος (12A26 DK) δὲ ὅτι ἐστὶν ἡ γῆ μετέωρος καὶ κίϛιϛεῖται περὶ τὸ τοῦ κόσμου μέσον. **Basil of Caesarea in Hexaem.** 1.8–9, p. 15.13–9.3 Amand de Mendieta–Rudberg μῆδὲ ἐκεῖνο ζητεῖν παραινῶ, ἐπὶ τίνος ἔστηκεν (sc. the earth). ἱλιγγιάσει γὰρ καὶ οὕτως ἡ διάνοια, πρὸς οὐδὲν ὁμολογούμενον πέρας διεξιόντος τοῦ λογισμοῦ. ἐὰν τε γὰρ ἄερα φῆς ὑπεστρώσθαι πλάτει τῆς γῆς, ἀπορήσεις, πῶς ἡ μαλθακὴ καὶ πολὺκενος φύσις ἀντέχει ὑπὸ τοσοῦτου βάρους συνθλιβομένη, ἀλλ’ οὐχὶ διολισθαίνει πάντοθεν τὴν συνίησιν ὑποφεύγουσα, καὶ αἰεὶ πρὸς τὸ ἄνω ὑπερχεομένη τοῦ συμπίεζοντος. πάλιν, ἐὰν ὑποθῇς ἑαυτῷ ὕδωρ εἶναι τὸ ὑποβεβλημένον τῇ γῇ, καὶ οὕτως ἐπιζητήσεις, πῶς τὸ βαρὺ καὶ πυκνὸν οὐ διαδύνει τοῦ ὕδατος, ἀλλ’ ὑπὸ τῆς ἀσθενεστέρας φύσεως τὸ τοσοῦτον ὑπερφέρον τῷ βάρει κρατεῖται· πρὸς τὸ καὶ αὐτοῦ τοῦ ὕδατος τὴν ἔδραν ἐπιζητεῖν, καὶ πάλιν διαπορεῖν τίνι στεγανῷ καὶ ἀντερεῖδοντι ὁ τελευταῖος αὐτοῦ πυθμὴν ἐπιβαίνει. ἐὰν δὲ ἕτερον σῶμα τῆς γῆς ἐμβριθέστερον ὑποθῇ κωλύειν τὴν γῆν πρὸς τὸ κάτω χωρεῖν, ἐνθυμηθήσῃ ἀκάκεινο ὁμοίου τινὸς δεῖσθαι τοῦ στέγοντος καὶ μὴ ἑώντος αὐτὸ καταπίπτειν. **Damascius in Phaed.** (versio 2) 116 ρις’ cf. ch. 3.10 E(a) General texts.

Chapter heading: Seneca Nat. 6.6.2 *de situ terrarum. Pliny Nat.* 1 p. 13.5 *mediam esse mundi terram. Eusebius PE* 15.32.10 περὶ γῆς σχήματος (cf. ch. 3.10) καὶ περὶ θέσεως καὶ ἐγκλίσεως (cf. ch. 3.12) αὐτῆς. **Isidore of Seville Nat.** capitul. 71 xlvi *De positione terrae* (heading also in the body of the work).

§1 **Followers of Thales: Cicero Luc.** 122 *ut videamus terra ... an media pendeat. ND* 2.91 *terra sita in media parte mundi. Pliny Nat.* 2.176 *mediam esse mundi totius haut dubiis constat argumentis. Diogenes Laertius V.P.* 3.75 (on Plato) γῆν δὲ ... οὖσαν δ’ ἐπὶ τοῦ μέσου. *V.P.* 9.57 (on Diogenes, 64A1 DK) τὴν γῆν ... ῥηρισμένην ἐν τῷ μέσῳ. **Hippolytus Ref.** 1.9.3 (on Archelaus, 60A4 DK) τὴν μὲν οὖν γῆν ... κείσθαι δ’ ἐν μέσῳ οὐδὲν μέρος οὖσαν, ὡς εἶπεν, τοῦ παντός.

§2 **Xenophanes: Cicero Luc.** 122 (on Xenophanes, 21A47 DK) *ut videamus terra penitusne defixa sit et quasi radicibus suis haereat.*

b Sources and Other Parallel Texts

General texts: Plato Phd. 97e καὶ εἰ ἐν μέσῳ φαίη (Anaxagoras 59A47 DK) εἶναι αὐτὴν, ἐπεκδιηγῆσεσθαι ὡς ἄμεινον ἦν αὐτὴν ἐν μέσῳ εἶναι. *Tim.* 40b–c γῆν δὲ τροφὸν μὲν ἡμετέραν, ἰλλομένην δὲ τὴν περὶ τὸν διὰ παντὸς πόλον τεταμένον, φύλακα καὶ δημιουργὸν νυκτὸς τε καὶ ἡμέρας ἐμυχανήσατο. **Aristotle Cael.** 2.13 293a15–18 λοιπὸν δὲ περὶ τῆς γῆς εἶπεν ... περὶ μὲν οὖν τῆς θέσεως οὐ τὴν αὐτὴν ἅπαντες ἔχουσι δόξαν (see further below §1). **Pomponius Mela** 1.4 *medio* (sc. mundi) *terra sublimis. Manilius* 1.202–203 *est igitur tellus mediam sortita cavernam / aeris, e toto pariter sublata profundo. Cornutus Comp.* 28, p. 44.9–11 Torres στρογγύλη δὲ πλάττεται (sc. ἡ Ἑστία) καὶ κατὰ μέσους ἰδρύεται τοὺς οἴκους διὰ τὸ καὶ τὴν γῆν τοιαύτην εἶναι καὶ οὕτως ἰδρῦσθαι συμπειλημένην. **Ptolemy**

Geogr. 1.1.6 προσεσκέσθαι γάρ δεῖ καὶ τῆς ὅλης γῆς τό τε σχῆμα (cf. ch. 3.10) καὶ τὸ μέγεθος (cf. ch. 3.9) ἔτι τε τὴν πρὸς τὸ περιέχον θέσιν. **Themistius** *Or.* 26, p. 2.145.20–21 Schenkl μὴδὲ ὑπὲρ τῆς γῆς αὐτῆς, ὅπως βρίθει τε εἰς τὸ κάτω καὶ ἱδρυταὶ ἐν μετεώρῳ. **Calcidius** in *Tim.* c. 59 ait *Plato mundi formam rotundam esse et globosam, terram item globosam in medietate mundi sitam.* **Simplicius** in *Cael.* 511.15–20 τρία οὖν περὶ αὐτῆς προβαλλόμενος περὶ τε τῆς θέσεως αὐτῆς, ὅπου κειμένη τυγχάνει, καὶ δεύτερον, πότερον τῶν ἡρεμούντων ἐστὶν ἢ τῶν κινουμένων (cf. ch. 3.13), καὶ τρίτον περὶ τοῦ σχήματος αὐτῆς (cf. ch. 3.10), τὰς προκαταβεβλημένας καὶ περὶ τούτων δόξας πρῶτον ἐκτίθεται καὶ πρὸς αὐτὰς ὑπαντήσας οὕτω τὰ δοκοῦντα ἑαυτῷ περὶ τούτων συλλογίζεται. in *Cael.* 511.23–512.31 οἱ μὲν πλείστοι ἐπὶ τοῦ μέσου κείσθαι λέγουσι τὴν γῆν, ὥσπερ Ἐμπεδοκλῆς (—) καὶ Ἀναξίμανδρος (fr. 186 Wöhrle) καὶ Ἀναξίμενης (fr. 155 Wöhrle) καὶ Ἀναξαγόρας (59A88 DK) καὶ Δημόκριτος (fr. 403 Luria) καὶ Πλάτων (*Phd.* 79e, 108e–109a, *Tim.* 40b–c)· ἀντιφάσκουσι δὲ οἱ Πυθαγόρειοι (58B37 DK)· τοῦτο γὰρ σημαίνει τὸ ‘ἐναντίως’· οὐ περὶ τὸ μέσον λέγοντες αὐτήν, ἀλλ’ ἐν μὲν τῷ μέσῳ τοῦ παντὸς πῦρ εἶναι φασί, περὶ δὲ τὸ μέσον τὴν ἀντίχθονα φέρεσθαι φασί γῆν οὖσαν καὶ αὐτήν, ἀντίχθονα δὲ καλουμένην διὰ τὸ ἐξ ἐναντίας τῇδε τῇ γῇ εἶναι, μετὰ δὲ τὴν ἀντίχθονα ἡ γῆ ἥδε φερομένη καὶ αὐτὴ περὶ τὸ μέσον, μετὰ δὲ τὴν γῆν ἡ σελήνη· οὕτω γὰρ αὐτὸς ἐν τῷ περὶ τῶν Πυθαγορικών (fr. 204 R³) ἱστορεῖ. **Isidore of Seville** *Nat.* 48.1 *terra, ut testatur Hyginus* (*Astr.* 1.9, p. 11.120 Viré), *mundi media regione conlocata, omnibus partibus aequali dissidens intervallo, centron obtinet.* *Etym.* 14.1.1 *terra est in media mundi regione posita, omnibus partibus caeli in modum centri aequali intervallo consistens.*

§1 followers of Thales: **Plato** *Phd.* 99b–c διὸ δὴ καὶ ὁ μὲν τις δίνην περιτιθεὶς τῇ γῇ ὑπὸ τοῦ οὐρανοῦ μένειν δὴ ποιεῖ τὴν γῆν, ὁ δὲ ὥσπερ καρδόπῳ πλατεῖα βάθρον τὸν ἀέρα (c) ὑπερείδει (cf. DK n. on 13A7.11)· τὴν δὲ τοῦ ὡς οἶόν τε βέλτιστα αὐτὰ τεθῆναι δύναμιν οὕτω νῦν κείσθαι, ταύτην οὕτε ζητοῦσιν οὕτε τινα οἶονται δαιμονίαν ἰσχὺν ἔχειν. *Phd.* 108e–109a πέπεισμαι τοίνυν, ἢ δ’ ὅς, ἐγὼ ὡς πρῶτον μὲν, εἴ ἐστιν ἐν μέσῳ τῷ οὐρανῷ περιφερὴς οὖσα, μὴδὲν αὐτῇ δεῖν μήτε (109a) ἀέρος πρὸς τὸ μὴ πεσεῖν μήτε ἄλλης ἀνάγκης μηδεμιᾶς τοιαύτης, ἀλλὰ ἱκανὴν εἶναι αὐτὴν ἰσχεῖν τὴν ὁμοιότητα τοῦ οὐρανοῦ αὐτοῦ ἑαυτῷ πάντα καὶ τῆς γῆς αὐτῆς τὴν ἰσορροπίαν· ἰσορροπον γὰρ πρᾶγμα ὁμοίου τινὸς ἐν μέσῳ τεθὲν οὐχ ἔξει μάλλον οὐδ’ ἡττον οὐδὰμόσε κλιθῆναι, ὁμοίως δ’ ἔχον ἀκλινὲς μενεῖ. **Aristotle** *Cael.* 2.13 293a18–19 τῶν πλείστων ἐπὶ τοῦ μέσου κείσθαι λεγόντων. *Cael.* 2.13 295a13–14 διὸ δὴ καὶ τὴν γῆν πάντες ὅσοι τὸν οὐρανὸν γεννώσιν ἐπὶ τὸ μέσον συνελθεῖν φασιν. *Cael.* 2.13 295b11–15 εἰσι δὲ τινες οἱ διὰ τὴν ὁμοιότητά φασιν αὐτὴν μένειν, ὥσπερ τῶν ἀρχαίων Ἀναξίμανδρος (12A26 DK)· μάλλον μὲν γὰρ οὐθὲν ἄνω ἢ κάτω ἢ εἰς τὰ πλάγια φέρεσθαι προσήκει τὸ ἐπὶ τοῦ μέσου ἱδρυμένον καὶ ὁμοίως πρὸς τὰ ἔσχατα ἔχον· ἅμα δ’ ἀδύνατον εἰς τὸ ἐναντίον ποιεῖσθαι τὴν κίνησιν· ὥστ’ ἐξ ἀνάγκης μένειν. **Euclid** *Phaen.* 1 prop. 1 ἡ γῆ ἐν μέσῳ τῷ κόσμῳ ἐστὶ καὶ κέντρου τάξιν ἐπέχει πρὸς τὸν κόσμον (followed by the demonstration). **Cicero** *Tusc.* 1.68 *tum globum terrae eminentem e mari, fixum in medio mundi universi loco.* **Ovid** *Fast.* 6.273–277 *cumque sit in media rerum regione locata* (sc. terra), / *ut tangat nullum plusve minusve latus,* / *ni convexa foret, parti vicinior esset,* / *nec medium terram mundus haberet onus.*

Strabo 2.5.2, 110C.18–22 τὰ μὲν οὖν παρὰ τῶν φυσικῶν δεικνύμενα τοιαυτὰ ἐστὶ σφαιροειδῆς μὲν ὁ κόσμος καὶ ὁ οὐρανός, ἡ ῥοπή δ' ἐπὶ τὸ μέσον τῶν βαρέων· περὶ τοῦτο τε συνεστῶσα ἡ γῆ σφαιροειδῶς (cf. ch. 3.10.1) ὁμόκεντρος τῷ μὲν οὐρανῷ μένει καὶ αὐτὴ καὶ ὁ δι' αὐτῆς ἄξων καὶ τοῦ οὐρανοῦ μέσου τεταμένους. **Timaeus Locrus** c. 31, p. 215.7 Thesleff γὰρ δ' ἐν μέσῳ ἰδρυμένα. **Geminus** 16.29 ἡ γὰρ γῆ μέση κεῖται τοῦ σύμπαντος κόσμου σημείου τάξιν (cf. ch. 3.9) ἐπέχουσα. **Hyginus Astr.** 1.9, p. 11.120–121 Viré *terra mundi media regione collocata, omnibus partibus aequali dissidens intervallo, centrum obtinet sphaerae*. **Cleomedes Cael.** 1.6.1–3 Todd ὅτι δ' ἡ γῆ ὑπὸ τοῦ κόσμου περιεχομένη αὐτὸ τὸ μεσαίτατον ἐπέχει αὐτοῦ, πάλιν ἀπὸ τῆς ἐφόδου τῆς κατὰ τὸν διὰ πλείονων πέμπτον ἀναπόδεικτον ὁρμώμενοι παραστήσομεν. **Ptolemy Synt.** 1 c. 5 tit. ε'. ὅτι μέση τοῦ οὐρανοῦ ἐστὶν ἡ γῆ (and passim). **Galen PHP** 8.1.20 Εὐκλείδης μὲν ἐνὶ θεωρήματι τῷ πρώτῳ κατὰ τὸ τῶν Φαινομένων βιβλίον (v. above) ἐπέδειξε δι' ὀλιγίστων ἐπὼν τὴν γῆν μέσην εἶναι τοῦ κόσμου καὶ σημείου καὶ κέντρου λόγον ἔχειν πρὸς αὐτόν, καὶ οἱ μαθόντες οὕτω πιστεύουσι τῷ συμπεράσματι τῆς ἀποδείξεως ὡς καὶ τῷ τὰ δις δύο τέτταρα εἶναι· τῶν φιλοσόφων δ' ἔνιοι τοιαῦτα ληροῦσι περὶ μεγέθους (cf. ch. 3.9) τε καὶ θέσεως (cf. ch. 3.11) γῆς ὡς αἰδεσθῆναί τινα περὶ τοῦ παντός ἐπιτηδεύματος. **Inst.Log.** 13.7 ὁ δὲ γε δεικνὺς ἐν τῷ μέ(σῳ) τοῦ κόσμου τετάχθαι τὴν γῆν κατὰ τὸ ποῦ [κεῖται] τὴν σκέψιν ποιεῖται. **Corpus Hippocraticum Sept.** 2.24–26 κατὰ μέσον δὲ τὸν κόσμον ἡ γῆ κειμένη κτλ. **ps.Aristotle Mu.** 2 391b12–14 ταύτης (sc. τῆς διακοσμήσεως) δὲ τὸ μὲν μέσον, ἀκίνητόν (cf. A 3.13) τε καὶ ἐδραῖον ὄν, ἡ φερέσβιος εἴληχε γῆν, παντοδαπῶν ζώων ἐστία τε οὖσα καὶ μήτηρ. **Theon of Smyrna Expr.** p. 120.10–11 Hiller ἡ γῆ σφαιρική, κέντρου μὲν κατὰ τὴν θέσιν. **Ptolemy Synt.** 1.1, p. 16.19–17.3 ε'. ὅτι μέση τοῦ οὐρανοῦ ἐστὶν ἡ γῆ. τοῦτου δὲ θεωρηθέντος, εἴ τις ἐφεξῆς καὶ περὶ τῆς θέσεως τῆς γῆς διαλάβοι, κατανοήσειεν ἂν οὕτως μόνως συντελεσθισόμενα τὰ φαινόμενα περὶ αὐτὴν, εἰ μέσην τοῦ οὐρανοῦ καθάπερ κέντρον σφαίρας ὑποστησάμεθα. **Diogenes Laertius VP.** 9.22 (on Parmenides, 22A1 DK) πρῶτος δ' οὗτος τὴν γῆν ἀπέφηνε ... ἐν μέσῳ κείσθαι. 9.57 (on Diogenes, 64A1 DK) τὴν γῆν ... ἡρεισμένην ἐν τῷ μέσῳ. **Theon of Alexandria in Synt.** 401.3–5 Rome ἐξῆς καὶ περὶ τῆς θέσεως αὐτῆς διαλαμβάνει (sc. Ptolemy), ὡς ὅτι ἄλλως οὐκ ἂν ἀρμόζοι τὰ φαινόμενα ἡμῖν περὶ αὐτὴν εἰ μὴ μέσην τοῦ οὐρανοῦ καθάπερ κέντρου θέσιν ἔχουσαν αὐτὴν ὑποστησάμεθα. **Simplicius in Cael.** 511.23–25 (cf. Aristotle fr. 204 R³) οἱ μὲν πλείστοι ἐπὶ τοῦ μέσου κείσθαι λέγουσι τὴν γῆν, ὥσπερ Ἐμπεδοκλῆς (—) καὶ Ἀναξίμανδρος (fr. 186 Wöhrlé) καὶ Ἀναξίμενης (fr. 155 Wöhrlé) καὶ Ἀναξαγόρας (59A88 DK) καὶ Δημόκριτος (fr. 403 Luria) καὶ Πλάτων (*Phd.* 79e, 108e–109a, *Tim.* 40b–c).

§3 **Philolaus: Aristotle Cael.** 2.13 293a20–24 ἐναντίως οἱ περὶ τὴν Ἰταλίαν, καλούμενοι δὲ Πυθαγόρειοι (58B37 DK) λέγουσιν· ἐπὶ μὲν γὰρ τοῦ μέσου πῦρ εἶναι φασί, τὴν δὲ γῆν, ἐν τῶν ἄστρων οὖσαν, κύκλῳ φερομένην περὶ τὸ μέσον νύκτα τε καὶ ἡμέραν ποιεῖν. ἔτι δ' ἐναντίαν ἄλλην ταύτη κατασκευάζουσι γῆν, ἣν ἀντίχθονα ὄνομα καλοῦσιν. **Plutarch Quaest.Plat.** 1006C Θεόφραστος (*Phys.Op.* fr. 22 Diels, 243 FHS&G) δὲ καὶ προσιστορεῖ τῷ Πλάτῳ πρεσβυτέρῳ γενομένῳ μεταμέλειν ὡς οὐ προσήκουσαν ἀποδόντι τῇ γῇ τὴν μέσην χώραν τοῦ παντός. **Num.** c. 11.1–2 Νομᾶς δὲ λέγεται καὶ τὸ τῆς Ἑστίας ἱερὸν ἐγκύκλιον περιβαλέσθαι τῷ ἀσβέστῳ πυρὶ

φρουράν, ἀπομιμούμενος οὐ τὸ σχῆμα τῆς γῆς ὡς Ἑστίας οὔσης, ἀλλὰ τοῦ σύμπαντος κόσμου, οὗ μέσον οἱ Πυθαγορικοὶ (—) τὸ πῦρ ἰδρῦσθαι νομίζουσι, (2) καὶ τοῦτο Ἑστίαν καλοῦσι καὶ μονάδα· τὴν δὲ γῆν οὔτε ἀκίνητον οὔτε ἐν μέσῳ τῆς περιφορᾶς οὔσαν, ἀλλὰ κύκλῳ περὶ τὸ πῦρ αἰωρουμένην οὐ τῶν τιμωτάτων οὐδὲ τῶν πρώτων τοῦ κόσμου μορίων ὑπάρχειν. ταῦτα δὲ καὶ Πλάτωνά φασι πρεσβύτην γενόμενον διανενοῆσθαι περὶ τῆς γῆς ὡς ἐν ἐτέρᾳ χώρᾳ καθεστῶσης, τὴν δὲ μέσσην καὶ κυριωτάτην ἐτέρῳ τινὶ κρείττονι προσήκουσαν. **Alexander of Aphrodisias in Met.** 40.29–41.2 (cf. Aristotle fr. 203 R³, Pythagorei 58B4 DK) ... ἐννάτην δὲ τὴν γῆν (καὶ γὰρ καὶ ταύτην ἡγούντο κινεῖσθαι κύκλῳ περὶ μένουσαν τὴν ἑστίαν, ὃ πῦρ ἐστὶ κατ' αὐτούς), αὐτοὶ προσέθεσαν ἐν τοῖς δόγμασι καὶ τὴν ἀντίχθονά τινα, ἣν ἀντικινεῖσθαι ὑπέθεντο τῇ γῇ καὶ διὰ τοῦτο τοῖς ἐπὶ τῆς γῆς ἀόρατον εἶναι. λέγει (sc. Aristotle) δὲ περὶ τούτων καὶ ἐν τοῖς Περὶ οὐρανοῦ (*Cael.* 2.13) καὶ ἐν ταῖς τῶν Πυθαγορικῶν δόξαις (fr. 203 R³) ἀκριβέστερον. *in Met.* 39.2–3 (cf. Aristotle fr. 203 R³, 162 Gigon) τὴν γῆν ἐννάτην, μεθ' ἣν τὴν ἀντίχθονα. **Anatolius de Dec.** p. 67.3–13 Heiberg πρὸς τούτοις ἔλεγον (sc. οἱ Πυθαγόριοι) περὶ τὸ μέσον τῶν δ' στοιχείων κεῖσθαι τινα ἐναδικοὺς διάπυρον κύβον, οὗ τὴν μεσότητά τῆς θέσεως καὶ Ὅμηρον (*Il.* 8.16) εἰδέναι λέγοντα 'τόσσον ἔνερθ' αἶδαο, ὅσον οὐρανός ἐστ' ἀπὸ γαίης'. εἰκόασιν δὲ κατὰ γε τοῦτο κατηκολουθηκέναι τοῖς Πυθαγορικοῖς (—) οἳ τε περὶ Ἐμπεδοκλέα (—) καὶ Παρμενίδην (28A44 DK) καὶ σχεδὸν οἱ πλείστοι τῶν πάλαι σοφῶν φάμενοι τὴν μοναδικὴν φύσιν ἑστίας τρόπον ἐν μέσῳ ἰδρῦσθαι καὶ διὰ τὸ ἰσόρροπον φυλάσσειν τὴν αὐτὴν ἔδραν, καὶ δὴ Εὐριπίδης (T38a, fr. 944 Kannicht) ὡς Ἀναξαγόρου γενόμενος μαθητῆς οὕτω τῆς γῆς μνησθεὶς 'ἑστίαν δέ σ' οἱ σοφοὶ βροτῶν νομίζουσιν' (quoted ps.Iamblichus *Theol.Ar.* 6.11–20). **Simplicius in Cael.** 511.25–512.1 ἀντιφάσκουσι δὲ οἱ Πυθαγόριοι (58B.37 DK)· ... οὐ περὶ τὸ μέσον λέγοντες αὐτὴν, ἀλλ' ἐν μὲν τῷ μέσῳ τοῦ παντὸς πῦρ εἶναι φασι, περὶ δὲ τὸ μέσον τὴν ἀντίχθονα φέρεσθαι φασι γῆν οὔσαν καὶ αὐτὴν, ἀντίχθονα δὲ καλουμένην διὰ τὸ ἐξ ἐναντίας τῇδε τῇ γῇ εἶναι, μετὰ δὲ τὴν ἀντίχθονα ἡ γῆ ἥδε φερομένη καὶ αὕτη περὶ τὸ μέσον, μετὰ δὲ τὴν γῆν ἡ σελήνη· οὕτω γὰρ αὐτὸς ἐν τῷ περὶ τῶν Πυθαγορικῶν (cf. Aristotle fr. 204 R³) ἱστορεῖ. ... ἡ δὲ ἀντίχθων κινουμένη περὶ τὸ μέσον καὶ ἐπομένη τῇ γῇ ταύτῃ οὐχ ὁράται ὅφ' ἡμῶν διὰ τὸ ἐπιπροσθεῖν ἡμῖν αἰεὶ τὸ τῆς γῆς σῶμα.

Liber 3 Caput 12

P^B: ps.Plutarchus *Plac.* 895F; pp. 377^a21–378^a2 Diels—**P^E**: Eusebius *PE* 15.58, p. 419.10 Mras (titulus solus)—**P^Q**: Qusṭā ibn Lūqā pp. 180–181 Daiber
Cf. Ach: Achilles *Univ.* c. 19, p. 28.13–16 Di Maria

Titulus ιβ'. Περὶ ἐγκλίσεως γῆς (P)

- §1 Λεύκιππος παρεκπεσεῖν τὴν γῆν εἰς τὰ μεσημβρινὰ μέρη διὰ τὴν ἐν τοῖς μεσημβρινοῖς ἀραιότητα, ἅτε δὴ πεπηγότων τῶν βορείων διὰ τὸ κατεψύχθαι τοῖς κρυμοῖς, τῶν δ' ἀντιθέτων πεπυρωμένων. (P₁)
- §2 Δημόκριτος διὰ τὸ ἀσθενέστερον εἶναι τὸ μεσημβρινὸν τοῦ περιέχοντος αὐξομένην τὴν γῆν κατὰ τοῦτο ἐγκλιθῆναι· τὰ γὰρ βόρεια ἄκρατα τὰ δὲ μεσημβρινὰ κέκραται· ὅθεν κατὰ τοῦτο βεβάρηται, ὅπου περισσὴ ἐστὶ τοῖς καρποῖς καὶ τῇ αὔξει. (P₂)

§1 Leucippus 67A27 DK §2 Democritus 68A96 DK

cap. non hab. GS et **lemmata** om. E **titulus** c. 3.12 Περὶ ἐγκλίσεως γῆς appos. ad textum c. 3.13 **P^E** §2 [6] αὐξομένην] αὐξανόμενην **P^{B(11)}** : om. **P^Q** || [8] αὔξει] αὐξήσει **P^{B(111)}**

Testes secundi:

Traditio ps.Plutarchi:

Achilles *Univ.* c. 19, p. 28.13–16 κλίματα δὲ εἶρηται διὰ τὸ τὴν γῆν μὴ εἶναι ὁμαλήν, ἀλλ' ἔχειν οἷον ἐγκλίματά τινα ὑψηλοτέρων ὄντων καὶ ταπεινοτέρων τῶν μερῶν αὐτῆς καὶ τὰς οἰκήσεις τῶν ἐθνῶν ἄλλας ἀλλαχοῦ εἶναι (~ quaestio).

Loci Aetiani:

quaestio A 2.24.7 Ἀρίσταρχος τὸν ἥλιον ἴσθησι μετὰ τῶν ἀπλανῶν, τὴν δὲ γῆν κινεῖ περὶ τὸν ἡλιακὸν κύκλον καὶ κατὰ τὰς ταύτης ἐγκλίσεις σκιάζεσθαι τὸν δίσκον.

titulus A 2.8 Τίς ἡ αἰτία τοῦ τὸν κόσμον ἐγκλιθῆναι.

§1 A 2.8.1 Διογένης Ἀναξαγόρας μετὰ τὸ συστήναι τὸν κόσμον καὶ τὰ ζῶα ἐκ τῆς γῆς ἐξαγαγεῖν ἐγκλιθῆναι πῶς τὸν κόσμον ἐκ τοῦ αὐτομάτου εἰς τὸ μεσημβρινὸν αὐτοῦ μέρος, ἴσως ὑπὸ προνοίας, ἵν' αὖ μὲν {τινα} αἰκητα γένηται αὖ δ' οἰκητὰ μέρη τοῦ κόσμου κατὰ ψῦξιν καὶ ἐκπύρωσιν καὶ εὐκρασίαν. A 2.8.2 Ἐμπεδοκλῆς τοῦ ἀέρος εἴξαντος τῇ τοῦ ἡλίου ὀρμῇ, ἐγκλιθῆναι τὰς ἄρκτους, καὶ τὰ μὲν βόρεια ὑψωθῆναι τὰ δὲ νότια ταπεινωθῆναι, καθ' ὃ καὶ τὸν ὅλον κόσμον. A 3.14.1 ἡ μέση <τῆς θερινῆς καὶ χειμερινῆς> τὸ μέσον τῆς γῆς ὀρίζει, παρ' αὐτὸ τοῦτο διακεκαυμένη καλουμένη· ἡ δ' οἰκητὴ ἐστὶν ἡ {μέση τῆς θερινῆς καὶ χειμερινῆς} <θερινῆς>, εὐκρατός τις οὖσα.

§2 A 4.1.4 Δημόκριτος τῆς χιόνος τῆς ἐν τοῖς πρὸς ἄρκτον μέρεσιν ὑπὸ θερινὰς τροπὰς ἀναλυομένης τε καὶ διαχεομένης νέφη μὲν ἐκ τῶν ἀτμῶν πιλοῦσθαι· τούτων

δ' ἀνελαυνομένων πρὸς μεσημβρίαν καὶ τὴν †Αἴγυπτον† ὑπὸ τῶν ἐτησίων ἀνέ-
μων, ἀποτελεῖσθαι ῥαγδαίους ὄμβρους, ὑφ' ὧν ἀναπίμπλασθαι τὰς τε λίμνας καὶ
τὸν Νεῖλον ποταμόν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The full text of witness P is represented by P^B and P^Q only. P^E supplies the chapter heading, but the text has fallen out (this may have already occurred in E's source) and the heading came to be attached to the next chapter. This chapter and the misplaced ch. 3.18 are the only chapters in Book 3 not included by G. T, again, is absent.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition is poor. The parallel for Leucippus in Diogenes Laertius points at the existence of a shared tradition.

(2) *Sources.* There is no reference in Aristotle. The book title *Geography*, Γεωγραφίη, cited in Diogenes Laertius' catalogue of Democritus' works perhaps suggests that this work may have been the source of the Democritus doxa, but it may equally well derive from one of his cosmological works. The doxa of Leucippus will derive from the latter's *Great Cosmic Ordering*, Μέγας διάκοσμος, but we do not know by what route.

C *Chapter Heading*

Of the umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C), and confirmed in the extant sources. As already noted above, in E it is attached to the wrong chapter. The question type at issue is that of cause (διὰ τῆς). The categories concerned are 'being in a certain position' (κεῖσθαι) and quality.

D *Analysis*

a Context

The chapter, the fourth in the series of seven chapters dealing with the earth, is a sort of appendix to ch. 3.10, on the shape of the earth, or rather to 3.10.4–5, also with name-labels Leucippus and Democritus. What is presupposed here is an earth the shape of which is more or less flat. The chapter is parallel to ch. 2.8 on the tilting of the cosmos, where as a matter of fact the tilting of the cosmos

is related to that of the earth, as is entirely clear in 2.8.2 and implicit in 2.8.1, where the inhabited and uninhabited parts of the cosmos must be those of the earth.

b Number–Order of Lemmata

There are 2 lemmata, the order of which is determined by the relative chronology of the name-labels. The only doxai represented (S is lost) are of Presocratic and even purely Atomist origin. References to later views are absent and may have been lost.

c Rationale–Structure of Chapter

The rationale is determined by the relative chronology. The two in themselves rather peculiar doxai could also have been cited in the opposite order, since they pertain to exactly the same issue and the differences are not very big. Even so, it is worthy of note that this issue is represented by a slight diaphonia between the two early Atomists, a rather exceptional phenomenon illustrating the predilection of the doxographer for the exceptional.

E Further Related Texts

a Proximate Tradition

Chapter heading: Eusebius *PE* 15.32.10 *περὶ γῆς σχήματος καὶ περὶ θέσεως καὶ ἐγκλίσεως αὐτῆς.*

§1 *Leucippus*: Diogenes Laertius *V.P.* 9.33 (on *Leucippus*, 67A1 DK) *** τῷ κεκλίσθαι τὴν γῆν πρὸς μεσημβρίαν· τὰ δὲ πρὸς ἄρκτῳ αἰεὶ τε νίφεσθαι καὶ κατὰ ψυχρὰ εἶναι καὶ πῆγνυσθαι.

§2 *Democritus*: Diodorus Siculus 1.39.1 Δημόκριτος δ' ὁ Ἀβδηρίτης (cf. 68A99 DK) φησὶν οὐ τὸν περὶ τὴν μεσημβρίαν τόπον χιονίζεσθαι, ... ἀλλὰ τὸν περὶ τὰς ἄρκτους, καὶ τοῦτο ἐμφανὲς εἶναι πᾶσι. τὸ δὲ πλῆθος τῆς σωρευομένης χιόνος ἐν τοῖς βορείοις μέρεσι περὶ μὲν τὰς τροπὰς μένειν πεπηγὸς κτλ.

b Sources and Other Parallel Texts

General texts: Diogenes Laertius *V.P.* 2.9 (on Anaxagoras, 59A1 DK) τὰ δ' ἄστρα κατ' ἀρχὰς μὲν θολοειδῶς ἐνεχθῆναι, ὥστε κατὰ κορυφὴν τῆς γῆς τὸν αἰεὶ φαινόμενον εἶναι πόλον, ὕστερον δὲ τὴν ἔγκλισιν λαβεῖν. cf. *Suda* s.v. E 102, p. 3.195.5–7 Adler: ἔγκλισις· Ἀναξαγόρας φησὶν ὥστε κατὰ κορυφὴν τῆς γῆς τὸν αἰεὶ φαινόμενον εἶναι πόλον, ὕστερον δὲ τὴν ἔγκλισιν λαβεῖν. τοῦτέστι παρατροπὴν.

§1 *Leucippus*: Diogenes Laertius *V.P.* 9.46 (on *Democritus*, 68A1 DK) Μέγας διάκοσμος (ὃν οἱ περὶ Θεόφραστον (fr. 237 FHS&G) Λευκίππου (cf. *Leucippus* 67B1–1a DK, *Democritus* 68B4b DK) φασὶν εἶναι).

§2 *Democritus*: Diogenes Laertius *V.P.* 9.48 (on *Democritus*, 68A1, B14c DK) Γεωγραφίη.

Liber 3 Caput 13

P^B: ps.Plutarchus *Plac.* 896A–B; p. 378^a3–19 Diels—**P^E**: Eusebius *PE* 15.58.1–4, p. 4.11–18 Mras—**P^G**: ps.Galenus *HPh* c. 84; p. 633.10–13 Diels—**P^Q**: Qustā ibn Lūqā pp. 181–182 Daiber

S: Stobaeus *Ecl.* 1.35, p. 248.20 Wachsmuth (titulus solus); cf. Phot. *Bibl.* 167, p. 112b21–22 Henry (titulus solus)

Cf. *Scholia in Basilium* I 26, p. 201.3–8 Pasquali = *II* 5 p. 369 Poljakov

Titulus γ'. Πότερα μένει ἡ γῆ ἢ κινεῖται (P,S)

§1 οἱ μὲν ἄλλοι μένουν τὴν γῆν. (P₁)

§2 Φιλόλαος δ' ὁ Πυθαγόρειος κύκλῳ περιφέρεισθαι περὶ τὸ πῦρ κατὰ κύκλον λοξὸν ὁμοιοτρόπως ἡλίῳ καὶ σελήνῃ. (P₂)

§3 Ἡρακλείδης ὁ Ποντικὸς καὶ Ἐκφαντος ὁ Πυθαγόρειος κινεῖσι μὲν τὴν γῆν, οὐ μὴν γε μεταβατικῶς, ἀλλὰ τρεπτικῶς, τροχοῦ δίκην ἐνηξονισμένην ἀπὸ δυσμῶν ἐπ' ἀνατολὰς περὶ τὸ ἴδιον αὐτῆς κέντρον. (P₃) 5

§4 Δημόκριτος κατ' ἀρχὰς μὲν πλάζεσθαι τὴν γῆν διὰ τε μικρότητα καὶ κουφότητα, πυκνωθεῖσαν δὲ τῷ χρόνῳ καὶ βαρυνθεῖσαν καταστῆναι. (P₄) 10

§1 anonymi cf. 44A21 DK; §2 Philolaus 44A21 DK; §3 Heraclides Ponticus fr. 104 Wehrli, 65B Schütrumpf; Ecphantus 51.5 DK; §4 Democritus 68A95 DK

lemmata non hab. S **titulus** Πότερα ... κινεῖται ^{SLPhot}: Περὶ κινήσεως γῆς ^{PBGQ}: om. ^{PE} qui appos. tit. c. 3.12 Περὶ ἐγκλίσεως γῆς ad textum c. 3.13 §1 [2] post γῆν add. ^{PG} ὑπολαμβάνουσιν §2 [3] περὶ τὸ πῦρ ^{PBE}: om. ^{PGQ} || [3–4] περὶ ... σελήνῃ om. ^{PG} || [4] κύκλον λοξὸν corr. Reiske prob. edd., legit Q ut vid.: κύκλου λοξοῦ ^{PBE} §3 [5] Ἐκφαντος *Eukrates* Q || [6] ἀλλὰ τρεπτικῶς ^{PE} prob. Diels: om. ^{PBG}: τροπικῶς ^{PQ} ut vid. || [6–7] ἐνηξονισμένην corr. Reiske prob. edd.: ἐν ἄξονι στρεφομένην ^{PE}: ἐνιζονισμένην ^{PB(I)}: ἐνιζομένην ^{PB(III)}: ἐνι—spat. 4 litt. ^{PB(II)}: ὠρισμένην ^{PG} (περὶ τὸν ... πόλον Arist. *Cael.* 293b31–32, *circum axem* Cic. *Luc.* 123) || [7] κέντρον] κίνημα ^{PG} §4 om. ^{PG} || [8] Δημόκριτος ... γῆν ^{PE} prob. Diels: κατ' ἀρχὰς μὲν πλάζεσθαι γῆν φησιν Δημόκριτος ^{PBQ} prob. Mau Lachenaud || μικρότητα] μανότητα coni. Dyroff, ὑγρότητα Heidel

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 84 (~ tit.) Περὶ κινήσεως γῆς (text Diels)

84.1 (~ P₁) οἱ μὲν ἄλλοι μένουν τὴν γῆν ὑπολαμβάνουσιν.

84.2 (~ P₂) Φιλόλαος δὲ ὁ Πυθαγόρειος κύκλῳ περιφέρεισθαι.

84.3 (~ P₃) Ἡρακλείδης δὲ ὁ Ποντικὸς κινήτην τὴν γῆν, ὠρισμένην ἀπὸ δυσμῶν ἐπ' ἀνατολὰς περὶ τὸ ἴδιον αὐτῆς κίνημα.

Testes secundi:

Scholia in Basilium I 26, p. 201.3–8 Pasquali = *II* 5 p. 369 Poljakov τὴν γῆν ἀκίνητον ἔφη Παρμενίδης ὁ Ἐλεάτης (—) καὶ Ξενοφάνης ὁ Κολοφώνιος (—)· Πλάτων (*Tim.* 40b–c) δὲ αὐτὴν ἴλλεσθαι φησι περὶ τὸν διὰ παντὸς τεταμένον πόλον, ὅπερ ἂν εἴη στρέφεσθαι (~ §3)· ἀλλὰ μὴν καὶ Ἀριστοτέλης (*Cael.* 2.14 296b22–23) καὶ οἱ ἀπὸ τῆς Στοᾶς (—) ἀκίνητον ἀπέλιπον τὴν γῆν (~ §1)· τῇ δὲ προκειμένη νῦν αἰτιολογίᾳ τῇ περὶ τῆς ἀκινήσεως τῆς γῆς Στράτων (*fr.* 90 Wehrli, 44 Sharples) δοκεῖ πρῶτος ὁ φυσικὸς χρῆσασθαι [*vid. infra*] (~ *quaestio*).

Loci Aetiani:

titulus A 1.23 Περί κινήσεως. A 2.16 Περί τῆς τῶν ἀστέρων φορᾶς καὶ κινήσεως.

quaestio A 2.24.7 Ἀρίσταρχος τὸν ἥλιον ἴστησι μετὰ τῶν ἀπλανῶν, τὴν δὲ γῆν κινεῖ περὶ τὸν ἡλιακὸν κύκλον καὶ κατὰ τὰς ταύτης ἐγκλίσεις σκιάζεσθαι τὸν δίσκον. A 3.17.8 Σέλευκος ὁ μαθηματικὸς κινῶν καὶ οὗτος τὴν γῆν κτλ.

§1 A 3.15.6 Μητροδωρος μὴδὲν ἐν τῷ οἰκείῳ τόπῳ σώμα κινεῖσθαι, εἰ μὴ τις προώσσειεν ἢ καθελκύσειε κατ' ἐνέργειαν· διὸ μὴδὲ τὴν γῆν, ἅτε δὴ κειμένην φυσικῶς. A 3.15.7 Παρμενίδης Δημόκριτος διὰ τὸ πανταχόθεν ἴσον ἀφεστῶσαν μένειν ἐπὶ τῆς ἰσορροπίας, οὐκ ἔχουσιν αἰτίαν δι' ἣν δεῦρο μᾶλλον ἢ ἐκεῖσε ρέψειεν ἄν. A 3.15.9 Πλάτων πάσης μὲν κινήσεως ἕξ εἶναι περιστάσεις, ἄνω καὶ κάτω, ἐπὶ τὰ δεξιὰ καὶ θάτερα, ἔμπροσθεν καὶ ὀπίσθεν· κατ' οὐδεμίαν δὲ τούτων ἐνδέχεσθαι τὴν γῆν κινεῖσθαι, ἐν τῷ πανταχόθεν κατωτάτῳ κειμένην· μένειν μὲν ἀκίνητον, μὴδὲν ἔχουσιν ἐξαίρετον εἰς τὸ ρεῖν μᾶλλον.

§2 A 2.5a.4 Φιλόλαος (sc. τὸ ἡγεμονικὸν τοῦ κόσμου) ἐν τῷ μεσαιτάτῳ πυρί. A 2.7.6 Φιλόλαος πῦρ ἐν μέσῳ περὶ τὸ κέντρον, ὅπερ ἐστὶν τοῦ παντὸς καλεῖ ... πρῶτον δ' εἶναι φύσει τὸ μέσον, περὶ δὲ τοῦτο δέκα σώματα θεῖα χορεύειν, οὐρανόν, τοὺς <ε'> πλανήτας, μεθ' οὓς ἥλιον, ὕψ' ᾧ σελήνην, ὕψ' ἣ τὴν γῆν, ὕψ' ἣ τὴν ἀντίχθονα, μεθ' ἧς σύμπαντα τὸ πῦρ, ἐστίας περὶ τὰ κέντρα τάξιν ἐπέχον. A 2.24.7 Ἀρίσταρχος τὸν ἥλιον ἴστησι μετὰ τῶν ἀπλανῶν, τὴν δὲ γῆν κινεῖ περὶ τὸν ἡλιακὸν κύκλον καὶ κατὰ τὰς ταύτης ἐγκλίσεις σκιάζεσθαι τὸν δίσκον. A 3.11.3 Φιλόλαος ὁ Πυθαγόρειος τὸ μὲν πῦρ μέσον, τοῦτο γὰρ εἶναι τοῦ παντὸς ἐστίας· δευτέραν δὲ τὴν ἀντίχθονα, τρίτην δ' ἣν οἰκοῦμεν γῆν ἕξ ἐναντίας κειμένην τε καὶ περιφερομένην τῇ ἀντίχθον.

§3 A 3.17.9 Σέλευκος ὁ μαθηματικὸς ἀντιγεγραφῶς Κράτητι, κινῶν καὶ αὐτὸς τὴν γῆν. cf. A ap. T 4.16, p. 104.15–17 Raeder (*de mundo*) καὶ οἱ μὲν σφαιροειδῆ τοῦτον εἶναι, οἱ δὲ ἑτεροειδῆ· καὶ οἱ μὲν μυλοειδῶς, οἱ δὲ τροχοῦ δίσκην περιδινεῖσθαι ...

§4 A 1.4.3 ἀπειται ἐκ μὲν τῶν ὑποκαθιζόντων ἐγεννήθη ἡ γῆ. A 1.12.6 Δημόκριτος τὰ πρῶτὰ φησι σώματα (ταῦτα δ' ἦν τὰ ναστά) βάρος μὲν οὐκ ἔχειν, κινεῖσθαι δὲ κατ' ἀλληλοτυπίαν ἐν τῷ ἀπείρῳ. δυνατόν εἶναι κοσμιαίαν ὑπάρχειν ἄτομον.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses are P and his tradition, and S^L for a version of the heading. The heading is also found in Photius' index, so doxai from this chapter must have been present in the *Anthology*, but were removed by Byzantine epitomators. G omits the final doxa in his epitome.

P may have omitted a possible parallel chapter on the movement of the cosmos in Book 2, attested at T CAG 4.16, p. 104.15–17 καὶ οἱ μὲν μυλοειδῶς, οἱ δὲ τροχοῦ δίκην περιδινεῖσθαι (sc. the cosmos); cited above at *loci Aetiani*. The phrase οἱ μὲν σφαιροειδῇ τοῦτον εἶναι, οἱ δὲ ἑτεροειδῇ may be parallel to §3. See above the Appendix to ch. 2.2.

T is again absent.

B *Proximate Tradition and Sources*

(1) *Proximate tradition*. The proximate tradition is rather rich and quite interesting, e.g. among the *testes secundi* the *Scholia* on the *Hexaemeron* of Basil and in the *traditio proxima* Cicero and Hippolytus.

(2) *Sources*. Among the sources we may mention the discussion in Aristotle, *De caelo* 2.13, which as we have seen deals with those issues in relation to each other, namely substance and number, shape, position, and motion or rest, that are treated *more doxographico* separately in our chs. 3.9, 3.10, 3.11 and 3.13. His methodology (the diaeresis between those say that the earth is at rest and those who say that it moves) and terminology are also echoed.

C *Chapter Heading*

For S the heading has not been preserved in the main manuscripts of the *Eclogae* F and P, but it is attested in the *Index Photianus* and in S^L. Their wording, 'Whether the earth is at rest or moves', Πότερα μένει ἡ γῆ ἢ κινεῖται, differs from what is found in the tradition of P. As this version gives a more precise and detailed description of the contents of the chapter and moreover lists 'rest' and 'motion' in the order of appearance of these concepts in the lemmata, we have preferred it to the simpler Περί κινήσεως γῆς in P^{BGQ}, where it is of the umbrella type (περί τοῦ δεῖνα) that dominates in the *Placita* (see above, ch. 1.3 Commentary C). Note that the phrase 'On the earth's motion' is ambiguous in that it may also relate to earthquakes (see at ch. 3.15, Commentary D(c)). It is lost in P^E, so confirmation either way from this source is lacking.

D *Analysis*

a Context

This is the antepenultimate chapter of the block of seven chapters dealing with the earth. The question of the earth's rest or motion is one of the main issues in Aristotle's *De caelo* ch. 2.13, where it is discussed in connection with that of its position, substance and number, shape, and motion or rest, themes treated *more doxographico* separately in our chs. 3.9, 3.10, 3.11 and 3.13.

b Number–Order of Lemmata

P^B and P^G share three lemmata. The relative order is the same, which there is no reason to change. P^G omits the final doxa.

c Rationale–Structure of Chapter

The issue is motion or rest in the category of place (for motion in relation to all or some of the categories see ch. 1.23 Commentary C). In terms of doxai the main diaphonia is between §1, the earth at rest, and §§2–4, various sorts of movements of the earth. A third position is occupied by Xenophanes, perhaps representing the Eleatic Succession of which he is the archegete. These movements are listed according to a diaeresis that first opposes circular movement in space (§2) to circular movement about the axis (§3). §4 is a compromise lemma, appropriately located at the end, because it mentions both movement (at the beginning of the earth's career) and rest (its present situation). It is also rather odd, which appeals to our author and is a further reason for its final position; cf. for example Xenophanes' disappearing suns and moons in ch. 2.24.8. See further Mansfeld (1992a) at M–R 3.75–94.

In terms of name-labels the main contrast is between the majority (presumably the Ionic Succession beginning with Thales) and (representatives of) the Italic Succession, namely the Pythagoreans Philolaus and Ecphantus (plus Heraclides, because of his interest in Pythagoreanism), and Democritus, (an important representative of the Eleatic Succession). Cf. above ch. 3.11 Commentary D(c).

d Further Comments

General Points

The issue of the earth's motion returns in ch. 3.17, 'On earthquakes', *ubi vide*. This is because, as already noted above, the phrase 'the earth moves' is ambiguous, and can pertain both to the motion of the earth as a whole (around the centre of its system, or about its axis) and of the movement of only a part or parts, as during earthquakes.

Individual points

§2 The *Placita* again mention an individual, Philolaus, where Aristotle speaks of ‘the Pythagoreans’ in general; the doxa is already ascribed to him at ch. 3.11.3.

§3 There is no mention in this chapter of the heliocentric theory of Aristarchus of Samos, for which see ch. 2.24.7 (and e.g. Archimedes *Aren.* p. 135.8–18, Sextus Empiricus *M.* 10.174). The earth’s movement according to Heraclides and Ecphantus is axial rotation.

The proximate tradition represented by Cicero and Hippolytus mentions another Pythagorean, viz. not Ecphantus but Hicetas: this is another instance of a different attempt at identifying an individual where Aristotle spoke of a group.

e Other Evidence

The question of the earth’s motion (and position) was discussed widely, often vehemently, with the overwhelming majority being in favour of rest. The heterodox heliocentric view of Aristarchus was strongly condemned by Cleanthes as sacrilegious. The spectacle of the revolutions of the heavenly bodies about the earth was believed to produce the concept of God, see above, ch. 1.6, so Cleanthes’ reaction can be understood. Another variety of the earth’s motion, namely one about the axis that left it in place at the centre, was a minority position too. Because of the ambiguity of the expression ‘the earth moves’, the theme of the present chapter also plays a part in the chapter on earthquakes, 3.15 (for parallels also see above, *Loci Aetiani*).

The doxographies in Simplicius are unusual and interesting. They are not only based on the Aristotelian chapter (*Cael.* 2.13), but because of the inclusion of name-labels such as Heraclides and Aristarchus must also depend on the wider doxographical tradition.

The first three paragraphs of the chapter were quoted by Copernicus in the prefatory letter of the *De revolutionibus corporum coelestium*, so he presents the motion of the earth as a controversial issue. See Burkert (1972), 337 n. 1, and section E(b) General texts.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *Luc.* 122 (Xenophanes 21A47 DK) *sed ecquid nos eodem modo rerum naturas persequere aperire dividere possumus, ut videamus terra penitusne defixa sit et quasi radicibus suis haereat an media pendeat.* Lucretius *DRN* 5.534 *terraque ut in media mundi regione quiescat.* Pliny *Nat.* 2.162 *pendere ipsam (sc. terram) ac non cadere nobiscum, ceu spiritus vis, mundo*

praesertim inclusi, dubia sit, aut possit cadere, natura repugnante et quo cadat negante. Silius Italicus 14.345–348 *ille, haereat anne / pendeat instabilis tellus, ... / noverat. Seneca Dial.* 10.19.1 *sciturus ... quid sit quod huius mundi grauis-sima quaeque in medio sustineat. Damascius in Phaed.* (versio 2) 116 ρις' cf. ch. 3.10 E(a) General texts.

§1 the others: Hippolytus *Ref.* 1.6.3 (on Anaximander, 12A11 DK) τὴν δὲ γῆν εἶναι μετέωρον, ὑπὸ μηδενὸς κρατουμένην, μένουσαν (δὲ) διὰ τὴν ὁμοίαν πάντων ἀπόστασιν. *Ref.* 1.8.3 (on Anaxagoras, 59A42 DK) τὴν δὲ γῆν τῷ σχήματι πλατεῖαν εἶναι καὶ μένειν μετέωρον διὰ τὸ μέγεθος καὶ διὰ τὸ μηδὲν εἶναι κενὸν καὶ διὰ τὸ τὸν ἀέρα ἰσχυρότατον ὄντα φέρειν ἐποχουμένην τὴν γῆν. *Ref.* 1.9.3 (on Archelaus, 60A4 DK) τὴν μὲν οὖν γῆν ἡρεμεῖν. **Basil of Caesarea in Hexaem.** 10, p. 17.11–16 Amand de Mendieta–Rudberg ἤδη δὲ τινες τῶν φυσικῶν καὶ τοιαύταις αἰτίαις τὴν γῆν ἀκίνητον μένειν κατακομψεύονται. ὡς ἄρα διὰ τὸ τὴν μέσσην τοῦ παντὸς εἰληφέναι χώραν, καὶ διὰ τὴν ἴσσην πάντοθεν πρὸς τὸ ἄκρον ἀπόστασιν, οὐκ ἔχουσιν ὅπου μᾶλλον ἀποκλιθῇ, ἀναγκαίως μένειν ἐφ' ἐαυτῆς, ἀδύνατον αὐτῇ παντελῶς τὴν ἐπὶ τὴν ῥοπὴν τῆς πανταχόθεν περικειμένης ὁμοιότητος ἐμποιοῦσης. **Theon of Smyrna** *Exp.* p. 198.18–19 Hiller (quoting Eudemus fr. 145 Wehrli) ... Ἀναξίμανδρος (12A26 DK) δὲ ὅτι ἐστὶν ἡ γῆ μετέωρος καὶ κ[ι]νεῖται περὶ τὸ τοῦ κόσμου μέσον ... (cf. **Heron Mechanicus** *Def.* 11.6–7).

§2 Philolaus: Diogenes Laertius *V.P.* 8.85 δοκεῖ δ' αὐτῷ (on Philolaus, 44A1 DK) ... καὶ τὴν γῆν κινεῖσθαι κατὰ κύκλον πρῶτον εἰπεῖν· οἱ δ' Ἰκέταν (τὸν) Συρακόσιον (cf. ad 50.1 DK) φασιν.

§3 Heraclides Ecpphantus: Cicero *Luc.* 123 *Hicetas Syracusius* (50.1 DK), *ut ait Theophrastus (Phys.Op.* fr. 18 Diels, 240 FHS&G), *caelum solem lunam stellas supera denique omnia stare censet, neque praeter terram rem ullam in mundo moveri; quae cum circum axem se summa celeritate convertat et torqueat, eadem effici omnia quasi stante terra caelum moveretur. atque hoc etiam Platonem in Timaeo* (40b–c) *dicere quidam arbitrantur, sed paulo obscurius. Hippolytus* *Ref.* 1.15.12 Ἐκφαντός τις Συρακούσιος (51.1 DK) ἔφη ... τὴν δὲ γῆν μέσον κόσμου κινεῖσθαι περὶ τὸ αὐτῆς κέντρον ὡς πρὸς ἀνατολήν. **Simplicius in Cael.** 541.28 εἰ δὲ κύκλῳ περὶ τὸ κέντρον (sc. ἐκινεῖτο ἡ γῆ), ὡς Ἡρακλείδης ὁ Ποντικός (fr. 107 Wehrli, 68 Schütrumpf) ὑπετίθετο.

b Sources and Other Parallel Texts

General texts: Aristotle *Cael.* 2.8 289b1–7 ἐπεὶ δὲ φαίνεται καὶ τὰ ἄστρα μεθιστάμενα καὶ ὁλος ὁ οὐρανός, ἀναγκαῖον ἦτοι ἡρεμούντων ἀμφοτέρων γίγνεσθαι τὴν μεταβολήν, ἢ κινουμένων, ἢ τοῦ μὲν ἡρεμούντος τοῦ δὲ κινουμένου. ἀμφοτέρα μὲν τοίνυν ἡρεμεῖν ἀδύνατον ἡρεμούσης γε τῆς γῆς· οὐ γὰρ ἂν ἐγίγνετο τὰ φαινόμενα. τὴν δὲ γῆν ὑποκείσθω ἡρεμεῖν. λείπεται δὴ ἀμφοτέρα κινεῖσθαι, ἢ τὸ μὲν κινεῖσθαι τὸ δ' ἡρεμεῖν. *Cael.* 2.13 293b15–20 περὶ μὲν οὖν τοῦ τόπου τῆς γῆς ταύτην ἔχουσιν τινες (Pythagoreans 58B37a DK) τὴν δόξαν, ὁμοίως δὲ καὶ περὶ μονῆς καὶ κινήσεως· οὐ γὰρ τὸν αὐτὸν τρόπον ἅπαντες ὑπολαμβάνουσιν, ἀλλ' ὅσοι μὲν μὴδ' ἐπὶ τοῦ μέσου κείσθαι φασιν αὐτήν, κινεῖσθαι κύκλῳ περὶ τὸ μέσον, οὐ μόνον δὲ ταύτην, ἀλλὰ καὶ τὴν ἀντίχθονα. *Cael.* 2 13 295a14–17 ὅτι δὲ μένει, ζητοῦσι τὴν αἰτίαν,

καὶ λέγουσιν οἱ μὲν τοῦτον τὸν τρόπον, ὅτι τὸ πλάτος καὶ τὸ μέγεθος αὐτῆς αἴτιον, οἱ δ' ὥσπερ Ἐμπεδοκλῆς (31A67 DK) κτλ. **Strabo** 2.5.2, 110C.20–22 ἡ γῆ σφαιροειδῶς ὁμόκεντρος τῷ μὲν οὐρανῷ μένει καὶ αὐτὴ καὶ ὁ δι' αὐτῆς ἄξων καὶ τοῦ οὐρανοῦ μέσου τεταμένος. **Ptolemy Synt.** 1 c. 7 tit. ὅτι οὐδὲ κίνησιν τινα μεταβατικὴν ποιεῖται ἡ γῆ. **Diogenes Laertius V.P.** 7.145 (*SVF* 2.650) δοκεῖ δ' αὐτοῖς ... τὴν γῆν ἀκίνητον οὔσαν. **Proclus in Tim.** 3.136.29–138.11 ζῶον δὲ οὔσα θεῖον καὶ πολλῶν ζῶων μερικῶν περιληπτικὸν ἵλλεσθαι λέγεται 'περὶ τὸν διὰ παντὸς τεταμένον πόλον' (Plato *Tim.* 40b), ... 'ἵλλομένην' δὲ τὴν σφειγγομένην δηλοῖ καὶ συνεχομένην· οὐ γάρ, ὡς Ἀριστοτέλης (*Cael.* 2 13 293b31, 2 14.296a26) οἶεται, τὴν κινουμένην διαφερόντως γάρ ὁ Πλάτων ἀκίνητον φυλάττει τὴν γῆν καὶ τὴν αἰτίαν προστιθεὶς ἐν τῷ Φαίδωνι, δι' ἣν ἀκίνητος ἵδρυται, λέγει οὖν (*Phd.* 109a)· 'ἰσόρροπον γάρ πρᾶγμα ὁμοίου τινὸς ἐν μέσῳ τεθὲν οὐχ ἕξει μάλλον οὐδ' ἦττον οὐδαμῶς κλιθῆναι' ... εἰ δὲ καί, ὡς ἔνιοι φασι, 'μένει γάρ Ἑστία ἐν θεῶν οἴκῳ μόνῃ' (*Phdr.* 247a) περὶ ταύτης εἴρηται τῆς γῆς, πολλοῦ ἂν δέοι κινεῖν ὁ Πλάτων τὴν γῆν. ... εἰ δὲ δὴ καὶ πρὸς τὸν Πυθαγόρειον Τίμαιον (c. 23, p. 215.7) ἀποβλέψαιμεν, ἔτι μάλλον οὐκ ἂν ὑπολάβοιμεν κινεῖσθαι τὴν γῆν· λέγει γάρ κάκεινος 'τὰν γὰν ἐν τῷ μέσῳ' εἶναι 'ἰδρυμένην'. ποῦ δὴ οὖν εὖλογον ἡμᾶς ἵλλομένην ἀκούσαντας εἰλουμένην καὶ στρεφομένην αὐτὴν ποιεῖν, ὡς Πλάτωνι ἀρέσκον λέγοντας; Ἡρακλείδης μὲν οὖν ὁ Ποντικὸς (fr. 105 Wehrli, 66 Schütrumpf, cf. frs. 106 & 107 Wehrli, 67 & 68 Schütrumpf), οὐ Πλάτωνος ὦν ἀκουστής, ταύτην ἐχέτω τὴν δόξαν, κινῶν κύκλῳ τὴν γῆν· Πλάτων δὲ ἀκίνητον αὐτὴν ἵστησιν. **Simplicius in Cael.** 511.15–20 τρία οὖν περὶ αὐτῆς προβαλλόμενος περὶ τε τῆς θέσεως αὐτῆς, ὅπου κειμένη τυγχάνει (cf. ch. 3.11), καὶ δεύτερον, πότερον τῶν ἡρεμούντων ἔστιν ἢ τῶν κινουμένων, καὶ τρίτον περὶ τοῦ σχήματος αὐτῆς (cf. ch. 3.10), τὰς προκαταβεβλημένας καὶ περὶ τούτων δόξας πρῶτον ἐκτίθεται καὶ πρὸς αὐτάς ὑπαντήσας οὕτω τὰ δοκοῦντα ἑαυτῷ περὶ τούτων συλλογίζεται. *in Cael.* 520.24–521.1 μετὰγει τὸν λόγον λοιπὸν ἐπὶ τοὺς μένειν μὲν τὴν γῆν λέγοντας, τὴν δὲ αἰτίαν τῆς μονῆς οὐ καλῶς ἀποδιδόντας. καὶ πρῶτον μνημονεύει τῶν μένειν λεγόντων διὰ τὸ ἄπειρον αὐτὴν εἶναι, ὥσπερ Ξενοφάνης ὁ Κολοφώνιος (—), δεύτερον δὲ τῶν ἐφ' ὕδατος ὀχουμένην μένειν, ὡς Θαλῆς ὁ Μιλήσιος (fr. 425 Wöhrlé), τρίτον δὲ τῶν λεγόντων μένειν αὐτὴν ἀνεχομένην ὑπὸ τοῦ ὑποκειμένου ἀέρος, ὃν ἐπιπωματίζει πλατεῖα οὔσα καὶ τυμπανοειδῆς ἡ γῆ καὶ οὐ συγχωρεῖ ἀναχωρεῖν· οὕτω δὲ Ἀναξίμενης (fr. 156 Wöhrlé) καὶ Ἀναξαγόρας (cf. 59A88 DK) καὶ Δημόκριτος (fr. 376 Luria) ἐδόκουν λέγειν· τέταρτον δὲ τῶν περὶ Ἐμπεδοκλέα (—) τὴν δίνην τοῦ οὐρανοῦ τῆς μονῆς τῆς γῆς αἰτιωμένων, καὶ πέμπτον τῶν τὴν ὁμοιότητα καὶ τὴν ἰσορροπίαν αἰτίαν τῆς μονῆς λεγόντων, ὡς Ἀναξίμανδρος (fr. 187 Wöhrlé) καὶ Πλάτων (*Phd.* 108e–109a).

§1 the others: Plato *Phd.* 99b–c διὸ δὴ καὶ ὁ μὲν τις δίνην περιτιθεὶς τῇ γῇ ὑπὸ τοῦ οὐρανοῦ μένειν δὴ ποιεῖ τὴν γῆν, ὁ δὲ ὥσπερ καρδόπῳ πλατεῖα βᾶθρον τὸν ἀέρα ὑπερείδει· τὴν δὲ τοῦ ὡς οἶόν τε βέλτιστα αὐτὰ τεθῆναι δύναμιν οὕτω νῦν κεῖσθαι, ταύτην οὔτε ζητοῦσιν οὔτε τινα οἶονται δαιμονίαν ἰσχύν ἔχειν. *Phd.* 108e–109a πέπεισμαι τοίνυν, ἦ δ' ὅς, ἐγὼ ὡς πρῶτον μὲν, εἰ ἔστιν ἐν μέσῳ τῷ οὐρανῷ περιφερὴς οὔσα, μηδὲν αὐτῇ δεῖν μήτε ἀέρος πρὸς τὸ μὴ πεσεῖν μήτε ἄλλης ἀνάγκης μηδεμιᾶς τοιαύτης, ἀλλὰ ἰκανὴν εἶναι αὐτὴν ἴσχειν τὴν ὁμοιότητα τοῦ οὐρανοῦ αὐτοῦ ἑαυτῷ πάντῃ καὶ τῆς γῆς αὐτῆς τὴν ἰσορροπίαν· ἰσόρροπον γάρ πρᾶγμα ὁμοίου τινὸς

ἐν μέσῳ τεθέν οὐχ ἔξει μᾶλλον οὐδ' ἥττον οὐδαμῶσε κλιθῆναι, ὁμοίως δ' ἔχον ἀκλινές μενεῖ. **Euripides** fr. 944 Nauck² / Kannicht καὶ Γαῖα μήτηρ· 'Εστίαν δέ σ' οἱ σοφοὶ / βροτῶν καλοῦσιν ἡμένην ἐν αἰθέρι. **Aristotle** *Cael.* 2.13 294a28–31 οἱ δ' ἐφ' ὕδατος κείσθαι. τοῦτον γὰρ ἀρχαιότατον παρειλήφαμεν τὸν λόγον, ὃν φασιν εἰπεῖν Θαλῆν τὸν Μιλήσιον (11A14 DK), ὡς διὰ τὸ πλωτὴν εἶναι μένουσαν ὥσπερ ξύλον ἢ τι τοιοῦτον ἔτερον. *Cael.* 2.13 294b13–15 Ἀναξιμένης (13A20 DK) δὲ καὶ Ἀναξαγόρας (59A88 DK) καὶ Δημόκριτος (fr. 376 Luria) τὸ πλάτος αἴτιον εἶναι φασὶ τοῦ μένειν αὐτήν· οὐ γὰρ τέμνειν ἀλλ' ἐπιπωμαίνει τὸν ἀέρα τὸν κάτωθεν. *Cael.* 2.13 295a14–18 ὅτι δὲ μένει, ζητοῦσι τὴν αἰτίαν, καὶ λέγουσιν οἱ μὲν τοῦτον τὸν τρόπον, ὅτι τὸ πλάτος καὶ τὸ μέγεθος αὐτῆς αἴτιον, οἱ δ' ὥσπερ Ἐμπεδοκλῆς (31A67 DK), τὴν τοῦ οὐρανοῦ φορὰν κύκλῳ περιθέουσιν καὶ θάττον φερομένην ἢ τὴν τῆς γῆς φορὰν κωλύειν. **ps.Aristotle** *Mu.* 2 391b12–14 ταύτης (sc. τῆς διακοσμῆσεως) δὲ τὸ μὲν μέσον, ἀκίνητόν τε καὶ ἐδραῖον ὃν, ἢ φερέσβιος εἴληχε γῆ, παντοδαπῶν ζῶων ἐστία τε οὐσα καὶ μήτηρ. **Plutarch** *Fac.Lun.* 923A Ἀρίσταρχον ᾧτε δεῖν Κλεάνθης (*SVF* 1.500) τὸν Σάμιον ἀσεβείας προσκαλεῖσθαι τοὺς Ἕλληνας ὡς κινοῦντα τοῦ κόσμου τὴν ἐστίαν. *Prim.Frig.* 954F ὅθεν οὐ κατὰ χώραν μόνον ἐξ ἔδρας ἀκίνητον οὐσαν αὐτήν (sc. τὴν γῆν), ἀλλὰ καὶ κατ' οὐσίαν ἀμετάβλητον, Ἐστίαν, ἃτε δὴ μένουσαν ἐν θεῶν οἴκῳ, κάλλιστα προσηγόρευσαν οἱ παλαιοὶ (**Pl. Phdr.** 246E), διὰ τὴν στάσιν καὶ πῆξιν· ἥς ἡ ψυχρότης δεσμός, ὡς Ἀρχέλαος ὁ φυσικὸς (60Bia DK) εἶπεν, οὐδενὸς χαλῶντος αὐτὴν οὐδὲ μαλάττοντος, ἅτε θερομένην καὶ ἀλεινομένην οὐσίαν. **Basil of Caesarea** in *Hexaem.* 10, p. 17.11–16 Amand de Mendieta–Rudberg ἤδη δέ τινες τῶν φυσικῶν καὶ τοιαύταις αἰτίαις τὴν γῆν ἀκίνητον μένειν κατακομψεύονται. ὡς ἄρα διὰ τὸ τὴν μέσσην τοῦ παντὸς εἰληφέναι χώραν, καὶ διὰ τὴν ἴσην πάντοθεν πρὸς τὸ ἄκρον ἀπόστασιν, οὐκ ἔχουσιν ὅπου μᾶλλον ἀποκλιθῆ, ἀναγκαιῶς μένειν ἐφ' ἑαυτῆς, ἀδύνατον αὐτῇ παντελῶς τὴν ἐπὶ τὴν ῥοπὴν τῆς πανταχόθεν περικειμένης ὁμοιότητος ἐμποιοῦσας. **Suda** s.v. Φ 864, p. 4.777.17–19 Adler ἡ γῆ κινεῖται μὲν κατὰ τὸ βλαστάνειν καὶ ζωογονεῖν καὶ τὸ ὅλως ἀλλοιοῦσθαι· ἡρεμεῖ δὲ κατὰ τὴν ἐκ τόπου εἰς τόπον μετάστασιν.

Copernicus *De revolutionibus*, praef. auctoris postea & apud *Plutarchum* inveni quosdam alios in ea fuisse opinione (sc. terram moveri), cujus verba, ut sint omnibus obvia, placuit hic ascribere:—full quotation in Greek (!) of P 3.13.1–3 follows.

§2 **Philolaus: Alexander of Aphrodisias** in *Met.* 40.28–41.2 ὁρῶντες (cf. Pythagoreans 58B.4 DK) δὲ ἐν τοῖς φαινόμενοις ἑννέα τὰς κινουμένας σφαίρας, ἐπτά μὲν τὰς τῶν πλανωμένων, ὀγδόη δὲ τὴν τῶν ἀπλανῶν, ἑννάτην δὲ τὴν γῆν (καὶ γὰρ καὶ ταύτην ἡγούντο κινεῖσθαι κύκλῳ περὶ μένουσαν τὴν ἐστίαν, ὃ πῦρ ἐστὶ κατ' αὐτούς), αὐτοὶ προσέθεσαν ἐν τοῖς δόγμασι καὶ τὴν ἀντίχθονά τινα, ἣν ἀντικινεῖσθαι ὑπέθεντο τῇ γῇ λέγει (sc. Aristotle) δὲ περὶ τούτων καὶ ἐν τοῖς *Περὶ οὐρανοῦ* (2 13) καὶ ἐν ταῖς τῶν Πυθαγορικῶν δόξαις (fr. 203 R³, 162 Gigon) ἀκριβέστερον.

§3 **Heraclides Ecphantus: Aristotle** *Cael.* 2.13 293b30–33 ἔνιοι δὲ καὶ κειμένην ἐπὶ τοῦ κέντρου φασὶν αὐτὴν ἵλυσθαι καὶ κινεῖσθαι περὶ τὸν διὰ παντὸς τεταμένον πόλον, ὥσπερ ἐν τῷ Τιμαίῳ (*Tim.* 40b) γέγραπται. **Plutarch** *Num.* c. 11.1–2 Νομᾶς δὲ λέγεται καὶ τὸ τῆς Ἐστίας ἱερὸν ἐγκύκλιον περιβαλέσθαι τῷ ἀσβέστῳ πυρὶ φρουράν, ἀπομιμούμενος οὐ τὸ σχῆμα τῆς γῆς ὡς Ἐστίας οὔσης, ἀλλὰ τοῦ

σύμπαντος κόσμου, οὐ μέσον οἱ Πυθαγορικοὶ (—) τὸ πῦρ ἰδρῦσθαι νομίζουσι, (2) καὶ τοῦτο Ἑστίαν καλοῦσι καὶ μονάδα· τὴν δὲ γῆν οὔτε ἀκίνητον οὔτε ἐν μέσῳ τῆς περιφορᾶς οὔσαν, ἀλλὰ κύκλῳ περὶ τὸ πῦρ αἰωρουμένην οὐ τῶν τιμιωτάτων οὐδὲ τῶν πρώτων τοῦ κόσμου μορίων ὑπάρχειν. ταῦτα δὲ καὶ Πλάτωνά φασι πρεσβύτην γενόμενον διανοηθῆσθαι περὶ τῆς γῆς ὡς ἐν ἐτέρᾳ χώρᾳ καθεστῶσης, τὴν δὲ μέσῃν καὶ κυριωτάτῃν ἐτέρῳ τινὶ κρείττονι προσήκουσαν. *Quaest. Plat.* 1006C πότερον οὕτως ἐκίνει (sc. Plato) τὴν γῆν ὥσπερ ἥλιον καὶ σελήνην καὶ τοὺς πέντε πλάνητας, οὓς ὄργανα χρόνου διὰ τὰς τροπὰς προσηγόρευε, καὶ ἔδει τὴν γῆν ἰλλομένην περὶ τὸν διὰ πάντων πόλον τεταμένον' (*Tim.* 40c) μὴ μεμηχανῆσθαι συνεχομένην καὶ μένουσαν, ἀλλὰ στρεφομένην καὶ ἀνειλουμένην νοεῖν, ὡς ὕστερον Ἀρίσταρχος καὶ Σέλευκος ἀπεδείκνυσαν, ὁ μὲν ὑποτιθέμενος μόνον, ὁ δὲ Σέλευκος (test. 1 Russo) καὶ ἀποφαινόμενος; Θεόφραστος (fr. 243 FHS&G) δὲ καὶ προσιστορεῖ τῷ Πλάτῳ πρεσβυτέρῳ γενομένῳ μεταμέλειν ὡς οὐ προσήκουσαν ἀποδόντι τῇ γῇ τὴν μέσῃν χώραν τοῦ παντός. **Ptolemy** *Synt.* 1.1, p. 24.5–19 ἤδη δὲ τινες ... δοκοῦσι δὲ οὐδὲν αὐτοῖς ἀντιμαρτυρῆσαι, εἰ τὸν μὲν οὐρανὸν ἀκίνητον ὑποστήσαιντο λόγου χάριν, τὴν δὲ γῆν περὶ τὸν αὐτὸν ἄξονα στρεφομένην ἀπὸ δυσμῶν ἐπ' ἀνατολὰς ἐκάστης ἡμέρας μίαν ἔγγιστα περιστροφὴν, ἣ καὶ ἀμφοτέρω κινοῖεν ὅσονδήποτε, μόνον περὶ τὸν αὐτὸν ἄξονα, ὡς ἔφαμεν, καὶ συμμετρῶς τῇ πρὸς ἄλληλα περικαταλήψει. λέληθε δὲ αὐτοὺς, ὅτι τῶν μὲν περὶ τὰ ἄστρα φαινομένων ἔνεκεν οὐδὲν ἂν ἴσως κωλοῖι κατὰ γε τὴν ἀπλουστέραν ἐπιβολὴν τοῦθ' οὕτως ἔχειν, ἀπὸ δὲ τῶν περὶ ἡμᾶς αὐτοὺς καὶ τῶν ἐν ἑρί συμπτωμάτων καὶ πάνυ ἂν γελοιότατον ὀφθῇ τὸ τοιοῦτον. **Galen** in *Tim.* fr. 2.103–105 Schröder ἀκίνητον δὲ εἶναι (sc. τὴν γῆν) κατὰ τὴν ὀνομαζομένην ὑπὸ τινων μεταβατικὴν κίνησιν, ἥτις ἀμειβόντων τοὺς τόπους καὶ μεθισταμένων ἐξ ἄλλης χώρας εἰς ἄλλην γίνεται. **Diogenes Laertius** *V.P.* 3.75 (on Plato) γῆν δὲ ... οὔσαν δ' ἐπὶ τοῦ μέσου κινεῖσθαι περὶ τὸ μέσον. **Simplicius** in *Cael.* 444.34–445.2 γεγονέναι τινὰς, ὧν Ἡρακλείδης τε ὁ Ποντικὸς (fr. 108 Wehrli, 69 Schütrumpf) ἦν καὶ Ἀρίσταρχος (cf. ch. 2.24.7), νομίζοντας σώζεσθαι τὰ φαινόμενα τοῦ μὲν οὐρανοῦ καὶ τῶν ἄστρον ἡρεμούντων, τῆς δὲ γῆς περὶ τοὺς τοῦ ἰσημερινοῦ πόλους ἀπὸ δυσμῶν κινουμένης ἐκάστης ἡμέρας μίαν ἔγγιστα περιστροφὴν (cf. in *Cael.* 519.9–11 = Heraclides fr. 106 Wehrli, 67 Schütrumpf and 541.27–28 = fr. 107 Wehrli, 68 Schütrumpf). **David Proleg.** 61.27–29 ἀκίνητον μὲν ὥσπερ ἡ γῆ, αὕτη γὰρ ἀκίνητός ἐστιν· οὐδὲ γὰρ ἀπέρχεται ἐκ τοῦδε τοῦ τόπου εἰς τὸνδε τὸν τόπον.

Liber 3 Caput 14

P^B: ps.Plutarchus *Plac.* 896B; p. 378^a20–379^a5 Diels—**P^G**: ps.Galenus *HPh* c. 85; p. 633.14–18 (et 8–9 §4) Diels; pp. 272–278 (et 271–272 §4) Jas—**P^Q**: Qusṭā ibn Lūqā pp. 182–183 Daiber
Cf. Ach: Achilles c. 29, p. 45.1, c. 31, p. 50.1–7 Di Maria

Titulus ιδ'. Περὶ διαιρέσεως γῆς, πόσαι εἰσὶ ζῶναι αὐτῆς (P)

- §1 Πυθαγόρας τὴν γῆν ἀναλόγως τῇ τοῦ παντὸς οὐρανοῦ σφαίρα διηρῆσθαι εἰς πέντε ζώνας, ἀρκτικὴν ἀνταρκτικὴν θερινὴν χειμερινὴν ἰσημερινὴν, ὧν ἡ μέση (τῆς θερινῆς καὶ χειμερινῆς) τὸ μέσον τῆς γῆς ὀρίζει, παρ' αὐτὸ τοῦτο διακεκαυμένη καλουμένη· ἡ δ' οἰκητὴ ἐστὶν ἡ {μέση τῆς θερινῆς καὶ χειμερινῆς} (θερινῆς), εὐκρατὸς τις οὖσα. (P1) 5
- §2 Παρμενίδης πρῶτος ἀφώρισε τῆς γῆς τοὺς οἰκουμένους τόπους ὑπὸ ταῖς δυσι ζώναις ταῖς τροπικαῖς. (P2 = P3.11.4)

§1 Pythagoras—; §2 Parmenides 28A44a DK

lemmata non hab. S **titulus** πόσαι ... αὐτῆς **P^B** : om. **P^{GQ}** §1 [2] Πυθαγόρας **P^{BQ}** : τῶν Πυθαγορείων τινὲς **P^G**, fort. recte || παντὸς **P^{BQ}**, prob. edd. : om. **P^Q** || οὐρανοῦ **P^{BQ}**, prob. Mau Lachenaud : om. **P^G** quod prob. Diels, sed cf. c. 2.12.1 (ap. **P^B**) τὴν τοῦ παντὸς οὐρανοῦ σφαῖραν, ubi etiam παντὸς om. **P^Q** || τῇ ... σφαίρα **P^{BQ}** (ut vid.) : τῆς ... σφαίρας **P^G** || [3] ἀνταρκτικὴν post ἀρκτικὴν hab. **P^{GQ}**, ubi transp. Diels : om. **P^{B(1,11)}** : post ἰσημερινὴν hab. **P^{B(111)}** || χειμερινὴν ἰσημερινὴν **P^{BQ}** : om. **P^G** || [4] μέση **P** : crucif. Diels *DG* || post μέση addidimus (τῆς θερινῆς καὶ χειμερινῆς) ex [6] || μέσον **P** : crucif. edd. : θερμὸν maluit Mau || ὀρίζει **P^B** : ὀρίζεται **P^G** : *trennt* **P^Q** || [4–5] παρ' ... τοῦτο **P^{BQ}** : om. **P^G** || [5] διακεκαυμένη **P^{BQ}** : διακεκαυμένης **P^G** || καλουμένη || κυκλουμένη **P^{B(111:α)}** || οἰκητὴ || οἰκητήριον **P^{B(111:AE)}** || [5–6] ἡ δ' ... οὖσα ut glossema uncis incl. Diels prob. Mau Lachenaud || μέση ... χειμερινῆς **P** : uncis inclusimus || [6] (θερινῆς) supplevimus || εὐκρατὸς τις οὖσα **P^B** : *denn sie beide sind gemäßigt* **Q** || τις] om. **P^G** || post οὖσα verba ἡ δὲ ἀρκτικὴ καὶ ἀνταρκτικὴ ἀοικητὸς ἐστὶν ὑπὸ κρύους intercidisse putat Diels §2 lemma traditum ap. P 3.11.4 (cf. G c. 82.4) hic transp. Beckius prob. Diels || [7] πρῶτος] ὁ πρῶτον **P^G** Jas, {ὁ} πρῶτος emend. Diels || ἀφώρισε **P^B** : ὀρίσας **P^G** Jas, ὥρισε emend. Diels || post τοὺς conl. (οὐκ) Theiler (1982) 2.22 || [7–8] ταῖς δυσι ζώναις ταῖς τροπικαῖς **P^B** || τὰς δύο ζώνας τροπικὰς εἶναι τὴν γῆν **P^G**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 85 (~ tit.) Περὶ διαιρέσεως γῆς (text Jas)

85.1 (~ P1) τῶν Πυθαγορείων τινὲς τὴν γῆν ἀναλόγως διηρῆσθαι τῆς τοῦ παντὸς σφαίρας εἰς πέντε ζώνας, ἀρκτικὴν ἀνταρκτικὴν θερινὴν * * ὧν ἡ μέση τὸ μέσον τῆς γῆς ὀρίζεται διακεκαυμένη καλουμένη, ἡ δὲ οἰκητὴ ἐστὶ μέση τῆς θερινῆς καὶ τῆς χειμερινῆς εὐκρατος οὖσα.

additum ex c. 83 Περὶ θέσεως γῆς (text Jas)

82.4 (~ P2) Παρμενίδης ὁ πρῶτον ὀρίσας τοὺς οἰκουμένους τόπους ὑπὸ τὰς δύο ζώνας τροπικὰς εἶναι τὴν γῆν.

Testes secundi:

Achilles *Univ.* c. 29, p. 45.1 Περὶ ζωνῶν καὶ ὅτι πέντε (~ tit.). c. 31, p. 50.1–7 πρῶτος δὲ Παρμενίδης ὁ Ἑλεάτης (28A44a DK) τὸν περὶ τῶν ζωνῶν ἐνίκησε λόγον. περὶ δὲ τοῦ ἀριθμοῦ αὐτῶν πολλὴ διαφωνία τοῖς μετ' αὐτὸν γέγονεν· οἱ μὲν γὰρ ἔξ αὐτὰς εἶπον ὡς Πολύβιος (cf. ap. Strab. 2.3.1, 96C6–8) καὶ Ποσειδώνιος (F 209 E.-K., Theiler 1982, 2.22) τὴν διασκευαμένην εἰς δύο διαιροῦντες, οἱ δὲ πέντε παρέλαβον, ὥσπερ Ἑρατοσθένης (cf. fr. 16.3–5 Powell) καὶ ἄλλοι πολλοί, οἷς καὶ ἡμεῖς κατηκολουθήσαμεν. περὶ δὲ οἰκίσεων πάλιν καὶ τῶν ἐνοικούντων καὶ ὀνομάτων γέγονε πολλὴ ταραχὴ καὶ περὶ ἀντιχθόνων καὶ ἀντιπόδων (~ quaestio).

Symeon Seth *CRN* 1.10 διαμεμέρισται δὲ ἡ οἰκουμένη ὑπὸ τῶν πάλαι σοφῶν εἰς τὰ ἑπτὰ κλίματα τρόπῳ τοιούτῳ κτλ. (~ quaestio).

Loci Aetiani:

titulus A 2.12 Περὶ διαιρέσεως οὐρανοῦ, εἰς πόσους κύκλους διαιρεῖται.

§1 A 1.7.23 ... τῇ σφαίρᾳ τοῦ παντός ... A 2.5a.4 ... τῆς τοῦ παντός (σφαίρας) ... A 2.8.1 Ἰν' ἃ μὲν {τινα} ἀοίκητα γένηται ἃ δ' οἰκητὰ μέρη τοῦ κόσμου κατὰ ψῦξιν καὶ ἐκπύρωσιν καὶ εὐκρασίαν. A 2.12.1 Θαλῆς Πυθαγόρας οἱ ἀπ' αὐτοῦ μεμερίσθαι τὴν τοῦ παντός οὐρανοῦ σφαῖραν εἰς κύκλους πέντε, οὐστinas προσγορεύουσι ζώνας· καλεῖται δ' αὐτῶν ὁ μὲν ἀρκτικός τε καὶ ἀειφανής, ὁ δὲ θερινὸς τροπικός, ὁ δ' ἰσημερινός, ὁ δὲ χειμερινὸς τροπικός, ὁ δ' ἀνταρκτικός τε καὶ ἀφανής. A 2.24.8 Ξενοφάνης πολλοὺς εἶναι ἡλίους καὶ σελήνας κατὰ κλίματα τῆς γῆς καὶ ἀποτομὰς καὶ ζώνας, κατὰ δὲ τινὰ καιρὸν ἐκπίπτειν τὸν δίσκον εἰς τινὰ ἀποτομὴν τῆς γῆς οὐκ οἰκουμένην ὑφ' ἡμῶν καὶ οὕτως ὥσπερ κενεμβατοῦντα ἐκλειψιν ὑποφαίνειν. A 3.12.1 ἄτε δὴ πεπηγότων τῶν βορείων διὰ τὸ κατεψύχθαι τοῖς κρυμοῖς, τῶν δ' ἀντιθέτων πεπυρωμένων.

For an English translation of the Aëtian text see Volume 5.4

Commentary**A Witnesses**

Our only witness is P, represented here by P^B, P^G, P^{Sy} and P^Q, who have only a single lemma. A further lemma recorded by the same witnesses (except P^{Sy}) must be transposed here from ch. 3.11. See comments in sections D(b) and D(d) below. T is again absent.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The proximate tradition in Ach, including his parallel for the Parmenides lemma (see below section D(c)), confirmed by a much

richer account in Strabo from which only a few abstracts can be printed below, demonstrates that far more material was available than is extant in our chapter (for which we also lack S' contribution). The ancient experts failed to agree about the number of zones, the mean difference being between the assumption of five (the majority) and that of six zones (Polybius; Posidonius according to Ach, and even more according to Strabo). The chapter originally may have contained more material than is extant in the tradition of P, who by omitting the alternatives in fact comes down in favour of five zones, just like Ach who states this explicitly.

(2) *Sources*. The issue is discussed by Aristotle *Mete.* 2.5 362a32–34, and largely paralleled in the wider tradition.

C Chapter Heading

P^B's long and precise version, rendering the category of quantity explicit (for which cf. Galen), is exactly parallel to the heading of its counterpart in the cosmological Book according to P^B, A 2.12 'On the division of heaven, in how many zones it is divided' (Περὶ διαίρέσεως οὐρανοῦ, εἰς πόσους κύκλους διαίρεῖται). P^{GQ} have a short umbrella version (περὶ τοῦ δεῖναι), of the type that dominates in the *Placita* (see above, ch. 1.3 Commentary C), as they also do at ch. 2.12, where we have some further evidence from S, who has a shorter heading in the way usual with this witness, as it combines two chapter headings, namely of chs. 2.11 and 2.12, and abridges them.

D Analysis

a Context

This chapter is the penultimate of the block of seven dealing with the earth proper, the last of which, ch. 3.15, deals with earthquakes.

b Number–Order of Lemmata

There are two lemmata in the chapter as restored. §1 gives a general account plus name-label; §2 adds a named doxa without the details of §1. We have followed Beck in placing the Parmenides lemma second because it is less general, and because misplacement is easier for a final lemma than for a first. See further below section D(d).

c Rationale–Structure of Chapter

The category is that of quantity (number). The rationale of the chapter may be gauged by its relation to ch. 1.2.12, which attributes the parallel division of the heaven into 'five belts or zones' to 'Thales Pythagoras and his followers', thus suggesting that the (standard) view is shared by the two Successions first listed

in ch. 1.3. In the present chapter only the name-labels of *ur*-numbers-person Pythagoras and of Parmenides are left. The proximate tradition at Ach c. 31, p. 50.1 states that Parmenides was the first to discuss the zones (of heaven as well as earth, one surmises), but fails to mention their number. Posidonius F 49 E.-K. = 13 Theiler at Strabo 2.2.2, 94C29–30 says that Parmenides mentioned five zones. Our lemma is explicit about this analogy between the division of the heaven and that of the earth, and so there is quite a bit of further evidence one would be in a position to quote.

d Further Comments

General Points

The zones are (1) the frigid zone north of the Arctic Circle, (2) the temperate zone between Arctic Circle and Tropic of Cancer, (3) the torrid zone between the Tropical Circles, (4) the temperate zone between Tropic of Capricorn and Antarctic Circle, and (5) the frigid zone south of the Antarctic Circle. See the informative Wikipedia article ‘Geographical Zone’.

Individual Points

§1 The text as transmitted is corrupt, but not desperately so. Diels’ restoration of the correct order of P’s five zones following P^G is now confirmed by P^Q. The formula μέση τῆς θερινῆς καὶ χειμερινῆς transmitted in line [6] was originally omitted in line [4] and put back in the wrong place, where it eliminated the word θερινή because it already contained τῆς θερινῆς. The word μέση, found both in line [4] and in line [6], gives the mechanism away: it was repeated *in margine* or in the tympanon (a reference symbol being attached) to show where the words τῆς θερινῆς καὶ χειμερινῆς should be inserted, but then the whole of this μέση plus τῆς θερινῆς καὶ χειμερινῆς was inadvertently inserted further down (Brinkmann’s law, see Brinkmann 1902). We do not have to follow Diels by rejecting the phrase ἡ δ’ οἰκητὴ ἐστὶν ἡ μέση τῆς θερινῆς καὶ χειμερινῆς, εὐκράτος τις οὖσα as a *glossema*. The reconstructed text merely provides standard information also available elsewhere.

The formula τῇ τοῦ παντός οὐρανοῦ σφαίρα in line [1] is paralleled in the first lemma of the above-mentioned counterpart of our chapter, ch. 2.12.1 (Pythagoras and his followers again): τὴν τοῦ παντός οὐρανοῦ σφαίραν, a reading accepted by all editors. Yet either παντός or οὐρανοῦ seems superfluous, and P^Q (for once shrewdly, or based on a better text) leaves out παντός both at ch. 2.12.1 and ch. 3.14.1. The phrase σφαίρα τοῦ παντός occurs rather often (six times, for instance, in Theon’s Commentary on Ptolemy), σφαίρα τοῦ οὐρανοῦ almost never, so P^Q or his Greek predecessor perhaps believed that οὐρανοῦ is a *glossema* on παντός. The ‘sphere of the All’, τῇ τοῦ παντός (σφαίρα), occurs again

in a Pythagorean context (name-label Philolaus) at ch. 2.4a.4 thanks to a good conjecture. With some misgivings we have followed the tradition of P^B and S, the latter at ch. 2.12.1 only.

§2 This lemma has been wrongly transmitted as the final one in P 3.11 and its corresponding chapter G 83. Beck already placed it here in 3.14, as Diels points out *ad loc.* in the app. (cf. also *DG* 62). Because this is a reconstruction of A, not a publication of P (as in Diels' left column in the *DG*, or in the editions of P by Mau and Lachenaud), we feel free to follow Beck's example.

The πρώτος εὑρετής ('first finder') motif is also frequently encountered elsewhere in the *Placita*, see M–R 2.1.95–96 and e.g. A 1.3.7, 1.3.17, and 2.1.1.

e Other Evidence

From the parallels quoted at section E(a) & (b), a collection of by no means all the available material, it follows that the information provided in our chapter is rather common. Extensive treatment is found in Ach cc. 29–31. For a detailed history of the development of the concept of the zones of a spherical earth see the excellent study of Abel (1974). It is interesting to compare Aristotle's tripartition of the inhabited world at *Pol.* 7 7.1327b18–38, which is similar to that of the Hippocratic *Airs Waters Places*.

E Further Related Texts

a Proximate Tradition

General texts: Strabo 2.2.1–3.3 (cf. Posidonius F 49 E.-K., 13 Theiler—far too long to quote, but see below). Isidore of Seville *Nat. Rer.* 10.1 *in definitione autem mundi circulos aiunt philosophi quinque, quos Graeci parallelos, id est zonas vocant, in quibus dividitur orbis terrae.*

Chapter heading: Pliny *Nat.* 1 p. 13.3 *quae portio terrae habitetur.* p. 13.7 *de obliquitate zonarum.* *Capitula Lucretiana* at DRN 5.200 *divisio terrae vel vitium.* Isidore of Seville *Nat. capit.* 10 *De quinque circulis mundi* (also at c. 10 in the body of the work).

§1 **Pythagoras:** Pliny *Nat.* 1 p. 13.3 *quae portio terrae habitetur.* *Nat.* 2.172 *nam cum sint eius quinque partes, quas vocant zonas, infesto rigore et aeterno gelu premitur omne, quicquid est subiectum duabus extremis utrimque circa vertices, hunc, qui trionum Septem vocatur, eumque, qui adversus illi Austrinus appellatur. ... circa duae tantum inter exustam et rigentes temperantur.* Vergil *Georg.* 1.233–249. Isidore of Seville *Nat.* 10.1 *ingamus eas* (sc. zonas) *in modum dexteræ nostrae, ut pollex sit circulus arcticos, frigore inhabitabilis, secundus circulus therinos, temperatus habitabilis; medius circulus isemerinos, torridus inhabitabilis; quartus circulus xeimerinos, temperatus habitabilis, minimus circulus antarcticos, frigidus inhabitabilis.*

§2 **Parmenides:** Strabo 2.2.2, 94C.28–29 φησὶ δὴ ὁ Ποσειδώνιος (F49 E.-K., 13 Theiler) τῆς εἰς πέντε ζώνας διαίρέσεως ἀρχηγὸν γενέσθαι Παρμενίδην (28A44a

DK)· ἄλλ' ἐκείνων μὲν σχεδόν τι διπλασίαν ἀποφαίνειν τὸ πλάτος τὴν διακεκαυμένην ὑπερπίπτουσιν ἑκατέρων τῶν τροπικῶν εἰς τὸ ἐκτὸς καὶ πρὸς ταῖς εὐκράτοις. **Diogenes Laertius** *V.P.* 9.21 πρῶτος δ' οὗτος (on Parmenides, 28A1 DK) τὴν γῆν ἀπέφηνε σφαιροειδῆ καὶ ἐν μέσῳ κείσθαι.

b Sources and Other Parallel Texts

General texts: **Cicero** *Resp.* 6.21 (= *Somn.Scip.*; cited *Macr. in Somn.* 2.5.2–3) *cernis autem eandem terram quasi quibusdam redimitam et circumdatam cingulis, e quibus duos maxime inter se diversos et caeli verticibus ipsis ex utraque parte subnixos obriguisset pruina vides, medium autem illum et maximum solis ardore torreri. duo sunt habitabiles, quorum australis ille, in quo qui insistent, adversa vobis urgent vestigia, nihil ad vestrum genus; hic autem alter subiectus Aquiloni, quem incolitis, cerne quam tenui vos parte contingat.* **Pomponius Mela** 1.4 *terra ... zonis quinque distinguitur. mediam aestus infestat, frigus ultimas; reliquae habitabiles paria agunt anni tempora, verum non pariter. antichthones alteram, nos alteram incolimus.* **Macrobius** in *Somn.* 2.6.1 *superest ut de terrae ipsius spatiis, quanta habitationi cesserint, quanta sint inculta referamus, id est quae sit singulorum dimensio cingulorum.* **Cicero** *Tusc.* 1.68–69 *tum globum terrae eminentem e mari, ... duabus oris distantibus habitabilem et cultum, quarum altera, quam nos incolimus, 'sub axe posita ad stellas septem, unde hōrrifer, / Aquilōnis stridor gélidas molitūr nives'* (**Accius Philoct.** fr. 20 **Ribbeck**), *altera australis, ignota nobis, quam vocant Graeci ἀντίχθονα*, (69) *ceteras partis incultas, quod aut frigore rigeant aut urantur calore; hic autem, ubi habitamus, etc.* **Galen** *Inst.Log.* 12.2 ἐν μὲν γὰρ τῷ ζητεῖν εἰ ὁρθῶς Ἐρατοσθένης (—) ἔδειξε τὸν μέγιστον ἐν τῇ γ(ῆ) κύκλον ἔχειν σταδίων μυριάδ(ας) κε δισχίλια, ἢ ζήτης ἔστι (τῆς) τοῦ κύκλου πηλικότητος ἢ τοῦ μεγέθους ἢ (τῆς) ποσότητος ἢ ὅπως ἂν θέλῃς ὀνομάζειν, ὥσπερ γε κάπειδαν τῶν ἐν τῇ γῇ τροπικῶν ἐκότερος ὄσων ἔστι σταδί(ων) ζητῇ καθ' ἐκάστην τε τῶν οἰκήσεων ὀπηλίκος ἔστιν ὁ τ' ἀρκτικός ὀνομαζόμενος κύκλος καὶ ὁ ἀνταρκτικός τό τε ἐξ ἄρκτου τὸ ὑπόλοιπον (ὄσ)ων ἔστι μορίων ἐκάστη τῶν οἰκήσεων. *Scholia in Aratum, Proleg.* 17, pp. 25.19–26.2 **Martin** 11. πόσαι εἰσὶ ζῶναι τῆς γῆς; κτλ.

§1 **Pythagoras:** **Aristotle** *Mete.* 2.5 362a32–34 δύο γὰρ ὄντων τμημάτων τῆς δυνατῆς οἰκείσθαι χώρας, τῆς μὲν πρὸς τὸν ἄνω πόλον, καθ' ἡμᾶς, τῆς δὲ πρὸς τὸν ἕτερον καὶ πρὸς μεσημβρίαν κτλ. **Eratosthenes** fr. 16.3–5 **Powell** πέντε δὲ οἱ ζῶναι περιειλάδες ἐσπείρηντο· αἱ δύο μὲν γλαυκοὶ κελαινότεροι κυάνοιο, / ἢ δὲ μία ψαφαρῇ τε καὶ ἐκ πυρὸς οἶον ἐρυθρή. **Strabo** 2.2.3, 95C.24–27 αὐτὸς δὲ διαιρῶν εἰς τὰς ζῶνας πέντε μὲν φησιν (**Posidonius** F 49 E.-K., 13 **Theiler**) εἶναι χρησίμους πρὸς τὰ οὐράνια, τούτων δὲ περισκίους δύο τὰς ὑπὸ τοῖς πόλοις μέχρι τῶν ἐχόντων τοὺς τροπικοὺς ἀρκτικούς, ἑτεροσκίους δὲ τὰς ἐφεξῆς ταύταις δύο μέχρι τῶν ὑπὸ τοῖς τροπικοῖς οἰκούντων, ἀμφίσκιον δὲ τὴν μεταξὺ τῶν τροπικῶν πρὸς δὲ τὰ ἀνθρώπεια ταύτας τε καὶ δύο ἄλλας στενάς τὰς ὑπὸ τοῖς τροπικοῖς κτλ. **Cleomedes** *Cael.* 1.1.203–211 **Todd** μέρη τῆς γῆς πέντε, ἐν μὲν τὸ περιεχόμενον ὑπὸ τοῦ ἀρκτικοῦ, ἕτερον δὲ τὸ ὑποκείμενον τῷ διαστήματι τῷ μεταξὺ ἀρκτικοῦ καὶ θερινοῦ τροπικοῦ, τρίτον τὸ μεταξὺ τῶν δύο τροπικῶν, ὁ κατ' αὐτὸ τὸ μεσαί-

τατον ὑπερκείμενον ἔχει τὸν ἰσημερινόν, τέταρτον τὸ μέσον χειμερινοῦ τροπικοῦ καὶ ἀνταρκτικοῦ, καὶ τελευταῖον τὸ περιεχόμενον ὑπὸ τοῦ ἀνταρκτικοῦ. ταύτας τοῖνυν τὰς μοίρας τῆς γῆς οἱ φυσικοὶ ζώνας καλοῦσι· καὶ ἑκατέραν μὲν τῶν ἄκρων ἀοίκητον ὑπὸ κρύους εἶναι φασί, τὴν δὲ μεσαιτάτην ὑπὸ φλογμοῦ· τὰς δὲ ταύτης ἑκατέρωθεν εὐκράτους εἶναι κτλ. *Mete.* 1.4.95–98 Todd (Posidonius F 210 E–K., 283 Theiler) καὶ πέντε ζώνας εἶναι τῆς γῆς τῶν εὐδοκίμων φυσικῶν ἀποφνημαμένων, αὐτὸς τὴν ὑπ’ ἐκείνων διακεκαῦσθαι λεγομένην οἰκουμένην καὶ εὐκρατον εἶναι ἀπεφήνατο. **Geminus** *Elem.* 15.1–4 Περὶ τῶν ἐν γῇ ζωνῶν. ἡ τῆς συμπάσης γῆς ἐπιφάνεια σφαιροειδὴς ὑπάρχουσα διαιρεῖται εἰς ζώνας ε', ὧν δύο μὲν αἱ περὶ τοὺς πόλους, πορρώτατα δὲ κείμεναι τῆς τοῦ ἡλίου παρόδου, κατεψυγμένα λεγόνται καὶ ἀοίκητοι διὰ τὸ ψυχὸς εἶσιν, ἀφορίζονται δ' ὑπὸ τῶν ἀρκτικῶν πρὸς τοὺς πόλους. (2) αἱ δὲ τούτων ἑξῆς, συμμετρως δὲ κείμεναι πρὸς τὴν τοῦ ἡλίου πάροδον, εὐκρατοι καλοῦνται· ἀφορίζονται δ' αὐταὶ ὑπὸ τῶν ἐν τῷ κόσμῳ ἀρκτικῶν καὶ τροπικῶν κύκλων, μετὰξὺ κείμεναι αὐτῶν. (3) ἡ δὲ λοιπὴ μέση τῶν προειρημένων, κειμένη δ' ὑπ' αὐτὴν τὴν τοῦ ἡλίου πάροδον, διακεκαυμένη καλεῖται· διχοτομεῖται δ' αὕτη ὑπὸ τοῦ ἐν τῇ γῇ ἰσημερινοῦ κύκλου, ὃς κεῖται ὑπὸ τὸν ἐν τῷ κόσμῳ ἰσημερινὸν κύκλον. (4) τῶν δὲ εὐκράτων δύο ζωνῶν τὴν βόρειον ὑπὸ τῶν ἐν τῇ καθ' ἡμᾶς οἰκουμένη κατοικεῖσθαι συμβέβηκεν. *Elem.* 16 Περὶ οἰκήσεων (too long to quote). **Lucretius** *DRN* 5.204–205 *inde duas porro prope partis fervidus ardor / adsiduusque geli casus mortalibus aufert*. **Isidore of Seville** *Nat.* 10.2, p. 211 *horum* (sc. *circulorum*) *primus septentrionalis est, secundus solistitialis, tertius aequinoctialis, quartus hiemalis, quintus australis, de quibus Varro (Chorographia fr. 13 Blänsdorf, 17 Courtney) ita dicit: 'at quinque aethereus zonis accingitur orbis / ac vastant imas hiemes mediamque calores: / sic terrae extremas inter mediamque coluntur, / qua solis valido numquam ut auferat igne'*. **Cicero** *ND* 1.24 *atqui terrae maxumas regiones inhabitabilis atque incultas videmus, quod pars earum adpulsu solis exarserit, pars obriguerit nive pruinaque longinquo solis abscessu*. **Ovid** *Met.* 1.45–51 *utque duae dextra caelum totidemque sinistra / parte secant zonae, quinta est ardentior illis, / sic onus inclusum numero distinxit eodem / cura dei, totidemque plagae tellure premuntur. / quarum quae media est, non est habitabilis aestus; / nix tegit alta duas: totidem inter utrumque locavit / temperiemque dedit mixta cum frigore flamma*. **Plutarch** *Def.Or.* 429F ἐν δὲ τῷ παντὶ πέντε μὲν ζώναις ὁ περὶ γῆν τόπος, πέντε δὲ κύκλοις ὁ οὐρανὸς διώρισται, δυσὶν ἀρκτικοῖς καὶ δυσὶ τροπικοῖς καὶ μέσῳ τῷ ἰσημερινῷ. **Heraclitus** *All.Hom.* 50.1–5 πτύχας δ' ὑπεστήσατο (sc. Homer) τῆς ἀσπίδος πέντε, σχεδὸν οὐκ ἄλλο τι πλην οὐκ ἐμπεποικιλμένοις τῷ κόσμῳ ζώνας ὑπαινιξάμενος. ἡ μὲν γὰρ ἀνωτάτω περὶ τὸν βόρειον εἰλεῖται πόλον, ἀρκτικὴν δὲ αὐτὴν ὀνομάζουσιν· ἡ δ' ἐφεξῆς εὐκράτος ἐστίν· εἴτα τὴν τρίτην διακεκαυμένην καλοῦσιν· ἡ τετάρτη δ' ὁμνύμωσ τῇ πρότερον δευτέρᾳ εὐκρατος ὀνομάζεται· πέμπτη δ' ἐπονύμωσ τοῦ νοτίου μέρους ἡ νότιός τε καὶ ἀντάρκτιος καλουμένη. τούτων αἱ μὲν δύο τελέως ἀοίκητοι διὰ τὸ κρύος, ἡ τε τὸν βόρειον εἰληχυῖα πόλον καὶ ἡ τὸν ἀπαντικρὺ νότιον· ὁμοίως δ' ἐν αὐταῖς ἡ διακεκαυμένη καθ' ὑπερβολὴν τῆς πυρώδους οὐσίας οὐδενὶ βατῇ ζῷ. δύο δὲ τὰς εὐκράτους φασὶν οἰκεῖσθαι, τὴν μέσῃν ἀφ' ἑκατέρας ζώνης κρᾶσιν ἐπιδεχομένας. **Diogenes Laertius** *V.P.* 7.156 (*SVF* 2.649) ζώναι τ' ἐπὶ τῆς γῆς εἰσι πέντε·

πρώτη βόρειος ὑπὲρ τὸν ἀρκτικὸν κύκλον, ἀοίκητος διὰ ψυχρός· δευτέρα εὐκρατος· τρίτη ἀοίκητος ὑπὸ καυμάτων, ἢ διακεκαυμένη καλουμένη· τετάρτη ἢ ἀντεύκρατος· πέμπτη νότιος, ἀοίκητος διὰ ψυχρός. *Anatolius de Dec.* 9.17–18 ζῶναι πέντε, δύο κατεψυγμένοι, δύο εὐκρατοι καὶ μία διακεκαυμένη. *ps.Iamblichus Theol.Ar.* p. 33.4–7 De Falco ὦν (sc. τῶν κατὰ τὸν οὐρανὸν κυκλῶν) ἀναλόγως τῇ θέσει πέντε καὶ ἐπὶ γῆς ζῶναι ἐπινοοῦνται, κεκαυμένη μὲν ἰσημερινῶ, εὐκρατοι δὲ δύο τροπικοῖς δυσὶν, ἴσαι δὲ αἱ (δύο) ἀοίκητοι ὑπὸ κρύους τῶν παρ' ἑκάτερα πόλων. *Olympiodorus in Mete.* 184.7–10 ἡ δὲ μεταξὺ τοῦ θερινοῦ τροπικοῦ καὶ τοῦ χειμερινοῦ χώρα, ἐν ᾗ ἀπολαμβάνεται καὶ ὁ ἰσημερινὸς τροπικός, διακεκαυμένη κεκλήσθω.

Liber 3 Caput 15

PP: *Papyrus Antinoopolis* 85 fr. 3 (a) + (b) recto plus (a) + (b) verso pp. 70–71 Barns–Zilliach—**P^B**: ps.Plutarchus *Plac.* 896C–F; pp. 379^a6–381^a11 Diels—**P^G**: ps.Galenus *HPh* c. 86; pp. 633.19–634.2—**P^L**: Ioannes Lydus *Ost.* 4, p. 9.1–6 Wachsmuth (titulus solus)—**P^Q**: Qustā ibn Lūqā pp. 182–185 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 164, p. 83 Westerink; *Phil.Min.* op. 26, p. 92; 29, p. 95 Duffy (tituli soli)—**P^{Sy}**: Symeon Seth *CRN* 2.20, p. 31.10 Delatte (titulus solus)—

S: Stobaeus *Ecl.* 1.36.1, p. 249.3–10 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b22 Henry (titulus solus)

Cf. Ach: Achilles *Univ.* c. 4, p. 12.23–26, p. 13.6–9 Di Maria; *Scholia in Basilium I* 26, p. 201.3–4 Pasquali; *Scholia in Basilium II* 4, p. 368 Poljakov

Titulus ιε'. Περὶ σεισμῶν γῆς (P,S)

- §1 Θαλῆς μὲν καὶ Δημόκριτος ὕδατι τὴν αἰτίαν τῶν σεισμῶν προσ-
άπτουσιν, (P₁)
- §2 οἱ δὲ Στωικοὶ σεισμὸν εἶναι λέγουσι τὸ ἐν τῇ γῇ ὑγρὸν εἰς ἀέρα διακρινό-
μενον καὶ ἐκπίπτον. (P₂)
- §3 Ἀναξιμένης ξηρότητα καὶ ὑγρότητα τῆς γῆς αἰτίαν τῶν σεισμῶν, ὧν τὴν
μὲν αὐχοὶ γεννῶσι τὴν δ' ἐπομβρία. (P₃)
- §4 Ἀναξαγόρας ἀέρος ὑποδύσει τῇ μὲν πυκνότητι τῆς ἐπιφανείας προσ-
πίπτοντος, τῷ δ' ἔκκρισιν λαβεῖν μὴ δύνασθαι τρόμῳ τὸ περιέχον
κραδαίνοντος. (P₄)
- §5 Ἀριστοτέλης διὰ τὴν τοῦ ψυχροῦ (τῷ θερμῷ) πανταχόθεν ἀντιπερί-
στασιν, κάτωθεν καὶ ἄνωθεν αὐτῷ περιστάντος· τὸ γὰρ θερμὸν ἄνωτέρω
γενέσθαι σπεύδει ἅτε δὴ κοῦφον ὄν· διὰ τοῦτο ἐν ἀπολήψει γινομένης

5

10

§1 Thales fr. 163 Wöhrlé; Democritus—; §2 Stoici *SVF* 2.707; §3 Anaximenes cf. 13A21 DK; §4 Anaxagoras 59A89 DK; §5 cf. Arist. *Mete.* 2.8 365b21–29

§§1–9, 11 non hab. S **titulus** Περὶ σεισμῶν γῆς **P^{BGP}s2QSL-ind**: σεισμοῦ **P^{Ps1}**: om. γῆς **PL^{Ps1&2Sy}** || §2 [4] σεισμὸν ... λέγουσι **P^G**, cf. *glaubten* Q : **P^B** φασι· σεισμός ἐστι || ἐν ... γῇ **P^{BQ}** : ἐκ τῆς γῆς **P^G** || [4–5] διακρινόμενον **P^{BG}** : *sich verwandelt* Q ('mendum interpr.?' Daiber) §3 om. G || [6] ὑγρότητα **P^G** olim Corsinus prob. Ideler Mau Lachenaud cf. [7] ἐπομβρία et Arist. *Mete.* 2.7 365b6–7 βρεχομένην ... καὶ ξηραίνουμένην : ἀραιότητα **P^B**, cf. *Trockenheit* Q, prob. Bollack || [7] post ἐπομβρία lac. postulavit Ideler explicationem terrae motuum desiderans §4 om. G || [9] τῷ δ' **P^{B(II,III)Q}** : τὸ δὲ **P^{B(I)}** || [10] κραδαίνοντος **P^{B(III)Q}**(ut vid.) : κραδαίνεσθαι **P^{B(II)}** : κερδαίνεσθαι **P^{B(I)}** §5 [11] (τῷ θερμῷ) (sive (τῷ πυρῇ)) add. Reiske, prob. Mau Lachenaud, non prob. Diels : non hab. spatium **P^P**, abest etiam ap. **P^Q** || [12] κάτωθεν ... ἄνωθεν **P^{BG}** : *von oben und von unten* Q || αὐτῷ corr. Reiske prob. Mau Lachenaud : αὐτῇ **P^{BQ}** prob. Diels Bollack ('sc. τῇ γῇ') : αὐτοῦ **P^G** || [13] ὄν **P^B** : καὶ **P^G** || ἀπολήψει **P^{B(II,III)}** : ἀπολείψει **P^{B(II)}** || γινομένης **P^B** : γινόμενον **P^G**

- τῆς ξηρᾶς ἀναθυμιάσεως τῇ σφηνώσει καὶ τοῖς ἀνθελιγμοῖς διατα-
 ράττεσθαι. (P₅) 15
- §6 Μητρόδωρος μηδὲν ἐν τῷ οἰκείῳ τόπῳ σώμα κινεῖσθαι, εἰ μὴ τις προώ-
 σειεν ἢ καθελκύσειε κατ' ἐνέργειαν· διὸ μηδὲ τὴν γῆν, ἅτε δὴ κειμένην
 φυσικῶς, κινεῖσθαι, τόπους δὲ τινὰς αὐτῆς (ὑπο)νοστεῖν τ(ῷ) σάλ(ῳ).
 (P₆)
- §7 Παρμενίδης Δημόκριτος διὰ τὸ πανταχόθεν ἴσον ἀφεστῶσαν μένειν ἐπὶ 20
 τῆς ἰσορροπίας, οὐκ ἔχουσιν αἰτίαν δι' ἣν δεῦρο μᾶλλον ἢ ἐκεῖσε
 ῥέπειν ἄν· διὰ τοῦτο μόνον μὲν κραδαίνεσθαι μὴ κινεῖσθαι δέ. (P₇)
- §8 Ἀναξιμένης διὰ τὸ πλάτος ἐποχεῖσθαι τῷ ἀέρι. (P₈)
- §9 οἱ δὲ φασιν ἐφ' ὕδατος, καθάπερ τὰ πλαταμῶδη καὶ σаниδῶδη ἐπὶ τῶν
 ὑδάτων· διὰ τοῦτο κινεῖσθαι. (P₉) 25
- §10 Πλάτων πάσης μὲν κινήσεως ἕξ εἶναι περιστάσεις, ἄνω καὶ κάτω, ἐπὶ τὰ
 δεξιὰ καὶ θάτερα, ἔμπροσθεν καὶ ὀπισθεν· κατ' οὐδεμίαν δὲ τούτων
 ἐνδέχεσθαι τὴν γῆν κινεῖσθαι, ἐν τῷ πανταχόθεν ἰσωτάτῳ κειμένην·
 μένειν μὲν ἀκίνητον, μηδὲν ἔχουσιν ἐξαίρετον εἰς τὸ ῥέψαι μᾶλλον,
 τόπους δ' αὐτῆς κατ' ἀραιότητα σαλεύεσθαι. (P₁₀, S₁) 30

§6 Metrodorus 70A21 DK; §7 Parmenides 28A44 DK, cf. Democritus 68A98 DK, Luria frs. 4, 379, 403; §8 Anaximenes 13A20 DK; §9 anonymi—; §10 Plato cf. *Phd.* 109a, 111d–e, *Tim.* 34a, 40b–d

[14] ξηρᾶς P^{BQ} : ὑγρᾶς P^G || σφηνώσει P^B : ἀντισπάσει P^G || ἀνθελιγμοῖς P^G prob. Diels : ἀντελι-
 γμοῖς P^B prob. Mau Lachenaud || [14–15] διαταράττεσθαι P^B : τὸν σεισμὸν ποιεῖ P^G §6 om. G ||
 [16] μηδὲν fort. om. P^P || [16–17] προώσειεν corr. Dübner prob. edd. : προσώσειεν P^{BQ}(ut vid.) ||
 [17] ἢ καθελκύσειε fort. om. P^P || κατ' ἐνέργειαν P^B : om. Q || [18] τόπους ... σάλῳ : *Vielmehr*
lassen das (einzelne) Stellen von ihr vermuten (sc. ὑπονοεῖν Daiber) Q : 'das folgende νοστεῖν
 τοῖς ἄλλοις ist verderbt' Gilbert (1907) p. 303 n. 1 || (ὑπο)νοστεῖν coni. Diels *DG* cf. Arist. *Mete.*
 3.7 365b12–13 prob. Lachenaud : νοστεῖν P^{B(1,111)} legit Mau prob. Bollack : νοσεῖν P^{B(1)} prob.
 Bernardakis || τῷ σάλῳ dub. prop. Diels Bernardakis, prob. Lachenaud : τῷ τοῖς ἄλλοις P^B cru-
 cif. Diels *DG* sed prob. Bollack : τῷ τοῖς ἄλλοις crucif. Mau : αὐτῆς *** νοστεῖν τοῖς ἄλλοις VS : fort.
 (ὑπο)νοστεῖν τοῖς ἀέρι §7 om. G || [20–21] ἐπὶ ... ἰσορροπίας P^B : om. Q || [21] ἐκεῖσε P^{B(1,111)} :
 ἐκεῖ P^{B(11)} §8 om. G §9 om. G || [24] πλαταμῶδη P^{B(1,11)Q} : πλατανῶδη P^{B(111)} || [25] διὰ ...
 κινεῖσθαι P^{B(1,11)} : om. P^{B(111)Q} §10 [26] post Πλάτων hab. P^G δὲ || καὶ : om. P^{B(111)Q} || [27]
 καὶ θάτερα P : καὶ καθ' ἑτέρα S^{FP} : ap. S lectionem P^B introd. Canter Wachsmuth : *links* Q ||
 [27–28] οὐδεμίαν ... κινεῖσθαι || al. P^G ἀκίνητον μὲν εἶναι τὴν γῆν ὑποτίθεται || [28] κινεῖσθαι, ἐν
 PS prob. Mau Lachenaud : post κινεῖσθαι desiderat ἄλλ' Diels || ἰσωτάτῳ S damn. Diels ('non
 genuinum est') : *gleich ist* Q : κατωτάτην P^B : κατωτάτῳ corr. Bonon. 3635 prob. Diels Mau
 Bollack Lachenaud || [29] μὲν P : om. S || post ἀκίνητον add. ἅτε δὴ S || ῥέψαι P^{B(1,11)S} : ῥέπειν
 P^{B(111)} || [30] τόπους ... σαλεύεσθαι P^{BQS} : al. P^G κατὰ δὲ τινὰς τόπους αὐτῆς τοὺς σεισμοὺς
 συμβαίνειν τοῦ πνεύματος ἐναποκλεισθέντος

- 86.2 (~ P2) οἱ Στωικοὶ σεισμὸν εἶναι λέγουσι τὸ ἐκ τῆς γῆς ὑγρὸν εἰς ἀέρα διακρινόμενον καὶ ἐκπίπτον.
- 86.3 (~ P5) Ἀριστοτέλης δὲ διὰ τὴν τοῦ ψυχροῦ πανταχόθεν ἀντιπερίστασιν κάτωθεν καὶ ἄνωθεν αὐτοῦ περιστάντος· τὸ γὰρ θερμὸν ἄνωτέρω γενέσθαι σπεύδει, ἅτε δὴ κοῦφον. καὶ διὰ τοῦτο ἐν ἀπολείψει γινόμενον τῆς ὑγρᾶς ἀναθυμιάσεως τῇ ἀντισπάσει καὶ τοῖς ἀνθελιγμοῖς τὸν σεισμὸν ποιεῖ.
- 86.4 (~ P10) Πλάτων δὲ ἀκίνητον μὲν εἶναι τὴν γῆν ὑποτίθεται, κατὰ δὲ τινὰς τόπους αὐτῆς τοὺς σεισμοὺς συμβαίνειν τοῦ πνεύματος ἐναποκλεισθέντος.

Ioannes Lydus

Ost. 4 σπουδὴ δὲ ἡμῖν ἐστὶν εἰπεῖν περὶ τε ... καὶ τὸ δὴ πέρας περὶ σεισμῶν (~ tit.)

Psellus Omn.Doctr. c. 164 Περὶ σεισμῶν (~ tit.)

Phil.Min. op. 26 Περὶ σεισμῶν; c. 29 Περὶ σεισμῶν καὶ κινήσεως γῆς (~ tit.)

Symeon Seth CRN 2.20 Περὶ σεισμῶν (~ tit.)

Testes secundi:

Achilles Univ. c. 4, p. 12.23–26 Di Maria τὴν γῆν δὲ πανταχόθεν ὑπὸ τοῦ ἀέρος ὠθουμένην ἰσορρόπως ἐν τῷ μέσῳ εἶναι καὶ ἐστάναι. ἢ πάλιν, ὥσπερ εἴ τις λαβὼν σῶμα δῆσειε πανταχόθεν ἐξ ἐκατέρου σχοινίοις καὶ δοίη τις ἰσορρόπως ἔλκειν ἐπ' ἀκριβείας, συμβήσεται πανταχόθεν ἐπίσης περιελκόμενον στήναι καὶ ἀτρεμῆσαι (~ §7). c. 4, p. 13.6–9 Di Maria Ἀριστοφάνης δ' ἐν Νεφέλαις (*Nub.* 264) μετέωρον αὐτὴν εἶπεν· λέγει γάρ· 'ὦ δέσποτ' ἄναξ, ἀμέτρητ' Ἀήρ, ὃς ἔχεις τὴν γῆν μετέωρον', ἐστῶσαν μέντοι καὶ ἀκίνητον (~ §8).

Scholia in Basilium I 21b, p. 201.2 Pasquali Παρμενίδης (28B15a) ἐν τῇ στιχοποιίᾳ 'ὕδατόριζον' εἶπεν τὴν γῆν (~ §9). 24b, p. 201.3–8 Pasquali = 5 p. 369 Poljakov τὴν γῆν ἀκίνητον ἔφη Παρμενίδης ὁ Ἑλεάτης (~ §7) καὶ Ξενοφάνης ὁ Κολοφώνιος (—). Πλάτων (*Tim.* 40b–c) δὲ αὐτὴν Ἰλλεσθαί φησι περὶ τὸν διὰ παντὸς τεταμένον πόλον, ὅπερ ἂν εἴη στρέφεσθαι· ἀλλὰ μὴν καὶ Ἀριστοτέλης (*Cael.* 2.14 296b22–23) καὶ οἱ ἀπὸ τῆς Στοᾶς (—) ἀκίνητον ἀπέλιπον τὴν γῆν· τῇ δὲ προκειμένην νῦν αἰτιολογίᾳ τῇ περὶ τῆς ἀκινήσεως τῆς γῆς Στράτων (fr. 90 Wehrli, 44 Sharples) δοκεῖ πρῶτος ὁ φυσικὸς χρήσασθαι. *Scholia in Basilium II* 4 p. 368 Poljakov Διογένης ὁ Ἀπλлонιάτης (cf. 60A16a DK, T25 Laks) ὑπὸ ἀέρος φέρεσθαι ἔφη τὴν γῆν (~ §4, §8).

Loci Aetiani:

titulus A 3.13 Περὶ κινήσεως γῆς. A 4.6 Περὶ κινήσεως ψυχῆς.

§§6–9 A 3.13.1 οἱ μὲν ἄλλοι μένουν τὴν γῆν.

§6 A 3.9.5 Μητρόδωρος τὴν μὲν γῆν ὑπόστασιν εἶναι καὶ τρύγα τοῦ ὕδατος. A 3.13.4 Δημόκριτος κατ' ἀρχὰς μὲν πλάζεσθαι τὴν γῆν διὰ τε μικρότητα καὶ κουφότητα, πυκνωθεῖσαν δὲ τῷ χρόνῳ καὶ βαρυνθεῖσαν καταστήναι.

§10 A 1.23 Περὶ κινήσεως [ubi de numero motuum]. A 3.15.7 διὰ τὸ πανταχόθεν

ἴσον ἀφεστῶσαν μένειν ἐπὶ τῆς ἰσορροπίας, οὐκ ἔχουσιν αἰτίαν δι' ἣν δεῦρο μάλ-
λον ἢ ἐκείσε ῥέψειεν ἄν.

§11 A 2.2.5 Ἐπίκουρος δ' ἐνδέχεσθαι μὲν ... ἐνδέχεσθαι δὲ καὶ ... A 2.13.15 Ἐπίκου-
ρος οὐδὲν ἀπογινώσκει τούτων, ἐχόμενος τοῦ ἐνδεχομένου. A 2.22.4 Ἐπίκουρος
ἐνδέχεσθαι τὰ προειρημένα πάντα.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses are P, represented by P^P (a large and important fragment of §§3–6 and §11), P^B, P^G and P^Q, with the heading only in P^L, P^{Ps} and P^{Sy}, and S. In S only the heading and the Plato lemma are extant, the other lemmata undoubtedly having been excised by the Byzantine editors. *Ecl.* 1.36 has been much abridged by the Byzantine copyists, for it only contains this Plato lemma and a long abstract from AD with name-label Aristotle; see M–R 1.202–203. T is again absent.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The relevant chapters in the ps.Aristotelian *De mundo* and above all Seneca's *Naturales quaestiones* Book 6 (originally Book 5), entirely devoted to earthquakes, provide a number of parallels. For the parallelism of the themes of chs. 3.3–7 + 14–15 + 4.1 with Lucretius' series at *DRN* 6.96–737 see Runia (1997) 97, and for details concerning parallels in the present chapter the pages in the Lucretius commentary of Ernout–Robin (1928) 3.270–283, 286–288. See also Bakker (2016) 104–105 and 135–136.

Williams (2012) 232–241, quot. 222, claims that Seneca's critical overview of doxai from Thales to Asclepiodotus on earthquakes has a built-in 'sub-plot of movement from visual perception of the world to an increasingly theoretical and abstract mode of engagement with its workings'. Thales' view that the earth 'moves' because it floats on water is based on a 'relatively uncomplicated, descriptive mode of analogy' (*ibid.* 233). Such a sub-plot is not found in A, where the 'primitive' analogies occur as late as §§8–9: 'floating' on water like pieces of wood according to Anonymi in §9, 'riding upon' air according to Anaximenes in §8. Another difference is that Seneca presents the doxai in a more or less chronological order (compare his not entirely strict procedure cited below ad ch. 4.1 Commentary B). Note however that he begins with a systematic summary at *Nat.* 6.5.1 before starting with Thales at 6.5.2.

(2) *Sources*. Passages in Aristotle's *Topics* and *Posterior Analytics* cited at section E(b) General texts show that the explanation of earthquakes was, understandably, an important topic, treatment of which according to him however left something to be desired. The subject is treated in *Mete.* 2.7, where the views of Democritus, Anaximenes and Anaxagoras are discussed in a systematic order (he also tells us *disertis verbis* what the chronological order is). The Anaximenes lemma (§3) derives from Aristotle's dialectical discussion; and so does the first Democritus lemma (§1), but not the second (§7). The resemblance between the Anaxagoras lemma (§5) and Aristotle's treatment is small. The Aristotle lemma is an abstract from *Mete.* 2.8. Sources for the lemmata and name-labels that have been added to these four are not known. For Aristotle the earth's cosmic motion is of course not a meteorological but a cosmological issue, see *Cael.* 2.13 and parallels and comments above, at ch. 3.13. Theophrastus(?) *Metarsiology* c. 15 provides a considerable number of parallels.

C Chapter Heading

The heading, of the umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C), is attested in P, and for S in the index of Photius and S^L. It covers the question type of cause and the categories of place and action and passion.

D Analysis

a Context

This is the last of A's series of seven chapters on the earth. It is followed by two chapters on the sea, 3.16–17, which also belong with the πρόσγεια announced at ch. 3.8a, and by ch. 4.1 on the inundation of the Nile if (as we should) we discount P's misplaced ch. 3.18 (now reinstalled as A ch. 3.5a). In Aristotle earthquakes are discussed at *Mete.* 2.7–8, between *Mete.* 2.2–6 on winds and *Mete.* 2.9 on lightning and thunder etc. In the *Metarsiology* of Theophrastus(?), which does not deal with the sea, the chapter on earthquakes (here a meteorological phenomenon) comes last and follows upon that on the halo, which also contains the theological excursus. Epicurus discusses earthquakes (which can be caused in different ways, the first mentioned being κατὰ πνεύματος ἐν τῇ γῇ ἀπόληψιν) between *presteres* and winds at *Ep.Pyth.* at Diogenes Laertius *V.P.* 10.105–106. In Seneca *Nat. Book 6* (originally Book 5), on earthquakes, follows after Book 5, on winds (originally book 4), so (not deliberately, one suspects) remains faithful to the Aristotelian order. The location of the chapter in A is in the first place a consequence of the decision to discuss the earth in the meteorological section after the treatment of the atmospheric phenomena, see ch. 3.8. But note that Seneca, who does not include treatment of the earth

per se in his meteorology, includes earthquakes because of the role of ‘air’, or *pneuma*, in causing them, see *Nat.* 2.1.3 (Latin text cited below at section E(a) General texts): ‘How come’, you say, ‘that you included the study of earthquakes in the place where you were going to talk about thunder and lightning-bolts?’ ‘Because, since a quake is produced by breath, and breath is air set in motion, even if it goes beneath the earth, it should not be considered there: it should be examined in the place that nature allocated it.’ (trans. Hine). Bakker (2016) 136 argues that Book 3 preserves an original order (ch. 3.7 winds followed by ch. 3.15 earthquakes), provided one accepts that chs. 3.9–14 on the earth *per se* have been interpolated in between and ch. 3.8 on winter and summer is also seen as a later insertion.

b Number–Order of Lemmata

P, as represented by P^B and P^Q, has no less than 11 lemmata, 5 mutilated ones of which are preserved in P^P and only 4 are in P^G. S has merely 1 lemma, see above at section A for the reason. The sequence of name-labels shows that the order of lemmata is not chronological throughout. There is no ground for modifying P^{BQ}’s order, which to some extent is confirmed by P^P and G. This order is moreover confirmed by the rationale of the chapter, see immediately below at section D(c).

c Rationale–Structure of Chapter

Since the present chapter to an important extent derives from Aristotle’s treatment in the *Meteorology* (see above, section B), its combined treatment of ‘earthquake’ and ‘motion of the earth’ has been influenced by Aristotle’s vocabulary, who *Mete.* 2.7 365a14 announces his theme as ‘we must next speak of the quake and motion of the earth’, *περὶ δὲ σεισμοῦ καὶ κινήσεως γῆς μετὰ ταῦτα λεκτέον*. He tells us that Anaxagoras says that the air, when trapped in hollows below the earth, ‘moves it’ (*κινεῖν αὐτήν*), i.e. causes earthquakes, or shocks (365a18–21), while Democritus posits that it ‘is moved’ (*κινεῖσθαι*) by too much water in the hollows (365b1–2). The phrases ‘the earth moves’ or ‘the motion of the earth’ are ambiguous and can pertain both to its motion as a whole (around the centre of its system, or about its axis as in ch. 3.13 and in some lemmata of the present chapter), and of only a part or parts, as during earthquakes. *κινεῖσθαι* in §6 (twice), §7 and §10 pertains to cosmic movement, but in §9 and §11 to local movement, i.e. earthquakes, or shocks, tremors. In the *Placita* tradition this ambiguity was exploited, either on purpose or by mistake. Therefore also the earth’s rest became an issue here, as its ‘motion’ or ‘rest’ as a whole has still to be distinguished from these partial motions. This blending of cosmic and local motion is not, of course, beyond criticism. Part of the matter for ch. 3.13

may have ended up in ch. 3.15, in spite of the unambiguous chapter heading of 3.15. In §10 there is also some affinity with ch. 1.23, see below at section D(d)§10.

The chapter has three parts: the block §§1–5 are about earthquakes (and not about the earth in general); the block §§6–10 about the earth as being immobile qua cosmic body but being moved locally, i.e. also about earthquakes (note however that §8 does not mention them explicitly); and the single lemma §11, in a sense a continuation of §§1–5, again about earthquakes. The opposition between the two blocks is clear: (1) the first block lacks the movement of the earth qua cosmic body, and (2) the explanation of the earthquakes in the second block is different, since the elemental causal factors listed in the first are absent from it. The diaeresis or weak diaphonia that organises the lemmata in the first block focuses on the particular element or elements that cause the phenomenon: water/the wet in §§1–2, relative dryness/wetness in §3, air in §4, and hot/cold in §5. The second block also includes the cause of the earth's rest (or motion) qua cosmic body, providing unsophisticated as well as advanced explanations, in a rather curious order. §6 attributes a sophisticated view to (Aristotle's contemporary the Atomist) Metrodorus, resembling the doctrine of natural places and motions of Aristotle. This is followed by instances of the sophisticated doctrine well known as one of Anaximander and Plato (cited section E(b)§7), here (wrongly) attributed to Parmenides and Democritus at §7; it is also attributed to Plato at §10. But this sequence of related advanced doxai is interrupted by the unsophisticated pair §§8–9, doxai that at a first glance are to some extent opposed to one another. §8 only provides an explanation of the earth's rest, or at least fails to add one for earthquakes. §9 first gives the explanation of the earth's rest traditionally attributed to Thales but here assigned to Anonymi, then uses the same motive to explain its movement (*κίνησις*) in the sense of its being subject to earthquakes. So all is not well as to the arrangement of the lemmata, presumably because of the decision to cope with both general and local motions of the earth. The concluding §11, on the other hand, various explanations of the earth's local movements equally admitted by Epicurus, is fittingly placed at the end, as also occurs with similar Epicurean doxai at chs. 2.2.5, 2.4.13, 2.13.15, and 2.22.5.

d Further Comments *Individual Points*

§1 and §9 A separates the first name-label of the lemma, Thales, from the detailed explanation of earthquakes (cf. Seneca on Thales) he assigns to Anonymi in §9.

§1 and §7 The name-label Democritus occurs twice, the first time in relation to earthquakes only, the second also in relation to a mistakenly attributed explanation of the earth's immobility qua cosmic body.

§3 and §8 In a similar way as in §1/§9 (on Thales) Anaximenes' explanation of earthquakes in §3 is separated from the explanation of the earth's immobility in §8.

§6 'Proper place' (οἰκίῳ τόπῳ) and 'natural location' (κειμένην φυσικῶς) are Aristotelian or quasi-Aristotelian expressions and concepts, which surprise in relation to an Atomist. We may assume that the doxa has been reformulated in Peripatetic terms. The expression κειμένην φυσικῶς is not so easily paralleled, but cf. Aristotle *Cael.* 2.13 295b28–29 δῆλον ὅτι ἀναγκαῖον εἶναι τινα καὶ τῇ γῇ φύσει τόπον, and *Phys.* 4.5 212b33 μένει δὲ φύσει πᾶν ἐν τῷ οἰκίῳ τόπῳ. Also recall that according to Democritus the earth, after its initial wanderings, does come to a halt (A 3.13.4).

§7 For Democritus see at §1. The doubtful attribution of this view to Parmenides too (it fails to square with the verbatim quote 28B15a DK—from *Scholion in Basilium*, see above, *Testes secundi*—that 'the earth is rooted in water', Παρμενίδης ἐν τῇ στιχοποιίᾳ ὕδατόριζον εἶπεν τὴν γῆν) may be due to the attribution to him of a 'spherical earth in the middle' (28A1 DK at Diogenes Laertius *V.P.* 9.21, πρῶτος δὲ οὗτος τὴν γῆν ἀπέφαινε σφαιροειδῆ καὶ ἐν μέσῳ κείσθαι).

§8 See at §3.—Hall (1977) 427 points out: 'this is quite inaccurate: *Mete.* 2.8 does not mention ἀντιπερίστασις nor the natural lightness of dry exhalation'.

§9 See at §1.

§10 These directions of motion are subspecies of the species locomotion. One would have expected to find them in ch. 1.23, although the motions listed there according to number are different kinds of motion. The seventh subspecies of locomotion, i.e. that in a circle, which Plato in the *Timaeus* attributes to the heavens (see at section E(b)§10), is not mentioned here. This could have been attributed to the earth: axial motion. According to Aristotle *Cael.* 2.13 293b30–32 and Cicero *Luc.* 123, this is what Plato means at *Tim.* 40b–c (ἵλλομένην), while according to Theophrastus at Plutarch *Quaest. Plat.* 1006C (*Phys. Op.* fr. 22 Diels, 243 FHS&G) Plato in his old age repented, and wanted to attribute axial motion to the earth (see M–R 3.75–83). The present doxa implicitly denies this tradition and reading. Against the interpretation of Aristotle and Cicero cf. e.g. Alcinous *Did.* c. 15, 171.28–29 H. and Proclus in *Tim.* 3.137.6–7; see Steel (2009) 271–272.

§11 This is Epicurus' second and last appearance in the meteorological section (or his first see ch. 3.4.5), and the only time he is made to provide a multiplicity of causes for a meteorological phenomenon in Book 3. See Runia (2018) 402, 411. The evidence not strong enough to prove beyond all doubt an early version of *Placita* as source, though this is quite likely.

e Other Evidence

Earthquakes too, then as now much to be feared, are discussed rather widely. As noted above, important parallels are found in Aristotle and Seneca; we may also mention Pliny, Alexander of Aphrodisias, Ammianus Marcellinus, and quite a few of the other authors that usually provide parallels for the *Placita*. For the earth's cosmic movement see above, at ch. 3.13.

E Further Related Texts

a Proximate Tradition

General texts: Seneca *Nat.* 2.1.3 (Posidonius fr. 331 Theiler) *'quomodo' inquis 'de terrarum motu quaestionem eo posuisti loco quo de tonitribus fulminibusque dicturus es?' quia cum motus spiritu fiat, spiritus autem aër sit agitatus, etiamsi subit terras non ibi spectandus est: cogitetur in ea sede in qua illum natura disposuit.* 6.6.2 *non enim nunc de situ terrarum sed de motu agitur.* *Nat.* 6.5.1–3 *causam qua terra concutitur alii in aqua esse, alii in ignibus, alii in ipsa terra, alii in spiritu putaverunt, alii in pluribus, alii in omnibus his. quidam liquere ipsis aliquam ex istis causam esse dixerunt, sed non liquere quae esset.* (2) *nunc singula persequar. illud ante omnia mihi dicendum est, opiniones veteres parum exactas esse et rudes: circa verum adhuc errabatur, nova omnia erant primo temptantibus; postea eadem illa limata sunt, et si quid inventum est, illis nihilominus referri debet acceptum. magni animi res fuit rerum naturae latebras dimovere, nec contentum exteriore eius aspectu introspicere et in deorum secreta descendere. plurimum ad inveniendum contulit qui speravit posse reperiri:* (3) *cum excusatione itaque veteres audiendi sunt.* (there follow the doxai of Thales Anaxagoras Anaximenes Archelaus Aristotle Theophrastus Democritus Metrodorus; see below). 6.21.2 *ut Posidonio* (F 230 E.-K., 320 Theiler) *placet* *Nat.* 6.22.2 *Asclepiodotus* **Pliny** *Nat.* 2.191–192 *Babyloniorum placita et motus terrae hiatusque, qua cetera omnia, siderum vi existimant fieri praeclara quaedam et immortalis in eo, si credimus, divinitas perhibetur Anaximandro Milesio* (cf. 12A5a DK) *physico, quem ferunt Lacedaemoniis praedixisse ut urbem ac tecta custodirent, instare eim motum terrae. ... perhibetur et Pherecydi* (F21 Schibli), *Pythagorae doctori, alia coniectatio, sed et illa divina, haustu aquae e puteo praesensisse ac praedixisse civibus terrae motum.* (192) *... ventos in causa esse non dubium reor. neque enim umquam intremiscunt terrae nisi sopito mari caeloque adeo tranquillo, ut volatus avium non pendeant, subtracto omni spiritu qui vehit, nec umquam nisi post ventos, condito scilicet in venas et cava eius occulta flatu. neque aliud est in terra tremor quam in nube tonitruum, nec hiatus aliud quam cum fulmen erumpit incluso spiritu luctante et ad libertatem exire nitente.* **Cornutus** c. 22, p. 35.14–19 *Torres τινάκτορα γαίης* (Soph. *Trach.* 502) (sc. ἐπωνόμασαν τὸν Ποσειδῶνα) ὥς οὐ παρ' ἄλλην αἰτίαν τῶν σεισμῶν γινομένων ἢ παρὰ τὴν εἰς τὰς ἐν τῇ γῇ σήραγγας ἔμππτωσιν τῆς τε θαλάττης καὶ τῶν ἄλλων ὑδάτων· στενοχωρούμενα γὰρ τὰ ἐν αὐτῇ πνεύματα καὶ ἔξοδον ζητοῦντα κλονεῖσθαι καὶ ῥήγνυσθαι αὐτὴν ποιεῖ, ἀποτελουμένων ἔσθ' ὅτε καὶ

μυκημάτων κατὰ τὴν ῥῆξιν. **Manilius** 1.99–103 ... *cur ... / ... solidusque tremesceret orbis / ... / pervidit*. **ps.Aristotle** *Mu.* 4 395b33–36 (Posidonius fr. 341a Theiler) πολλάκις δὲ πολὺ γενόμενον (sc. τὸ πνεῦμα) ἔξωθεν ἐγκατελήθη τοῖς ταύτης κοιλώμασι καὶ ἀποκλεισθὲν {ἐξόδου} μετὰ βίας αὐτὴν συνετίναξε, ζητοῦν ἔξοδον ἑαυτῷ, καὶ ἀπειργάσατο πάθος τοῦτο ὃ καλεῖν εἰώθαμεν σεισμόν. **Apuleius** *Mu.* 18. *saepe accidit ut nativi spiritus per terrae concavas partes errantes concuterent solida terrarum, saepius, ut spiritus crescente violentia et insinuanes se telluris angustis nec invenientes exitum terram moverent*. **Pausanias** 7.24.6–7 τὰ μὲν οὖν ἄλλα ἐπὶ τοῖς σειμοῖς, ὅσοι μεγέθει τε ὑπερήρκασι καὶ ἐπὶ μήκιστον διακονοῦνται τῆς γῆς, προσημαίνειν ὁ θεὸς κατὰ τὰ αὐτὰ ὡς τὸ ἐπίπαν εἰώθεν—ἡ γὰρ ἐπομβρία συνεχεῖς ἢ αὐχοὶ πρὸ τῶν σεισμῶν συμβαίνουσιν ἐπὶ χρόνον πλεονα, καὶ ὁ ἄρ παρὰ τὴν ἐκάστοτε τοῦ ἔτους ὥραν χειμῶνός τε γίνεται ... κτλ. **Aulus Gellius** *NA* 2.28.1 *quaenam esse causa videatur, quamobrem terrae tremores fiant, non modo his communibus hominum sensibus opinionibusque incompertum, sed ne inter physicas quidem philosophias satis constitit, ventorumne vi accidant specus hiatusque terrae subeuntium an aquarum subter in terrarum cavis undantium pulsibus fluctibusque, ita uti videntur existimasse antiquissimi Graecorum, qui Neptunum σεισίχθονα appellaverunt, an cuius aliae rei causa alteriusve dei vi ac numine, nondum etiam, sicuti diximus, pro certo creditum*. **Galen** *Inst.Log.* 12.9–10 κατὰ δὲ τὸ ποιεῖν καὶ πάσχειν αἱ τῶν αἰτίων γίνονται ζητήσεις· ἐν ἱατρικῇ μὲν οὖν ἐ(κ) τίνος αἰτίας γίνονται ... ἐν φιλοσοφίᾳ δὲ (10) σεισμός κτλ. **Ammianus Marcellinus** 17.7.9 *adesse tempus existimo pauca dicere, quae de terrae pulsibus coniectura veteres collegerunt. ad ipsius enim veritatis arcana non modo haec nostra vulgaris inscitia, sed ne sempiterna quidem lubricationibus longis nondum exhausta physicorum iurgia penetrarunt*. 17.7.11 (cf. 59A89 DK) *accidunt autem, ut opiniones (sc. doxai) aestimant, inter quas Aristoteles aestuat et laborat, [see below]*. 17.7.12–14 **Anaximander** (12A28 DK) *ait arescentem nimia aestuum siccitate aut post madores imbrium terram rimas pandere grandiores, quas penetrat supernus aër violentus et nimius, ac per eas vehementi spiritu quassatam cieri propriis sedibus. qua de causa terrores huiusmodi vaporatis temporibus aut nimia aquarum caelestium superfusione contingunt. ideoque Neptunum umentis substantiae potestatem Ennosigaeon et Sisichthona poetae ueteres et theologi nuncuparunt. ... sed hinc ad exorsa*. **Servius auctus** in *Georg.* 2.479, p. 264.14–20 Thilo *‘unde tremor terris’ variae sunt opiniones. alii dicunt ventum esse in concavis terrae, qui motus etiam terram movet: Sallustius (Hist. fr. 28 Maurenbrecher) venti per cava terrae citati, Lucanus (3.460) ‘quaerentem erumpere ventum’ credidit. alii aquam dicunt gentilem sub terris moveri et eas simul concutere, sicut vas aquae, ut dicit Lucretius (DRN 6.552), alii σπογγοειδέα terram volunt, cuius plerumque latentes ruinae superposita cuncta concutunt*.

Chapter heading: **Seneca** *L. Annaei Senecae naturalium quaestionum liber sextus qui fertur De terrae motu*. *Nat.* 6.6.2 *non enim nunc de situ terrarum sed de motu agitur*. *Nat.* 6.4.2 (T 55 Vottero) *aliquando De motu terrarum volumen iuvenis ediderim*. *Nat.* 2.1.3 *de terrarum motu quaestionem*. *Nat.* 5.14.4 *cum*

quaeram de motibus terrae. Pliny Nat. 1 p. 13.25 de terrae motibus. Capitula Lucretiana at DRN 6.285 de ... et terrae motu. at DRN 6.535 de terrae motu. Arius Didymus fr. 13 Diels at Stob. Ecl. 1.36.2, p. 251.25–27 (on Aristotle) περί μέν σεισμών καὶ τῶν ἄλλων τῶν περὶ τὴν γῆν παθημάτων ἐπὶ τοσοῦτον. Ioannes Lydus Ost. 4.1–8 σπουδὴ δὲ ἡμῖν ἐστὶν εἰπεῖν περὶ τε ... καὶ τὸ δὴ πέρας περὶ σεισμών. On this reference see beginning of chapter

§1 Thales Democritus: Seneca Nat. 6.20.1–4 Democritus (68A98 DK) *plura putat. ait enim motum aliquando spiritu fieri, aliquando aqua, aliquando utroque, et id hoc modo prosequitur: 'aliqua pars terrae concava est; in hanc aquae magna vis confluit. ex hac est aliquid tenue et ceteris liquidius. hoc, cum superveniente gravitate reiectum est, inluditur terris et illas movet; nec enim fluctuari potest sine motu eius in quod impingitur.'* etiam nunc quomodo de spiritu dicebamus, de aqua quoque dicendum est: ubi in unum locum congesta est et capere se desiit, aliquo incumbit et primo viam pondere aperit, deinde impetu. nec enim exire nisi per devexum potest diu inclusa, nec in directum cadere moderate aut sine concussione eorum per quae vel in quae cadit. si vero, cum iam rapi coepit, aliquo loco substitit et illa vis fluminis in se revoluta est, in continentem terram repellitur, et illam, qua parte maxime pendet, exagitat. praeterea aliquando madefacta tellus liquore penitus accepto altius sedit, et fundus ipse vitatur. tunc ea pars premitur in quam maxime aquarum vergentium pondus inclinatur. spiritus vero nonnumquam impellit undas, et si vehementius institit, eam scilicet partem terrae movet in quam coactas aquas intulit. nonnumquam in terrena itinera coniectus et exitum quaerens movet omnia. et terra autem penetrabilis ventis est, et spiritus subtilior est quam ut possit excludi, vehementior quam ut sustineri concitatus ac rapidus. Nat. 6.7.1 quidam motum terrarum aquae imputaverunt, sed non ex eadem causa. Hippolytus Ref. 1.1.1 (on Thales, fr. 210 Wöhrle) ἀφ' οὗ (sc. τοῦ ὕδατος) καὶ σεισμούς.

§2 Stoics: Seneca Nat. 6.8.5 *habeant enim oportet (et) pluribus locis sparsum umorem, et in uno coactum, ut eructare tanto impetu possint. Diogenes Laertius VP. 7.154 (σεισμούς δὲ γίνεσθαι εἰσδύοντος πνεύματος) εἰς τὰ κοιλώματα τῆς γῆς ἢ καθειρχθέντος πνεύματος ἐν τῇ γῇ, καθά φησι Ποσειδώνιος (F 12 E.-K., 264 Theiler) ἐν τῇ η' (sc. του Φυσικοῦ λόγου): εἶναι δ' αὐτῶν τοὺς μέν σεισματίας, τοὺς δὲ χασματίας, τοὺς δὲ κλιματίας, τοὺς δὲ βρασματίας.*

§3 Anaximenes: Seneca Nat. 6.10.1 Anaximenes (cf. 13A21 DK) *ait terram ipsam sibi causam esse motus, nec extrinsecus incurrere quod illam impellat, sed intra ipsam et ex ipsa; quasdam enim partes eius decidere si aut umor resolverit aut ignis exederit aut spiritus violentia excusserit. sed his quoque cessantibus non deesse propter quod aliquid abscedat aut revellatur. etc. Hippolytus Ref. 1.7.8 (on Anaximenes, 13A7 DK) σεισμόν δὲ τῆς γῆς ἐπὶ πλεῖον ἄλλοιουμένης ὑπὸ θερμασίας καὶ ψύξεως. Ammianus Marcellinus 17.7.12 † Anaximander [12A28 DK; i.e. Anaximenes, cf. Capelle 1924, 363, DK p. 1.88 ad loc. and on 13A21 DK] *ait arescentem nimia aestuum siccitate aut post madores imbrum terram rimas pandere grandiores, quas penetrat supernus aër violentus et nimius, ac per eas vehementi spiritu quassatam cieri propriis sedibus. qua de causa tremores huius-**

modi vaporatis temporibus aut nimia aquarum caelestium superfusione contingunt.

§4 *Anaxagoras*: Seneca Nat. 6.9.1 (Anaxagoras 59A89 DK) *ignem causam motus quidam † et quidam non † iudicant, in primis Anaxagoras, qui existimat simili paene ex causa et aëra concuti et terram: cum ‹in› inferiore parte spiritus crassum aëra et in nubes coactum eadem vi qua apud nos quoque nubila frangi solent rumpit, et ignis ex hoc collisu nubium cursuque elisi aëris emicuit, hic ipse in obvia incurrit exitum quaerens, ac divellit repugnantia, donec per angustum aut nactus est viam exeundi ad caelum aut vi et iniuria fecit.* Nat. 6.12.1–2 *Archelaus* (60A16a DK—perhaps to be attributed to Anaxagoras, see below Amm. Marc.) ... *ita ait: ‘venti in concava terrarum deferuntur. deinde, ubi omnia spatia iam plena sunt, et in quantum aër potuit densatus est, is qui supervenit spiritus priorem premit et elidit, ac frequentibus plagis primo cogit, deinde proturbat; tum ille quaerens locum omnes angustias dimovet, et claustra sua conatur effringere. sic evenit ut terrae spiritu luctante et fugam quaerente moveantur. itaque cum terrae motus futurus est, praecedit aëris tranquillitas et quies, videlicet quia vis spiritus quae concitare ventos solet in inferna sede retinetur.’* Hippolytus Ref. 1.8.3–4 (on Anaxagoras, 59A42 DK) τὴν δὲ γῆν τῷ σχήματι πλατεῖαν εἶναι καὶ μένειν μετέωρον διὰ τὸ μέγεθος καὶ διὰ τὸ μηδὲν εἶναι κενὸν καὶ διὰ τὸ τὸν ἀέρα ἰσχυρότατον (4) ὄντα φέρειν ἐποχομένην τὴν γῆν. Ref. 1.8.12 (on Anaxagoras, 59A42 DK) σεισμούς δὲ γίνεσθαι τοῦ ἄνωθεν ἀέρος εἰς τὸν ὑπὸ γῆν ἐμπίπτοντος· τούτου γὰρ κινουμένου καὶ τὴν ὀχουμένην γῆν ὑπ’ αὐτοῦ σαλεύεσθαι. Diogenes Laertius V.P. 2.9 (on Anaxagoras, 59A1 DK) σεισμὸν ὑπονόστησιν ἀέρος εἰς γῆν. Ammianus Marcellinus 17.7.11 *aut certe* (sc. accidit), *ut Anaxagoras* (cf. 59A89 DK) *affirmat, ventorum vi subeuntium ima terrarum; qui cum soliditatibus con crustatis inciderint, eruptiones nullas repperientes eas partes soli convibrant, quas subrepserint tumidi. unde plerumque observatur terra tremente ventorum apud nos spiramina nulla sentiri, quod in ultimis eius secessibus occupantur.* Basil of Caesarea in Hexaem. 1.8, p. 15.15–19 Amand de Mendietta–Rudberg ἐάν τε γὰρ ἀέρα φῆς ὑπεστρώσθαι πλατεῖ τῆς γῆς, ἀπορήσεις, πῶς ἢ μαλθακὴ καὶ πολύκενος φύσις ἀντέχει ὑπὸ τοσούτου βάρους συνθλιβομένη, ἀλλ’ οὐχὶ διολισθαίνει πάντοθεν τὴν συνίζησιν ὑποφεύγουσα, καὶ αἰεὶ πρὸς τὸ ἄνω ὑπερχεομένη τοῦ συμπιέζοντος.

§5 *Aristotle*: Arius Didymus fr. 13 Diels at Stob. Ecl. 1.36.2, pp. 249.12–251.27 Wachsmuth Ἀριστοτέλης φησὶ σεισμούς γίνεσθαι καὶ μυκήματα καὶ χάσματα τῆς ξηρᾶς ἀναθυμιάσεως εἰς τὰς ἀραιότητας κατὰ τῆς γῆς ρύσεως καὶ κατὰ τὰς ἀθρόας ἐμπτώσεις τρόμους καὶ βρασμούς περὶ αὐτὴν ἀπεργαζομένης. ὥς γὰρ ὁρμήσασαν ἔξω τὴν ἀναθυμίασιν ἄνεμον ποιεῖν σφοδρόν, οὕτως εἴσω καθερχθεῖσαν τῇ ῥύμῃ τῆς φορᾶς διακραδαίνειν τοὺς τόπους, ἐν οἷς ἂν ἀποληφθῇ. συνέχεσθαι (δὲ) τὴν δύναμιν αὐτὴν ἐν τῇ γῇ διὰ τε πύκνωσιν τῆς ἐπιφανείας καὶ διὰ κατάψυξιν καὶ διὰ ξηρασίαν. κτλ. Ammianus Marcellinus 17.7.11 *accidunt autem, ut opiniones aestimant, inter quas Aristoteles aestuat et laborat, aut in cavernis minutis terrarum, quas Graece syringas appellamus, impulsu crebriore aquis undabundis.*

§6 **Metrodorus: Seneca Nat.** 6.19.1 *Metrodorum Chium* (70A21 DK) ... *audiamus ... quid ergo dicit? 'quomodo, cum in dolio cantatur, vox illa per totum cum quadam discussione percurrit ac resonat, et tam leviter mota tamen circumit non sine tactu eius tumultuque quo inclusa est, sic speluncarum sub terra pendentium vastitas habet aëra suum, quem, simul alius superne incidens percussit, agitat, non aliter quam illa de quibus paulo ante rettuli inania indito clamore sonuerunt'.*

§7 **Parmenides Democritus: Basil of Caesarea in Hexaem.** 10, p. 17.11–16 Amand de Mendieta–Rudberg ἤδη δέ τινες τῶν φυσικῶν καὶ τοιαύταις αἰτίαις τὴν γῆν ἀκίνητον μένειν κατακομφεύονται. ὡς ἄρα διὰ τὸ τὴν μέσσην τοῦ παντὸς εἰληφέναι χώραν, καὶ διὰ τὴν ἴσσην πάντοθεν πρὸς τὸ ἄκρον ἀπόστασιν, οὐκ ἔχουσιν ὅπου μᾶλλον ἀποκλιθῇ, ἀναγκαίως μένειν ἐφ' ἑαυτῆς, ἀδύνατον αὐτῇ παντελῶς τὴν ἐπὶ τὴν ῥοπήν τῆς πανταχόθεν περικειμένης ὁμοιότητος ἐμποιοῦσης.

§§8–9 **Anaximenes and Others: Basil of Caesarea in Hexaem.** 1.8, p. 15.13–16.5 Amand de Mendieta–Rudberg μὴδὲ ἐκεῖνο ζητεῖν παραινῶ, ἐπὶ τίνος ἔστηκεν. ἰληγιάσει γὰρ καὶ οὕτως ἡ διάνοια, πρὸς οὐδὲν ὁμολογούμενον πέρας διεξιόντος τοῦ λογισμοῦ. ἐάν τε γὰρ ἄερα φῆς ὑπεστρώσθαι πλάτει τῆς γῆς, ἀπορήσεις, πῶς ἡ μαλθακὴ καὶ πολύκενος φύσις ἀντέχει ὑπὸ τοσοῦτου βάρους συνθλιβομένη, ἀλλ' οὐχὶ διολισθαίνει πάντοθεν τὴν συνίζησιν ὑποφεύγουσα, καὶ αἰεὶ πρὸς τὸ ἄνω ὑπερχεομένη τοῦ συμπιέζοντος. πάλιν, ἐάν ὑποθῇς ἑαυτῷ ὕδωρ εἶναι τὸ ὑποβεβλημένον τῇ γῇ, καὶ οὕτως ἐπιζητήσεις, πῶς τὸ βαρὺ καὶ πυκνὸν οὐ διαδύνει τοῦ ὕδατος, ἀλλ' ὑπὸ τῆς ἀσθενεστεράς φύσεως τὸ τοσοῦτον ὑπερφέρον τῷ βάρει κρατεῖται· πρὸς τὸ καὶ αὐτοῦ τοῦ ὕδατος τὴν ἔδραν ἐπιζητεῖν, καὶ πάλιν διαπορεῖν τίνι στεγανῷ καὶ ἀντερείδοντι ὁ τελευταῖος αὐτοῦ πυθμὴν ἐπιβαίνει. cf. **Ambrose of Milan Exam.** 1.6.22, p. 18.7–11 Schenkel *quid nobis discutere utrum in aëre pendeat an super aquam, ut inde nascatur controversia, quomodo aëris natura tenuis et mollior molem possit sustentare terrenam aut quomodo, si super aquas, non demergatur in aquam grauis terrarum ruina?*

§8 **Anaximenes: ps.Plutarch Strom.** 3 (Anaximenes 13A6 DK) πιλουμένου δὲ τοῦ ἀέρος, πρῶτην γεγενῆσθαι λέγει τὴν γῆν, πλατεῖαν μάλα· διὸ καὶ κατὰ λόγον αὐτὴν ἐποχεῖσθαι τῷ ἀέρι. **Hippolytus Ref.** 1.7.4 (on Anaximenes, 13A7 DK) τὴν δὲ γῆν πλατεῖαν εἶναι, ἐπ' ἀέρος ὀχουμένην. **Basil of Caesarea in Hexaem.** 1.8, p. 15.15–19 see above at §4. **Ambrose of Milan Exam.** 1.6.22, p. 18.13–15 Schenkel *multi etiam in medio aëris terram esse dixerunt et mole sua immobilē manere, quod aequabili motu hinc atque inde ex omni parte protendat.*

§9 **Others: Lucretius DRN** 6.552–556 *fit quoque, ubi in magnas aquae vastasque lacunas / gleba vetustate e terra provolvitur ingens, / ut iactetur aquae fluctu quoque terra vacillans, / ut vas inter (aquas)* [coni. Martin, alii alia] *non quit constare, nisi umor / destitit in dubio fluctu iactarier intus.* **Seneca Nat.** 3.14.1 *Thaletis* (11A15 DK) *inepta sententia est. ait enim terrarum orbem aqua sustineri et vehi more navigii mobilitateque eius fluctuare tunc cum dicitur tremere.* **Nat.** 6.6.1 *in aqua causam esse nec ab uno dictum est nec uno modo. Thales Milesius (fr. 101 Wöhrle) totam terram subiecto iudicat umore portari et innare, sive illud Oceanum uocas, seu magnum mare, sive alterius naturae sim-*

plicem adhuc aquam et umidum elementum. 'hac' inquit 'unda sustinetur orbis velut aliquod grande navigium et grave his aquis quas premit'. see also above on §1.

§10 **Plato: Philo Leg.** 1.4 ἐξαχῇ γὰρ τὸ ὀργανικὸν σῶμα πέφυκε κινεῖσθαι, πρόσω καὶ κατόπιν, ἄνω καὶ κάτω, ἐπὶ δεξιὰ καὶ εὐώνυμα. *Somn.* 1.26 ὅτι τὸ σῶμα ... ἐξαχῇ κινήτον, ἴσμεν, ... κινήσεις δὲ τὰς διπλασίας ἔξ, τὴν ἄνω, τὴν κάτω, τὴν ἐπὶ δεξιὰ, τὴν ἐπὶ εὐώνυμα, τὴν πρόσω, τὴν εἰς τὸ κατόπιν. **Simplicius in Cael.** 520.30–521.1 πέμπτον τῶν τὴν ὁμοιότητα καὶ τὴν ἰσορροπίαν αἰτίαν τῆς μονῆς λεγόντων, ὡς Ἀναξίμανδρος (fr. 187 Wöhrle) καὶ Πλάτων (*Phd.* 108e–109a).

§11 **Epicurus: Epicurus Ep.Pyth.** at D.L. 10.105–106 σεισμούς ἐνδέχεται γίνεσθαι καὶ κατὰ πνεύματος ἐν τῇ γῇ ἀπόληψιν καὶ παρὰ μικροῦς ὄγκους αὐτῆς παρὰ-θεσιν καὶ συνεχῇ κίνησιν, ὃ τὴν κράδανσιν τῇ γῇ παρασκευάζει. καὶ τὸ πνεῦμα τοῦτο ἢ ἔξωθεν ἐμπεριλαμβάνει (ἢ) ἐκ τοῦ πίπτειν [εἰς] ἐδάφη εἰς ἀντροειδεῖς τόπους τῆς γῆς ἐκπνευματοῦντα τὸν ἐπειλημμένον ἀέρα. (καὶ) κατ' αὐτὴν δὲ τὴν διάδοσιν τῆς κινήσεως ἐκ τῶν πτώσεων ἐδαφῶν πολλῶν καὶ πάλιν ἀνταπόδοσιν, ὅταν πυκνώμασι σφοδρότεροις τῆς γῆς ἀπαντήσῃ, ἐνδέχεται σεισμούς ἀποτελεῖσθαι. (106) καὶ κατ' ἄλλους δὲ πλείους τρόπους τὰς κινήσεις ταύτας τῆς γῆς γίνεσθαι. **Lucretius DRN** 6.535–542 *nunc age, quae ratio terrai motibus extet / percipe. et in primis terram fac ut esse rearis / sup(er) item ut supera ventosis undique plenam / speluncis multosque lacus multasque lacunas / in gremio gerere et rupes deruptaque saxa; / multaue sub tergo terrai flumina tecta / volvere vi fluctus summersaque saxa putandumst; / undique enim similem esse sui res postulat ipsa.* **DRN** 6.591–593 *quod nisi prorumpit, tamen impetus ipse animai / et fera vis venti per crebra foramina terrae / disperitur ut horror, et incutit inde tremorem.* **Seneca Nat.** 6.20.5–7 *omnes istas esse posse causas Epicurus (fr. 351 Usener) ait, pluresque alias temptat, et illos qui aliquid unum ex istis esse adfirmaverunt corripit, cum sit arduum de his quae coniectura sequenda sunt aliquid certi promittere. (6) 'ergo' ut ait 'potest terram movere aqua si partes aliquas eluit et adrosit, quibus desiit posse extenuatis sustineri quod integris ferebatur. potest terram movere impressio spiritus: fortasse enim aër extrinsecus alio intrante aëre agitur, fortasse aliqua parte subito decidente percutitur, et inde motum capit. fortasse aliqua pars terrae velut columnis quibusdam ac pilis sustinetur, quibus vitiatis ac recedentibus tremit pondus impositum. (7) fortasse calida vis spiritus in ignem versa et fulmini similis cum magna strage obstantium fertur. fortasse palustres et iacentes aquas aliquis flatus impellit, et inde aut ictus terram quatit aut spiritus agitatio ipso motu crescens et se incitans ab imo in summa usque perfertur.' nullam tamen illi placet causam motus esse maiorem quam spiritum.*

b Sources and Other Parallel Texts

General texts: **Aristotle Top.** 7.5 146b27–35 ἢ πάλιν, ὡς ... ὁρίζονται ... τὸν σεισμὸν κίνησιν γῆς ... προσθετέον ... πόσου καὶ ποίου καὶ ποῦ καὶ ὑπὸ τίνος. οὐ γὰρ ὁπωσοῦν γῆς κινήσεως οὐδ' ὅποσησοῦν σεισμὸς ἔσται. **Alexander of Aphrodisias in Top.** 466.21–23 καὶ ὁ τοῦ σεισμοῦ δὲ ὅρος ὡσαύτως ἔδει γὰρ προσκείσθαι τὸ 'ἐκ πνεύματος βιαίου ἐνσχεθέντος τοῖς κοιλώμασι τῆς γῆς καὶ ζητούντος διέξο-

δον'. **Aristotle** *APo.* 2.1 89b29–31 ὅταν δὲ εἰδῶμεν τὸ ὅτι, τὸ διότι ζητοῦμεν, οἶον εἰδότες ... ὅτι κινεῖται ἡ γῆ, τὸ ... διότι κινεῖται ζητοῦμεν. *Mete.* 1.1 338b25–339a2 ἔτι δὲ γῆς ὅσα μέρη καὶ εἶδη καὶ πάθη τῶν μερῶν, ἐξ ὧν περὶ τε πνευμάτων καὶ σεισμῶν θεωρήσαιμεν ἂν τὰς αἰτίας καὶ περὶ πάντων τῶν γιγνομένων κατὰ τὰς κινήσεις τὰς τούτων. *Mete.* 2.7 365a14–19 περὶ δὲ σεισμοῦ καὶ κινήσεως γῆς μετὰ ταῦτα λεκτέον· ἡ γὰρ αἰτία τοῦ πάθους ἐχομένη τούτου τοῦ γένους ἐστίν. ἔστι δὲ τὰ παρειλημμένα μέχρι γε τοῦ νῦν χρόνου τρία καὶ παρὰ τριῶν. Ἀναξαγόρας τε γὰρ ὁ Κλαζομένιος (—) καὶ πρότερον Ἀναξιμένης ὁ Μιλήσιος (—) ἀπεφάνησαν, καὶ τούτων ὕστερον Δημόκριτος ὁ Ἀβδηρίτης (—). *Mete.* 2.8 369a7–9 περὶ μὲν οὖν σεισμῶν, καὶ τίς ἡ φύσις, καὶ διὰ τίνα αἰτίαν γίνονται, καὶ περὶ τῶν ἄλλων τῶν συμβαινόντων περὶ αὐτούς, εἴρηται σχεδὸν περὶ τῶν μεγίστων. **Vergil** *Georg.* 2.475–479 *Musae ... monstrent ... unde tremor terris.* **ps.Vergil** *Aetna* 154–155 *hinc terrae tremor, hinc motus, ubi densus hiantes / spiritus exagitat venas cessantiaque urget.* **Plutarch** *fr.* 106.9–10 Sandbach ὅς καὶ τὴν ἀκίνητον γῆν κινεῖ Ἐννοσίγῳ καλούμενος. **Galen** *Inst.Log.* 13.9–10 κατὰ δὲ τὸ ποιεῖν καὶ πάσχειν αἱ τῶν αἰτίων γίνονται ζητήσεις· ..., ἐν φιλοσοφίᾳ δὲ σεισμὸς κτλ. **Hermogenes** *Id.* 1.6.4.7–8 Patillon καὶ ... κινήσεις γῆς ... εἰ ζητοῖ τις, ὅπως γίνονται. *Id.* 1.6.5 Patillon ποῦ δ' αὖ λόγου πολιτικοῦ τὸ ζητεῖν, ὅπως κινεῖται γῆ. **Suda** s.v. Σ 291, p. 4.348.3–7 Adler Σεισμός: πνεύματος εἰς τὰ κοιλώματα τῆς γῆς ἐγκαθειρχθέντος. ... Ἀριστοφάνης (*Ran.* 825)· 'γῆγενεῖ φυσῆματι' ἀντὶ τοῦ μεγάλῳ, ὥστε σεισμοὺς ποιεῖν· ἀρχαία γὰρ ὑπόνοια τὸ ὑπὸ πνευμάτων κατεχομένην σείεσθαι τὴν γῆν. **Isidore of Seville** (from *Servius*, see above) *Etym.* 14.2–3 *cuius* (sc. *terrae*) *motum alii dicunt ventum esse in concavis eius, qui motus eam movet.* *Sallustius* (*Hist.* fr. 28 Maurenbrecher): *'venti per cava terrae citatu rupti aliquot montes tumulique sedere.'* (3) *alii aquam dicunt genetalem in terris moueri, et eas simul concutere, sicut vas, ut dicit Lucretius* (*DRN* 6.555). *alii* σπογγοειδῆ *terram volunt, cuius plerumque latentes ruinae superposita cuncta concutiunt. terrae quoque hiatus aut motu aquae inferioris fit, aut crebris tonitruis, aut de concavis terrae erumpentibus ventis.* *de Nat.* 46.1 *sapientes dicunt terram in modum sphungiae esse conceptumque ventum rotari et ire per cavernas. cumque tantum ierit quantum terra capere non possit, huc atque illuc ventus fremitum et murmura mittit. dehinc quaerente eo viam evadendi, dum sustinere eum terra non potuerit, aut tremit aut dehiscit ut ventum egerat. inde aiunt fieri terrae motum, dum universa ventus inclusus concutit.*

Chapter heading: **Aristotle** *Mete.* 1.1 338b26 περὶ ... σεισμῶν. *Mete.* 2.7 365a14 περὶ δὲ σεισμοῦ καὶ κινήσεως γῆς μετὰ ταῦτα λεκτέον. *Mete.* 2.8 368b13 οἱ σεισμοὶ τῆς γῆς. *Mete.* 2.8 369a7 περὶ μὲν οὖν σεισμῶν. **Theophrastus**(?) *Metars.* c. 15 tit. Daiber *The account of the causes and of the different kinds of earthquakes.* **Philo** *Opif.* 59 σεισμὸν γῆς. **Plutarch** *Cic.* 32.4 σεισμὸν τε τῆς γῆς. **Publius Aelius Phlegon** *Mir.* 19.1 Θεόπομπος (*FGrH* 115 fr. 70 Jacoby) δὲ φησιν ὁ Σινωπεύς ἐν τῷ Περὶ σεισμῶν. **Agatharchides** *Mar.Erythr.* 107 περὶ ... σεισμοῦ. **Ammianus Marcellinus** 17.7.12 *ideoque Neptunum umentis substantiae potestatem Ennosigaeon et Sisichthona poetae veteres et theologi nuncuparunt.* **Isidore of Seville** *Nat.* 46 *De terrae motu* [also in the body of the work].

§1 Thales Democritus: Aristotle *Mete.* 2.7 365b1–6 Δημόκριτος (68A97 DK) δέ φησι πλήρη τὴν γῆν ὕδατος οὖσαν, καὶ πολὺ δεχομένην ἕτερον ὕμβριον ὕδωρ, ὑπὸ τούτου κινεῖσθαι· πλείονός τε γὰρ γιγνομένου διὰ τὸ μὴ δύνασθαι δέχεσθαι τὰς κοιλίας ἀποβιαζόμενον ποιεῖν τὸν σεισμόν, καὶ ξηραίνονμένην ἔλκουσαν εἰς τοὺς κενοὺς τόπους ἐκ τῶν πληρεστέρων τὸ μεταβάλλον ἐμπίπτων κινεῖν. **Theophrastus(?) *Metars.* c. 15b.7–9** Daiber If some hollows contain water, which is shut up, and if that water is moved because it finds a narrow exit or because of another reason, it shakes the earth as billows cause a ship to shake. **Alexander of Aphrodisias in *Mete.* 115.13–20** εἰπὼν δὲ περὶ τῆς Ἀναξαγόρου δόξης μέτεισιν ἐπὶ τὴν Δημοκρίτου (—), καὶ φησὶ τοῦτον λέγειν ὅτι πλήρης οὖσα ἡ γῆ ὕδατος, ὅταν καὶ ἔξωθεν πολὺ ἀπὸ τῶν ὀμβρίων ἄλλο δέξηται, τότε ὑπὸ τοῦ ὕδατος τοῦ πολλοῦ κινεῖται. πλείον τε γὰρ γινόμενον τὸ ὕδωρ διὰ τὸ μὴ δύνασθαι δέχεσθαι αὐτὸ τὰς ἐν τῇ γῇ κοιλίας ἀποβιαζόμενον καὶ στενοχωρούμενον κινεῖ αὐτήν. ἀλλὰ καὶ ξηραίνονμένη καὶ ἔλκουσα εἰς τοὺς κενοὺς τόπους καὶ ξηροὺς ἐκ τῶν πληρεστέρων τὸ ὕδωρ ἐν τῇ μεταρρεῦσει τε καὶ μεταβάσει τῇ τοιαύτῃ κινεῖται ὑπ’ αὐτοῦ. **Simplicius in *Cael.* 520.26–27** δεύτερον δὲ τῶν ἐφ’ ὕδατος ὀχουμένην μένειν, ὡς Θαλῆς ὁ Μιλήσιος (fr. 425 Wöhrlé).

§3 Anaximenes: Aristotle *Mete.* 2.7 365b6–12 Ἀναξίμενης (13A21 DK) δὲ φησιν βρεχομένην τὴν γῆν καὶ ξηραίνονμένην ῥήγνυσθαι, καὶ ὑπὸ τούτων τῶν ἀπορρηγνυμένων κολωνῶν ἐμπιπτόντων σείεσθαι· διὸ καὶ γίνεσθαι τοὺς σεισμούς· ἐν τε τοῖς αὐχμοῖς καὶ πάλιν ἐν ταῖς ἐπομβρίαις· ἐν τε γὰρ τοῖς αὐχμοῖς, ὥσπερ εἴρηται, ξηραίνονμένην ῥήγνυσθαι, καὶ ὑπὸ τῶν ὑδάτων ὑπερυγραίνονμένην διαπίπτειν. **Theophrastus(?) *Metars.* c. 15a.4–6** Daiber For it [sc. the surface] falls down because the earth becomes dry and crumbles, or because it becomes humid and dissolves. **Alexander of Aphrodisias in *Mete.* 115.21–27** μετὰ δὲ τὴν Δημοκρίτου καὶ τῆς Ἀναξίμενου (fr. 67 Wöhrlé) δόξης μνημονεύει. τοῦτον δὲ φησὶ λέγειν βρεχομένην τὴν γῆν, ἀλλὰ καὶ ξηραίνονμένην ῥήγνυσθαι, ἔπειτα ἀπορρηγνυμένων τινῶν τῷ τοιοῦτῳ πάθει κολωνῶν καὶ ἐμπιπτόντων αὐτῇ, γίνεσθαι τοὺς σεισμούς. διὸ καὶ γίνεσθαι αὐτοὺς ἐν τε τοῖς αὐχμοῖς καὶ πάλιν ἐν ταῖς ἐπομβρίαις· ἐν μὲν γὰρ τοῖς αὐχμοῖς ξηραίνονμένην ῥήγνυσθαι, ἐν δὲ ταῖς ἐπομβρίαις ἐξυγραίνονμένην διαπίπτειν.

§4 Anaxagoras: Aristotle *Mete.* 2.7 364a19–25 + a31–33 Ἀναξαγόρας (59A89 DK) μὲν οὖν φησὶ τὸν αἰθέρα πεφυκότα φέρεσθαι ἄνω, ἐμπίπτοντα δ’ εἰς τὰ κάτω τῆς γῆς καὶ κοῖλα κινεῖν αὐτήν· τὰ μὲν γὰρ ἄνω συναληλείφθαι διὰ τοὺς ὄμβρους (ἐπεὶ φύσει γε ἅπασαν ὁμοίως εἶναι σομφήν), ὡς ὄντος τοῦ μὲν ἄνω τοῦ δὲ κάτω τῆς ὅλης σφαίρας, καὶ ἄνω μὲν τούτου ὄντος τοῦ μορίου ἐφ’ οὗ τυγχάνομεν οἰκοῦντες, κάτω δὲ θατέρου. ... εὐήθες ... τὸ λέγειν μὲν ὡς διὰ τὸ μέγεθος ἐπὶ τοῦ ἀέρος μένειν, σείεσθαι δὲ φάσκειν τυπτομένην κάτωθεν ἄνω δι’ ὅλης. **Theophrastus(?) *Metars.* c. 15bc.9–11** Daiber If the earth contains much wind which is shut up, and if this wind can pass out through a narrow way, it shakes the earth. **Alexander of Aphrodisias in *Mete.* 114.13–23** ἔστι δ’ ἡ μὲν Ἀναξαγόρου (—) δόξα τοιαύτη· φησὶ τὸν αἰθέρα πεφυκότα φέρεσθαι ἄνω, ἐμπίπτοντα δὲ εἰς τὰ κάτω τῆς γῆς κοῖλα κινεῖν αὐτήν, ἄνω μὲν λέγων τῆς γῆς τὴν ἐπιφάνειαν, ἐφ’ ἧς οἰκοῦμεν ἡμεῖς, κάτω δὲ τὸ ὑπὸ τὴν γῆν καὶ ἐκείνην αὐτὴν τὴν ἐπιφάνειαν· ὦν τὴν μὲν ἐφ’ ἧς ἡμεῖς οἰκοῦμεν συνα-

ληλίσθαι τε καὶ ἠνώσθαι ὑπὸ τῶν ὄμβρων, τὴν δὲ κάτω σομφὴν τε εἶναι καὶ ἔχουσιν διαστήματα· πάσαν γάρ τὴν γῆν εἶναι σομφὴν φύσει· τὸν οὖν αἰθέρα τὸν ὑπὸ τῇ γῇ, πεφυκότα ἄνω φέρεσθαι εἰς τὰ ὑπὲρ ἡμᾶς, ἐν τῇ ἀνόδῳ ἐμπίπτοντα εἰς τὰ κοῖλα καὶ σομφὰ τῆς γῆς κινεῖν αὐτήν, καὶ οὕτω γίνεσθαι τοὺς σεισμούς· ὡς οὕσης δὲ τῆς γῆς πλατείας καὶ διὰ τοῦτο ἐποχουμένης τῷ ὑποκειμένῳ ἀέρι καὶ μενούσης ἔνθα ἐστί, λέγει ταῦτα.

§5 Aristotle: Aristotle *APo.* 2.1 89b29–31 ὅταν δὲ εἰδῶμεν τὸ ὅτι, τὸ διότι ζητοῦμεν, οἷον εἰδότες ... ὅτι κινεῖται ἡ γῆ, τὸ ... διότι κινεῖται ζητοῦμεν. *Mete.* 2.8 365b21–366a5 ἀλλ' ἐπειδὴ φανερόν ἐστι ἀναγκαῖον καὶ ἀπὸ ὑγροῦ καὶ ἀπὸ ξηροῦ γίνεσθαι ἀναθυμίαςιν, ... ἀνάγκη τοῦτων ὑπαρχόντων γίνεσθαι τοὺς σεισμούς. ὑπάρχει γάρ ἡ γῆ καθ' αὐτὴν μὲν ξηρά, διὰ δὲ τοὺς ὄμβρους ἔχουσα ἐν αὐτῇ νοτίδα πολλήν, ὥσθ' ὑπὸ τε τοῦ ἡλίου καὶ τοῦ ἐν αὐτῇ πυρὸς θερμαινομένης πολὺ μὲν ἔξω πολὺ δ' ἐντὸς γίνεσθαι τὸ πνεῦμα· καὶ τοῦτο ὅτε μὲν συνεχὲς ἔξω ῥεῖ πᾶν, ὅτε δ' εἴσω πᾶν, ἐνίοτε δὲ καὶ μερίζεται. εἰ δὴ τοῦτ' ἀδύνατον ἄλλως ἔχειν, τὸ μετὰ τοῦτο σκεπτέον ἂν εἴη ποῖον κινητικώτατον εἴη τῶν σωμάτων· ... ὥστ' εἴπερ ἡ τοῦ πνεύματος φύσις τοιαύτη, μάλιστα τῶν σωμάτων τὸ πνεῦμα κινητικόν· καὶ γὰρ τὸ πῦρ ὅταν μετὰ πνεύματος ᾖ, γίνεται φλόξ καὶ φέρεται ταχέως. οὐκ ἂν οὖν ὕδωρ οὐδὲ γῆ αἴτιον εἴη, ἀλλὰ πνεῦμα τῆς κινήσεως, ὅταν εἴσω τύχη ῥυέν τὸ ἔξω ἀναθυμώμενον. **Theophrastus(?) Metars.** c. 15cd.12–15 Daiber If the earth contains much fire which is shut up and (if then the fire) makes the air contained by that earth fine, dissolves it and makes it loose, (the fire) begins to look for a larger place. If therefore (the air) splits up and leaves the earth, it begins to shake that. **Seneca Nat.** 6.13.1–2 (**Theophrastus** fr. 195 FHS&G) *quid utrique (sc. Aristotle and Theophrastus) placeat exponam. 'semper aliqua evaporatio est e terra, quae modo arida est, modo umido mixta; haec ab infimo edita et in quantum potuit elata, cum ulteriorem locum in quem exeat non habet, retro fertur atque in se revolvitur; deinde rixa spiritus reciprocantis iactat obstantia et, sive interclusus sive per angusta enisus est, motum ac tumultum ciet'.* (2) **Straton** (fr. 89 Wehrli, 53 Sharples) *ex eadem schola est, huius tale decretum est: 'frigidum et calidum semper in contraria abeunt, una esse non possunt; eo frigidum confluit unde vis calida discessit. et invicem ibi calidum est unde frigus expulsum est.'* etc. **John Philoponus(?) in APo.** 335.16–21 (on *APo.* 2.1 89b29–31) καὶ πάλιν ὁρώμεν τὴν γῆν σειομένην, καὶ φαμέν ἡ γῆ σείεται, σειομένης δὲ πνεῦμα ἐν τοῖς κοιλώμασιν καὶ σήραγγιν αὐτῆς ἀποκλείεται, ἐν τῇ γῇ πνεῦμα ἀποκλείεται· τοῦτο ἡ ἀνάλυσις. εἴτα ἡ ἀπόδειξις· 'ἐν τῇ γῇ πνεῦμα ἀποκλείεται, πνεύματος ἀποκλειομένου σεισμός γίνεται, ἐν τῇ γῇ ἄρα σεισμός γίνεται'.

§§7–8 Parmenides Democritus and Anaximenes: Ovid Fast. 6.269–280 *terra pilae similis, nullo fulmine nixa, / aëre subiecto tam grave pendet onus: / ipsa volubilitas libratum sustinet orbem, / quique premat partes angulus omnis abest: / cumque sit in media rerum regione locata, / ut tangat nullum plusve minusve latus, / ni convexa foret, parti vicinior esset, / nec medium terram mundus haberet onus. / arte Syracosia suspensus in aëre clauso / stat globus, immensi parva figura poli, / et quantum a summis, tantum secessit ab imis / terra; quod ut fiat forma rotunda facit.*

§7 *Parmenides Democritus: Aristotle Cael.* 2.13 295b11–16 εἰσὶ δὲ τινες οἳ διὰ τὴν ὁμοιότητά φασιν αὐτὴν μένειν, ὥσπερ τῶν ἀρχαίων Ἀναξίμανδρος (12A26 DK)· μᾶλλον μὲν γὰρ οὐθὲν ἄνω ἢ κάτω ἢ εἰς τὰ πλάγια φέρεσθαι προσήκει τὸ ἐπὶ τοῦ μέσου ἰδρυμένον καὶ ὁμοίως πρὸς τὰ ἔσχατα ἔχον· ἅμα δ' ἀδυνατον εἰς τὸ ἐναντίον ποιεῖσθαι τὴν κίνησιν· ὥστ' ἐξ ἀνάγκης μένειν. (see above on §1.) **Anatolius de Dec.** p. 67.7–11 Heiberg εἰοικασί δὲ κατὰ γε τοῦτο κατηκολουθηκέναι τοῖς Πυθαγορικοῖς (—) οἳ τε περὶ Ἐμπεδοκλέα (—) καὶ Παρμενίδην (28A44 DK) καὶ σχεδὸν οἱ πλείστοι τῶν πάλαι σοφῶν φάμενοι τὴν μοναδικὴν φύσιν ἐστίας τρόπον ἐν μέσῳ ἰδρῦσθαι καὶ διὰ τὸ ἰσόρροπον φυλάσσειν τὴν αὐτὴν ἔδραν (cited by **Iamblichus Theol.Ar.** p. 6.14–18 De Falco).

§8 *Anaximenes: Aristotle Cael.* 2.13 294b13–16 Ἀναξίμενης (13A20 DK) δὲ καὶ Ἀναξαγόρας (cf. 59A88 DK) καὶ Δημόκριτος (fr. 376 Luria) τὸ πλάτος αἴτιον εἶναι φασι τοῦ μένειν αὐτὴν. οὐ γὰρ τέμνειν ἀλλ' ἐπιπωμαίνει τὸν ἀέρα τὸν κάτωθεν, ὅπερ φαίνεται τὰ πλάτος ἔχοντα τῶν σωμάτων ποιεῖν. **Epicurus II. φύσ.** Book 11, fr. [26][42]–[43] Arrighetti. **Scholia in Epicurum Ep.Hdt.** at D.L. 10.74 (fr. 348 Usener) καὶ ἐν ἄλλοις (sc. λέγει) τὴν γῆν τῷ ἀέρι ἐποχεῖσθαι. **Lucretius DRN** 5.543–538 *terraque ut in media mundi regione quiescat, / evanescere paulatim et decrescere pondus / convenit atque aliam naturam subter habere / ex ineunte aevo coniunctam atque uniter aptam / partibus aëriis mundi quibus insita vivit.* **Hyginus Astr.** 1.9, p. 11.120–121 *Viré terra mundi media regione collocata, omnibus partibus aequali dissidens intervallo, centrum obtinet sphaerae.* **Simplicius in Cael.** 520.27–30 τρίτον δὲ τῶν λεγόντων μένειν αὐτὴν ἀνεχομένην ὑπὸ τοῦ ὑποκειμένου ἀέρος, ὃν ἐπιπωματίζει πλατεῖα οὖσα καὶ τυμπανοειδὴς ἢ γῆ καὶ οὐ συγχωρεῖ ἀναχωρεῖν· οὗτω δὲ Ἀναξίμενης (fr. 156 Wöhrle) καὶ Ἀναξαγόρας (59A88 DK) καὶ Δημόκριτος (fr. 376 Luria) ἐδόκουν λέγειν.

§9 *Others: Aristotle Cael.* 2.13 294a28–31 οἳ δ' ἐφ' ὕδατος κεῖσθαι. τοῦτον γὰρ ἀρχαιότατον παρελήφμεν τὸν λόγον, ὃν φασιν εἰπεῖν Θάλην τὸν Μιλήσιον (11A14 DK), ὡς διὰ τὸ πλωτὴν εἶναι μένουσαν ὥσπερ ξύλον ἢ τι τοιοῦτον ἔτερον. **Theophrastus(?) Metars.** c. 15b.7–9 Daiber if some hollows contain water, which is shut up, and if that water is moved, because it finds a narrow exit or because of another reason, it shakes the earth as billows shake a ship.

§10 *Plato: Plato Tim.* 34a κίνησιν γὰρ ἀπένειμεν αὐτῷ (sc. τῷ κόσμῳ) τὴν τοῦ σώματος οἰκείαν, τῶν ἐπτά τὴν περὶ νοῦν καὶ φρόνησιν μάλιστα οὖσαν. **Tim.** 43a–b ὥστε τὸ μὲν ὅλον κινεῖσθαι ζῶον, ἀτάκτως μὴν ὅπη τύχοι προιέναι καὶ ἀλόγως, τὰς ἐξ ἀπάσας κινήσεις ἔχον· εἰς τε γὰρ τὸ πρόσθε καὶ ὀπίσθεν καὶ πάλιν εἰς δεξιὰ καὶ ἀριστερὰ κάτω τε καὶ ἄνω καὶ πάντη κατὰ τοὺς ἐξ ὅλους πλανώμενα προήειν. **Phd.** 108e–109a πέπεισμαι τοῖσιν, ἡ δ' ὅς, ἐγὼ ὡς πρῶτον μὲν, εἰ ἔστιν ἐν μέσῳ τῷ οὐρανῷ περιφερὴς οὖσα (sc. ἡ γῆ), μηδὲν αὐτῇ δεῖν μήτε (109a) ἀέρος πρὸς τὸ μὴ πεσεῖν μήτε ἄλλης ἀνάγκης μηδεμιᾶς τοιαύτης, ἀλλὰ ἱκανὴν εἶναι αὐτὴν ἴσχειν τὴν ὁμοιότητα τοῦ οὐρανοῦ αὐτοῦ ἐαυτῷ πάντη καὶ τῆς γῆς αὐτῆς τὴν ἰσορροπίαν· ἰσόρροπον γὰρ πρᾶγμα ὁμοίου τινὸς ἐν μέσῳ τεθὲν οὐχ ἔξει μᾶλλον οὐδ' ἦττον οὐδ' ἀμόσε κλιθῆναι, ὁμοίως δ' ἔχον ἀκλινὲς μενεῖ. **Tim.** 62d–63a εἰ γὰρ τι καὶ στερεὸν εἴη κατὰ μέσον τοῦ παντὸς ἰσοπαλές, εἰς οὐδὲν ἂν ποτε τῶν ἐσχάτων ἐνεχθεῖν διὰ τὴν πάντη ὁμοιότητα αὐτῶν. **Nicomachus Intr.Ar.** 2.6.4, p. 85.9–13 Hoche τοῦ-

τοῖς γὰρ αἱ λεγόμεναι περὶ πᾶν σῶμα ὑπάρχειν ἔξ περιστάσεις ὀρίζονται, καθ' ἃς αἱ κατὰ τόπον κινήσεις διακρίνονται, πρόσω, ὀπίσω, ἄνω, κάτω, δεξιὰ, ἀριστερά. **Apuleius** *Plat.* 1.198 *septem locorum motus habeantur, progressus et retrocessus, dexteriores ac sinistri, sursum etiam deorsumque nitentium et quae in gyrum circuitumque torquentur.* **ps.Iamblichus** *Theol.Ar.* p. 47.15–19 De Falco ἕκαστον δὲ διάστημα πεπερασμένον ἐκατέρωθεν ἡγούμενοι δεῖν εἶναι, δύο καθ' ἕκαστον ἐπινοήσομεν πέρατα, τριῶν δὲ ὄντων ἔξ ἀποτελεσθήσονται, δι' ἣν αἰτίαν καὶ αἱ λεγόμεναι σωματικαὶ περιστάσεις τοσαῦται γίνονται καθ' ἕκαστον διάστημα δύο θεωρούμεναι.

§11 Epicurus: Theophrastus(?) Metars. c. 15.2 Daiber There are four causes of earthquakes.

Liber 3 Caput 16

PP: *Papyrus Antinoopolis* 85 fr. 3 (b) verso, p. 77 Barns–Zilliaceus—**PB**: ps.Plutarchus *Plac.* 896F–897A; pp. 381^a12–382^a13 Diels—**PE**: Eusebius *PE* 15.59.1–6, p. 420.1–16 Mras—**PG**: ps.Galenus *HPh* c. 87; p. 634.3–9 Diels; pp. 278–286 Jas—**PQ**: Qustā ibn Lūqā pp. 184–186 Daiber—**PPs**: *Omn.Doctr.* c. 166.1 + 8–11, p. 84 Westerink
S: *Ecl.* 1.37, p. 252.2 Wachsmuth (titulus solus); cf. Phot. *Bibl.* 167, p. 112b22 Henry (titulus solus)
 Cf. Symeon Seth *CRN* 2.14.10–13

Titulus 15'. Περὶ θαλάσσης, πῶς συνέστη καὶ πῶς ἐστὶ πικρά (P,S)

- §1 Ἀναξίμανδρος τὴν θάλασσαν φησιν εἶναι τῆς πρώτης ὑγρασίας λείψανον, ἥς τὸ μὲν πλεῖον μέρος ἀνεξήρανε τὸ πῦρ, τὸ δὲ ὑπολειφθὲν διὰ τὴν ἔκκαυσιν μετέβαλεν. (P1)
- §2 Ἀναξαγόρας τοῦ κατ' ἀρχὴν λιμνάζοντος ὑγροῦ περικαέντος ὑπὸ τῆς ἡλιακῆς περιφορᾶς καὶ τοῦ λιπαροῦ ἐξατμισθέντος εἰς ἀλκυίδα καὶ πικρίαν τὸ λοιπὸν ὑποστῆναι. (P2)
- §3 Ἐμπεδοκλῆς 'ιδρώτα' τῆς γῆς ἐκκαίωμένης ὑπὸ τοῦ ἡλίου διὰ τὴν ἐπὶ τὸ πλεῖον πύλησιν. (P3)

§1 Anaximander 12A27 DK; §2 Anaxagoras 59A90 DK; §3 Empedocles 31A66 DK cf. B55

lemmata non hab. **S** **titulus** πῶς ... πικρά ^{PB^{EQS}L} : Περὶ θαλάττης διὰ τί ἀλμυρά ἐστιν ^{PG} : Περὶ θαλάσσης verisim. ^{PPS^{Phot}} §1 [2] post Ἀναξίμανδρος hab. εἶναί φησι ^{PG} || πρώτης ^{PB^{EG}(N^{ic})} : προτέρως ^{PG}(mss.) || post ὑγρασίας add. τὸ ^{PG} || [3] πλεῖον ^{PPB^(L,IIII)E} prob. Laks–Most : πλείστον ^{PB^{(II)GQ}} || ἀνεξήρανε ^{PB^(L,III:E)EG} : ἀνεξήρανε ^{PB^(III:A)} : ἐξήρανε ^{PB^(II)} et ut vid. ^{PP} : ἀνεξηραμένον ^{PG} crucif. Jas (ἀνεξηραμένον Diels) || τὸ πῦρ || γλυκὺ ^{PG} crucif. Jas, prob. Diels §2 [6] λιπαροῦ ^{PPB^{EQ}} : λεπτομεροῦς Roeper ap. *Philol.* 8 (1852) 635 n. 32 : fort. λεπτοτέρου Diels : λεπτοτάτου Gomperz 1890, p. 145, prob. Diels 59A90 DK Laks–Most || ἐξατμισθέντος ^{PB} : *ausgepreßt* Q §3 [8] τῆς ^{PB^E} : om. ^{PG} || ἐκκαίωμένης ^{PB^{(II)EG}} : ἐκκαίωμενον ^{PB^(L,IIII)} || post ἐκκαίωμένης add. *ausschwitzt* Q || [8–9] διὰ ... πύλησιν om. ^{PG} || ἐπὶ ... πύλησιν ^{PE}, prob. Karsten Zeller Duebner Diels Lachenaud Graham : ἐπιπόλαιον πύλησιν ^{PB^(L,II)} : ἐπιπόλαιον πλύσιν ^{PB^(IIII)} : *durch die Kontinuität ihres (der Sonne) Kreisens erfährt* Q : †πύλησιν† crucif. Mau : πρήσιν coni. Bernardakis

- §4 Ἀντιφῶν ἰδρώτα τοῦ θερμοῦ, ἐξ οὗ τὸ περιληφθὲν ὑγρὸν ἀπεκρίθη, τῷ 10
καθεψηθῆναι παραλυσίασα, ὅπερ ἐπὶ παντὸς ἰδρώτος συμβαίνει. (P4)
- §5 Μητρόδωρος διὰ τὸ διηθεῖσθαι διὰ τῆς γῆς μετελιγφέναι τοῦ περι 15
πάχους, καθάπερ τὰ διὰ τῆς τέφρας ὑλίζόμενα. (P5)
- §6 οἱ ἀπὸ Πλάτωνος τοῦ στοιχειώδους ὕδατος τὸ μὲν ἐξ ἀέρος κατὰ περι-
ψυξιν συνιστάμενον γλυκὺ γίνεσθαι, τὸ δ' ἀπὸ γῆς κατὰ περίκασιν 15
καὶ ἐκπύρωσιν ἀναθυμώμενον ἄλμυρόν. (P6)

§4 Antiphon 87B32 DK, F 32 Kendrick; §5 Metrodorus 70A19 DK; §6 Platonici—

§4 [10] post ἰδρώτα add. (τοῦ πρώτου ὑγροῦ ἐξατμισθέντος ὑπὸ) Diels 87B32 DK, cf. *von der Hitze erzeugt wird* Q || [10] τοῦ P^{EQ} : om. P^B, prob. Mau Laks–Most || θερμοῦ P^{BEQ} : susp. Diels, crucif. Pendrick, θερμὸν dub. prop. Lachenaud || post θερμοῦ fort. πάχους addendum, cf. infra §5[2] || περιληφθὲν P^{B(III)} prob. Mras : περιλειφθὲν P^{PB(IIIE)}, prob. Bernardakis, Diels 87B32 DK : om. P^Q || ἀπεκρίθη P^{B(IIIE)} : ὑπεκρίθη P^{B(III)} || post ἀπεκρίθη add. (καὶ θάλασσα ἐπωνομάσθη) Diels 87B32 DK || [10–11] τῷ ... παραλυσίασα P^{BE} : om. P^Q || [11] καθεψηθῆναι P^{PE} : κατεψηθῆναι P^B || [11]–§5[12] παραλυσίασα ... μετελιγφέναι om. P^P per haplographiam || [11] παραλυσίασα P^{B(III)} prob. Graham : παραλυσίσαντα Xylander prob. Laks–Most, Lachenaud qui dubit. et prop. παραλυσίαι : παραλυσίαν corrector sec. Voss. : crucif. Diels Mau §5 [12] διηθεῖσθαι P^{B(IIIE)} : διηθείσαν P^{B(II)Q} || μετελιγφέναι P^{BE} : *übrig bleibt* Q §6 [15] ἀπὸ γῆς P^{BE} : om. P^G || περίκασιν] περιθραυσιν P^G crucif. Jas || [16] ἐκπύρωσιν P^{BE} : ἔκπυρον P^G || ἀναθυμώμενον P^{BE} : ἀναθυμίασιν P^G : om. P^Q || post ἄλμυρόν add. εἶναι P^G

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 3 (b) verso (~ P1–6)

- 1[
Ανα[ξιμανδρος την θάλασσαν φησιν ει]
5 να[ι της πρωτης υγρασιας λειψανον ης το μεν]
πλιον μ[ερος ανεξηρανε το πυρ το δε υπολειφθεν]
δια την [εκκαυσιν μετεβαλεν Αναξαγορας]
του κατ α[ρχην λιμναζοντος υγρου περικα]
εντ[ος υπο της ηλιακης περιφορας και του]
10 λιπ[αρου εξατμισθεντος εις αλυκιδα και]
πι[κριαν το λοιπον υποστηναι Εμπεδο]
κλη[ις ιδρωτα της γης εκκαιομενης υπο του]
ηλιο[υ δια την επι το πλειον πιλησιν Αν]
τιφω[ν ιδρωτα του θερμου εξ ου το περι]
15 λειφ[θεν υγρον απεκριθη τω καθεψηθη]
να[ι του περι αὐτην παχους καθαπερ τα]
δια τ[ης τεφρας υλιζομενα οι απο Πλατω]/[νος]

ps.Galenus HPh c. 87 (~ tit.) Περί θαλάττης διὰ τί ἄλμυρά ἐστιν (text Jas)

87.1 (~ P1) Ἀναξιμανδρος εἶναι φησι τὴν θάλασσαν τῆς πρώτης ὑγρασίας τὸ λείψανον, ἥς τὸ μὲν πλείστον μέρος ἄνεξηραμένον γλυκὺ, τὸ δὲ ὑπολειφθὲν διὰ τὴν ἔκκαυσιν μετέβαλεν.

87.2 (~ P3) Ἐμπεδοκλῆς ἰδρῶτα γῆς ἐκκαιομένης ὑπὸ τοῦ ἡλίου.

87.3 (~ P6) οἱ ἀπὸ Πλάτωνος τοῦ στοιχειώδους ὕδατος τὸ μὲν ἐξ ἀέρος κατὰ περί-
ψυξιν συνιστάμενον γλυκὺ γίνεσθαι, τὸ δὲ κατὰ †περίθραυσιν† καὶ ἔκπυρον
ἀναθυμίασιν ἄλμυρόν εἶναι.

Psellus *Omn. Doctr.* c. 166 Διατί ἄλμυρόν ἐστιν τὸ τῆς θαλάττης ὕδωρ (~ tit.)

166.8–11 αἴτιον δὲ τῆς ἄλμυρότητος καὶ ὁ ἥλιος· τῇ γὰρ οἰκείᾳ θερμότητι ἐξατμίζων
τὴν θάλασσαν καὶ τὸ γλυκύτερον ἔλκων καὶ κουφίζων πρὸς τὸν ἀέρα, κάτω τὸ
ἄλμυρότερον ἔᾶ καὶ βαρύτερον (~ §2).

Symeon Seth *CRN* 14.10–13 ἄλυκόν δέ ἐστι τὸ τῆς θαλάσσης ὕδωρ διὰ τοιαύτην
αἰτίαν. ἐπεὶ γὰρ ὁ ἥλιος ἀνιμάται τὸ λεπτομερές αὐτῆς ὑγρόν, καταλείπεται τὸ
παχὺ καὶ ἔχει τοιαύτην γεῦσιν (quaestio).

Loci Aetiani:

quaestio A 4.1.2 Εὐθυμένης ὁ Μασσαλιώτης ἐκ τοῦ Ὠκεανοῦ καὶ τῆς ἔξω θαλάσσης
γλυκείας κατ' αὐτὸν οὔσης νομίζει πληροῦσθαι τὸν ποταμόν.

titulus A 1.4 Πῶς συνέστηκεν ὁ κόσμος A 2.13 2.13 Τίς οὐσία τῶν πλανητῶν καὶ
ἀπλανῶν, καὶ πῶς συνέστη.

§1 A 3.4.4 Ξενοφάνης ἀπὸ τῆς τοῦ ἡλίου θερμότητος ὡς (προκατ)αρκτικῆς αἰτίας
τὰν τοῖς μεταρσίοις συμβαίνειν· ἀνελκομένου γὰρ ἐκ τῆς θαλάττης τοῦ ὑγροῦ τὸ
γλυκὺ.

§5 A 2.18.1–2 Ξενοφάνης ... Μητρόδωρος ... A 3.2.10–11 Μητρόδωρος ... Ξενοφάνης
... A 3.9.4–5 Ξενοφάνης ... Μητρόδωρος ...

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses are P, represented by P^P, P^B, P^E, P^G, P^Q, and (for a version of the heading only) P^S. Small snippets of the text are preserved in P^P, the Antinoopolis papyrus. For S only an abridged version of the heading is extant in the Index of Photius and in S^L; the lemmata of S are lost, again excised by the Byzantine editors. T is again absent as well.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition as represented by the usual authors consists of a heading and a general note in Pliny, a general remark in Eusebius, phrases in Lucretius and Hippolytus; there is also a relevant passage in Basil of Caesarea.

(2) *Sources*. The issue itself and three of the six lemmata, viz. §1, §3, and §5 derive (virtually unchanged!) from Aristotle's treatment in *Mete.* 2.1–2, so we do not have to derive these doxai from Theophrastus' *Physikai Doxai*. Aristotle does not provide name-labels the first time he lists them, though subsequently he identifies the second doxa as that of Empedocles (paralleled in §3), and he includes Democritus among the representatives of that of §1. But he does not identify Anaximander among the proponents of the first doxa. The ascription to Theophrastus (*Phys.Op.* fr. 23 Diels, Theophrastus fr. 221 FHS&G, cited below section E(b) general texts), whose name is cited, of a section in Alexander's in *Meteorologica* commenting on Aristotle's overview should not be extended beyond the phrases printed in spaced letters (*Sperrdruck*) by Diels, who correctly points out, *DG* 494 ad loc.: 'operae pretium erit Aristotelem exemplum conferre, cuius pleraque paraphrasis esse videntur'; see further Mansfeld (2013a) 339. It is not clear from what Theophrastean work Alexander's quotation has been taken, for Alexander does not cite the title. The treatise *On Waters* is the most plausible candidate (Sharples, loc. cit., mentions the Περὶ τῶν φυσικῶν δοξῶν, i.e. the *Physikai Doxai*). Alexander in *Sens.* 71.24–72.4 (fr. 212 FHS&G) cites the title *On Waters* in another context, where he gives us Theophrastus' explanations for brackishness because of having filtered through a certain type of earth, or bitterness for having filtered through ashes.

What is clear is that the Aëtian name-label Anaximander in §1 is confirmed by Theophrastus, who also mentioned Diogenes (of Apollonia), not paralleled in A at P here. Possibly also the name-labels Empedocles, Anaxagoras, Metrodorus (all of which are paralleled in A at P), and Archelaus (not Anaxagoras, as Alexander writes) were mentioned by Theophrastus, since, as we saw above, only 'Empedocles' and 'Democritus' are named in Aristotle's account. That Alexander remembered them from another doxography is less likely (*fontes non sunt multiplicandi praeter necessitatem*), but cannot be excluded.

Hippolytus (*Ref.* 1.14.4) mentions both Xenophanes and Metrodorus; only the latter is paralleled in Theophrastus and §5, while a doxa that differs from that of Metrodorus is ascribed to Xenophanes. Diels *DG* 153 hypothesizes that the two name-labels plus doxai have been ultimately abstracted from 'Theophrasti *Opiniones*', and it is indeed likely that a chapter in a cousin writing of A comprised more information, as is also suggested by the fragmentary contents of Pap. Pack² 1499, which seem to be parallel to §§1, 3 and 5, cf. section D(e) below and section E(a) General texts.

The intermediary sources for §2, §4 and §6 are not known.

C Chapter Heading

The long version as in P^B is a combination of the standard umbrella formula (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C), and a further indication of the subjects treated. It should be maintained, because it clearly echoes Aristotle's announcement of the subject at *Mete.* 2.1. πῶς is used twice, and the two themes indicated by this adverb are interrelated. Among the *Placita* headings beginning with Πῶς or containing πῶς a little later there are several with the formula πῶς γίνεται (or γίνονται), see at ch. 1.4 above, Commentary C. We are dealing with a problem (i.e. ζητεῖται πῶς, a formula already used by Aristotle), and looking for a causal explanation (question type).

D Analysis

a Context

This is the first of the two chapters dealing with the terrestrial waters that conclude the treatment of the πρόσγεια announced at ch. 3.8.2. It is followed by ch. 3.17, on tides, and (if we recognise that P ch. 3.18 = A ch. 3.5a has not been transmitted in the right place in ps.Plutarch) by a third chapter, 4.1 on the Nile, which appears to have finished up in the wrong Book.

In Aristotle the origin and salinity of the sea are discussed at *Mete.* 2.1–3, after 1.13–14, on (winds,) rivers, and changes in the distribution of sea and land, and before 2.4–6, on winds. The order in the *Placita* is more rigorous. In Pliny's *Naturalis historia* the chapters on the salinity of the sea (2.222–223) are preceded by those on the tides (2.212–221), while in A the order is the opposite: salinity first (3.16), then tides (3.17).

b Number–Order of Lemmata

There are six lemmata. The relative order of §1, §3 and §5 exactly corresponds to the relative order of the (anonymous) doxai at Arist. *Mete.* 2.1 353b5–16, cited below at section E(b)§§1,3,5. Of the doxai not paralleled in Aristotle that at §2, name-label Anaxagoras, pertains to the desiccation of the original moisture and resembles the doxa attributed to Anaximander in §1, while that at §4, name-label Antiphon, pertains to sweat, just as the doxa of Empedocles in §3. They are varieties of the preceding doxai, as is the case more often with couplings of doxai in the *Placita*. Accordingly the order of §§1–5 is determined by the original order of the doxai of §1, §3, and §5 in Aristotle. This leaves the final position for the doxa with name-label Platonists at §6. There is accordingly no reason to modify the order of A at P, also preserved by Diels in the *DG*.

c Rationale—Structure of Chapter

We may discern a systematic rationale in the sequence of explanations of the sea's salinity through desiccation (§§1–2), as sweat (§§3–4), or by admixture (§5). The final lemma, §6, is different, as it not only provides an explanation for the salinity of the sea through the evaporation of elemental water from the earth by means of heat and burning, but also explains how sweet elemental water is produced from air by cooling and compression. Accordingly the main diaphonia that can be discerned in the sequence is between §§1–5, which presuppose (as in Aristotle's reportage) a coming to be but also a passing away of the sea, and §6, which implies that the processes of evaporation and condensation are everlasting.

d Further Comments

Individual Points

§2 Seawater is believed to be fatty, as the salt contains oil, see ps.Aristotle *Probl.* 23.7 932b4–6, 'or is it because the sea is oilier (λιπαρωτέρα ἢ θάλαττα)?'; *Probl.* 23.9 932b18, 'for there is something oily in salty juice' (λιπαρὸν γὰρ ἔνεστιν ἐν τῷ ἁλμυρῷ χυμῷ); *Probl.* 23.15 933a17–20, 'why does the sea burn whereas water does not? Or does the latter too burn, whereas the sea is able to extinguish fire because it is oilier? And there is a sign that it is oilier: for oil is extracted from salt' (σημεῖον δὲ ὅτι λιπαρωτέρα· ἀπὸ γὰρ τῶν ἁλῶν ἔλαιον ἀφαιρεῖται)—all trans. Mayhew (2011a). Also see *Probl.* 32 935.5–9, cited below section E(b)§2. Cf. Plutarch *Quaest. Conv.* 627C, 'that (the sea) is oily Aristotle has said himself'; *Aet. Phys.* 911E 'the sea partakes of a lot of fatness'.

§6 This theory of evaporation and condensation is well known as one of Aristotle, see *Mete.* 1.9 346b16–347a12, 2.4 359b34–360a17; cf. Laks (1997) 241 n. 16 = (2007) 32 n. 15. It is not easy to understand why it came to be attributed to the followers of Plato, though of course Aristotle is one, in a way.

e Other Evidence

An extremely important text has been (poorly) preserved on an early papyrus, *PPack*² 1499, third cent. BCE, quoted section E(a) General texts: Three positions on the salinity of the sea are distinguished, and the overview is introduced by a word that Diels reconstructed as <διαφωνί>α but for which we, more cautiously, propose the Aristotelian <ἐναντιολογί>α. The result is the same, namely an explication of the kind of diaeresis or diaphonia characteristic of Peripatetic dialectic and later doxography. The positions listed there belong to 'some', 'others', and 'Democritus'. Diels, reconstructing the doxai *ad probabilem sententiam*, had recourse to Aristotle *Mete.* 2.1–3. The name-label Democritus, not found (or at least not extant) in the present chapter, is indeed found in

this context at Aristotle *Mete.* 2.3 356b10–11. Diels printed the papyrus text among the testimonia in the Democritus chapter of the *Fragmente der Vorsokratiker*. Curiously enough it has not been realized that it constitutes one of the rare instances of evidence intermediate between Aristotle and the *Placita*. Because of its early date it is even more exceptional than the Chrysippean parallel for ch. 4.5 (where see at Proximate tradition). The text has been attributed to Theophrastus. Funghi and Sassi at Adorno & *alii* (1999) 844ff. suggest it derives from his *On Waters*, though with a question mark; cf. also Sharples (1998) 219–220, with references. It is indeed far from certain that it is Theophrastean.

E Further Related Texts

a Proximate Tradition

General texts: *Papyrus Pack*² 1499 = *Hibeh Papyrus* 16 p. 62 Grenfell–Hunt, col. 1, Democritus fr. 68A99a DK = 410a Luria, Theophrastus Appendix no. 4 FHS&G 1 pp. 462–464 (with Diels’ supplements); Adorno & *alii* eds. (1999) 844–851: 104 Theophrastus(?) 4, *De Aquis*(?), edited by M.S. Funghi–M.M. Sassi; cf. Laks–Most (2016) Democritus D123.

Text Funghi–Sassi as related to ch. 3.16	Restoration by Diels (68A99a DK)
	[.]...νεῖν... [..]..
	] α μὲν οὖν μάλι
[στα ± 11]	] περὶ τῆς γενέσε
[ως ± 13]	] οἱ μέγ γάρ ὑπό
	] . ης ὑγρότητος
	ὑ]δάτων οἱ δὲ
	Δη]μόκριτος δὲ
	] .. ποιεῖν
	] . τρων
	⟨διαφωνί⟩α μὲν οὖν μάλι⟨στά που γεγέ- νεται⟩ περὶ τῆς γενέσε⟨ως τῆς ἀλμυρότη- τος⟩
	οἱ μέγ γάρ ὑπό⟨λειμμά φασιν τῆς πρώ⟩της ὑγρό-τητος ⟨ἐξατμισθέντων πλείστων ὑ⟩δάτων· (~ §1)
	οἱ δὲ ⟨ιδρώτ’ εἶναι τῆς γῆς⟩· (~ §3)
	⟨Δη⟩μόκριτος δὲ ⟨δομοίως δοκεῖ τοῖς ἐν τῇ γῇ⟩ι ποιεῖν ⟨τὴν γένεσιν αὐτῆς· οἶον ἁλῶν καὶ νί⟩τρων ... (~ §5)

Pliny Nat. 2.222 sic mari late patenti saporem incoqui salis, aut quia exhausto inde dulci tenuique, quod facillime trahat vis ignea, omne asperius crassiusque linquatur—ideo summam aequorum aquam dulciorem profunda; hanc esse veriolem causam asperi saporis quam quod mare terrae sudor sit aeternus—aut quia plurimus ex arido misceatur illi vapor aut quia terrae natura sicut medicatas aquas inficiat. Basil of Caesarea in Hexaem. 3 p. 51.10–17 Amand de

Mendieta–Rudberg σκοπεῖν τωσαν δὲ εἰ μὴ αὐτοὶ ἑαυτοῖς περιπίπτουσιν, οἳ γε τὴν θάλασσαν λέγουσι μήτε πλημμυρεῖν τοῖς ποταμοῖς ἐκ τῆς τοῦ ἡλίου δαπάνης, καὶ προσέτι ἄλμυρὰν καὶ πικρὰν ἀπολείπεσθαι, τοῦ λεπτοῦ καὶ ποτίμου ὑπὸ τῆς θερμῆς ἀναλωθέντος· ὅπερ ἐκ τῆς τοῦ ἡλίου μάλιστα γίνεται διακρίσεως, τὸ μὲν κοῦφον ἀπάγοντος, τὸ δὲ παχὺ καὶ γεῶδες οἷον τινα ἰλὺν καὶ ὑποστάθμην ἐναφιέντος· ἐξ οὗ τὸ πικρὸν καὶ ἄλμυρὸν καὶ ξηραντικὸν τῇ θαλάσῃ προσεῖναι. οἱ δὲ ταῦτα περὶ θαλάσσης λέγοντες, πάλιν μεταβαλλόμενοι, μηδεμίαν τοῦ ὕγρου γίνεσθαι μείωσιν ἐκ τοῦ ἡλίου φασί.

Chapter heading: Pliny *Nat.* 1 p. 14.4 *quare salsum mare.* *Capitula Lucretiana* at DRN 2.464 *de sudore salso.* at DRN 2.471 *de aqua marina.* Arnobius of Sicca *Adv.Nat.* 2.59, p. 134.7–8 *quae est causa, quae ratio, ut maria salsa sint?* Isidore of Seville *Nat. capitul.* 52. *Cur mare amaras habeat aquas* (heading also in the body of the work).

§2 **Anaxagoras:** Hippolytus *Ref.* 1.8.4–5 (on Anaxagoras, 59A42 DK) τῶν δὲ ἐπὶ γῆς ὕγρων τὴν μὲν θάλασσαν ὑπάρξει (τῆς γενέσεως ἐκ) τε τῶν ἐν αὐτῇ ὑδάτων, (ῶν) ἐξατμισθέν (των) τὰ ὑποστάντα οὕτως γεγενῆσθαι, καὶ ἀπὸ τῶν καταρρευσάντων ποταμῶν.

§3 **Empedocles:** Servius in *Aen.* 5.801, p. 1.650.3 Thilo *de mari autem ideo, quia dicunt physici sudorem salsum esse* (cited *Mythographus Vaticanus* II, c. 40.13)

§5 **Metrodorus:** Diogenes Laertius *V.P.* 2.17 (on Archelaus, 60A1 DK) τὴν δὲ θάλατταν ἐν τοῖς κοίλοις διὰ τῆς γῆς ἡθουμένην συνεστάναι. Hippolytus *Ref.* 1.14.4 οὗτος (on Xenophanes, 21A33 DK) τὴν θάλασσαν ἄλμυρὰν ἔφη διὰ τὸ πολλὰ μίγματα συρρέειν ἐν αὐτῇ· ὁ δὲ Μητρόδωρος (cf. 70A19 DK) διὰ τὸ ἐν τῇ γῇ διηθεῖσθαι, τοῦτου χάριν γίνεσθαι ἄλμυρὰν.

b Sources and Other Parallel Texts

General texts: Aristotle *Mete.* 1.13 349a12–13 περὶ ... ποταμῶν καὶ θαλάττης λέγωμεν. *Mete.* 2.1 353a32–34 περὶ δὲ θαλάττης, καὶ τίς ἡ φύσις αὐτῆς, καὶ διὰ τίν' αἰτίαν ἄλμυρὸν τοσοῦτόν ἐστιν ὕδατος πλήθος, ἔτι δὲ περὶ τῆς ἐξ ἀρχῆς γενέσεως λέγωμεν. *Mete.* 2.1 353b5–6 οἱ δὲ σοφώτεροι τὴν ἀνθρωπίνην σοφίαν ποιοῦσιν αὐτῆς γένεσιν. *Mete.* 2.3 356b4–6 περὶ δὲ τῆς ἄλμυρότητος αὐτῆς λεκτέον, καὶ πότερον αἰεὶ ἐστὶν ἡ αὐτή, ἢ οὐτ' ἦν οὐτ' ἔσται ἄλλ' ὑπολείψει· καὶ γὰρ οὕτως οἶονται τινες. **ps.Aristotle** *Probl.* 23.35 935a34–36 διὰ τί ἡ θάλαττα ἄλμυρὰ καὶ πικρὰ ἐστὶν; ἢ ὅτι ἐν τῇ θαλάττῃ πλείους εἰσὶν οἱ χυμοί; καὶ γὰρ τὸ ἄλμυρὸν καὶ τὸ πικρὸν ἅμα φαίνεται. **Alexander of Aphrodisias** in *Mete.* 66.8–10 ἄρχεται (sc. Aristotle) τοῦ δευτέρου ἀπὸ τοῦ περὶ θαλάσσης λόγου καὶ ζητεῖ, τίς τε αὐτῆς ἡ οὐσία καὶ φύσις, καὶ τίς ἡ τῆς ἄλμυρότητος τοῦ ὕδατος αἰτία, καὶ πῶς ἐξ ἀρχῆς γίνεται. **Alexander of Aphrodisias** in *Sens.* 71.24–72.4 τὰ τε γὰρ ἄλμυρὰ τῶν ὑδάτων τῷ διὰ τῆς τοιαύτης γῆς διηθεῖσθαι τοιαῦτά ἐστιν (οἱ γὰρ ἄλλες εἰδός τι τῆς γῆς εἰσι, δι' ὧν τὸ διηθούμενον ὕδωρ ἄλμυρὸν γίνεται), καὶ καθόλου ὅποια ἂν ἡ τῆς γῆς ποιότης ᾗ, τοιοῦτος καὶ ὁ χυμὸς τοῦ δι' αὐτῆς ῥέοντος γινόμενος ὁράται, διὰ μὲν ἀσφαλτώδους ἀσφαλτώδης, διὰ δὲ πικρᾶς πικρᾶς· τὰ γοῦν διὰ τῆς τέφρας διηθούμενα πικρὰ γίνονται. διὰ τοῦτο γὰρ καὶ πλείσται πηγῶν καὶ κρηνῶν εἰσι διαφοραί· αἱ μὲν γὰρ πικραὶ

τῶν κρηνῶν εἰσιν, αἱ δὲ ὀξεῖαι παρὰ τὰς τῆς γῆς δι' ἧς ρέουσι διαφοράς. ἰστόρηται δὲ τὰ τοιαῦτα Θεοφράστῳ ἐν τοῖς Περὶ ὕδατος (fr. 212 FHS&G).

Chapter heading: Aristotle *Mete.* 1.13 349a12–13 περὶ ... ποταμῶν καὶ θαλάττης λέγωμεν. *Mete.* 2.1 353a32–35 περὶ δὲ θαλάττης, καὶ τίς ἡ φύσις αὐτῆς, καὶ διὰ τίν' αἰτίαν ἄλμυρόν τοσοῦτόν ἐστιν ὕδατος πλήθος. **ps.Aristotle** *Probl.* 23 "Ὅσα περὶ ἄλμυρόν ὕδωρ καὶ θάλατταν. **ps.Alexander** *Probl.* 3.10 tit. pp. 80.19, 98.16 Bruns Περὶ θαλάσσης ἐκ τῶν Μετεωρολογικῶν.

§1 Anaximander: Aristotle *Mete.* 2.1 353b5–11 οἱ δὲ σοφώτεροι (Anaximander 12A27 DK) τὴν ἀνθρωπίνην σοφίαν ποιοῦσιν αὐτῆς γένεσιν· εἶναι γὰρ τὸ πρῶτον ὑγρὸν ἅπαντα τὸν περὶ τὴν γῆν τόπον, ὑπὸ δὲ τοῦ ἡλίου ξηραίνόμενον τὸ μὲν διατμίσαν πνεύματα καὶ τροπὰς [τροφὰς Böker] ἡλίου καὶ σελήνης φασὶ ποιεῖν, τὸ δὲ λειφθὲν θάλατταν εἶναι· διὸ καὶ ἐλάττω γίνεσθαι ξηραίνομένην οἴονται, καὶ τέλος ἔσεσθαι ποτε πάσαν ξηράν. *Mete.* 2.2 355a21–25 (Diogenes 64A9 DK) τὸ δ' αὐτὸ συμβαίνει ... ἄλλογον καὶ τοῖς φάσκουσι τὸ πρῶτον ὑγρὰς οὕσης καὶ τῆς γῆς, καὶ τοῦ κόσμου τοῦ περὶ τὴν γῆν ὑπὸ τοῦ ἡλίου θερμαινόμενου, ἄερα γενέσθαι καὶ τὸν ὅλον οὐρανὸν αὐξηθῆναι, καὶ τοῦτον πνεύματά τε παρέχεσθαι καὶ τὰς τροπὰς [τροφὰς Böker] αὐτοῦ ποιεῖν. *Mete.* 2.3 356b9–12 τὸ δὲ νομίζειν ἐλάττω τε γίνεσθαι τὸ πλήθος, ὥσπερ φησὶ Δημόκριτος (68A100 DK), καὶ τέλος ὑπολείψειν, τῶν Αἰσώπου μύθων οὐδὲν διαφέρειν ἔοικεν ὁ πεπεισμένος οὕτως. **Alexander of Aphrodisias** in *Mete.* 67.11–14 ταύτης τῆς δόξης ἐγένετο, ὡς ἰστορεῖ Θεόφραστος (*Phys.Op.* fr. 23 Diels, 221 FHS&G), Ἀναξίμανδρος (12A27 DK) τε καὶ Διογένης (64A17 DK, T32 Laks). Διογένης δὲ καὶ τῆς ἄλμυρότητος ταύτην αἰτίαν λέγει, ὅτι ἀνάγοντος τοῦ ἡλίου τὸ γλυκὺ τὸ καταλειπόμενον καὶ ὑπομένον ἄλμυρόν εἶναι συμβαίνει.

§2 Anaxagoras: Alexander of Aphrodisias in *Mete.* 67.17–21 (Theophrastus *Phys.Op.* fr. 23 Diels, 221 FHS&G) τρίτη δὲ δόξα περὶ θαλάσσης ἐστὶν ὡς ἄρα τὸ ὕδωρ τὸ διὰ τῆς γῆς διηθούμενον καὶ διαπλύνον αὐτὴν ἄλμυρόν γίνεται τῷ ἔχειν τὴν γῆν τοιοῦτους χυμοὺς ἐν αὐτῇ· οὐ σημεῖον ἐποιοῦντο τὸ καὶ ἄλλας ὁρύττεσθαι ἐν αὐτῇ καὶ νίτρα· εἶναι δὲ καὶ ὀξεῖς χυμοὺς πολλαχοῦ τῆς γῆς. ταύτης πάλιν τῆς δόξης ἐγένετο Ἀναξαγόρας (59A90) τε καὶ Μητρόδωρος (70A19 DK). **Aristotle(?)** *Probl.* 32 935.5–9 διὰ τί ἡ θάλαττα μόνον τῶν ὑδάτων κάεταί, τὰ δὲ πότιμα καὶ ποτάμια οὐ; πότερον ὅτι γῆν πολλὴν ἔχει; δηλοῦσι δὲ οἱ ἄλλες. ἢ διότι λιπαρά; δηλοῖ δὲ τὸ ἐν τοῖς ἄλλασιν ὑφίστάμενον ἔλαιον.

§3 Empedocles: Aristotle *Mete.* 2.1 353b11–13 ἐνιοὶ δ' αὐτῶν θερμαινόμενης φασὶν ὑπὸ τοῦ ἡλίου τῆς γῆς οἶον ἰδρώτα γίνεσθαι· διὸ καὶ ἄλμυράν εἶναι· καὶ γὰρ ὁ ἰδρῶς ἄλμυρός. *Mete.* 2.3 357a24–26 ὁμοίως δὲ γελοῖον καὶ εἴ τις εἰπὼν ἰδρώτα τῆς γῆς εἶναι τὴν θάλατταν οἶεταί τι σαφὲς εἰρηκέναι, καθάπερ Ἐμπεδοκλῆς (31A25 DK)· πρὸς ποίησιν μὲν γὰρ οὕτως εἰπὼν ἴσως εἴρηκεν ἱκανῶς (ἢ γὰρ μεταφορὰ ποιητικόν). *Sens.* 4 441b4 διὸ καὶ πολλοὶ φασὶ τῶν ἀρχαίων φυσιολόγων τοιοῦτον εἶναι τὸ ὕδωρ δι' οἷας ἀν γῆς πορεύεται. καὶ τοῦτο δῆλόν ἐστιν ἐπὶ τῶν ἄλμυρῶν ὑδάτων μάλιστα· οἱ γὰρ ἄλλες γῆς τι εἰδὸς εἰσιν. **Lucretius** *DRN* 2.464–465 *sed quod amara vides eadem quae fluvida constant, / sudor uti maris est, minime mirabile debet.* *DRN* 5.483–488 *inque dies quanto circum magis aetheris aestus / et radii solis cogeant undique terram / verberibus crebris extrema ad limina in*

artum [coni. Munro, alii alia: partem codd.] / *in medio ut propulsa suo condensa coiret*, / *tam magis expressus salsus de corpore sudor* / *augebat mare manando camposque natantis*. **Alexander of Aphrodisias in Mete.** 67.14–17 (Theophrastus *Phys.Op.* fr. 23 Diels, 221 FHS&G) οἱ δὲ τινὲς φασιν οἷον ἰδρωτὰ τινὰ τῆς γῆς εἶναι τὴν θάλασσαν· θερμαινομένην γὰρ αὐτὴν ὑπὸ τοῦ ἡλίου ταύτην ἀφιέναι τὴν ὑγρότητα· διὸ καὶ ἄλμυράν αὐτὴν εἶναι· τοιοῦτος γὰρ ὁ ἰδρῶς. ταύτης τῆς δόξης Ἐμπεδοκλῆς (—) γέγονε.

§5 Metrodorus: Aristotle Mete. 2.1 353b13–16 οἱ δὲ τῆς ἄλμυρότητος αἰτίαν τὴν γῆν εἶναι φασιν· καθάπερ γὰρ τὸ διὰ τῆς τέφρας ἠθούμενον ἄλμυρόν γίγνεται, τὸν αὐτὸν τρόπον καὶ ταύτην ἄλμυράν εἶναι μειχθείσης αὐτῇ τοιαύτης γῆς. *Mete.* 2.3 359b4–21 (the words εἴρηται δὲ περὶ αὐτῶν χωρὶς ἐν ἄλλοις pertain to *Sens.* ch. 4). *Sens.* 4 441b1–5 διὸ καὶ πολλοὶ φασὶ τῶν ἀρχαίων φυσιολόγων τοιοῦτον εἶναι τὸ ὕδωρ δι' οἷας ἂν γῆς πορεύηται. καὶ τοῦτο δῆλόν ἐστιν ἐπὶ τῶν ἄλμυρῶν ὑδάτων μάλιστα· οἱ γὰρ ἄλλες γῆς τι εἶδος εἰσιν. καὶ τὰ διὰ τῆς τέφρας διηθούμενα πικρὰς οὐσης πικρὸν ποιεῖ τὸν χυμόν. **Theophrastus CP** 6.3.1 ἄχυμον ... τὸ ὕδωρ καθ' αὐτὸ, δι' ὃ καὶ οἱ παλαιοὶ φασὶ δι' οἷας ἂν γῆς ῥέῃ τοιοῦτον καὶ εἶναι. **Arius Didymus** fr. 14a Diels at Stob. *Ecl.* 1.39, pp. 253.25–254.3 Ἀριστοτέλους· τὰς δὲ τῶν ὑδάτων δυνάμεις καὶ τοὺς χυλοὺς καὶ τὰς ἄλλας πάσας ποιότητας, ὡς εἰπεῖν συλλαβόντι, γίνεσθαι παρὰ τρεῖς αἰτίας. ἢ γὰρ παρὰ τὴν τῆς γῆς διαφοράν· ἐν οἷα γὰρ ἂν ἕκαστον ἢ καὶ δι' οἷας ἂν ῥέῃ, τοιοῦτον ἴσχειν τὸν χυλόν, οἷον ἄλυκόν ἢ νιτρῶδες ἢ πικρὸν ἢ τῶν ἄλλων ὅποιον οὖν· κτλ. **Plutarch Quaest.Nat.** 911E ἢ γέγονεν ἄποτον καὶ πικρὸν τὸ ὕδωρ, ὡς Ἀριστοτέλης φησὶν (*Mete.* 2.3 358a14–15) ἀναμίζει κατακεκαυμένης γῆς; **Alexander of Aphrodisias in Mete.** 67.17–22 (**Theophrastus Phys.Op.** fr. 23 Diels, 221 FHS&G) τρίτη δὲ δόξα περὶ θαλάσσης ἐστὶν ὡς ἄρα τὸ ὕδωρ τὸ διὰ τῆς γῆς διηθούμενον καὶ διαπλύνον αὐτὴν ἄλμυρόν γίγνεται τῷ ἔχειν τὴν γῆν τοιούτους χυμοὺς ἐν αὐτῇ· οὐ σημεῖον ἐποιοῦντο τὸ καὶ ἄλλας ὀρύττεσθαι ἐν αὐτῇ καὶ νίτρα· εἶναι δὲ καὶ ὀξεῖς χυμοὺς πολλαχοῦ τῆς γῆς. ταύτης πάλιν τῆς δόξης ἐγένετο Ἀναξαγόρας (59A90 DK) [Ἀρχέλαος suggested by Oder (1899) 47 n. 49 not accepted by Diels] τε καὶ Μητρόδωρος (cf. 70A19 DK).

Liber 3 Caput 17

P^B: ps.Plutarchus *Plac.* 897B–C; pp. 382^a14–383^a25 Diels—**P^G**: ps.Galenus *HPh* c. 88; p. 634.10–18 Diels—**P^Q**: Qustā ibn Lūqā pp. 186–187 Daiber—**P^L**: Ioannes Lydus *Mens.* 4.83 p. 134.8–20 Wuensch—**P^{PS}**: Psellus *Or.Min.* op. 24 l. 52 Littlewood (titulus solus).
S: *Ecl.* 1.38, pp. 252.5–253.21 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b22–23 Henry (titulus solus)

Titulus ιζ'. Πῶς ἀμπώτιδες γίνονται καὶ πλήμμουραι (P,S)

- §1 Ἀριστοτέλης Ἡρακλείδης ὑπὸ τοῦ ἡλίου τὰ πλεῖστα τῶν πνευμάτων κινούντος καὶ συμπεριφέροντος· ὅφ' ὧν ἐμβαλλόντων μὲν προωθουμένην ἀνοιδεῖν τὴν Ἀτλαντικὴν θάλασσαν καὶ κατασκευάζειν τὴν πλήμμυραν, καταληγόντων δ' ἀντιπερισπωμένην ὑποβαίνειν, ὅπερ εἶναι τὴν ἄμπωτιν. (P₁,S₁) 5
- §2 <Δικαίαρχος ὁ> Μεσ(σ)ήνιος ἡλίῳ καὶ τὸς τὴν αἰτίαν ἀνατίθησι, καθ' οὗς μὲν ἂν τόπους γένηται τῆς γῆς πλημμύροντι τὰ πελάγη, ἐξ ὧν δ' ἂν τύχη παραποστὰς ὑποσυνέλκοντι· ταῦτα δὲ συμβαίνειν περὶ τὰς ἐώας καὶ τὰς μεσημβρινὰς ἐκκλίσεις. (S₂) 10

caput Posidonius fr. 317 Theiler; §1 Aristoteles cf. *Mete.* 2.1 354a5–8, 2.8 366a18–20, *GA* 4.10 777b17–778a2; Heraclides Ponticus fr. 117 Wehrli, 78 Schütrumpf; §2 Dicaearchus fr. 114 Wehrli, 127 Mirhady

titulus Πῶς ... πλήμμουραι (γίνονται) P^SL^{ind}, cf. S^{Phot}: om. S^{FPL} || ἀμπώτιδες / πλήμμουραι inv. ord. Q || ἀμπώτιδες P : ἄμπωτις S^{L-ind} Phot || post Πῶς add. αἱ P^{B(II)} || ante πλήμμουραι add. αἱ P^{B(II)} || γίνονται pos. post πλήμμουραι S^{L-ind} Phot §1 [2] ante Ἀριστοτέλης et Ἡρακλείδης add. ὁ P^L || Ἡρακλείδης] Ἡράκλειτος P^{B(III)}: om. P^G || post Ἀριστοτέλης add. καὶ S^L || ὑπὸ τοῦ P^{BGS}: om. P^L || τὰ πλεῖστα om. Q || post τὰ add. γὰρ P^{B(I,II)} || [3] κινούντος P^{LS}: κινεῖσθαι P^G || συμπεριφέροντος P^B: περιφέρεσθαι P^G: περιφέροντος P^{LS}: *mischt* Q || [3–5] ὅφ' ... πλήμμυραν P^{BS}: *Und dann, wenn das zum Meer gelangt, welches 'Atlantikus' genannt wird, entsteht daraus die Flut* brevius Q || [3] ἐμβαλλόντων P^{B(III)L}: ἐμβαλόντων P^{B(I,II)G} || [3–4] μὲν προωθουμένην om. P^G || post μὲν add. καὶ S || προωθουμένην P^{B(I,II)}: προωθουμένων P^{B(III)} || [4] ἀνοιδεῖν] ἐνοιδεῖν P^G || κατασκευάζειν P^{GLS} prob. Diels: παρασκευάζειν P^B prob. Mau Lachenaud || [4–5] τὴν πλήμμυραν P^S: τὰς πλημμυρίας P^G || [5] post πλήμμυραν add. εἴτ' αὐθις P^L || καταληγόντων P^{BS}: ληγόντων P^L || δ' ἀντιπερισπωμένην P^{BS}: om. Q || [5–6] ὅπερ ... ἄμπωτιν P^{BGS}: καὶ οὕτω τὰς ἀμπώτις γίνεσθαι P^L, cf. *entsteht daraus die Ebbe* Q §2 om. P || [7] <Δικαίαρχος> ὁ Μεσ(σ)ήνιος Meineke prob. Diels *DG* Wehrli Mirhady: ***ηνιος Μεσσηνιος S^L: <Εὐή>νιος Elter (1880) 13 ex Ind. Phot. cod. 167 p. 114a36 Εὐηνίου, prob. Diels *RhM* (1881) 345 Wachsmuth (qui del. Μεσσηνιος 'ut discrepantem scripturam nominis ***ηνιος') Kirchner *Phil.* (1923) 322 Theiler F317, fort. recte || [8] πλημμύροντι corr. Diels prob. Wachsmuth: πλημμυροῦντι S^L: πλημμυρεῖν ποιοῦντι Meineke || [9] τύχη corr. Sarti prob. Diels Wachsmuth: τύχης S^L || περὶ corr. Meineke prob. Diels Wachsmuth: παρὰ S^L

- §3 Πυθέας ὁ Μασσαλιώτης τῇ πληρώσει τῆς σελήνης τὰς πλημμύρας
γίνεσθαι τῇ δὲ μειώσει τὰς ἀμπώτιδας. (P₂,S₃)
- §4 Ποσειδώνιος ὑπὸ μὲν τῆς σελήνης κινεῖσθαι τοὺς ἀνέμους, ὑπὸ δὲ
τούτων τὰ πελάγη, ἐν οἷς τὰ προειρημένα γίνεσθαι πάθη. (S₄)
- §5 Πλάτων ἐπὶ τὴν αἰώραν φέρεται τῶν ὑδάτων· εἶναι γάρ τινα φυσικὴν 15
αἰώραν διὰ τινος ἐγγείου τρήματος περιφέρουσιν τὴν παλίρροιν, ὅφ'
ἥς ἀντικυμαίνεσθαι τὰ πελάγη. (P₃,S₅)
- §6 Τίμαιος ὁ Ταυρομενίτης τοὺς ἐμβάλλοντας ποταμοὺς εἰς τὴν Ἀτλαντι-
κὴν διὰ τῆς Κελτικῆς ὀρεινῆς αἰτιάται προωθούντας μὲν ταῖς ἐφόδοις 20
καὶ πλημμυραν ποιοῦντας, ὑφέλκοντας δὲ ταῖς ἀναπαύλαις καὶ ἀμπώ-
τιδας κατασκευάζοντας. (P₄,S₆)
- §7 Κράτης ὁ γραμματικὸς τὸν ἀντισπασμὸν τῆς θαλάσσης αἰτιάται. (S₇)
- §8 Ἀπολλόδωρος ὁ Κερκυραῖος τὰς ἐκ τοῦ Ὠκεανοῦ παλίρροιας. (S₈)
- §9 Σέλευκος ὁ μαθηματικὸς ἀντιγεγραφῶς Κράτητι, κινῶν καὶ τὸς τὴν γῆν, 25
ἀντικόπτειν αὐτῆς τῷ δίνῳ φησὶ τὴν περιστροφὴν τῆς σελήνης· τοῦ δὲ
μεταξὺ ἀμφοτέρων τῶν σωμάτων ἀντιπερισπωμένου πνεύματος καὶ
ἐμπίπτοντος εἰς τὸ Ἀτλαντικὸν πέλαγος κατὰ λόγον οὕτω συγκυμαίν-
εσθαι τὴν θάλασσαν. (P₅,S₉)

§3 Pytheas fr. 2 Mette; §4 Posidonius F 138 E.-K., cf. 317 Theiler; §5 Plato cf. *Phd.* 111e–112a; §6 Timaeus *FGrH* 566F73; §7 Crates F 7 Mette, 136 Broggiato; §8 Apollodorus Cercyraeus—; §9 Seleucus Babylonius test. 6a–b Russo

§3 [11] Πυθέας P^BLydQ : Κυθέας S^L : Εὐθυμένης P^G || Μασσαλιώτης || μασσαλιήτης S^L || πληρώσει P^BGL : *die Füllung und die Zunahme* Q ('Doppelübersetzung') || [11–12] τὰς ... ἀμπώτιδας P^BQ, cf. P^L : καὶ τῇ μειώσει τὰς ἐκατέρου τούτων αἰτίας ἀνατίθησιν S^L || [12] μειώσει P^BLQS : ἐκλείψει P^G §4 om. P §5 om. P^GQ || [15] αἰώραν P^B(II)LS : ἑώραν P^B(I) : ἑώραν P^B(III) || φέρεται P^B(I,II,III,αγ)S : φέρεσθαι P^B(IIIAE) || αἰτιάται post ὑδάτων add. P^L || [16] αἰώραν P^B(II)LS : ἑώραν P^B(I) : ἑώραν P^B(III) || ἐγγείου S^L : ἐγγίου S^{FP} : στομίῳ P^BL prob. Mau Lachenaud del. Beck Diels || τρήματος P^BSL : τρήματος S^{FP} §6 [18] Τίμαιος P^BSL : Τιμόθεος P^G || ὁ Ταυρομενίτης S^L : om. P || τοὺς ... ποταμοὺς P : τὰς et ποταμὸς S^L || [19] προωθούντας P^B(II,III)GSL : προωθούντας P^B(I) || ταῖς ἐφόδοις P^BSL : τὰς ἐφόδους P^G || [20] καὶ ... ποιοῦντας P Mau Lachenaud : om. S^L ut additamenta del. Diels || πλημμυραν P^B : πλημμυρίαν P^G || [20–21] καὶ ... κατασκευάζοντας P^BQ Mau Lachenaud : ληγόντων δὲ τὰς ἀμπώτιδας γίνεσθαι P^G : om. S^L ut additamenta del. Diels §§7–8 om. P §9 om. P^G || [24] ἀντιγεγραφῶς Κράτητι P^BSL : om. Q || καὶ τὸς S : καὶ οὗτος P^B || κινῶν ... γῆν P^BS : *glaubte, daß die Erde sich bewegt und ruht* Q || [25] ἀντικόπτειν ... σελήνης P^B : *und ihre Bewegung und ihr Ruhen entsprechend der Drehung des Mondes (eintritt)* Q || τῷ δίνῳ S^L : τῇ δίνῃ P^B || post φησὶ add. καὶ τῇ κινήσει P prob. edd. Plutarchi sed *damnavimus ut gloss.* || [27] κατὰ λόγον P^BSL : om. Q || οὕτω S^L : αὐτῷ P^B || [27–28] συγκυμαίνεσθαι S^L : συγκυκάσθαι P^B prob. Mau Lachenaud, Diels apud P sed *συγκυμαίνεσθαι* apud S

*Testes primi:**Traditio ps.Plutarchi:*

ps.Galenus HPh c. 88 (~ tit.) Πῶς ἀμπώτιδες γίνονται καὶ πλημμυρίαι (text Diels)

88.1 (~ P1) Ἀριστοτέλης ὑπὸ τοῦ ἡλίου τὰ πλείστα τῶν πνευμάτων κινεῖσθαι καὶ περιφέρεισθαι, ὅφ' ὧν ἐμβαλόντων ἐνοιδεῖν τὴν Ἀτλαντικὴν θάλασσαν καὶ κατασκευάζειν τὰς πλημμυρίας, ληγόντων δὲ ἀντιπερισπωμένην ὑποβαίνειν, ὅπερ εἶναι τὴν ἀμπωτίν.

88.2 (~ P2) Εὐθυμένης ὁ Μασσαλιώτης τῇ πληρώσει τῆς σελήνης τὰς πλημμυρίας γίνεσθαι, τῇ δὲ ἐκλείψει τὰς ἀμπώτιδας.

88.3 (~ P4) Τιμόθεος τοὺς ἐμβάλλοντας ποταμοὺς εἰς τὴν Ἀτλαντικὴν διὰ τῆς Κελτικῆς ὀρεινῆς αἰτιάται προωθοῦντας μὲν τὰς ἐφόδους καὶ πλημμυρίαν ποιοῦντας, ληγόντων δὲ τὰς ἀμπώτιδας γίνεσθαι.

Ioannes Lydus 4.83

83.1 (~ P1) ὅτι ὁ Ἀριστοτέλης καὶ ὁ Ἡρακλείδης φασίν, ἡλίου τὰ πλείστα τῶν πνευμάτων κινούντος καὶ περιφέροντος καὶ τούτων ἐκβαλλόντων μὲν προωθουμένων δὲ ἀνοιδεῖν τὴν Ἀτλαντικὴν θάλασσαν καὶ παρασκευάζειν τὴν πλημμύραν, εἴτ' αὖθις ληγόντων ἀντιπερισπωμένην ὑποβαίνειν καὶ οὕτω τὰς ἀμπώτεις γίνεσθαι.

83.2 (~ P3) Πυθέας δὲ ὁ Μασσαλιώτης τῇ πληρώσει τῆς σελήνης τὰς πλημμύρας γίνεσθαι βούλεται, τῇ δὲ μειώσει τὰς ἀμπώτεις.

83.3 τὸ αὐτὸ δὲ καὶ οἱ παρὰ Ῥωμαίοις φιλοσοφούντες (~ P4?).

83.4 (~ P5) Πλάτων δὲ τὴν αἰώραν τῶν ὑδάτων αἰτιάται· εἶναι γὰρ φυσικὴν τινα αἰώραν διὰ τινος στομίου τρήματος περιφέρουσαν (τὴν παλάρροιν), ὅφ' ἥς ἀντικυμαίνεσθαι τὰ πελάγη.

Psellus Or.Min. op. 24 l. 52 τί μέγα, εἰ μάθοιμι ὁπόθεν τὸ θαλάττιον ὕδωρ ἄλμυρόν πεφύκε (~ tit.)

Loci Aetiani:

§2 et §9 A 2.15.6a ... καὶ αὐτὸς ἀπεφύνατο.

§9 A 2.24.7 Ἀρίσταρχος τὸν ἥλιον ἴστησι μετὰ τῶν ἀπλανῶν, τὴν δὲ γῆν κινεῖσθαι περὶ τὸν ἡλιακὸν κύκλον. A 3.13.2 Φιλόλαος δ' ὁ Πυθαγόρειος κύκλῳ περιφύρεσθαι περὶ τὸ πῦρ κατὰ κύκλον λοξὸν ὁμοιοτρόπως ἡλίῳ καὶ σελήνῃ. A 3.13.3 Ἡρακλείδης ὁ Ποντικός καὶ Ἐκφαντος ὁ Πυθαγόρειος κινοῦσι μὲν τὴν γῆν, οὐ μὴν γε μεταβατικῶς, ἀλλὰ τρεπτικῶς.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The witnesses are P, represented by P^B, G, Q, P^L, by P^{PS} for the heading, and S. §§2–4 and 6–9 have been omitted in the abridged chapter in S^{FP}, but are

preserved in the Florentine florilegium S^L. For this abridgement, typically only preserving doxai of Plato and Aristotle (and in this case also of Heraclides Ponticus), see M–R 1.202–203. The matching lemmata in the full text of S and that of P are presented in the same order. It appears that S must have written out the entire chapter. Préaux (1973) 104–107 fails to realize that P, G and S represent the same source. For P^{PS} see M–R 1.171 n. 163. T is again absent.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* As the tides became an object of scientific questioning rather late in the day, the proximate tradition is rather late too, and mainly found in Strabo, who mentions Seleucus, Posidonius, Athenodorus (i.e. A. Calvus), and others. Posidonius devoted much attention to the subject, FF 214–221 E.–K., see examples below at section E(a)§§1,4,9.

(2) *Sources.* The tides are not treated in Aristotle's *Meteorology*, as he was not aware of their importance. For Aristotle's scattered references to the issue, which became relevant only by hindsight, see below, section D(d)§1. Theophrastus' (?) *Metarsiology* does not deal with the tides either. The intermediary sources for the specialized scientific information are unknown.

Préaux (1973) 20–21, 103–115 provides an instructive overview against a wider background including translated passages. Also see Duhem (1914) 267–390 (ch. xiii. 'la théorie des marées et l'astrologie').

C *Chapter Heading*

The quite specific and detailed heading is attested in the witnesses with only minor variations. For *Placita* headings beginning with Πῶς (indicating search for a cause (διὰ τῆς)) so dealing with this question type, cf. αἰτίαι in §2) or having πῶς a little later see at ch. 1.4 above, Commentary C. The category of place is also at issue here.

D *Analysis*

a Context

'Ursprünglich sind die Gezeiten deswegen in der Meteorologie behandelt worden, weil die Winde mitzuwirken schienen' according to Theiler (1982) 2.205. Since the tides are not treated in Aristotle's *Meteorology*, this perceptive remark does not apply to his treatise. Chs. 3.16 and 3.17 on the sea are incorporated in the meteorological Book of the *Placita* because the sea belongs with the πρὸς-γεια announced at ch. 3.8. What is true is that the role of the winds (*pneumata*) in §1, §4 and §9 (as of *pneuma* in causing and so explaining earthquakes in ch. 3.15, where see at Commentary D(a)) contributes to the present inclusion of these matters in the meteorology. For the position of an account of winds cf.

ch. 3.7 above, at Commentary D(a). In Pliny's *Naturalis historia* the chapters on the tides (2.212–221) are followed by those on the salinity of the sea (2.222–223), while in A the order is the opposite: first salinity (ch. 3.16), then tides (ch. 3.17).

If we discount ch. 3.5a, which we believe to have been transmitted in the wrong place in P as p. 3.18, the two chapters on the sea, 3.16–17, are immediately followed beyond the Book division by another chapter on terrestrial waters, ch. 4.1 on the river Nile. And just as ch. 3.17 deals with the high and low waters of the sea (perhaps not only during a twenty-four-hours period but also in summer and winter), so ch. 4.1 deals with the high and low waters in summer and winter of an exceptional river.

We also note another link between chs. 3.17 and 4.1, namely the presence of name-labels and further qualifications that do not, or only exceptionally, occur elsewhere in the *Placita* (see further at ch. 4.1, Commentary D(a)). Pytheas (to be dated between c. 350–300 BCE) occurs only here, in §3 (G has another and earlier Massaliot, Euthymenes, presumably because of a confusion with ch. 4.1.2 via the ethnicon). Timaeus occurs in §6 with his ethnicon (the latter in S, not in P), and further down, in ch. 5.15.2, without it. Crates plus occupation occurs in §7 (in S only, name-label repeated in §9, also only in S), and in ch. 2.15.6 (in P not S) without occupation. The Apollodorus of §9 (S only) never occurs elsewhere. Seleucus occurs at §7 and at ch. 2.1.7 (where without ethnicon in P, with it in S). So in no less than 6 of the 9 lemmata of ch. 3.17 the name-label is followed by a further specification: the ethnicon four times, namely §2 Μεσ(σ)ήνιος, §3 (δ) Μασσαλιώτης, §6 ὁ Ταυρομενίτης, and §8 ὁ Κερκυραῖος, and twice a professional qualification, namely §7 ὁ γραμματικός, and §9 ὁ μαθηματικός. In ch. 4.1, for which S is lost, we still have, in P 4.1.2, 'Euthymenes the Massaliote', in 4.1.5 'Herodotus the writer', and in 4.1.6 'Ephorus the historian'. Both our chapters, 3.17 and 4.1, contain rare names and professions of a rather special kind: the explorers Euthymenes and Pytheas, the historians Herodotus, Ephorus and Timaeus, Crates, a man of letters, Seleucus, an astronomer (astronomers are encountered more often in the *Placita*), and Apollodorus of Corcyra about whom nothing more is known. This 'Apollodoran' parallel is a point in favour of accepting an otherwise unknown Euenius at A 3.17.2 (see however below, section D(d)§2). But Dicaearchus is also acceptable, because this would be the first time he is mentioned in the *Placita*, so the ethnicon would have been used to introduce him in the proper way.

b Number–Order of Lemmata

See above section A.

P^B has five lemmata, of which P^G has copied out three and P^L also three (but of these P^G and P^L only share two, viz. §1 and §3). P^Q has 4 lemmata, so has lost

one. S has nine lemmata, five of which coincide with the lemmata of P. In P and S the lemmata are arranged in the same relative order. Accordingly, like Diels in the *DG*, we have preserved this sequence, also because there is no reason to interfere in view of the rationale.

c Rationale–Structure of Chapter

As the heading already shows the chapter is concerned with the question type of cause, the διὰ τί, then of course also with the category of place. The lemmata order is not chronological. A first opposition is between §§1–2, on the sun as the cause of the tides, and §§3–4, on the moon as their cause. §1 sun via winds is also opposed to §4 moon via winds. §§1–4 together, which speak of celestial bodies as the cause, are opposed to §§5–8, which posit watery causes: oscillating terrestrial waters (§5), rivers falling into and withdrawing from the Ocean (§6), a mysterious push and pull of the sea (§7), and equally mysterious refluxes from the Ocean. We also have a succession of elements: heavenly fire, airs, waters, earth in more or less descending order. The final lemma, §9, is close to §§3–4 in positing the moon as cause and to §1 and §4 in adding the wind, while it is also related to §§5–8 in attributing a role to the sea itself. So §9 has it both or even more than both ways, and is appropriately arranged last as being the compromise position and also because, exceptionally in this chapter—which would not have been the case in ch. 3.15—‘Seleucus, *too*’ (καὶ σὺ, τέκνον), moves the earth. To prove, or to claim, that the earth moves always was a minority position in Antiquity, whether this was said to happen by rotation or by revolution or by both. The theory of the present lemma only needs the axial rotation (see below at section D(d)§9).

d Further Comments

Individual Points

§1 Aristotle did not discuss or try to explain the tides of the sea. His experience was limited to the Mediterranean, where (with the exception of the Adriatic) the tides are insignificant. Unsurprisingly, the present doxa concerned with the tides of the *Atlantic* cannot be paralleled from the *pragmateiai*, where Ἀτλαντικός (plus a word for sea) never occurs (a single occurrence in Theophr. *Vent.* 38, and four in the *De mundo*). There is, however, a remarkable passage at *GA* 4.10 777b17–778a2 (cited at section E(b)§1), where he argues that the periodicities of the sun and moon (i.e. ‘day and night and month and year’ etc.) determine what is ‘of inferior standing’: ‘the sea ... is settled or is moved according as the winds are at rest or in motion, while the behaviour of the air and the winds in turn depends on the period of the sun and moon’ (tr. Peck, LCL). *Mete.* 2.1 354a5–11 (also cited at section E(b)§1) contrasts the clearly visible flow and swaying

backwards and forwards of the sea in straits with that of the open sea, where this movement is unnoticeable—an obvious reference not to the Atlantic but to the virtually tideless Mediterranean. Lee ad loc. (in the LCL *Meteorology*) remarks that '[i]t is not clear what Aristotle means by this ebb and flow (lit. swinging to and fro [sc. this *ταλαντεύεσθαι δεῦρο κακέισε*]) of the sea, for he had no real knowledge of the tides'. But in the *GA* passage Aristotle goes further, adducing the movements of the winds and the air that set the sea in motion as determined by the regular movements of the heavenly bodies, esp. sun and moon. But this is a postulate rather than an explanation, although later readers may have felt justified in believing that Aristotle here really alluded to the tides as described and explained by later authorities.

According to Strabo Aristotle was criticized by Posidonius for making the coasts of Morocco and Spain the cause of the tides, the headlands catching the waves and hurling them back (see at section E(b)§1). This is not attested in the *pragmateiai* either (*Mete.* 2.1 345a6–12, cited by Pajón Leyra 2013, 727 and others, is not about coastal seas but about straits). As Kidd (1988) 791 points out, Posidonius may have transferred Aristotle's remark about the straits of the Mediterranean to the Atlantic. (Compare his account of what happens when winds are forced from a wide into a narrow place such as gates or a (hollow) road, *Mete.* 3.1 370b18–27). It is rather ironic that the doubtlessly apocryphal story of his death as reported by Procopius (cited at section E(b)§1) has him die a difficult death because he realized his failure to find an explanation for the currents in the Euripus.

We note in passing that Reinhardt, who (1921) 123 briefly discusses our chapter, accepts the information in §1 as valid for Aristotle, thus sinning against his own principle that doxographical passages containing a name-label should be distrusted, and omitting to take Aristotle's own works into account.

§2 'Dicaearchus etiam 4.2.7 et 5.1.4 magistrum sequitur', thus Diels *DG* ad loc., though two years later he changed his mind as to the correct restoration. For the *constitutio* we have followed the recent editors of and commentators on the fragments of Dicaearchus, but are far from certain that the attribution is right. To be sure, against Elter (who refers to Εὐήνιος in Photius' index cod. 167 p. 114a36) and Wachsmuth one may argue that ms. ***ηγνιος may well be a duplicate of Μεσήνιος rather than the other way round. This Euenius moreover is not known from elsewhere. And Photius is not infallible! Though the name-label Dicaearchus occurs at chs. 4.2.7 and 5.1.4, he fails to list it in his overview of names. On the other hand the Peripatetic Dicaearchus follows on well after Aristotle and Heraclides (who is often associated with the Peripatos), and the rather unclear doxa ascribed to him is a variety of that of his two predecessors cited in the previous lemma.

§3 In a note to his account of the tides in his *Physische Geographie* (first published by F.Th. Rink in 1802) Kant wrote: ‘According to the report of Plutarch, Pytheas of Massilia was the first to refer the tides to the revolutions of the moon, and had there not been such a great discrepancy between the mere perception that something was thus and the proof that it was necessarily so and could not be otherwise, it would have been amazing that Newton was the first to demonstrate the truth of this observation.’ Trans. by O. Reinhardt quoted from E. Watkins ed., *Immanuel Kant: Natural Science*, Cambridge (2012), 497–498. German text in *Kants Gesammelte Schriften* Vol. 9, Berlin–Leipzig 1923, 220. N. 142 at Watkins ed. p. 731 identifies Plutarch as the real one. It is perhaps odd that Kant failed to refer to Seleucus, see §9 below.

§4 This intermediate function of the winds (attested for Aristotle, see at §1) is not confirmed in the other documentation for Posidonius’ views on tides, see Kidd (1986) 523–525, (1999) 198. Theiler (1982) 204–205 prefers to accept this evidence, though he, too, points out that the doxa is quite similar to that attributed to Aristotle and Heraclides in §1. Ioannes Lydus may have Posidonius in mind when opaquely mentioning those who practise philosophy in Rome (83.3)

§9 Plutarch, cited section E(a)§9, tells us that Seleucus, like Aristarchus, ‘moved the earth’. Aristarchus’ theory that the earth revolves around the sun could be seen as blasphemous (Cleanthes at Plu. *Fac.* 923A = *SVF* 1.500; his Πρὸς Ἀρίσταρχον is on the list of his books at D.L. 7.174 = *SVF* 1.481). The less radical theory of Heraclides and Ecphantus (and Plato according to some), concerned with axial rotation, could be seen as counter-intuitive and bizarre. It is not certain that Seleucus followed Aristarchus all the way, though this is argued by Roller (2005) 114. All we need for the theory at issue in §9 is the axial rotation of the earth plus its atmosphere (see Heath 1913, 307), which in combination with the counter-influence of the moon (revolving around the earth) is sufficient to cause the movement of the tides. That Seleucus, ‘too, moved the earth’ need not mean more than that he did so in the same way as Heraclides and Ecphantus mentioned a few chapters back, i.e. ‘not from one place to another, but by revolution in the manner of a wheel upon an axle, from west to east about its own centre’ (ch. 3.13.3). Nevertheless his thesis may count as a stunning anticipation of Newton’s explanation of the tides as the combined result of the moon’s influence and the earth’s own movement.

Broggiato (2001) believes that καὶ αὐτός implies that A believes that Crates, just as Seleucus, set the earth in motion, which according to her is wrong because Crates’ universe is geocentric. So A, she adds, must have someone else in mind, e.g. Apollodorus (see above for Aristarchus). But an earth in the middle

may still move around its axis. Seleucus' rejection of Crates' explanation of the tides may involve a rejection of Crates' view of the earth's immobility, if this is what he believed.

For possible confusions in Strabo's reportage and even in Posidonius' account see Kidd (1988) 2.777–779. Russo (1995) 149 argues that it is odd that the lemma should mention the Atlantic instead of the Indian Ocean studied by 'Seleucus of Babylonia' according to Strabo and his sources (cited section E(b)§9). It is of course possible that the doxography is to be blamed: since the Atlantic is mentioned in §2 (τὴν Ἀτλαντικὴν θάλασσαν) and §6 (τὴν Ἀτλαντικὴν), τὸ Ἀτλαντικὸν πέλαγος may have supplanted an original τὴν Ἐρυθρὰν θαλάττην in §9. On the other hand the general, or astronomical, causes of the tides, valid for all Oceans, should not be confused with the particular variations responsible for local differences.

e Other Evidence

The chapters on the moon in Book 2, 2.25–31, fail to refer to the influence of the moon on the tides, our §§3–4 and §9. Chs. 2.20–24 on the sun fail to refer to the purported role of the sun, our §§1–2, and ch. 3.7 on winds fails to refer to the purported role of winds, our §1 and §5. These differences are in agreement with the Hellenistic origins of the present chapter, in which not a single Presocratic philosopher is mentioned.

The tides of the sea, not explained by Aristotle, are not discussed by Epicurus (as far as we know), and not by Lucretius either. Epicurus is a younger contemporary of Theophrastus, who as we noted does not seem to have treated the tides either. Treatment by Dicaearchus is uncertain (see ad §2, the attribution of which is hypothetical and the gist unclear). Lucretius, in his section on the sea *DRN* 6.608–639 (after his treatment of earthquakes [cf. ch. 3.15], and before that of Etna which in its turn is followed by the passage on the Nile [cf. ch. 4.1]), *inter alia* discusses the traditional issue why the mass of the sea does not grow less, while at 5.506–508 he mentions the Black Sea, 'which flows on with changeless tide, preserving ever the constant rhythm of its gliding' (tr. Bailey). So we may hypothesize that he declined to treat the subject because there was no antecedent in Epicurus. The importance of the Oceanic tides only became known through the expedition of Pytheas, whose book was not known to or at any rate not used by Aristotle, and esp. the campaigns of Alexander the Great.

E Further Related Texts

a Proximate Tradition

General texts: Strabo 1.3.11, 54C.31–55C.10 (Eratosthenes fr. 16 Roller) διὰ δὲ τοῦτο καὶ τοὺς εὐρίπους ῥόωδεις εἶναι, μάλιστα δὲ τὸν κατὰ Σικελίαν πορθμόν, ὃν

φησιν (sc. Eratosthenes) ὁμοιοπαθεῖν ταῖς κατὰ τὸν Ὠκεανὸν πλημμυρίσι τε καὶ ἀμπώτεσι· δις γὰρ μεταβάλλειν τὸν ῥοὺν ἐκάστης ἡμέρας καὶ νυκτός, καθάπερ τὸν Ὠκεανὸν δις μὲν πλημμυρεῖν δις δὲ ἀναχωρεῖν. τῇ μὲν οὖν πλημμυρίδι ὁμολογεῖν τὸν ἐκ τοῦ Τυρρηνικοῦ πελάγους εἰς τὸ Σικελικὸν καταφερόμενον ὡς ἂν ἐκ μετεωροτέρας ἐπιφανείας, ὃν δὴ καὶ κατιόντα ὀνομάζεσθαι, ὁμολογεῖν δ' ὅτι καὶ κατὰ τὸν αὐτὸν καιρὸν ἄρχεται τε καὶ παύεται καθ' ὃν αἱ πλημμυρίδες· ἄρχεται μὲν γὰρ περὶ τὴν ἀνατολὴν τῆς σελήνης καὶ τὴν δύσιν, λήγει δ' ὅταν συνάπτῃ τῇ μεσουρανήσει· ἐκαστέρῳ, τῇ τε ὑπὲρ γῆς καὶ τῇ ὑπὸ γῆς· τῇ δὲ ἀμπώτει τὸν ἐναντίον, ὃν ἐξιόντα καλεῖσθαι, ταῖς μεσουρανήσεσι τῆς σελήνης ἀμφοτέραις ἐναρχόμενον, καθάπερ αἱ ἀμπώτεις, ταῖς δὲ συνάψει ταῖς πρὸς τὰς ἀνατολάς καὶ δύσεις παυόμενον. 1.3.12, 54C11–12 περὶ μὲν οὖν τῶν πλημμυρίδων καὶ τῶν ἀμπώτεων εἰρήκασιν ἱκανῶς Ποσειδωνίος (F 215 E.-K, 10 Theiler) τε καὶ Ἀθηνόδορος (i.e., Athenodorus Calvus). **Pomponius Mela** 3.1–3 *restat ille circuitus quem <ut> initio diximus cingit Oceanus. ingens infinitumque pelagus it magnis aestibus concitum, ita enim motus eius adpellant, modo inundat campos, modo late nudat ac refugit, non alios aliosque invicem neque alternis accessibus nunc in hos nunc in illos toto impetu versum, sed ubi in omnia litora, quamvis diversa sint, terrarum insularumque ex medio pariter effusum est, rursus ab illis colligitur in medium et in semet ipsum redit, tanta vi semper inmissum, ut vasta etiam flumina retro agat, et aut terrestria deprehendat animalia aut marina destituat.* (2) *neque adhuc satis cognitum est, anhelitune id suo mundus efficiat, retractamque cum spiritu regerat undam undique, si, ut doctioribus placet, unum animal est, an sint depressi aliqui specus, quo reciprocata maria residant, atque unde se rursus exuberantia adtollant* (cf. below §5), *an luna causas tantis meatibus praebeat* (cf. below §§3, 4, 9). *ad ortus certe eius occasusque variantur neque eodem adsidue tempore, sed ut illa surgit ac demergitur, ita recedere atque adventare conperimus* (cf. **Solinus** Coll. 23.19–22, compiled by **Isidore of Seville** de Nat. 40.1–2). **Seneca** Dial. 12.20.2 *deinde condicionem circumfusi maris cursusque eius alternos et recursus* (sc. quaerit animus). **Benef.** 7.1.5 *licet nescias, quae ratio Oceanum effundat ac revocet.* **Nat.** 3.28.6 *ut solet aestus aequinoctialis sub ipsum lunae solisque coitum omnibus aliis maior undare.* **Pliny** Nat. 1 p. 14.1–2 *quae potentia lunae ad terrena et marina, quae solis.* **Nat.** 2.212–215 *aestus maris accedere ac reciprocare maxime mirum, pluribus quidem modis, verum causa in sole lunaque. bis inter duos exortus lunae adfluunt bisque remeant vicenis quaternisque semper horis, et primum attollente se cum ea mundo intumescences, mox a meridiano caeli fastigio vergente in occasum residentes, rursusque ab occasu subter ad caeli ima et meridiano contraria accedente inundantes, (213) hinc, donec iterum exoritur, <se> resorbentes nec umquam eodem tempore quo pridie refluī, velut anhelantes sidere avido trahente secum haustu maria et adsidue aliunde quam pridie exoriente, paribus tamen intervallis reciproci senisque semper horis, non cuiusque diei aut noctis aut loci, sed aequinoctialibus ideoque inaequales vulgarium horarum spatio, utcumque plures in e<o>s aut diei aut noctis illarum mensurae cadant, (214) et aequinoctio tantum pares ubique. ingens argumentum plenumque lucis ac vocis etiam diurnae, hebetes esse qui negent*

subtermeare sidera ac rursus eadem exurgere, similemque terris, immo vero naturae universae, et inde faciem in isdem ortus occasusque operibus, non aliter sub terra manifesto sideris cursu aliove effectum quam cum praeter oculos nostros feratur. (215) *multiplex etiamnum lunaris differentia, primumque septenis diebus: (etc.).* **Seneca Dial.** 1.4 *iam vero si quis observaverit nudari litora pelago in se recedente eademque intra exiguum tempus operiri, credet caeca quadam volutatione modo contrahi undas et introrsum agi, modo erumpere et magno cursu repetere sedem suam, cum interim illae portionibus crescunt et ad horam ac diem subeunt ampliores minoresque, prout illas lunare sidus elicit, ad cuius arbitrium Oceanus exundat.* **Nat.** 3.14.3 *mare unum est, ab initio scilicet ita constitutum; habet suas venas, quibus impletur atque aestuat.* **Irenaeus of Lyon Haer.** 2.28.2 (trans. Rufini) *quid autem possumus exponere de Oceani accessu et recessu, cum constet esse certam causam?* **Hephaestion Apotel.** p. 65.20–25 **Pingree** τὰς τε τοῦ Ὠκεανοῦ κατὰ τε ἀνατολὰς καὶ τὰς δύσεις ὑποχωρήσεις, πλημμύρας καὶ ἀμπώτεις τοῦ τε Ἀτλαντικοῦ πελάγους καὶ τῆς Ἐρυθρᾶς θαλάσσης τὰς καθ' ἕκαστον νυχθήμερον γινομένας ὑπὸ τῶν τῆς σελήνης ἀνατολῶν καὶ καταδύσεων σαλεύεσθαι καὶ κινεῖσθαι ἐκ βάθρων σημαίνει. **Priscianus Lydus Sol.Chosr.** p. 69.27–29 **Bywater** (Posidonius F 219 E.-K, 313 Theiler; **Arrianus Reb.Phys.** fr. 2 Roos) *de accessu per Rubrum mare et recessu, et per exteriorem Oceanum talibus factis passionibus vel in aliis maris nostri partibus, multa quidem differenter dicta sunt a veteribus.*

Chapter heading: **Pliny Nat.** 1 p. 13.54–57 *qua ratione aestus maris accedant et recedant. ubi aestus extra rationem idem faciant.* **Isidore of Seville de Nat.** capitul. 40 *De Oceani aestu* (long heading in the body of the work: *De Oceano, cur Oceanus in se reciprocis aestibus revertatur*). **Etym.** 13.18 *De aestibus et fretis* (only in the body of the work).

§1 Aristotle Heraclides: differently **Strabo** 3.3.3, 153C.5–9 τὸν Ἀριστοτέλη (fr. 680 R³) φησὶν ὁ Ποσειδώνιος (F 220 E.-K., 20 Theiler) οὐκ ὀρθῶς αἰτιάσθαι τὴν παραλίαν (ταύτην) καὶ τὴν Μαυρουσίαν τῶν πλημμυρίδων καὶ τῶν ἀμπώτεων· παλιρροεῖν γὰρ φάναι τὴν θάλατταν διὰ τὸ τὰς ἀκτὰς ὑψηλὰς τε καὶ τραχεῖας εἶναι δεχομένας τε τὸ κύμα σκληρῶς καὶ ἀνταποδιδούσας. **Procopius Goth.** 4.6.19.21 (**Arist.Dox.Trad.** fr. 48C Düring) τὰ γὰρ ἐν πορθμοῖς ἅπασι ξυμπίπτοντα πάθη οὐδενὶ λόγῳ φαίνεται εἰκόντα, οὐδέ τις αὐτὰ φράσαι πώποτε ἱκανὸς γέγονεν. ἀλλὰ καὶ ὁ Σταγειρίτης Ἀριστοτέλης, σοφὸς ἀνὴρ ἐν τοῖς μάλιστα, ἐν Χαλκίδι τῇ τῆς Εὐβοίας τοῦτου δὴ ἔνεκα γεγυνώς, κατανοῶν τε τὸν ταύτῃ πορθμόν, ὅνπερ Εὐριπον ὀνομάζουσι, καὶ λόγον τὸν φυσικὸν ἐς τὸ ἀκριβὲς διερευνᾶσθαι βουλόμενος, ὅπως δὴ καὶ ὅτινα τρόπον ἐνίστε μὲν τὰ τοῦ πορθμοῦ τοῦτου ρεύματα ἐκ δυσμῶν φέρεται, ἐνίστε δὲ ἐξ ἡλίου ἀνατολῶν, καὶ κατὰ ταῦτα πλεῖν τὰ πλοῖα ξύμπαντα ἐνταῦθα ξυμβαίνει, ἣν δὲ ποτε τοῦ ροῦ ἐξ ἀνίσχοντος ἡλίου ἰόντος, ἀρξαμένων τε τῶν ναυτῶν ἐνθένδε ξὺν τῇ τοῦ ροθίου ἐπιρροῇ ναυτίλλεσθαι, ἥπερ εἰώθει, ἀπ' ἐναντίας αὐτοῦ τὸ ρεῦμα ἦ, ὅπερ πολλὰκις ἐνταῦθα φιλεῖ γίνεσθαι, ἀναστρέφει μὲν τὰ πλοῖα ταῦτα εὐθὺς ἔνθεν ὥρμηται, τὰ δὲ ἄλλα ἐκ δυσμῶν ἐπὶ θάτερα πλεῖ, καίπερ αὐτοῖς τῶν ἀνέμων τινὸς ὥς ἥκιστα ἐπιπνεύσαντος, ἀλλὰ γαλήνης τε βαθείας τινὸς καὶ νηνεμίας ἐνταῦθα οὔσης, ταῦτα ὁ Σταγειρίτης ἐννοῶν τε καὶ ἀνακυκλῶν ἐπὶ χρόνου μῆκος,

δυσθανατῶν ἐπὶ ξυννοίᾳ ἀφίκετο ἐς τὸ μέτρον τοῦ βίου. οὐ μὴν ἀλλὰ καὶ τῷ τὴν Ἰταλίαν τε καὶ Σικελίαν διείργοντι πορθμῷ πολλὰ τῷ παραλόγῳ γίνεσθαι πέφυκε.

§3 **Pytheas:** Pliny Nat. 2.217 *octogenis cubitis supra Britanniam intumescere aestus Pytheas Massiliensis* (fr. 13a Mette) *auctor est.*

§4 **Posidonius:** Cicero Div. 2.33–34 *ut enim iam sit aliqua in natura rerum contagio, quam esse concedo—multa enim Stoici (SVF 2.1211) colligunt ... (34) quid de fretis aut de marinis aestibus plura dicam? quorum accessus et recessus lunae motu gubernantur. sescenta licet eiusdem modi proferri, ut distantium rerum cognatio naturalis appareat.* Priscianus Lydus Sol.Chosr. pp. 69.27–70.2 + 72.10–73.2 *de accessu per Rubrum mare et recessu, et per exteriorem Oceanum talibus factis passionibus vel in aliis maris nostri partibus, multa quidem differenter dicta sunt a veteribus: qui autem videntur ex omnibus collegisse talis passionis causas, Stoicus est Posidonius Assyrius (F 219 E.-K, 313 Theiler) et ei consentientes, quorum et Arrianus (Reb.Phys. fr. 2 Roos) approbat sententiam. dicunt enim moveri exteriorem Oceanum ad lunae ambitum, compati vero interius mare: iuxta columnas ei Herculis solummodo coniunctum quasi portus pelago compassione afficitur et alios motus speciales accipit. ... horum igitur causas requirens Stoicus Posidonius ... discernit magis causam eius esse lunam et non solem. solis quidem enim ignem sincerum esse et summae virtutis; itaque vapores quantoscumque a terra et mari sublevat, eosdem mox ab igne domolitur: lunae vero ignem non sincerum sed infirmiore esse et imbecille ac per hoc fertilior quidem in ea quae sunt in terra; consumere autem quaecumque infert non potest, sed solummodo elevare umida et fluctificare, submoventem quidem ea a caliditate, non autem minorantem et infirmitate caloris et maiori umiditate—unde etiam putrescunt quaecumque a luna calificantur: quoniam et aqua in lebetes calefacta mensurate primum intumescit et extollitur fusa, imposito vero igne incessanter consummata subsidit: atqui et magnum mare a sole quidem aequaliter pati quaecumque in lebetes aqua a nimio igne; a luna vero quaecumque ab infirma et prima caliditate: sic quoque circuire cum luna undam maris, veluti ab ipsa exaltata et sic infirmata redundare; respiciente autem in occasu coinclinare: hocque ipsum facere et sub terram luna abeunte per singulos dies.*

§9 **Seleucus:** Strabo 1.1.8, 5C.27–6C.4 τοῖς τε πάθεσι τοῦ Ὠκεανοῦ τοῖς περὶ τὰς ἀμπώτεϊς καὶ τὰς πλημμυρίδας ὁμολογεῖ τοῦτο μᾶλλον· πάντῃ γοῦν ὁ αὐτὸς τρόπος τῶν τε μεταβολῶν ὑπάρχει καὶ τῶν αὐξήσεων καὶ μειώσεων, ἣ οὐ πολὺ παραλλάττων, ὥς ἂν ἐπὶ ἐνὸς πελάγους τῆς κινήσεως ἀποδιδομένης καὶ ἀπὸ μιᾶς αἰτίας. "Ἰππαρχος δ' οὐ πιθανός ἐστιν ἀντιλέγων τῇ δόξῃ ταύτῃ, (6C.1) ὥς οὔθ' ὁμοιοπαθοῦντος τοῦ Ὠκεανοῦ παντελῶς οὔτ', εἰ δοθείη τοῦτο, ἀκολουθοῦντος αὐτῷ τοῦ σύρρου ἐῖναι πᾶν τὸ κύκλῳ πέλαγος τὸ Ἀτλαντικόν, πρὸς τὸ μὴ ὁμοιοπαθεῖν μάρτυρι χρώμενος Σελεύκῳ τῷ Βαβυλωνίῳ (test. 2 Russo). 3.5.9, 174C22–29 φησὶ (sc. Posidonius, F 218 E.-K., 26 Theiler) δ' οὖν Σέλευκον (test. 3 Russo) τὸν ἀπὸ τῆς Ἐρυθρᾶς θαλάττης καὶ ἀνωμαλίαν τινὰ ἐν τούτοις καὶ ὁμαλότῃα λέγειν κατὰ τὰς τῶν ζῳδίων διαφοράς· ἐν μὲν γὰρ τοῖς ἡμερινοῖς ζῳδίοις τῆς σεληνῆς οὔσης ὁμαλίζειν τὰ πάθη, ἐν δὲ τοῖς τροπικοῖς ἀνωμαλίαν εἶναι καὶ πληθεῖ καὶ τάχει, τῶν δ' ἄλλων

ἐκάστου κατὰ τοὺς συνεγγισμοὺς εἶναι τὴν ἀναλογίαν. αὐτὸς δὲ κατὰ τὰς θερινὰς τροπὰς περὶ τὴν πανσέληνόν φησιν ἐν τῷ Ἡρακλείῳ γενόμενος τῷ ἐν Γαδεΐροις πλείους ἡμέρας μὴ δύνασθαι συνεῖναι τὰς ἐνιαυσίους διαφοράς. **Plutarch** *Plat. Quaest.* 1006C πότερον οὕτως ἐκίνει (sc. Plato) τὴν γῆν, ὥσπερ ἥλιον καὶ σελήνην καὶ τοὺς πέντε πλάνητας, οὓς ὄργανα χρόνου διὰ τὰς τροπὰς προσηγόρευε, καὶ ἔδει τὴν γῆν (*Tim.* 40b) ἰλλομένην περὶ τὸν διὰ πάντων πόλον τεταμένον' μὴ μεμηχανῆσθαι συνελχομένην καὶ μένουσαν, ἀλλὰ στρεφομένην καὶ ἀνειλουμένην νοεῖν, ὡς ὕστερον Ἀρίσταρχος καὶ Σέλευκος (test. 1 Russo) ἀπεδείκνυσαν, ὁ μὲν ὑποτιθέμενος μόνον ὁ δὲ Σέλευκος καὶ ἀποφαινόμενος;

b Sources and Other Parallel Texts

General texts: **ps.Theophrastus** *Sign.* 29 ἡ ἄμπωτις βόρειον πνεῦμα σημαίνει, πλημμύρα δὲ νότιον. ἐὰν μὲν γὰρ ἐκ βορείων πλημμύρα ᾗῃ εἰς νότιον μεταβάλλει, ἐὰν δ' ἐκ νοτίων ἄμπωτις γίνηται εἰς βόρειον μεταβάλλει. **Varro** *LL* 9.26 *at in mari, credo, motus non habent {dis}similitudines geminas, qui in xxiii horis lunaribus cotidie quater se mutant, ac cum sex horis (a)estus creverunt, totidem decreverunt, rursus idem, itemque ab his. an hanc analogian ad diem servant, ad mensem non item, alios motus sic item cum habeant alios inter se convenientes? de quibus in libro quem De (a)estuariis feci scripsi.* **Caesar** *BG* 4.29.1 *eadem nocte accidit ut esset luna plena, qui dies maritimos aestus maximos in Oceano efficere consuevit, nostrisque id erat incognitum.* **Cicero** *ND* 2.19 (Posidonius fr. 356 Theiler, not in E.-K.) *quid vero tanta rerum consentiens conspirans, continuata cognatio quem non coget ea quae dicuntur a me conprobare? possetne uno tempore florere, dein vicissim horrere terra, aut tot rebus ipsis se inmutantibus solis accessus discessusque solstitiis brumisque cognosci, aut aestus maritimi fretorumque angustiae ortu aut obitu lunae commoveri.* **Philo of Alexandria** *Spec.* 2.143 ἄς δὲ παρέχεται τοῖς ἐπὶ γῆς ἅπασιν ὠφελείας σελήνη, τί χρὴ διεξιόντα μηχανεῖν; ἐμφανεῖς γὰρ αἱ πίστεις. ἢ οὐχὶ ταῖς αὐξήσεσιν αὐτῆς ἀναχέονται ποταμοὶ καὶ πηγαὶ καὶ μειοῦνται πάλιν μειώσεσι, καὶ πελάγη τοτὲ μὲν ἐξαναχωρεῖ καὶ ἄμπωτίζοντα ὑποσύρεται τοτὲ δ' ἐξαπινάϊως ἐπιτρέχει κατὰ παλιρροίαν. **Vergil** *Geor.* 475–479 *Musae ... monstrent ... qua vi maria alta tumescent.* **Hermogenes** *Id.* 1.6.5.11–13 Patillon ποῦ δ' αὖ λόγου πολιτικοῦ τὸ ζητεῖν ..., καὶ ὅτι ἐπικλύσει ἢ ὑπονοστήσει ὕδατος. **Silius Italicus** 14.349 *et pater Oceanus qua lege effunderet aestus.* **Plutarch** *Fac. Lun.* 940A (*SVF* 2.679) δέδοικα δ' ἡσυχάζοντα Φαρνάκην αὐθις ἐρεθίζειν καὶ κινεῖν, Ὡκεανοῦ τε πλημμύρας, ὡς λέγουσιν αὐτοί, καὶ πορθμῶν ἐπιδόσεις διαχρεομένων καὶ αὐξανομένων ὑπὸ τῆς σελήνης τῷ ἀνυγραίνεσθαι παρατιθέμενος. **ps.Aristotle** *Mu.* 4 396a25–27 πολλὰ τε ἄμπωτεις λέγονται καὶ κυμάτων ἄρσεις συμπεριοδεύειν αἰετὶ τῇ σελήνῃ κατὰ τινὰς ὠρισμένους καιροὺς. **Apuleius** *Mu.* 19 *sentitur etiam caeli marisque cognatio, cum menstruis cursibus lunae detrimenta et accessus fretorum atque aestuum deprehenduntur.* **Macrobius** *in Somn.* 1.6.61. *in Somn.* 2.9.1–3 (Crates fr. 35f Mette) *nunc de Oceano quod promissimus adstruamus ... ab oriente vero duos sinus refundit, unum ad extremitatem septentrionis, ad australis alterum, rursusque ab occidente duo pariter enascuntur sinus, qui usque ad ambas quas supra diximus*

extremitates refusi occurrunt ab oriente demissis. et dum vi summa et impetu immaniore miscentur invicemque se feriunt, ex ipsa aquarum collisione nascitur illa famosa Oceani accessio pariter et recessio, et ubicumque in nostro mari contingit idem vel in angustis fretis vel in planis forte littoribus, ex ipsis Oceani sinibus quos Oceanum nunc vocamus eveniunt, quia nostrum mare ex illis influit.

Chapter heading: Varro LL 9.26 in libro quem De (a)estuariis feci. Agatharchides *Mar.Erythr.* 107 περί μέν ἀμπώτιδος.

§1 Aristotle Heraclides: Aristotle *Mete.* 2.1 354a5–11 ρέουσα δ' ἡ θάλαττα φαίνεται κατὰ τε τὰς στενότητας, εἴ που διὰ τὴν περιέχουσιν γῆν εἰς μικρὸν ἐκ μεγάλου συνάγεται πελάγους, διὰ τὸ ταλαντεύεσθαι δεῦρο κάκεισε πολλάκις. ἥ δὲ διὰ τὴν στενότητα τῆς γῆς ὀλίγον ἐπέχει τόπον, ἀναγκαῖον τὴν ἐν τῷ πελάγει μικρὰν ταλάντωσιν ἐκεῖ φαίνεσθαι μεγάλην. *Mete.* 2.8 366a18–20 ὥστ' ἔσω γίγνεται πάλιν ἡ ῥύσις, ὥσπερ ἄμπωτις, εἰς τοῦναντίον τῆς ἔξω πλημμυρίδος. *Mete.* 2.8 367a13–17 ὅταν γὰρ ἄνεμος μέλλῃ πνευσεῖσθαι νότος, προσημαίνει πρότερον· ἡχοῦσι γὰρ οἱ τόποι ἐξ ὧν γίγνεται τὰ ἀναφυσήματα, διὰ τὸ τὴν θάλατταν μὲν προωθείσθαι ἤδη πόρρωθεν, ὑπὸ δὲ ταύτης τὸ ἐκ τῆς γῆς ἀναφυσώμενον ἀπωθεῖσθαι πάλιν εἴσω, ἥπερ ἐπέρχεται ἡ θάλαττα ταύτῃ. *GA* 2.4 738a20–22 αἱ δὲ τῶν μηνῶν σύνοδοι ψυχραὶ διὰ τὴν τῆς σελήνης ἀπόλειψιν, διόπερ καὶ χειμερίους συμβαίνει τὰς συνόδους εἶναι τῶν μηνῶν μάλλον ἢ τὰς μεσότητας. *GA* 4.10 777b17–778a2 εὐλόγως δὲ πάντων οἱ χρόνοι καὶ τῶν κήσεων καὶ γενέσεων καὶ τῶν βίων μετρεῖσθαι βούλονται κατὰ φύσιν περιόδοις. λέγω δὲ περίοδον ἡμέραν καὶ νύκτα καὶ μῆνα καὶ ἐνιαυτὸν καὶ τοὺς χρόνους τοὺς μετρούμενους τούτοις, ἔτι δὲ τὰς τῆς σελήνης περιόδους. εἰσὶ δὲ περιodoi σελήνης πανσέληνός τε καὶ φθίσις καὶ τῶν μεταξὺ χρόνων αἱ διχοτομίαι· κατὰ γὰρ ταύτας συμβάλλει πρὸς τὸν ἥλιον· ὁ γὰρ μεις κοινὴ περίοδος ἐστὶν ἀμφοτέρων. ἔστι δὲ ἡ σελήνη ἀρχὴ διὰ τὴν πρὸς τὸν ἥλιον κοινωνίαν καὶ τὴν μετάληψιν τὴν τοῦ φωτός· γίγνεται γὰρ ὥσπερ ἄλλος ἥλιος ἐλάττων· διὸ συμβάλλεται εἰς πάσας τὰς γενέσεις καὶ τελειώσεις. αἱ γὰρ θερμότητες καὶ ψύξεις μέχρι συμμετρίας τινὸς ποιοῦσι τὰς γενέσεις, μετὰ δὲ ταῦτα τὰς φθοράς· τούτων δ' ἔχουσι τὸ πέρας καὶ τῆς ἀρχῆς καὶ τῆς τελευτῆς αἱ τούτων κινήσεις τῶν ἄστρον. ὥσπερ γὰρ καὶ θάλατταν καὶ πᾶσαν ὥρῳ μὲν τὴν τῶν ὑγρῶν φύσιν ἱσταμένην καὶ μεταβάλλουσιν κατὰ τὴν τῶν πνευμάτων κίνησιν καὶ στάσιν, τὸν δ' ἀέρα καὶ τὰ πνεύματα κατὰ τὴν τοῦ ἡλίου καὶ τῆς σελήνης περίοδον, οὕτω καὶ τὰ ἐκ τούτων φυόμενα καὶ τὰ ἐν τούτοις ἀκολουθεῖν ἀναγκαῖον· κατὰ λόγον γὰρ ἀκολουθεῖν καὶ τὰς τῶν ἀκυροτέρων περιόδους ταῖς τῶν κυριωτέρων. βίος γὰρ τις καὶ πνεύματός ἐστι καὶ γενέσις καὶ φθίσις. *Mete.* 2.5 361b14–23 ὁ δ' ἥλιος καὶ παύει καὶ συνεξορμᾷ τὰ πνεύματα· ἀσθενεῖς μὲν γὰρ καὶ ὀλίγας οὐσας τὰς ἀναθυμιάσεις μαραίνει τῷ πλείονι θερμῷ τὸ ἐν τῇ ἀναθυμιάσει ἔλαττον ὄν, καὶ διακρίνει. ἔτι δὲ αὐτὴν τὴν γῆν φθάνει ξηραίνων πρὶν γενέσθαι ἔκκρισιν ἀθρόαν διὰ μὲν οὖν ταύτας τὰς αἰτίας καταπαύει τε τὰ πνεύματα καὶ ἐξ ἀρχῆς γίγνεσθαι κωλύει, τῇ μὲν μαράνσει καταπαύων, τῷ δὲ τάχει τῆς ξηρότητος γίγνεσθαι κωλύων. **John Philoponus in GA** 210.7–16 ad loc. ἐν δὲ τῇ λέξει τῇ 'τούτων δ' ἔχουσι τὸ πέρας καὶ τῆς ἀρχῆς καὶ τῆς τελευτῆς' τὸ 'τούτων' περὶ τῆς θερμότητος καὶ ψυχρότητος εἴρηται. ἀρχὴ μὲν γὰρ καὶ γενέσις ἐστὶ θερμότητος ἢ τε τῆς σελήνης αὐξήσις καὶ ἡ τοῦ ἡλίου πρὸς τὰ βόρεια ζῶδια προσέλευσις, ψύξεως δ' ἐκείνης μὲν ἡ μείωσις, τοῦ δὲ

ἡλίου ἢ πρὸς τὰ νότια ἀναχώρησις. καὶ ὥσπερ ἡ θάλασσα μεταβάλλει κατὰ τὴν τῶν πνευμάτων κίνησιν, τὰ δὲ πνεύματα γίνεται, ὡς ἐν τοῖς Μετεώροις (2.4 361a22–b1) εἴρηται, κατὰ τὴν τοῦ ἡλίου καὶ τῆς σελήνης περίοδον, οὕτως καὶ τὰ ἐκ τῶν ὑγρῶν καὶ τῶν ἄλλων γινόμενα καὶ ἐν αὐτοῖς ὄντα ἀκολουθεῖν ἀναγκαῖον τῇ τῶν ἀστέρων τοῦτων κινήσει. **Theophrastus Vent.** 17 ποιεῖ δὲ καὶ ἡ σελήνη ταῦτά (sc. as the sun) πλὴν οὐχ ὁμοίως· οἷον γὰρ ἀσθενὴς ἡλιός ἐστι. διὸ καὶ νύκτωρ δεινότεραι (αἱ πνοαὶ) καὶ αἱ σύνοδοι τῶν μηνῶν χειμερινώτεραι. συμβαίνει δ' οὖν ὅτε μὲν ἀνατέλλοντος τοῦ ἡλίου τὰ πνεύματα ἐπαίρεσθαι ὅτε δὲ λήγειν· καὶ ἐπὶ τῆς δύσεως ὁμοίως· ὅτε μὲν γὰρ κατέπαυσεν ὅτε δὲ ὥσπερ ἀφήκεν. εἰ δέ ποτε καὶ κατὰ σύμπτωμα γίνωτο ταῦτα, καθάπερ καὶ τὰ ἐπὶ τῶν ἄστρων ἀνατολαῖς καὶ δύσεσιν, ἐπισκεπτέον. **CP** 2.19.4–5 τὰ δὲ πλέον καταδυόμενα καὶ ὑπερίσχοντα δῆλον ὅτι ψυχρότερα καὶ ἀσθενέστερα, δι' ὃ μᾶλλον συμπάσχει ταῖς μεταβολαῖς. ἡ δὲ αἴσθησις οὕτως ὀξεῖα γινομένη τοῖς καθ' ὕδατος οὐκ ἄλογος, ἄλλως τε καὶ ἐν τόποις θερμοῖς καὶ ἐμπύροις. ἐπεὶ καὶ ἐν τοῖς μὴ τοιούτοις αἱ διαδόσεις ταχεῖαι πάντων ἀπὸ τοῦ ἡλίου καὶ τῶν ἄστρων. φαίνεται γοῦν συμπάσχειν οὐ μόνον τὰ ἐπὶ γῆς ἀλλὰ καὶ τὰ ὑπὸ γῆς ὕδατα τροπαῖς τε καὶ ἐπιτολαῖς· ἐπ' ἐνίων δὲ ἄστρων καὶ αὐτὴ ἡ γῆ καὶ ἡ θάλαττα μεταβάλλει. πάσχει δέ τι παραπλήσιον τούτῳ καὶ τῶν ἀνθρώπων πολλὰ καθ' ἡμέραν· αἱ γὰρ συμπεριφέρεται τῷ ἡλίῳ νεύοντα καὶ ἐγκλίνοντα πρὸς αὐτόν. **Lucan Phars.** 1.409–419 *quaque iacet litus dubium quod terra fretumque / vindicat alternis vicibus, cum funditur ingens / Oceanus uel cum refugis se fluctibus aufert. / ventus ab extremo pelagus sic axe volutet / destituatque ferens, an sidere mota secundo / Tethyos unda vagae lunaribus aestuet horis, / flammiger an Titan, ut alentes hauriat undas, / erigat Oceanum fluctusque ad sidera ducat, / quaerite, quos agitat mundi labor; at mihi semper / tu, quaecumque moves tam crebros causa meatus, / ut superi voluere, late.* **ps.Aristotle Mirab.** 55 834b3–4 ὁ πορθμὸς ὁ μεταξὺ Σικελίας καὶ Ἰταλίας αὔξεται καὶ φθίνει ἅμα τῷ σεληνίῳ. **Aulus Gellius NA** 14.1.3–4 (quoting Favorinus on the Chaldaean) *atque eos, quoniam viderent terrena quaedam inter homines sita caelestium rerum sensu atque ductu moveri, quale est, quod Oceanus quasi lunae comes cum ea simul senescit adolescitque, hinc videlicet sibi argumentum ad persuadendum paravisse, ut crederemus omnia rerum humanarum et parva et maxima tamquam stellis atque sideribus evincta duci et regi. esse autem nimis quam ineptum absurdumque, ut, quoniam aestus Oceani cum lunae curriculo congruit, negotium quoque alicuius, quod ei forte de aquae ductu cum rivalibus aut de communi pariete cum vicino apud iudicem est, ut existimemus id negotium quasi habena quadam de caelo vinctum gubernari.* **Ptolemy Tetr.** 1.2.3–4 ἡ τε σελήνη πλείστην ὡς περιγειοτάτῃ διαδίδωσιν ἡμῖν ἐπὶ τὴν γῆν τὴν ἀπόρροϊαν, συμπαθούτων αὐτῇ καὶ συντρεπομένων τῶν πλείστων καὶ ἀψύχων καὶ ἐμψύχων καὶ ποταμῶν μὲν συναυξόντων καὶ συμμειούντων τοῖς φωσὶν αὐτῆς τὰ ρεύματα, θαλασσῶν δὲ συντρεπουσῶν ταῖς ἀνατολαῖς καὶ ταῖς δύσεσι τὰς ἰδίας ὁρμάς, φυτῶν δὲ καὶ ζώων ἢ ὅλων ἢ κατὰ τινα μέρη (4) συμπληρουμένων τε αὐτῇ καὶ συμμειουσμένων. **Tetr.** 2.9.7 περὶ δὲ ποταμοὺς ἢ καὶ θαλάσσας κοινῶς μὲν χειμῶνας καὶ στόλων ναυάγια καὶ δυσπλοίας καὶ τῶν ἰχθύων ἔνδειαν καὶ φθοράν (sc. ὁ τοῦ Κρόνου ἀστήρ ἐμποιεῖ), ἰδίως δὲ ἐν μὲν θαλάσσαις ἀμπώτεις καὶ παλιρροίας, ἐπὶ δὲ ποταμῶν ὑπερμετρίαν καὶ κάκωσιν τῶν ποταμίων ὕδατων. **Tetr.** 2.13.7–8

αὐτῶν δὲ τούτων τῶν κατὰ μέρος ποιότητων αἱ καθ' ἡμέραν ἐπιτάσεις ἀποτελοῦνται μάλιστα μὲν ὅταν τῶν ἀπλανῶν οἱ λαμπρότεροι καὶ δραστικώτεροι φάσεις ἐφάσῃ ἢ ἐσπερίας ἀνατολικὰς ἢ δυτικὰς ποιῶνται πρὸς τὸν ἥλιον, τρέπουσι γὰρ ὡς ἐπὶ τὸ πολὺ τὰς κατὰ μέρος καταστάσεις πρὸς τὰς ἑαυτῶν φύσεις, οὐδὲν δὲ ἔλαττον (8) καὶ ὅταν τινὶ τῶν κέντρων τὰ φῶτα ἐπιπορεύηται. πρὸς γὰρ τὰς τοιαύτας αὐτῶν σχέσεις αἱ καθ' ὥραν ἀνέσεις καὶ ἐπιτάσεις τῶν καταστημάτων μεταβάλλουσι, καθάπερ πρὸς τὰς τῆς σελήνης αἱ τε ἀμπώτεις καὶ αἱ παλίρροιαι. **Sextus Empiricus M.** 9.79 (SVF 2.1013) ἐπεὶ οὖν καὶ ὁ κόσμος σῶμά ἐστιν, ἦτοι ἠνωμένον ἐστὶ σῶμα ἢ ἐκ συναπτομένων ἢ ἐκ διεστώτων. οὐτε δὲ ἐκ συναπτομένων οὔτε ἐκ διεστώτων, ὡς δεῖ κνυμεν ἐκ τῶν περὶ αὐτὸν συμπαθειῶν. κατὰ γὰρ τὰς τῆς σελήνης αὐξήσεις καὶ φθίσεις πολλὰ τῶν τε ἐπιγείων ζῶων καὶ θαλασσίων φθίνει τε καὶ αὖξεται, ἀμπώτεις τε καὶ πλημμυρίδες περὶ τινὰ μέρη τῆς θαλάσσης γίνονται. **Commenta Bernensia in Lucanum** p. 30.28–29 Usener (ad Phars. 1.413) *quia hic dicit crescere et decrescere mare ad imitationem lunae*.

§4 Posidonius: Cleomedes Cael. 2.1.386–392 Todd τοσαύτη δὲ πρὸς τοῖς εἰρημένοις κέχρηται περιουσίᾳ δυνάμεως (sc. ὁ ἥλιος), ὥστε καὶ ἡ σελήνη ἀπ' αὐτοῦ δεχομένη τὸ φῶς αὐτὸ τοῦτο πάσης τῆς περὶ αὐτὴν δυνάμεως αἴτιον ἔχει κατὰ τὰς τῶν σχημάτων διαφοράς, οὐ μόνον ἐν τῷ ἀέρι μεγάλας ἐργαζομένη τροπὰς καὶ κατακρατοῦσα αὐτοῦ καὶ μυρία ἐπιτήδεια ἐργαζομένη, ἀλλὰ καὶ τῶν περὶ τὸν Ὠκεανὸν πλημμυρίδων καὶ ἀμπώτεων αὕτη ἐστὶν αἰτία. **Cael.** 2.3.64–65 Todd καὶ τῶν περὶ τὸν Ὠκεανὸν ἀμπώτεων καὶ πλημμυρίδων αὐτῆς (sc. τῆς σελήνης) αἰτίας γινομένης.

§5 Plato: Plato Phd. 111e–112a ταῦτα δὲ πάντα κινεῖν ἄνω καὶ κάτω ὥσπερ αἰώραν τινὰ ἐνοῦσαν ἐν τῇ γῇ· ἐστὶ δὲ ἄρα αὕτη ἡ αἰώρα διὰ φύσιν τοιάνδε τινά. ἐν τι τῶν χασμάτων τῆς γῆς ἄλλως τε μέγιστον τυγχάνει ὃν καὶ (112a) διαμπερές τετρημένον δι' ὅλης τῆς γῆς, τοῦτο ὅπερ Ὅμηρος εἶπε, λέγων αὐτό (*Il.* Θ 14) 'τῆλε μάλ', ἦχι βάθιστον ὑπὸ χθονός ἐστι βέρεθρον·' ὃ καὶ ἄλλοθι καὶ ἐκεῖνος καὶ ἄλλοι πολλοὶ τῶν ποιητῶν Τάρταρον κεκλήκασιν. εἰς γὰρ τοῦτο τὸ χάσμα συρρέουσι τε πάντες οἱ ποταμοὶ καὶ ἐκ τούτου πάλιν ἐκρέουσιν· γίγνονται δὲ ἕκαστοι τοιοῦτοι δι' οἷας ἂν καὶ τῆς γῆς ῥέωσιν. (cf. **Athenodorus Calvus** at **Strab.** 3.5.7, 173C.10–12 εἰ δ', ὥσπερ Ἀθηνόδωρος (*FGrH* 746F5c) φησιν, εἰσπνοῇ τε καὶ ἐκπνοῇ τὸ συμβαίνειν περὶ τὰς πλημμυρίδας καὶ περὶ τὰς ἀμπώτεις ἔοικεν.) **Aristotle Mete.** 2.2 355b32–356a11 τὸ δ' ἐν τῷ Φαίδωνι γεγραμμένον περὶ τε τῶν ποταμῶν καὶ τῆς θαλάττης ἀδύνατόν ἐστιν. λέγεται γὰρ ὡς ἅπαντα μὲν εἰς ἄλληλα συντέτρηται ὑπὸ γῆν, ἀρχὴ δὲ πάντων εἷη καὶ πηγὴ τῶν ὑδάτων ὁ καλούμενος Τάρταρος, περὶ τὸ μέσον ὑδατός τι πλῆθος, ἐξ οὗ καὶ τὰ ῥέοντα καὶ τὰ μὴ ῥέοντα ἀναδίδωσιν πάντα· τὴν δ' ἐπίρρυσιν ποιεῖν ἐφ' ἕκαστα τῶν ῥευμάτων διὰ τὸ σαλεύειν αἰεὶ τὸ πρῶτον καὶ τὴν ἀρχὴν οὐκ ἔχειν γὰρ ἔδραν, ἀλλ' αἰεὶ περὶ τὸ μέσον εἰλεῖσθαι· κινούμενον δ' ἄνω καὶ κάτω ποιεῖν τὴν ἐπίρυσιν τοῖς ῥεύμασιν. τὰ δὲ πολλαχού μὲν λιμνάζειν, οἷον καὶ τὴν παρ' ἡμῖν εἶναι θάλατταν, πάντα δὲ πάλιν κύκλῳ περιάγειν εἰς τὴν ἀρχήν, ὅθεν ἡρξαντο ῥεῖν, πολλὰ μὲν κατὰ τὸν αὐτὸν τόπον, τὰ δὲ καὶ καταντικρὺ τῇ θέσει τῆς ἐκροῆς, οἷον εἰ ῥεῖν ἡρξαντο κάτωθεν, ἄνωθεν εἰσβάλλειν. **Plutarch Fac.Lun.** 924B–C οὐ ῥεύμα λάβρον ὑδατος κάτω φερόμενον, εἰ πρὸς τὸ μέσον ἔλθοι σημεῖον ὅπερ αὐτοὶ λέγουσιν ἀσώματον, ἴστασθαι περικουρυσσόμενον (ἢ) κύκλῳ περιπολεῖν, ἄπαυστον αἰώραν καὶ ἀκατάπαυστον αἰωρούμενον;

§7 Crates: Strabo 1.1.7, 4C.21–35 ἔχεται δὲ τῆς αὐτῆς φιλοπραγμοσύνης καὶ τὸ μὴ ἄγνοεῖν τὰ περὶ τὰς πλημμυρίδας τοῦ ὠκεανοῦ καὶ τὰς ἀμπώτεϊς ἀψορρόου ὠκεανοῖο, λέγοντα καὶ (*Od.* 12.105) ‘τρίς μὲν γάρ τ’ ἀνίησιν ἐπ’ ἤματι, τρίς δ’ ἀναροιβδεῖ’ (but Charybdis is meant, not the Ocean). καὶ γὰρ εἰ μὴ τρίς ἀλλὰ δις, τάχα τῆς ἱστορίας παραπεσόντος ἢ τῆς γραφῆς διημαρτημένης, ἀλλ’ ἢ γε προαίρεσις τοιαύτη. καὶ τὸ ‘ἐξ ἀκαλαρρείταο’ (*Il.* 7.422) δὲ ἔχει τινὰ ἔμφασιν τῆς πλημμυρίδος, ἐχούσης τὴν ἐπίβασιν πραεῖαν καὶ οὐ τελέως ῥοώδη. Ποσειδώνιος (F 216 E.-K., 1 Theiler) δὲ καὶ ἐκ τοῦ σκοπέλους λέγειν τοτὲ μὲν καλυπτομένους τοτὲ δὲ γυμνουμένους καὶ ἐκ τοῦ ποταμὸν φάναι τὸν ὠκεανὸν εἰκάζει τὸ ῥοώδες αὐτοῦ τὸ περὶ τὰς πλημμυρίδας ἐμφανίζεσθαι. τὸ μὲν οὖν πρῶτον εὖ, τὸ δὲ δεύτερον οὐκ ἔχει λόγον· οὔτε γὰρ ποταμῷ ῥέυματι ἔοικεν ἢ τῆς πλημμυρίδος ἐπίβασις, πολὺ δὲ μάλλον ἢ ἀναχώρησις οὐ τοιαύτη, ὅτε τοῦ Κράτητος (cf. ad. fr. 61 Broggiato) λόγος διδάσκει τι πιθανώτερον. 1.2.36, 43C.21–29 περὶ δὲ τῶν τοῦ Ὀκεανοῦ παθῶν εἴρηται μὲν ἐν μύθου σχήματι· καὶ γὰρ τούτου στοχάζεσθαι δεῖ τὸν ποιητὴν. ἀπὸ γὰρ τῶν ἀμπώτεων καὶ τῶν πλημμυρίδων ἢ Χάρυβδις αὐτῷ μεμύθευται, οὐδ’ αὐτὴ παντάπασιν Ὀμήρου πλάσμα οὔσα, ἀλλ’ ἀπὸ τῶν ἱστορουμένων περὶ τὸν Σικελικὸν πορθμὸν διεσκευασμένη. εἰ δὲ δις τῆς παλιρροίας γινομένης καθ’ ἑκάστην ἡμέραν καὶ νύκτα ἐκείνος τρίς εἶρηκε (*Od.* 12.105) ‘τρίς μὲν γάρ τ’ ἀνίησιν ἐπ’ ἤματι, τρίς δ’ ἀναροιβδεῖ,’ λέγοιτ’ ἂν καὶ οὕτως· οὐ γὰρ κατ’ ἄγνοιαν τῆς ἱστορίας ὑποληπτέον λέγεσθαι τοῦτο, ἀλλὰ τραγωδίας χάριν καὶ φόβου.

Aëtiana v

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Contents

PART 1

Preface IX

Sigla and Abbreviations XII

General Introduction 1

BOOK 1 The Principles of Nature: Text and Commentary 101

PART 2

Sigla and Abbreviations IX

User's Guide to the Edition and Commentary 719

BOOK 2 Cosmology: Text and Commentary 727

BOOK 3 Meteorology and the Earth: Text and Commentary 1129

PART 3

Sigla and Abbreviations IX

User's Guide to the Edition and Commentary 1347

BOOK 4 Psychology: Text and Commentary 1355

Introduction to Book 4 1357

Title and Index 1366

Procemium 1372

1 On the Rising of the Nile 1374

2 On the Soul 1393

3 Whether the Soul Is a Body and What Its Substance Is 1421

4 On the Parts of Soul 1449

5 On the Regent Part and in Which Part of the Body It Is Found 1473

6 On the Motion of Soul 1495

- 7 On the Indestructibility of Soul 1503
- 7a On Intellect 1526
- 8 On Sensation and Sense-Objects 1537
- 9 Whether Sensations and Impressions Are True 1560
- 10 How Many Senses There Are 1583
- 11 How the Sensation and the Conception and the Reason That Is Internally Placed Occur 1591
- 12 In What Respect Impression, Impressor, Imagination, Figment Are Different 1610
- 13 On Sight, How We See 1621
- 14 On Reflections in Mirrors 1652
- 15 Whether Darkness Is Visible 1663
- 16 On Hearing 1673
- 17 On Smelling 1679
- 18 On Tasting 1683
- 19 On Voice 1688
- 20 Whether Voice Is Incorporeal and How Echo Occurs 1703
- 21 How the Soul Comes To Be Sentient and What Its Regent Part Is 1711
- 22 On Respiration 1720
- 23 On Bodily Affections and Whether the Soul Experiences Pain along with These 1731

BOOK 5 Physiology: Text and Commentary 1739

- Introduction to Book 5 1741
 - Title and Index 1754
- 1 On Divination 1759
- 2 How Dreams Occur 1772
- 3 What the Substance of the Semen Is 1784
- 4 Whether the Semen Is a Body 1796
- 5 Whether Females Too Release Semen 1803
- 6 How the Conceptions Occur 1812
- 7 How Males and Females Are Engendered 1817
- 8 How Monstrosities Occur 1830
- 9 Why a Woman, Although Frequently Having Intercourse, Does Not Conceive 1837
- 10 How Twins and Triplets Occur 1844
- 11 Where Resemblances to Parents or Ancestors Come From 1851
- 12 How It Occurs That Those Who Are Born Resemble Others and Not Their Parents 1861
- 13 How It Happens That Women Are Infertile and Men Without Offspring 1868

- 14 Why Female Mules Are Infertile 1876
- 15 Whether the Embryo Is a Living Being 1883
- 16 How Embryos Are Nourished 1897
- 17 What Is Fully Formed First in the Womb 1904
- 18 Why Seven-Month Babies Are Viable 1914
- 19 On the Birth of Living Beings, How They Were Born as Living Beings and Whether They Are Perishable 1934
- 20 How Many Kinds of Living Beings There Are and Whether They All Possess Sense-Perception and Reason 1948
- 21 In What Length of Time Living Beings Are Formed When They Are in the Womb 1958
- 22 Out of What Elements Each of the Generic Parts in Us Consists 1968
- 23 When and How a Human Being Commences Maturity 1978
- 24 How Sleep and Death Occur 1989
- 25 Whether Sleep and Death Pertain to the Soul or the Body 1998
- 26 How Plants Grew and Whether They Are Living Beings 2008
- 27 On Nourishment and Growth 2022
- 28 From Where the Appetites Arise in Living Beings, and Also Pleasures 2029
- 29 How Fever Occurs and Whether It Is an After-Symptom 2035
- 30 On Health and Disease and Old Age 2043

PART 4

- English Translation of the *Placita* 2059**
- User's Guide to the English Translation 2061
- BOOK 1 The Principles of Nature 2063
- BOOK 2 Cosmology 2089
- BOOK 3 Meteorology and the Earth 2108
- BOOK 4 Psychology 2120
- BOOK 5 Physiology 2137

Appendix: List of Chapter Headings in the Translation of Qusṭā ibn Lūqā 2153

- Bibliography 2158**
- Index of Primary and Secondary Witnesses 2283**
- Index of Name-Labels and Other Names 2291**
- Index of Fragment Collections and Extant Sources 2296**
- Index of Ancient and Modern Names 2309**

Sigla and Abbreviations

1 Abbreviations Relating to Aëtius and His Tradition

A	Aëtius
Ach	Achilles
AD	Arius Didymus
Ath	Athenagoras
C	Cyril of Alexandria
E	Eusebius
G	ps.Galen
J	ps.Justin
L	Ioannes Lydus
Nem	Nemesius
Nic	Nicolaus, translator of ps.Galen
P	ps.Plutarch, <i>Placita philosophorum</i> and his tradition (EGQ etc.)
Ps	Psellus
Q (or Qustā)	Qustā ibn Lūqā
S	Ioannes Stobaeus
T	Theodoret of Cyrrhus

2 Sigla Relating to the Apparatus Criticus of the Edition

a *Primary Witnesses*

P	tradition of ps.Plutarch		
P ^P	papyrus, edited by J.W. Barns and H. Zilliacus (1960–1967), <i>The Antinoopolis Papyri Parts II & III</i> , London		
P ^B	Byzantine manuscripts		
	Family	Manuscript	Date
	I	Mosquensis 339	12th century
	II	Marcianus 521	13th/14th century
	III	(Planudean family)	
	α	Ambrosianus 859	shortly before 1296
	A	Parisinus 1671	1296
	γ	Vaticanus 139	shortly after 1296
	E	Parisinus 1672	shortly after 1302
	Laur.	Laurentianus 31,37	14th century

- P^B** *Plutarchi Epitome*, edited by H. Diels (1879 and unaltered reprints), *Doxographi Graeci*, Berlin, 273–444; also edited by J. Mau (1971), *Plutarchus Placita Philosophorum*, *Plutarchi Moralia* Vol. 5.2.1, X oratorum vitae; Placita philosophorum, Leipzig (Bibliotheca Teubneriana); edited by G. Lachenaud (1993), *Plutarque Œuvres morales* T. 12.2, *Opinions des Philosophes*, Paris (Collection Budé); (for earlier editions see below §4 Works frequently cited)
- P^{Ph}** *Philo of Alexandria*, edited by J.-B. Aucher (1822), *Philonis Judaei sermones tres hactenus inediti, I. et II. De Providentia et III. De animalibus, ex Armena versione antiquissima ab ipso originali textu Graeco ad verbum stricte excerpta, nunc in Latium (sic!) fideliter translati*, Venice; see also M. Hadas-Lebel (1973), *De Providentia I et II*, *Les œuvres de Philon d'Alexandrie* 35, Paris
- P^{Ath}** *Athenagoras*, edited by M. Marcovich (1990), *Athenagoras Legatio pro Christianis*, Berlin (abbr. *Leg.*)
- P^E** *Eusebius Praeparatio Evangelica*, edited by K. Mras (1956), *Eusebius Werke, Bd. VIII, Die Praeparatio Evangelica*, 1982–1983², Vol. 2, Berlin (abbr. *PE*)
- P^G** *Ps. Galen Historia philosopha*, edited by H. Diels (1879 and later unaltered reprints), *Doxographi Graeci*, Berlin, 595–648 (abbr. *HPh*); partially edited by M. Jas (2018a), *Nicolaus Rheginus als Übersetzer der pseudo-Galenischen Schrift De historia philosopha: ein Beitrag zur lateinischen Überlieferung des Corpus Galenicum*, Wiesbaden
- P^{G(Nic)}** text of P^G based on 1341 Latin translation of Nicolaus of Rhegium
- P^J** *Ps. Justinus Cohortatio ad Graecos*, edited by M. Marcovich (1990), *Pseudo-Justinus, Cohortatio ad Graecos, De monarchia, Oratio ad Graecos*, Berlin; edited by C. Riedweg (1994), *Ps.-Justin (Markell von Ankyra?) Ad Graecos de vera religione (bisher "Cohortatio ad Graecos")*, 2 Vols., Basel
- P^{Jln}** *Julianus Arianista*, edited by D. Hagedorn (1973), *Der Hiobkommentar des Arianers Julian*, Berlin
- P^C** *Cyrillus Contra Julianum*, edited by C. Riedweg (2015), *Kyrrill von Alexandrien I Gegen Julian*, Berlin (abbr. *Juln.*)
- P^L** *Ioannes Lydus De mensibus*, edited by R. Wuensch (1898), *Ioannis Laurentii Lydi Liber de mensibus*, Leipzig (abbr. *Mens.*)
- P^Q** *Qusṭā ibn Lūqā Arabic translation of ps. Plutarch Placita philosophorum*, edited by H. Daiber (1980), *Aetius Arabus. Die Vorsokratiker in arabischer Überlieferung*, Wiesbaden
- P^{Sch}** *Scholia Platonica*, edited by G.C. Greene (1938), Haverford PA
- P^{Ps}** *Michael Psellus De omnifaria doctrina*, edited by L.G. Westerink (1948), Utrecht (abbr. *Omn.Doctr.*); other works: *Michaelis Pselli Oratoria minora* (abbr. *Or.Min.*), edited by A.R. Littlewood (1985), Leipzig; *Michaelis Pselli Theologica*, Vol. 1 (abbr. *Op.Theol.* 1), edited by P. Gautier (1989), Leipzig;

- Michaelis Pselli* Philosophica minora, Vol. 1: Opuscula logica, physica, allegorica, alia, Leipzig (abbr. *Phil.Min.* 1), edited by J.M. Duffy (1992), Leipzig; *Michaelis Pselli* Philosophica minora, Vol. 2 Opuscula psychologica, theologica, daemonologica (abbr. *Phil.Min.* 2), edited by D.J. O'Meara (1989), Leipzig; *Michaelis Pselli* Theologica, Vol. 2 (abbr. *Op.Theol.* 2), edited by Westerink, L.G.–Duffy, J.M. (2002), Leipzig; 'Επιλύσεις ποικίλων ἐρωτημάτων, *Michael Psellus* De operatione daemonum cum notis Gaulmini: accedunt inedita opuscula Pselli (abbr. *Epi.*), edited by J.F. Boissonade (1838), Nuremberg (repr. Amsterdam 1964)
- P^{Sy} *Symeon Seth* Conspectus rerum naturalium, edited by A. Delatte (1939), *Anecdota Atheniensia et alia*, T. 2: *Textes relatifs à l'histoire des sciences*, Liège (abbr. *CRN*)
- P^{Tz} *Ioannes Tzetzes* Exegesis in Homeri Iliadem, edited by G. Hermann (1812) in *Draconis Stratonicensis Liber de metris poeticis; Ioannis Tzetzes Exegesis in Homeri Iliadem*, Leipzig; 'Εξήγησις Ἰωάννου Γραμματικοῦ τοῦ Τζέτζου εἰς τὴν Ὀμήρου Ἰλιάδα, edited by M. Papat homopoulos (2007), Athens
- P^{Ars} *Arsenius Paroemiographus* Apothegmata, edited by E.L. von Leutsch (1851), *Corpus Paroemiographorum Graecorum*, Vol. 2, Göttingen (repr. Hildesheim 1958), 240–744
- S *Ioannes Stobaeus* Eclogae, edited by C. Wachsmuth (1884 and unaltered reprints), *Ioannis Stobaei Anthologii libri duo priores qui inscribi solent* Eclogae physicae et ethicae, 2 Vols., Berlin (abbr. *Ecl.*), with the following sigla:
- | Manuscripts | Date |
|-----------------------|--------------|
| F Farnesinus III D 15 | 14th century |
| P Parisinus 2129 | 15th century |
| L Laurentianus 8.22 | 14th century |
- Ioannes Stobaeus* Florilegium, edited by O. Hense (1894–1916 and unaltered reprints), *Ioannis Stobaei Anthologii libri duo posteriores*, 3 Vols., Berlin (abbr. *Flor.*) (for ch. 5.30)
- S^{L-ind} index in ms. Laurentianus (where deviates from title in text), edited by C. Wachsmuth (1882), *Studien zu den griechischen Florilegien*, Berlin, pp. 5–37
- S^{P(m.s.)} manus secunda, where Wachsmuth has P², e.g. at *Ecl.* 1.24.2d
- S^{Phot} index of Photius, edited by R. Henry (1960 and unaltered reprints), *Photius* Bibliothèque, Vol. 2, Paris
- S^{Cod.Vat.} codex Vaticanus gr. 201 (according to Wachsmuth 1882, 71 derived from F)
- S^{Cod.Mon.} codex Monacensis gr. 396 (also named codex Augustinus, according to Wachsmuth 1882, 71 derived from F)
- T Theodoretus, edited by J. Raeder (1904), *Theodoreti Graecarum Affectionum Curatio*, Leipzig (abbr. *CAG*)

In principle the manuscripts of all witnesses except P^B and S are not cited; significant variation between manuscript readings is expressed through numbers, e.g. P^{G1}, P^{G2} etc.

b *Secondary Witnesses*

- Ach *Achilles*, edited by G. Di Maria (1996), *Achillis quae feruntur astronomica et in Aratum opuscula: De universo, De Arati vita, De Phaenomenorum interpretatione*, Palermo
- Aratus/Aratea *Commentaria in Aratum*, edited by E. Maass (1898), *Commentariorum in Aratum reliquiae*, Berlin. Anonymus I, pp. 87–98 (abbr. Anon. I); Anonymus II 1, pp. 102–133 (abbr. Anon. II);
- Ath *Athenagoras Legatio*, edited by M. Marcovich (1990), *Athenagoras Legatio pro Christianis*, Berlin (abbr. *Leg.*); (2000) *Athenagorae qui fertur De resurrectione mortuorum*, Leiden (abbr. *de Res.*)
- Epiphanius *Epiphanius Ancoratus und Panarion*, edited by K. Holl–H. Lietzmann (1915–1933), 3 Vols., Leipzig (citing 3rd ed. 1985–2013)
- Hermias *Hermias Satire des philosophes païens*, edited by R.P.C. Hanson (1993), SC 388, Paris
- Isidore of Pelusium *Isidore de Péluse Lettres* (nos. 1214–1700), edited by P. Éviéux (1997–2000), SC 422, 454, Paris; MPG Vol. 78, edited by F. Morel (1638)
- Nem *Nemesius*, edited by M. Morani (1987), *Nemesii Emeseni De natura hominis*, Leipzig (abbr. *NH*)
- Ps. Justinus see above (a) Primary witnesses
- Scholia in Aratum* *Scholia in Aratum vetera*, edited by J. Martin, Stuttgart 1974; *Prolegomena* (in Parisino Suppl.Gr. 607A servata), pp. 23–31 (abbr. *Proleg.*); *Scholia in Aratum*, pp. 37–527
- Scholia in Basilium* *Scholia in Basilii Hexaameron I*, edited by G. Pasquali (1910) ‘Doxographica aus Basilioscholien’, *Nachrichten der Akademie der Wissenschaften in Göttingen, phil.-hist.Kl.* (1910) 194–228 (reprinted in *Scritti Filologici*, Vol. 1 (Florence 1986) 539–574); *Scholia in Basilii Hexaameron II*, edited by Th. Poljakov (1982–1983), ‘The unpublished doxographical scholia on St. Basil’s *Hexaameron*’, *Revue d’Histoire des Textes* 12–13: 1982–1983, pp. 367–369

3 Latin Abbreviations in the Apparatus Criticus (and Elsewhere)

< >	litterae additae
{ }	litterae deletae
x] y	x lectio omnium testium sola y excepta (app. crit.)
] [	litterae qui non extant (papyri)
. (sub lineam)	litterae dubiae (papyri)
***	lacuna
~	approximat, aequivalet
♦	lemma per hypothesin
abiud.	abiudicavit
add.	addidit
ad fin.	ad finem
adn.	adnotatio
al.	aliter
ap.	apud
app.	apparatus
append.	appendix
Byz.	Byzantinum
c., cc.	caput, capita
cf.	confer
confirm.	confirmat
coni.	coniecit
conl.	conlato
contam.	contaminatus
corr.	correx[it]/corrector
c.q.	casu quo
crit.	criticus
crucif.	crucifixit
dub.	dubitanter, dubitat
duce	primus
ed.	editor, editio
edd.	editores
emend.	emendavit
exh.	exhibet, exhibuit
fort.	fortasse
fr.	fragmentum, fragmenta
gloss.	glossa, glossema
hab.	habet, habent
i.q.	idem quod

ind.	indicavit
init.	initium
inv.	invertit
l., ll.	linea, lineae
lac.	lacuna
leg.	legit, legunt
mal.	maluit
marg.	margo, in margine
ms., mss.	manuscriptum, manuscripta
n., nn.	nota, notae
om.	omittit, omisit
p., pp.	pagina, paginae
pap.	papyrus
paraphr.	paraphrasit
per litt.	per litteras
prob.	probat, probavit
procem.	procœmium
prop.	proposuit
put.	putat, putavit
recc.	recentiores
reiec.	reiecit
rest.	restituit
ret.	retinuit
schol.	scholion
sc.	scilicet
scr.	scripsit
sec.	secundum
secl.	seclusit
seqq.	et sequentia
sim.	simile, similia
s.l.	supra lineam
subst.	substituit
suppl.	supplevit
susp.	suspicit
s.v.	sub voce
t.	tomus
t.a.q.	terminus ante quem
tit.	titulus
t.p.q.	terminus post quem
transcr.	transcribit

transp.	transposuit
verb.	verbum, verba
verisim.	verisimiliter
vert.	vertit
ut vid.	ut videtur
vid.	vide
v.l.	varia lectio
Voss.	mss. Vossii in bibliotheca Lugd.Bat.

4 Works Frequently Cited

This section lists authors and works that are cited by name of the author in the apparatus criticus. (Full details on editions and collections of fragments cited in the first apparatus below the Greek text are to be found in the Bibliography in Part four.)

Beck	C.D. Beck (1787), <i>Plutarchi De Physicis philosophorum decretis libri quinque</i> , Leipzig
Bollack	J. Bollack (1969), <i>Empédocle</i> . Vol. II: <i>Les Origines. Édition et traduction des fragments et des témoignages</i> , Paris
Canter	W. Canter (1575), <i>Ioannis Stobaei Eclogarum libri duo</i> , Antwerp
Corsinus	E. Corsinus (1750), <i>Plutarchi De placitis philosophorum libri V</i> , Florence
Coxon	A.H. Coxon, (1986), <i>The Fragments of Parmenides. A Critical Text with Introduction and Translation, the Ancient Testimonia and a Commentary</i> , Assen (revised and expanded edition with new translation by R. McKirahan, and new preface by M. Schofield, Las Vegas, 2009)
Daiber	H. Daiber (1980), <i>Aetius Arabus. Die Vorsokratiker in arabischer Überlieferung</i> , Wiesbaden
Diels DG	H. Diels (1879 and unaltered reprints), <i>Doxographi Graeci</i> , Berlin
Diels PPF	H. Diels (1901a), <i>Poetarum Philosophorum Fragmenta</i> , Berlin
Diels VS	H. Diels (1903), <i>Die Fragmente der Vorsokratiker</i> , 1st edition, Berlin
DK, Vors.	H. Diels and W. Kranz (1951–1952 and unaltered reprints), <i>Die Fragmente der Vorsokratiker</i> , 6th edition, Berlin
Gemelli Marciano	M.L. Gemelli Marciano (2007–2010), <i>Die Vorsokratiker</i> Bd. 1, <i>Thales Anaximander Anaximenes Pythagoras und die Pythagoreer Xenophanes Heraklit</i> ; Bd. 2, <i>Parmenides Zenon Empedokles</i> ; Bd.

- 3, *Anaxagoras Melissos Diogenes von Apollonia Die antiken Atomisten: Leukipp und Demokrit. Griechisch-lateinisch-deutsch*, Düsseldorf
- Graham D.W. Graham (2010), *The Texts of Early Greek Philosophy. The Complete Fragments and Selected Testimonies of the Major Presocratics*, 2 Vols., Cambridge
- Heeren A.H.L. Heeren (1792–1801), *Ioannis Stobaei Eclogarum Physicarum et Ethicarum libri duo*, 2 Vols., Göttingen
- Jas M. Jas (2018a), *Nicolaus Rheginus als Übersetzer der pseudo-Galenischen Schrift De historia philosopha: ein Beitrag zur lateinischen Überlieferung des Corpus Galenicum*, Wiesbaden
- Lachenaud G. Lachenaud (1993), *Plutarque Œuvres morales T. 12.2, Opinions des Philosophes*, Paris
- Laks–Most A. Laks–G.W. Most (2016), *Early Greek Philosophy*, 9 Vols., Loeb Classical Library, Cambridge, MA; *Les débuts de la philosophie*, Paris
- Mansfeld R¹ J. Mansfeld (1983–1986), *Die Vorsokratiker Griechisch / Deutsch*, 2 Vols., Stuttgart
- Mansfeld R², Primavesi R² J. Mansfeld and O. Primavesi (2011), *Die Vorsokratiker Griechisch / Deutsch*, Stuttgart
- Mau J. Mau (1971), *Plutarchus Placita Philosophorum*, Leipzig
- M–R J. Mansfeld–D.T. Runia (1997–2018), *Aëtiana*, 4 Vols.
- M–R 1 J. Mansfeld–D.T. Runia (1997), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 1: *The Sources*, Leiden
- M–R 2 J. Mansfeld–D.T. Runia (2009), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 2: *The Compendium, Part I: Macrostructure and Microcontext, Part II: Aëtius Book II: Specimen Reconstructionis*, Leiden
- M–R 3 J. Mansfeld–D.T. Runia (2010), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. 3, *Studies in the Doxographical Traditions of Greek Philosophy*, Leiden
- M–R 4 J. Mansfeld–D.T. Runia eds. (2018), *Aëtiana IV: Papers of the Melbourne Colloquium on Ancient Doxography*, Leiden
- Mras K. Mras (1982–1983), *Eusebius Die Praeparatio Evangelica*, 2nd ed., 2 Vols., Berlin
- Meineke A. Meineke (1855–1857), *Ioannis Stobaei Florilegium*, 4 Vols., Leipzig
- Primavesi see above under Mansfeld R²
- Raeder J. Raeder (1904), *Theodoreti Graecarum Affectionum Curatio*, Leipzig

Reiske	J. Reiske (1778), <i>Plutarchi Quae supersunt omnia, Graece et Latine; principibus ex editionibus castigavit, virorumque doctorum suisque annotationibus</i> , Vol. 9, Leipzig
Vítek	T. Vítek (2006), <i>Empedoklés. II Zlomky</i> , Prague
Vors.	see above DK
Wachsmuth	C. Wachsmuth (1884), <i>Ioannis Stobaei Anthologii libri duo priores qui inscribi solent Eclogae physicae et ethicae</i> , 2 Vols., Berlin
Westerink	L.G. Westerink (1948), <i>Michael Psellus De omnifaria doctrina</i> , Utrecht
Wytttenbach	D. Wytttenbach (1797), <i>Plutarchi Chaeronensis Scripta Moralia</i> , Vol. 4, Oxford
Xylander	G. Xylander (Holzmann) (1574), <i>Plutarchi Chaeronensis Moralia</i> , Vol. 2, Basel

5 Further Abbreviations

Names of authors and their works are generally abbreviated in accordance with LSJ, *OLD* and *PGL* (see below).

The works of Galen are abbreviated in accordance with the list of R.J. Hankinson ed. (2008), *The Cambridge Companion to Galen*, Cambridge, pp. 391–397.

The works of Plutarch are abbreviated in accordance with the listing in F. Montanari ed. (2015), *The Brill Dictionary of Ancient Greek*, Leiden, pp. xlvī–xlvii.

BAGD	W. Bauer, W.F. Arndt, F.W. Gingrich, and F.W. Danker (1979), <i>A Greek-English Lexicon of the New Testament and Other Early Christian Literature</i> , 2nd ed., Chicago
CErc	<i>Cronache Ercolanesi</i>
CMG	Corpus Medicorum Graecorum
CPF	Corpus dei Papiri Filosofici Greci e Latini
CPG	M. Geerard (1974–1987), <i>Clavis Patrum Graecarum</i> , Turnhout
DPhA	R. Goulet (1989–2018), <i>Dictionnaire des philosophes antiques</i> , 7 Vols. and Suppl. Vol., Paris
FDS	K.-H. Hülser ed. (1987–1988), <i>Die Fragmente zur Dialektik der Stoiker</i> , 4 Vols., Stuttgart-Bad Cannstatt
FGrH	F. Jacoby & alii (1923–), <i>Die Fragmente der griechischen Historiker</i> , Berlin & Leiden (later repr. Leiden; also Brill online)
GCS	Die griechischen christlichen Schriftsteller
LCL	Loeb Classical Library, ed. by J. Henderson
LLT	Latin Library of Texts (Brepols)

- LSJ H.G. Liddell, R. Scott and H.S. Jones eds. (1996), *A Greek-English Lexicon with a Revised Supplement*, 9th edition, Oxford
- MPG Migne Patrologia Graeca
- MPL Migne Patrologia Latina
- OLD P.G.W. Glare ed. (1982), *Oxford Latin Dictionary*, Oxford
- PGL G.W.H. Lampe ed. (1961), *A Patristic Greek Lexicon*, Oxford
- RE Pauly-Wissowa *Realencyclopädie der classischen Altertumswissenschaft*, ed. G. Wissowa and K. Ziegler (1894–1980)
- SC Sources Chrétiennes
- SVF J. ab Arnim (1903–1924), *Stoicorum Veterum Fragmenta*, 4 Vols., Leipzig (repr. Stuttgart 1964)
- TLG Thesaurus Linguae Graecae: A Digital Library of Greek Literature, University of California at Irvine

User's Guide to the Edition and Commentary

1 Introduction

The aim of this user's guide is to assist the reader in making use of the present Edition and Commentary on the *Placita*. It is a pared down version of section 6 of the General Introduction. For references to further discussion of details see the notes to the General Introduction in Volume One.

2 The Division into Four Parts

The sequence of the Edition and Commentary is based on the insight that ps.Plutarch's *Epitome* of the original no longer extant work by and large preserves the structure of Aëtius' compendium. Part One contains the necessary preliminaries, including the General Introduction, followed by the Edition and Commentary on Book 1 on the principles of nature. Part Two comprises Book 2 on cosmology and the heavens and Book 3 on meteorology and the earth. Part Three treats Book 4 on the psychology of the human being and Book 5 on the physiology of the human being and other animals. For each of the five books, the edition of its chapters is preceded by a compact introduction giving an overview of its transmission, subject-matter, name-labels of philosophers and schools, method and sources. Part Four presents an English translation of the edited text of all five books, together with the bibliography and the indices.

For all the 135 chapters of the entire work, the Edition and Commentary use an identical method and layout. Only the chapters on the pinakes and the four procœmia to Books 1–4 differ in a few respects. The essential features of this method and layout will now be explained in detail, commencing with the edition.

3 The Edition

Following the conventions of classical scholarship, the edition of the Greek text and all its accompanying apparatus are formulated in Latin. The many abbreviations and sigla that we use are set out at the beginning of Parts One to Three.

For each chapter we begin with a list of the relevant *testes* (witnesses). First in this list are the passages from the *testes primi* (primary witnesses) and the name of the editor of the text edition used. These witnesses are: ps.Plutarch

(abbreviated P) and his tradition, Stobaeus (S) and Theodoret (T). Below them on the next line, passages from the *testes secundi* (secondary witnesses) are listed when available, again including their abbreviation and the name of the editor used. They are always introduced with the capitalised Latin abbreviation Cf. (abbreviation of *confer*, i.e. 'compare' or 'see also').

The text of the chapter then follows. It begins with the *titulus* (chapter heading), followed by the numbered lemmata, each consisting of one or more name-labels (sometimes unspecified) plus a doxa. The lines of the text are continuously numbered, as indicated in the margin, beginning with the chapter heading. Following the heading and each lemma of the chapter the primary sources for its text are indicated by the sigla (P,S,T), or (P,S) when T is lacking, or (S,T) when P is lacking, or (P,T) when S is lacking, or only one of these when only one primary source is available. The numbers after the siglum in each case indicate the number of the doxa in the sequence of the text of the primary witness as indicated in the text used.¹ This system gives the crucial information on the attestation of the lemmata at a single glance.

Beneath the text we first list the references to the collections of fragments of Presocratics, Academics, Peripatetics, Stoics and others where individual lemmata can be located. In the case of the Presocratics we refer only to the sixth edition of Diels-Kranz (abbreviated DK), not to collections of individual authors. Similarly for the Stoics we use where possible Von Arnim's collection (*SVF*). For other authors we use the most recent collections.² In the case of authors whose original writings survive, we refer to passages from which the doxa is derived, whether directly or indirectly.

Next we present the apparatus criticus to the text. Its aim is to give full and detailed insight into all the relevant variants of the primary and secondary witnesses. It is therefore not a *negative* but a *positive* apparatus.³ This is necessary because we are not editing a single text from manuscripts and indirect quotations, but rather are *reconstructing* our text from a multiplicity of witnesses both direct (*primi*) and indirect (*secundi*), each of which has its own relation to the lost original *Placita* as collected by Aëtius.⁴ Some of these, such as the frag-

1 These numbers are not found in the texts of Mau, Wachsmuth and Raeder. They have been supplied by us.

2 Rarely we list two collections when they are both current or complementary, e.g. for Strato (Wehrli, Sharples) and Posidonius (Edelstein-Kidd, Theiler).

3 Contrary to our previous practice in the *specimen reconstructionis* of Book 2 in M–R vol. 2.2; see General Introduction, section 2.8.

4 For detailed accounts of these witnesses and the editions used see General Introduction, section 4.2–4.

ments of ps.Plutarch in the Antinoopolis papyrus, the Arabic version of ps.Plutarch by Qusṭā ibn Lūqā translated into German by Hans Daiber, and the new critical edition of a large part of ps.Galen by Mareike Jas, have become available only quite recently. In addition we pay due attention to a variety of earlier editions and also note significant readings, conjectures and emendations when the texts of individual doxai are included in collections of fragments. In general, it is only in the case of the primary witnesses ps.Plutarch and Stobaeus (but not Theodoret) that we give the variants of the main manuscripts. For other texts we give the preferred reading of the relevant critical edition, only mentioning manuscript variants on rare occasions. The Arabic translation of Qusta is cited in Daiber's German version. Based on these principles, the apparatus criticus not only strives to shed light on our choices, but also to inform the user about the peculiarities of the widespread tradition. Because this apparatus is necessarily often rather extensive, it proved impossible to allocate room for the translation next to the Greek text in a synoptic format without chopping up text, translation, and apparatus and creating a succession of blank spaces. For this reason the translations of the Greek text of all 135 chapters, forming a continuous English version of the treatise as a whole, have been printed in the final part, *Aëtiana* 5.4.

Three more sections of the edition remain. First we print the texts of the *testes primi* (primary witnesses) for the reconstruction. In first place is always Theodoret when he has cited this text, followed—with its own sub-heading—by the *traditio ps.Plutarchi*, i.e. the bevy of representatives of the tradition of the *Epitome* available for the relevant chapter. First when available is the Antinoopolis papyrus. This is followed by the text of ps.Galen, the most important of the witnesses to this tradition. We also include texts from ps.Justin, Cyril, Lydus, Psellus, Symeon Seth and others, all of whom excerpted ps.Plutarch. For reasons of space the texts of ps.Plutarch and Stobaeus themselves (and also Eusebius' verbatim excerpts) are not quoted separately. They can be readily found elsewhere. But it is important to note that our debts to and differences from Diels' *DG* edition of Aëtius and to other editions of the primary witnesses are fully accounted for in the apparatus criticus to the Greek text, and often also further discussed in the Commentary.

Next is a section setting out the *testes secundi* (secondary witnesses) who can also offer some assistance for the reconstruction and analysis of the text.⁵ They represent the doxographical traditions closest to Aëtius. Some of these, namely

5 For detailed accounts of these witnesses and the editions used see above, General Introduction, 4.5.

Athenagoras, Achilles, and Nemesius were included by Diels in his apparatus among the *aliorum ex Aetio excerpta*. Because, unlike in the case of Theodoret, it is not certain that these authors actually did excerpt Aëtius, we have preferred to group them together with other passages in the *Aratea*, Hermias, and Scholia to various authors, regarding them as a collection of writings that are closest to the Aëtian tradition without being part of it. They are closer than the texts that we have placed in the proximate tradition.⁶ It should be noted that the distinction is somewhat fuzzy. Texts very close to Aëtius such as in Varro, Philodemus, Cicero and Philo of Alexandria could have been included. The difference is that these texts antedate Aëtius, whereas the *testes secundi* are all later than he is and so could have used his work, whereas this was impossible for the writers just mentioned.

The final sub-section of the edition is a collection of parallel passages quoted from the reconstructed text of other chapters of Aëtius, which we have given the title *Loci Aetiani*. These passages contain various kinds of similarities: to name-label(s) plus doxa, or to parts of doxai, or to particular formulations of doxai or name-labels. They thus provide detailed information about such uniformities as are present in the *Placita* as a whole. Parallels in chapter headings or in the quaestiones (questions or topics) being treated, are generally placed first, followed by those relating to particular lemmata.

4 The Commentary

The second main section of each chapter contains the Commentary. It too follows a fixed and identical schema of treatment, as indicated by alphabetically numbered sections, some of which are further divided into sub-sections and sometimes even further sub-divided. By consistently using this system of divisions, we aim to organise the mass of material involved with a maximum of clarity. Each of these sections and sub-sections will now be explained in turn.

A: Witnesses. In this section we present the evidence as preserved in the primary and secondary witnesses and discuss issues that it might raise. We generally commence with (1) ps.Plutarch and his tradition, since the *Epitome* mostly preserves the general structure of the work and its lemmata best. Sad to say, in the case of Book 5 this tradition is virtually all that we still have. Thereafter follows an analysis of the evidence as presented in (2) Stobaeus and (3)

⁶ See the explanation of the distinction in the General Introduction, sections 4.1 and 5.1.

Theodoret. In this section we often engage in a first sifting of the evidence for the reconstruction of the chapter, followed by further details in section D(b) below.

B: Proximate tradition and sources. This section gives an overview of the texts that can shed light on the subject and contents of the chapter. The first sub-section (1) discusses the proximate texts, i.e. the doxographical tradition which resembles the *Placita* in its focus on questions of the φυσικὸς λόγος, on philosophers and the answers they gave to those questions. These texts can be earlier than Aëtius and represent the anterior tradition from which he drew his material (though the evidence for the early period is rather thin). They can be contemporaneous with him or much later, even as late as Isidore of Seville and (rarely) authors writing in Arabic. The passages discussed may relate to the chapter as a whole or to individual lemmata within it.

The second sub-section (2) turns the attention to the ultimate sources of the subject-matter of the chapter. For the doxai of some philosophers it is sometimes possible to pin down the exact texts on which the doxai are based, e.g. in the extant works of Plato, Aristotle and Epicurus. More often other comparative material will need to be brought to bear, again from Plato and Aristotle, but also from Hellenistic, early Imperial and late ancient texts. Here too, passages discussed may relate to the chapter as a whole or to individual lemmata within it.

For both sub-sections it is the case that many or even most of the texts discussed will be printed in the third main section Further related texts below, to which we frequently cross-refer. Given the large quantity of texts involved, it is not possible to discuss all this material in great detail, but rather we will draw attention to the salient points to which it gives rise.

C: Chapter heading. In this section we give detailed discussions of the type and significance of the chapter heading, including how it relates to the standard question-types that were developed on the basis of the Aristotelian example and were used throughout antiquity. We note, where applicable, the variant readings for the heading in the witnesses and motivate our choice for the chosen formulation. We also give an overview of parallel headings that are embedded in texts or book titles elsewhere. These too are cited below in the section Further related texts.

D: Analysis. This section, which contains our interpretation of the contents of the chapter, consists of five sub-sections (though not all of these are always required for every chapter).

D(a) context. Here we briefly discuss the place of the particular chapter within the group of chapters of which it is a member and the position of this

group in the context of the Book as a whole. We also note possible analogies with the way other books of the *Placita* are structured and point out particular links that a chapter might have with chapters elsewhere and sometimes also with ancient traditions such as the Peripatos and the Stoa.

D(b) *number–order of lemmata*. In this sub-section we return to the witnesses for the contents of the chapter and determine where possible the number of doxai originally present and the order in which they were listed. For this we depend largely on the evidence of the witnesses themselves, as informed by the understanding that we have gained of their methods, but are sometimes assisted by the secondary witnesses and indeed also by texts in the proximate tradition and beyond. For determining the sequence of the doxai it is also important to understand the argumentative structure of the chapter, often revealed in its diaereses or diaphoniae (see also the following sub-section D(c)). Here we also note how our sequence compares with that established by Diels. Often the result is the same, but there are also many cases where we reach a substantially different result, which of course is fully explained and justified.

D(c) *rationale–structure of chapter*. This sub-section contains the nucleus of our interpretation of a chapter. It is a distinctive feature of the *Placita* that its chapters have an argumentative structure which is determined by the contents and position of the individual lemmata but at the same time (at least to some extent) determines their selection. The task of this section is to elucidate that structure. It may involve a listing of doxai in order of decreasing or increasing similarity according to the method of diaeresis, or it may involve a contrasting of doxai or groups of doxai in order to emphasize the conflict between them. There is much variety among the 135 chapters. It should be emphasized that the examples used above will not apply at all to monolemmatic chapters and not necessarily to other chapters with a plurality of doxai.

D(d) *further comments*. This sub-section is divided into General points, pertaining to the chapter as a whole (if pertinent), and individual points pertaining to individual lemmata. These latter, presented in order of the place of the doxa/doxai in the chapter, may relate to the constitution of the text, and/or may enter into detailed discussions of the interpretation of the philosophical or scientific view portrayed by the contents of the lemma concerned. It will be understood that, in the light of the astonishing breadth of topics and thinkers broached in the *Placita*, we have had to be necessarily selective in making such comments. References are frequently made to the secondary literature, but here too we have needed to be selective.

D(e) *other evidence*. This final sub-section of the Commentary follows on from section B above. It embarks on more substantial discussions of evidence in the wider doxographical or anterior philosophical and scientific traditions,

including some of the secondary witnesses (especially Achilles). These can be either of a textual or of a content-related nature, depending on what is relevant for the interpretation of the chapter and/or some of its individual lemmata.

5 Further Related Texts

Our presentation of each chapter ends with a third and final section entitled E: *Further Related Texts*. It too is further sub-divided into two parts.

E(a) *Proximate tradition*. Here, as the name indicates, we present an extensive collection of texts drawn from the proximate doxographical tradition, as outlined in the General Introduction, section 5.1. We print the texts in the original Greek and Latin (with occasionally some texts translated into German or English, for we have no Arabic). These texts link up with the discussion in the earlier section B(1) of the Commentary. The selection begins with General texts dealing with the subject in question and/or covering the views of a plurality of thinkers. The next section lists, where available, the texts that contain or illustrate the chapter headings or sometimes the quaestio posed by that heading. Thereafter texts are listed under the individual lemmata of the chapter. In order to facilitate the reader's orientation, the name-labels of the relevant lemma are printed in bold italics. For all three listings the texts are most often printed in full and are presented in approximate chronological order.

E(b) *Sources and other parallel texts*. In this sub-section we link up with the discussion in the earlier section B(2) of the Commentary and print a collection of texts relating to the wider tradition of ancient philosophical and scientific tradition, including those texts that shed light on the sources that the doxographers may have used to formulate the doxai collected in the *Placita*. These follow the same basic method as in the previous sub-section. They are usually printed in full in the original Latin and Greek, are divided into the same three groups in an approximately chronological sequence, and are highlighted in the same way. In the case of some texts, either very well-known or somewhat tangential to the matter at hand, we give references only.

For further discussion of the texts collected in section E of the Commentary, including a justification of their extent and the method of citing them in the ancient languages only, see the General Introduction, section 6.5.

Aetius Placita
Book 4 Psychology:
Text and Commentary



Introduction to Book 4

1 Transmission

In terms of its 24 chapters (plus proem) and 146 doxai, Book 4 of A's compendium as transmitted down to us is on the short side. But because it contains a considerable number of long lemmata, it is in fact the second longest of the Books (4038 words; only Book 1 is longer). It is relatively well attested. P^B and P^Q are available for all of its chapters. (Note that to Diels' 23 chapters we have added a ch. 4.7a consisting of the two lemmata which Diels dubiously included at the end of ch. 4.5.) The excerpts from A in T cease at 4.8, but are quite helpful as far as they go. In his excerpts from chs. 4.2–7 (the material parallel to ch. 4.6 was passed over) T usefully and significantly provides a number of parallels for lemmata in S not paralleled in P, and is the only source for three lemmata in ch. 4.4 and for one lemma in ch. 4.5—proof again of his crucial role as a source for A, for which see further above, General Introduction section 2.5. S, who of course was under no obligation to excerpt the whole work, seems to have lacked a chapter with contents corresponding to P 4.1 *On the Nile*, as there is not even a reference to the heading in Photius' index. Other chapters of S have been lost because they were edited out by the Byzantine redactors, namely those corresponding to P 4.4 (for the most part), 4.5, 4.10 (where no corresponding heading in S either), 4.12, 4.14, 4.18, and the whole block of 4.20–23. At the end of Book 4 the transmission of S is unfortunately as defective as it is for the whole of Book 5, though for 4.7a he is our sole witness.

For the tradition of P 4.2–7 we are only able to use E for chs. 4.4–5, since he did not excerpt the others. G declines to epitomize chs. 4.2–7, doubtless because of his alternative, namely c. 24 'On the soul', which belongs with a different strand of the tradition but contains much material that is parallel. This chapter has been inserted early on, preceding all but a handful of his excerpts from P Book 1. Though he omits P 4.10, he epitomizes all of P 4.1, 4.9 and 4.11–23 in successive chapters at c. 89–104, thus preserving 16 out of 24 chapters, and so complements P^B and P^Q for large sections of the Book. Yet he retains only 46 doxai, or about 30%, which is lowest for all five Books. In addition there are three small scraps from the Antinoopolis papyrus, while some headings and lemmata are confirmed by Psellus. Thus chs. 4.2–9, 4.13–17 and 4.19 can be reconstructed from multiple witnesses, but for the remaining chapters we only have P and what is left of his tradition. In the latter case the number and order of the lemmata are fixed as we find them in the tradition of P. At most we can

speculate on how P might have epitomized the material he found in A, in some cases comparing material found in proximate sources and other transmitted doxography or extrapolating from what we know about P's methods elsewhere in his *Epitome* (for example his manipulation of name-labels). In those cases we will speak primarily about P, although it must always be borne in mind that A will be hovering in the background.

2 Subject Matter and Macrostructure

The division of subject matter between Book 4 and Books 3 and 5 on either side is not very strict. Ch. 4.1, on the Nile, belongs with the terrestrial subject matter of the second part of Book 3 (see Introduction to Book 3, section 2). The first chapters of Book 5 could also have been the last of Book 4. The exceptional absence of a prooemium for Book 5 (assuming it has not been lost, which is most unlikely) further underlines the coherence of Books 4 and 5. For the relation between Books 4 and 5 see also below, section 6. The extremely brief prooemium of Book 4 places itself in an *omphalos* position by referring to the treatment of the 'parts' of the cosmos that have been completed (sc. in Books 1–3) and to the 'individual parts', i.e. those pertaining to (mostly) the human being, that are to follow (sc. in Books 4–5), thus emphasizing the coherence of each of the two groups of Books of which the treatise consists as well as the unity of the treatise as a whole. For the divisions and coherence of the treatise see further above, General Introduction, section 2.7.

Thus as a consequence of the inclusion of the Nile, Book 4 consists of two very different and unequal parts, namely ch. 4.1 on the exceptional river and chs. 4.2–23 on the human soul and its properties and functions, or a small hydrological part and a large psychological part.

The psychological part, comprising chapters 4.2 to 4.23, can be divided into three sections:

First: chs. 4.2–7 on the soul per se, i.e. its substance, parts, *hegemonikon*, movement and indestructibility. Groups of chapters that as to a sequential structure according to the categories and question types are comparable to chs. 4.2–7 are found in the present Book and throughout the *Placita*: chs. 4.8–21 on sensation and the senses, 2.1–10 on the cosmos, 2.11–12 on the heaven, 2.12–19 on the stars, 2.20–24 on the sun, 2.25–30 on the moon, 3.9–15 on the earth, and 5.3–14 on semen and insemination.

Secondly: chs. 4.8–21 on epistemology, i.e. the senses in general, sense-perception and its reliability, the number of the senses, two chapters on sensation and concept formation according to the Stoics, six chapters on the

individual senses (but lacking one on touch!), two chapters on voice, and an addendum on the Stoic view of soul including sense perception and origin of concepts;

And third: two further addenda, ch. 4.22 on a particular psycho-somatic theme and ch. 4.23 on psycho-somatic relations in general.

The position of ch. 4.11, on the genesis of sense perceptions and the origin of concepts, and of 4.12, on the different senses of impression, impressor, imagination, and figment, *after* ch. 4.9 on the reliability of sense perceptions and presentations, is odd from a systematic point of view, and reveals that these two exclusively Stoic chapters have been inserted later at the end of the close-knit block of chs. 4.8–10, which deals with the senses in general and presents a variety of views in the usual dialectical way. We notice a comparable attempt at upgrading the psychology at the end of the account of the senses, after that of the close-knit block of chs. 4.13–20, which comprises the individual senses plus voice and also presents varieties of views. For ch. 4.21 adds a further Stoic account of the genesis and processes of sense perception and concept formation, and of the structure of soul and function of its regent part. To some extent this duplicates paragraphs in earlier chapters. On these added chapters and similar Stoic upgrades in Book 4 see Diels *DG* 61, 101, 178, and 182, where he omits this material from his reconstructed *Vetusta placita*. The fact that ch. 4.11 shows unmistakable symptoms of *abridgement* (Mansfeld 2013b) proves that it is Aëtian, P having epitomized his source in his usual way. In chs. 4.11 and 4.21 concept formation follows organically, so to speak, upon sense perception, and is integrated in the treatment of soul as a whole. The Stoic doctrine contains ingredients such as the formation of concepts from other concepts that are lacking in Aristotle. From the point of view of completeness and clarity, and so also from a didactic point of view, their doctrine is therefore superior to that of Aristotle, which explains its presence in Book 4. Diels saw this upgrading of the living text by the addition of Stoic material as a sign of decadence and a corruption of the genuine *Placita* method (see M–R 1.99–100). But a comparison with the proximate tradition shows that the rich Stoic material in A Book 4 is meant to be representative.

3 Name Labels

The number of different name-labels is very high, namely 61. Most of these, as usual, are of philosophers, but there also three scientists: Aristarchus, Eudoxus, and Euthymenes; four doctors: Asclepiades, Erasistratus, Herophilus, and Hippocrates; and even two historians: Ephorus and Herodotus. This is a little

deceptive, since three of these, Euthymenes and the two historians, are only found in the exceptional ch. 4.1 'On the rising of the Nile'. Unusual name-labels are also found in ch. 3.17, likewise dealing with a subject not treated by Aristotle. The number of collective name-labels is definitely higher than usual: Academics 4, Peripatetics 5, Pythagoreans 2, *mathematikoi* 1, and of course the ubiquitous Stoics, found no less than 17 times. Hellenistic name-labels are found esp. in chapters 1 to 10, and the extent to which individual chapters have been upgraded is clear from the presence of the name-labels Asclepiades in ch. 4.2.8, Xenarchus in ch. 4.3.10 (the latest philosopher in the entire work) and Posidonius in ch. 4.13.11, while Herophilus in ch. 4.22.3 and his colleague physician Asclepiades in ch. 4.22.2 anticipate the massive presence of doctors in Book 5, with its focus on physiology. There are seven standard cases of anonymous 'some' or 'others', with three specific anonymous groups at ch. 4.9.10. There is also a quite, but not exceptionally high number of multiple name-labels per doxa—just as in Books 1 and 2—, as follows: seven times 2 and 3 names, twice 6 and 5 names, and once even a series of 11 names (ch. 4.9.1 on that the senses are false).

4 Successions and Historical Presentation

With regard to historical information we notice that the absolute chronology is pretty standard, with a peak in the fifth cent. BCE. Successions play a subordinate role, Thales occurring only twice, i.e. in first position in chs 4.1.1 and 4.2.1, while Pythagoras, updated more frequently than Thales, gets initial positions in five chapters, namely 4.4.1, 4.7.1, 4.7a.1, 4.9.1, and 4.20.1 (in all cases in combination with Plato and Aristotle). With regard to the relative contributions of dialectic and historiography the Book is intermediate between Book 2 (most dialectical) and Book 3 (most historical). On the other hand it is most similar to Book 1 in respect of what name-labels are mostly used, so it may be considered more philosophical. For sections 2–4 see further the statistics and analysis of Jeremiah (2018) at M–R 4.322–336 and 354 ff.

5 Proximate Tradition

The proximate tradition is very rich, with as its most important representatives Diogenes Laertius, Lucretius, and Tertullian *De anima*.

The parallels of the Laertian physics section are found at the beginning as well as in the later part of our Book 4, namely (a) in the block of chapters about

the soul per se and (b) in that about the mechanics of perception by the individual senses, as follows:

- (a) soul per se: ch. 4.3.3 corporeality, substance ~ Diogenes Laertius *V.P.* 7.156 ll. 1349–1350 + 1352–1354 (lines as in Dorandi); ch. 4.4.4 parts ~ *V.P.* 7.157 ll. 1358–1360 (also in the ethics section: *V.P.* 7.110 ll. 811–813); ch. 4.5.7 regent part in the heart ~ *V.P.* 7.159 ll. 1386–1388; ch. 4.7.3 destructibility, various views about temporary survival ~ *V.P.* 7.156 ll. 1351–1352 + 157 ll. 1355–1357.
- (b) mechanics of perception: ch. 4.15.3 vision ~ *V.P.* 7.157 ll. 1360–1366; ch. 4.19.4 hearing (not in ch. 4.16!) *V.P.* 7.158 ll. 1366–1370.

The rich parallels in Lucretius, for which see Runia at M–R 4.411–412, are important, because they antedate A's account by more than a century and so provide information about the tradition to which A is indebted. Tertullian's source Soranus derives from the same or a similar *fons uberior*. The Lucretian parallels also strongly suggest that as to the presentation and elucidation of doctrine the poet is not a mere parrot of his master, or Epicurean fundamentalist. We do, however, have to take into account that according to a *Scholion* on the *Epistle to Herodotus* (at Diogenes Laertius *V.P.* 10.66) Epicurus himself 'in some other work' (ἐν ἄλλοις) successively treated the substance of the soul (cf. ch. 4.3), its division into parts and the presence of the regent part in the chest (cf. ch. 4.4.7), sleep (cf. ch. 5.14), and the provenance of semen (cf. ch. 5.3). This Epicurean sequence and its contents are remarkably parallel to the section of the Stoic account cited above, so one wonders who came first. However this may be, a template, deriving from Epicurus himself and comparable to what is in *DRN*, will have been available to Lucretius, whose more detailed and up-to-date exposition could be justified by reference to the authoritative archegete. For the situation in Book 3 see the Introduction to Book 3, section 5.

Parallels between individual chapters of A (in succession 4.3, 4.5, 5.24, 5.25, 4.7, 4.4) and Tertullian's *De anima* (c. 15, c. 43, c. 54, c. 14), arranged as always in double columns, are discussed by Diels *DG* 203–207. Since Diels it has been accepted that Tertullian is indebted to the *On the Soul* of the second cent. Methodist doctor Soranus, whom he cites several times. Soranus, in his turn, is indebted to the earlier doxographical tradition. The first to provide a list in two columns of the overall *structural* parallels between Tertullian and A Books 4 and 5, one that was also more complete than the evidence furnished by Diels, was Karpp (1934) 42–43. Karpp's list was amplified by Waszink (1947) 31–32, who not only added further details but also a column of references to Diels' reconstruction of the so-called *Vetusta placita*, apparently because in A parallels for a number of details in Tertullian are lacking. He was followed by Festugière (1953) 5–6, who omitted the *Vetusta placita* column. Schrijvers (1976) 233–234 = (1999) 122–123 was the first to add an overview of the important

structural parallels in Lucretius Books 3 and 4 to the Aëtian-cum-Tertullian list, but unnecessarily came up with a third column containing parallels in Junius Martianus Rota's unreliable Latin translation of 1541–1542 of ps.Galen's *Historia philosopha* as reprinted in Kühn 1830 (for details see M–R 1.23–24). In the relevant chapters G of course merely excerpts P. Doxographical-dialectical parallels between Lucretius and A Book 4 (and some others) were discussed by Mansfeld (1990a) 3143–3154. The parallels between all of these accounts, as well as the Aristotelian background (on which see below) are discussed in some detail in M–R 2.139–153.

Substantial parallels for these proximate sources of A's material are also to be found elsewhere. Among these sources the most prominent are Cicero *Lucullus* and *Tusculans*, Philo *De somniis*, Arius Didymus, Galen *De placitis Hippocratis et Platonis*, Alexander(?) *De anima mantissa*, Tertullian *De anima*, Iamblichus *De anima*, Porphyry *De anima*, Macrobius *in Somnium Scipionis*, Nemesius, Psellus *De omnifaria doctrina*, and the *Commentaria in Dionysium Thracem*.

6 Other Source Material

We noted already above that the post-Aristotelian topic of the rising of the Nile has been placed in ch. 4.1 at the beginning, as close as possible to the presentation of the sea in Book 3. In contrast, the organization of the account of the soul per se is mostly based on Aristotle's *On the Soul*, and that of sense-perception on the *On the Soul* and its appendix, the *Parva naturalia*. This exposition has been upgraded by the insertion of more advanced epistemological material that is exclusively Stoic, for which see further below. The two final chapters, on respiration and the relation between bodily affections and the soul, reflect the separate account of respiration in the *Parva naturalia* and their focus on what is common to soul and body (Arist. *Sens.* 1), thus anticipating the account of themes of a similar nature and with the same antecedents in the next Book.

Diogenes Laertius *V.P.* 7.133 reproduces the contents of the αἰτιολογικόν, the third subpart of the second main division of the Stoic diaeresis of the *physikos logos*, for which see M–R 2.1.105–106 and above, General Introduction section 2.8. This subpart is again divided into two parts. Issues contained in the former of these parts are studied by physicians as well as philosophers, among which that of the location of the regent part of the soul, cf. ch. 4.5, those concerned with 'what happens in the soul', relevant for the whole of chs. 4.8–22, and those 'concerning seeds'. So we have both psychology and spermatology in the same subpart of the division, which further illustrates the close relationship between Books 4 and 5. Issues contained in the second of these parts are studied by

mathematikoi as well as philosophers, such as ‘how we see’ cf. ch. 4.13, ‘what is the cause of the presentation in the mirror’ cf. ch. 4.14, followed surprisingly by meteorological subjects, for which see Introduction to Book 3 section 7.

The treatment of sense-perception, including the epistemological issue of its trustworthiness, in the context of psychology as part of physics agrees with Aristotle’s procedure in the *On the Soul* and *Parva naturalia*. (Our discussion in M–R 2.1.138–139 is too cautious.) We further know that Book 2 of Theophrastus’ *De anima* also counted as Book 5 of his *Physics* (Themistius in *de An.* 108.11 = Theophrastus fr. 307A FHS&G). And his *De sensibus* belongs with physics too, even if it were part of the *Physikai Doxai*, for the latter, as the title shows, certainly belongs with physics. In Aristotle the part of epistemological theory that deals with concept formation in some detail is found dispersed over various places, not only in the *On the Soul*. The interpretation of these passages is not easy; the doctrine is not presented in a systematic way, and the various accounts are not fully, or at least not easily, compatible with each other. Aristotle moreover fails to explain the origin of concepts in and from other concepts. In the *On the Parts of Animals* 1.1 641a33–b10 the study of intellect insofar as it is related to the objects of thought, which perhaps amounts to the study of the objects of thought themselves, is excluded from physics (cf. *Met.* Z.1 1025b27–30). This would appear to be in conflict with what happens in the *On the Soul* (on this controversial passage see Kullmann 2007, 309–311, with references to the discussion). This may help to explain the preference for the Stoic account in the *Placita*.

Epistemology was treated systematically by Chrysippus in at least two treatises belonging to the *physical* part of philosophy, namely his *Physics* and his *On the Soul*. Diogenes Laertius cites the second Book of the *On the Soul* for the explanation of what is meant by an imprint, *typôsis*, in the soul (*V.P.* 7.50, *SVF* 2.55). The second Book of the *Physics* is cited as the *locus classicus* for the cataleptic impression (*kataleptikê phantasia* as the criterion *V.P.* 7.54, *SVF* 2.105)—though disagreeing with himself he also mentioned sense perception and preconception (*prolepsis*) as criteria in Book 1 of his *On the Logos* (*V.P.* 7.54, *SVF* 2.105). This title is cited in the ethical section of his catalogue, along with other titles that indicate epistemological topics (*V.P.* 7.201, *SVF* 2.17 p. 9.24–30). The second Book of his *Physics* is also cited for the view that ‘voice’ is corporeal (*V.P.* 7.55, *SVF* 2.140). Diogenes of Babylon cited Zeno’s argument about the location of mind and speech in the heart at the beginning of his *On the Regent Part of the Soul* (Galen *PHP* 2.5.7, *SVF* 1.148, *SVF* 3 Diog. 23; cf. Galen *PHP* 2.5.12, *SVF* 3 Diog. 29 on voice). These descriptions of what goes on in the soul and its regent part fill out the brief account of the psychological subpart of physics at Diogenes Laertius *V.P.* 7. 133 cited above (‘the inquiry, according to which

they inquire about the *hegemonikon* and the things that happen in the soul'). It follows that the position of the epistemological chapters and paragraphs concerned with the Stoics in A's psychological Book 4 agrees rather well with Chrysippus' and Diogenes of Babylon's practice in the physical part of philosophy. To be sure, Zeno, Chrysippus, Archedemus and Eudromus placed 'logic' first in the order of the three parts of philosophy, but we may feel sure that this 'logic' (or 'dialectic') did not include epistemology.

Note on the other hand that Diogenes Laertius *V.P.* 7.42–52 includes treatment of *phantasiai* (even qua imprint in the soul, 7.46) and truth in the *dialectical* part of philosophy, i.e. not in physics but in logic. Also see Diocles at Diogenes Laertius *V.P.* 7.49, who tells us that the Stoics are agreed to *begin* with the theory of impression and sense perception. This is quite different from the position of these themes in Chrysippus and in A, but has to be seen as a later, though of course not illogical development. Because the *Placita* are a physical treatise (cf. *physikos logos*, ch. 1.0a.1[1]) and not a systematic *logos* of philosophy that like ps.Galen's *Historia philosopha* begins with logic or dialectic, the epistemological ingredients could not be accommodated at its beginning—say, after the introductory section on the parts of philosophy in the prooemium of the treatise, just as they are in Diogenes Laertius after *V.P.* 7.39–41. They were not so accommodated, at any rate.

7 Other Parallels and Sources

For the ultimate sources of much of the material contained in the Book we must go back to the Peripatos, and think of the otherwise lost sources used by Aristotle, Theophrastus and their predecessors. Ch. 4.1 on the Nile is dependent on the accounts of Herodotus and ps.Aristotle's *De inundacione Nili*, a characteristic it shares with the widespread tradition on this subject. It is also evident that ultimately the sources that A drew on for his psychology had access to Presocratic material (in some cases their actual works). Plato's *Timaeus* (and *Philebus*) furnish material for the twelve doxai attributed to him in the book, though these have as a rule been modernized. Chapters on the individual senses are to some extent related to Theophrastus *De sensibus*, as will be discussed at the relevant chapters. For many of the chapters it emerges that the general approach, the title and some of the lemmata go back to Aristotle's *On the Soul* and *Parva naturalia*.

The wider doxographical tradition, as for instance exemplified by Cicero *Tusc.* 1.19–21 and elsewhere in the same book, treats the themes of the soul's substance, its mortality versus its immortality, and the location of its regent

part simultaneously. At a first glance the *Placita* separates these themes rather rigorously, as is clear from the chapter headings and the contents of the chapters themselves. But some traces of a less rigorous separation remain. In ch. 4.2, on the substance of soul qua incorporeal, Alcmaeon's soul is said at 4.2.2 to be 'immortal' (ἀθάνατον), thus anticipating the theme of ch. 4.7. Also note that the various references to movement at ch. 4.2.1–5 anticipate the theme of ch. 4.6. The impression that A depends on an anterior treatment that was a bit less 'pedantically' scholastic is unavoidable. The emphasis may be different from Aristotle's too; e.g. the focus on the *hegemonikon* is Hellenistic and not earlier. Later Hellenistic sources are also utilized, as proven by chapters 11–12 and 21, which exceptionally derive from Stoic sources alone, and by the focus on Stoic doctrine in other chapters.

Liber 4 Titulus et index

T: Theodoretus *CAG* 4.31 Raeder, cf. 2.95, 5.16 (titulus)—^{P^B}: ps.Plutarchus *Plac.* 897D–E, Diels p. 269—^{P^Q}: Qustā ibn Lūqā p. 188 Daiber (titulus), pinax in ms. Damascenus fol. 7^v (ineditus)—^{P^E}: Eusebius *PE* 15.32.10, p. 407.5–8 Mras—^{P^{Sy}}: Symeon Seth *CRN* praef., p. 18.13–14 + 4.56, p. 59.9–12 Delatte

Titulus ΑΕΤΙΟΥ ΠΕΡΙ ΤΩΝ ΑΡΕΣΚΟΝΤΩΝ ΤΟ Δ', ἐν ᾧ κεφάλαια τάδε·

Index

α'.	Περὶ Νείλου ἀναβάσεως	
β'.	Περὶ ψυχῆς	
γ'.	Εἰ σῶμα ἢ ψυχὴ καὶ τίς ἡ οὐσία αὐτῆς	5
δ'.	Περὶ μερῶν ψυχῆς	
ε'.	Τί τὸ τῆς ψυχῆς ἡγεμονικὸν καὶ ἐν τίνι ἐστίν	
ς'.	Περὶ κινήσεως ψυχῆς	
ζ'.	Περὶ ἀφθαρσίας ψυχῆς	
ζ'+.	Περὶ νοῦ	10
η'.	Περὶ αἰσθήσεως καὶ αἰσθητῶν	
θ'.	Εἰ ἀληθεῖς αἱ αἰσθήσεις καὶ φαντασάι	
ι'.	Πόσαι εἰσὶν αἰσθήσεις	
ια'.	Πῶς γίνεται ἡ αἰσθησις καὶ ἡ ἔννοια καὶ ὁ κατὰ (ἐν)διάθεσιν λόγος	
ιβ'.	Τίνι διαφέρει φαντασία φανταστὸν φανταστικὸν φάντασμα	15
ιγ'.	Περὶ ὁράσεως, πῶς ὁρώμεν	
ιδ'.	Περὶ κατοπτρικῶν ἐμφάσεων	
ιε'.	Εἰ ὁρατὸν τὸ σκότος	
ις'.	Περὶ ἀκοῆς	
ιζ'.	Περὶ ὁσφρήσεως	20
ιη'.	Περὶ γεύσεως	

titulus : scripsimus, cf. T 4.31 et M–R 1.326 : Πλουτάρχου Τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν τὸ δ', ἐν ᾧ κεφάλαια τάδε ^{P^{B(1)}} : βιβλίον τέταρτον ἐν ᾧ κεφάλαια τάδε ^{P^{B(11)}} : Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις βιβλίον τέταρτον ^{P^{B(111E)}} : *Die vierte Abhandlung aus dem Buch des Plutarchos über die naturwissenschaftlichen Ansichten, welche die Philosophen vertraten* Q **index** : totum indicem om. ^{P^{B(111a)}} : exstat in P^Q, sed hactenus ineditus (habemus huius versionem Daiberi; vid. append. infra t. 4) || [3] ἀναβάσεως ^{P^B} : *Zunahme* Q [4] Περὶ ψυχῆς ^{P^B} : *Was ist die Definition der Seele?* Q [7] καὶ ... ἐστίν ^{P^B} : *unter den Seelenteilen* Q [10] addidimus ex S; vid. c. 4.7a et comm. ad loc. [14] ἡ αἰσθησις ^{P^B} : *die Sinnesempfindungen* Q || (ἐν)διάθεσιν tit. c. 4.11, vid. ad loc. : διαθέσιν ^{P^B} : *die Logik des Denkens* Q [15] φανταστικόν, φάντασμα ^{P^B} : om. Q [16] Περὶ ... ὁρώμεν ^{P^B} : *Wie sieht der Gesichtssinn?* Q [23] εἰ ἀσώματος ἢ φωνῇ ^{P^B} : *Ist der Laut ein Körper?* Q

- ιθ'. Περὶ φωνῆς
 κ'. Εἰ ἀσώματος ἡ φωνὴ καὶ πῶς ἡχώ γίνεται
 κα'. Πόθεν αἰσθητικὴ γίνεται ἡ ψυχὴ καὶ τί αὐτῆς τὸ ἡγεμονικόν
 κβ'. Περὶ ἀναπνοῆς
 κγ'. Περὶ παθῶν σωματικῶν καὶ εἰ συναλγεί τούτοις ἡ ψυχὴ

25

[26] Περὶ ... ψυχῇ tit. c. 4.23 : συναλγεί αὐτοῖς P^B : *sie weiss* Q

Testes primi:

Theodoretus CAG 4.31 vid. lib. 1. titulus et index

Traditio ps.Plutarchi:

Eusebius PE 15.32.10 vid. lib. 1. titulus et index

Symeon Seth CRN 4 Praef. p. 18.13–14 + 4.56 Delatte vid. lib. 1 titulus et index

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

As discussed in the equivalent chapter of Book 1, for the title of the entire work and its individual books we must rely on the evidence of T, the only witness to cite the title of the original work and give the name of its author. The titles in P and those witnesses dependent on its tradition are expanded versions of the original title. The title at the head of this Book in P^B is the shortest of the five, omitting the preposition Περὶ at its beginning and making no reference to the *epitome* character of the work. The title in Q's translation is also short. On these titles see further Book 1 titulus et index Commentary C.

For the index of chapters P^B is the chief witness, though not all mss. contain it. One of the mss. of Q, Zāhiriya (Damascenus) 4871 contains a translation of the list and thus provides valuable additional evidence on the manuscript tradition. Daiber did not include it in his edition, but he has kindly provided the editors with a translation (see Appendix in Vol. 4). On this translation and its source see further the Book 1 titulus et index Commentary A.

Eusebius only cites two chapters from this book, chs. 4.4–5, at PE 15.60–61. For the latter he gives a shortened heading in both the index to Book 15 and in the excerpt itself, but a longer (but not complete) version in his summary at PE 15.32.10. Symeon Seth also mentions some headings from this book in his

summary of the contents of his Book 4 which takes the place of an index. For both texts, see above, Book 1 titulus et index *testes primi*.

For the question whether A's text contained the index see Book 1 titulus et index Commentary D. On the practice of prefacing texts with tables of content and chapter headings see Book 1 titulus et index Commentary D(e).

C *Book Title*

See above, section A. On how this title relates to the title of the original work see Book 1 titulus et index Commentary C.

D *Analysis of the Index*

(1) For a discussion giving the reasons why we are convinced that A's original compendium contained these indices at the beginning of each book, see M–R 2.196–204 and Book 1 titulus et index Commentary D(6) and D(e).

(2) For the methodology of the reconstruction of the index see Book 1 titulus et index Commentary D(3). We argue that priority must be given to the chapter headings in the text of the chapters themselves, since A will have based his index on these when he compiled the work. It is thus to be assumed that the list of chapter headings in the index accurately reflects the chapter headings in the text of the Book. In case of this book there is a strong correlation between the headings in the index and those in the text of the chapters themselves, with only the heading of 4.7a, a chapter which P omitted, to be added and a very slight discrepancy between the heading in the pinax as preserved in the mss. (αὐτοῖς) and the intra-textual heading (τούτοις).

(3) In this book Q also adheres rather closely to the headings as transmitted in the mss. tradition, but as can be seen in the app. crit. above there are a number of variants, mostly omissions and simplifications, but in the case of ch. 4.2 an expansion, altering the simple umbrella heading with Περὶ to a heading asking what the soul's definition is. This is no doubt an innovation of the translator Qustā. For the headings in Eusebius, see section A above.

D(e) *Other Evidence*

For further discussion on the use of *pinakes* (tables of contents) in ancient works see Book 1 titulus et index Commentary D(e).

In section E Further related texts below, we present a selection of texts ranging from Chrysippus to the very end of antiquity in which subjects relating to psychology are set in terms more or less reminiscent of the list of headings in A's Book 4. On the groupings of themes that correspond to the contents of the Book see also above, Introduction to Book 4. Selected passages will be repeated at the relevant chapters. On these texts in general see also Mansfeld (1990a). A

separate study was devoted to the important evidence of the Chrysippus text; see Mansfeld (1989a). The passages in Philo also go back to doxographical traditions anterior to A; see further Book 2, Introduction, and ch. 2.11 Commentary B(1).

E Further Related Texts

a Proximate Tradition

Chrysippus *de An.* 1 verbatim at Gal. *PHP* 3.1.9–16 λέγω δὴ ὅτι ὁ Χρύσιππος (*SVF* 2.885) κατὰ τὸν πρῶτον αὐτοῦ Περί ψυχῆς λόγον τῶν μερῶν αὐτῆς τοῦ ἡγεμονικοῦ μνημονεύει ἀρχόμενος, ἐνθα δὴ δεικνύει πειράσθαι τὴν ἀρχὴν τῆς ψυχῆς ἐν τῇ καρδίᾳ μόνῃ περιέχεσθαι οὕτως λέγει· ‘ἡ ψυχὴ πνεῦμά ἐστι σύμφυτον ἡμῖν συν-εχὲς παντὶ τῷ σώματι διήκον ἔστ’ ἂν ἡ τῆς ζωῆς εὐπνοία παρῇ ἐν τῷ σώματι (cf. ch. 4.3.3). ταύτης οὖν τῶν μερῶν ἐκάστῳ διατεταγμένων μορίῳ τὸ διήκον αὐτῶν εἰς τὴν τραχείαν ἀρτηρίαν φωνὴν εἶναι, τὸ δὲ εἰς ὀφθαλμοὺς ὄψιν, τὸ δὲ εἰς ὠτα ἀκοήν, τὸ δ’ εἰς ῥίνας ὄσφρησιν, τὸ δ’ εἰς γλῶτταν γεῦσιν, τὸ δ’ εἰς ὄλῃν τὴν σάρκα ἀφήν καὶ τὸ εἰς ὄρχεις ἑτέρον τιν’ ἔχον τοιοῦτον λόγον, σπερματικόν, εἰς ὃ δὲ συμβαίνει πάντα ταῦτα ἐν τῇ καρδίᾳ εἶναι, μέρος ὃν αὐτῆς τὸ ἡγεμονικόν (cf. ch. 4.4.4). οὕτω δὲ ἐχόντων αὐτῶν τὰ μὲν λοιπὰ συμφωνεῖται, περὶ δὲ τοῦ ἡγεμονικοῦ μέρους τῆς ψυχῆς διαφωνοῦσιν ἄλλοι ἐν ἄλλοις λέγοντες αὐτὸ εἶναι τόποις (cf. ch. 4.5). οἱ μὲν γὰρ περὶ τὸν θώρακα φασιν εἶναι αὐτό, οἱ δὲ περὶ τὴν κεφαλὴν. κατὰ τὰ αὐτὰ δὲ ταῦτα διαφωνοῦσι, ποῦ τῆς κεφαλῆς καὶ τοῦ θώρακος ἐστίν, οὐ συμφωνοῦντες αὐτοῖς. Πλάτων δὲ καὶ τριμερῆ τὴν ψυχὴν φήσας εἶναι τὸ μὲν λογιστικόν ἔλεγεν ἐν τῇ κεφαλῇ εἶναι, τὸ δὲ θυμοειδὲς περὶ τὸν θώρακα, τὸ δὲ ἐπιθυμητικόν περὶ τὸν ὀμφαλόν. οὕτω φαίνεται διαφεύγειν ὁ τόπος ἡμᾶς οὐτ’ αἰσθήσεως ἐκφανοῦς γενομένης, ὅπερ ἐπὶ τῶν λοιπῶν συντετύχηκεν, οὔτε {τῷ} τῶν τεκμηρίων δι’ ὧν ἂν τις συλλογίσαιτο τοῦτο· οὐδὲ γὰρ ἂν ἀντιλογία ἐπὶ τοσούτον προήλθεν καὶ ἐν ἰατροῖς καὶ ἐν φιλοσόφοις.’ αὕτη πρώτη ῥῆσις γέγραπται ὑπὸ Χρυσίππου περὶ ἡγεμονικοῦ κατὰ τὸ πρότερον Περί ψυχῆς. τὸ μὲν γὰρ ἡμῖς μέρος αὐτῷ τῆς βίβλου τὸ πρότερον ὑπὲρ οὐσίας ψυχῆς ἔχει τὴν σκέψιν. **Cicero** *Luc.* 124 *tenemusne quid sit animus* (cf. chs. 4.2–3)? *ubi sit* (cf. chs. 4.4–5)? *denique sitne an ut Dicaearchus* (fr. 8(f) Wehrli, 17 Mirhady) *visum est ne sit quidem ullus? ... si simplex* (cf. ch. 4.4), *utrum sit ignis an anima an sanguis* (cf. ch. 4.3) *an ut Xenocrates* (fr. 67 Heinze, F 121 Isnardi Parente²) *numerus nullo corpore, quod intellegi quale sit vix potest* (cf. ch. 4.2)? *Tusc.* 1.18 *quid sit porro ipse animus* (cf. chs. 4.2–3) *aut ubi* (cf. chs. 4.4–5) *aut unde* (cf. ch. 4.5a), *magna dissensio est.* **Philo** *Somm.* 1.30–32 ἄρ’ οὖν καὶ τὸ τέταρτον τῶν ἐν ἡμῖν αὐτοῖς, ὁ ἡγεμὼν νοῦς, καταληπτὸς ἐστίν; οὐ δῆπου. τί γὰρ αὐτὸν οἰόμεθα κατὰ τὴν οὐσίαν εἶναι; πνεῦμα ἢ αἷμα ἢ σῶμα συνόλως (cf. ch. 4.2)–ἀλλ’ οὐ σῶμα, ἀσώματον δὲ λεκτέον—ἡ πέρας ἢ εἶδος ἢ ἀριθμὸν ἢ ἐνδελέχειαν ἢ ἀρμονίαν ἢ τί τῶν ὄντων (cf. ch. 4.3); (31) γεννώμενον δ’ εὐθύς ἢ ἔξωθεν εἰσκρίνεται ἢ ὑπὸ τοῦ περιέχοντος ἀέρος ἢ ἐνθερμος ἐν ἡμῖν φύσις οἷα σίδηρος ἐν χαλκῷ πεπυρωμένος ὕδατι ψυχρῷ πρὸς τὸ κραταιότατον στομοῦται (cf. ch. 4.5a); διότι καὶ παρὰ τὴν ψύξιν ὠνομάσθαι ψυχὴ δοκεῖ. τί δέ; τελευτώντων σβέννυται καὶ συμφθεῖρεται τοῖς σώμασιν ἢ πλείστον ἐπιβιοῖ χρόνον ἢ κατὰ τὸ παντελὲς ἄφθαρτόν ἐστι (cf. ch. 4.7); (32) ποῦ δ’ ἐμπεφύλευκεν ὁ νοῦς αὐτῷ; ἄρα οἶκον κεκλήρωται; οἱ μὲν γὰρ τὴν ἀκρόπολιν ἐν ἡμῖν

ἀνιέρωσαν αὐτῷ κεφαλὴν, περὶ ἣν καὶ αἱ αἰσθήσεις λοχῶσιν, εἰκὸς εἶναι νομίσαντες ἐγγὺς οἷα μεγάλου βασιλέως ἐφεδρεῦειν τοὺς δορυφόρους· οἱ δ' ὑπὸ καρδίας αὐτὸν ἀγαματοφορεῖσθαι διανοηθέντες γνωσιμαχοῦσιν (cf. ch. 4.5). *Cher.* 114 ποῦ γάρ μου τὸ σῶμα πρὸ γενέσεως ἦν; ποῖ δὲ καὶ χωρήσει μεταστάντος (μου); ποῦ δὲ καὶ τοῦ δοκοῦντος ὑφεστάναι τῶν ἡλικιῶν αἱ διαφοραί; ποῦ τὸ βρέφος, ποῦ ὁ παῖς, ποῦ (ὁ) ἀντίπαις, ποῦ ὁ ἄρτι ἡβῶν, ποῦ τὸ μεираκιον, ὁ πρωτογένειος, ὁ νεανίας, ὁ τέλειος ἀνὴρ (ch. ch. 5.23); πόθεν δὲ ἦλθεν ἡ ψυχὴ (cf. ch. 4.7a), ποῖ δὲ χωρήσει, πόσον δὲ χρόνον ἡμῖν ὁμοδαίτος ἔσται (cf. ch. 4.7); τίς δὲ ἐστὶ τὴν οὐσίαν, ἔχομεν εἰπεῖν (cf. chs. 4.2–3); πότε δὲ καὶ ἐκτησάμεθα αὐτήν; πρὸ γενέσεως; ἀλλ' οὐχ ὑπάρχομεν· μετὰ τὸν θάνατον; ἀλλ' οὐκ ἐσόμεθα οἱ μετὰ σωμάτων σύγκριτοι ποιοί, ἀλλ' εἰς παλιγγενεσίαν ὁρμήσομεν οἱ μετὰ ἄσωμάτων σύγκριτοι ποιοί. **Tertullian de An.** 3.2 *proinde enim et animae ratio* (sc. concussa est) *per philosophatas doctrinas hominum miscentes aquas vino* (Is. 1:22): *alii immortalem negant animam, alii plus quam immortalem adfirmant* (cf. ch. 4.7), *alii de substantia, alii de forma* (cf. chs. 4.2–3), *alii de unaquaque dispositione disceptant; hi statum eius aliunde (de)ducunt* (cf. ch. 4.5a), *hi exitum aliorum abducunt* (cf. ch. 4.7). *de An.* 5.1–6.1 *fortassean extruentur magis ad auferendam animae corpulentiam, si non alios e contrario inspexerint, et quidem plures, corpus animae vindicantes* (cf. chs. 4.2–3). (5.2) *nec illos dico solos qui eam de manifestis corporalibus effingunt, ut Hipparchus et Heraclitus ex igni, ut Hippon et Thales ex aqua, ut Empedocles et Critias ex sanguine, ut Epicurus ex atomis (si et atomi corpulentias de coitu suo cogunt), ut Critolaus et Peripatetici eius ex quinta nescio qua substantia (si et illa corpus, quia corpora includit), sed etiam Stoicos allego, qui spiritum praedicantes animam paene nobis cum, qua proxima inter se flatus et spiritus, tamen corpus animam facile persuadebunt* (cf. ch. 4.3). (5.3) *denique Zeno consitum spiritum definiens animam hoc modo instruit. quo, inquit, digresso animal emoritur, corpus est; consito autem spiritu digresso animal emoritur, ergo consitus spiritus corpus est; ergo corpus est anima* (cf. ch. 4.7). (5.4) *vult et Cleanthes non solum corporis lineamentis, sed et animae notis similitudinem parentibus in filiis respondere, de speculo scilicet morum et ingeniorum et adfectuum, corporis autem similitudinem et dissimilitudinem capere et animam, (animam) itaque corpus similitudini vel dissimilitudini obnoxium* (cf. ch. 5.11). (5.5) *item corporalium et incorporalium passiones inter se non communicare; porro et animam compati corpori, cui laeso ictibus vulneribus ulceribus condolescit, et corpus animae, cui afflictae cura angore amore coaegrescit per detrimentum socii vigoris, cuius pudorem et pavorem rubore atque pallore testetur* (cf. ch. 4.2–3). *igitur anima corpus ex corporalium passionum communione.* (5.6) *sed et Chrysippus manum ei porrigit constituens corporalia ab incorporalibus derelinqui omnino non posse, quia nec contingantur ab eis (unde et Lucretius (DRN 1.304): 'tangere enim et tangi nisi corpus nulla potest res'), derelicto autem corpore ab anima affici morte. igitur corpus anima, quae nisi corporalis corpus non derelinquet.* (6.1) *Haec Platonici subtilitate potius quam veritate conturbant.* **Hermias Irr.** 2–3 οἱ μὲν γάρ φασιν αὐτῶν ψυχὴν εἶναι τὸ πῦρ, οἱ δὲ τὸν ἀέρα, οἱ δὲ τὸν νοῦν, οἱ δὲ τὴν κίνησιν, οἱ δὲ τὴν ἀναθυμίασιν, οἱ δὲ δύναμιν ἀπὸ τῶν ἄστρον ῥέουσιν,

οἱ δὲ ἀριθμὸν κινήτικόν, οἱ δὲ ὕδωρ γονοποιόν, οἱ δὲ στοιχεῖον (ἦ) ἀπὸ στοιχείων, οἱ δὲ ἀρμονίαν, οἱ δὲ τὸ αἷμα, οἱ δὲ τὸ πνεῦμα, οἱ δὲ τὴν μονάδα, καὶ οἱ παλαιοὶ τὰ ἐναντία (cf. chs. 4.2–3). πόσοι λόγοι περὶ τούτων, ἐπιχειρήσεις πόσαι, πόσαι δίκαι σοφιστῶν ἐριζόντων μᾶλλον ἢ τάληθές εὐρισκόντων; ἀλλὰ γὰρ ἔστω· στασιάζουσι μὲν περὶ τῆς ψυχῆς ... τὴν δὲ φύσιν αὐτῆς, οἱ μὲν ἀθάνατόν φασιν, οἱ δὲ θνητὴν, οἱ δὲ πρὸς ὀλίγον ἐπιδιαμένουσιν, οἱ δὲ ἀποθνήσκουσιν αὐτήν, οἱ δὲ εἰς ἀτόμους διαλύουσιν (cf. ch. 4.7).

b Sources and Other Parallel Texts

Pollux *Onom.* 2.226–227 σύγκειται μὲν δὴ ὁ πᾶς ἄνθρωπος ἐκ ψυχῆς τε καὶ σώματος, καὶ ἔστιν ἡ ψυχὴ πνεῦμα ἢ πῦρ ἢ αἷμα ἢ ὅ τι ἂν δοκῇ τοῖς σοφοῖς (cf. ch. 4.3), μέρη δ' αὐτῆς νοῦς ἐπιθυμία θυμός (cf. ch. 4.4). καὶ ὁ μὲν νοῦς καὶ λογισμὸς καὶ ἡγεμονικόν, εἴτε περὶ ἐγκεφάλω κατὰ Πυθαγόραν καὶ Πλάτωνα ἰδρυμένος, εἴτε ἐν παρεγκεφαλίδι ἢ μήνιγξιν, ὡς πολλοῖς τῶν ἰατρῶν δοκεῖ, εἴτε κατὰ τὸ μεσόφρουον, ὡς ἔλεγε Στράτων, εἴτε περὶ τὸ αἷμα, ὡς Ἐμπεδοκλῆς τε καὶ Ἀριστοτέλης, εἴτε περὶ τὴν καρδίαν, ὡς ἡ Στοά. θυμοῦ δὲ τόπος ἄντικρυς ἢ καρδία, καθάπερ ὁ περὶ τὸ ἦπαρ τόπος ἐπιθυμίας (cf. ch. 4.5). **Seneca** *Ep.* 88.34 *innumerabiles quaestiones sunt de animo tantum: unde sit* (cf. ch. 4.5a), *qualis sit* (cf. chs. 4.2–3), *quando esse incipiat, quamdiu sit, aliunde alio transeat et domicilia mutet in alias animalium formas aliasque coniectus, an non amplius quam semel serviat et emissus vagetur in toto* (cf. ch. 4.7); *utrum corpus sit an non sit* (cf. chs. 4.2–3); *quid sit facturum cum per nos aliquid facere desierit, quomodo libertate sua usus cum ex hac effugerit cavea; an obliviscatur priorum et illinc nosse se incipiat unde corpori abductus in sublime secessit* (cf. ch. 4.7). **ps.** **Maximus Confessor** *de An.* prol. 1–5 πρῶτον μὲν ἀπάντων ὑποθήσομαι τίνι κριτηρίῳ πέφυκεν ἡ ψυχὴ καταλαμβάνεσθαι, εἴτα δι' ὧν δείκνυται ὑπάρχουσα· εἴθ' ἐξῆς, εἰ οὐσία τυγχάνει οὐσα ἢ συμβεβηκός (cf. chs. 4.2–3), εἴτα τοῦτοις ἀκολούθως εἰ ἀπλή ἢ σύνθετος (cf. ch. 4.4)·, εἴτ' αὐθις εἰ θνητὴ ἢ ἀθάνατος (cf. ch. 4.7), τελευταῖον δὲ εἰ λογικὴ ἢ ἄλογος.

Liber 4 ⟨Proœmium⟩

P^B : ps.Plutarchus *Plac.* 897E; *DG* p. 384^a16–18 Diels

§1 Περιωδευμένων δὲ τῶν τοῦ κόσμου μερῶν διαβήσομαι πρὸς τὰ κατὰ μέρος. (P)

Loci Aetiani:

§1 A 1.4.2 τὰ μὲν οὖν κυριώτατα μέρη τοῦ κόσμου τὸν τρόπον τοῦτον ἐγεννήθη.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The only witnesses are P^B, so we have to follow the text as transmitted there.

C *Chapter Heading*

No chapter heading is needed for a proem. We have added the word ⟨*Proœmium*⟩ to the text and translation for the sake of clarity.

D *Analysis*

a Context

The proem looks back on Books 2 and 3 and forward to the contents of Books 4 and 5 and thus is placed in the *omphalos* position as regards these preceding and following Books.

b Number–Order of Lemmata

There is only one lemma.

c Rationale–Structure of Proœmium

See section D(a) above and Introduction to Book 4, section 2. On this passage as an authorial comment see also M–R 2.1.50–51.

e Other Evidence

See below section E(b)

E *Further Related Texts*

b Sources and Other Parallel Texts

Ocellus 3.1 πρώτον μὲν γὰρ αἶε ὄντος τοῦ κόσμου ἀναγκαῖον καὶ τὰ μέρη αὐτοῦ συνυπάρχειν (λέγω δὲ μέρη οὐρανόν, γῆν, τὸ μεταξὺ τούτων ὃ δὴ μετάρσιον καὶ αἰέριον ὀνομάζεται), οὐ γὰρ ἄνευ τούτων ἀλλὰ σὺν τούτοις καὶ ἐκ τούτων ὁ κόσμος.

Ptolemy *Synt.* 1.2.170.2–6 συνάψομεν δ' ἀκολουθῶς καὶ τὰ περὶ τῆς τοῦ γαλακτίου κύκλου διαθέσεως, ὡς ἔνι μάλιστα, καὶ ὡς ἕκαστα τῶν μερῶν αὐτοῦ τετηρήκαμεν, πειρώμενοι τὰς κατὰ μέρος φαντασίας διατυπώσασθαι. **Marcianus geogr.** *Periplus maris exteri* 1.11.14 Müller ἢ τοίνυν θέσις καὶ περιγραφή τῶν δεξιῶν τῆς Λιβύης μερῶν τοῦτον ἔχει τὸν τρόπον (χρὴ γὰρ πρὸ τῶν κατὰ μέρος τὰς καθόλου προσηγορίας καὶ τὴν θέσιν δηλώσαι τῶν τόπων).

Liber 4 Caput 1

P^B: ps.Plutarchus *Plac.* 897F–898B; pp. 384^a19–386^a8 Diels—**P^G**: ps.Galenus *Hph* c. 89; pp. 634.18–635.3 Diels; pp. 286–296 Jas—**P^Q**: Qustā ibn Lūqā pp. 188–191 Daiber—**P^s** Psellus *Omn.Doctr.* c. 176, p. 88 Westerink (titulus solus)

Titulus α'. Περὶ Νείλου ἀναβάσεως (P)

- §1 Θαλῆς τοὺς ἐτησίας ἀνέμους οἶεται πνέοντας τῇ Αἰγύπτῳ ἀντιπροσ-
ώπους ἐπαίρειν τοῦ Νείλου τὸν ὄγκον διὰ τὸ τὰς ἐκροὰς αὐτοῦ τῇ
παροιδηθεῖ τοῦ ἀντιπαρήκοντος πελάγους ἀνακόπτεσθαι. (P₁)
- §2 Εὐθυμένης ὁ Μασσαλιώτης ἐκ τοῦ Ὁκεανοῦ καὶ τῆς ἔξω θαλάσσης 5
γλυκείας κατ' αὐτὸν οὕσης νομίζει πληροῦσθαι τὸν ποταμόν. (P₂)
- §3 Ἀναξαγόρας ἐκ τῆς χιόνος τῆς ἐν τῇ Αἰθιοπίᾳ, τηκομένης μὲν ἐν τῷ
θέρει, ψυχομένης δὲ τῷ χειμῶνι. (P₃)
- §4 Δημόκριτος τῆς χιόνος τῆς ἐν τοῖς πρὸς ἄρκτον μέρεσιν ὑπὸ θερινὰς
τροπὰς ἀναλυομένης τε καὶ διαχεομένης νέφη μὲν ἐκ τῶν ἀτμῶν πιλοῦ- 10
σθαι· τούτων δ' ἀνελαινομένων πρὸς μεσημβρίαν καὶ τὴν †Αἰγυπτον†
ὑπὸ τῶν ἐτησίων ἀνέμων, ἀποτελεῖσθαι ῥαγδαίους ὄμβρους, ὅφ' ὧν
ἀναπίμπλασθαι τὰς τε λίμνας καὶ τὸν Νεῖλον ποταμόν. (P₄)

§1 Thales 11A16 DK; §2 Euthymenes *FGrH* 647 F2; §3 Anaxagoras 59A91 DK; §4 Democritus 68A99 DK

caput non hab. S **titulus** Περὶ ... ἀναβάσεως **P^B** : Περὶ ἀναβάσεως τοῦ Νείλου **P^G** : Περὶ τῆς τοῦ Νείλου ἀναβάσεως **P^s** §1 [2] ἐτησίας **P^{B(I,II)}** : ἐτησίους **P^{B(II)G}** : *winterlichen* [sic!] *Winde* Q || οἶεται **P^{BQ}** : αἰτιᾶται **P^G** || τῇ Αἰγύπτῳ **P^{BG}** : *in Ägypten* **P^Q** || [2–3] ἀντιπροσώπους **P^B** : *von vorne* Q : om. **P^G** || [3–4] post ἐπαίρειν hab. lac. **P^G** || [3] ante τῇ add. καὶ **P^G** || [4] ἀνακόπτεσθαι **P^B** : ἀντικόπτεσθαι **P^G** : *welches ihn durchquert* Q || post ἀντικόπτεσθαι add. καὶ πληροῦσθαι τὸν Νεῖλον **P^G** ex §2[5] §2 [5] ἔξω ἔξωθεν **P^G** || [6] γλυκείας ... οὕσης **P^B** : om. **P^G** || κατ' αὐτὸν **P^B** : om. Q || αὐτὸν αὐτὴν **P^{B(II)}** || νομίζει **P^B** : οἶεται post ποταμόν **P^G** || πληροῦσθαι **P^B** : πλημμερεῖν **P^G** §3 [7] Ἀναξαγόρας **P^{B(I,II)GQ}** : Ἀναξιμένης **P^{B(II)}** || τῇ om. **P^{B(II)}** || ἐν² **P^{BQ}** : om. **P^G** prob. Diels || [7–8] τηκομένης ... χειμῶνι **P^{BQ}** : *gefrieren ... Sommer* inv. Q || [8] post δὲ hab. ἐν **P^{B(II)}** §4 [9] τῆς¹ om. **P^G** || ἐν **P^B** : om. **P^G** Jas, rest. Diels || [10] τε ... διαχεομένης **P^B** : om. **P^G** || [10–11] νέφη ... πιλοῦσθαι **P^{BG}** : om. Q || [10] μὲν **P^B** : om. **P^G** || [10–11] πιλοῦσθαι **P^B** : πληροῦσθαι **P^G** || [11–13] τούτων ... ἀναπίμπλασθαι **P^{B(I,II)}** : om. **P^{B(II)}** || [11] ἀνελαινομένων **P^{B(I,II)}** prob. Laks–Most : ἀπελαινομένων **P^{B(II)}** : συνελαινόμενα **P^G** || ante μεσημβρίαν add. τὴν **P^G** || pro **P^{BGQ}** †Αἰγυπτον† legendum est Αἰθιοπίαν : 'error est, scribendum erat Αἰθιοπίαν' Diels conl. Anon. Flor. §4, Diod. 1.39, 'expectes Αἰθιοπίαν' Mau Lachenaud || ὑπὸ τῶν ἐτησίων ἀνέμων al. Q *aber aus den winterlichen* [sic!] *Winden* || [13] ἀναπίμπλασθαι **P^B** : ἐγείρεσθαι **P^G** || τὰς ... καὶ **P^B** : om. **P^G** || τὰς τε λίμνας **P^B** : *die Sümpfe, die Teiche* Q ('Doppelübersetzung') || ποταμόν **P^{B(I,II)}** : τὸν ποταμόν **P^{B(II)}** : om. **P^{GQ}**

- §5 Ἡρόδοτος ὁ συγγραφεὺς ἴσον μὲν ἐκ τῶν πηγῶν φέρεσθαι χειμῶνος καὶ
 θέρους, φαίνεσθαι δ' ἐλάττονα τοῦ χειμῶνος διὰ τὸ ἐν τούτῳ τῷ καιρῷ 15
 πλησίον ἰόντα τὸν ἥλιον τῆς Αἰγύπτου ἐξατμίζειν τὰ νάματα. (P5)
- §6 Ἐφορος ὁ ἱστοριογράφος κατὰ θέρος φησὶν ἀναχαλᾶσθαι τὴν ὅλην
 Αἴγυπτον καὶ οἰοεὶ ἐξιδροῦν τὸ πολὺ νάμα· συνδίδωσι δ' αὐτῇ καὶ ἡ
 Ἀραβία καὶ ἡ Λιβύη παρὰ τὸ ἀραιὸν καὶ ὑπόψαμμον. (P6)
- §7 Εὐδοξος τοὺς ἱερεῖς φησι λέγειν τὰ ὄμβρια τῶν ὑδάτων κατὰ τὴν 20
 ἀντιπερίστασιν τῶν ὥρων· ὅταν γὰρ ἡμῖν ἡ θέρος τοῖς ὑπὸ τὸν θερινὸν
 τροπικὸν οἰκοῦσιν, τότε τοῖς ὑπὸ τὸν χειμερινὸν τροπικὸν ἀντοίκοις
 χειμῶν ἐστίν, ἐξ ὧν τὸ πλημμυρὸν ὕδωρ καταρρήγνυται. (P7)

§5 cf. Herodotus 2.24–25; §6 Ephorus *FGrH*70 F65c; §7 Eudoxus F 288 Lasserre

§5 [14] ὁ συγγραφεὺς P^B : om. P^G : *der Verfasser der Bücher Q* || ἐκ τῶν πηγῶν P^B : *die Flüsse in einem [...] gleichen Strömen Q* || [14–15] χειμῶνος ... θέρους P^{BQ} : om. θέρους P^G rest. Diels, prob. Jas || [16] ἰόντα P^{BQ} : ὄντα P^G || τῆς Αἰγύπτου P^{BG} : *an die Erde [...], besonders nahe an die Erde Ägyptens Q* || ἐξατμίζειν ... νάματα P^{BG} : *sodaß sie aus dem Nil Dampf entstehen läßt, um welchen die Wasser geringer werden Q* §6 [17] ὁ ἱστοριογράφος P^B : *der Verfasser der Annalen Q* || [17–18] τὴν ... Αἴγυπτον P^B : *die Erde Ägyptens Q* || [18] οἰοεὶ ἐξιδροῦν P^B : *zu ihr [...] durchsickert Q* || συνδίδωσι P^B : *umfassen Q* || [19] παρὰ ... ὑπόψαμμον P^B : om. Q §7 [20–21] τῶν ... ἀντιπερίστασιν P^B : om. Q || [20] κατὰ corr. Roeper : καὶ P || [21] γὰρ corr. Diels : παρ' P || § P^{B(III)} : εἴη P^{B(II)} || [23] ἐξ ... καταρρήγνυται P^B : *Dann treten dort die Wasser zusammen und fließen zum Nil Q*

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 89 (~ tit.) Περὶ ἀναβάσεως τοῦ Νεῖλου (text Jas)

89.1 (~ P1) Θαλῆς τοὺς ἐτησίους ἀνέμους αἰτιάται πνέοντας τῇ Αἰγύπτῳ ἐπαίρειν
 [...] καὶ τῇ παροιδήσει τοῦ ἀντιπαρήκοντος πελάγους ἀντικόπτεσθαι καὶ πλη-
 ροῦσθαι τὸν Νεῖλον.

89.2 (~ P2) Εὐθυμένης ὁ Μασσαλιώτης ἐκ τοῦ Ὠκεανοῦ καὶ τῆς ἔξωθεν θαλάττης
 πλημμυρεῖν τὸν ποταμὸν οἶεται.

89.3 (~ P3) Ἀναξαγόρας ἐκ τῆς χιόνος τῆς ἐν τῇ Αἰθιοπίᾳ τηκομένης μὲν τῷ θερεί,
 ψυχομένης δὲ τῷ χειμῶνι.

89.4 (~ P4) Δημόκριτος χιόνος τῆς τοῖς ἀρκτικοῖς μέρεσιν ὑπὸ θερινὰς τροπὰς ἀναλυ-
 ομένης νέφην ἐκ τῶν ἀτμῶν πληροῦσθαι καὶ συνελαυνόμενα πρὸς τὴν μεσημβρίαν
 καὶ τὴν Αἴγυπτον ὑπὸ τῶν ἐτησίων ἀνέμων ἀποτελεῖσθαι βραγδαίους ὄμβρους, ὅφ'
 ὧν ἐγείρεσθαι τὸν Νεῖλον.

89.5 (~ P5) Ἡρόδοτος ἴσον μὲν φέρεσθαι (θέρους) καὶ χειμῶνος ἐκ τῶν πηγῶν, φαί-
 νεσθαι δὲ ἐλάττονα τοῦ χειμῶνος διὰ τὸ ἐν τούτῳ τῷ καιρῷ πλησίον ὄντα τὸν
 ἥλιον τῆς Αἰγύπτου ἐξατμίζειν τὰ νάματα.

Psellus Omn.Doctr. c. 176 (~ tit.) Περὶ τῆς τοῦ Νεῖλου ἀναβάσεως

Loci Aetiani:

§1 A 3.7.3 (de Metrodoro) τοὺς δ' ἐτήσιας πνεῖν τοῦ πρὸς ταῖς ἄρκτοις παχυνθέντος ἁέρος.

§4 A 3.12.2 Δημόκριτος διὰ τὸ ἀσθενέστερον εἶναι τὸ μεσημβρινὸν τοῦ περιέχοντος αὐξομένην τὴν γῆν κατὰ τοῦτο ἐγκλιθῆναι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses are P and his tradition, represented by P^B, P^G, P^Q and (for the heading only) P^{Ps}. Nothing is found in S. It is possible that he found a place for it in *Ecl.* 1.39 Περὶ ὑδάτων, but this chapter survives only, it seems, in a severely truncated form with only a single long Aristotelian lemma taken from AD.

T 4.62 (cited section E(a) General texts) refers to the discussion, but as pointed out by Raeder (1900) 90, there is no verbal parallelism ('cum Aetianis ... fortasse cohaeret, sed in verbis plurimum differt').

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition is varied and rich and consists of lists and even discussions of name-labels and doxai (often including arguments contra) in a multiplicity of authors, of whom we may mention Diodorus Siculus, Seneca, and Lucan, Ammianus Marcellinus, *scholia* on Apollonius Rhodius, and the so-called *Anonymus Florentinus* (FGrH647 F1). Excerpts in a Greek translation from both the extant and the lost part of *Naturales quaestiones* Book 4a are extant in Ioannes Lydus, see Diels *DG* 228 n. 3 and Gross (1989) 174–178 (the suggestion of Williams 2008 of a common source for Seneca and Ioannes Lydus is unfounded, cf. Hine 1996, 187–189. Because Ioannes Lydus' excerpts from the extant part are not always exact, one should be careful with those from the lost part). Seneca states that he will begin the overview of the doxai concerned with the inundation of the Nile, starting with the most ancient authorities: *Nat.* 4.2.17 *sed nunc ad inspiciendas causas propter quas aestate Nilus crescat accedam et ab antiquissimis incipiam*. As has been often pointed out, however, unlike A and most other parallel sources he does not begin with Thales (who comes a little later at *Nat.* 4a.2.22) but, like the scholiast on Apollonius Rhodius, with Anaxagoras and the three tragic poets (*Nat.* 4a.2.17). 'All of antiquity (*omnis vetustas*)', he affirms, agrees with Anaxagoras. The 'Posido-

nian doxography', as Kidd (1999) 295 formulates the heading of his translation of F 222 E.-K. (Greek text cited below at section E(a)§1), has a different set of names.

(2) *Sources*. The contents of §§1–3 go back at least as far as Herodotus 2.20–23, where these doxai are anonymous and follow each other in exactly the same order as in A. Herodotus may have used a source of Sophistic provenance. §5 with name-label summarizes Herodotus 2.24–25, so derives from an intermediate source too. The little Peripatetic treatise *On the Inundation of the Nile* (*Liber Aristotelis De inundacione Nili*), attributed to Aristotle (see below), is extant in a mediaeval Latin translation and a few fragments on papyrus. The text is printed as Aristotle frs. 246–247 Rose³; see esp. the new edition by Beullens (2014) 325–329, who keeps Rose's page and line numbers. Some of A's name-labels and doxai are absent from this treatise, though on the other hand it contains name-labels and doxai not found in A. Shared are four items concerned with early name-labels and doxai, namely Thales plus doxa, Anaxagoras plus doxa, the doxa of Euthymenes without name-label, and (significantly) Herodotus plus doxa. The relative order of these shared doxai is the same, although in A we have §4 Democritus between §3 Anaxagoras and §5 Herodotus, and in ps.Aristotle Diogenes between Thales and Anaxagoras, as well as two further doxai (Athenagoras, Nicagoras) between Anaxagoras and Herodotus. Nevertheless ps.Aristotle may be numbered not only among the representatives of the proximate tradition but also, possibly, among the sources of A. We note that the little treatise does not begin in the manner of a dialectical discussion but in the way of the Aristotelian/Peripatetic *Problemata*: *propter quid* = διὰ τί; 'why?', the question type of cause. The dialectical discussion is announced further down, 'we shall speak of the things that are extant as said in the past by those who are in doubt about this issue' (*horum autem qui quidem existunt dicti a prius dubitantibus de ipso, hos nos dicemus*). It is a mistake to compare the tract with the *Problemata* literature alone, for we do not find full-scale doxographies there. See also below at section D(e).

It will be useful to bring the real Aristotle's scattered references together (all quoted at section E(b) below). He does not mention the inundation of the Nile in the *Meteorology*, but may have it in mind when he states (*Mete.* 1.13 350b13–14) that 'the most important of its tributaries flows from the so-called Silver Mountains'. He also mentions the torrential summer rains in Aethiopia at *Mete.* 1.12 349a4–9 (for ῥαγδαία and Aethiopia see below, section D(d)§4), though without speaking of the Nile—so Alexander *ad loc.*, in *Mete.* 53.15–16, eagerly supplies a reference to ἐν τοῖς Περὶ τῆς τοῦ Νείλου ἀναβάσεως, and Olympiodorus in *Mete.* 94.4–17 (cited below, section E(b) General texts) refers to the debate. The allusion to differences of opinion at *Mete.* 2.2 356a25–31 is a little puzzling

because of the presence of a large river that does not behave in the same way as the Nile: the Ister (i.e. Danube) and the Nile travel over great distances and have many tributaries, which is why ‘different explanations are given regarding the sources of each of these rivers’ (περὶ τῶν πηγῶν ἄλλοι λέγουσιν ἐκάστου τῶν ποταμῶν ἄλλας αἰτίας).

At *APo.* 2.15 98a29–33 we read: ‘why does the Nile flow more in the latter part of the month? Because the end of the month is more stormy. Why is the weather stormier then? Because the moon is waning’ (cf. *GA* 2.4 738a20–22). This is not about the exceptional behaviour of the Nile in summer (for the general behaviour of rivers see *Mete.* 1.13 349b7–8, ‘rivers always run higher in winter than in summer’), but belongs with the general explanation of *inter alia* the periodically varying levels of the terrestrial waters at *GA* 4.10 777b17–778a2, quoted above, ch. 3.17 section E(b)§1 and also D(d) further comments §1.

The fuzzy situation in the *pragmateiai* helps to understand why an early follower of Aristotle wrote the Περὶ τῆς τοῦ Νεῖλου ἀναβάσεως. Fowler (2000) attributes the Greek original to Posidonius, but argues that it in its turn is in part based on an earlier Peripatetic tract (by Theophrastus, as also others, e.g. already Valentinus Rose, have suspected, though this is by no means certain; see further Sharples 1998b, 197). The argument of De Nardi (2008) in favour of attribution to Aristotle himself, viz. that (as in the *Meteorology*) the Red Sea and the Persian Gulf are not yet seen as parts of the Indian Ocean, is insufficient. Beullens (2014), who opts for authenticity, follows some of the ancient authors who either literally or by implication attribute the tract to Aristotle, but there is no proof that they were right. It is more likely that, like other supplementary works, such as the *De coloribus* or *De spiritu*, it came to be attributed to Aristotle himself: e.g. by Posidonius F 222 E.-K. (63 Theiler) on the authority of Callisthenes at Strabo 17.1.5, 790C.16–18 (cited at section E(a)§1), by *Anonymus Photii* cod. 249, p. 441a34–b7 (cited at section E(b)§7), and by Alexander in *Mete.* 53.15–16, cited above. The exceptional behaviour of the Nile in summer, *toto caelo* different from the behaviour of all other known rivers, called for exceptional explanations. Intriguing from the point of view of Peripatetic science is the fact that it is an individual phenomenon that has to be explained. This presumably also explains why Aristotle refrained from discussing it in the *Meteorology*: his science does not deal with particulars (e.g. *APo.* 1.18 81b6–7, *de An.* 2.5 417b22–23). Declaring the Nile to be the unique member of a species was apparently impossible. His one reference at *APo.* 2.15 98a31 to the Nile alone still deals with what he takes to be a general phenomenon.

The lack of an orderly discussion in Aristotle himself as precedent helps to explain why the tradition on which A depends had to link up with the pre-Aristotelian treatment of the issue. Aristotle, of course, could have followed

his own advice to ‘make excerpts from the literature’ had he decided differently (*Top.* 1.14 105b13, ἐκλέγειν δὲ χρὴ καὶ ἐκ τῶν γεγραμμένων λόγων); see M–R 2.1.158–162.

NB: Because several names are not paralleled in the *Placita* chapter we most of the time only provide lists of name-labels at section E(a) and (b) General texts, preferring to cite the parallels for the individual doxai at the relevant paragraphs.

C Chapter Heading

The heading given by P^{BQ} is paralleled with insignificant variations in P^G and P^S. It is much more informative than a simple umbrella formula (Περὶ Νείλου) would have been. It allows for the question type of cause and the categories of time and place. It is attested as a book title for Aristotle (i.e. ps.Aristotle) and Theon mathematicus.

D Analysis

a Context

The chapter on the flooding of the Nile is rather isolated at the opening of Book 4, the rest of which deals with psychology including epistemology. This positioning may be explained as a consequence of, on the one hand, the intrusion of P 3.18 (now our A 3.5a) at the end of Book 3 and, on the other, of lack of space at the end of a scroll or perhaps codex containing either Book 3 alone or Books 1 to 3, cf. M–R 1.127–128. P 3.18 is not paralleled in G, whose c. 88 (corresponding to 3.17) is immediately followed by c. 89 (corresponding to 4.1), see ch. 3.5a Commentary A and D(a). Chs. 3.17 and 4.1 indeed belong together, the former dealing with the high and low waters of the sea (possibly not only during the twenty-four-hours period but also in the course of the solar year), the latter with the high and low waters in summer and winter of an exceptional river. As a set the chapters 3.16 plus 3.17 plus 4.1 deal with the terrestrial waters, and they appropriately bring up the rear of the πρόσγεια. Thus ch. 4.1 could serve as a transitional chapter, linking Book 4 to Book 3, though its isolated position at the very beginning remains odd.

Alternatively we may regard ch. 4.1 as, so to speak, a mini-book, corresponding as to its relative self-sufficiency to Seneca, *Nat.* Book 4a on the Nile (originally *Nat.* Book 2), following immediately upon Book 3 on terrestrial waters (originally *Nat.* Book 1). A third possibility, suggested by the proem, is that the Nile is considered to be a particular part of one of the larger parts of cosmos treated in previous books. But the Milky Way, treated in the first chapter of Book 3, is also a particular rather than a general item (for the reasons of its placement at the beginning of the Book see ch. 3.1, Commentary D(a)).

See also General Introduction, section 2.7.

b Number–Order of Lemmata

P^{BQ} has seven lemmata, of which G, who omitted §§6–7, has five. The order of these lemmata rather strictly corresponds to the chronology of the name-labels, a rare phenomenon in the *Placita*. This almost certainly has to do with the history of the independent tradition concerned with the flooding of the Nile. The relative order of §§1–3 and §5 corresponds to that in Herodotus; before the lemma with his name-label (§5) another one, concerned with a virtually contemporaneous Presocratic, has been inserted as §4. The final lemmata, §§6–7, doxai of Ephorus and Eudoxus, are also concerned with near contemporaries. §7, which has Eudoxus citing the (ancient lore of) the Egyptian priests, not unelegantly and perhaps even intentionally links up with §1 on the earliest physicist, Thales, in a sort of ring composition. There is no reason to meddle with the sequence, which is also that of Diels in the *DG*.

c Rationale–Structure of Chapter

The main question-type at issue is that of cause, the διὰ τί (the preposition διὰ occurs in §1 and §5; also cf. the opening words of the *De inundacione Nili: propter quid*, and the use of διὰ and *propter* in the parallel passages, e.g. Seneca *Nat.* 4a.17.2 *causas propter quas*). The categories concerned are those of time: summer, winter, and place: winds from the north in §1, the outer ocean in §2, Aethiopia in §3 (and §4), the far north in §4, Egypt explicitly in §1 and §6 (and by mistake in §4), Libya in §6, and the far south in §7.

The causes of the summer flooding vary from obstructing winds that only blow in summer (§1), snow that melts in summer in the far south (§3), snow that melts in summer in the far north, the clouds then being driven to the far south where they cause heavy rains (§4), evaporation because in summer the sun comes closer (§5), excess production of water locally and further south in summer (§6), and finally production of water in the far south in our summer, when it is winter down there (§7). The sweet water from the Ocean (§2), which is entirely different from the factors listed in the other lemmata, could have figured *ad finem* if the chapter had been set out in the usual way of the *Placita*, where exceptions are often found at the end of chapters. Since the lemmata are arranged in chronological order there is hardly room for such an overarching diaeresis. The date of Euthymenes is uncertain: though sometimes believed to have been a contemporary of Pytheas (between c. 350–300 BCE), it is more likely that he has to be dated to around 500 BCE, see Roller (2010) 133, and Brill's *New Pauly*, s.v. Euthymenes.

Other relations between lemmata: §3, snow in Aethiopia, is opposed to §4, snow in the far north, while §5 and §6 are related because they refer to water from sources (§5) or from the soil as a whole (§6), and the rainy kinds of waters of §7 are opposed to these waters from the earth.

d Further Comments

Individual Points

§2 The doxa of Euthymenes may be connected with the commonly found early belief that the Ocean is the origin of rivers. We note that the lemma fails to provide an explanation of the summer flooding. Euthymenes' belief that the Niger is part of the Nile was imitated in another country: Arrian *An.* 6.1 tells us that Alexander, having seen crocodiles in the Indus, at first believed that the origin of the Nile was somewhere in India, that flowing through the desert it lost its name of Indus, and acquired the name Nile upon coming into another part of the world.

§4 The word ῥαγδαῖα here and at Arist. *Mete.* 1.12 349a6 suggests that Democritus used it and Aristotle cited this when formulating his own view (it is the only instance in the *Corpus Aristotelicum* apart from *Aud.* 803a5, τῶν ὑδάτων τὰ καλούμενα ῥαγδαῖα, where note καλούμενα). This entails that the doxa may have begun its career as an excerpt from a Democritean treatise (the Κοσμογραφίη?). Diels *DG* ad loc., followed by other editors, points out that Αἴγυπτον is a mistake for Αἰθιοπίαν (he says 'scribendum erat' not 'est', for he does not place the correction in the text). True enough, but this mistake is hard to explain, for in the previous lemma, §3, we find Αἰθιοπία, so that perseveration of Αἴγυπτω in §1, further away, is not very likely. For this reason we have followed Diels' example, too, daggered Αἴγυπτον and confined the correction to the apparatus.

e Other Evidence

'Es dürfte keinen zweiten Fall geben, daß ein Einzelproblem immer wieder mit allem Für und Wider von Herodot bis Ammianus Marcellinus in mehr oder minder geschlossenen Abhandlungen erörtert worden und soviel davon erhalten ist. Fünf größere Traktate besitzen wir noch ganz, oder wenigstens so weit, daß wir Anlage und Gedankengang überblicken: von Herodot, Aristoteles, Agatharchides, Seneca, Ailios Aristeides. Dazu kommen doxographische Zusammenstellungen verschiedener Art. ... Die Nilschwelle ist geradezu ein Schulbeispiel antiker doxographisch-zetematischer Literatur. Schon Herodot zeigt den Typus voll entwickelt ...' (Rehm 1936, 572).

Because of the opening formula *propter quid* = διὰ τί and the remark *ad finem* that the flooding of the Nile no longer seems to be a 'problem' (p. 197.2–3 R³ *non iam problema videntur esse* ~ *Anon. Phot.* p. 242.6 Thesleff/ps.Arist. fr. 246,

p. 189.9–10 R³ φησιν ὡς τοῦτο οὐκέτι πρόβλημά), it has been argued that *De inundacione Nili* belongs with the Aristotelian (or Peripatetic) *Problemata* genre; see various contributors at Mayhew (2015) 2–3 and 16–17. Several headings of Aëtian chapters, too, begin with, or contain, the formula διὰ τί (2.30, 5.9, 5.14, 5.18). The name-labels (six) *plus* patronymic (four) and ethnicon (four) that are present in the *opusculum* are as foreign to the *Problemata* literature as they are at home (when providing a first introduction) in doxographical literature and similar contexts. The *opusculum*, dealing with a particular issue (*zetema*) of a causal nature and including an overview of the related discussion, combines the technique of the *Problemata* literature with that of dialectic.

E Further Related Texts

a Proximate Tradition

General texts: Diodorus Siculus 1.36.7–41.10 (Agatharchides *FGrH*86 F19) μεγάλῃς δ' οὐσῆς ἀπορίας περὶ τῆς τοῦ ποταμοῦ πληρώσεως, ἐπικεχειρήκασιν πολλοὶ τῶν τε φιλοσόφων καὶ τῶν ἱστορικῶν ἀποδιδόναι τὰς ταύτης αἰτίας, περὶ ὧν ἐν κεφαλαίοις ἐροῦμεν. ... τινὲς μὲν τῶν συγγραφέων ἀπλῶς οὐκ ἐτόλμησαν οὐδὲν εἰπεῖν, ... τινὲς δ' ἐπιβαλόμενοι λέγειν περὶ τῶν ἐπιζητουμένων πολλὴ τῆς ἀληθείας διήμαρτον. οἱ μὲν γὰρ περὶ τὸν Ἑλλάνικον (*FrGrH*4 F173), καὶ Κάδμον, ἔτι δ' Ἑκαταίον (*FGrH*1a F302a), καὶ πάντες οἱ τοιοῦτοι, παλαιοὶ παντάπασιν ὄντες, εἰς τὰς μυθώδεις ἀποφάσεις ἀπέκλιναν· Ἡρόδοτος δὲ ὁ πολυπράγμων ... Ξενοφῶν δὲ καὶ Θουκυδίδης ... οἱ δὲ περὶ τὸν Ἔφορον (*FrGrH*70 F65) καὶ Θεόπομπον (*FrGrH*115 F293) ... 37.7 οἱ μὲν κατ' Αἴγυπτον ἱερεῖς ... 38.2 Θαλῆς (fr. 82 Wöhrle) μὲν οὖν ... 38.3 Ἀναξαγόρας δ' ὁ φυσικὸς (—) ... 38.8 Ἡρόδοτος δέ ... 39.1 Δημόκριτος δ' ὁ Ἀβδηρίτης (cf. 68A99 DK) ... 39.7 Ἔφορος δέ ... 40.1 τῶν δ' ἐν Μέμφει τινὲς φιλοσόφων ... 41.1 Οἰνοπίδης δὲ ὁ Χίος (fr. 11 Bodnár) 41.4 ἔγγιστα δὲ τῇ ἀληθείᾳ προσελήλυθεν Ἀγαθαρχίδης ὁ Κνίδιος (see below) ... 41.10 καὶ περὶ μὲν τῆς πληρώσεως τοῦ Νείλου, δυνάμενοι ποικιλώτερον ἀντειπεῖν πρὸς ἅπαντας, ἀρκεσθισόμεθα τοῖς εἰρημένους (cited **Theophylactes Simocatta** *Hist.* 7.17.3–45). 1.41.4 ἔγγιστα δὲ τῇ ἀληθείᾳ προσελήλυθεν Ἀγαθαρχίδης ὁ Κνίδιος (*FGrH*86 F112)· φησὶ γὰρ κατ' ἐνιαυτὸν ἐν τοῖς κατὰ τὴν Αἰθιοπίαν ὄρεσι γίνεσθαι συνεχεῖς ὄμβρους ἀπὸ θερινῶν τροπῶν μέχρι τῆς μετοπωρινῆς ἰσημερίας· εὐλόγως οὖν τὸν Νεῖλον ἐν μὲν τῷ χειμῶνι συστέλλεσθαι, τὴν κατὰ φύσιν ἔχοντα ῥύσιν ἀπὸ μόνων τῶν πηγῶν, κατὰ δὲ τὸ θέρος διὰ τοὺς ἐκχεομένους ὄμβρους λαμβάνειν τὴν αὐξησιν κτλ. **Strabo** 17.1.5, C 789.23–26 (Aristotle fr. 246 R³) οἱ μὲν οὖν ἀρχαῖοι στοχασμῷ τὸ πλεόν, οἱ δ' ὕστερον αὐτόπται γεννηθέντες ἦσθοντο ὑπὸ ὄμβρων θερινῶν πληρούμενον τὸν Νεῖλον, τῆς Αἰθιοπίας τῆς ἄνω κλυζομένης, καὶ μάλιστα ἐν τοῖς ἐσχάτοις ὄρεσι, παυσμαμένων δὲ τῶν ὄμβρων παυσμένην κατ' ὀλίγον τὴν πλημμυρίδα. 17.1.5, C 790.9–21 θαυμαστὸν οὖν πῶς ἐκ τῶν τοιούτων ἀφορμῶν οὐ τελέως ἐναργῆς ἦν ἡ περὶ τῶν ὄμβρων ἱστορία τοῖς τότε, καὶ ταῦτα τῶν ἱερέων φιλοπραγμονέστερον ἀναφερόντων εἰς τὰ ἱερὰ γράμματα καὶ ἀποτιθεμένων ὅσα μάθησιν περιττὴν ἐπιφαίνει. εἰ γὰρ ἄρα, τοῦτ' ἐχρῆν ζητεῖν—ὅπερ καὶ νῦν ἔτι ζητεῖται—τί δὴ ποτε θέρους, χειμῶνος δὲ οὐ, καὶ ἐν τοῖς νοτιωτάτοις, ἐν δὲ τῇ Θηβαΐδι καὶ τῇ περὶ Συήνην οὐ, συμπύπτουσιν ὄμβροι, τὸ δ' ὅτι ἐξ ὄμβρων

αἱ ἀναβάσεις μὴ ζητεῖν μὴδὲ τοιούτων δεῖσθαι μαρτύρων οἷους Ποσειδώνιος (F 222 E.-K., 63 Theiler) εἶρηκε. φησὶ γὰρ Καλλισθένη (FGrH124 F12) λέγειν τὴν ἐκ τῶν ὄμβρων αἰτίαν τῶν θερινῶν παρὰ Ἀριστοτέλους (frs. 246–248 R³) λαβόντα, ἐκείνον δὲ παρὰ Θρασυάλκου τοῦ Θασίου (35.1 DK)—τῶν ἀρχαίων δὲ φυσικῶν εἰς οὗτος—ἐκείνον δὲ παρ’ ἄλλου, τὸν δὲ παρ’ Ὀμήρου (*Od.* 4.581) ‘διυπετέα’ φάσκοντος τὸν Νεῖλον ‘ἂψ δ’ εἰς Αἰγύπτιο διυπετέος ποταμοῖο’. **Seneca Nat.** 6.8.3 *nescis autem inter opinioniones quibus enarratur Nili aestiva inundatio et hanc esse, e terra illum erumpere et augeri non supernis aquis sed ex intimo redditus?* **Nat.** 4a.2.17 *sed nunc ad inspiciendas causas propter quas aestate Nilus crescat accedam, et ab antiquissimis incipiam.* **Anaxagoras** (59A91 DK) *ait ... Nat.* 4a.2.22 *si Thaleti* (fr. 100 Wöhrle) *credis ... Euthymenes Massiliensis testimonium dicit* (see below §2) ... **Nat.** 4a.2.26 **Oenopides Chius** (fr. 11 Bodnár) *ait ... Nat.* 4a.2.28 **Dio- genes Apolloniates ait** (64A18 DK) ... the lost sequel has been excerpted by **Ioannes Lydus Mens.** 4.107.40 ὁ δὲ Ἡρόδοτος ... 107.45 οἱ δὲ Αἰγύπτιοι ... 107.48 Ἐφορός γε μὴν ὁ Κυμαῖος (FGrH70 F65b) ... 107.53 Θρασυάλκης ὁ Θάσιος (cf. DK on 35.1) ... 107.58 Καλλισθένης ὁ Περιπατητικός (FGrH124 F12a) ... 107.62 ἀλλὰ καὶ Δικαίαρχος (fr. 113 Wehrli, 126 Mirhady) ... 107.64–66 ποικίλαι μὲν οὖν αἱ περὶ αὐτοῦ δόξαι, τὸ δ’ ἄληθές κατὰ τοὺς ἀνθρώπους τῶς οὐδαμοῦ· κατὰ γὰρ τὸ λόγιον (*Or.Chald.* fr. 183 Des Places) τὸ δ’ ἀτρεκές ἐν βαθεῖ ἐστι. see also below, this chapter, individual paragraphs. **Anon. Florentinus** (FGrH647 F1) 1 Θαλῆς ὁ Μιλήσιος (fr. 548 Wöhrle) ... 2 Ἀναξαγόρας δὲ ὁ φυσικός (—) ... 3 Καλλισθένης δὲ ὁ ἱστοριογράφος (FGrH124 F12) ... 4 Δημόκριτος δὲ (fr. 411 Luria) ... 5 Εὐθυμέ- νης δὲ ὁ Μασσαλιώτης ... 6 Οἰνοπίδης δὲ ὁ Χῖος (fr. 11 Bodnár) ... 7 Ἡρόδοτος δὲ ... **Ammianus Marcellinus** 22.15.4–7 *origines fontium Nili, ut mihi quidem videri solet, sicut adhuc factum est, posteræ quoque ignorabunt aetates. verum quoniam fabulantes poetae variantesque geographi in diversa latentem noti- tiam scindunt, opinioniones eorum veritati confines, ut arbitror, expediam paucis. ... affirmant aliqui physicorum* (see below § 7) ... *ex Aethiopicis imbris, qui abundanter in tractibus illis per aestus torridos cadere memorantur, exunda- tiones eius erigi anni temporibus asserunt alii praestitutis ... opinio est celebrior alia* (see below §1) ... **Theodore** CAG 4.62 διὰ τοι τοῦτο καὶ τὸν Νεῖλόν φασιν οὐ κατὰ τὸν αὐτὸν τοῖς ἄλλοις ποταμοῖς πλημμυρεῖν καιρόν, ἀλλὰ μεσούντος τοῦ θέρους ἐπικλύζειν τὴν Αἴγυπτον, ὡς τοῦ γε ἡλίου τὴν βορειοτέραν διαθέοντος ζώνην, καὶ τοῖς ἄλλοις μὲν ποταμοῖς ἐνοχλοῦντος, τούτου δὲ γε πλείστον ἀπέχοντος. εἰ δὲ καὶ ἄλλας αἰτίας τῆς τούτου γε πλημμύρας εἶναι φασὶ τινες, ἀλλ’ οὐκ ἔμοιγε ἀρμόττειν τόνδε νῦν τὸν λόγον ὑπείληφα. καὶ γὰρ τοῖς ἄλλοις παρεγγυῶ τῆς μὲν θείας οἰκονομίας μὴ πολυπραγμονεῖν τὰς αἰτίας, θαυμάζειν δὲ τὰ γινόμενα καὶ τὸν ποιητὴν ἀνυμνεῖν. **Scholia in Apollonium Rhodium** 4.269–271a, p. 276.5–277.10 *Wendel* περὶ τῆς τοῦ Νεῖλου ἀναδόσεως διάφοροι αἰτίαι παρὰ τοῖς παλαιοῖς ἐλέγοντο. (1) Ἀναξαγόρας μὲν γὰρ (—) ... (2) Νικαγόρας δὲ ... (3) Δημόκριτος δὲ ὁ φυσικός (68A99 DK) ... (4) Οἰνοπίδης δὲ ὁ Χῖος (41.11 DK) ... (5) Ἐφορός ... (6) Θαλῆς δὲ ὁ Μιλήσιος (fr. 571 Wöhrle) ... (7) Διογένης δὲ ὁ Ἀπολλωνιάτης (64A18 DK) ... **Tzetzes Exeges. in Iliad.** A.426, *schol.* 85.10–45 *Lolos* ἀλλ’ ἐπειδὴ περὶ τὸ πᾶν εὐκρινήσαμεν, φέρε καὶ τὰς τῶν σοφῶν δόξας τὰς περὶ τῆς τοῦ Νεῖλου ἀναβάσεως εἵπομεν· (for what fol-

lows see below §1, §3, §5) ... ἐξ Αἰθιοπῶν ὁ ἀήρ ἦτοι πληροὶ τὸν Νεῖλον / ὅπερ ἑτέροις γέγονεν μακρόστιχον βιβλίον / ὥς εἶπε καὶ προέγραψε τοῦτο σοφὸς ὁ γέρων.

Chapter heading: Strabo 17.1.5, 790C.22–24 ἀρκέσει δύο μηνύσαι τοὺς ποιήσαντας καθ' ἡμᾶς τὸ περὶ τοῦ Νεῖλου βιβλίον, Εὐδωρόν τε καὶ Ἀρίστωνα τὸν ἐκ τῶν Περιπάτων (fr. 7 Mariotti). *Capitula Lucretiana* at DRN 6.712 *de Nilo fluvio*. Irenaeus of Lyon Haer. 2.28.2 Rousseau–Doutreleau (trans. Rufini) *quid enim si temptemus exponere causam ascensionis Nili?* Isidore of Seville *de Nat.* capitul. 43 *De Nilo flumine* (heading in the body of the work: *De Nilo*).

§1 **Thales: Pomponius Mela** Chor. 1.53 (crescit ... sive quod) *aut venienti obviae adverso spiritu cursum descendantis impediunt*. **Diodorus Siculus** 1.38.2 Θαλῆς (fr. 82 Wöhrle) μὲν οὖν, εἰς τῶν ἐπτὰ σοφῶν ὀνομαζόμενος, φησὶ τοὺς ἐτησίας ἀντιπνέοντας ταῖς ἐκβολαῖς τοῦ ποταμοῦ κωλύειν εἰς θάλατταν προχεῖσθαι τὸ ρεῦμα, καὶ διὰ τοῦτ' αὐτὸν πληρούμενον ἐπικλύζειν ταπεινὴν οὖσαν καὶ πεδιάδα τὴν Αἴγυπτον. **Seneca** Nat. 4a.2.22 *si Thaleti* (fr. 100 Wöhrle) *credis, Etesiae descendanti Nilo resistunt, et cursum eius acto contra ostia mari sustinent: ita reverberatus in se recurrit; nec crescit, sed exitu prohibitus resistit, et quacumque mox potuit in se congestus erumpit*. cf. **Lucanus** 10.239–247 ... *Zephyros quoque vana vetustas / his ascripsit aquis, quorum stata tempora flatus / continuique dies et in aëra longa potestas, / ... / (244) vel quod aquas totiens rumpentis litora Nili / adsiduo feriunt coguntque resistere fluctu: / ille mora cursus adversique obice ponti / aestuat in campos*. **Diogenes Laertius** V.P. 1.37 τὸν Νεῖλον εἶπε (Thales 11A1 DK) πληθύνειν ἀνακοπτομένων τῶν ρευμάτων ὑπὸ τῶν ἐτησίῳ ἐναντίων ὄντων. **Anon. Florentinus** (FGrH647 F1) §1 Θαλῆς ὁ Μιλήσιος (fr. 560 Wöhrle), εἰς τῶν ζ' σοφῶν, φησὶ διὰ τοὺς ἐτησίας γίνεσθαι τὴν ἀναπλήρωσιν· πνεῖν γὰρ αὐτοὺς ἐναντίους τῷ ποταμῷ, καὶ τὰ στόματα κείσθαι κατὰ τὴν πνοὴν αὐτῶν· τὸν μὲν οὖν ἄνεμον ἐξ ἐναντίας πνέοντα κωλύειν τὴν ἔκβασιν τοῦ ποταμοῦ ἐκπίπτειν εἰς τὴν θάλασσαν, τὸ δὲ κύμα προσπίπτειν ἀντίον τοῖς στόμασι καὶ οὐρίον δὲ ἀνακόπτειν τὸν ποταμόν, καὶ (τὴν) ἀναπλήρωσιν οὕτως φησὶ γίνεσθαι τοῦ ποταμοῦ. **Ammianus Marcellinus** 22.15.7 *opinio est celebrior alia, quod spirantibus prodromis perque dies quadraginta et quinque etesiarum continuis flatibus repellentibus eius meatum velocitate cohibita superfusus fluctibus intumescit et reluctantē spiritu controverso adolescens in maius hinc vi reverberante ventorum, inde urgente cursu venarum perennium progrediens in sublime integit omnia et humo suppressa per supina camporum speciem exhibet maris*. **Scholia in Apollonium Rhodium** 4.269–271a, p. 277.3–7 Wendel Θαλῆς δὲ ὁ Μιλήσιος (fr. 571 Wöhrle) φησιν ὑπὸ τῶν ἐτησίῳ συναλαυνόμενα τὰ νέφη κατὰ τὰ ὅρη τῆς Αἰθιοπίας αὐτόθι ῥήγνυσθαι· ὅταν γὰρ τοῦ ποταμοῦ ἐξεναντίας συστῶσιν αἱ πνοαὶ προσπίπτουσιν τῇ θαλάσῃ, ἐκ τῆς ἀποπεμπομένης πλῆσμης τὰς ὑπερχύσεις ἀναδέχεσθαι τὸν Νεῖλον. **Isidore of Seville** Nat. 43.1–2 *Aegyptus aëris calore semper solem habet, numquam nubes vel imbres recipit. cuius loca Nilus fluvius aestatis tempore inundat, quem pro pluviis utuntur. oritur enim fluvius idem inter Austrum et ortum. Etesiarum autem flatu a Zephyri parte, id est ab occiduo, flant et habent certum tempus. nascuntur enim mense Maio. quarum flatu initio languens est, sed per dies augescit. (2) nam flant ab hora sexta in decimam*.

harum igitur flatu resistente undis, oppositisque etiam ostiis eius, quibus in mare influit, arenarum cumulis, Nili fluctus intumescunt ac retro reverti coguntur sicque aquae erumpentes propelluntur in austrum. quibus congestis, Nilus in Aegyptum erumpit; quiescentibus quoque Etesiis ruptisque arenarum cumulis, rursus in suum alveum redit fluuius. Etym. 13.21.7 hic apud Aegyptios Nilus vocatur propter limum quem trahit, qui efficit fecunditatem; unde et Nilus dictus est, quasi νέαν ἰλύν: nam antea Nilus Latine Melo dicebatur. apparet autem in Nilide lacu, de quo in meridiem versus excipitur Aegypto, ubi Aquilonis flatibus reperiussus aquis retroluctantibus intumescit, et inundationem Aegypti facit. Tzetzes Exeges. in Iliad. A. 426, schol. 85.13–15 Lolos Θαλής (—) ὁμοῦ καὶ Εὐ(θυ)μενῆς ἀνὴρ Μασσαλιώτης [sic; cf. below §2] / τοὺς ἐτησίας γράφοντες ἀναπληρῶν τὸν Νεῖλον / ἐκ τῆς θαλάσσης τῆς ἐκτὸς γλυκείας ὑπεργμένης.

§2 Euthymenes: Seneca Nat. 4a.2.22 Euthymenes Massiliensis testimonium dicit: 'navigavi', inquit, 'Atlanticum mare. inde Nilus fluit, maior quamdiu Etesiae statum tempus observant; tunc enim eicitur mare instantibus ventis. cum resederunt, et pelagus conquiescit minorque descendenti inde vis Nilo est. ceterum dulcis mari sapor est, et similes Niloticis belvae.' = **Ioannes Lydus Mens. 4.107.18–26** Εὐθυμένης δὲ ὁ Μασσαλιώτης φησὶ διαπλευσάσας τὴν Ἀτλαντικὴν θάλατταν, ἐξ ἐκεῖνης τε ἰδεῖν τὸν Νεῖλον ἐκτρέχοντα καὶ τότε μάλλον ὀγκοῦσθαι, ὅταν οἱ λεγόμενοι ἐτήσιοι πνέωσι· τότε γάρ φησιν ἐξωθεῖσθαι ὑπὸ τῶν ἀνέμων τὴν θάλατταν, τούτων δὲ παυομένων ἡσυχάζειν. γλυκὺ δὲ σχεδὸν τὸ τῆς Ἀτλαντικῆς θαλάττης ὕδωρ, καὶ ὅμοια (τὰ) ταύτης θηρία τοῖς τοῦ Νεῖλου. ἀντιλέγει δὲ καὶ ταύτῃ τῇ δόξῃ ὁ Σενέκας (sc. *Nat.* 4a.2.23–25) φάσκων κτλ. = **Ioannes Lydus Mens. 4.107.62–64** (excerpted from *Seneca Nat.* 4a, lost) ἀλλὰ καὶ Δικαίαρχος (fr. 113 Wehrli, 126 Mirhady) ἐν Περιόδῳ γῆς ἐκ τῆς Ἀτλαντικῆς θαλάττης τὸν Νεῖλον ἀναχεῖσθαι βούλεται. **Anon. Florentinus (FGrH647 F1) §5** Εὐθυμένης δὲ ὁ Μασσαλιώτης αὐτὸς πεπλευκῶς φησιν εἰς τὴν ἕξω θάλασσαν ἐπιρρεῖν ἕως εἰς τὴν Λιβύην ἐστραμμένην τε εἶναι πρὸς βορέαν τε καὶ ἄρκτους, καὶ τὸν μὲν ἄλλον χρόνον κενὴν εἶναι τὴν θάλασσαν, τοῖς δὲ ἐτησίαις ἀνωθουμένην ὑπὸ τῶν πνευμάτων πληροῦσθαι καὶ ῥεῖν ἔσω ταῖς ἡμέραις ταύταις, παυσάμενων δὲ τῶν ἐτησίων ἀναχωρεῖν. εἶναι δὲ αὐτὴν καὶ γλυκεῖαν, καὶ κῆτη παραπλήσια τοῖς ἐν τῷ Νεῖλῳ κροκοδείλοις καὶ ἵπποποτάμοις ἔχειν.

§3 Anaxagoras: Pomponius Mela 1.53 *crescit porro, sive quod solutae magnis aestibus nives ex inmanibus Aethiopiae iugis largius quam ripis accipi queant defluunt.* **Diodorus Siculus 1.38.4** Ἀναξαγόρας δ' ὁ φυσικός (—) ἀπεφήνατο τῆς ἀναβάσεως αἰτίαν εἶναι τὴν τηκομένην χιόνα κατὰ τὴν Αἰθιοπίαν, ᾧ καὶ ὁ ποιητὴς Εὐριπίδης μαθητὴς ὦν ἠκολούθηκε· λέγει γοῦν κτλ. **Seneca Nat. 4a.2.17** *Anaxagoras (59A91 DK) ait ex Aethiopiae iugis solutas nives ad Nilum usque decurrere. in eadem opinione omnis vetustas fuit: hoc Aeschylus (fr. 300 Radt) Sophocles (fr. 882 Radt) Euripides (fr. 228 Kannicht) tradunt.* = **Ioannes Lydus Mens. 4.107.7–11** περὶ τῆς ἐν θέρει τῶν ὑδάτων ἐπιδόσεως Ἀναξαγόρας φησὶ, τὰς τῆς Αἰθιοπίας τηκομένας χιόνας ἀποστέλλειν τὸν Νεῖλον. καὶ ταύτης ἐστὶ τῆς δόξης ὁ τ' Αἰσχυλὸς (fr. 300 Radt) καὶ Σοφοκλῆς (fr. 882 Radt) καὶ Εὐριπίδης (fr. 228 Kannicht). ὁ δὲ μέγιστος ἐν φιλοσόφοις Ῥωμαίοις Σενέκας (sc. *Nat.* 4a.2.17–21)

ἀντιλέγει κτλ. cf. **Lucanus** 10.219–220 *vana fides veterum, Nilo, quod crescat in arva, / Aethiopum prodesse nives*. **Hippolytus Ref.** 1.8.5 (on Anaxagoras, 59A42 DK) τὸν δὲ Νεῖλον αὖξασθαι κατὰ τὸ θέρος καταφερομένων εἰς αὐτὸν ὑδάτων ἀπὸ τῶν ἐν τοῖς ἀρκτ(ικ)οῖς χιόνων. **Anon. Florentinus** (*FGrH*647 F1) §2 Ἀναξαγόρας δὲ ὁ φυσικός (—) φησι τῆς χιόνος τηκομένης τὴν ἀναπλήρωσιν τοῦ Νεῖλου γίνεσθαι· ὡσαύτως δὲ καὶ Εὐριπίδης (fr. 228 Kannicht) καὶ ἕτεροί τινες τραγωιδῶν ποιηταί. ἀλλ' Ἀναξαγόρας μὲν αὐτὴν τὴν γένεσιν ποίησιν λέγει τῆς ἀναπληρώσεως, ὡς αὐτὸς εἴρηκεν, Εὐριπίδης δὲ καὶ τὸν τόπον ἀφορίζει, λέγων οὕτως κτλ. **Scholía in Apollonium Rhodium** 4.269–271a, p. 276.6–8 Wendel Ἀναξαγόρας (—) μὲν γάρ φησι διὰ τῆς χιόνος πληθύνει αὐτόν, ᾧ ἔπεται καὶ Εὐριπίδης λέγων κτλ. **Tzetzēs Exeges. in Iliad.** A.426, *schol.* 85.21–41 Lolos Ἀναξαγόρας (—) πάλιν δὲ μετὰ τοῦ Δημοκρίτου / καὶ τις ἀνὴρ Ἀρχέλαος ὁμοῦ καὶ Καλλισθένης / Αἰσχύλος (fr. 300 Radt) Εὐριπίδης (fr. 228 Kannicht) τε συντρέχουσιν Ὀμήρῳ (*Od.* 4.477 and 4.581) / σὺν τούτοις καὶ Διόδωρος ὁ ἱστοριογράφος (1.36.7–41.10) / ἐξ ὄμβρου καὶ χιόνος τε τῆς ἐν Αἰθιοπίᾳ / συντηκομένης λέγοντες κατάρδεσθαι τὸν Νεῖλον. / ὁ μὲν Αἰσχύλος οὕτως τοῖς στίχοις διαγράφων· κτλ. ... ταῦτ' αὖ φησιν Αἰσχύλος μὲν, ὁ δ' Εὐριπίδης λέγει· κτλ. ... ὁ δ' Ὀμηρος μονόστιχόν φησι βραχυλογία κτλ.

§4 **Democritus: Pomponius Mela** 1.53 (*crescit*) *sive quod per ea tempora flantes Etesiae aut actas a septentrione in meridiem nubes super principia eius imbre praecipitant, aut venienti obviae adverso spiritu cursum descendentes impediunt, aut harenis quas cum fluctibus litori adplicant ostia obducunt*.

Diodorus Siculus 1.39.1–3 Δημόκριτος δ' ὁ Ἀβδηρίτης (68A99 DK) φησὶν οὐ τὸν περὶ τὴν μεσημβρίαν τόπον χιονίζεσθαι, καθάπερ εἴρηκεν Εὐριπίδης (—) καὶ Ἀναξαγόρας (—), ἀλλὰ τὸν περὶ τὰς ἄρκτους, καὶ τοῦτο ἐμφανὲς εἶναι πᾶσι. τὸ δὲ πλῆθος τῆς σωρευομένης χιόνος ἐν τοῖς βορείοις μέρεσι περὶ μὲν τὰς τροπὰς μένειν πεπηγός, ἐν δὲ τῷ θερίῳ διαλυομένων ὑπὸ τῆς θερμασίας τῶν πάγων πολλὴν τηκεδὸνα γίνεσθαι, καὶ διὰ τοῦτο πολλὰ γεννᾶσθαι καὶ παχέα νέφη περὶ τοὺς μετεωροτέρους τῶν τόπων, δαψιλοῦς τῆς ἀναθυμιάσεως πρὸς τὸ ὕψος αἰρομένης. ταῦτα δ' ὑπὸ τῶν ἐτησίῳ ἐλαύνεσθαι, μέχρι ἂν ὅτου προσπέσῃ τοῖς μεγίστοις ὄρεσι τῶν κατὰ τὴν οἰκουμένην, ἃ φησὶν εἶναι περὶ τὴν Αἰθιοπίαν· ἔπειτα πρὸς τούτοις οὖσιν ὕψηλοῖς βιαίως θραυόμενα παμμεγέθεις ὄμβρους γεννᾶν, ἐξ ὧν πληροῦσθαι τὸν ποταμὸν μάλιστα κατὰ τὴν τῶν ἐτησίῳ ὥραν. **Anon. Florentinus** (*FGrH*647 F1) §4 Δημόκριτος (fr. 411 Luria) δὲ λέγει περὶ μὲν χειμερινὰς τροπὰς τοὺς περὶ τὰς Ἀρκτους χιονίζεσθαι τόπους, περὶ τροπὰς δὲ θερινὰς μεταστάντος τοῦ ἡλίου τηκομένης τῆς χιόνος καὶ ἀτμιζομένης ἀπὸ τῆς τήξεως νέφη γίνεσθαι, ἃ τοὺς ἐτησίας ὑπολαμβάνοντας φέρειν πρὸς μεσημβρίαν· συνωθουμένων δὲ τῶν νεφῶν ἐπὶ τὴν Αἰθιοπίαν καὶ τὴν Λιβύην ὄμβρον γίνεσθαι πολὺν, ὃν καταρρέοντα πληροῦν τὸν Νεῖλον. **Scholía in Apollonium Rhodium** 4.269 Δημόκριτος δὲ ὁ φυσικός (68A99 DK) *** ἀπὸ τοῦ κατὰ μεσημβρίαν ὑπερκειμένου πελάγους λαμβάνειν τὸν Νεῖλον τὴν ἐπίχυσιν, ἀπογλυκαίνεσθαι δὲ τὸ ὕδωρ διὰ τὸ διάστημα καὶ τὸ μήκος τοῦ πόρου καὶ ὑπὸ τοῦ καύματος ἀφεισόμενον· διὸ καὶ ἐναντίαν φησὶν ἔχειν τὴν γεῦσιν.

§5 **Herodotus: Pomponius Mela** 1.53 (*crescit*) *sive quod sol hieme terris propior et ob id fontem eius minuens tunc altius abit, sinitque integrum et ut est plenissimus surgere*. **Diodorus Siculus** 1.38.8–9 Ἡρόδοτος δὲ φησὶ τὸν Νεῖλον

εἶναι μὲν φύσει τηλικούτον ἡλικίος γίνεται κατὰ τὴν πλήρωσιν, ἐν δὲ τῷ χειμῶνι τὸν ἥλιον κατὰ τὴν Λιβύην φερόμενον ἐπισπᾶσθαι πρὸς ἑαυτὸν πολλὴν ὑγρασίαν ἐκ τοῦ Νείλου, καὶ διὰ τοῦτο περὶ τοὺς καιροὺς τούτους παρὰ φύσιν ἐλάττονα γίνεσθαι τὸν ποταμόν· τοῦ δὲ θέρου ἐπιστάντος ἀποχωροῦντα τῇ φορᾷ τὸν ἥλιον πρὸς τὰς ἄρκτους ἀναξηραίνειν καὶ ταπεινοῦν τοὺς τε περὶ τὴν Ἑλλάδα ποταμοὺς καὶ τοὺς κατὰ τὴν ἄλλην χώραν τὴν ὁμοίως ἐκείνῃ κειμένην. **Anon. Florentinus** (*FGrH*647 F1) §7 Ἡρόδοτος δὲ τοῖς μὲν λοιποῖς ὑπεναντία λέγει, παραπλησίως δὲ Οἰνοπίδῃ. τὴν μὲν γὰρ ῥύσιν τοῦ Νείλου φησὶ τοιαύτην ὥστε αἰεὶ πληροῦν τὸν ποταμόν, τὸν δὲ ἥλιον τοῦ χειμῶνος κατὰ τὴν Λιβύην ποιοῦμενον τὴν πορείαν ἀναξηραίνειν τὸν Νεῖλον, ἐπὶ δὲ τὰς θερινὰς τροπὰς μεθιστάμενον πρὸς τὴν Ἄρκτον ἰέναι. **Ioannes Lydus Mens.** 4.107.40–45 (excerpted from Seneca *Nat.* 4a, lost) ὁ δὲ Ἡρόδοτος παρὰ πάντων τῶν ποταμῶν ἔλκειν τὸν ἥλιον τὸ ὑγρὸν φησι τὴν πρόσγειον νότου ζώνην διατρέχοντα, πρὸς δὲ τῷ θέρει πρὸς βορρᾶν ἐκκλίνοντα ἐκκαλεῖσθαι τὸν Νεῖλον, καὶ διὰ ταύτην τὴν αἰτίαν αὐτὸν ἀναχεῖσθαι κατὰ τὸ θέρος. **confusedly Olympiodorus in Mete.** 109.3–6 ὁ μὲν οὖν Ἀριστοτέλης, ὥσπερ καὶ ὁ Πτολεμαῖος, φησὶ πηγὰς ἔχειν τὸν Νεῖλον· Ἡροδότῳ δὲ μᾶλλον πιστευτέον ἐντεῦθεν λέγοντι ἐκ τῆς ἀντοικουμένης ἔχειν τὴν ἀρχὴν αὐτόν· διὸ καὶ θέρους πλημμυρεῖ, ὅτε ἐκεῖσε χειμῶν. **Tzetzes Exeges. in Iliad.** A.426, *schol.* 85.16–20 Lolos ὁ Χῖος Οἰνοπίδης (*fr.* 11 Bodnár) δὲ σὺν ἅμα Ἡροδότῳ / πηγὰς φασι τὸν ποταμόν ξηραίνεσθαι χειμῶνι, / τῷ δ' ὁμβρίῳ ὕδατι τότε πληροῦσθαι μόνῳ / τῷ θέρει θερομένῃς δὲ μᾶλλον ἀναβλύζειν / ὁ Νεῖλος δ' οὐ βρεχόμενος ἤττων ἐστὶ χειμῶνι.

§6 **Ephorus: Diodorus Siculus** 1.39.7 Ἐφορος (*FGrH*70 F65e) δὲ καινοτάτην αἰτίαν εἰσφέρειν πιθανολογεῖν μὲν πειράται, τῆς δ' ἀληθείας οὐδαμῶς ἐπιτυχᾶνων θεωρεῖται. φησὶ γὰρ τὴν Αἴγυπτον ἅπασαν οὖσαν ποταμώχωστον καὶ χαύνην, ἔτι δὲ κισσηρώδη τὴν φύσιν, ῥαγάδας τε μεγάλας καὶ διηνεκεῖς ἔχειν, διὰ δὲ τούτων εἰς ἑαυτὴν ἀναλαμβάνειν ὑγροῦ πλῆθος, καὶ κατὰ μὲν τὴν χειμερινὴν ὥραν συνέχειν ἐν ἑαυτῇ τοῦτο, κατὰ δὲ τὴν θερινὴν ὥσπερ ἰδρώτας τινὰς ἐξ αὐτῆς πανταχόθεν ἀνιέναι, καὶ διὰ τούτων πληροῦν τὸν ποταμόν. **Scholia in Apollonium Rhodium** 4.269–271a, p. 277.1–3 Wendel Ἐφορος (*FGrH*70 F65d) δὲ ποταμώχωστον εἶναι φησι τὴν Αἴγυπτον, ῥηγινυμένης δὲ τῆς γῆς ὑπὸ τοῦ ἡλίου τῷ ἔαρι ἀναπηδᾶν τὸ ὕδωρ, καὶ ἐπαύξεσθαι τὸ ρεῦμα. **Ioannes Lydus Mens.** 4.107.45–48 (excerpted from *Nat.* 4a, lost) Ἐφορός (*FGrH*70 F65b) γε μὴν ὁ Κυμαῖος ἐν τῇ πρώτῃ τῶν Ἱστοριῶν φησιν, ἀραιὰν εἶναι κατὰ φύσιν τὴν Αἴγυπτον, καὶ κατ' ἔτος ἐπαγομένης ἰλῦος ὑπὸ τοῦ Νείλου στεγανοῦσθαι, τὸν δὲ ποταμόν δίκην ἰδρώτος κατὰ τὸν καιρὸν τοῦ καύματος ἐπὶ τὰ κουφότερα καὶ ἀραιότερα καταρρεῖν.

§7 **Eudoxus: Ioannes Lydus Mens.** 4.107.45–48 (excerpted from Seneca *Nat.* 4a, lost) οἱ δὲ Αἰγύπτιοι φασι, τοὺς ἐτησίους πάσας ἐξ ὑπερτέρου τὰς νεφέλας ἐπὶ τὸν νότον ἐξωθεῖν καὶ ἐκεῖθεν βαρείας καταφερομένης βροχῆς ἀναβλύζειν τὸν Νεῖλον. **Ammianus Marcellinus** 22.15.5–6 *affirmant aliqui physicorum in subiectis septemtrioni spatiis, cum hiemes frigidae cuncta constringunt, magnitudines nivium congelare easque postea vi flagrantis sideris resolutas fluxis umoribus nubes efficere gravidas, quae in meridianam plagam etesiis flantibus pulsae expressaeque tepore nimio incrementa ubertim suggerere Nilo creduntur.*

b Sources and Other Parallel Texts

General texts: **Herodotus** 2.20 ἀλλὰ Ἑλλήνων μὲν τινες ἐπίσημοι βουλόμενοι γενέσθαι σοφίην ἔλεξαν περὶ τοῦ ὕδατος τούτου τριφασίας ὁδοῦς, τῶν τὰς μὲν δύο {τῶν ὁδῶν} οὐκ ἀξιώ μνησθῆναι εἰ μὴ ὅσον σημήναι βουλόμενος μούνον (see below §§1–3). 2.23 εἰ δὲ δεῖ μεμψάμενον γνῶμας τὰς προκειμένας αὐτὸν περὶ τῶν ἀφανέων γνῶμην ἀποδέξασθαι, φράσω δι' ὃ τι μοι δοκέει πληθύνεσθαι ὁ Νεῖλος τοῦ θέρεος (see below §5). **Aristotle** *APo.* 2.15 98a29–33 τὰ δὲ τῷ τὸ μέσον ὑπὸ τὸ ἕτερον μέσον εἶναι διαφέρει τῶν προβλημάτων, οἷον διὰ τί ὁ Νεῖλος φθίνοντος τοῦ μηνὸς μᾶλλον ῥεῖ; διότι χειμεριώτερος φθίνων ὁ μείζ. διὰ τί δὲ χειμεριώτερος φθίνων; διότι ἡ σελήνη ἀπολείπει. (cf. **Theophrastus** *Vent.* 17 ποιεῖ δὲ καὶ ἡ σελήνη ταυτὰ (sc. just as the sun) πλὴν οὐχ ὁμοίως· οἷον γὰρ ἀσθενὴς ἥλιός ἐστι. διὸ καὶ νύκτωρ δεινότεραι (αἰ πνοαὶ) καὶ αἰ σύνοδοι τῶν μηνῶν χειμερινώτεραι.) **Aristotle** *Mete.* 1.13 350b13–14 τοῦ Νεῖλου τὸ ῥεῦμα τὸ πρῶτον ἐκ τοῦ Ἀργυροῦ καλουμένου ὄρους. *Mete.* 2.2 356a25–31 μεγάλοι δὲ γίνονται τῶν ποταμῶν οἱ μακρὰν ῥέοντες διὰ κοίτης· πολλῶν γὰρ δέχονται ῥεύματα ποταμῶν, ὑποτεμνόμενοι τῷ τόπῳ καὶ τῷ μήκει τὰς ὁδοῦς· διόπερ δ' τ' Ἴστρος καὶ ὁ Νεῖλος μέγιστοι τῶν ποταμῶν εἰσιν τῶν εἰς τήνδε τὴν θάλατταν ἐξιόντων. καὶ περὶ τῶν πηγῶν ἄλλοι λέγουσιν ἐκάστου τῶν ποταμῶν ἄλλας αἰτίας διὰ τὸ πολλοὺς εἰς τὸν αὐτὸν ἐμβάλλειν. **ps.Aristotle** *Liber de inundacione Nili* (fr. 248 R³) pp. 191.16–20 + 192.11–13, text Beullens *propter quid [= διὰ τί] aliis fluminibus in hyeme quidem augmentatis, in estate autem multo factis minoribus, solus eorum qui in mare fluunt, multum estate excedit fitque tantus ut civitates solae supersint velut insulae? ... modi quidem igitur tales et tanti, per quos utique crescet fluvijs solus. horum autem qui quidem existunt dicti a prius a dubitanti-bus de ipso, hos nos dicemus. Thales quidem qui de Ameo* (i.e. Ἐξαμύου) *Milesius* (fr. 548 Wöhrle) ... p. 192.22 ... *Diogenes autem Nakithemius* (i.e. Ἀπολλοθέμιδος) *Apolloniates* (cf. 64A18 DK) ... p. 193.1 *Anaxagoras autem Egisiboli Clasomenius* (cf. Anaxagoras 59A91 DK) ... p. 193.13–14 *rubrum quidem mare aiunt quidem coniungi ad id quod extra.* ... p. 194.3 *Athinagoras dicebat Arimnisti* ... p. 195.3–4 *sunt autem quidam qui aiunt ... hii autem* ... p. 195.14 *Nicagoras autem Cyprius ait* ... p. 196.5–19 *restant adhuc tres modi dictorum, secundum quos contingit amnis augeri. ... quemadmodum dicit Erodotos fabularum scriptor. ... reliquum autem duarum utramque dicere est.* ... p. 197.1–2 *nunc autem relinquetur sola causa dictorum. hanc causam dicendum.* **Lucretius** *DRN* 6.715 *aut quia sunt* ..., 724 *est quoque uti possit* ... 729 *fit quoque uti* ... 735 *forsitan* ... (see further below). **Pliny** 5.55 *causas huius incrementi varias prodidere, sed maxime probabiles etesiarum* ..., *aut imbres Aethiopiae aestivos* **Timaeus mathematicus** *occultam protulit rationem* ... **Lucanus** 10.237–240 *quis causas reddere possit? / sic iussit natura parens discurrere Nilum, / sic opus est mundo.* **Aelius Theon** *Progymn.* 2.66.31–67.4 Patillon–Bolognesi ἔχομεν δὲ καὶ ἀνασκεινὰς καὶ κατασκεινὰς παρὰ τοῖς παλαιοῖς χρεῖων καὶ γνωμῶν καὶ ἀποφάσεων καὶ τοιοῦτων. καὶ δὴ ἀρόμττοι ἂν εἰς τοῦτο τὸ εἶδος, ὅσα λέγεται ὑπὸ τοῦ Ἐφόρου ἐν τῇ πέμπτῃ τῶν Ἱστοριῶν (*FGrH*70 F65a) πρὸς τὰς ὑπὸ τῶν παλαιωτέρων περὶ τοῦ Νεῖλου καταβεβλημένας ἀποφάσεις. **Aelius Aristides** *Aegypt.* (*Or.* 48) p. 331.15–17 Jebb πῶς ὁ Νεῖλος ἀνέρχεται καὶ τίς ἡ πρόφασις τὸ τάναντία αὐτὸν πεπονθέναι τοῖς ἄλλοις

ποταμοῖς περὶ τὰς ὥρας τοῦ ἔτους. *Aegypt.* p. 333.36 ὦ χαριέστατε Εὐθύμενες οἷον εἰ περὶ ψυχῆς, ὅτι ἀθάνατος. ... *Aegypt.* p. 342.21 τὴν Ἡροδότου γνώμην ... *Aegypt.* p. 348.34 ... Ἐφορος (—). **Proclus in Tim.** 1.119.12–121.12, esp. 120.23–121.1 λεκτέον, ὅτι γίνονται μὲν καὶ ἀποβάσεις τοῦ Νεῖλου πολλάκις, ὅμως καὶ ἡ συν-έχεια τῶν ὄμβρων αἰτία τῆς ἀδιακόπου τοῦ ὕδατος αὐξήσεως, καὶ τὰ μεγέθη τῶν ὀρῶν, ἐν οἷς αἱ πηγαὶ τοῦ Νεῖλου· δεχόμενα γὰρ ταῦτα τοὺς ἀπὸ τῶν συνωθουμένων ἐκ τῶν ἐτησίων εἰς αὐτὰ νεφῶν ὄμβρους κατὰ πάσας ἑαυτῶν τὰς λαγόνας ἐπιρρεῖταις πηγαῖς ἀδιακόπως, αἱ δὲ τὸν ποταμὸν αὖξουσιν πληθύνουσαι. καὶ γὰρ τοῦτο ἔν εἶναι αἴτιον ὄμβρων φησὶν ὁ Θεόφραστος (fr. 211A FHS&G), τὴν τῶν νεφῶν πίλησιν πρὸς τινὰ τῶν ὀρῶν. **Heliodorus Aeth.** 2.28.3–4 (cited at Psell. *Omn.Doctr.* c. 176) αὖξεται δὲ κατὰ τὴν θερινὴν ὥραν, οὐχ ὥς τινες ᾤθησαν πρὸς τῶν ἐτησίων ἀντικρὺ πνεόντων ἀνακοπτόμενος ἀλλ' αὐτῶν δὴ τούτων τῶν ἀνέμων κατὰ τροπὴν τὴν θερινὴν ἀπὸ τῶν ἀρκτῶν ἐπὶ τὴν μεσημβρίαν πᾶν νέφος ἐλαυνόντων τε καὶ ὠθούντων, ἕως ἐπὶ τὴν διακεκαυμένην ζώνην συρράξωσι, (4) καθ' ἣν τῆς πρόσω φοράς ἀνακοπτόνται δι' ὑπερβολὴν τοῦ περὶ τὰ μέρη πυρώδους, πάσης τῆς πρότερον καὶ κατὰ μικρὸν ἀθροισθείσης καὶ παχυνθείσης νοτίδος ἐξατμίζομένης, καὶ τούτου λάβρων ὑετῶν ῥηγνυμένων ὀργᾷ τε ὁ Νεῖλος κτλ. **Olympiodorus in Mete.** 94.4–17 τρίτη ἀπορία· εἰ διὰ τὴν ἔνδειαν τῆς ὑγρότητος θέρους ὑετὸς οὐ γίνεται, τί δήποτε ἐν Ἀραβίᾳ καὶ ἐν Αἰθιοπίᾳ γίνεται θέρους ὑετός; καὶ λύομεν, ὅτι ἔστιν ὑγρότης, ἀλλ' οὐκ ἐκεῖ γινομένη, ἀλλ' ἐκεῖ σωρευομένη. ἐπειδὴ γὰρ ἐν τῷ θέρει πνέουσιν ἐτησῖαι βόρειοι ὄντες, ἐξωθοῦσιν ἐκεῖ τὰ νέφη καὶ πρῶτον προσπταίνοντα Σεληναίοις ἢ Ἀργυρεῖς ὄρεσι τῇ πιλήσει εἰς ὕδωρ μεταβάλλονται καὶ καταγεται ὑετός. διὸ καὶ ὁ Νεῖλος θέρει γενέτης ἐστί. καὶ ταύτην τὴν αἰτίαν φασὶ τῆς ἀναβάσεως αὐτοῦ. λέγουσι δὲ καὶ ἄλλας τρεῖς· μίαν μὲν, ἐπειδὴ ἐν τοῖς Σεληναίοις ὄρεσι χιών ἀπόκειται, ἣτις ἀναλυομένη ἐν τῷ θέρει πλημμύραν ποιεῖ τῶν ὑδάτων. δευτέρα ἐπιλυσίς· φασὶ τὸν Νεῖλον τὴν ἀρχὴν ἔχειν ἐν τῇ ἀντοικουμένῃ· ἐπειδὴ οὖν, ὅτε ἐκεῖ ἐστί χειμῶν, ἐν ἡμῖν θέρος ἐστί, συμβαίνει πλεονεξίας ἐκεῖ ὑδάτων οὔσης καταρρεῖν ἐνταῦθα καὶ διὰ τοῦτο πλεονάζειν τὸν Νεῖλον. τρίτη αἰτία, ἣτις αἰτιάζεται τὴν ἀντιπερίστασιν· θερμασίας γὰρ οὔσης τὸ ψυχρὸν ἀντιπεριστάνεον πυκνοὶ καὶ ὕδωρ γεννᾷ. **John Philoponus Opif.** 4.5, pp. 169.19–170.8 Reichardt ἀλλὰ καὶ τὸν Νεῖλον δι' αὐτῆς τῆς κεκαυμένης ἐκ τῶν ἐπέκεινα τόπων φερόμενον εἰς τὸν Ὀκεανὸν ἐκχεῖσθαι πάντως ἦν ἀνάγκη· φασὶ γὰρ τινες αὐτὸν ἐκ τῆς ἀντοικουμένης τὰς ἀρχὰς ἔχοντα φέρεσθαι πρὸς ἡμᾶς· διὸ καὶ ἐν θέρει μόνον τῶν ποταμῶν πλημμυρεῖν παρ' ἡμῖν ἐκεῖ χειμάζοντα καὶ τὸ ὕδωρ ἔχειν γλυκύτατον· τοιαῦτα γὰρ εἶναι τὰ προθερμαινόμενα τῶν ὑδάτων. εἰ δὲ μὴ ἐκ τῆς ἀντοικουμένης, ἀλλ' ἐκ τῶν μετὰ τὸν θερινὸν τροπικὸν τῆς Λιβύης μερῶν φέρεσθαι λέγοι τις αὐτόν, μάρτυρα τούτου Πτολεμαῖον ὡς ἔγνω ἐπικαλούμενος, ἡγνόησεν ὡς ἔοικεν οὗτος τὰ Πτολεμαῖω περὶ αὐτοῦ γραφέντα· οὐδὲ γὰρ Πτολεμαῖος, οὐδ' ἄλλος οὐδεὶς τὰς πηγὰς καὶ τὴν ἀρχὴν εὑρεῖν τοῦ Νεῖλου δεδύνηται. οὐδὲ ὁ τοῦτο νομίζων τοῖς εἰρημνέοις ὑπὸ τοῦ Πτολεμαίου ἐπέστησεν· τί γὰρ φησι (*Geog.* 4.8[9].3); 'τῶν ἀνθρωποφάγων Αἰθιοπῶν ἀπὸ δυσμῶν διήκει τὸ τῆς σελήνης ὅρος, ἀφ' οὗ ὑποδέχονται τὰς χιόνας αἱ τοῦ Νεῖλου πηγαί'.

Chapter heading: ps.Aristotle *Liber de inundacione Nili* (fr. 248 R³). **Aristotelis Vita Menagiana** no. 159 Περί τῆς τοῦ Νεῖλου ἀναβάσεως. **Aristotelis**

Index Ptolemaei no. 26 Hein Περὶ τοῦ Νείλου γ'. **Alexander of Aphrodisias** in *Mete.* 53.15–16 ὡς λέγει ἐν τοῖς Περὶ τῆς τοῦ Νείλου ἀναβάσεως. **Theon of Alexandria** at *Sud.* s.v. Θ 205, p. 2.702.14 Adler (*FGrH* 651 F1) Περὶ τῆς τοῦ Νείλου ἀναβάσεως.

§1 Thales: Herodotus 2.20 (Thales fr. 13 Wöhrle) ἡ ἑτέρα μὲν λέγει τοὺς ἐτησίας ἀνέμους εἶναι αἰτίους πληθύνειν τὸν ποταμὸν, κωλύοντας ἐς θάλασσαν ἐκρέειν τὸν Νεῖλον. **ps.Aristotle** *Liber de inundacione Nili* (fr. 248 R³) p. 192.14–15, text Beullens *Thales quidem qui de Ameo Milesius* (fr. 548 Wöhrle) *a ventis annu-alibus repulsum inquit fluvium inundare. crescit enim si illi flant et e regione fluit ipsorum.* **Lucretius** *DRN* 6.712–723 *Nilus in aestatem crescit campisque redundat / unicus in terris, Aegypti totius amnis. / is rigat Aegyptum medium per saepe calorem, / aut quia sunt aestate Aquilones ostia contra, / anni tempore eo, qui Etesiae esse feruntur, / et contra fluvium flantes remorantur et, undas / cogentes sursus, replent coguntque manere. / nam dubio procul haec adverso flabra feruntur / flumine, quae gelidis ab stellis axis aguntur; / ille ex aestifera parti venit amnis ab austro / inter nigra virum percoccto saecula colore / exoriens penitus media ab regione diei.* **Pliny** *Nat.* 5.55 *causas huius incrementi varias prodidere, sed maxime probabiles etesiarum eo tempore ex adverso flantium repercussum, ultra in ora acto mari.*

§2 Euthymenes: Homer *Il.* 21.195–197 μέγα σθένος Ὀκεανοῖο, / ἐξ οὗ περ πάντες ποταμοὶ καὶ πᾶσα θάλασσα / καὶ πᾶσαι κρήναι καὶ φρεῖατα μακρὰ νάουσιν. **Hesiod** *Th.* 337–338 Τηθύς δ' Ὀκεανῷ ποταμοὺς τέκε δινήεντας, / Νεῖλόν τ' Ἀλφειὸν τε καὶ Ἠριδανὸν βαθυδίνην κτλ. **Herodotus** 2.21 ἡ δ' ἑτέρα ἀνεπιστημονεστέρη μὲν ἐστὶ τῆς λελεγμένης, λόγῳ δὲ εἰπεῖν θωμασιωτέρη, ἣ λέγει ἀπὸ τοῦ Ὀκεανοῦ ῥέοντα αὐτὸν ταῦτα μηχανάσθαι, τὸν δὲ Ὀκεανὸν γῆν περὶ πᾶσαν ῥέειν. **Hanno** *Peripl.* 10 ἐκεῖθεν πλέοντες εἰς ἕτερον ἡλλομεν ποταμὸν μέγαν καὶ πλατὺν, γέμοντα κροκοδείλων καὶ ἵππων ποταμίων. **ps.Aristotle** *Liber de inundacione Nili* (fr. 248 R³) p. 193.26–28, text Beullens *hunc autem dicebant habere cocodrillos et circumfluere exterius rubrum mare, sive veraces sint hoc dicentes sive mentientes.*

§3 Anaxagoras: Aeschylus fr. 300 Radt γένος μὲν αἰνεῖν ἐκμαθὼν ἐπίσταμαι / Αἰθιοπίδος γῆς, Νεῖλος ἔνθ' ἐπτάρροος / †γαῖαν† κυλίνδει πνευμάτων ἐπομβρίᾳ, / ἐν ἧ πυρωπὸν ἥλιος ἐκλάμπας φλόγα / τήκει πετραίαν χιόνα· πᾶσα δ' εὐθαλῆς / Αἴγυπτος ἀγροῦ νάματος πληρουμένη / φερέσβιον Δήμητρος ἀντέλλει στάχυν. **Euripides** fr. 228.1–5 Kannicht Δαναὸς ὁ πεντήκοντα θυγατέρων πατήρ / Νείλου λιπὼν κάλλιστον τέκε γαίᾳς† ὕδωρ, / ὃς ἐκ μελαμβρότοιο πληροῦται ῥοὰς / Αἰθιοπίδος γῆς, ἡνίκ' ἂν τακῇ χιὼν / †τέθριππεύοντος† ἡλίου κατ' αἰθέρα. *Hel.* 1–3 Νείλου μὲν αἶδε καλλιπάρθενοι ῥοαί, / ὃς ἀντὶ δίας ψακάδος Αἰγύπτου πέδον / λευκῆς τακεῖσθαι χιόνος ὑγραίνει γύας. **Herodotus** 2.22 ἡ δὲ τρίτη τῶν ὁδῶν πολλὸν ἐπιεικεστάτη ἐοῦσα μάλιστα ἔψευσται. λέγει γὰρ δὴ οὐδ' αὕτη οὐδέν, φαμένη τὸν Νεῖλον ῥέειν ἀπὸ τηκομένης χιόνος, ὃς ῥέει μὲν ἐκ Λιβύης διὰ μέσων Αἰθιοπίων, ἐκδιδοί δὲ ἐς Αἴγυπτον. **ps.Aristotle** *Liber de inundacione Nili* (fr. 248 R³) p. 193.1–2, text Beullens *Anaxagoras autem Egisboli Clasomenius propter liquefieri nivem estate repleti fluvium ait.* **Lucretius** *DRN* 6.735–737 *forsitan Aethiopum penitus de mon-*

tibus altis / crescat, ubi in campos albas descendere ningues / tabificis subigit radiis sol omnia lustrans.

§4 Democritus: Homer *Od.* 4.477 & 4.581 Αἰγύπτιοιο, διιπετέος ποταμοῖο (cf. *Schol.*, below §7). Aristotle *Mete.* 1.12 349a4–6 γίγνεται δὲ καὶ περὶ τὴν Ἀραβίαν καὶ τὴν Αἰθιοπίαν τοῦ θέρους τὰ ὕδατα καὶ οὐ τοῦ χειμῶνος, καὶ ταῦτα βραγδαῖα (cf. below, §7). Lucretius *DRN* 6.729–734 *fit quoque uti pluviae forsitan magis ad caput ei / tempore eo fiant, quo etesia flabra Aquilonum / nubila coniciunt in eas tunc omnia partis. / scilicet ad mediam regionem electa diei / cum convenerunt, ibi ad altos denique montis / contrusae nubes coguntur vique premuntur.* Anon. Photii cod. 249, pp. 241.29–242.4 Thesleff ὅτι οἱ ἐτήσιαι πνέουσι κατὰ τὸν καιρὸν τοῦ ἀκμαιοτάτου θέρους δι’ αἰτίαν τοιαύτην. ὁ ἥλιος μετεωρότερος καὶ ἀπὸ τῶν μεσημβρινῶν τόπων ἀρκτικώτερος γινόμενος λύει τὰ ὑγρά τὰ ἐν ταῖς ἄρκτοις· λυόμενα δὲ ταῦτα ἐξαερούται, ἐξαερούμενα δὲ πνευματοῦται, καὶ ἐκ τούτων γίνονται οἱ ἐτήσιαι ἄνεμοι, ἐκ τῶν πνευμάτων τῶν ἀπὸ τῆς λύσεως τῶν ἀρκτικῶν ὑγρῶν γινομένων. φέρονται γοῦν ἐπὶ τοὺς ἐναντίους τόπους, τοὺς μεσημβρινούς. ἐκεῖ δὴ ταῦτα ἐκφερόμενα προσπίπτει τοῖς ὑψηλοτάτοις ὄρεσι τῆς Αἰθιοπίας, καὶ πολλὰ καὶ ἄθρόα γινόμενα ἀπεργάζεται ὑετούς· καὶ ἐκ τῶν ὑετῶν τούτων ὁ Νεῖλος πλημμυρεῖ τοῦ θέρους, ἀπὸ τῶν μεσημβρινῶν καὶ ξηρῶν τόπων ῥέων. καὶ τοῦτο Ἀριστοτέλης (fr. 246 R³) ἐπραγματεύσατο κτλ. differently Diodorus Siculus *Bibl.* 1.391–394.

§5 Herodotus: Herodotus 2.25 διεξιὼν τῆς Λιβύης τὰ ἄνω ὁ ἥλιος τὰδε ποιεῖ. ἅτε διὰ παντὸς τοῦ χρόνου αἰθρίου τε ἐόντος τοῦ ἡέρος τοῦ κατὰ ταῦτα τὰ χωρία καὶ ἀλσεινῆς τῆς χώρας εὐούσης καὶ (ἄνευ) ἀνέμων ψυχρῶν, διεξιὼν ποιεῖ οἶδόν περ καὶ τὸ θέρους ἔωθε ποιεῖν ἰὼν τὸ μέσον τοῦ οὐρανοῦ· ἔλκει γὰρ ἐπ’ ἑωυτὸν τὸ ὕδωρ, ἐλκύσας δὲ ἀπωθέει ἐς τὰ ἄνω χωρία, ὑπολαμβάνοντες δὲ οἱ ἄνεμοι καὶ διασκιδνάντες τήκουσι· καὶ εἰσι οἰκότως οἱ ἀπὸ ταύτης τῆς χώρας πνέοντες, ὃ τε νότος καὶ ὁ λίψ, ἀνέμων πολλὸν τῶν πάντων. ps.Aristotle *Liber de inundacione Nili* at *P.Oxy.* 4458 col. i.5–14 Jakobi–Luppe Ἡρόδοτος δὲ ὁ μυ|[θογρ]ῆφος ἐν τῷ χειμῶνι | [φησι] τὸν ἥλιον κατὰ τὴν | [Λιβύ]ην ποιείσθαι πο|[ρεῖα]ν· ἥ δ’ [ἄν] τύχη(ι) φερό|[μεν]ος, ἐντεῦθεν ἀνάγειν | [τὸ ὑγρό]ν, περὶ δὲ τὰς θερι|[νὰς τρ]οπὰς πρὸς τὴν ἄρ|[κτον] ἰέναι. ἥκιστα δὲ ταῦ|[τα λέγ]εται μεμελημέ|νωσ· (refutation follows) = fr. 248 R³, p. 196.6–11, text Beullens in *hyeme enim ablataque inerat aqua. hoc autem utique erit sole dessiccante, quemadmodum dicit Erodotos fabularum scriptor. non enim ait in hyeme solem per Libiam facere habundantiam* [perhaps read *ambulationem*], nisi si contingat latus hinc ducere humorem, circa versiones autem estivales ad arctum venire.

§7 Eudoxus: Aristotle *Mete.* 1.12 349a4–9 γίγνεται δὲ καὶ περὶ τὴν Ἀραβίαν καὶ τὴν Αἰθιοπίαν τοῦ θέρους τὰ ὕδατα καὶ οὐ τοῦ χειμῶνος, καὶ ταῦτα βραγδαῖα, καὶ τῆς αὐτῆς ἡμέρας πολλάκις, διὰ τὴν αὐτὴν αἰτίαν· ταχὺ γὰρ ψύχεται τῇ ἀντιπεριστάσει, ἢ γίγνεται διὰ τὸ ἀλσεινὴν εἶναι τὴν χώραν ἰσχυρῶς. Pliny *Nat.* 5.55 (causa incrementi) *aut imbres Aethiopiae aestivos, isdem etesiis nubila illo ferentibus e reliquo orbe.* *Scholia in Odysseam* schol. 4.477 Pontani πολλῶν λεγομένων περὶ τῆς τοῦ Νεῖλου ἀναβάσεως πρῶτος Ὀμηρος τὴν ἀληθεστάτην αἰτίαν εἶπε (*Od.* 4.477 and 4.581) ‘διιπετῇ’ προσαγορεύσας αὐτόν, διότι πληροῦται ἐκ τῶν ἐν Αἰθιοπίᾳ γινο-

μένων ἀδιαλείπτων τοῦ θέρους καὶ σφοδρῶν ὑετῶν, ὡς καὶ Ἀριστοτέλης (see above §3) καὶ Εὐδοξος (F 287 Lasserre) πεπύσθαι ταῦτα φάσκοντες ἀπὸ τῶν ἐν Αἰγύπτῳ ἱερῶν.

Liber 4 Caput 2

PB: ps.Plutarchus *Plac.* 898B–C; pp. 386^a9–387^a8 Diels—**PE:** Eusebius *PE* 15.32.10, p. 407.6–9 Mras—**PQ:** Qusṭā ibn Lūqā pp. 198–201 Daiber—cf. **PSy:** Symeon Seth *CRN* 4.68, p. 68.19 + 69.7–9 Delatte
S: Stobaeus *Ecl.* 1.49.1a; pp. 318.17–319.8 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b29 Henry (titulus solus)
T: Theodoretus *CAG* 5.17–18; p. 126.22–127.4 Raeder
 Cf. Hermias *Irr.* 2.1–5 Hanson; ps.Iustinus *Coh.* 6.2.22, 7.2.20–22 Marcovich;
 Nem: Nemesis *NH* c. 2, pp. 16.12–17.10, 22.19 Morani

Titulus β'. Περὶ ψυχῆς (P,S,T)

- §1 Θαλῆς ἀπεφῆνατο πρῶτος τὴν ψυχὴν φύσιν ἀεικίνητον ἢ αὐτοκίνητον. (P1,S1,T1)
- §2 Ἀλκμαίων φύσιν αὐτοκίνητον κατὰ αἰδίων κίνησιν, καὶ διὰ τοῦτο ἀθάνατον αὐτὴν καὶ προσεμφερῆ τοῖς θεοῖς ὑπολαμβάνει. (S4,T2) 5
- §3 Πυθαγόρας ἀριθμὸν ἑαυτὸν κινεῖν, τὸν δὲ ἀριθμὸν ἀντὶ τοῦ νοῦ παραλαμβάνει, (P2,S2,T3)
- §4 ὁμοίως δὲ καὶ Ξενοκράτης. (S3,T4)
- §5 Πλάτων οὐσίαν νοητὴν ἐξ ἑαυτῆς κινήτην κατ' ἀριθμὸν ἐναρμόνιον κινουμένην. (P3,T5) 10
- §6 Ἀριστοτέλης ἐντελέχειαν πρώτην σώματος φυσικοῦ, ὁργανικοῦ, δυνάμει ζῶν ἔχοντος· τὴν δ' ἐντελέχειαν ἀκουστέον ἀντὶ τοῦ εἶδους καὶ τῆς ἐνεργείας. (P4,S7,T6)
- §7 Δικαίαρχος ἁρμονίαν τῶν τεσσάρων στοιχείων. (P5,S5,T7)
- §8 Ἀσκληπιάδης ὁ ἱατρὸς συγγυμνασίαν τῶν αἰσθήσεων. (P6,S6) 15

§1 Thales 11A22a DK; §2 Alcmaeon 24A12 DK; §3 Pythagoras —; cf. Dörrie–Baltes 156.1; §4 Xenocrates fr. 60 Heinze, 90 Isnardi-Parente²; §5 cf. Plato *Phdr.* 245c, *Tim.* 35a–36b, 41d, ps.Plato *Def.* 411c; cf. Dörrie–Baltes 156.1; §6 cf. Aristoteles *de An.* 2.1 412a27–b1; §7 Dicaearchus fr. 12(a–c) Wehrli, cf. ap. 21A Mirhady; §8 Asclepiades cf. Vallance *ANRW* 2.37.1, p. 724, 2.37.1, p. 726

caput non hab. G (aliud c. 24 Περὶ ψυχῆς) **titulus** Περὶ ψυχῆς **PBS** : *Was ist die Definition der Seele?* PQ §1 [2] πρῶτος PS : om. T || ἀεικίνητον ἢ αὐτοκίνητον PS : ἀκίνητον T §2 [4] Ἀλκμαίων S : Ἀλκμάν T || [5] θεοῖς S : θεοὶ Diels sed cf. Arist. *de An.* 1.2 405a32 τὰ θεῖα, Boethus ap. Eus. *PE* 11.28.9 τὰ θεῖα τῶν σωμάτων §3 [6] ἑαυτὸν P : αὐτὴν S : αὐτὸν Heeren Diels Wachsmuth §4 [8] Ξενοκράτης ST : ξεναγόρας SP¹ ἀναξαγόρας SP²(marg.) §5 [9] κινήτην PB(I,II) T Nem Diels DG : κινήτικὴν PB(II) Mau : *bewegliches* Q || κατ' ἀριθμὸν PB(I,II) Q : κατὰ ῥυθμὸν PB(II) || [9–10] κατ' ... κινουμένην P : om. T §6 [11] Ἀριστοτέλης PS : ὁ δὲ Σταγειρίτης T || [12] ἐντελέχειαν PT : ἐνδελέχειαν S || τοῦ εἶδους καὶ S : om. PT §7 [14] Δικαίαρχος PBQS : Κλέαρχος T : Δείναρχος Nem pp. 17.5, 17.10, 22.19 Morani (cf. Δείναρχος Hermias *Irr.* 2 = gloss. sec. edd.) §8 om. T

Testes primi:

Theodoretus CAG 5.16 (quaestio) οὐ μόνον ἀλλήλοις, ἀλλὰ καὶ σφίσιν αὐτοῖς περὶ τῶν αὐτῶν ἐναντία γεγραφήκασιν· ἵνα δὲ τὴν πολλὴν αὐτῶν καταμάθωμεν ἔριν, φέρε πάλιν ἐπιδείξωμεν, τίνα περὶ ψυχῆς οἱ πολυθρύλητοι τῶν φιλοσόφων ἐδόξασαν, καὶ ὅπως αὐτοὺς ἡ κενὴ δόξα, κατὰ τὸν Τίμαιον [τίμωνα Clem. Eus.: Timon fr. 15 Wachsmuth], 'ἔριδι ξυνέηκε μάχεσθαι'. ἃ δέ γε ξὺν Θεῷ λέξω, ἐκ τῶν Πλουτάρχῳ καὶ Πορφυρίῳ καὶ μέντοι καὶ Ἀετίῳ συγγεγραμμένων ἐρῶ.

Theodoretus CAG 5.17–18

17.1 (~ §1) Θαλῆς τοίνυν κέκληκε τὴν ψυχὴν ἀκίνητον φύσιν·

17.2 (~ §2) Ἀλκμάν δὲ αὐτὴν αὐτοκίνητον εἶρηκεν·

17.3 (~ §3) ὁ δὲ γε Πυθαγόρας ἀριθμὸν ἑαυτὸν κινοῦντα·

17.4 (~ §4) ξυμφώνησε δὲ τῷ λόγῳ καὶ Ξενοκράτης·

17.5 (~ §5) ὁ δὲ Πλάτων οὐσίαν νοητὴν ἐξ ἑαυτῆς κινήτην·

17.6 (~ §6) ὁ δὲ Σταγειρίτης ἐντελέχειαν πρῶτην σώματος φυσικοῦ ὁργανικοῦ, δυνάμει ζῶνι ἔχοντος· ἐντελέχειαν δὲ τὴν ἐνέργειαν κέκληκεν·

18.1 (~ §7) Κλέαρχος δὲ τῶν τεττάρων εἶναι στοιχείων τὴν ἀρμονίαν.

Traditio ps.Plutarchi:

Eusebius PE 15.32.10 ἵνα δὲ τῶν σοφῶν ἔτι τὴν σοφίαν ἀποθαυμάσῃς, προσθήσω καὶ ὅσα περὶ ψυχῆς (cf. cc. 4.2–4) καὶ τοῦ ἐν αὐτοῖς ἡγεμονικοῦ (cf. c. 4.5) διεμαχέσαντο, οὐδὲ σφᾶς αὐτοὺς ἐπιγνῶναι οἷας εἶεν φύσεως δεδυνημένοι.

Symeon Seth CRN 4.68 (~ tit.) Περί ψυχῆς

4.68 (~ P6) καὶ διὰ τοῦτο ἐντελέχειαν αὐτὴν Ἀριστοτέλης ὠρίσατο σώματος φυσικοῦ ὁργανικοῦ δυνάμει ζῶνι ἔχοντος, ἐντελέχειαν λαμβάνων τὴν ὡς εἶδος καὶ τελειότητα.

Testes secundi:

Hermias Irr. 2.1–5 οἱ μὲν γὰρ φασιν αὐτῶν ψυχὴν εἶναι τὸ πῦρ (~ ch. 4.3.4–5. 4.7), οἱ δὲ τὸν ἀέρα (~ ch. 4.3.8), οἱ δὲ τὸν νοῦν (cf. cc. 4.2.3, 4.7a.1), οἱ δὲ τὴν κίνησιν (~ §§1–2) ... οἱ δὲ ἀριθμὸν κινήτικόν (~ §§3–4) οἱ δὲ ἀρμονίαν (~ §7) ... (seqq. vid. ch. 4.3)

ps.Iustinus Coh. 6.2.22 Ἀριστοτέλης δέ, ἐντελέχειαν αὐτὴν ὀνομάζων (~ §6); Coh. 7.2.20–22 οἱ δὲ τὴν κίνησιν (~ §§1–2), ... οἱ δὲ ἀριθμὸν κινήτικόν (~ §§3–4).

Nemesius NH c. 2, pp. 16.11–17.10 (~ tit.) Περί ψυχῆς. διαφωνεῖται σχεδὸν ἅπασιν τοῖς παλαιοῖς ὁ περὶ τῆς ψυχῆς λόγος (~ quaestio). [... : p. 16.13–21 vid. *testes secundi* ad c. 4.3] (16.21) πάλιν δὲ καὶ τῶν λεγόντων ἀσώματον εἶναι τὴν ψυχὴν ἄπειρος γέγονεν ἢ διαφωνία, τῶν μὲν οὐσίαν αὐτὴν καὶ ἀθάνατον λεγόντων, τῶν δὲ ἀσώματον μὲν, οὐ μὴν οὐσίαν οὐδὲ ἀθάνατον. (~ §1) Θαλῆς (fr. 323 Wöhrlé) μὲν γὰρ πρῶτος τὴν ψυχὴν ἔφησεν ἀκίνητον καὶ αὐτοκίνητον, (~ §3) Πυθαγόρας δὲ ἀριθμὸν ἑαυτὸν κινοῦντα, (~ §5) Πλάτων δὲ οὐσίαν νοητὴν ἐξ ἑαυτῆς κινήτην κατὰ ἀριθμὸν ἑναρμόνιον, (~ §6) Ἀριστοτέλης δὲ ἐντελέχειαν πρῶ-

την σώματος φυσικοῦ, ὀργανικοῦ, δυνάμει ζῶν ἔχοντος, (~ §7) Δείναρχος (*sic*, Dicaearchus fr. 11 Wehrli, 21B Mirhady) δὲ ἀρμονίαν τῶν τεσσάρων στοιχείων, ἀντὶ τοῦ κράσιν καὶ συμφωνίαν τῶν στοιχείων· οὐ γὰρ τὴν ἐκ τῶν φθόγγων συνισταμένην, ἀλλὰ τὴν ἐν τῷ σώματι θερμῶν καὶ ψυχρῶν καὶ ὑγρῶν καὶ ξηρῶν ἐναρμόνιον κράσιν καὶ συμφωνίαν βούλεται λέγειν. δῆλον δὲ ὅτι καὶ τούτων οἱ μὲν ἄλλοι τὴν ψυχὴν οὐσίαν εἶναι λέγουσιν, Ἀριστοτέλης δὲ καὶ Δείναρχος ἀνούσιον. *NH* 2, p. 22.19 (cf. Meletius *NH* p. 145.3–6) ἐπεὶ δὲ καὶ Δείναρχος [*sic*] ἀρμονίαν ὥριστο τὴν ψυχὴν κτλ. (~ §7).

Loci Aetiani:

quaestio A 4.3.1 οὗτοι πάντες οἱ προτεταγμένοι ἀσώματον τὴν ψυχὴν ὑποτίθενται, φύσιν λέγοντες αὐτοκίνητον καὶ οὐσίαν νοητὴν καὶ τοῦ φυσικοῦ ὀργανικοῦ ζῶν ἔχοντος ἐντελέχειαν.

§1 A 1.3.1 Θαλῆς ὁ Μιλήσιος ἀρχὴν τῶν ὄντων ἀπεφήνατο τὸ ὕδωρ κτλ. A 1.7.11 Θαλῆς νοῦν τοῦ κόσμου τὸν θεόν, τὸ δὲ πᾶν ἔμψυχον ἅμα καὶ δαιμόνων πλήρες· διήκειν δὲ καὶ διὰ τοῦ στοιχειώδους ὑγροῦ δύνανται θεῖαν κινητικὴν αὐτοῦ. A 1.8.2 Θαλῆς Πυθαγόρας Πλάτων οἱ Στωικοὶ δαίμονας ὑπάρχειν οὐσίας ψυχικάς.

§2 A 4.3.1 φύσιν ... αὐτοκίνητον.

§5 A 4.3.1 οὐσίαν νοητὴν. A 4.6.1 Πλάτων ἀεικίνητον μὲν τὴν ψυχὴν.

§6 A 1.2.2 τὸ εἶδος ὃ καλοῦμεν ἐντελέχειαν. A 1.3.22 ἐντελέχειαν ἦτοι εἶδος. A 4.3.1 τοῦ φυσικοῦ ὀργανικοῦ ζῶν ἔχοντος ἐντελέχειαν. A 4.3.10 Ξέναρχος ὁ Περιπατητικὸς καὶ τινες ἕτεροι τῆς αὐτῆς αἰρέσεως τὴν κατὰ τὸ εἶδος τελειότητα καὶ ἐντελέχειαν.

§§7–8 al. A 5.1.4 Ἀριστοτέλης καὶ Δικαίαρχος ... ἀθάνατον μὲν εἶναι οὐ νομίζοντες τὴν ψυχὴν, θείου δὲ τινος μετέχειν αὐτήν.

§8 cf. A 4.8.6 et 4.10.2 (de Aristotele) κοινὴν δὲ αἴσθησιν ..., εἰς ἣν πάσαι συμβάλλουσιν αἱ ἀπλαῖ τὰς ἰδίας ἐκάστη φαντασίας.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The witnesses for P are restricted to P^B and P^Q (excepting some snippets in P^J). E in the final Book of the *PE* on the soul only includes chapters 4.4–5 of P, so 4.2 and 4.3 are absent from the *Praeparatio*, just like the rest of Book 4. (He announces these two chapters at *PE* 15.59.7, at the end of his much more generous abstracts from P's cosmological Books 2 and 3, claiming that they show that the Greeks did not even know what concerns their own persons, as is clear from their disagreements about the parts of the soul and the seat of its regent part.) The parallel to ch. 4.2 noted in the apparatus criticus is part of a ver-

batim quotation in E of Boethus of Sidon, and does not derive from P. G did not abstract P 4.2–7 between his chs. 89 and 90 where they would have belonged, only resuming this job after ch. 4.1 ‘On the rising of the Nile’ with P 4.8 ‘On sensation and sense-objects’. This entails that the *Placita* tradition proper concerned with the substance and parts and regent part and (im)mortality and (im)mobility of the soul is absent in this representative of P’s tradition. G omitted these six chapters presumably because he had already dealt with the soul and its properties in his composite c. 24 also entitled Περὶ ψυχῆς near the beginning of the *Historia philosopha*. The middle section of this earlier chapter deals with matters concerned with ethical issues such as the *liberum arbitrium*. The beginning and end sections contain some material parallel to respectively P 4.2, 4.3, 4.6, 4.7 and 4.4, and though doubtless filtered through a different tradition these passages are worth adducing; we cite a number of passages under section E(a) below.

(2) S has seven lemmata. In S five lemmata corresponding to five of P’s six are found right at the beginning of the very long chapter 1.49 Περὶ ψυχῆς, ‘On the soul’, in what looks like the same order at the top and the bottom of the list: P1 (Thales) = S 1.49.1a1; P2 (Pythagoras) = S 1.49.1a2. P3 (Plato) is absent. Again: P4 (Aristotle) = S 1.49.1a7; P5 (Dicaearchus) = S 1.49.1a5; P6 (Asclepiades) = S 1.49.1a7. In both sources, therefore, we have the order Thales–Pythagoras and Dicaearchus–Asclepiades. This is correct with regard to the two final lemmata, but the sequential correspondence of the first two lemmata is the accidental result of the sort of interventions we know as distinguishing traits of each of these two sources. P epitomized the original second lemma (Alcmaeon) away, so the third lemma (Pythagoras) automatically became P2, while S modified the order because apparently he wanted to place Pythagoras, the archegete of the Pythagorean Succession, next to Thales, the archegete of the Ionian Succession, so this lemma became S2. The Xenocrates lemma, also abridged away by P, then automatically became S3.

(2) S replaced the lemma extant in P as P3 (Plato) with *Phaedr.* 247c6–7 at *Ecl.* 1.49.2; P’s lemma is also extant in T, so this is one of the five significant cases of P and T in agreement against S (see General Introduction, section 2.5 with n. 42). S quite frequently replaces (or illustrates) lemmata with the name-label Plato by verbatim quotations, see Diels *DG* 75 n. 2, M–R 1.234–235, 1.249–254, 1.265–266, 2.1.140, 2.2.369, 3.311 n. 60, 3.378, and Jeremiah (2018) at M–R 4.286 and 353.

(3) From Book 4 T abstracted only chs. 4.2–5 and 4.7, passing over ch. 4.6. Because E did not copy out chs. 4.2–3, T cannot have used E as his source for P, although at *CAG* 5.16 (quoted above at *testes primi*) he announces the abstracts of ch. 4.2 following at 5.17–18 as belonging with what he has culled from ‘Plu-

tarch, Porphyry and Aëtius'. A, mentioned third, is his real source. Among the seven lemmata of T at CAG 5.17–18 pertaining to the matter of the present chapter, parallels to no less than five of P's six lemmata are found, in an overall order corresponding with and so confirming that of P. T omits P7 ~ S6 (Asclepiades). What is more, in the first and second blocks of lemmata he has actually preserved two items, namely §§2 and 4, that are not in P but also found in S. This again proves that T has used the source shared with S (the so-called T/S source) that turns out to be A. He has not interfered with the order of the lemmata (or the chapters), but considerably abridged them the way he usually does, except of course the already very short Xenocrates lemma (§4). See further below, ch. 4.3 Commentary A(5), and M–R 1.288 plus 1.296–298, and Mansfeld (2016 = 2018a) at M–R 4.180–187 on the T/S source (esp. 4.183 for ch. 4.2); further above, General Introduction, section 2.5.

(4) The text of Nemesius *NH* c. 2 is more complicated (cited at *testes secundi* above, and below, ch. 4.3, again at *testes secundi*). The first word of the chapter at p. 16.12 is διαφωνεῖται, which pertains to the dissensus on the subject of the soul among the ancients (and some of his contemporaries) in general. He begins with the corporealists and goes on with the incorporealists, whereas A's order is the opposite. The verbal parallels with P and S for ch. 4.2 at *NH* c. 2, pp. 16.13–17.10 are very striking, esp. for §§3–6 and are placed by Diels *DG* in his apparatus with T. This also holds for the parallels of *NH* c. 2, p. 16.16–21 with P and S for ch. 4.3, see ad loc. See the discussion at M–R 1.293–298, where we concluded that Nem shows dependence on A, which would make him a primary witness to the compendium. We now think that it is more likely that the relationship is not a direct one, but that both authors have used a wider tradition of the *Placita*. But see further on ch. 4.3, Commentary A(4).

Not only the corporealists disagree among themselves (Nem p. 16.15 διαφέρονται), but among the incorporealists there is even 'endless conflict' (p. 16.22, ἄπειρος ... διαφωνία): on the one hand you have Thales Pythagoras Plato, who posit that the soul is a substance and immortal (cf. A 4.7.1), and on the other those who posit that it is neither a substance nor immortal, namely Aristotle and 'Dinarchus', who make it un-substantial (ἀνούσιον). This unsubstantiality recalls the view of those who deny the existence of the soul according to some doxographical accounts; for this preliminary issue see the references at section E(b) General texts. In A's chapter the diaeresis is presented differently: §1 Thales, §2 Alcmaeon and §5 Plato posit that the soul is a substance, §3 Pythagoras and §4 Xenocrates that it is a quantity, and §6 Aristotle, §7 Dicaearchus and §8 Asclepiades that it is a quality.

(5) Ps.Justin here (corresponding to §§1–4) and in chs. 4.3–6 cites doxographical material on the soul that cannot be fully traced back to P (unlike in

chs. 1.3 and 1.7). Moreover, there is a close parallel for the material in chs. 4.2–3 in Hermias. It was noted by Diels at *DG* 261, who places the texts in parallel columns. It is also difficult to trace it back to A, e.g. the phrase ὕδωρ γονοποιόν which is found in both texts but not in the extant remains of A. We should therefore regard them both as *testes secundi*, as we have done above. Both texts are wholly lacking in name-labels.

B Proximate Tradition and Sources

(1) *Proximate tradition.* For the proximate tradition see the various and variously detailed accounts of e.g. Cicero *Luc.* 124, *Tusc.* 1.19–21; Philo *Somn.* 1.30; Tertullian *de An.* 3.2 (Soranus *de An.* fr. 2 Podolak), 5.1; and Macrobius *in Somn.* 1.14.19. To some extent these are dependent on earlier and richer versions of the tradition and include other topics, but extra material has also been incorporated subsequently: not only new doxai, but also earlier ones through retrograde contamination. The Ciceronian and Philonic parallels are particularly important because they prove the indebtedness of A to a shared *anterior* tradition, just as is the case in the next chapter (4.3), and in chs. 4.5, 4.7, and especially 4.9, where the parallels with Cicero show the same sort of dependence. (For Cicero as *testis secundus* see also above, chs. 1.3 and 1.7, and below, chs. 5.1–2 and 5.24–25). Tertullian *de An.* 5.1 is explicit about the opposition between incorporealists and corporealists: the latter claim that the soul is corporeal *e contrario* to the former. The contrast between incorporeal and corporeal substance is also exemplified in Philo of Alexandria, *Somn.* 1.30, in the context of his demonstration of the unknowability of the heavens and the soul. Wendland, who discovered and analyzed this passage, at (1897) 1095 argued this proves that Philo used Diels' *Vetusta placita*. In general see Mansfeld (1990a) 3065–3085 (Aëtius and a number of parallel passages), plus 3117–3121 (Philo) and 3126–3131 (Cicero); cf. above ch. 2.11, Commentary B, and below, chs. 4.3–4.5, each time at Commentary B. These extensive earlier parallels certainly demonstrate the importance of the anterior doxographical tradition. See also Philo *Cher.* 114, firing off a number of questions relating to the soul several of which are parallel to issues in A Book 4 (cited at Book 4 titulus et index above, and at the appropriate chapters below).

(2) *Sources.* The contrast between corporeal and incorporeal soul that to a large extent dominates the posterior tradition is already found in and derived from Arist. *de An.* 1.2; announced *de An.* 1.2 404b30–405a2, cited section E(b) General texts. Aristotle's dialectical account is also among the sources of several doxai. Two pairs of lemmata ultimately derive from Arist. *de An.* 1.2, though in reversed order and with noteworthy modifications: §§3–4 (Middle Platonist) Pythagoras–Xenocrates derive from *de An.* 1.2 404b16–30, where we have

in sequence Plato–anonymous thinkers (i.e. Xenocrates). §§1–2 Thales–Alcmaeon derive from *de An.* 1.2 405a19–21 plus 1.2 405a29–b1; at a first glance it is not clear whether Aristotle here presents Thales and Alcmaeon as corporealists or incorporealists (no mention of water for Thales, and no material principle at all for Alcmaeon), so a literalist doxographer could prefer the latter, though elsewhere of course Aristotle always presents Thales as a corporealist. Aristotle's note on Alcmaeon has not been modified as strongly as the note on Thales, or as the passage on Plato and an anonymous follower, which became Pythagoras plus (correctly) Xenocrates. The Plato lemma at §5 does not echo Aristotle's description at *de An.* 1.2 404b16–29; when this had been linked *ad sententiam* with the name-label Pythagoras, a new doxa was needed for Plato. This new doxa summarizes *Tim.* 35a–36b (World Soul) plus, to some extent, 41d (human souls). The corporealists Diogenes and Heraclitus, listed *de An.* 1.2 405a21–29 between Thales and Alcmaeon, are represented by lemmata in the complementary chapter, A 4.3, *ubi vide*.

The emphasis on self-motion in §§3–5 may be explained by the influence of the Early Academy, with its interest in Pythagoreanism. Xenocrates' self-moving number and so Plato's self-moving soul were retrospectively and creatively linked with Pythagorean number theory, see Burkert (1972) 63–64, 272 n. 165.

C Chapter Heading

There are no variants for the heading in Greek as found in P^{BS} and alluded to at T 5.16, τίνα περὶ ψυχῆς οἱ πολυθρύλητοι τῶν φιλοσόφων ἐδόξασαν. It is a representative of the umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3, Commentary C). Q's heading 'Was ist die Definition der Seele?' possibly translates a longer Greek title, e.g. Περί ψυχῆς τί ἐστίν, but it is more likely that in the manner of Arabic translators he amplified the wording for didactic reasons. It is also possible that he anticipates the fuller heading of the next chapter. Accordingly there is insufficient support for including this added phrase in our text. Περί ψυχῆς is quite familiar as a book-title. Think of Aristotle's reference to his own treatise, e.g. *GA* 5.7 786b25, or Callimachus' reference to Plato's *Phaedo* by what became its standard second title (fr. 23.3–4 Pfeiffer). For the numerous issues it is capable of comprising (so to speak the whole of 4.2–23) see above, Introduction to Book 4. In the present chapter, as it turns out, it comprises incorporealist views and the question types, or categories, of substance and quality as well as the category of quantity, while the long heading of the next chapter explicitly refers to both substance and corporeality.

D *Analysis*

a Context

The chapter follows after the last of the cosmological chapters, 4.1 'On the Nile'. It is the first of the twenty-two chapters dealing in a rather firm systematic order with the human soul from various systematic points of view, and the first of a cluster of seven dealing with the soul *per se*. The presentation of these psychological issues largely conforms to an originally Aristotelian order of treatment, see Baltussen (1993) 205–206, and (2000a) 228–230, and M–R 2.1.37, 2.1.138–150 on A's chapters on the soul and the senses. Themes discussed more or less simultaneously by Aristotle (such as substance, motion and cognition) are however separated more neatly and scholastically in the *Placita*. Cicero *Tusc.* 1.19–21, an early representative of the wider doxographical tradition, treats the themes of the soul's substance (cf. A 4.1–2), its mortality versus its immortality (cf. A 4.7), and the location of its regent part (cf. A 4.5) simultaneously, and so does his near contemporary Philo of Alexandria, *Somn.* 1.30–33. Our *Placita* separates these themes rather rigorously, as is clear from the chapter headings and the chapters themselves. But there are traces of a less rigorous dissociation. In ch. 4.2, on the substance of soul qua incorporeal, Alcmaeon's soul is said to be immortal (4.2.2 ἀθάνατον), thus anticipating the theme of ch. 4.7. Also note that the various references (no less than five) to movement at ch. 4.2.1–5 anticipate the theme of ch. 4.6 (in the next chapter the role of movement, referred to only once at ch. 4.3.11, is incidental), and recall Aristotle on his predecessors' account of the soul as principle of movement in *de An.* 1.2. The surmisal that the anterior doxographical treatment attested by Cicero (see below, section D(e)) and Philo may have been rather less scholastic is unavoidable. A somewhat similar sequence of themes is found in Lucr. *DRN* Books 3–4, see Schrijvers (1999) 40–42, 122–123, M–R 2.1.144–145 and in general above, Introduction to Book 4.

Several doxai of ch. 4.2 are summarized by means of catchwords in the first lemma of 4.3, found in P only, see Diels' note ad loc., *DG* 387. The lists of the doxai on the nature of the soul of the incorporealists (ch. 4.2) is immediately followed by that of the corporealists (ch. 4.3). The diaphonia could have been accommodated in a single chapter, as is in fact the case in other sources (e.g. Nemesius *NH* c. 2), and also at S 1.49.1a + 1b, where the subdivision has been introduced by Wachsmuth. Chapters 4.2 plus 4.3 thus constitute a single unit. There are other examples of twinned chapters in Book 4, e.g. ch. 4.11 plus ch. 4.12, two chapters dealing with aspects of Stoic views of sensation and concept formation, or ch. 4.13 plus ch. 4.14 on vision and mirror images. Also compare, in Book 1, chs. 1.21–22 on time, chs. 1.25–26 on necessity, and chs. 1.27–28 on fate.

b Number–Order of Lemmata

The order as reconstructed turns out to be the same as that of Diels in the *DG*. The opening lemma comes first in P, S, and T, as also in the parallel account in Nem; this is due to the well-known *πρῶτος εὐρετής* motif (M–R 2.1.95–96), explicitly acknowledged. Thales may have come first in A for chronological reasons too, see M–R 2.1.73–96 and Jeremiah (2018) 310–319. The order of S is rather different from that of P and T, who are very close to each other. It is apparent that P did not interfere with the order, but abridged away two lemmata, the content of which is similar to that of the lemma that each time came before it, so could be considered as equivalent attachments one could dispense with: in the block §§1–2 soul according to Alcmaeon at §2 is self-moved just as according to Thales at §1, and in the block §§3–4 Xenocrates at §4 agrees with Pythagoras at §3. S's modifications of the order can be explained (see also at section A above): he wished to have Pythagoras, one of his favoured authorities, next to Thales, thus also paying homage to absolute chronology. This move brought the Xenocrates lemma along. S left out the Plato lemma §5 in favour of an almost verbatim quotation of *Phaedr.* 247c6–7 at *Ecl.* 1.49.2. The now isolated Aristotle lemma §6 was moved to the end in S, thus anticipating the position of the incomplete Aristotelian formula at the end of the summary of ch. 4.2 at 4.3.1, a lemma omitted by S. T has preserved the original order of block §§1–2, so also left the block §§3–4 in its original location. He omitted the final lemma, Asclepiades.

c Rationale–Structure of Chapter

The chapter deals with the question-types ‘what is it?’ and ‘how is it?’, or the categories of substance, quantity and quality, and provides several answers. This derives from Aristotle's agenda, see *de An.* 1.1 402a7–8: ‘the aim of our inquiry is to study and understand its (sc. the soul's) nature and substance, and secondly its accidents’, and 1.1 402a23–26: ‘presumably we first need to establish to which of the genera it belongs and what it is, I mean a particular thing and a substance, or a quality, or a quantity (*πότερον τόδε τι καὶ οὐσία ἢ ποιὸν ἢ ποσόν*), or any other item on the list of categories’. See above, section D(a), Introduction to Book 4 section 2(1), and General Introduction section 5.2.1. Compare also cf. M–R 2.1.140–141.

As is clear from the contents of the doxai and the (incomplete but) explicit summary at ch. 4.3.1, it comprises a selection of incorporealist doctrines that are opposed to the corporealist doctrines found in the next chapter, 4.3. These two chapters are analysed at Mansfeld (1990a) 3065–3085 and compared with the wider tradition (esp. Cicero) *ibid.* 3122–3131 and 318–3121 (Philo). In its present form the opposition between incorporealists and corporealists (which

recalls that between the materialists and the Friends of the Forms in Plato's *Sophist*, 245e–249d) derives from Aristotle, as announced *de An.* 1.2 404b30–31 and then worked out in the rest of this chapter of the *De anima*. See Mansfeld (1990a) 3072, 3204, M–R. 2.1.57–58. It is found in numerous dialectical-doxographical parallels, see e.g. Mansfeld (1990a) 3065–3085, and below, section E(a) & (b). §5 Aristotle provides a smooth transition from the incorporalists at §§1–4 to those of §§6–7 because the soul is the actuality of the *body*. §§6–7 Dicaearchus and Asclepiades are well placed at the end of the whole incorporeal series, because their views of the soul as a quality of (or supervenient on) the *body* are somewhat closer to those of the corporealists in the next chapter, 4.3.

The series from Thales to Asclepiades virtually covers the entire time span dealt with in A's treatise, but the chronological order is interrupted for systematic reasons, viz. by the position of §2 Alcmaeon before §3 Pythagoras and of §4 Xenocrates before §5 Plato.

A diaeresis concerned with motion divides the chapter in two main parts, opposing the block of §§1–5, which stress self-motion, to that of §§6–8, which do not refer to motion. The theme of the soul's motion occurs again as that of ch. 4.6. Within the first block §§1–2, which make the motion everlasting, are opposed to §§3–5, which do not do so. The emphasis on motion in the first part of ch. 4.2 to some extent echoes Aristotle's discussion at *de An.* 1.2, where the main diaeresis is between those who make the soul the principle of motion and those who make it the principle of cognition, and where he begins with the former. For the latter in A see chs. 4.8–12 below. The negative characteristic of §§4–6 (implicitly spreading to §§7–8) relates to Aristotle's argument against soul-motion at *de An.* 1.3, summarized at A 4.2.6. The doxographer takes the traditional question 'what is the soul?' in hand by arranging blocks of lemmata in succession according to the Aristotelian categories: of substance, §§1–2; of quantity, §§3–4; and of quality, §§6–8—thus conforming to the master's checklist at *de An.* 1.1 402a22–25. A compromise or bridge position (cf. M–R 2.1.9–10, 2.1.46, 2.1.57, 2.1.59, 2.1.141, 2.1.187, 2.1.190) is occupied by §5, which combines the categories of substance and quantity. The series of lemmata as a whole is ordered according to quantity in a different way as well, viz. by number: the substances, quantities, and quality at §§1–6 are each counted as one, while at §7 the number four (explicitly) and at §8 the number five (implicitly, but explicitly in the parallels in e.g. ps.Galen *Definitiones medicae* and Macrobius) make their appearance.

d Further Comments

General Points

The terminology concerned with motion used by A repays a closer look. The doxographer seems to have given some thought to *variatio*: §1 ἀεικίνητον ἢ αὐτοκίνητον, §2 αὐτοκίνητον κατὰ αἰδίον κίνησιν, §3(–4) ἑαυτὸν κινούντα, §5 ἐξ ἑαυτῆς κινήτην. The word ἀεικίνητος occurs for the first time at Plato *Phdr.* 245c and is a *hapax* in his oeuvre; it does not occur in Aristotle. In A it is once found in the present chapter and once at ch. 4.6.1 (and, a rare exception, it is absent from Diels' index in the *DG*). The reading αὐτ[οκ]εῖνητον in *Phdr.* 245c of the *prima manus* at *POxy* 1017 col. xx.5–6, accepted by Robin in the Budé ed. of the dialogue, was corrected by the *secunda manus* to ἀεικίνητον. In his commentary on the papyrus Haslam (1999) 265–267 once and for all proves the *diorthotes* to be right. The word αὐτοκίνητος occurs for the first time at Aristotle *Phys.* 8.5 258a2, and is a *hapax* in his oeuvre. It occurs twice in the present chapter (and is cited from this chapter at 4.3.1), but not elsewhere in the *Placita*. We may assume that entered the tradition because of the phrase τὸ αὐτὸ κινούν occurring in the immediate vicinity, *Phdr.* 245c.

Individual Points

§§1–2 Porphyry *ad Gaur.* 70F Smith at Simp. in *Cat.* 213.12–17 cites 'soul is a substance that is self-moved' (ψυχὴ ἐστὶν οὐσία αὐτοκίνητος) as an instance of an essential definition (one of the set of οὐσιώδεις ... ὅροι), or definition of the essence or substance (οὐσία).

§1 The ascription to Thales of 'everlasting motion or self-motion' is in fact the attribution to him of an as to vocabulary modernized (and of course drastically abridged) version of Plato's argument at *Phdr.* 245c–d. This transfer could be achieved because Thales is the archegete of the Ionian Succession (cf. M–R 2.1.74–96 and below ch. 4.7 Commentary D(d)§1). The Ionian Succession includes Plato, to whom as we saw self-motion (ἐξ ἑαυτῆς κινήτην) is attributed at §5, and everlasting motion (ἀεικίνητον) at ch. 4.6.1. (We note in passing that the *Placita*, just as *POxy* 1017 col. xx.5–6 *secunda manus*, does not attribute the term αὐτοκίνητος to Plato.) Influence has also been exercised by amalgamating the creative interpretation of the ensouled loadstone of *de An.* 1.2 405a19–21 with a creative interpretation of Aristotle's cautious suggestion (note ἔσως, 'presumably') that Thales said that 'everything is full of gods' because like 'some people, he probably believed that the soul is intermingled with the whole universe' (*de An.* 1.5 411a7–8). The soul of the loadstone thus takes over the universe, cf. M–R. 2.1.178–179. See also below, ch. 4.3 Commentary D(d)§14.

The inclusion of Thales among the incorporealists contrasts with the traditional attribution to him of water as the element and principle, as at ch. 1.3.1,

and therefore excludes him from ch. 4.3.9, where only Hippo is left. That Thales' soul is incorporeal is explicitly argued by Simplicius (perhaps Priscianus) in *de An.* 31.20–26. So our lemma ch. 4.2.1 seems to anticipate the interpretation Simplicius(?) formulates, or rather cites, five centuries later. John Philoponus, who thoughtlessly copies a traditional list at *in de An.* 9.7–11 (οἱ δὲ ἐξ ὕδατος, ὡς Θαλῆς καὶ Ἰππῶν ὁ ἐπίκλην ἄθεος) which attributes the concept of a soul consisting of water to Thales, later on in his commentary cautiously argues that Aristotle avoided to attribute to Thales the view that the soul consists of water (*in de An.* 86.22–34). Yet the theological doxa attributed to Thales at ch. 1.7.2 endows the principle water with a (Stoicizing) divine motive power (διήκειν δὲ καὶ διὰ τοῦ στοιχειώδους ὑγροῦ δύναμιν θείαν κινητικὴν αὐτοῦ). This is consistent with the doctrine of ch. 4.2.1. As to the principle or element, the Thales of the *Placita* to whom an ever-moving or self-moving soul, or motive divine power, is attributed has clearly been promoted to a higher level. This cannot be the invention of the doxographer, who here undoubtedly relies on an interpretative commentary tradition of which in this way we catch a glimpse. The difference of opinion among the late commentators is significant and suggests that their dispute had a long history; the texts are quoted below, section E(b)§1.

§2 The Alcmaeon lemma closely follows Aristotle at *de An.* 1.2 405a29–b1, cf. Mansfeld (1990a) 3078 n. 80, 3090, Baltussen (1993) 219, and now Mansfeld (2015b). As a matter of fact, the gist of its second clause (about the soul's immortality and resemblance to the gods) would be in a more appropriate position in ch. 4.7, heading 'On the indestructibility of soul'. Though the term αὐτοκίνητος, not paralleled in Aristotle, was added, in other respects the excerpt retained its original extent, thus attesting the tenacity of the tradition. Parallel echoes are at Cicero *ND* 1.27, and Boethius at Porph. *de An. adv. Boeth.* (243F Smith) at Eus. *PE* 11.28.9 (cited in the apparatus criticus at §2 above). Also cf. Diogenes Laertius *V.P.* 8.83 *ad finem*: 'Cette brève doxographie sur l'âme semble très dépendante d'Aristote, *De l'âme*, I 2, 405 a 29–b 1' writes J.-F. Balaudé ad loc., Goulet-Cazé (1999) 1009. Whether Aristotle correctly reflects Alcmaeon's thought is maybe doubtful, because the reason he gives is so very Aristotelian: the soul is immortal because the 'things divine, the moon, the sun, the stars, and the whole heavens are in a state of perpetual motion (κινεῖσθαι αἰεῖ)'. At any rate Aristotle's θεία shows that Diels' conjecture θεοῖς is not good; Diels presumably forgot about or missed the relation of the lemma to Aristotle's sentence. What is more, immediately before the Alcmaeon passage Aristotle speaks of Heraclitus' principle as always moving: it is in 'perpetual flux' (*de An.* 2.1 405a27, ῥέον αἰεῖ)—an interpretation of Heraclitus' thought, also found with Plato, that is not universally accepted today. The attribution of perpetual motion is one of the reasons for the incorporation of Alcmaeon's doxa in ch. 4.2, since perpetual

motion and self-motion are (*more platonico*) believed to be equivalent in §1. Thus, on the basis of Aristotle's note Alcmaeon was interpreted as having anticipated Plato already in antiquity, and not only by modern scholars who add to this note the *placitum* deriving from his treatment as independent and so corroborative evidence. See e.g. Alcmaeon 14A10 DK³ = 24A12 DK⁵, Zeller–Nestle (1919) 599 n. 1, Guthrie (1962–1981) 1.351, Barnes (1981) 117–118; contra Mansfeld (2015b).

§§3–4 'Number' in general as tantamount to Intellect is a simplification. Aristotle *de An.* 1.2 404b16–18 attributes to Plato the view that the soul knows its objects—'like by like'—because it is composed of the same ultimate principles. Immediately after, at *de An.* 1.2 404b22 (a reference to the *Περὶ φιλοσοφίας* we cannot check), he attributes to him and, presumably, other Platonists the idea that One stands for Intellect; A 1.7.21 at S 1.1.29b20 attributes this view to Xenocrates. The definitions of Plato and Xenocrates are also mentioned together at Aristotle *Top.* 6.3 140b2–3. The phrase ἀριθμὸν ἑαυτὸν κινεῖν in §3 is by implication attributed to Xenocrates in §4, which finds confirmation in frs. 96–99, 101–107 Isnardi-Parente² (e.g. Macrobius *in Somn.* 1.14.19 *Xenocrates numerum se moventem*). Note that Aristotle *de An.* 1.2 only alludes very briefly to the World Soul and human souls of the *Timaeus*, but does so at greater length in the next chapter, *de An.* 1.3 406b26–407a2, where he provides a remarkably succinct and precise account of the construction of the World Soul according to the 'harmonic numbers'. The soul moves the body because it is interwoven with it, and the revolutions of the heavens are the motions of the soul. That Aristotle (a bit surreptitiously) includes the human soul is clear from his verbatim quotation at 406b30 of the formula *Tim.* 42a5–6, αἴσθησιν [...] σύμφυτον ('inborn perception'), from the passage dealing with the construction of the human soul. See also Dörrie–Baltes (2002) 54, 242–244, though they fail to print the Xenocrates lemma.

§6 For the afterlife of Aristotle's definition see Mansfeld (1992b) 141–146. Cicero's ἐνδελέχειαν (*Tusc.* 1.22), however, is not a scribal error, as is clear from his exegesis which may be compared to that of *entelecheia* at AD fr. 5 Diels at Stob. (ch. *Περὶ ιδεῶν*) 1.12.1b, p. 135.5–7 ἐντελέχειαν (δ') αὐτὸ προσεῖπεν ἥτοι διὰ τὸ ἐνδελεχῶς ὑπάρχειν, ἢ ὅτι τῶν μετεχόντων αὐτοῦ ἕκαστον παρέχεται τέλειον. Note that S has ἐνδελέχειαν σώματος the first time and ἐντελέχειαν the second; Epiphanius *Haer.* 3. p. 508.9 has ἐνδελέχειαν σώματος too. The other word is also at Philo *Somn.* 1.30; it follows that the vulgarizing corruption was in the text he used, just as in one place of that used by S. A comparable confusion seems to be behind Anon. Londiniensis *Iatr.* col. i.24–25 and ii.9, where we read ἐντρέχεια, 'aptitude'. For a defence of the view that Aristotle may have used the term ἐνδελέχεια see however Dörrie–Baltes (2002) 1.159. Note that ἐνδελέχειαν at ch. 1.18.6

ἀναιρετικὴν γὰρ εἶναι τὴν κατ' ἐνδελέχειαν αὐτοῦ (sc. τοῦ τόπου) φύσιν τῆς τε τῶν ὄντων συμπαθείας καὶ τῆς τῶν σωμάτων ἀλληλουχίας, must mean something like 'actual existence', for if not a scribal error it means the same as ἐντελέχεια.

§7 We note in passing that the doctrine of the 'soul as harmony', famous from the discussion in Plato's *Phaedo* and Aristotle's *De anima* (1.4) and found in other doxographical accounts as well (where it is sometimes attributed to Pythagoras and/or Philolaus), is absent, perhaps because of an accident in transmission, or, more likely, because the epitomator or one of his predecessors believed that the references to it in (§5 and) §7 were sufficient. The attribution to Aristoxenus and Dicaearchus elsewhere of the view that the soul does not exist has some force in the context of a diaphonic presentation (namely as a zero position, see section E(a) & (b) §§0, §§7–8). Actually, however, both these men merely held that the soul does not exist in the usual sense, viz. as something apart from the body. The attribution by implication in §7 of the idea that the soul is an *incorporeal* is at odds with this view.

The confusion of Dicaearchus with the orator Dinarchus of Corinth or with (perhaps) the Peripatetic Clearchus occurs more often, see e.g. Sharples (2001a) 145 n. 10. It is merely a matter of the interpretation of an abbreviation. For Galen's reference to Andronicus quoted under section E(b) see Moraux (1973) 134–135 n. 9, and Caston (1997) 351–353.

§8 (Five) senses: cf. Macrobius *in Somn.* 1.14.19, ps. Galen *Def. Med.* 19.373.3–5, 379.8–9K., see section E(b)§8. In view of the arrangement of the lemmata in ascending order according to number, the Asclepiades lemma (content paralleled in other sources) gives the t.p.q. of the composition of the chapter. The senses in general are the subject of ch. 4.8, their number (in the context of the present chapter in P's version apparently less relevant) of ch. 4.10.

e Other Evidence

In the proximate tradition Cicero *Tusc.* 1.19–22 presents the corporealists before the incorporealists (though appending Democritus *ad finem*), and so do Philo *Somn.* 1.30 and Nem *NH* 2, p. 16.13–17.10, while Tertullian *de An.* 5 (Soranus *de An.* fr. 2 Podolak), like A, has first the incorporealists and then the corporealists. To some extent doxai and name-labels are confirmed by Nemesius, who lists Thales, Pythagoras, Aristotle, and Deinarchus (*sic*, for Dicaearchus). Galen *PHP* 7.3.19 opposes the view that the soul is incorporeal to the view that it is corporeal (i.e., *pneuma*), and *QAM* c. 5, p. 32.5–8 Bazou the view that it is corporeal to the view that it is incorporeal ('e.g. Plato'). For the quaestio in Galen's *De propriis placitis*, where it is one of the important issues (with Galen characteristically abstaining from committing himself), see below, section E(b). Tertullian *de An.* 3.2 (cited above at Book 4 titulus et index) lists as issues on which the philo-

sophers disagree the soul's mortality vs. immortality (cf. ch. 4.7), its substance (cf. chs. 4.2–3), form, condition, and origin (cf. ch. 4.7a). The contrast between calling the soul either body or incorporeal is discussed in Ptolemy's *On the Criterion and Hegemonikon* §7; his point of view is that names i.e. qualifications are irrelevant (he deals with the soul as composed of corporeal elements in the sequel of the treatise). For Nemesius see above, section A(4). Twenty-two chapters in Psellus' *De omnifaria docrina* share the heading Περὶ ψυχῆς, and so does G c. 24, a chapter outside the tradition of P.

A doxography on the soul that to some extent depends on the *Placita* is found in the 13th cent. author Barhebraeus, *Candélabre des sanctuaires*, 8th base introd., trans. Bakoš (1948) 1–2: 'Des opinions que les anciens ont eu sur l'âme humaine. ... Certains, donc, ont dit que c'est un corps (cf. ch. 4.3); d'autres, par contre, que c'est un accident qui subsiste dans le corps; d'autres, par contre, que ce n'est pas un corps, mais non plus un accident dans le corps' (thus, an incorporeal). Early names plus doxai listed for the first category are Democritus, Thales, Anaximenes, Heraclitus, for the second Alexander of Aphrodisias, and for the third Aristotle, the Peripatetics, and Gregory of Nyssa. A similar doxography dealing with the principles is found elsewhere in Barhebraeus *Candélabre des sanctuaires*, namely at 2nd base introd.; see above, ch. 1.3, Commentary D(e) *ad finem*. See also Dörrie–Baltes (2002), texts 1.2–12, rich commentary 1.145–170 (on Cic. *Tusc.* 1.18–22, Macr. *Somn.* 1.14 + 1.19–20, and Nem *NH* 2 p. 16.12–17.14).

E Further Related Texts

a Proximate Tradition

General texts (see also above at Book 4 titulus et index, Related texts, and below, ch. 4.3, section E(a) General texts): Cicero *Tusc.* 1.19–22: see below §0. *Tusc.* 1.66 (= *Cons. fr.* 11) *animorum nulla in terris origo inveniri potest; nihil enim est in animis mixtum atque concretum aut quod ex terra natum atque fictum esse videatur, nihil ne aut umidum quidem aut flabile aut igneum. his enim in naturis nihil inest, quod vim memoriae mentis cogitationis habeat, quod et praeterita teneat et futura provideat et complecti possit praesentia. quae sola divina sunt, nec invenietur umquam, unde ad hominem venire possint nisi a deo. singularis est igitur quaedam natura atque vis animi seiuncta ab his usitatis notisque naturis.* *Tusc.* 1.70 *quae est eius natura? propria, puto, et sua. sed fac igneam, fac spirabilem: nihil ad id de quo agimus.* Philo of Alexandria *Somn.* 1.30 τί γὰρ αὐτὸν (sc. τὸν νοῦν) οἰόμεθα κατὰ τὴν οὐσίαν εἶναι; πνεῦμα ἢ αἷμα ἢ σῶμα συνόλως—ἀλλ' οὐ σῶμα, ἀσώματον δὲ λεκτέον. *Mut.* 10 τίς γὰρ ψυχῆς οὐσίαν εἶδεν; ἥς ἢ ἀδηλότης μυρίας ἔριδας σοφισταῖς ἐγέννησεν ἐναντίας εἰσηγουμένοις γνώμας ἢ καὶ ὅλοις γένεσιν ἀντιστατούσας. *Cher.* 114 τίς δὲ ἐστὶ τὴν οὐσίαν (sc. of the soul), ἔχομεν εἰπεῖν; Seneca *Ep.* 121.12 *nos quoque animum habere*

nos scimus: quid sit animus, ubi sit, qualis sit aut unde nescimus. Nat. 7.25.2 habere nos animum, cuius imperio et impellimur et revocamur, omnes fatebuntur. quid tamen sit animus ille rector dominusque nostri non magis tibi quisquam expedit quam ubi sit. alius illum dicet spiritum esse, alius concentum quendam, alius vim divinam et dei partem, alius tenuissimum animae, alius incorporealem potentiam; non deerit qui sanguinem dicat, qui calorem. ps.Galen Def.Med. 19.355.11–17 K. κθ'. ψυχὴ ἐστὶν οὐσία ἀσώματος, αὐτοκίνητος κατὰ Πλάτωνα (but Phdr. 245c we must read αἰκίνητον). κατὰ δὲ τοὺς Στωϊκοὺς (SVF 2.780) σῶμα λεπτομερές ἐξ ἑαυτοῦ κινούμενον κατὰ σπερματικούς λόγους. κατὰ δὲ τὸν Ἀριστοτέλη (de An. 2.1 412a27–b1) ἐντελέχεια σώματος φυσικοῦ ὀργανικοῦ δυνάμει ζῶν ἔχοντος. ἄλλως. ψυχὴ ἐστὶ πνεῦμα παρεσπαρμένον ἐν ὅλῳ τῷ σῶματι δι' οὗ ζῶμεν καὶ λογιζόμεθα καὶ ταῖς λοιπαῖς αἰσθήσεσιν ἐνεργοῦμεν ὑπηρετοῦντος τοῦ σώματος. Galen PHP 7.7.25 εἰ δὲ καὶ περὶ ψυχῆς οὐσίας ἀποφῆνασθαι χρή, δυοῖν θάτερον ἀναγκαῖον εἰπεῖν· ἢ τοῦτ' εἶναι τὸ οἶον αὐγοειδὲς τε καὶ αἰθερώδες σῶμα λεκτέον αὐτὴν, εἰς δ' καὶ μὴ βούλωνται κατ' ἀκολουθίαν ἀφικνούνται Στωϊκοί (—) τε καὶ Ἀριστοτέλης, ἢ αὐτὴν μὲν ἀσώματον ὑπάρχειν οὐσίαν, ὄχημα δὲ τὸ πρῶτον αὐτῆς εἶναι τοῦτ' ὅτι σῶμα δι' οὗ μέσου τὴν πρὸς τὰλλα σῶματα κοινωνίαν λαμβάνει. Loc.Aff. 8.158.11–159.7 ὥσπερ δ' ἐνταῦθα φιλονεικίαν αἰσχροὶ ἐπιδείκνυνται προφανῶς, οὕτως ἄνοιαν, ὅταν οἴωνται πάνθ' ἑαυτῶν σαλεύεσθαι τὰ δόγματα, καὶ ἐν ὁτιοῦν ἐλεγχθῇ· τινὰ μὲν γὰρ ἀλλήλοις ἀκολουθεῖ, καθάπερ γε πάλιν ἕτερα μάχεται, τινὰ δὲ οὐτ' ἀκολουθίαν οὔτε μάχην ἀναγκαῖαν ἔχει, καθάπερ αὐτὸ τοῦτο τὸ περὶ τοῦ τῆς ψυχῆς ἡγεμονικοῦ (cf. ch. 4.5). ἐάν τε γὰρ ἐν καρδίᾳ τις ἐάν τ' ἐν ἐγκεφάλῳ περιέχεσθαι τοῦτ' φησι, δυνατόν ἐστὶν αὐτῷ καὶ περὶ τῶν φυσικῶν στοιχείων ἢν ἂν ἐθελήσῃ δόξαν ἐλομένῳ μῆτε μάχεσθαι τοῦτ' μῆτ' ἀκολουθεῖν· καὶ περὶ γενέσεως καὶ φθορᾶς ὁμοίως (cf. ch. 1.24), ὥσπερ γε καὶ περὶ ψυχῆς οὐσίας. Propr.Plac. 3, p. 173.13–18 Boudon-Millot–Pietrobelli, text Lami ψυχὴν μὲν ἔχειν ἡμᾶς πέπεισμαι καθάπερ ἅπαντες ἄνθρωποι· τὸ γὰρ τοῦ κινεῖσθαι κατὰ προαίρεσιν αἰσθάνεσθαι τε διὰ τῶν αἰσθητικῶν ὀργάνων αἶτον ἅπαντας ὁρᾷ ψυχὴν ὀνομάζοντας· ἥτις δ' ἐστὶν ἢ οὐσία τῆς ψυχῆς ἄγνωστος ὁμολογῶ καὶ πολὺ γε μάλλον, εἰ ἀθάνατος ἐστὶν ἢ θνητή. Propr.Plac. 7, p. 179.13–13 Boudon-Millot–Pietrobelli, text Lami καθάπερ οὖν ἰατρῷ περὶ (ιτ)τὸν το γινώσκειν, εἴτ' ἀθάνατός ἐστιν ἢ ψυχὴ εἴτ' οὐκ ἀθάνατος ..., οὕτω καὶ περὶ τῆς οὐσίας αὐτῆς εἴτ' ἀσώματος ἐστὶν παντάπασιν, ὥς ὁ Πλάτων ὑπέλαβεν, εἴτε σωματοειδὴς ὥς ὁ Χρύσιππος οἶεται κτλ. Propr.Plac. 14, p. 187.23–188.2 Boudon-Millot–Pietrobelli, text Lami (= Sub.Nat.Fac. 4.760.13–461.4 K.) οἱ δὲ τὴν φυσικὴν ὀνομαζομένην ἐκπονήσαντες θεωρίαν, ἄλλως ἄλλοι πείσαντες ἑαυτοὺς, οἱ μὲν ἀσώματους τινὰς ἀπεφῆναντο δυνάμεις ἐνοικεῖν ταῖς αἰσθηταῖς οὐσίαις, οἱ δὲ αὐτάς ἐνεργεῖν τὰς οὐσίας κατ' ἰδίαν ἐκάστην φύσιν ... τὴν ψυχὴν ἡμῶν αὐτὴν οἱ μὲν ἀσώματόν τινα νομίζουσιν οὐσίαν εἶναι, τινὲς δὲ πνεῦμα, καθάπερ ἄλλοι μηδὲ εἶναι τινα ὑπαρξίν αὐτῆς ἰδίαν. Aquilius Def. 76 Rashed ψυχὴ ἐστὶν οὐσία ἀσώματος λογικὴ (cf. ch. 4.11) ἀθάνατος (cf. ch. 4.7) αὐτοκίνητος (cf. ch. 4.6). Sextus Empiricus M. 7.348 ἐχρὴν καὶ τὴν διάνοιαν ... τῇ ἑαυτῆς φύσει συνεπιβάλλειν δι' ἣν, οὐσίᾳ τῇ ἐξ ἧς ἐστὶ, τόπῳ τῷ ἐν ᾧ πέφυκε, τοῖς ἄλλοις ἅπασιν. P. 2.58 ἀλλὰ διαφωνεῖ περὶ τῆς οὐσίας αὐτῆς. P. 2.31–32 τῶν περὶ ψυχῆς διαλαβόντων, ἵνα τὴν πολλὴν καὶ ἀνήνυτον μάχην παραλίπωμεν, οἱ μὲν μὴ εἶναι τὴν ψυχὴν ἔφασαν,

... (32) οἱ δὲ εἶναι, οἱ δὲ ἐπέσχον. **Tertullian** *de An.* 3.2 *alii de substantia, alii de forma ... disceptant.* *de An.* 5.1 (**Soranus** *de An.* fr. 2 Podolak) *accerserit* (sc. Plato) *Eubulum aliquem et Critolaum* (fr. 17 Wehrli) *et Xenocratem* (fr. 67 Heinze, F 122 Isnardi Parente²) *et isto in loco amicum Platonis Aristotelem. fortassean exstruentur magis ad auferendam animae corpulentiam, si non alios e contrario inspexerint, et quidem plures, corpus animae vindicantes.* **Lactantius** *Op.D.* 17.2 Perrin *quid autem sit anima nondum inter philosophos convenit nec umquam fortasse conveniet.* **Arnobius** *Adv.Nat.* 1.38, p. 33.15 Marchesi *qui ... monstravit ... quid sit sensus, quid anima.* **Iamblichus** *de An.* fr. 2 Finamore–Dillon at Stob. 1.49.32, p. 363.11–12 τινὲς εἰς τὰς τῶν τεσσάρων στοιχείων ἀρχὰς τὴν οὐσίαν τῆς ψυχῆς ἐπαναφέρουσιν + pp. 363.26–364.1 μετὰ δὴ ταῦτα τοὺς εἰς μαθηματικὴν οὐσίαν ἐντιθέντας τὴν οὐσίαν τῆς ψυχῆς καταλέγω διευκρινημένως + p. 365.5–6 ἴθι δὴ οὖν ἐπὶ τὴν καθ’ αὐτὴν ἀσώματον οὐσίαν ἐπανίωμεν, διακρίνοντες καὶ ἐπ’ αὐτῆς ἐν τάξει τὰς περὶ ψυχῆς πάσας δόξας. **Macrobius** *in Somn.* 1.14.19–20 *non ab re est ut haec de anima disputatio in fine sententias omnium qui de anima videntur pronuntiasse contineat. Platon dixit animam essentiam se moventem, Xenocrates* (fr. 60 Heinze, F 96 Isnardi Parente²) *numerum se moventem, Aristoteles ἐντελέχειαν, Pythagoras et Philolaus* (44A23 DK) *harmoniam, Posidonius* (F 140 E.-K., 391b Theiler) *ideam, Asclepiades* (cf. Vallance ANRW 2.37.1, p. 722) *quinque sensuum exercitium sibi consonum.* ... (20) ... *obtenuit tamen non minus de incorporalitate eius quam de immortalitate sententia.* **Ambrose of Milan** *de Noe* 92, p. 478.3–5 Schenkl *ideo in principio sanctus Moyses informavit nos atque instruxit de insufflatione animae, ut non laberemur opinionibus diversis philosophorum, qui sibi ipsi constare non possunt.* *de Is.* 2.4 pp. 644.23–645.5 Schenkl *non ergo sanguis* (cf. ch. 4.3.13) *anima, quia carnis est sanguis, neque armonia anima, quia et huiusmodi armonia carnis est, neque aer* (cf. ch. 4.3.2, 4.3.8) *anima, quia aliud est flatilis spiritus, aliud anima, neque ignis* (cf. ch. 4.3.7) *anima, neque entelechia anima, sed anima est vivens, quia factus est Adam in animam viventem, eo quod insensibile atque exanimum corpus anima vivificet et gubernet.* **Calcidius** *in Tim.* cc. 213–235 cf. below. **Augustine** *de Trin.* 10.6.10–7.22 Mountain–Glorie *cum itaque ...* (sc. mens) *corpus se esse putat. ...* (7.20) *qui vero eius substantiam vitam quandam nequaquam corpoream ... reppererunt.* **ps.Galen** *HPH* c. 24, *DG* p. 613.4–7 πολλὴν μὲν ἔστιν εὐρεῖν παρὰ τοῖς προτέροις ἀντίρρησιν περὶ τῆς ψυχῆς γενομένην, ἀλλ’ ὁμως ἵνα μὴ τὸν τῆς εἰσαγωγῆς τρόπον ὑπερβαίνειν δοκῶμεν τὰ πᾶσιν εἰρημένα περὶ ταύτης διεξιόντες, ὅσα τοῖς ὀνομαστοτάτοις εἰρῆσθαι περὶ ταύτης νομίζομεν ὡς ἐν βραχέσι περὶ ὧμεθα λέγειν. **John Philoponus** *in de An.* 9.2–10.8 (excerpted by Psellus *Phil.Min.* 2 op. 13, pp. 32.18–33.3 O’Meara).

Chapter heading: **Calcidius** *in Tim.* c. 7, p. 61.1 Waszink *De anima et partibus eius et locis.* **Capitula Lucretiana** at DRN 1.112 *De anima.*

§0 **Whether it exists:** **Lucretius** DRN 3.101 ... *nulla cum in parte siet mens.* **Cicero** *Luc.* 124 *si est* (sc. animus) **Cicero** *Tusc.* 1.21 **Dicaearchus** (fr. 7 Wehrli, 19 Mirhady) ... *nihil omnino esse animum et hoc esse nomen totum inane frustaque animalia et animantis appellari, neque in homine inesse animum vel*

animam nec in bestia, vimque omnem eam, qua vel agamus quid vel sentiamus, in omnibus corporibus vivis aequabiliter esse fusam nec separabilem a corpore esse, quippe quae nulla sit, nec sit quicquam nisi corpus unum et simplex, ita figuratum, ut temperatione naturae vigeat et sentiat. Tusc. 1.24 quid de Dicaearcho (fr. 8(c) Wehrli, 14 Mirhady) dicam, qui nihil omnino animum dicat esse? Tusc. 1.51 Dicaearchus (fr. 8(e), 16 Mirhady) quidem et Aristoxenus (fr. 118 Wehrli, 1a 1 20 Kaiser) ... *nullum omnino animum esse dixerunt.* Luc. 124 an, ut Dicaearcho (fr. 8(f) Wehrli, 17 Mirhady) visum est, ne sit quidem ullus (sc. animus)? Atticus fr. 7.7 Des Places at Eus. PE 15.9.10 Δικαίαρχος (fr. 8(i) Wehrli, 20 Mirhady) ... ἀνήρρηκε τὴν ὄλην ὑπόστασιν τῆς ψυχῆς. Sextus Empiricus M. 7.349 οἱ μὲν μηδὲν φασιν εἶναι αὐτὴν παρὰ τὸ πῶς ἔχον σώμα, καθάπερ ὁ Δικαίαρχος (fr. 8(a) Wehrli, 24 Mirhady). P. 2.31 οἱ μὲν μὴ εἶναι τὴν ψυχὴν (sc. τὴν διάνοιαν) ἔφασαν, ὡς οἱ περὶ τὸν Μεσσήνιον Δικαίαρχον (fr. 8(b) Wehrli, 18 Mirhady), οἱ δὲ εἶναι, οἱ δὲ ἐπέσχον. Tertullian de An. 15.1 (Soranus de An. fr. 12 Podolak) qui negant principale, ipsam prius animam nihil censuerunt. confused Lactantius Op.D. 16.12 Perrin sive enim mentis locus nullus est, sed per totum corpus sparsa discurrit, quod et fieri potest et a Xenocrate (fr. 71 Heinze, F 127 Isnardi Parente²) Platonis discipulo disputatum est, siquidem sensus in qualibet parte corporis praesto est. Inst. 7.13.9 Heck–Wlosok quid Aristoxenus (fr. 120(c) Wehrli, IV 1 20 Kaiser), qui negavit omnino ullam esse animam, etiam cum vivit in corpore? Iamblichus de An. fr. 9 Finamore–Dillon at Stob. 1.49.32, p. 367.4–9 ἢ τὸ τῇ φύσει συμμεμιγμένον ἢ τὸ τοῦ σώματος ὃν ὥσπερ τὸ ἐψυχῶσθαι, αὐτῇ δὴ μὴ παρὸν τῇ ψυχῇ ὥσπερ ὑπάρχειν, οἷα δὴ λέγεται περὶ ψυχῆς παρὰ Δικαίαρχω τῷ Μεσσηνίῳ (fr. 8(k) Wehrli, 23 Mirhady).

§1 **Thales: Porphyry** ad Gaur. 70F Smith at Simp. in Cat. 213.12–17 (verbatim) ἔστιν δὲ ἐννοηματικός (sc. λόγος) ὁ ἀπὸ τῶν γνωρίμων τοῖς πᾶσιν εἰλημμένος καὶ κοινῇ παρὰ πᾶσιν ὁμολογούμενος, οἷον ... ‘ψυχὴ ἐστὶν ἀφ’ ἧς ὑπάρχει τὸ ζῆν’ οὐσιώδεις δὲ εἰσιν ὅροι οἱ καὶ τὴν οὐσίαν αὐτὴν τῶν ὀριζομένων διδάσκοντες, οἷον ‘ψυχὴ ἐστὶν οὐσία αὐτοκίνητος’. ps.Galen HPh c. 24, DG p. 613.10–11 οἱ δὲ κινήσεως ἀρχὴν πάντων τῶν γινομένων τε καὶ τῶν ὄντων.

§2 **Alcmaeon: Cicero** ND 1.27 Crotoniates autem Alcmaeo (24A12 DK), qui soli et lunae reliquisque sideribus animoque praeterea divinitatem dedit, non sensit sese mortalibus rebus immortalitatem dare. **Clement of Alexandria** Protr. 66.9–10 Marcovich ὁ γὰρ τοι Κροτωνιάτης Ἀλκμαίων (24A12 DK) θεοὺς ᾤετο τοὺς ἀστέρας εἶναι ἐμψύχους ὄντας. **Diogenes Laertius** V.P. 8.83 (Alcmaeon, 24A1 DK) ἔφη δὲ καὶ τὴν ψυχὴν ἀθάνατον, καὶ κινεῖσθαι αὐτὴν συνεχές ὡς τὸν ἥλιον. **Boethius** at de An. adv. Boeth. at Porph. (243F Smith) at Eus. PE 11.28.9 εἰς ὅπερ (sc. τὸ συνεχές καὶ ἄπαυστον τῆς κινήσεως) ἀπιδῶν καὶ ὁ Κροτωνιάτης φυσικός (VS 1 add. p. 495.46–47) εἶπεν ἀθάνατον αὐτὴν (sc. τὴν ψυχὴν) οὖσαν καὶ πᾶσαν ἡρεμίαν φύσει φεύγειν, ὥσπερ τὰ θεῖα τῶν σωμάτων.

§§3–4 **Pythagoras Xenocrates: Cicero** Tusc. 1.20 Xenocrates (fr. 67 Heinze, F 119 Isnardi Parente²) animi figuram et quasi corpus negavit esse ullum, numerum dixit esse, cuius vis, ut iam ante Pythagorae visum erat, in natura maxima esset. **Macrobius** in Somn. 1.14.19 Platon dixit animam essentiam se moven-

tem, Xenocrates (fr. 60 Heinze, F 96 Isnardi Parente²) *numerus se moventem, ... Posidonius ideam* (F 140 E.-K., 391b Theiler). *Iamblichus de An.* fr. 4 Finamore–Dillon at Stob. 1.49.32, p. 364.9–10 ὡς δ' αὐτοκίνητον (sc. ἀριθμόν) Ξενοκράτης (fr. 60 Heinze, F 98 Isnardi Parente²). *John Philoponus in de An.* 81.25–29 (on *de An.* 1.2 404b27–28) Ξενοκράτης (fr. 60 Heinze, F 104 Isnardi Parente²) ὁ τοῦτου διάδοχος ἀπ' ἀμφοτέρων ὀρίζεται τὴν ψυχὴν εἰπὼν αὐτὴν ἀριθμόν εἶναι κινούμενα ἑαυτόν, διὰ μὲν τὸ γνωστικὴν εἶναι αὐτὴν τῶν ὄντων ἀριθμόν εἰπὼν ὡς Πυθαγόρειος (ἀρχὴ γὰρ πάντων ὁ ἀριθμὸς κατ' αὐτούς), διὰ δὲ τὸ κινήτικὴν εἶναι τὸ αὐτοκίνητον ἀναθεῖς αὐτῇ.

§3 *Pythagoras: Philo of Alexandria Somn.* 1.30 ἢ ἀριθμόν.

§4 *Xenocrates: Cicero Luc.* 124 *si simplex, ... ut Xenocrates* (fr. 67 Heinze, F 121 Isnardi Parente²) *numerus nullo corpore, quod intellegi quale sit vix potest. Tusc.* 1.20 *Xenocrates* (fr. 67 Heinze, F 119 Isnardi Parente²) *animi figuram et quasi corpus negavit esse ullum, numerum dixit esse. Tusc.* 1.41 *si vero aut numerus quidam est animus.*

§5 *Plato: Cicero Tusc.* 1.54 *cum pateat igitur aeternum id esse, quod se ipsum moveat, quis est qui hanc naturam animis esse tributam neget? ND* 2.32 *audiamus enim Platonem ... cui duo placet esse motus, unum suum alterum externum, esse autem divinius quod ipsum ex se sua sponte moveatur quam quod pulsu agitur alieno. hunc autem motum in solis animis esse ponit, ab isque principium motus esse ductum putat. ps.Galen Def.Med.* 19.355.11–12 K. see above, General texts. *Ambrose of Milan Ep.* 21.1, p. 154.6–8 *Faller aut, ut illa patricia quaedam eorum prosapia Platonis disputat, quod 'ipsum se movet et non movetur ab alio', ipsa tibi anima videtur. Calcidius in Tim.* c. 226 *est igitur anima iuxta Platonem substantia carens corpore semet ipsam movens rationabilis. Macrobius in Somn.* 1.14.19 *Plato dixit animam essentiam se moventem. ps.Galen HPh* c. 24. *DG* p. 613.12–13 τὴν δὲ οὐσίαν αὐτῆς οἱ μὲν ἀσώματον ἔφασσαν, ὡς Πλάτων.

§6 *Aristotle: Cicero Tusc.* 1.22 *Aristoteles* (fr. 27 Walzer/Ross) ... *quintam quandam naturam censet esse, e qua sit mens; ... quintum genus adhibet vacans nomine et sic ipsum animum ἐνδελέχειαν appellat novo nomine quasi quandam continuatam motionem et perennem. Tusc.* 1.65 *sin autem est quinta quaedam natura, ab Aristotele* (fr. 27 Walzer/Ross) *inducta primum, haec et deorum est et animorum. Philo Somn.* 1.30 ἢ ἐνδελέχειαν. *ps.Galen Def.Med.* 19.355.11–15 K. κατὰ δὲ τὸν Ἀριστοτέλη (de *An.* 2 1.412a27–b1) ἐντελέχεια σώματος φυσικοῦ ὁργανικοῦ δυνάμει ζῶν ἔχοντος. *Arius Didymus* fr. 2 Diels at Stob. *Ecl.* 1.12.1b, pp. 134.19–135.7 τὸ εἶδος, ὃ καὶ μορφήν καλεῖ καὶ ἐντελέχειαν καὶ τὸ τί ἦν εἶναι καὶ οὐσίαν τὴν κατὰ τὸν λόγον, καὶ ἐνέργειαν· οὕτως αὐτῷ πλούσιόν τε καὶ πολυώνυμόν ἐστι τὸ εἶδος. ἐντελέχειαν (δ') αὐτὸ προσεῖπεν ἦτο διὰ τὸ ἐνδελεχῶς ὑπάρχειν ἢ ὅτι τῶν μετεχόντων αὐτοῦ ἕκαστον παρέχεται τέλειον. *Hippolytus Ref.* 7.19.5–6 ὃ δὲ Περὶ ψυχῆς αὐτῷ λόγος ἐστὶν ἀσαφής· ἐν τρισὶ γὰρ συγγράμ(μ)ασιν ὅλοις οὐκ ἔστιν εἰπεῖν σαφῶς ὅ τι φρονεῖ περὶ ψυχῆς Ἀριστοτέλης. ὃν γὰρ ἀποδίδωσι τῆς ψυχῆς ὅρον ἔστιν εἰπεῖν ῥάδιον, τὸ δὲ ὑπὸ ὅρου δεδηλωμένον ἐστὶ δυσέυρετον. ἔστι γάρ, φησὶ, ψυχὴ φυσικοῦ σώματος ὁργανικοῦ ἐντελέχεια· ἢ

τίς ποτ' ἐστι, λόγων (πάνυ πολλῶν) δεῖται καὶ μεγάλης ζητήσεως. *Ref.* 7.24.2 τὴν τε ψυχὴν ἔργον καὶ ἀποτέλεσμα (τοῦ σώματ)ός φησιν εἶναι ὁ Ἀριστοτέλης, φυσικοῦ σώματος ὁργανικοῦ ἐντελέχειαν. **Iamblichus** *de An.* fr. 3 Finamore–Dillon at Stob. *Ecl.* 1.49.32, p. 363.19–25 ὡς δὲ τῶν Ἀριστοτελικῶν τινες ὑφηγούνται, εἰδὸς ἐστὶ τὸ περὶ τοῖς σώμασιν, ἢ ποιότης ἀπλὴ ἀσώματος ἢ ποιότης οὐσιώδης τελεία· (ἢ παράκειται δόξη οὐ παραδοθεῖσα μὲν, δυναμένη δὲ πιθανῶς λέγεσθαι αἴρεσις, ἢ τὴν συνδρομὴν τῶν ὄλων ποιότητων καὶ τὸ ἐν αὐτῶν κεφάλαιον, εἴτε τὸ ἐπιγιγνόμενον ἢ τὸ προϋπάρχον, τιθεμένη τὴν ψυχὴν). **Calcidius** *in Tim.* c. 222 *Aristoteles animam definit hactenus* (*Arist. de An.* 2.1 412a27–b1): *anima est prima perfectio corporis naturalis organici possibilitate vitam habens, hanc igitur speciem qua formantur singula generaliter Aristoteles entelechiam, id est absolutam perfectionem, vocat.* *in Tim.* c. 223 *manifestant* (sc. auctores Peripatetici) *principio animam neque corporeum quicquam esse vel sensibile sed intelligibile potius et sine corpore.* **Macrobius** *in Somn.* 1.14.19 *Aristoteles entelechiam* [sive *endelechiam* ms P, *endilichiam* ms C]. *in Somn.* 1.14.20 **Critolaus** *Peripateticus* (fr. 18 Wehrli) *constare eam de quinta essentia.* **Ambrose of Milan** *de Noe* 92, p. 478.12 *Schenkl Aristoteles endelechiam dixit.* *de Is.* 2.4, MPL 14.530A *neque entelechia anima.* *Ep.* 21.8–11 *Faller ut Aristoteles ... quantum quoddam elementi genus induxit ..., id est entelechian, ex quo componeres et velut fingeres animi substantiam.* **Epiphanius** *Haer.* 3, p. 508.9 *Holl τὴν ψυχὴν ἐνδελέχειαν σώματος λέγει.*

§7 **Dicaearchus:** **Cicero** *Tusc.* 1.41 *Dicaearchum* (fr. 8(d) Wehrli, 15 Mirhady) *vero cum Aristoxeno* (fr. 120(b) Wehrli, Ia 1 15 Kaiser) ... *omittamus, quorum alter ne condoluisse quidem umquam videtur, qui animum se habere non sentiat, alter ita delectatur suis cantibus, ut eos etiam ad haec transferre conetur.* ἀρμονίαν *autem etc.* **Philo of Alexandria** *Somn.* 1.30 ἢ ἀρμονίαν. **Tertullian** *de An.* 15.2 (**Soranus** *de An.* fr. 12 Podolak) *Messenius aliqui Dicaearchus* (fr. 8(h) Wehrli, 25 Mirhady), *ex medicis autem Andreas et Asclepiades* (cf. Vallance ANRW 2.37.1, p. 727) *ita abstulerunt principale, dum in animo ipso volunt esse sensus, quorum vindicatur principale.* **Ambrose of Milan** *Ep.* 21.4–6 *Faller aut nervorum harmoniam animam putas, ut vulgus philosophorum interpretaetur.* *de Is.* 4, p. 645.1–2 *Schenkl neque armonia anima, quia et huiusmodi armonia carnis est.* **Augustine** *de Trin.* 10.7.13–17 *Mountain–Glorie alii eam nullam esse substantiam quia nisi corpus nullam substantiam poterant cogitare et eam corpus esse non inveniebant, sed ipsam temperationem corporis nostri vel compagem primordiorum quibus ista caro tamquam connectitur esse opinati sunt.* **Macrobius** *in Somn.* 1.14.19 *Pythagoras et Philolaus* (44A23 DK) *harmoniam.*

§8 **Asclepiades:** **Tertullian** *de An.* 15.2 (**Soranus** *de An.* fr. 12 Podolak) *Asclepiades* (cf. Vallance ANRW 2.37.1, p. 727) *etiam illa argumentatione vectatur, quod pleraque animalia adeptis eis partibus corporis, in quibus plurimum existimatur principale consistere, et insuper vivant aliquatenus ... si capita decideris, ... si corda detraxeris etc.* (cf. **Aristotle** *de An.* 1.5 411b19–20 φαίνεται δὲ καὶ τὰ φυτὰ δαιρούμενα ζῆν καὶ τῶν ζώων ἔνια τῶν ἐντόμων κτλ.) **ps.Galen**

Def.Med. 19.373.3–5 K. ἡδ'. Ἀσκληπιάδης ὁ Βιθυνός (cf. Vallance *ANRW* 2.37.1, p. 721)· ὁ δ' αὐτὸς οὗτος καὶ τὴν (συν)γυμνασίαν τῶν πέντε αἰσθήσεων ἀπεφάνητο εἶναι τὴν ψυχὴν. *Def.Med.* 19.379.8–9 K. ριστ'. ὥσπερ Ἀσκληπιάδης ὁ Βιθυνός (cf. Vallance *ANRW* 2.37.1, p. 721) φησιν καὶ τὴν (σ)υγυμνασίαν τῶν πέντε αἰσθήσεων ψυχὴν εἶναι. **Macrobius in Somn.** 1.14.19 *Asclepiades* (cf. Vallance *ANRW* 2.37.1, p. 722) *quinque sensuum exercitium sibi consonum*. **Caelius Aurelianus Cel.Pass.** 1.14.115 *etenim nihil aliud esse dicit animam quam sensuum omnium coetum. intellectum autem occultarum vel latentium rerum per solubilem fieri motum sensuum ... hoc est Asclepiadis* (cf. Vallance *ANRW* 2.37.1, p. 713) *dogma*. **ps.Galen HPH** c. 24, *DG* p. 613.7–9 ψυχὴν τοῖνυν οἱ μὲν πνεῦμα παντὶ τῷ σώματι περιεκείμενον ὅπου μὲν μᾶλλον, ὅπου δὲ ἥττον νομίζουσιν εἶναι (οὔτοι δὲ οἱ περὶ τὸν Ἀσκληπιάδην (cf. Vallance *ANRW* 2.37.1, p. 714) εἰσίν).

b Sources and Other Parallel Texts

General texts: **Aristotle** *de An.* 1.2 403b20–28 ἐπισκοποῦντας δὲ περὶ ψυχῆς ἀναγκαῖον ἅμα, διαποροῦντας περὶ ὧν εὐπορεῖν δεῖ προελθόντας, τὰς τῶν προτέρων δόξας συμπαράλαμβάνειν, ὅσοι τι περὶ αὐτῆς ἀπεφάνησαν, ὅπως τὰ μὲν καλῶς εἰρημένα λάβωμεν, εἰ δέ τι μὴ καλῶς, τοῦτ' εὐλαβηθῶμεν. ἀρχὴ δὲ τῆς ζητήσεως προθέσθαι τὰ μάλιστα δοκοῦνθ' ὑπάρχειν αὐτῇ κατὰ φύσιν. τὸ ἔμψυχον δὴ τοῦ ἀψύχου δυσὶ μάλιστα διαφέρειν δοκεῖ, κινήσει τε καὶ τῷ αἰσθάνεσθαι. παρελήφαμεν δὲ καὶ παρὰ τῶν προγενεστέρων σχεδὸν δύο ταῦτα περὶ ψυχῆς. *de An.* 1.2 404b30–405a1 διαφέρονται δὲ περὶ τῶν ἀρχῶν, τίνες καὶ πόσαι, μάλιστα μὲν οἱ σωματικὰς ποιοῦντες τοῖς ἀσώματους, τούτοις δ' οἱ μίξαντες καὶ ἀπ' ἀμφοῖν τὰς ἀρχὰς ἀποφηνάμενοι [see also at ch. 4.3, section E(b) General texts]. **Chrysippus** *de An.* I at *Gal. PHP* 3.1.16 (*SVF* 2.885) τὸ μὲν γὰρ ἡμισυ μέρος αὐτῷ τῆς βίβλου τὸ πρότερον (sc. *Περὶ ψυχῆς*) ὑπὲρ οὐσίας ψυχῆς ἔχει τὴν σκέψιν. **Anonymus Londinensis** *Iatr.* col. xxxi.40–42a Manetti καὶ μὴν, φασίν, | ὅ[τι] ἐστὶ σῶμα ἢ ψυχὴ οἱ πλείους τῶν φιλοσόφων | [λ[έγ]ουσι καὶ ἀσώματον δὲ αὐτὴν ἀπολεῖ| [πον]τες οὐσίαν ἢ(ν)τινὰ αὐτὴν ἔχειν ἔφασαν. **Alcinous** *Did.* c. 5, p. 157.27–36 H. οἷον ζητῶν εἰ ἀθάνατος ἐστὶν ἡ ψυχὴ, ὑποθέμενος αὐτὸ τοῦτο, ζητῶ εἰ ἀεικίνητος, καὶ τοῦτο ἀποδείξας ζητῶ εἰ τὸ ἀεικίνητον αὐτοκίνητον, καὶ πάλιν τοῦτο ἀποδείξας σκοπῶ εἰ τὸ αὐτοκίνητον ἀρχὴ κινήσεως· εἴτα εἰ ἡ ἀρχὴ ἀγέννητος, ὅπερ τίθενται ὡς ὁμολογούμενον, τοῦ ἀγέννητου καὶ ἀφθάρτου ὄντος· ἀφ' οὗ ἀρξάμενος ἐναργεῶς ὄντος συνθήσω τοιαύτην ἀπόδειξιν· εἰ ἡ ἀρχὴ ἀγέννητον, καὶ ἀφθαρτον, ἀρχὴ κινήσεως, τὸ αὐτοκίνητον, τὸ αὐτοκίνητον δὲ ψυχὴ, ἀφθαρτος ἄρα καὶ ἀγέννητος καὶ ἀθάνατος ἡ ψυχὴ. cf. *ibid.* c. 25, p. 178.13–23 H. ἔτι τε ἡ ψυχὴ ... καθ' αὐτήν. **Atticus** fr. 7.2–5 *bis* *Des Places* (verbatim) at *Eus. PE* 15.11.4 τὰ μὲν οὖν ἄλλα ὅσα περὶ αὐτῆς εἰρήκασι ἄλλοι, αἰσχύνῃ ἡμῖν φέρει. πῶς γὰρ οὐκ αἰσχρὸς ὁ ἐντελέχειαν τιθεὶς τὴν ψυχὴν λόγος σώματος φυσικοῦ ὀργανικοῦ. fr. 7.34–42 *Des Places* (verbatim) at *Eus. PE* 15.9.7–8 ὁ δὲ (sc. Aristotle), ὅσῳ περ Πλάτων ἀπεσέμνυνε τὸ τῆς ψυχῆς πρᾶγμα ... τοσῶδε ἐφίλονεῖκε καθελεῖν καὶ ἀτιμάσαι καὶ μικροῦ δεῖν μηδὲν ἀποφῆναι τὴν ψυχὴν· (8) οὔτε γὰρ πνεῦμα οὔτε πῦρ οὔτε ὅλως σῶμα (see also at ch. 4.3, section E(a) General texts), ἀλλ' οὐδὲ ἀσώματον οἷον εἶναι τε ἐφ' αὐτοῦ καὶ κινεῖσθαι, ἀλλ' οὐδ' ὅσον ἐπὶ τοῦ σώματος ἀκίνητον εἶναι καὶ ὡς εἰπεῖν ἄψυχον. **Alexander**

of *Aphrodisias de An.* 1.2–3 ἡ μὲν πρόθεσις ἡμῖν, περὶ ψυχῆς εἰπεῖν τῆς (τοῦ) ἐν γενέσει τε καὶ φθορᾷ σώματος, τίς τέ ἐστιν αὐτῆς ἡ οὐσία κτλ. **ps.Alexander Quaest.** fr. 2 Vitelli at *FS Gomperz* 1902 p. 93.13–14 λέγει (sc. Plato) δὲ καὶ τὴν ψυχὴν ἀσώματόν τινα οὐσίαν καὶ ἀφθαρτον εἶναι, ὧν θάτερον περὶ αὐτῆς καὶ ὑπὸ Ἀριστοτέλους δεικνύται. οἱ δὲ (sc. Stoici, not in *SVF*) ... λέγουσι δὲ καὶ τὴν ψυχὴν σῶμα εἶναι. **Alexander of Aphrodisias(?) de An.Mant.** 101.3, 101.13–15. **Anonymus Londiniensis Iatr.** col. i.21–24 Manetti ψυχὴ δὲ λέγεται τριχῶς | [ἢ τε] τῷ ὅλῳ σώματι παρεσπαρ|μένη καὶ τὸ μόριον τὸ λογιστικὸν | [κ]αὶ ἔτι ἡ ἐντρέχεια (sic). **Galen PHP** 7.3.19 ἴσως ἂν τις ὑπονοήσῃ τὸ κατὰ τὰς κοιλίας τοῦ ἐγκεφάλου πνεῦμα δυοῖν θάτερον, εἰ μὲν ἀσώματός ἐστιν ἡ ψυχὴ, τὸ πρῶτον αὐτῆς ὑπάρχειν, ὡς ἂν εἴποι τις, οἰκητήριον, εἰ δὲ σῶμα, τοῦτ' αὐτὸ {πνεῦμα} τὴν ψυχὴν εἶναι. **QAM** c. 5, p. 32.5–8 Bazou εἰ μὲν γὰρ εἰδός ἐστιν ὁμοιομεροῦς σώματος ἡ ψυχὴ, τὴν ἀπόδειξιν ἐξ αὐτῆς τῆς οὐσίας ἔξομεν ἐπιστημονικωτάτην· εἰ δ' ὑποθούμεθα ταύτην ἀσώματον εἶναι φύσιν ἰδίαν ἔχουσαν, ὡς ὁ Πλάτων ἔλεγεν κτλ. **Ptolemy Iudic.** c. 7, p. 11.10–21 καὶ σῶμα μὲν καλοῦμεν τὸ ἐξ ὁστέων καὶ σαρκῶν καὶ τῶν τοιούτων αἰσθητῶν, ψυχὴν δὲ τὸ τῶν ἐν τούτοις ἢ διὰ τούτων κινήσεως αἴτιον, οὗ τῶν δυνάμεων μόνων ἀντιλαμβάνομεθα· εἰ δὲ καὶ ταύτην σῶμα δεῖ καλεῖν, οὐ πολυπραγμονητέον νῦν· οὐ γὰρ τὰ ὀνόματα τῶν ὑποκειμένων φύσεων ζητοῦμεν ἐπὶ τοῦ παρόντος, ὡς ἔφαμεν, ἀλλὰ τὴν ἐν αὐταῖς διαφοράν, ἣν ἔργῳ κατανενοήκαμεν ἀμετάστατον οὖσαν, καὶ μυριάκις τις ἀντιστρέφῃ τὰς ὀνομασίας αὐτῶν ἢ νῦν μὲν τὴν ψυχὴν ἀσώματον εἶναι φάσκει κατὰ τοὺς νομοθετοῦντας σῶμα καλεῖσθαι τὸ αἰσθήσει γινώριμον, νῦν δὲ σῶμα κατὰ τοὺς τὸ ποιῆσαι καὶ παθεῖν οἷον τε σῶμα ὀρίζομένους. **Plotinus Enn.** 4.7.[2].1–8³. **Enn.** 4.2.[4].1.1–4 τὴν τῆς ψυχῆς οὐσίαν τίς ποτέ ἐστι ζητοῦντες σῶμα οὐδὲν αὐτὴν δεῖξαντες εἶναι, οὐδ' ἐν ἀσώματοις αὐτῷ ἄρμονίαν, τό τε τῆς ἐντελεχείας οὔτε ἀληθές οὕτως, ὡς λέγεται, οὔτε δηλωτικὸν ὅν τοῦ τί ἐστιν ἀφέντες. **Enn.** 4.7.[2].2.1–3 τοῦτο οὖν τίνα φύσιν ἔχει; ἡ σῶμα μὲν ὃν ... εἰ δὲ μὴ σῶμα εἴη, ἀλλὰ φύσεως ἄλλης. **Porphyrus de An. adv. Boeth.** 249F Smith at Eus. **PE** 15.11.4 (verbatim) τὰ μὲν οὖν ἄλλα ὅσα περὶ αὐτῆς εἰρήκασιν ἄλλοι, αἰσχύνην ἡμῖν φέρει. πῶς γὰρ οὐκ αἰσχρὸς ὁ ἐντελέχειαν τιθεὶς τὴν ψυχὴν λόγος σώματος φυσικοῦ ὀργανικοῦ; πῶς δὲ οὐκ αἰσχύνης γέμων ὁ πνεῦμά πως ἔχον αὐτὴν ἀποδιδούς ἢ πῦρ νοερόν, τῇ περιψύξει καὶ οἷον βαφῇ τοῦ ἀέρος ἀναφθὲν ἢ στομαθῆν, ὃ τε ἀτόμων ἄθροισμα θεὸς ἢ ὅλως ἀπὸ σώματος αὐτὴν γεννᾶσθαι ἀποφαινόμενος; ὃν δὴ λόγον ἐν Νόμοις (10 891d–e) ἀσεβῶν ἀσεβῆ εἶναι ἀπεφήνατο. αἰσχύνης οὖν πάντες οὗτοι πλήρεις λόγοι. ἐπὶ δὲ τῷ λέγοντι αὐτοκίνητον (cf. Pl. *Phdr.* 245c τὸ αὐτὸ κινεῖν) οὐσίαν οὐκ ἂν τις, φησὶν, αἰσχυνθεῖη. **Simplicius** (? perhaps Priscianus Lydus) *in de An.* 10.32–35 οἱ μὲν οὖν Πυθαγόρειοι καὶ Πλάτων οὐσίαν αὐτὴν φασιν· οἱ δὲ ἄρμονίαν σωματῶν εἰπόντες καὶ οἱ τοιάνδε κράσιν ἐν τῷ ποιῶ τίθενται. Ξενοκράτης (fr. 60 Heinze, F 100 Isnardi Parente²) δὲ ἀριθμὸν αὐτὴν θέμενος ἐν ποσῷ δοκεῖ. **Eusebius Hist.Eccl.** 4.18.5 καὶ ἄλλο σχολικὸν Περὶ ψυχῆς (sc. εἰς ἡμᾶς ἐλήλυθεν), ἐν ᾧ διαφόρους πεύσεις προτείνας (sc. ὁ Ἰουστίνος) περὶ τοῦ κατὰ τὴν ὑπόθεσιν προβλήματος, τῶν παρ' Ἑλλήσιν φιλοσόφων παρατίθεται τὰς δόξας, αἷς καὶ ἀντιλέξειν ὑπισχνεῖται τὴν τε αὐτὸς αὐτοῦ δόξαν ἐν ἐτέρῳ παραθήσεσθαι συγγράμματι. **John Philoponus in de An.** 9.3–5 καθόλου δὲ τὴν ψυχὴν οἱ μὲν φασιν ἀσώματον εἶναι, οἱ δὲ σῶμα· καὶ τῶν σῶμα οἱ μὲν ἀπλοῦν, οἱ δὲ σύνθετον· καὶ τῶν σύνθετον

οἱ μὲν ἐκ συνημμένων σωμάτων, οἱ δὲ ἀσυνάπτων. **Barhebraeus** *Candélabre des sanctuaires*, 8th base introd., translated Bakoš (1948) 1–2 (cited in text above, section D(e)).

Chapter heading: **ps.Plato** *Ep.* 13.363a ἐν τῷ Περὶ ψυχῆς λόγῳ. **Aristotle** *de An.* 1.1 402a3–4 τὴν Περὶ τῆς ψυχῆς ἱστορίαν. *Sens.* 1 436b10 εἴρηται πρότερον ἐν τοῖς Περὶ ψυχῆς. *GA* 5.1 779b22–23 ὥσπερ ἐλέχθη πρότερον ἐν τοῖς Περὶ τὰς αἰσθήσεις καὶ τούτων ἔτι πρότερον ἐν τοῖς Περὶ ψυχῆς διωρισμένοις (see also Bonitz 102b60–103a8). **Callimachus** *Epigr.* 23.3–4 Pfeiffer Πλάτωνος / ἐν τῷ Περὶ ψυχῆς γράμμι' ἀναλεξάμενος. **Plutarch** *Adv.Col.* 1115A Ἀριστοτέλους ... τὰ Περὶ ψυχῆς ..., *Δικαιάρχου* (fr. 5 Wehrli, 13 Mirhady) δὲ τὰ Περὶ ψυχῆς. **Diogenes Laertius** *V.P.* 3.58 τέταρτος Φαίδων ἢ περὶ ψυχῆς, ἠθικός. 4.4 (Speusippus fr. 1 Lang, 2 Isnardi Parente, test. 1 Tarán) Περὶ ψυχῆς α'. 4.13 (Xenocrates p. 158 Heinze, test. 2 Isnardi Parente²) Περὶ ψυχῆς α' β'. 5.87 (Heraclides Ponticus fr. 22 Wehrli, 1 Schütrumpf) Περὶ ψυχῆς καὶ κατ' ἰδίαν Περὶ ψυχῆς. 7.157 (*SVF* 3 Antip. 49) Περὶ ψυχῆς. 9.47 (Democritus 68B5e–f DK) Tetralogia IV 3 Περὶ νοῦ. 4 Περὶ αἰσθησίων (ταυτὰ τινες ὁμοῦ γράφοντες Περὶ ψυχῆς ἐπιγράφουσι). **Lactantius** *Inst.* 7.22.19 Heck–Wlosok *Plato De anima disserens*. **Galen** *Foot.Form.* 4.699.16–18 K. περὶ τῶν ὑπὸ Χρυσίππου (*SVF* 2.743) λεγομένων ἐν τοῖς Περὶ ψυχῆς αὐτοῦ γράμμασιν ἐπισκέπτομαι. *PHP* 3.1.9 ὁ Χρύσιππος (*SVF* 2.885) κατὰ τὸν πρῶτον αὐτοῦ Περὶ ψυχῆς λόγον. **Origen** *CC* 5.57, p. 368.22–23 Marcovich παρὰ τῷ Χαιρωνεῖ Πλουτάρχῳ (fr. 173 Sandbach) ἐν τοῖς Περὶ ψυχῆς. **Themistius** *in de An.* 108.11 (Theophr. fr. 307A FHSG) ἐν τῷ πέμπτῳ τῶν Φυσικῶν, δευτέρῳ δὲ τῶν Περὶ ψυχῆς. **Ambrose of Milan** *de Isaac vel anima*. **Cassiodorus** *de Anima*. **Scholia vetera in Iliadem 12.386d Erbse, Ποσειδωνίῳ (F 28a E.–K., 389a Theiler) ἐν τρίτῳ Περὶ ψυχῆς. **ps.Galen** *HPh* c. 24, *DG* p. 613.3 Περὶ ψυχῆς. **Psel-lus** *Omn.Doctr.* c. 30 and passim Περὶ ψυχῆς.**

§0 **Whether it exists:** **Atticus** fr. 7.51–53 Des Places (verbatim) at Eus. *PE* 15.9.10 (τούτῳ) (sc. Aristotle) τοιγαροῦν ἐπόμενος Δικαίάρχος (fr. 8(i) Wehrli, 20 Mirhady) καὶ τὰκόλουθον ἱκανὸς ὦν θεωρεῖν ἀνήρηκε τὴν ὅλην ὑπόστασιν τῆς ψυχῆς. **Galen** *Propr.Plac.* 14, p. 188.1 Boudon-Millot–Pietrobelli, text Lami (= *Sub.Nat.Fac.* 4.760.4–5 K). καθάπερ ἄλλοι μὴδὲ εἶναι τινα ὑπαρξιν αὐτῆς ἰδίαν. **Alexander of Aphrodisias(?)** *de An.Mant.* 101.5–6 τὸ γε εἶναι τὴν ψυχὴν γνω-ριμώτατον καὶ φανερώτατον. **ps.Plutarch** *Lib.Aegr.* 5 (Heraclides of Pontus fr. 72 Wehrli, 80 Schütrumpf) ἔνιοι δ' ἄντικρυς καὶ δόξαν καὶ διαλογισμὸν εἰς τὸ σῶμα κατατείνουσιν, οὐδ' εἶναι οὐσίαν τὸ παράπαν ψυχῆς λέγοντες, ἀλλὰ τῇ τοῦ σώματος διαφορᾷ καὶ ποιότητι καὶ δυνάμει συντελεῖσθαι τὰ τοιαῦτα. τὸ μὲν γὰρ Περὶ τῶν ἐν Ἄιδου βιβλίον ἐπιγραφόμενον, ἐν ᾧ τὴν ψυχὴν τῇ οὐσίᾳ παρυπάρχειν ἀποφαίνεται ὁ λόγος, οἱ μὲν οὐδ' εἶναι τὸ παράπαν Ἡρακλείδου νομίζουσιν, οἱ δὲ πρὸς ἀντιπαρεξά-γωγὴν συντετάχθαι τῶν εἰρημένων ἐτέροις περὶ οὐσίας ψυχῆς. ὅτῳ δὲ γεγραμμένον ἄντικρυς ἀναιρεῖ τὴν οὐσίαν αὐτῆς, ὥς τοῦ σώματος ἔχοντος ἐν αὐτῷ τὰς εἰρημένας δυνάμεις πάσας.

§1 **Thales: Plato** *Phdr.* 245c ψυχὴ πᾶσα ἀθάνατος. τὸ γὰρ ἀεικίνητον ἀθάνα-τον. τὸ δ' ἄλλο κινεῖται καὶ ὑπ' ἄλλου κινούμενον, παῦλαν ἔχον κινήσεως, παῦλαν ἔχει ζωῆς. μόνον δὲ τὸ αὐτὸ κινεῖται, ἅτε οὐκ ἀπολείπον ἑαυτό, οὐποτε λήγει κινου-

μενον, ἀλλὰ καὶ τοῖς ἄλλοις ὅσα κινεῖται τοῦτο πηγὴ καὶ ἀρχὴ κινήσεως. **ps.Plato** *Def.* 411c ψυχὴ τὸ αὐτὸ κινεῖν· αἰτία κινήσεως ζωτικῆς ζώων. **Aristotle** *de An.* 1.2 404a20–25 ἐπὶ ταῦτὸ δὲ φέρονται καὶ ὅσοι λέγουσι τὴν ψυχὴν ‘τὸ αὐτὸ κινεῖν’· εἰ-
 κασι γὰρ οὗτοι πάντες ὑπειληφέναι τὴν κίνησιν οἰκειότατον εἶναι τῇ ψυχῇ, καὶ τὰ μὲν
 ἄλλα πάντα κινεῖσθαι διὰ τὴν ψυχὴν, ταύτην δ’ ὑφ’ ἑαυτῆς, διὰ τὸ μὴθὲν ὁρᾶν κινεῖν
 ὃ μὴ καὶ αὐτὸ κινεῖται. *de An.* 1.2 405a19–21 ἔοικε δὲ καὶ Θαλῆς (11A22 DK) ἐξ
 ὧν ἀπομνημονεύουσι κινήτικόν τι τὴν ψυχὴν ὑπολαβεῖν, εἴπερ τὴν λίθον ἔφη ψυχὴν
 ἔχειν. **Galen** *Trem.Palp.* 7.616.13–15 καὶ ἡ γε φύσις καὶ ἡ ψυχὴ οὐδὲν ἄλλο ἢ τοῦτ’
 ἔστιν (sc. τὸ ἔμφυτον θερμόν), ὥστ’ οὐσίαν αὐτοκίνητον τε καὶ ἀεικίνητον αὐτὸ νοῶν
 οὐκ ἂν ἀμάρτοις. **Diogenes Laertius** *V.P.* 1.24 (on Thales, 11A1 DK) ἐνιοὶ δὲ καὶ
 αὐτὸν πρῶτον εἰπεῖν φασιν ἀθανάτους τὰς ψυχὰς· ὧν ἔστι Χοιρίλος ὁ ποιητῆς (fr. 12
 Bernabé). ... Ἀριστοτέλης δὲ καὶ Ἰππίας (86B7 DK) φασὶν αὐτὸν καὶ τοῖς ἀψύχοις
 μεταδιδόναι ψυχῆς, τεκμαιρόμενον ἐκ τῆς λίθου τῆς μαγνήτιδος καὶ τοῦ ἡλέκτρου.
V.P. 9.7 (on Heraclitus, 22A1 DK) καὶ πάντα ψυχῶν εἶναι καὶ δαιμόνων πλήρη.
Sententiae Sexti (Append. 2A, 559) ὁ τοῦ θεοῦ νοῦς αὐτοκίνητος καὶ ἀεικίνητος.
Themistius *in de An.* 13.21–23 ἔοικε δὲ καὶ Θαλῆς (fr. 301 Wöhrle) κινήτικόν τι τὴν
 ψυχὴν ὑπολαβεῖν, εἴπερ διὰ τοῦτο ἔφη τὸν σίδηρον ἔλκεσθαι ὑπὸ τῆς λίθου τῆς ἡρα-
 κλείας, ὅτι ἔμψυχος ἐκείνη ἡ λίθος. **Simplicius** (? perhaps Priscianus Lydus) *in*
de An. 31.20–26 τοσοῦτον δὲ περὶ Θαλοῦ (fr. 422 Wöhrle) ἱστορήσας (sc. Aristotle),
 καὶ τοῦτο μετὰ τινος ἐπιτιμῆσεως, ὅτι τῇ μαγνήτιδι λίθῳ ψυχὴν ἐδίδου ὡς κινήτικῇ
 τοῦ σιδήρου, ἵνα κατ’ ἐκείνον κινήτικὴν εἶναι τὴν ψυχὴν πιστώσῃται, οὐκ ἐπὶ τὸ ὕδωρ
 εἶναι τὴν ψυχὴν εἰς αὐτὸν ἀνέπεμψεν, καίτοι στοιχεῖον τὸ ὕδωρ τιθέμενον, ἐπειδὴ τῶν
 σωμάτων τὸ ὕδωρ ἔλεγε στοιχεῖον, εἰκὸς δὲ ἀσώματον αὐτὴν ἐκείνον ὑποτίθεσθαι.
John Philoponus *in de An.* 9.10–12 οἱ δὲ ἐξ ὕδατος, ὡς Θαλῆς (fr. 440 Wöhrle)
 καὶ Ἰππῶν ὁ ἐπίκλην ἄθεος· ἐπειδὴ γὰρ τὴν γονὴν ἐώρων ἐξ ὑγρᾶς οὐσαν οὐσίαν,
 διὰ τοῦτο καὶ ὕδωρ τὴν ἀρχὴν τῶν ὄντων ἐνόμισαν. *in de An.* 86.23–34 οὐ γὰρ εἶπε
 (sc. Aristotle) φέρ’ εἰπεῖν ὅτι Θαλῆς (fr. 442 Wöhrle) τὸ ὕδωρ ψυχὴν τίθεται καὶ διὰ
 τοῦτο ἔλκειν φησὶ τὸν σίδηρον τὴν λίθον ὡς ἔμψυχον καὶ διὰ τοῦτο ἐξ ὕδατος οὐσαν.
 ... διὰ ταῦτα τοῦτου μὲν οὐ λέγει εἶναι τὴν δόξαν ταύτην ὅτι ἐξ ὕδατος ἡ ψυχὴ, ἀλλὰ
 τοσοῦτον μόνον ὅτι καὶ αὐτὸς τὴν κίνησιν τῇ ψυχῇ ἀπένειμεν. **Aristotle** *de An.* 1.5
 411a7–8 καὶ ἐν τῷ ὅλῳ δὴ τινες αὐτὴν μεμίχθαι φασιν, ὅθεν ἴσως καὶ Θαλῆς (11A22
 DK) ᾤθη πάντα πλήρη θεῶν εἶναι. τοῦτο δ’ ἔχει τινὰς ἀπορίας κτλ. **Themistius**
in de An. 35.26–29 ἔστι δὲ καὶ ἑτέρα τις δόξα παρὰ τὰς εἰρημένους περὶ ψυχῆς,
 ἐν παντὶ τῷ ὄντι μεμίχθαι λέγουσα τὴν ψυχὴν καὶ διὰ παντὸς διήκειν τοῦ κόσμου
 καὶ πᾶν αὐτοῦ μόνον ἔμψυχον εἶναι. διὰ γὰρ ταύτην τὴν δόξαν καὶ Θαλῆς (fr. 302
 Wöhrle) ᾤθη πάντα πλήρη θεῶν εἶναι. **John Philoponus** *in de An.* 188.14–18
 ἑτέραν δόξαν ἐκτίθεται (sc. Aristotle) περὶ ψυχῆς. ὑπενόησαν, φησί, τινες ψυχὴν ἐν
 παντὶ σώματι μεμίχθαι, ὡς πᾶν εἶναι σῶμα ἔμψυχον· ἐκ δὲ τῆς τοιαύτης δόξης καὶ
 τὸν Θαλῆν (fr. 443 Wöhrle) νομίσαι πάντα πλήρη θεῶν εἶναι, τοπικῶς ὑπονοοῦντος
 τοῦ Θαλοῦ πανταχοῦ εἶναι τὸ θεῖον, ἢ τῷ αὐτῇ τὴν ψυχὴν θεὸν ὑπονοεῖν, ἢ θείας
 μοίρας αὐτὴν εἶναι.

§2 **Alcmaeon**: **Aristotle** *de An.* 1.2 405a29–b1 παραπλησίως δὲ τούτοις (sc.
 Thales Diogenes Heraclitus) καὶ Ἀλκμαίων (24A12 DK) ἔοικεν ὑπολαβεῖν περὶ
 ψυχῆς· φησὶ γὰρ αὐτὴν ἀθάνατον εἶναι διὰ τὸ εἰκέναι τοῖς ἀθανάτοις· τοῦτο δ’ ὑπάρ-

χειν αὐτῇ ὡς αἰετὶ κινουμένη· κινεῖσθαι γάρ καὶ τὰ θεῖα πάντα συνεχῶς αἰετὶ, σελήνην, ἥλιον, τοὺς ἀστέρας καὶ τὸν οὐρανὸν ὅλον. **Boethus at Porph. de An. adv. Boeth.** (243F Smith) at Eus. *PE* 11.28.7–9 εἰ μὲν ἀθάνατός ἐστιν ἡ ψυχὴ καὶ παντὸς ὀλέθρου κρείττων τις φύσις, πολλοὺς ἀναμείναντα χρόνῳ καὶ περιηγησάμενον λόγους ἀποφύνασθαι. (8) τὸ μέντοι τῶν περὶ ἡμᾶς ὁμοιότερον μηδὲν γενέσθαι θεῶν ψυχῆς, οὐ πολλῆς ἂν τις δεηθεῖς πραγματείας πιστεύσειεν, οὐ μόνον διὰ τὸ συνεχῆ καὶ ἄπαυστον τῆς κινήσεως, ἣν ἐν ἡμῖν ἐνδίδωσιν, ἀλλὰ τοῦ καθ' ἑαυτὴν νοῦ. (9) εἰς ὅπερ ἀπιδὼν καὶ ὁ Κροτωνιάτης φυσικός (cf. *VS* 1 app. p. 495.45–46) εἶπεν ἀθάνατον αὐτὴν οὖσαν καὶ πᾶσαν ἡρεμίαν φύσει φεύγειν, ὥσπερ τὰ θεῖα τῶν σωμάτων. **Porph. de An. adv. Boeth.** (249F Smith) at Eus. *PE* 15.11.4 'ἐπὶ δὲ τῷ λέγοντι (sc. Plato) αὐτοκίνητον οὐσίαν οὐκ ἂν τις, φησὶν, αἰσχυρθεῖη'.

§§3–5 **Pythagoras Xenocrates Plato: Aristotle de An.** 1.2 404a20–21 ἐπὶ ταῦτο δὲ φέρονται καὶ ὅσοι λέγουσι τὴν ψυχὴν 'τὸ αὐτὸ κινεῖν' (Pl. *Phdr.* 245c). *de An.* 1.2 404b16–30 Πλάτων ἐν τῷ Τιμαίῳ ... ἐνιοι (Xenocrates fr. 6o Heinze, F 85 Isnardi Parente²) συνέπλεξαν ἐξ ἀμφοῖν, ἀποφηνάμενοι τὴν ψυχὴν ἀριθμὸν κινεῖν ἑαυτὸν. *Top.* 6.3 140b2–4 (Xenocrates fr. 6o Heinze, F 89 Isnardi Parente²) τοιοῦτος δὲ καὶ ὁ τῆς ψυχῆς ὅρος, εἴπερ ἀριθμὸς αὐτὸς αὐτὸν κινῶν ἐστιν· καὶ γὰρ τὸ αὐτὸ αὐτὸ κινεῖν ψυχὴν, καθάπερ Πλάτων (*Phdr.* 245c) ὥρισται. *APo.* 2.8 93a21–24 τὸ δ' εἴ ἐστιν ὅτε μὲν κατὰ συμβεβηκὸς ἔχομεν, ὅτε δ' ἔχοντές τι αὐτοῦ τοῦ πράγματος, οἷον ... καὶ ψυχὴν, ὅτι 'αὐτὸ αὐτὸ κινεῖν' (Pl. *Phdr.* 245c). **Plutarch An.Procr.** 1013C–D ἀριθμὸν γε μὴν ὁ Πλάτων οὐδέποτε τὴν ψυχὴν προσεῖπεν ἀλλὰ κίνησιν αὐτοκίνητον αἰετὶ καὶ 'κινήσεως πηγὴν καὶ ἀρχὴν' (*Phdr.* 245c πηγὴ καὶ ἀρχὴ κινήσεως)· ἀριθμῷ δὲ καὶ λόγῳ καὶ ἀρμονίᾳ διακεκοσμήκε τὴν οὐσίαν αὐτῆς ὑποκειμένην καὶ δεχομένην τὸ κάλλιστον εἶδος ὑπὸ τούτων ἐγγιγνόμενον. οἶμαι δὲ μὴ ταῦτόν εἶναι τῷ (D) κατ' ἀριθμὸν συνεστάναι τὴν ψυχὴν τὸ τὴν οὐσίαν αὐτῆς ἀριθμὸν ὑπάρχειν, ἐπεὶ (καὶ) καθ' ἀρμονίαν συνέστηκεν ἀρμονία δ' οὐκ ἐστιν, ὡς αὐτὸς ἐν τῷ Περὶ ψυχῆς (*Phd.* 92) ἀπέδειξεν. **Diogenes Laertius VP.** 3.67 (on Plato's soul) αὐτοκίνητόν τε εἶναι. **Simplicius** (? perhaps Priscianus Lydus) in *de An.* 10.32–33 οἱ μὲν οὖν Πυθαγόρειοι καὶ Πλάτων οὐσίαν αὐτὴν φασιν.

§4 **Xenocrates: Plutarch An.Procr.** 1012D Ξενοκράτης (fr. 68 Heinze, F 108 Isnardi Parente²) ... τῆς ψυχῆς τὴν οὐσίαν ἀριθμὸν αὐτὸν ὑφ' ἑαυτοῦ κινούμενον ἀποφηνάμενος. **Themistius in de An.** 32.22–31 ἀλλὰ χρὴ παραβάλλειν τὰ Ἀνδρονίκου (see below §7) πρὸς τὰ ἐκείνου (sc. Porphyry's), ὅσῳ καὶ σαφέστερα καὶ πιθανώτερα πρὸς σύστασιν τοῦ λόγου τοῦ Ξενοκράτους (fr. 61 Heinze, F 180 Isnardi Parente²). 'ἀριθμὸν γὰρ ἐκάλουν' φησὶ 'τὴν ψυχὴν, ὅτι μηδὲν ζῶον ἐξ ἀπλοῦ σώματος, ἀλλὰ κατὰ τινες λόγους καὶ ἀριθμοὺς κραθέντων τῶν πρώτων στοιχείων. σχεδὸν οὖν ταῦτόν ἀπεφάνοντο τοῖς ἀρμονίαν αὐτὴν τιθεμένοις, πλὴν ὅσῳ σαφέστερον οὗτοι τῇ προσθήκῃ τὸν λόγον ἐποίησαν, οὐ πάντα ἀριθμὸν, ἀλλὰ τὸν κινεῖντα ἑαυτὸν τὴν ψυχὴν ἀφοριζόμενοι, ὥσπερ ἂν εἰ καὶ ἐκεῖνοι μὴ πᾶσαν ἀρμονίαν, ἀλλὰ τὴν ἀρμόζουσαν ἑαυτὴν· αὐτὴ γάρ ἐστιν ἡ ψυχὴ τῆς κράσεως ταύτης αἰτία καὶ τοῦ λόγου καὶ τῆς μίξεως τῶν πρώτων στοιχείων.' **Favonius Eulogius in Somn.** 5.6 *estque numerus, ut Xenocrates* (fr. 16 Heinze, F 134 Isnardi Parente²) *censuit, animus*. **Simplicius** (? perhaps Priscianus Lydus) in *de An.* 10.34–35 Ξενοκράτης (fr. 6o Heinze, F 100 Isnardi Parente²) δὲ ἀριθμὸν αὐτὴν θέμενος ἐν ποσῷ δοκεῖ. **John Philo-**

ponus in *de An.* 165.24–26 (Xenocrates fr. 65 Heinze, F 117 Isnardi Parente²) ἀριθμούς δὲ τὰ εἶδη ἐκάλουν, ὡς εἴρηται· καὶ αὐτὸς (sc. Arist. *de An.* 3.4 429a2728) γοῦν ἐν τοῖς ἐξῆς φησιν ‘καὶ εὖ δὴ οἱ λέγοντες τὴν ψυχὴν τόπον εἰδῶν’. ἀριθμὸν μὲν οὖν διὰ τοῦτο, κινούμεντα δὲ αὐτὸν διὰ τὸ αὐτοζῶν αὐτῆς.

§5 Plato: *Plato Tim.* 33c–36e. *Aristotle de An.* 1.3 406b25–407a2, esp. 406b29 κατὰ τοὺς ἀρμονικοὺς ἀριθμούς. *Diogenes Laertius V.P.* 3.67–68 (on Plato) ἀρχὴν τε ἔχειν (sc. τὴν ψυχὴν) ἀριθμητικὴν, τὸ δὲ σῶμα γεωμετρικὴν· ὠρίζετο δὲ αὐτὴν ιδέα τοῦ πάντη διεστῶτος πνεύματος. αὐτοκίνητόν τε εἶναι (68) διαιρεθεῖσάν τε κατὰ ἀρμονικὰ διαστήματα δύο κύκλους ποιεῖν συνημμένους, ὧν τὸν ἐντὸς κύκλον ἐξαχῇ τμηθέντα τοὺς ἅπαντας ἑπτὰ κύκλους ποιεῖν. καὶ τοῦτον μὲν κατὰ διάμετρον κ(ι)εῖσθαι ἐπ’ ἀριστερά ἔσωθεν, τὸν δὲ κατὰ πλευρὰν ἐπὶ τὰ δεξιὰ.

§6 Aristotle: *Aristotle de An.* 2.1 412a19–22 ἀναγκαῖον ἄρα τὴν ψυχὴν οὐσίαν εἶναι ὡς εἶδος σώματος φυσικοῦ δυνάμει ζωὴν ἔχοντος. ἡ δ’ οὐσία ἐντελέχεια· τοιούτου ἄρα σώματος ἐντελέχεια. *de An.* 2.1 412b4–6 εἰ δὴ τι κοινὸν ἐπὶ πάσης ψυχῆς δεῖ λέγειν, εἴη ἂν ἐντελέχεια ἢ πρώτη σώματος φυσικοῦ ὁργανικοῦ. **Plutarch** *Plat. Quaest.* 1006D Ἀριστοτέλης (mix of *de An.* 2.1 412a27–28 and b5–6) ὠρίσατο τὴν ψυχὴν ‘ἐντελέχειαν σώματος φυσικοῦ ὁργανικοῦ δυνάμει ζωὴν ἔχοντος’. **Alexander of Aphrodisias** *de An.* 16.10–14 (soul is) ἐντελέχεια οὖν ἢ πρώτη σώματος φυσικοῦ ὁργανικοῦ. ἔστι γὰρ ὁργανικὸν σῶμα τὸ ἔχον πλεῖω τε καὶ διαφέροντα μέρη ψυχικαῖς δυνάμεσιν ὑπηρετεῖσθαι δυνάμενα. διὸ τὸ ὁργανικὸν σῶμα καὶ δυνάμει ζωὴν ἔχειν λέγει, τῷ δυνάμει ζωὴν ἔχον ἀντὶ τοῦ δυναμένου κατ’ ἐνέργειαν ζῆν χρώμενος. **Alexander of Aphrodisias**(?) *An.Mant.* 104.21–24 ἔστι δὲ ἡ ψυχὴ ἐντελέχεια οὐσα δι’ ὅλου τοῦ σώματος. πᾶν γὰρ ἔμψυχον τὸ ἔμψυχου μέρος. καὶ ἔστιν ἐντελέχεια ἢ ψυχὴ οὔτε ὡς τὸ σχῆμα τῶν ἐσχηματισμένων, οὔτε ὡς ἡ θέσις καὶ τάξις τῶν συγκειμένων, οὐδ’ ὡς διάθεσις τις καὶ πάθος, οὔθ’ ὡς μῖξις ἢ κράσις. **Plotinus** *Enn.* 4.2.[4].1.3–4 τό τε τῆς ἐντελεχείας οὔτε ἀληθές οὕτως, ὡς λέγεται, οὔτε δηλωτικὸν ὃν τοῦ τί ἐστὶν ἀφέντες. *Enn.* 4.7.[2].85.1–5 τὸ δὲ τῆς ἐντελεχείας ᾧδ’ ἂν τις ἐπισκέψαιτο, πῶς περὶ ψυχῆς λέγεται· τὴν ψυχὴν φασὶν ἐν τῷ συνθέτῳ εἶδους τάξιν ὡς πρὸς ὕλην τὸ σῶμα ἔμψυχον (ὃν) ἔχειν, σῶματος δὲ οὐ παντὸς εἶδος οὐδὲ ἡ σῶμα, ἀλλὰ φυσικοῦ ὁργανικοῦ δυνάμει ζωὴν ἔχοντος. **Diogenes Laertius V.P.** 5.32–33 (on Aristotle) καὶ τὴν ψυχὴν δὲ ἀσώματον, ἐντελέχειαν οὐσαν τὴν πρώτην σώματος {γὰρ} φυσικοῦ καὶ ὁργανικοῦ δυνάμει ζωὴν ἔχοντος. (33) λέγει δὲ τὴν ἐντελέχειαν ἥ ἐστιν εἰδός τι ἀσώματον. διττὴ δ’ ἐστὶν αὕτη κατ’ αὐτόν· ἡ μὲν κατὰ δύναμιν, ὡς ἐν τῷ κηρῷ ὁ Ἑρμῆς ἐπιτηδεύοντα ἔχοντι ἐπιδέξασθαι τοὺς χαρακτήρας, καὶ {ὁ} ἐν τῷ χαλκῷ ἀνδριάς· καθ’ ἕξιν δὲ λέγεται ἐντελέχεια ἢ τοῦ συντετελεσμένου Ἑρμοῦ ἢ ἀνδριάντος. σῶματος δὲ φυσικοῦ, ἐπεὶ τῶν σωμάτων τὰ μὲν ἐστὶ χειρόκιμητα, ὡς τὰ ὑπὸ τεχνιτῶν γινόμενα, οἷον πύργος, πλοῖον· τὰ δὲ ὑπὸ φύσεως, ὡς φυτὰ καὶ τὰ τῶν ζῶων. ὁργανικοῦ δὲ εἶπε, τούτεστι πρὸς τι κατεσκευασμένου, ὡς ἡ ὄρασις πρὸς τὸ ὁρᾶν καὶ ἡ ἀκοὴ πρὸς τὸ ἀκούειν· δυνάμει δὲ ζωὴν ἔχοντος, οἷον ἐν ἑαυτῷ. **Porphyry** *de An. adv. Boeth.* (249F Smith) at Eus. *PE* 15.11.4 πῶς γὰρ οὐκ αἰσχροὺς ὁ ἐντελέχειαν τιθεὶς τὴν ψυχὴν λόγος σώματος φυσικοῦ ὁργανικοῦ; P. 31 Smith at *Sud.* s.v. Π 2098, p. 4.178.24–25 Adler πρὸς Ἀριστοτέλην (περὶ) τοῦ εἶναι τὴν ψυχὴν ἐντελέχειαν. **Iamblichus** *de An.* fr. 9 Finamore–Dillon at Stob. *Ecl.*

1.49.32, pp. 366.26–367.2 ἕτεροι (sc. τῶν Ἀριστοτελικῶν) δὲ τελειότητα αὐτὴν ἀφορίζονται κατ' οὐσίαν τοῦ θεοῦ σώματος, ἣν ἐντελέχειαν καλεῖ Ἀριστοτέλης.

§7 **Dicaearchus:** *Aristotle de An.* 1.4 407b30–32 ἀρμονίαν γὰρ τινα αὐτὴν λέγουσι· καὶ γὰρ τὴν ἀρμονίαν κράσιν καὶ σύνθεσιν ἐναντίων εἶναι, καὶ τὸ σῶμα συγκεῖσθαι ἐξ ἐναντίων. *Pol.* 8.5 1340b18–19 διὸ πολλοὶ φασὶ τῶν σοφῶν οἱ μὲν ἀρμονίαν εἶναι τὴν ψυχὴν, οἱ δ' ἔχειν ἀρμονίαν. **Lucretius** *DRN* 3.98–101 *sensum animi certa non esse in parte locatum, / verum habitum quendam vitalem corporis esse, / harmoniam Graeci quam dicunt, quod faciat nos / vivere cum sensu, nulla cum in parte siet mens.* *DRN* 3.117–118 *nunc animam quoque ut in membris cognoscere possis / esse neque harmonia corpus sentire solere.* **Cicero** *Tusc.* 1.19–20 *Aristoxenus* (fr. 120(a) Wehrli, I a 1 05 Kaiser) ... *ipsius corporis intentionem quandam, velut in cantu et fidibus quae ἀρμονία dicitur: sic ex corporis totius natura et figura varios motus cieri tamquam in cantu sonos, ...* (20) *dixit aliquid* (sc. animam harmoniam esse) *quod ipsum quale esset erat multo ante et dictum et explanatum a Platone.* *Tusc.* 1.11 *Aristoxeni* (fr. 119 Wehrli, Ia 1 10 Kaiser) *harmonia.* **Lactantius** *Op.D.* Perrin 16.13–14 *illud autem cave ne umquam simile veri putaveris quod Aristoxenus* (fr. 120(d) Wehrli, IV 1 25 Kaiser) *dicit, mentem omnino nullam esse, sed quasi harmoniam in fidibus ex constructione corporis et conpagibus viscerum vim sentiendi existere. ...* (14) *volunt enim animum simili ratione constare in homine qua concors modulatio constat in fidibus, scilicet ut singularum corporis partium firma coniunctio membrorumque omnium consentiens in unum vigor motum illum sensibilem faciat animumque concinnet sicut nervi bene intenti conspirant sonum.* **Seneca** *Nat.* 7.25.2 *alius concentum quondam.* **Plutarch** *Adv.Col.* 1119A–B ἢ τὸ παράπαν οὐκ ἔστιν οὐσία ψυχῆς ἄλλ' (B) αὐτὸ τὸ σῶμα κεκραμένον ἔσχηκε τὴν τοῦ φρονεῖν καὶ ζῆν δύναμιν. **Galen** *QAM c.* 4, pp. 26.9–27.1 Bazou [text after *Scr.Min.* p. 2.44 cf. Bazou pp. 26.9–27.1, where the name of Andronicus is attested by the Arabic version] Ἀνδρόνικον δὲ τὸν Περιπατητικόν (cf. above §4), ὅτι μὲν ὅλως ἐτόλμησεν ἀποφῆνασθαι τὴν οὐσίαν τῆς ψυχῆς (κράσιν ἢ δύναμιν εἶναι τοῦ σώματος add. Müller non prob. Bazou) ὡς ἐλεύθερος ἀνὴρ ἄνευ τοῦ περιπλέκειν ἀσφαδῶς, ἐπαινῶ τε πάντῃ ..., ὅτι δ' ἦτοι κράσιν εἶναι φησιν ἢ δύναμιν ἐπομένην τῇ κράσει, μέμφομαι τῇ προσθέσει τῆς δυνάμεως (but cf. **Nemesius** *NH c.* 2, p. 23.24–24.4 Γαληνὸς δὲ ἀποφάνεται μὲν οὐδέν, ἀλλὰ καὶ διαμαρτύρεται ἐν τοῖς Ἀποδεικτικοῖς λόγοις ὡς οὐδὲν εἶη περὶ ψυχῆς ἀποφηνάμενος· ἔοικε δέ, ἐξ ὧν λέγει, δοκιμάζειν μᾶλλον τὸ κράσιν εἶναι τὴν ψυχὴν (ταύτῃ γὰρ ἐπακολουθεῖν τὴν τῶν ἡθῶν διαφορὰν), ἐκ τῶν Ἱπποκράτους κατασκευάζων τὸν λόγον). *Propr.Plac.* 14, p. 187.27–28 Boudon-Millot–Pietrobelli, text Lami (= *Sub.Nat.Fac.* 4.760.17–18 K.) ἦτοι γε ἐκ τῆς τῶν τεττάρων στοιχείων κράσεως γενομένην. **Alexander of Aphrodisias** *de An.* 24.18–26.12. **Plotinus** *Enn.* 4.7.[2].84.2–5 ἄρ' οὖν ἕτερον μὲν σώματος, σώματος δέ τι, οἷον ἀρμονία; τοῦτο γὰρ ἀρμονία τῶν ἀμφὶ Πυθαγόραν λεγόντων ἕτερον τρόπον ᾧ ἦθυσαν αὐτὸ τοιοῦτόν τι εἶναι οἷον καὶ ἡ περὶ χορδὰς ἀρμονία. *Enn.* 4.2.[4].11–3 τὴν τῆς ψυχῆς οὐσίαν τίς ποτέ ἐστι ζητοῦντες σῶμα οὐδὲν αὐτὴν δεῖξαντες εἶναι, οὐδ' ἐν ἀσωμάτοις αὐτὴν ἀρμονίαν. **Andronicus of Rhodes** at Them. in *de An.* 32.26–31 σχεδὸν οὖν ταῦτόν ἀπεφαίνοντο τοῖς ἀρμονίαν αὐτὴν τιθεμένοις, πλὴν ὅσῃ σφαφέ-

στερον οὔτοι τῇ προσθήκῃ τὸν λόγον ἐποιοῦν, οὐ πάντα ἀριθμόν, ἀλλὰ τὸν κινούμεντα ἑαυτὸν τὴν ψυχὴν ἀφοριζόμενοι, ὥσπερ ἂν εἰ καὶ ἐκεῖνοι μὴ πᾶσαν ἁρμονίαν, ἀλλὰ τὴν ἀρμόζουσαν ἑαυτήν· αὐτὴ γάρ ἐστιν ἡ ψυχὴ τῆς κράσεως ταύτης αἰτία καὶ τοῦ λόγου καὶ τῆς μίξεως τῶν πρώτων στοιχείων. **Simplicius** (? perhaps Priscianus Lydus) *in de An.* 10.33–34 οἱ δὲ ἁρμονίαν σωμάτων εἰπόντες καὶ οἱ τοιάνδε κράσιν ἐν τῷ ποιῶ τίθενται.

§8 **Asclepiades**: **Galen** *Ut.Resp.* 4.484.1–3 K. Ἀσκληπιάδῃ (cf. Vallance *ANRW* 2.37.1, p. 717) δὲ οὐ(δὲ) ταῦτα μόνον, ἀλλὰ καὶ τὰ δι' ἐτέρων ἡμῖν εἰρημένα πρὸς τοὺς Περὶ ψυχῆς αὐτοῦ λόγους μάχεται. *Libr.Propr.* 11, p. 19.38–39 K. μικρόν δ' ἄλλο τὴν ἐπιγραφὴν ἔχον 'Περὶ οὐσίας τῆς ψυχῆς κατ' Ἀσκληπιάδην' (cf. Vallance *ANRW* 2.37.1, p. 720). *in Off.Med.* 18B.660.10–14 K. πεπεισμένοι δὲ εἰσιν ὡσαύτως ἅπαντες οἱ ἄνθρωποι καὶ κίνησιν εἶναι ... καὶ νοῦν καὶ μνήμην καὶ προαίρεσιν, ἃ πρὸς ἄλλοις πολλοῖς ἀνατρέπειν ἐπεχείρησεν Ἀσκληπιάδης (cf. Vallance *ANRW* 2.37.1, p. 720) ὡς οὐκ ὄντα. **Sextus Empiricus** *M.* 7.350 καὶ οἱ μὲν διαφέρειν αὐτὴν τῶν αἰσθήσεων, ὡς οἱ πλείους, οἱ δὲ αὐτὴν εἶναι τὰς αἰσθήσεις, καθάπερ διὰ τινων ὁπῶν τῶν αἰσθητηρίων προκύπτουσιν, ἥς στάσεως ἥρξε Στράτων (fr. 109 Wehrli, 61 Sharples) τε ὁ φυσικὸς καὶ Αἰνισίδημος (fr. B24A Polito). **Diogenes Laertius** *V.P.* 9.51 ἔλεγέ (on Protagoras, 80A1 DK) τε μὴδὲν εἶναι ψυχὴν παρὰ τὰς αἰσθήσεις, καθὰ καὶ Πλάτων φησὶν ἐν Θεαιτήτῳ (cf. 152a). **Tertullian** *de An.* 14.5 (Soranus *de An.* fr. 11 Podolak) *non longe hoc exemplum est a Stratone* (fr. 108 Wehrli, 59 Sharples) *et Aenesidemo* (fr. B24C Polito) *et Heraclito* (T 652 Mouraviev); *nam et ipsi unitatem animae tuentur, quae in totum corpus diffusa et ubique ipsa, velut flatus in calamo per cavernas, ita per sensuality variis modis emicet, non tam concisa quam dispensata.* differently **Calcidius** *in Tim.* c. 215 *aut enim moles quadam sunt leves et globosae eademque admodum delicatae, ex quibus anima subsistit, quod totum spiritus est, ut Asclepiades* (cf. Vallance *ANRW* 2.37.1, p. 714) *putat.*

Liber 4 Caput 3

PB: ps.Plutarchus *Plac.* 898C–D; pp. 387^a9–389^a7 Diels—PQ: Qustā ibn Lūqā pp. 190–193 Daiber

S: Stobaeus *Ecl.* 1.49.1b pp. 319.10–320.15 Wachsmuth

T: Theodoretus *CAG* 5.18; p. 127.5–14 Raeder

Cf. Hermias *Irr.* 2.1–3.1 Hanson; ps.Iustinus *Coh.* 7.2.15–22 Marcovich; Nem: Nemesius *NH* c. 2, p. 16.12–21 Morani

Titulus γ'. Εἰ σώμα ἡ ψυχὴ καὶ τίς ἡ οὐσία αὐτῆς (P)

- §1 οὗτοι πάντες οἱ προτεταγμένοι ἀσώματον τὴν ψυχὴν ὑποτίθενται, φύσιν λέγοντες αὐτοκίνητον καὶ οὐσίαν νοητὴν καὶ τοῦ φυσικοῦ ὀργανικοῦ ζωὴν ἔχοντος ἐντελέχειαν. (P1)
- §2 Ἀναξίμενης Ἀναξίμανδρος Ἀναξαγόρας Ἀρχέλαος Διογένης ἀεροειδῆ 5 ἔλεγον τε καὶ σώμα. (P2,S1,T1)
- §3 οἱ Στωικοὶ πνεῦμα νοερὸν θερμόν. (P3,S2,T2)
- §4 Παρμενίδης δὲ καὶ Ἴππασος καὶ Ἡράκλειτος πυρώδῃ. (S3,T3)
- §5 Δημόκριτος πυρώδες σύγκριμα ἐκ τῶν λόγῳ θεωρητῶν, σφαιρικάς μὲν ἐχόντων τὰς ιδέας, πυρίνην δὲ τὴν δύναμιν, ὅπερ σώμα εἶναι. 10 (P4,S4)
- §6 Ἡρακλείδης φωτοειδῆ τὴν ψυχὴν ὥρισατο. (S5,T5)
- §7 Λεύκιππος ἐκ πυρὸς εἶναι τὴν ψυχὴν. (S6)
- §8 Διογένης ὁ Ἀπολλωνιάτης ἐξ ἀέρος τὴν ψυχὴν. (S7)
- §9 Ἴππων ἐξ ὕδατος τὴν ψυχὴν. (S8) 15

§2 Anaximenes ad 13A23 DK; Anaximander 12A29 DK; Anaxagoras 59A93 DK; Archelaus 60A17 DK; Diogenes T5b Laks; §3 Stoici *SVF* 2.779; §4 Parmenides 28A45 DK; Hippasus 18.9 DK; Heraclitus T 460 Mouraviev; §5 Democritus 68A102 DK; §6 Heraclides Ponticus fr. 98a,d Wehrli, 46a,d Schütrumpf; §7 Leucippus 67A28 DK; §8 Diogenes T5b Laks; §9 Hippo 38A10 DK

caput non hab. G (aliud c. 24 Περὶ ψυχῆς) **titulus** Ei ... αὐτῆς P^{BQ} : Περὶ ψυχῆς tit. S 1.49 §1 [3] φύσιν Reiske, *eine* ... *Natur* Q : φύσει P^B §1 non hab. S §2 [5] Ἀναξίμενης ... Διογένης scripsimus : οἱ δ' ἀπ' Ἀναξαγόρου P : om. Ἀναξίμανδρος S prob. Bäumker non prob. Diels *DG*, cui Διογένης 'abundare' videbatur, secl. Wachsmuth prob. Wöhrle fr. Ar 138 non prob. Laks ad T5b : Ἀναξίμενης δὲ καὶ Ἀναξίμανδρος καὶ Ἀναξαγόρας καὶ Ἀρχέλαος T (quod typis exaratur 12A29 DK) || [6] ἔλεγον ... σώμα P : om. S : τε (δὲ Diels *DG* qui comma post ἀεροειδῆ pos.) ... σώμα om. T §3 [7] πνεῦμα PS : πνευματικὴν T || νοερὸν S : om. PT || θερμόν PS : πλείστου μετέχουσιν τοῦ θερμοῦ T §4 om. P || [8] Ἴππασος S^{Phot}T : πῆγασος S^{FP} || καὶ Ἡράκλειτος T prob. Diels 18.9 DK, dub. addidimus : om. S quod prob. Diels 28A45 DK §5 [9] θεωρητῶν P : θεωρικῶν S §6 [1] Ἡρακλείδης T^(MDSCV) melius T¹ : Ἡράκλειτος S (marg. Ἡρακλείδης S^P) T^(KBL) melius T² §§7–10 om. PT || §7 [13] post ψυχὴν add. ἀπεφάνητο S^(P)

- §10 Ξέναρχος ὁ Περιπατητικὸς καὶ τινες ἕτεροι τῆς αὐτῆς αἰρέσεως τὴν κατὰ τὸ εἶδος τελειότητα καὶ ἐντελέχειαν, καθ' ἑαυτὴν οὖσαν ἅμα καὶ μετὰ τοῦ σώματος συντεταγμένην. (S9)
- §11 Ἐπίκουρος κρᾶμα ἐκ τεττάρων, ἐκ ποιοῦ πυρώδους, ἐκ ποιοῦ ἀερώδους, ἐκ ποιοῦ πνευματικοῦ, ἐκ τετάρτου τινὸς ἀκατονομάστου, τοῦτο δ' ἦν αὐτῷ τὸ αἰσθητικόν· ὧν τὸ μὲν πνεῦμα κίνησιν, τὸν δὲ ἀέρα ἡρεμίαν, τὸ δὲ θερμὸν τὴν φαινομένην θερμότητα τοῦ σώματος, τὸ δ' ἀκατονόμαστον τὴν ἐν ἡμῖν ἐμποιεῖν αἴσθησιν, ἐν οὐδενὶ γὰρ τῶν ὀνομαζομένων στοιχείων εἶναι αἴσθησιν. (P5,S10,T5) 20
- §12 Ἐμπεδοκλῆς μίγμα ἐξ αἰθερώδους καὶ ἀερώδους (καὶ ὕδατῶδους καὶ γεώδους) οὐσίας. (T6)
- §13 Κριτίας ἐξ αἵματος εἶπε καὶ ἐξ ὕγρου. (T7)
- §14 Ἡράκλειτος τὴν μὲν τοῦ κόσμου ψυχὴν ἀναθυμίασιν ἐκ τῶν ἐν αὐτῷ ὕγρων, τὴν δ' ἐν τοῖς ζῴοις ἀπὸ τῆς ἐκτὸς καὶ τῆς ἐν αὐτοῖς ἀναθυμιάσεως, ὁμογενή. (P6) 30

§10 Xenarchus—; §11 Epicurus fr. 315 Usener; §12 Empedocles—; §13 Critias—; §14 Heraclitus 22A15 DK

§11[19] post Ἐπίκουρος add. δὲ ὁ Νεοκλέους T || ποιοῦ πυρώδους P^{B(11)}S (mg. γρ. γεώδους P^{B(11)}) : ποιοῦ γε πυρώδους P^{B(1)} : ποιοῦ om. T : *Qualität* Q || [19–20] ποιοῦ ἀερώδους S^F : om. S^{P1} (marg. add. ἀερώδους· θερμοῦ S^{P2}) : ποιοῦ¹ om. T || *glaubte, daß* add. Q || [20] ποιοῦ om. T || [21] τοῦτο δ' ἦν αὐτῷ Heeren Diels : ὃ ἦν αὐτῷ P : τοῦτο δ' ἦν αὐτῇ S || τὸ¹ S : om. P || [21–25] τοῦτο ... αἴσθησιν om. T : ὧν ... αἴσθησιν om. P || [23] ἐμποιεῖν Heeren ex cod. Vat. : ἐμποιεῖ S^{FP} || [24] εἶναι S^F : om. S^P §12–13 om. P, non hab. S || [26–27] lac. indicavimus et supplevimus cf. c. 5.25.4 cum suppl. Dielesiano §14 om. TS || [29] *glaubte, daß* add. Q || [30] ἐν αὐτοῖς] *von Innen* Q

Testes primi:

Theodoretus CAG 5.18 (5.16–17 vid. test. prim. ad c. 4.2)

- 18.1 (~ §2) Ἀναξιμένης δὲ καὶ Ἀναξίμανδρος καὶ Ἀναξαγόρας καὶ Ἀρχέλαος ἀερώδη τῆς ψυχῆς τὴν φύσιν εἰρήκασιν.
- 18.2 (~ §3) οἱ δὲ γε Στωϊκοὶ πνευματικὴν, πλείστου μετέχουσιν τοῦ θερμοῦ.
- 18.3 (~ §4) Παρμενίδης δὲ καὶ Ἰππασος καὶ Ἡράκλειτος πυρώδη ταύτην κεκληλάσιν.
- 18.4 (~ §6) ὁ δὲ Ἡρακλείδης φωτοειδῆ.
- 18.5 (~ §11) Ἐπίκουρος δὲ ὁ Νεοκλέους τεττάρων τινῶν ποιοτήτων κρᾶμα, πυρώδους καὶ ἀερώδους καὶ πνευματικοῦ καὶ τετάρτου τινὸς ἀκατονομάστου.
- 18.6 (~ §12) ὁ δὲ Ἐμπεδοκλῆς μίγμα ἐξ αἰθερώδους καὶ ἀερώδους οὐσίας.
- 18.7 (~ §13) Κριτίας δὲ ἐξ αἵματος εἶπε καὶ ἐξ ὕγρου.
- 18.8 (~ §§5/7/8/9/10/14) καὶ ἄλλοι δ' αὖ ἄλλα λεληρήκασιν ἐναντία.

Testes secundi:

Hermias *Irr.* 2.1–3.1 οἱ μὲν γάρ φασιν αὐτῶν ψυχὴν εἶναι τὸ πῦρ (~ §3–4), οἱ δὲ τὸν ἀέρα (~ §8), ... οἱ δὲ τὴν ἀναθυμίασιν (~ §14), οἱ δὲ ὕδωρ γονοποιόν (~ §9), ... οἱ δὲ τὸ αἷμα (~ §13), οἱ δὲ τὸ πνεῦμα (~ §3), οἱ δὲ τὴν μονάδα, καὶ οἱ παλαιοὶ τὰ ἐναντία. πόσοι λόγοι περὶ τούτων, ἐπιχειρήσεις πόσαι, πόσαι δίκαι σοφιστῶν ἐριζόντων μᾶλλον ἢ τάληθές εὕρισκόντων; στασιάζουσι μὲν περὶ τῆς ψυχῆς (~ quaestio).

ps.Iustinus *Coh.* 7.2.15–22 τὴν γοῦν ἀνθρωπίνην ψυχὴν ἔνιοι μὲν τῶν παρ' ὑμῖν φιλοσόφων ἐν ἡμῖν, ἕτεροι δὲ περὶ ἡμᾶς εἶναι φασιν (~ §14)· οὐδὲ γὰρ ἐν τούτῳ συμφωνεῖν ἀλλήλοις προήρηνται, ἀλλ', ὥσπερ τὴν ἀγνοίαν διαφόρως μερισάμενοι, καὶ περὶ ψυχῆς φιλονεικεῖν καὶ στασιάζειν πρὸς ἀλλήλους προήρηνται (~ quaestio). οἱ μὲν γάρ αὐτῶν φασι πῦρ εἶναι τὴν ψυχὴν (~ §2), οἱ δὲ τὸν ἀέρα (~ §2), οἱ δὲ τὸν νοῦν (cf. cc. 4.2.3, 4.7a.1), οἱ δὲ τὴν κίνησιν (cf. c. 4.2.1–3), οἱ δὲ τὴν ἀναθυμίασιν (~ §14), ἄλλοι δὲ τινες δύναμιν ἀπὸ τῶν ἄστρον ῥέουσιν (cf. §6, *Macr. in Somn.* 1.14.19), οἱ δὲ ἀριθμὸν κινητικόν (cf. c. 4.2.3–4), ἕτεροι δὲ ὕδωρ γονοποιόν (~ §9).

Nemesius *NH* c. 2, p. 16.12–21 διαφωνεῖται σχεδὸν ἅπανσι τοῖς παλαιοῖς ὁ περὶ τῆς ψυχῆς λόγος (~ quaestio). Δημόκριτος (—) μὲν γὰρ καὶ Ἐπίκουρος (—) καὶ πάν τὸ τῶν Στωικῶν φιλοσόφων σύστημα σώμα τὴν ψυχὴν ἀποφαινόνται, καὶ αὐτοὶ δὲ οὗτοι οἱ σώμα τὴν ψυχὴν ἀποφαινόμενοι διαφέρονται περὶ τῆς οὐσίας αὐτῆς· (~ §3) οἱ μὲν γάρ Στωικοὶ (*SVF* 2.773) πνεῦμα λέγουσιν αὐτὴν ἐνθερμον καὶ διάπυρον, (~ §13) Κριτίας (—) δὲ αἷμα, (~ §9) Ἴππων δὲ ὁ φιλόσοφος (—) ὕδωρ, (~ §5) Δημόκριτος (fr. 451 Luria) δὲ πῦρ (τὰ γὰρ σφαιροειδῆ σχήματα τῶν ἀτόμων συγκιρνόμενα, πῦρ τε καὶ ἀήρ, ψυχὴν ἀποτελεῖ). (~ §14) Ἡράκλειτος (*T* 866 Mouraviev) δὲ τὴν μὲν τοῦ παντός ψυχὴν ἀναθυμίασιν ἐκ τῶν ὑγρῶν, τὴν δὲ ἐν τοῖς ζώοις ἀπὸ τε τῆς ἐκτὸς καὶ τῆς ἐν αὐτοῖς ἀναθυμιάσεως ὁμογενὴ πεφυκεῖναι.

Loci Aetiani:

- §1** A 4.2.2 Ἀλκμαίων φύσιν αὐτοκίνητον. A 4.2.5 Πλάτων οὐσίαν νοητὴν. A 4.2.6 Ἀριστοτέλης ἐντελέχειαν πρῶτην σώματος φυσικοῦ, ὁργανικοῦ, δυνάμει ζῶνι ἔχοντος ἐντελέχειαν.
- §2** A 1.3.3 Ἀναξίμενης δ' ὁ Μιλήσιος ἀρχὴν τῶν ὄντων ἀέρα ἀπεφάνετο· ἐκ γὰρ τούτου τὰ πάντα γίνεσθαι καὶ εἰς αὐτὸν πάλιν ἀναλύεσθαι, 'οἶον ἢ ψυχὴ', φησὶν, 'ἢ ἡμετέρα ἀήρ οὐσα συγκατεῖ ἡμᾶς, καὶ ὅλον τὸν κόσμον πνεῦμα καὶ ἀήρ περιέχει'· λέγεται δὲ συνωνύμως ἀήρ καὶ πνεῦμα.
- §3** A 1.7.19 Ποσειδώνιος πνεῦμα νοερὸν καὶ πυρῶδες (sc. τὸν θεόν). A 4.8.1 οἱ Στωικοὶ ... πνεύματα νοερά.
- §4** A 1.3.9 Ἡράκλειτος καὶ Ἴππασος ἀρχὴν τῶν πάντων τὸ πῦρ.
- §5** A 4.4.7 ... Δημόκριτος ... τὸ μὲν λογικὸν ἔχουσιν ἐν τῷ θώρακι καθιδρυμένον. A 4.7a.2 ... Δημόκριτος ταῦτὸν νοῦν καὶ ψυχὴ.
- §9** A 1.3.1 Θαλῆς ὁ Μιλήσιος ἀρχὴν τῶν ὄντων ἀπεφάνετο τὸ ὕδωρ ... στοχάζεται δ' ἐκ τούτου πρῶτον, ὅτι πάντων τῶν ζώων ἡ γονὴ ἀρχὴ ἐστίν, ὑγρὰ οὐσα.

§11[6]–[7] al. A 4.4.6 de Pythagorae successoribus ἐκ πέντε στοιχείων τὸ σῶμα κραθῆναι φάντες—τοῖς γὰρ τέτταρσι ξυνέταξαν τὸ αἰθέριον—ἰσαριθμούς εἶναι ἔφασαν ταύτη καὶ τῆς ψυχῆς τὰς δυνάμεις.

§12 A 4.5.9 Ἐμπεδοκλῆς ἐν τῇ τοῦ αἵματος συστάσει (sc. τὸ τῆς ψυχῆς ἡγεμονικόν). A 5.24.4 Ἐμπεδοκλῆς τὸν θάνατον γεγενῆσθαι διαχωρισμὸν τοῦ πυρώδους (καὶ ἀερώδους καὶ ὑδατώδους καὶ γεώδους suppl. Diels), ἐξ ὧν ἡ σύγκρισις τῷ ἀνθρώπῳ συνεστάθη· ὥστε κατὰ τοῦτο κοινὸν εἶναι τὸν θάνατον σώματος καὶ ψυχῆς· ὕπνον δὲ γίνεσθαι διαχωρισμὸν τοῦ πυρώδους.

§14 A 1.7.17 Διογένης καὶ Κλεάνθης καὶ Οἰνοπίδης τὴν τοῦ κόσμου ψυχὴν (sc. θεὸν εἶναι φασιν). A 2.3 Εἰ ἔμψυχος ὁ κόσμος καὶ προνοία διοικούμενος. A 2.3.1 οἱ μὲν ἄλλοι πάντες ἔμψυχον τὸν κόσμον καὶ προνοία διοικούμενον. A 2.4.4 Ἀρχέλαος ὑπὸ θερμοῦ καὶ ἐμψυχίας [60.14 DK : ἐμψυχρίας Meineke Diels DG Wachsmuth] συστήναι τὸν κόσμον. A 4.4.8 ὁ δὲ Δημόκριτος πάντα μετέχειν φησὶ ψυχῆς ποιᾶς, καὶ τὰ νεκρὰ τῶν σωμάτων, διότι αἰεὶ διαφανῶς τινος θερμοῦ καὶ αἰσθητικοῦ μετέχει, τοῦ πλείονος διαπνεομένου. A 4.7.2 ὁ δὲ Ἡράκλειτος ἐξιοῦσαν τοῦ σώματος εἰς τὴν τοῦ παντὸς ἀναχωρεῖν ψυχὴν πρὸς τὸ ὁμογενές.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) In the absence of E and G, the witnesses for P are confined to P^B and P^Q. As we have seen at ch. 4.2 (Commentary A) and shall also see at chs. 4.4, 4.6 and 4.7, there are parallels in the mixed bag of G c. 24 (see *traditio proxima*), which have reached their destination via a different route. E in the final Book of the *PE* only includes chapters 4.4–5 of P Books 4 and 5, so ch. 4.3 is absent, cf. Commentary A(1) at ch. 4.2 above.

(2) P has abridged rather thoroughly, as is clear when we set off his six lemmata, or, excluding the summarizing first lemma found in P alone, his five doxai, against the ten lemmata of S, or against the seven doxai of T. Missing are §§4, 6–9 and 12–13, but P6 (Heraclitus) is the only witness to the final lemma of the chapter.

(3) S and T have left out other doxai; in his concluding remark that ‘others have said other contrary things’ T obviously refers to what he has omitted. S has left out lemmata corresponding to P6 (Heraclitus), T6 (Empedocles), and T7 (Critias), and T has omitted a lemma corresponding to P4 and S4 (Democritus). Between his Heraclides (S₅) and Epicurus lemma (S₁₀) S has preserved no less than four lemmata omitted by both P and T. P at P6 (Heraclitus) is the only witness to the final lemma of the chapter. Because E did not copy out chs.

4.2–3, T cannot have used E as his source for P, although at CAG 5.16 (cited ch. 4.2 at *testes primi*) he includes the abstracts of ch. 4.3 following at 5.18 as belonging with what he has culled from ‘Plutarch, Porphyry and Aëtius’. T has preserved two rather particular lemmata *ad finem*, T6 (Empedocles) and T7 (Critias), which are not paralleled in either P or S, or indeed anywhere else in precisely this particular form. A, mentioned third at CAG 5.16, is his real source.

(4) Several doxai and name-labels are confirmed by Nem (cited at *testes secundi* above), who lists the Stoics (~ §3), Critias (~ §13), Hippo (~ §9), Democritus (~ §5), and Heraclitus (~ §14). Three of these doxai are preserved in only one of the three main witnesses each, namely Heraclitus only in P, Hippo only in S, and Critias only in T. The verbal parallels with P and S for ch. 4.3 at *NH* c. 2, p. 16.16–21 are very striking for §§3, 5, 13, and 14. They were placed by Diels *DG* 389 in his apparatus to the right column together with T, where we also find the single Critias lemma in T and Nem (= §14 Diels). In the case of §14 the verbal parallelism is particularly close, as can be seen when juxtaposed:

A §14: Ἡράκλειτος τὴν μὲν τοῦ κόσμου
ψυχὴν ἀναθυμίασιν ἐκ τῶν
ἐν αὐτῷ ὑγρῶν, τὴν δ' ἐν τοῖς ζώοις ἀπὸ τῆς
ἐκτὸς καὶ τῆς ἐν αὐτοῖς ἀναθυμιάσεως, ὁμο-
γενή.

Nem p. 16.19–21: Ἡράκλειτος δὲ τὴν μὲν
τοῦ παντὸς ψυχὴν ἀναθυμίασιν ἐκ τῶν
ὑγρῶν, τὴν δ' ἐν τοῖς ζώοις ἀπὸ τε τῆς
ἐκτὸς καὶ τῆς ἐν αὐτοῖς ἀναθυμιάσεως, ὁμο-
γενή πεφυκέναι.

It might be concluded that Nem drew on A for this doxa, as we were inclined to do in our discussion at M–R 1.293–294. But taking all the evidence into account for chs. 4.2–3 (and also 4.12–13) we now think it is better to postulate a common tradition for both texts, i.e. an *uberior fons*. See below, section D(e) and also our comments above on ch. 4.2, Commentary A(4).

On Hermias and ps.Justin, who for this and the previous chapter reveal a striking convergence noted by Diels *DG* 261, see our remarks at ch. 4.2 Commentary A(5). In relation to the present chapter we may refer to his citations of doxai corresponding to §2, §14, §6, and §9.

(5) T 5.18 has two extra lemmata compared with P^{BQ} but corresponding with S, namely §4 Parmenides Hippasus and §6 Heraclides, which again proves him to have used and abstracted the source shared with S, that is, A. In S the name-label of §6 is written as Heraclitus, a common confusion (corrected in the margin of ms P). Furthermore, in §2 P summarizes several name-labels in his inaccurate phrase οἱ δ' ἄπ' Ἀναξαγόρου, while T and S share two name-labels, namely Ἀναξιμένης and Ἀρχέλαος, which have been left out in P. The historically improbable Ἀναξίμανδρος is found only in T's version of §6 and could

have been added by him, but unlike Baümker we have kept it, for a view of his followers may have been attributed to him. T on the other hand does not include Διογένης, found only in S; Diels would like to omit ('abundare videtur'), but we have kept it. Extras in T as compared with P^{BQ}, not confirmed by S but paralleled in the wider doxographical tradition, are §§12–13 Empedocles and Critias (we have seen above that Critias is found in the strikingly parallel passage in Nemesius). These should be assigned to A too. The addition of Heraclitus after Hippasus that T makes to A's lemma §4 is perhaps more doubtful, see above, ch. 1.3, Commentary D(e)§7, but we prefer to keep it as well, see below, section D(e)§4/§14. Finally, T seems to have remembered a source which paid attention to personalia, for he writes 'Epicurus the son of Nicocles' (see app. crit. to §11), and cf. below, ch. 4.4 Commentary A(3) and ch. 4.5, Commentary D(d)§7.

See further above, ch. 4.2 Commentary A(3); further M–R 1.288 and 1.296–298, and Mansfeld (2018) at M–R 4.180–187 on the T/S source (esp. 4.183 for ch. 4.2); cf. further above, General Introduction section 2.5.

B Proximate Tradition and Sources

(1) *Proximate tradition.* For the proximate tradition see the various and detailed accounts of e.g. Cicero *Luc.* 124, *Tusc.* 1.19–21; Philo *Somn.* 1.30; Tertullian *de An.* 5.1–6, 9.5 (~ Soranus fr. 2 and 5 Podolak); and Macrobius *in Somn.* 1.14.19–20. To some extent these are dependent on earlier and richer versions of the tradition, but extra material has also been incorporated subsequently: not only new doxai, but also earlier ones through retrograde contamination

Wendland, who discovered and analyzed the Philo passage, at (1897) 1095 argued this proves that Philo used Diels' *Vetusta placita*. The Ciceronian and Philonic parallels are particularly important because they prove the indebtedness of A to a shared *anterior* tradition, just as in ch. 4.2 (where see at Commentary B), and then in chs. 4.5, 4.7, and as especially in 4.9, where the parallels with Cicero show the same sort of dependence on an anterior tradition as in chs. 4.2–3. In general see Mansfeld (1990a) 3065–3085 (Aëtius and a number of parallel passages), plus 3117–3121 (Philo) and 3126–3131 (Cicero); cf. above ch. 2.11, Commentary B and ch. 4.2, Commentary B, and below, ch. 4.5, Commentary B.

(2) *Sources.* The name-labels and earlier versions of the contents of four lemmata are found at various places in Aristotle *de An.* 1.2, and they occur in the virtually the same relative order (in Aristotle, Critias is last): §5 Democritus ~ Arist. *de An.* 1.2 403b31–404a5, §8 Diogenes ~ 405a21–22, §13 Critias ~ 405b5–6, §14 Heraclitus ~ 405a25–27. The contrast between corporeal and (almost) incorporeal soul too is already found in this chapter of Aristotle; also see the

announcement *de An.* 1.2 404b30–405a2, quoted section E(b) General texts. So the situation is analogous to that in ch. 4.2, where see at Commentary B.

C Chapter Heading

In P only; no variants (S subsumes the material under the general title used for ch. 4.2). Because of its further specification it is more informative than the umbrella heading of ch. 4.2. Note the limitation to the question type or category of οὐσία, substance, and the precise reference to the dominant attribute of corporeality (which shows that substance is here corporeal, not incorporeal as in the previous chapter). For οὐσία compare the headings of chs. 1.22, 1.26, 1.28, 2.11 (where see discussion at Commentary C), 2.13, 2.20, 2.25, and 5.3. For chapter headings with εἰ compare 1.5, 2.3, 2.4, 2.9, 4.9, 4.15, 4.20, 5.4, 5.5, 5.15, and 5.20 and above, ch. 1.1 Commentary A.

D Analysis

a Context

This is the second of the twenty-three chapters dealing with the human soul from various systematic points of view, and the second dealing with the soul *per se*. It is the counterpart of 4.2 on the incorporealist doxai (where see Commentary D(a) on the wider context and D(c) on rationale) and complements the account of ‘what’ the soul ‘is’ by dealing with the corporealist views. It is followed by 4.4, on the parts of soul. For the Stoic syllogisms concerned with the corporeality of the soul that are appended to the corporealist doxai elsewhere, viz. in the parallel passages in Tertullian and Nemesius see below, (e) other evidence.

b Number–Order of Lemmata

The relative order is the same in all three sources, so the lemmatic order of the chapter as restored (which only *ad finem* differs from that of Diels in the *DG*, who has the Heraclitus lemma not in the final position but as no. 12) is virtually independent from the lemmata contents, though encouragingly confirmed by them. P₂ (Anaxagoras) + P₃ (Stoics) + P₄ (Democritus) correspond with S₁ (Anaximenes Anaxagoras Archelaus Diogenes) + S₂ (Stoics) + S₄ (Democritus), as well as with T₁ (Anaximenes Anaximander Anaxagoras Archelaus) + T₂ (Stoics). All sources have an Epicurus lemma at or near the end, viz. at P₅, T₅, and S₁₀. T₄ (Heraclides) corresponds with S₅ (Heraclides), and is found in the same relative location. Nem provides the parallel for the Heraclitus lemma (P₆) in final position. Why the Heraclitus lemma is absent in S is not immediately clear. Perhaps the reason is that the final lemma of the series of excerpts from A 4.3 in S, with name-label Epicurus, is followed by a brief quotation from

Plato and a short abstract as well as a series of substantial ones from Hermetic literature (1.49.1b = first sentence of *Corpus Hermeticum* fr. xix; 1.49.2 = Pl. *Phdr.* 247c; 1.49.3 = *CH* fr. xx; 1.49.4 = *CH* fr. xvii; 1.49.5 = *CH* fr. iii; and 1.49.6 = *CH* fr. xix Nock and Festugière). This material may have made the Heraclitus lemma seem superfluous.

c Rationale–Structure of Chapter

The chapter, like ch. 4.2 with which it should be studied in tandem, deals with the question-types ‘what is it?’ and ‘how is it?’, or the categories of substance, quantity and quality, and provides several answers. This derives from Aristotle’s agenda, see *de An.* 1.1 402a7–8, and for further details above, ch. 4.2, Commentary D(c). As is clear from the contents of the doxai and the summary at ch. 4.3.1, the present chapter lists a selection of corporealist doctrines, which are opposed to the incorporealist doctrines found in 4.2. These two chapters are analysed at Mansfeld (1990a) 3065–3085 and compared with the wider tradition (esp. Cicero) *ibid.* 3122–3131 and 3118–3121 (Philo). The set of corporeal substances involved recalls those found in ch. 1.3 on the principles (and elements) and the cosmological chs. 2.11, 2.13, 2.20, and 2.25. When the soul consists of (a) corporeal substance(s), these are related to or even derived from substances to be found in the world outside.

Ch. 4.3 consists of three individual lemmata and two blocks. The first lemma provides the explicit link with the previous chapter by summarizing its contents. The two blocks are arranged according to number, i.e. the category of quantity: the doxai of the first block, §§2–9 (plus §10) are about a single substance or, as in the Democritus lemma, a homogeneous compound, while those of the second block, §§11–13, are about a mixture, or blend, of four (§11 plus §12 as emended) respectively two (§13) substances. Thus the basic diaeresis of the chapter is one between monists and pluralists which, as we have seen at ch. 1.3 Commentary D(c) and ch. 1.7 Commentary D(c), also holds for the original structure of the chapter on the *archai*, and for the second part of the chapter on the gods. The arrangement itself, however, which at §13 turns into a descending series, is not what one would expect, although a series of lemmata in first ascending and then descending order, the change in number being accompanied by an additional aspect, is once also found elsewhere in the *Placita*, namely at ch. 3.9.1–3, ‘one–two–one-and-finite’. Also compare ch. 4.4.1–7 with Commentary D(c), and ch. 4.8.1–4 with Commentary D(c)§§1–6, and for the descending order ch. 1.11.2–5 with Commentary D(c). The Empedocles lemma (§12) as emended and containing a wet element is placed between the Epicurus lemma (§11), where no wet element is listed, and the Critias lemma (§13), which refers not only to blood but cryptically also to ‘moisture’ in general. Perhaps the

phrase καὶ ἐξ ὑγροῦ should not be translated as ‘and from moisture’ but as ‘that is, from moisture’: blood is a liquid. The lemmata sequence is further determined by a diaeresis according to substance.

§10, which is about a single substance, ends the series of the monists plus the quasi-monist Democritus, so appropriately comes at the end of the first main part of the chapter. The doxographer then begins afresh with the pluralists. The order two–four has been dispreferred in favour of four–two because (and this is the second reason for not interfering) the final lemma, §14 Heraclitus, is now smoothly associated with the penultimate lemma, §13 Critias, because the ‘moistures’ (ὑγρῶν) of the former connect up with the ‘moisture’ (ὑγροῦ) of the latter. In the context of the present series of chapters the Heraclitean doxa is exceptional in that it not only speaks of human souls but also mentions the Soul of the cosmos (the only precise parallel for the latter formula in A is 1.7.8 at S 1.1.29b7, while the equivalent formula ‘Soul of the All’ is found in the Heraclitus lemma at ch. 4.7.2). Its position at the end of the chapter is therefore fully justified. It links up with ch. 4.4.8, also a final lemma, and with 4.7.2, which is also about individual souls in relation to a general Soul.

The doxai of the monists of the first block are ordered by a diaeresis (in the sense of an ordered list) according to the nature of the elements, or substances, at issue. The chief division is between §§2–5, substances leading up to or related to fire on the one hand, and on the other imitating a *descensus* from periphery to centre, §6 (aetherial?) light, §7 fire, §8 air, and §9 water. For §10 see below, further comments.

The linkage between the lemmata at §§2–5 is noteworthy: the air-like substance of §2 Anaximenes Anaximander Anaxagoras Archelaus Diogenes links up with the warm *pneuma* of §3 the Stoics, while the warmth of this *pneuma* preludes upon the fiery substance of §4 Parmenides and Hippasus, the homogeneous fiery mixture of §5 Democritus (and the fire of §7 Leucippus). The Milesians will be first for diadochical reasons, as is more often the case.

Also note the explicit connection between §2 σῶμα, §5 σῶμα, and §11 σώματος, which ensures that we do not forget that the chapter is about the corporealists.

d Further Comments General Points

The opposition corporealists vs. incorporealists derives from Aristotle *de An.* 1.2 404b30–31 quoted section E(b) General texts, see Mansfeld (1990a) 3072, 3204, M–R. 2.57–58, and is found in numerous dialectical-doxographical parallels, see material in Mansfeld (1990a) 3065–3085, and above, ch. 4.2 Commentary B and D(c). The explicit reference at §1 to the incorporeals echoes part of the diaeresis

as expressed in parallel sources. See also Dörrie–Baltes (2002), texts 1.2–12, rich commentary 1.145–170 (on Cicero *Tusc.* 1.18–22, Macrobius *in Somn.* 1.14.19–20 and Nem *NH* 2 p. 16.12–17.14).

Individual Points

§2 Diels believed that the name-label Diogenes (S only) had been interpolated from §8 below, but there is a difference between ‘airy’ and ‘air’ affording a measure of pseudoprecision, so this part of the lemma may derive from a slightly different interpretation of Diogenes of Apollonia, or (perhaps mistakenly or) *more doxographico* pertain to Diogenes of Babylonia. It seems more prudent to preserve it. Cf. Commentary D(d) at A 4.9.9 below. The presence here of the name-labels Anaximenes and Diogenes is what one would expect, unlike that of Anaximander (to whom a view associated with his follower Anaximenes is attributed, a not uncommon procedure), while Anaxagoras and in his wake Archelaus are seen as successors of Anaximenes. The quasi-information provided by the lemma is taken at face value by Congourdeau (2007) 133–134.

§3 The passage at Diogenes Laertius *V.P.* 7.156–157 is almost exactly parallel. For the intelligent *pneuma* cf. ch. 4.8.1.

§§4 & 14 Heraclitus: The attribution of more than one view to one philosopher in a single chapter is paralleled elsewhere in A, see e.g. the examples cited at M.-R. 2.2.523. So we prefer to keep T’s additional name-label ‘Heraclitus’, which is moreover confirmed by Tertullian *de An.* 5.

§4 The attribution to Parmenides of a fiery soul may be (but may also not be) a far echo of Theophrastus’ claim that ‘the better and purer understanding derives from the hot’ (*Sens.* 3).

§5 Democritus: the formula ‘things which are perceptible by reason (alone)’ at a first glance may suggest that the substance is incorporeal, but its fiery power entails explicitly that it is corporeal. This had to be said or needed to be emphasized, hence the addition of the final clause. The formula is found eight times in P, seven times in S, and often elsewhere. Presumably Epicurean coinage, e.g. *Ep.Hdt.* at D.L. 10.47, so never intended to apply to the incorporeal.

§6 aetherial(?) light: cf. Plutarch *De E* 390A τὸν δὲ πέμπτον (sc. κόσμον) οὐρανὸν οἱ δὲ φῶς, οἱ δ’ αἰθέρα καλοῦσιν, οἱ δ’ αὐτὸ τοῦτο πέμπτην οὐσίαν.

§8 That the soul is air is also attributed to Heraclitus ‘according to some’ (i.e. Aenesidemus) at Tertullian. *de An.* 9.5 (Aenesidemus fr. B26 Polito, quoted section B(a)§2) and Sextus Empiricus *M.* 9.360. (But two Heraclitean doxai in this chapter will have been enough for A.)

§9 Thales is not mentioned because he has been converted into an incorporealist; see above, ch. 4.2, Commentary D(d) at §1. That he is an incorporealist

is also the view of Simplicius (perhaps Priscianus) *in de An.* 31.24–26 quoted above, ch. 4.2, section E(b)§1, while John Philoponus *in de An.* 86.23–34, quoted below section E(b)§9, not unreasonably speculates that Aristotle declined to attribute a gross materialist tenet to Thales and so refrained from attributing the view that the soul consists of water to him.

§10 Xenarchus is to be dated between ca. 85 BCE and the beginning of the Common Era, see Strabo 14.5.4, Diels *DG* 100, Moraux (1973) 1.197, Falcon (2012) 11–12. So he is even somewhat later than Posidonius and Asclepiades, the last authorities to be mentioned elsewhere in A, and the last in the so-called *Vetusta placita* according to Diels *DG* 185, who therefore believes, *ibid.* 100, 184, that the lemma with name-label Xenarchus is a later (i.e. in his view Aëtian) addition, foreign to the earlier and according to him better tradition he baptized *Vetusta placita*. Moraux, o.c. 207, believes that Xenarchus like Alexander of Aphrodisias argued that the soul is inseparable from the body, but the wording of the lemma (μετὰ τοῦ σώματος συντεταγμένην) seems to be against this.

The present passage is the earliest instance of this combination of the terms εἶδος, τελειότης, and ἐντελέχεια, paralleled only in Alexander of Aphrodisias, *De anima* (cf. Falcon 2012, 133) and ps.Alexander *De anima mantissa*; see below at section E(b)§10. This shows on the one hand how carefully the doxographer composed this abstract, and on the other what Alexander's formula owes to his Peripatetic predecessors.

At *de An.* 19.21–23 Alexander mentions—and subsequently refutes—the view of unidentified opponents who say that ‘the soul is the *form* of the body, but make it one of the *corporeal* components of the living being, such as fire or air’ (οἱ δὲ λέγοντες εἶδος μὲν εἶναι τὴν ψυχὴν τοῦ σώματος, ἐν δέ τι τῶν ὑποκειμένων ἐν τῷ ζῳῷ σωμάτων ποιοῦντες αὐτήν, οἷον πῦρ ἢ ἄερα ἢ τι ἄλλο). He may very well have Xenarchus (and his Peripatetic colleagues) in mind. The assumption that the soul qua εἶδος is corporeal is evidence of Stoic influence (see e.g. Alex. *Mixt.* 226.10–14 = *SVF* 2.1047), and is of course at odds with the views of Aristotle and Alexander.

But it is also possible that Xenarchus' view was considered by A to be a compromise position between corporeal and incorporeal and therefore quoted at the end of the series of corporealist monists, see Mansfeld (1990a) 3093. For Alexander's view that the soul supervenes upon the blend of the corporeal elements see Donini (1970).

§11 The references to the perceptive part (αἰσθητικόν) and perception (αἴσθησις) anticipate the treatment of αἴσθησις in chs. (4.4 and) 4.8–12. The reference to the *pneuma* as causing movement is the only mention of movement in the present chapter, while in the previous chapter this concept plays a quite

important part (explicitly at 4.2.1–5). The first Lucretian text quoted at section E(b)§11 is closer to Aristotle's description of Democritus' view cited there, §5, than to Epicurus' doctrine.

Pace Scalas (2015), Hippolytus' testimony that the soul according to Epicurus consists of blood is just one of his inaccuracies.

§§12–13 The Empedocles doxa as transmitted by T alone, which has the soul consist of a blend of the fiery and the aerial element, is unique. A blend of an aetherial and an airy substance is only attested for the moon, see Philo *Somn.* 1.145 (*SVF* 2.674), *κράμα ... ἔκ τε αἰθερώδους οὐσίας καὶ ἀερώδους*; for the doctrine cf. ch. 2.25.4, the moon as *μικτὴν ἐκ πυρὸς καὶ ἀέρος*. The other secondary evidence attributes to Empedocles (and sometimes to Critias as well) the tenet that the soul is blood. In the Empedocles doxa at ch. 4.5.8 the regent part is said to be blood, which flatly contradicts the doxa of ch. 4.3.12 as transmitted by T. We believe that the way out is to emend the text, following Diels' emendation in DK (not in the *DG*) of a similarly mutilated Empedocles lemma at P 5.25.4 (quoted above among the *Loci Aetiani*), and to add the watery and earthy components. This emendation of P 5.25.4 has been missed by Mau and Lachenaud. It has been noticed and rejected by others, who however are unaware of the presence of the word *ἀερώδους* at ch. 4.3.12 and have neglected the latter lemma. For *ἀερώδης* in Empedoclean doxai see also chs. 4.22.1 and 5.15.3, and for all the adjectives at ch. 5.25.4. The contradiction with ch. 4.5.8 now disappears, when we recall that according to Empedocles as reported by Theophrastus (*Sens.* 10–11) the blood 'we chiefly think with' consists of a blend of the (four) elements (*κεκράσθαι τὰ στοιχεῖα*), that according to the verbatim fragment 31B05.3 DK this blend will be most perfect in the region of the heart, and that according to another verbatim fragment (31B109 DK) 'we see earth with earth, water with water, shining aether with aether, but destroying fire with fire, love with love, and sorry strife with strife'. The latter is paraphrased by Theophrastus (*Sens.* 10, 'listing how we recognize each with each'), who quotes 31B107 as its sequel. Aristotle *de An.* 1.2 404b13–15, who quotes B109 in full, introduces the lines with the words 'Empedocles thought that the soul is *composed of all the elements* (*ἐκ τῶν στοιχείων πάντων*, our emphasis), and believes that each of these is a soul' (i.e. that each has a cognitive capacity). We may safely assume that the lemma (as restored above) derives from this Aristotelian introduction and Theophrastean discussion of what is Empedocles' original doctrine. The corporeal Empedoclean soul here figures as a blend of the physical elements, that is, of the famous 'four'.

We assume that T just omitted the two heavier elements, which perhaps he found insufficiently psychic. Or perhaps a partly parallel Pythagorean tenet in the *Pythagorica Hypomnemata* at Diogenes Laertius *V.P.* 8.28 may help explain

the omission. This makes the soul a blend of warm and cold aither: εἶναι δὲ τὴν ψυχὴν ἀπόσπασμα αἰθέρος καὶ τοῦ θερμοῦ καὶ τοῦ ψυχροῦ. Also compare a rather late passage, ps.Galen (i.e. Porphyry) *Ad Gaurum* ch. 11.3, who says that the soul upon entering the body may have attracted and so brings along ‘something aetherial or pneumatic or airy’ (διὰ τὸ εἶναι ἐγκόσμιος ἐφέλκοιτό τι σῶμα αἰθερώδεις ἢ πνευματώδεις ἢ ἀερώδεις). However this may be, we may safely restore the text of A, mutilated by T, by means of Diels’ emendation of the lemma in P 5.25.

The doxa attributed to Critias in T alone is singular too, for in a ‘blend of blood and moisture’ the moisture seems to be superfluous. Presumably what we have here is a fabricated doxa. That the name-labels Empedocles and Critias are cited together is paralleled in those doxographical passages where the same tenet is attributed to both, viz. Galen *PHP* 2.8.47, αἱμά ... τὴν ψυχὴν, ὡς Ἐμπεδοκλῆς καὶ Κριτίας ὑπέλαβον, and Macrobius in *Somn.* 1.14.20, *Empedocles et Critias sanguinem*. John Philoponus in *de An.* 9.19–21 notoriously even goes so far as to attribute Empedocles fr. B105.3 DK to Critias.

§14 Polito’s suggestion (2014) 336 that this passage attributes to Heraclitus the exhalation of soul from blood and seawater is too specific.

One of the ancestors of §14 Heraclitus is Aristotle’s relatively modest note on the Ephesian at *de An.* 1.2 405a25–27, ‘and Heraclitus says the principle is soul, since it is the evaporation (ἀναθυμίασις) from which he constructs the other things; and it is most incorporeal and forever streaming’. Note that at *de An.* 1.5 411a7–8, ‘and some say that it is intermingled in the universe, which presumably is why Thales though all things are full of gods’, he does not mention Heraclitus among those who think so (see above, ch. 4.2, Commentary D(d)§1). But we may believe that he has him in mind, and also thinks of Diogenes of Apollonia, whose air is mentioned *de An.* 1.2 405a21–24 immediately before the passage about the exhalation as the principle of soul in Heraclitus, and whose role as principle of all things and as the cause that makes the soul possess knowledge is attested for us e.g. at 64B4 DK, ‘humans and the other living being live by breathing in the air, and that is for them both soul and thought’. Theophrastus said of Diogenes that ‘the air inside perceives as it is a portion of the god’ (μόριον τοῦ θεοῦ, *Sens.* 42), see Burkert (2011) 474. Presumably Aristotle also has Democritus in mind, whose view that the outside air contains soul particles which we inhale when breathing is described both at *de An.* 1.4 403b31–404a16 and *Resp.* 4 471b30–472a26. He goes on to argue against the view that soul pervades the universe, *de An.* 1.5 411a9–13: ‘why does the soul fail to create a living being when it is in air or fire, but does so only when in a mixture of elements—and one also may wonder why soul in air is purer and less mortal than that in living beings’. This makes it all the more interesting that at *De generatione animalium* 3.11 762a18–

21, explaining spontaneous generation, he says that ‘in a way all things are full of soul (τρόπον τινὰ πάντα ψυχῆς εἶναι πλήρη), since animals and plants are formed in the earth and in the water because in earth water is present, and in water *pneuma* is present, and in all *pneuma* soul-heat is present’. The contradiction is perhaps weakened by the fact that in the latter passage the elements are mixed. On this mysterious *pneuma* and the difficulties of Aristotle’s view see Kullmann (2007) 422 and esp. (2014) 222–226.

For *anathymiasis* and the relation of soul to moisture one should compare the difficult fragments Heraclitus 22B36 DK, ‘for souls it is death that water is born, for water death that earth is born, and from earth water is born, and from water a soul’, and 22B12 DK, transmitted by AD on Cleanthes on Zeno (AD fr. 39 Diels, *SVF* 1.141 and 1.519), esp. the final clause of its Heraclitean ingredient: ‘souls too are evaporated from the moistures’.

Matters paradoxically become clearer the farther away from Heraclitus one gets. The first text that is close to §14, though it by no means speaks of a World Soul or of a Soul of the Whole or the All, tells us that according to some of his followers (note the τινές) ‘the exhalation in the body occurs in the same way as in the cosmos’, ps.Aristotle *Probl.* 13.6 908a30–31, ‘just as some of Heraclitus’ followers say that evaporation occurs, just as in the Whole, so also in the body’ etc. (fr. 66 (f³) Marcovich). What we have here is already a *Heraclitus interpretatus*, and this group of followers may well be later than Aristotle. The term World Soul (§14 τὴν ... τοῦ κόσμου ψυχὴν) is not found in the parallel to §14 in Nemesius, who however has the equivalent formula first found Plato *Tim.* 41d4–5, and then, in our context, in the Heraclitus lemma at A 4.7.2, viz. τὴν ... τοῦ παντὸς ψυχὴν. The attribution to Heraclitus of something like a Soul (or soul) beyond the body, or rather of a ‘regent part’ that is ‘outside’, is found Tertullian *de An.* 15.4, ‘that you refrain from believing that this regent part operates outside (as) according to Heraclitus’, so this was already a part of the Heraclitus material in the earlier doxographical tradition. Sextus Empiricus *M.* 7.349, ‘others believe that (the understanding) is outside the body, like Aenesidemus according to Heraclitus’ (fr. B24A Polito), specifies that this interpretation is linked with Aenesidemus. Also see *M.* 7.129–134 (fr. B29 Polito), which attributes to Heraclitus the view that we become intelligent by breathing in the Divine *Logos*, in a passage often believed to derive from Aenesidemus.

In our present context we do not have to analyse the development of this interpretative attitude, but may observe that its various instances are not so easily harmonized. See e.g. Waszink (1947) 227; Mansfeld (1990a) 3066 with n. 18, 3164 with n. 517, 3166, also on Aenesidemus; Polito (2004) and Betegh (2007), who deal with Heraclitus’ soul-stuff outside the human body; general overview of Aenesidemus on Heraclitus on soul at Polito (2014) 320–331, 335–

339; and Mansfeld (2015c). Ch. 4.7.2 should also be compared; this tenet goes a significant step further by speaking of a return of Heraclitean souls to the Soul of the All. Though according to the verbatim fragments of Heraclitus there is something out there that is both dominant and rational (e.g. 22B32, B64 DK), the uninhibited use of the concept of a World Soul, of which human souls are parts, shows the mark of an *interpretatio Stoica*. See also Calcidius in *Tim.* c. 251 (*SVF* 2.1198), ‘with the Stoics’ consent Heraclitus links our reason with the divine reason’.

The affinity between human souls and a super-Soul is indeed attested abundantly for the Stoics, and the return of the souls to this super-Soul (as at 4.7.2) is also explicitly attributed to some among them, see AD fr. 39 Diels (*SVF* 2.821), ‘they say there is a Soul in the Whole, which they call aether and air, surrounding in a circle land and sea and exhaled from these [...]. Some say that the Soul of the Whole is everlasting, and that in the end the rest are commingled with it’. These ‘some’, presumably, are Cleanthes and his followers, for according to Cleanthes all souls survive until the *ekpyrosis*, while Chrysippus accorded this privilege only to the souls of the wise, Diogenes Laertius *V.P.* 7.157 (*SVF* 1.522 = 2.811). For the affinity and the parts (not the return) see also Diogenes Laertius *V.P.* 7.156 (*SVF* 2.774), ‘it (sc. the animal soul) is destructible, but that of the Whole, of which those in living beings are parts, is indestructible’.

At ch. 4.3.14 (and 4.7.2) the human soul is said to be *ὁμογενῆ*, ‘of the same kind’ as that of the cosmos. Although one of the questions formulated by Aristotle *de An.* 1.1 402b1–3 is ‘whether every soul is of the same kind (πότερον ὁμοειδὴς ἅπασα ψυχῇ) or not; and if not, whether the difference is one of species (εἶδει) or of genus (γένει)’, the context shows that he does not think of human souls in relation to a super-Soul, but of the different souls of various species of animals, of that of man, of a god (and surely even of plants), and esp. of the three main types of soul: vegetative, aesthetic, rational. See Aristotle *de An.* 2.3 414a29–b33, and Alexander *de An.* 16.18–17.1; the three types of soul are not ὁμοειδεῖς.

e Other Evidence

Nem *NH* c. 2, p. 17 10–14 provides a further elaboration of §14, distinguishing between (1) those who speak of a single soul of all things that fragments itself into individual beings and comes together again towards itself, as do the Manichaeans and others, (2) those who say there are many souls, different as to species (e.g. Aristotle), and (3) those who say there is one soul as well as many (sc. Plato, see *NH* p. 33.20 Morani).

We should also refer to a series of Stoic syllogisms in Tertullian—attributed to Zeno, Cleanthes, and Chrysippus—that follow paragraphs dealing with the

various doxai concerned with the incorporeality vs. the corporeality of the soul. These syllogisms prove to Tertullian's satisfaction that the soul is corporeal. There are important parallels in Nem, who however argues in some detail in favour of the incorporeality of the soul. At Tert. *de An.* 5.1–2 we have two series of doxai corresponding to those at A 4.2–3 (in that order), immediately followed, at *de An.* 5.3–6, by four Stoic syllogisms (~ *SVF* 1.137: Zeno; *SVF* 1.518: Cleanthes, two syllogisms; *SVF* 2.791: Chrysippus). In Nemesius' much longer account we have two series of doxai corresponding to those at A 4.3–2 (in the order as reversed by him) at *NH* p. 16.12–17.10, followed at some distance by the two syllogisms of Cleanthes and that of Chrysippus, announced p. 20.12–14: Cleanthes at p. 20.14–17 + 21.6–9 (~ *SVF* 1.518), Chrysippus at p. 22.3–6 (~ *SVF* 1.137, 2.790). The conclusion in our view can only be that both Tertullian and Nemesius derive from an *uberior fons*, that is, from an earlier representative of the doxographical tradition, which had already been updated by the insertion of Stoic syllogisms as an appendix to a plurilemmatic chapter on the corporeality of the soul, just as A is updated by the addition of the two Stoic chapters 4.11–12 after 4.9–10.

Similar Stoic *Wandersyllogismen* are quoted elsewhere. A variety of Cleanthes' first argument is attributed to Panaetius at Cicero *Tusc.* 1.79 (T 120 Alesse); this is about the immortality not the (in)corporeality of the soul, two themes that are of course related, see, e.g. Cic. *Tusc.* 1.18–25, Macrobi. *in Somn.* 1.14.20 *obtinuit non minus de incorporalitate eius quam de immortalitate sententia*, Aug. *Trin.* 10.vii.17–25, Gal. *Propr.Plac.* 3.1, 7.1, 7.4, καθάπερ οὖν (οὐ χρήσιμον) ἱατρῶ πε(ρὶ τοῦ)το γινώσκειν εἴτ' ἀθάνατός ἐστιν ἢ ψυχὴ εἴτ' οὐκ ἀθάνατος ..., οὕτω καὶ περὶ τῆς οὐσίας αὐτῆς εἴτ' ἀσώματός ἐστιν παντάπασιν ... εἴτε σωματοειδῆς κτλ. Arguments concerned with corporeality are cited anonymously and briefly at Alexander of Aphrodisias *de An.Mant.* 117.9–11 (corresponding to the second syllogism of Cleanthes) and 117.21–23 (corresponding to that of Chrysippus), cf. *SVF* 2.792. Such syllogisms are also cited much later at Calc. *in Tim.* c. 220: one attributed to Zeno (~ *SVF* 1.138), but corresponding to that of Chrysippus, and one attributed to Chrysippus (not in *SVF*). The context in ps.Alexander is not doxographical, that in Calcidius only to some extent. The quotations concerning the corporeality of the soul in ps.Alexander and Calcidius, which differ among themselves, may derive from a handbook. A handbook may also have been the source of a doxographical predecessor of A used by Tertullian and Nemesius. See further Waszink (1947) 127–129, Dörrie (1959) 131–140, Sharples (2008) 162–164, and for an overview of various suggestions concerning the sources issue Sharples–Van der Eijk (2008) 57 n. 277. In our view the varieties of attribution, formulation, and scope suggest the influence of intermediary sources, but to some extent they also depend on the aims of the quoting authors.

E Further Related Texts

a Proximate Tradition

General texts: (see also above at ch. 4.2 section E(a) General texts) **Lucretius** *DRN* 3.161–167 *haec eadem ratio naturam animi atque animai / corpoream docet esse; ubi enim propellere membra, / corripere ex somno corpus mutareque vultum / atque hominem totum regere ac versare videtur, / quorum nil fieri sine tactu posse videmus / nec tactum porro sine corpore, nonne fatendumst / corporea natura animum constare animamque?* **Cicero** *Luc.* 124 *si simplex* (sc. the soul), *utrum sit ignis an anima an sanguis an ut Xenocrates* (cf. ch. 4.2.4) *numerus nullo corpore, quod intellegi quale sit vix potest.* **Philo of Alexandria** *Cher.* 114 τίς δέ ἐστι τὴν οὐσίαν (sc. of the soul), ἔχομεν εἰπεῖν; **Pollux** *Onomast.* 2.226 (**Soranus de An.** fr. 13[b] Podolak) ἔστιν ἡ ψυχὴ πνεῦμα ἢ πῦρ ἢ αἶμα ἢ ὃ τι ἂν δοκῇ τοῖς σοφοῖς. **Tertullian** *de An.* 5.1–5 (details see below). **Lactantius** *Op.D.* 17.2 Perrin *quid autem sit anima nondum inter philosophos convenit, nec umquam fortasse conveniet. alii sanguinem esse dixerunt, alii ignem, alii ventum, unde anima vel animus nomen accepit, quod graece ventus ἀνεμος dicitur: nec illorum tamen quisquam dixisse aliquid videtur.* **Servius auctus** in *Aen.* 1.98, p. 49.12–15 ‘effundere’ *secundum eos qui dicunt sanguinem esse animam, ut ipse alibi* (*Aen.* 9.347) ‘*purpuream vomit ille animam*’. *nam alio loco aliorum opinionem sequitur, qui dicunt spiritum esse animam, unde est* (*Aen.* 4.705) ‘*atque in ventos vita recessit*’. **Macrobius** in *Somn.* 1.14.19–20 *non ab re est ut haec de anima disputatio in fine sententias omnium qui de anima videntur pronuntiassent contineat. ... Hippocrates* (sc. dixit animam essentiam) *spiritum tenuem per corpus omne dispersum, Heraclides Ponticus* (fr. 98b Wehrli, 46B Schütrumpf) *lucem, Heraclitus physicus* (22A15 DK) *scintillam stellaris essentiae, Zenon* (*SVF* 1.137) *concretum corpori spiritum, Democritus* (68A103 DK) *spiritum insertum atomis hac facilitate motus ut corpus illi omne sit pervium, (20) Critolaus Peripateticus* (fr. 17 Wehrli) *constare eam de quinta essentia, Hipparchus* [here as elsewhere mistake for Hippasus, 18.9 DK] *ignem, Anaximenes* (fr. 117 Wöhrle) *aëra, Empedocles* (—) *et Critias* (—) *sanguinem, Parmenides* (—) *ex terra et igne, Xenophanes* (21A50 DK) *ex terra et aqua, Boethos* (*SVF* 3 Boeth. 10) *ex aëre et igne, Epicurus* (fr. 314 Usener) *speciem ex igne et aëre et spiritu mixtam.* **Calcidius** in *Tim.* cc. 213–235 (details see below). **Ambrose of Milan** *de Is.* 2.4 *non ergo sanguis anima, quia carnis est sanguis, neque armonia* (cf. ch. 4.2.7) *anima, quia et huiusmodi armonia carnis est, neque aer anima, quia aliud est flatilis spiritus, aliud anima, neque ignis anima, neque entelechia* (cf. ch. 4.2.6) *anima, sed anima est vivens, quia factus est Adam in animam viventem, eo quod insensibile atque exanimus corpus anima vivificet et gubernet.* **Augustine** *de Trin.* e.g. (other examples see below) 10.10.5–8 *Mountain–Glorie* *neque enim omnis mens aërem se existimat, sed aliae ignem, aliae cerebrum, aliaeque aliud corpus et aliud aliae sicut supra* (sc. *de Trin.* 10.7.2–33) *commemoravi.* *de Trin.* 10.10.32–37 *utrum enim aëris sit vis videndi, reminiscendi, intelligendi, volendi, cogitandi, sciendi, iudicandi; an ignis, an cerebri, an sanguinis, an atomorum, an praeter usitata quattuor*

elementa quinti necscio cuius corporis, an ipsius carnis nostrae compago vel temperamentum (cf. ch. 4.2.7) *haec efficere valeat dubitaverunt homines, et alius hoc, alius illud affirmare conatus est.* **ps.Galen** *HPh* c. 24, p. 613.13 οἱ δὲ σῶμα.

§2 **Anaximenes Anaximander Anaxagoras Archelaus Diogenes: Cicero** *Luc.* 124 *an anima.* *Tusc.* 1.19 *animum alii autem animam, ut fere nostri.* *Tusc.* 1.40 *sive illi sint animales, id est spirabiles.* *Tusc.* 1.60 *sive anima ... sit animus.* **ps.Galen** *Def.Med.* 19.355.11–12 K. κατὰ δὲ τοὺς Στωϊκοὺς (SVF 2.780) σῶμα λεπτομερές ἐξ ἑαυτοῦ κινούμενον κατὰ σπερματικούς λόγους. **Tertullian** *de An.* 9.5 (Soranus *de An.* fr. 6 Podolak) *non, ut aër sit substantia eius, etsi hoc Aenesidemo* (fr. B26 Polito) *visum est et Anaximeni* (fr. 58 Wöhrle), *puto secundum quosdam et Heraclito* (fr. 116 (b) Marcovich). **Lactantius** *Op.D.* 17.2 Perrin *alii ventum, unde anima vel animus nomen accepit quod graece ventus ἀνεμος dicitur.* *Op.D.* 17.5 *at illi ventum putant, hoc falluntur quod ex aëre spiritum ducentes vivere videmur.* Varro ita definit: *'anima est aër conceptus ore, deferrefactus in pulmone, temperatus in corde, diffusus in corpore'*. **Macrobius** *in Somn.* 1.14.20 *Anaximenes* (fr. 117 Wöhrle) *aëra.*

§3 **Stoics: Cicero** *Tusc.* 1.42 *animus ... ex inflammata anima constat, ut potissimum videri constat Panaetio* (T 119 Alesse). *Tusc.* 1.65 *si deus aut anima aut ignis est, idem est animus hominis.* *Tusc.* 1.70 *sed ... fac spirabilem.* **Pollux** *Onom.* 2.226 πνεῦμα. **Tertullian** *de An.* 5.2–3 (Soranus *de An.* fr. 2 Podolak) *sed etiam Stoicos* (SVF 2.773) *allego, qui spiritum praedicantes animam paene nobiscum, qua proxima inter se flatus et spiritus, tamen corpus animam facile persuadebunt.* (3) *denique Zeno* (cf. SVF 1.137), *consitum spiritum* (sc. πνεῦμα σύμφυτον) *animam definiens etc.* **Diogenes Laertius** *VP.* 7.156–157 τὴν δὲ ψυχὴν αἰσθητικὴν (φύσιν add. ab Arnim non prob. Dorandi). ταύτην δὲ εἶναι τὸ συμφυές ἡμῖν πνεῦμα· διὸ καὶ σῶμα εἶναι. (157) Ζήνων δ' ὁ Κιτιεύς (SVF 1.135) καὶ Ἀντίπατρος (SVF 3 Ant. 49) ἐν τοῖς Περὶ ψυχῆς καὶ Ποσειδωνίου (F 139 E.-K., 390 Theiler) πνεῦμα ἐνθερμον εἶναι τὴν ψυχὴν· τούτῳ γὰρ ἡμᾶς εἶναι ἔμπρους καὶ ὑπὸ τούτου κινεῖσθαι (cf. ch. 4.6). **Macrobius** *in Somn.* 1.14.19 *Zenon* (SVF 1.137) *concretum corpori spiritum.* **Calcidius** *in Tim.* c. 221 *ergo spiritum animam esse dicentes corpus esse animam plane fatentur* (SVF 2.796, 2.879). **ps.Galen** *HPh* c. 24, p. 613.13–14 πνεῦμα γὰρ εἶναι ταύτην ὑπενόησαν καὶ οὗτοι (sc. Ζήνων καὶ οἱ ἐξ αὐτοῦ (—)). **Suda** s.v. Ψ 164, p. 4.852.19 Adler ψυχῇ πνεῦμα νοερόν.

§4 **Parmenides Hippasus Heraclitus: Priscian** *Inst.Gramm.* at *Gr.Lat.* 2.341.20–21 Keil *simplex Ennius* (Varia fr. 51 Vahlen) *protulit in Epicharmo* (23B48 DK): *'terra corpus est, at mentis ignis est' pro mens.* **Cicero** *Luc.* 124 *utrum sit ignis.* *Tusc.* 1.19 *Zenoni Stoico* (SVF 1.134) *animus ignis videtur.* *Tusc.* 1.40 *sive ignei.* *Tusc.* 1.60 *sive ignis sit animus.* *Tusc.* 1.70 *sed fac igneam.* **Tertullian** *de An.* 5.2 (Soranus *de An.* fr. 2 Podolak) *ut Hipparchus* [thus as often instead of Hippasus, 18.9 DK] *et Heraclitus* (T 650 Mouraviev) *ex igne.* **Lactantius** *Op.D.* 17.2 Perrin *alii ignem.* **Macrobius** *in Somn.* 1.14.19 *Heraclitus physicus* (22A15 DK) *scintillam stellari essentiae.* 1.14.20 *Parmenides* (28A45

DK) *ex terra et igne*. **Augustine de Trin.** 10.7.12–13 Mountain–Glorie *alii ignem substantiam eius esse dixerunt*.

§5 **Democritus:** **Cicero Tusc.** 1.22 *Democritum* (fr. 449 Luria) ... *levibus et rotundis corpusculis efficientem animum concursu quodam fortuito*. **Tusc.** 1.42 *illam ... individuorum corporum levium et rutundorum concursionem fortuitam, quam tamen Democritus (—) concalefactam et spirabilem, id est animale, esse volt*. **Diogenes Laertius V.P.** 9.44 (on Democritus, 68A1 DK) τὸν τε ἥλιον καὶ τὴν σελήνην ἐκ τοιούτων λείων καὶ περιφερῶν ὄγκων συγκεκρίσθαι, καὶ τὴν ψυχὴν ὁμοίως. **Calcidius in Tim.** c. 215 *aut ignitae atomi iuxta Democritum (—), qui ex isdem corporibus et ignem et animam censet excudi*. **Macrobius in Somn.** 1.14.19 *Democritus* (68A103 DK) *spiritum insertum atomis hac facilitate motus ut corpus illi omne sit pervium*. **Augustine de Trin.** 10.7.10–12 Mountain *alii ex minutissimis individuisque corpusculis, quas atomos dicunt, concurrentibus in se atque cohaerentibus, eam confici crediderunt*.

§6 **Heraclides:** **Tertullian de An.** 9.5 (**Soranus de An.** fr. 6 Podolak) *nec ut lumen, etsi hoc placuit Pontico Heraclidi* (fr. 98c Wehrli, 46C Schütrumpf). **Lactantius Op.D.** Perrin 17.3 *videtur ergo anima similis esse lumini, quae non ipsa sit sanguis, sed umore sanguinis alatur ut lumen oleo*. **Macrobius in Somn.** 1.14.19 *Heraclides Ponticus* (fr. 98b Wehrli, 46B Schütrumpf) *lucem*.

§7 **Leucippus:** **Pollux Onom.** 2.226 ἡ πύρ. **Lactantius Op.D.** 17.2 Perrin *alii ignem*. **Macrobius in Somn.** 1.14.20 *Hipparchus* [thus as often instead of Hippasus] *ignem ...* **Augustine de Trin.** 10.7.12–13 Mountain–Glorie *alii ignem substantiam eius esse dixerunt*. **Ambrose of Milan de Is.** 4, p. 645.3 Schenkl. **Ep.** 21.1.4 *Faller aut ignem*.

§8 **Diogenes of Apollonia:** **Ambrose of Milan de Is.** 2.4, p. 645.2–3 Schenkl *neque aër anima, quia aliud est flatilis spiritus, aliud anima*. **Augustine de Trin.** 10.7.12–13 Mountain *Glorie alii aërem ... substantiam eius esse dixerunt*. **de Trin.** 10.10.1–3 *cum ergo verbi gratia mens aërem se putat, aërem intellegere putat, se tamen intellegere scit; aërem autem se esse non scit sed putat*.

§9 **Hippo:** **Tertullian de An.** 5.2 (**Soranus de An.** fr. 2 Podolak) *ut Hippon (—) et Thales* (fr. 221 Wöhrle) *ex aqua*. **Hippolytus Ref.** 1.16.2 (Hippo 38A3 DK) τὴν δὲ ψυχὴν ποτὲ μὲν ἐγκέφαλον λέγει, ποτὲ δὲ ὕδωρ· καὶ γὰρ τὸ σπέρμα εἶναι τὸ φαινόμενον ἡμῖν ἐξ ὕγρου, ἐξ οὗ φησι ψυχὴν γίνεσθαι.

§10 **Xenarchus Peripatetics:** **Tertullian de An.** 5.2 (**Soranus de An.** fr. 2 Podolak) *ut Critolaus* (fr. 17 Wehrli) *et Peripatetici eius ex quinta nescio qua substantia (si et illa corpus, quia corpora includit)*. **Iamblichus de An.** fr. 3 *Finamore–Dillon at Stob. Ecl.* 1.49.32, p. 363.19–21 ὥς δὲ τῶν Ἀριστοτελικῶν τινες ὀφηγούνται, εἰδὸς ἐστὶ τὸ περὶ τοῖς σώμασιν ... ἢ ποιότης οὐσιώδης τελεία. **de An.** fr. 9 *Finamore–Dillon at Stob.* 1.49.32, pp. 367.26–368.2 ἔτεροι (sc. τῶν Ἀριστοτελικῶν) δὲ τελειότητα αὐτὴν ἀφορίζονται κατ' οὐσίαν τοῦ θεοῦ σώματος, ἣν ἐντελέχειαν καλεῖ Ἀριστοτέλης, ὥσπερ δὴ ἐν ἐνίοις Θεόφραστος (fr. 269 FHS&G).

§11 **Epicurus:** **Lucretius DRN** 3.161–176 *haec eadem ratio naturam animi atque animai / corpoream docet esse etc.* **Capitula Lucretiana** at **DRN** 3.94

de animi et animae natura sensuque. at DRN 3.136 *animum et animam coniuncta esse.* at DRN 3.228 *tertiam anima esse mentem.* at DRN 3.241 *quartam sine nomine animam.* at DRN 3.624 *de sensibus animae et animi.* **Tertullian** *de An.* 5.2 (**Soranus de An.** fr. 2 Podolak) *ut Epicurus (—) ex atomis (si et atomi corpulentias de coito suo cogunt).* **Macrobius in Somn.** 1.14.20 *Epicurus* (fr. 215 Usener) *speciem ex igne et aëre et spiritu mixtam.* **Calcidius in Tim.** c. 215 *vel id ipsum atomi casu quodam et sine causa concurrentes in unum et animam creantes, ut Epicuro (—) placet, ob similitudinem atomorum, quarum una commota omnem spiritum, id est animam, moveri simul.* differently **ps.Galen HPh** c. 24, *DG* p. 613.11–12 Ἐπίκουρος (—) δὲ τὸν ἐφελκόμενον ἔξωθεν ἀέρα διὰ τῆς εἰσπνοῆς τὴν ψυχὴν ὑπέλαβεν. also differently **Hippolytus Ref.** 1.22.5 (fr. 340 Usener) τὰς δὲ ψυχὰς τῶν ἀνθρώπων λύεσθαι ἅμα τοῖς σώμασιν, ὥσπερ καὶ συγγενῆσθαι αὐτοῖς τίθεται· αἷμα γὰρ αὐτὰς εἶναι.

§§12–13 **Empedocles Critias: Cicero** *Luc.* 124 *an sanguis.* **Tertullian de An.** 5.2 (**Soranus de An.** fr. 2 Podolak) *ut Empedocles (—) et Critias (—) ex sanguine.*

§12 **Empedocles: Iamblichus de An.** fr. 2 Finamore–Dillon at Stob. *Ecl.* 1.49.32, pp. 363.11–18 τινὲς εἰς τὰς τῶν τεσσάρων στοιχείων ἀρχὰς τὴν οὐσίαν τῆς ψυχῆς ἐπαναφέρουσιν. εἶναι μὲν γὰρ τὰ πρῶτα σώματα ἄτομα, πρὸ τῶν τεσσάρων στοιχείων στοιχειωδέστερα· ... ταῦτα τοίνυν ἄπειρα ἔχουν σχήματα, ἐν δὲ αὐτῶν εἶναι τὸ σφαιροειδές, ἀπὸ δὲ τῶν σφαιροειδῶν ἀτόμων εἶναι τὴν ψυχὴν.

§13 **Critias: Cicero** *Tusc.* 1.19 *Empedocles animum esse censet cordi suffusum sanguinem* (sc. αἷμα περικάρδιον, 31B105.3 DK). *Tusc.* 1.41 *aut in Empedocleo (—) sanguine.* *Luc.* 124 *an sanguis.* **Pollux Onom.** 2.226 ἢ αἷμα. **Lactantius Op.D.** 17.2 *Perrin alii sanguinem esse dixerunt.* **Macrobius in Somn.** 1.14.20 *Empedocles (—) et Critias (—) sanguinem.* **Ambrose of Milan de Noe** 92, p. 478.6–7 *Schenkl ut Critias (—) et eius discipuli, sanguinem esse animam dicentes.* *de Is.* 4, p. 644.23–645.1 *Schenkl non ergo sanguis anima, quia carnis est sanguis.* *Ep.* 21.1.4 *Faller aut sanguinem.* **Augustine de Trin.** 10.7.4 *Mountain alii sanguinem.*

§14 **Heraclitus: Cicero** *ND* 1.27 *Pythagoras (—), qui censuit animum esse per naturam rerum omnem intentum et commeantem, ex quo nostri animi carperentur* (cf. **Arist. de An.** 1.2 404a16–18 εἰκοι δὲ καὶ τὸ παρὰ τῶν Πυθαγορείων λεγόμενον τὴν αὐτὴν ἔχειν διάνοιαν [sc. the same as Democritus]). **Arius Didymus** fr. 39.4 *Diels* at **Eus. PE** 15.20.4 (*SVF* 2.821) εἶναι δὲ ψυχὴν ἐν τῷ ὅλῳ φασίν, ὃ καλοῦσιν αἰθέρα, καὶ ἀέρα κύκλῳ περὶ τὴν γῆν καὶ θάλασσαν, καὶ ἐκ τούτων ἀναθυμιάσεις, τὰς δὲ λοιπὰς ψυχὰς προσπεφυκέναι ταύτῃ, ὅσαι τε ἐν ζώοις εἰσὶ καὶ ὅσαι ἐν τῷ περιέχοντι διαμένειν γὰρ ἐκεῖ τὰς τῶν ἀποθανόντων ψυχὰς. **Tertullian de An.** 3.2 *hi statum eius aliunde (de)ducunt, ... prout ... aut Heracliti* (T 646 Mouraviev) *maeror ... persuaserunt.* *de An.* 15.5 (**Soranus de An.** fr. 13 Podolak) *ut neque extrinsecus agitari putes principale istud secundum Heraclitum* (at fr. 115 Marcovich, p. 395). **Calcidius in Tim.** c. 251 *Heraclitus* (T 778 Mouraviev) *vere consentientibus Stoicis (SVF 2.1198) rationem nostram cum divina ratione conectit* etc.

b Sources and Other Parallel Texts

General texts: Plato *Phd.* 96b καὶ πότερον τὸ αἶμά (Empedocles 31A76 DK) ἐστὶν ᾧ φρονούμεν, ἢ ὁ ἀήρ (cf. Anaximenes 13A23 DK) ἢ τὸ πῦρ (—); ἢ τούτων μὲν οὐδέν, ὁ δ' ἐγκέφαλός ἐστιν ὁ τὰς αἰσθήσεις παρέχων (Alcmaeon 24A11 DK). Aristotle *de An.* 1.2 404b30–405a2 διαφέρονται δὲ περὶ τῶν ἀρχῶν, τίνες καὶ πόσαι, μάλιστα μὲν οἱ σωματικὰς ποιοῦντες τοῖς ἀσώματους, τούτοις δ' οἱ μίξαντες καὶ ἀπ' ἀμφοῖν τὰς ἀρχὰς ἀποφηνάμενοι. Seneca *Nat.* 7.25 *habere nos animum, cuius imperio et impellimur et revocamur, omnes fatebuntur; quid tamen sit animus ille rector dominusque nostri, non magis tibi quisquam expedit quam ubi sit. alius illum dicet spiritum esse, alius concentum quondam* (cf. ch. 4.2.7), *alius vim divinam et dei partem, alius tenuissimum animae, alius incorporalem potentiam* (cf. ch. 4.2); *non deerit qui sanguinem dicat, qui calorem.* Galen *PHP* 7.3.19 δυοῖν θάτερον, εἰ μὲν ἀσώματος ἐστὶν ἡ ψυχὴ, τὸ πρῶτον αὐτῆς ὑπάρχειν (sc. τὸ κατὰ τὰς κοιλίας τοῦ ἐγκεφάλου πνεῦμα), ὡς ἂν εἴποι τις, οἰκητήριον, εἰ δὲ σῶμα, τοῦτ' αὐτὸ, πνεῦμα, τὴν ψυχὴν εἶναι. in *Epid.* vi p. 272.19–25 Wenkebach–Pfaff μέγιστον δ' ἐνταῦθα κινεῖται δόγμα διαπεφωνημένον καὶ αὐτοῖς τοῖς φιλοσόφοις. ἐνιοὶ μὲν ἡγούνται μίαν οὐσίαν εἶναι ψυχῆς τε καὶ φύσεως, οἱ μὲν ἐν τῷ πνεύματι τιθέμενοι τὴν ὑπαρξίν αὐτῶν, οἱ δ' ἐν τῇ τοῦ σώματος ιδιότητι: τινὲς δὲ οὐ μίαν, ἀλλ' ἰδίαν ἑκατέρᾳ τὴν οὐσίαν εἶναι φασὶ καὶ οὐ σμικρῶ δέ τινα διαφερούσας, ἀλλ' ὅλῳ τῷ γένει. *QAM* c. 5, p. 32.5–8 Bazou εἰ μὲν γὰρ εἰδός ἐστὶν ὁμοιομεροῦς σώματος ἡ ψυχὴ, τὴν ἀπόδειξιν ἐξ αὐτῆς τῆς οὐσίας ἔξομεν ἐπιστημονικωτάτην· εἰ δ' ὑποθούμεθα ταύτην ἀσώματον εἶναι φύσιν ἰδίαν ἔχουσαν, ὡς ὁ Πλάτων ἔλεγεν κτλ. *HNH* 15.25.1–12 K. κακῶς δὲ καὶ τῶν ἐξηγητῶν ἐνιοὶ κατεψεύσαντο Ξενοφάνους (—), ὥσπερ καὶ Σαβίνος, ὡδὶ πῶς γράψας αὐτοῖς ὀνόμασιν· οὔτε γὰρ τὸ πάμπαν ἀέρα λέγω τὸν ἀνθρώπον, ὥσπερ Ἀναξίμενης (13A22 DK), οὔτε πῦρ, ὡς Ἡράκλειτος (T 579 Mouraviev), οὔτε ὕδωρ, ὡς Θαλῆς (fr. 182 Wöhrlé), οὔτε γῆν, ὡς ἐν τινι Ξενοφάνη: οὐδαμόθι γὰρ εὐρίσκεται Ξενοφάνης ἀποφηνάμενος οὕτως. ἀλλὰ καὶ ὁ Σαβίνος αὐτὸς εὐδηλὸς ἐστὶν ἐκ τῶν αὐτοῦ καταψευδόμενος, οὐχ ὑπ' ἀγνοίας ἐσφαλμένος· ἢ πάντως ἂν ὀνομαστικῶς προσέγραψε τὸ βιβλίον, ἐν ᾧ ταῦτα ἀπεφνήντο· νῦν δ' οὕτως ἔγραψεν· οὔτε γῆν, ὡς ἐν τινι Ξενοφάνη· καὶ Θεόφραστος (*Phys.Op.* fr. 5a Diels, 231 FHS&G; not in DK) δ' ἂν ἐν ταῖς τῶν Φυσικῶν δοξῶν ἐπιτομαῖς τὴν Ξενοφάνους δόξαν, εἴπερ οὕτως εἶχεν, ἐγεγράφει. *Propr.Plac.* 7, p. 179.16–19 Boudon-Millot–Pietrobelli, text Lami οὕτω καὶ περὶ τῆς οὐσίας αὐτῆς εἴτ' ἀσώματος ἐστὶν παντάπασιν ὡς ὁ Πλάτων ὑπέλαβεν, εἴτε σωματοειδὴς ὡς ὁ Χρῆσιππος οἶεται, πνεῦμα μὲν ἀποφηνάμενος ὑπάρχειν αὐτῇ. Atticus fr. 7.1–9 bis Des Places at Eus. *PE* 15.11.4 (verbatim) τὰ μὲν οὖν ἄλλα ὅσα περὶ αὐτῆς εἰρήκασιν ἄλλοι, αἰσχύνην ἡμῖν φέρει. πῶς γὰρ οὐκ αἰσχροὺς ὁ ἐντελέχειαν τιθεὶς τὴν ψυχὴν λόγος σώματος φυσικοῦ ὀργανικοῦ (cf. ch. 4.2.6); πῶς δὲ οὐκ αἰσχύνης γέμων ὁ πνεῦμά πῶς ἔχον αὐτὴν ἀποδιδούς ἢ πῦρ νοερόν, τῇ περιψύξει καὶ ὅσον βαφῇ τοῦ ἀέρος ἀναφθὲν ἢ στομωθέν, ὅ τε ἀτόμων ἄθροισμα θείας ἢ ὅλως ἀπὸ σώματος αὐτὴν γεννᾶσθαι ἀποφαινόμενος; Longinus fr. 20 Patillon–Brissin, 72(a–c) Männlein–Robert at Eus. *PE* 15.21.1 συνελόντι δ' εἰπεῖν, πόρρω μοι δοκοῦσιν ἀφεστηκέναι τοῦ τὰ δέοντα λογίζεσθαι πάντες ἐφεξῆς ὅπόσοι τὴν ψυχὴν σῶμα ἀπεφνήντο. ποῦ γὰρ ὅλως ἐγχωρεῖ παραπλήσιον εἶναι τινι τῶν στοιχείων τὸ κατ' αὐτὴν θεῖναι, ποῦ δὲ ἐπὶ

τάς κράσεις καὶ μίξεις ἀνενεγκεῖν; ... τῶν δὲ περὶ ψυχὴν ἵχνος οὐδὲν οὐδὲ τεκμήριον ἐν τοῖς σώμασιν εὐρίσκεται, καὶ εἰ φιλοτιμοῖτό τις ὡς Ἐπίκουρος (—) καὶ Χρύσιππος (SVF 2.800) ἅπαντα λίθον κινεῖν καὶ πάσαν ἐρευνᾶν δύναμιν σώματος εἰς γένεσιν τῶν περὶ ψυχῆς πράξεων. **Porphyry de An. adv. Boeth.** (249F Smith) at Eus. *PE* 15.11.4 πῶς δὲ οὐκ αἰσχύνης γέμων ὁ πνεῦμά πως ἔχον αὐτὴν ἀποδιδούς ἢ πῦρ νοερόν (SVF 2.806), τῇ περιψύξει καὶ οἷον βαφῇ τοῦ ἀέρος ἀναφθὲν ἢ στομαθθέν, ὃ τε ἀτόμων ἄθροισμα θεῖς (—) ἢ ὃ ὅλως ἀπὸ σώματος αὐτὴν γεννᾶσθαι ἀποφαινόμενος;

Chapter heading: Porphyry Plot. 24 ἡ δὲ τετάρτη ἐννεὰς ... τὰ περὶ ψυχῆς εἴληχε συγγράμματα. ἔχει δὲ τάδε· α' Περί οὐσίας ψυχῆς πρῶτον· οὐ ἡ ἀρχή· τὴν τῆς ψυχῆς οὐσίαν τίς ποτέ ἐστι. β' Περί οὐσίας ψυχῆς δεῦτερον = **Plotinus Enn.** 4.1.[21]tit., 4.2.[4]tit. **Cassiodorus de An.** c. 4. *De definitione animae*.

§2 **Anaximenes Anaximander Anaxagoras Archelaus Diogenes: Aris-**
totle de An. 1.2 405a21–22 Διογένης (64A20 DK) δ' ὥσπερ καὶ ἑτεροὶ τινες ἀέρα. **Lucretius DRN** 3.44 *aut etiam venti* (sc. animi naturam esse). **Plotinus Enn.** 4.7.[2].6.40 εἴτ' οὖν εἰς ἀέρα. **Iamblichus de An.** fr. 8 Finamore–Dillon at Stob. *Ecl.* 1.49.32, p. 366.16–20 ἢ τὸν ἀναπνεόμενον ἀέρα ψυχὴν νομίζουσιν ὥσπερ Ἀριστοτέλης (*de An.* 1.5 410b26–30) μὲν ἐν τοῖς Ὀρφικοῖς ἔπεισ' (1B1 DK, 421(I) Bernabé) φησι λέγεσθαι τὴν ψυχὴν εἰσιέναι ἐκ τοῦ ὅλου ἀναπνεόντων ἡμῶν φερομένην ὑπὸ τῶν ἀνέμων. **John Philoponus in de An.** 9.9–10 οἱ δὲ ἀερίαν, ὡς Ἀναξίμανης (13A23 DK) καὶ τινες τῶν Στωϊκῶν (—).

§3 **Stoics: Chrysippus de An.** I at Gal. *PHP* 3.1.10 (SVF 2.885, verbatim) ἡ ψυχὴ πνεῦμά ἐστι σύμφυτον ἡμῖν συνεχὲς παντὶ τῷ σώματι διήκον ἔστ' ἂν ἡ τῆς ζωῆς εὐπνοία παρῇ ἐν τῷ σώματι. **Seneca Nat.** 7.25.2 *alius illum dicet spiritum esse*. **Doxography C** (attributed to AD) at Stob. *Ecl.* 2.7.5b7, p. 64.21–23 (SVF 3.305) τὴν γὰρ διάνοιαν καὶ τὴν ψυχὴν σῶμα εἶναι· τὸ γὰρ συμφυὲς πνεῦμα ἡμῖν ἐνθερμον ὃν ψυχὴν ἡγούνηται. **Galen QAM** c. 4, 784.10–12 K. ἡ τῆς ψυχῆς οὐσία κατὰ ποιὰν κράσιν ἀέρος τε καὶ πυρὸς γίγνεται κατὰ τοὺς Στωϊκοὺς (SVF 2.787). *PHP* 7.3.19 εἰ δὲ σῶμα, τοῦτ' αὐτὸ πνεῦμα τὴν ψυχὴν εἶναι. *in Epid.* vi p. 273.2.1–6 Wenkebach–Pfaff τοῖς Στωϊκοῖς (SVF 2.715) δ' ἔθος ἐστὶ φύσιν μὲν ὀνομάζειν, ἢ τὰ φυτὰ διοικεῖται, ψυχὴν δὲ ἢ τὰ ζῶα, τὴν οὐσίαν ἀμφοτέρων μὲν τίθεται τὸ σύμφυτον πνεῦμα καὶ διαφέρειν ἀλλήλων οἶονται ποιότητι· ξηρότερον μὲν γὰρ πνεῦμα τὸ τῆς ψυχῆς, ὑγρότερον δὲ τὸ τῆς φύσεως εἶναι. *Propr.Plac.* 7, p. 179.18–19 Boudon–Millot–Pietrobelli, text Lami εἴτε σωματοειδὴς ὡς ὁ Χρύσιππος οἶεται, πνεῦμα μὲν ἀποφηνάμενος αὐτὴν εἶναι. *Propr.Plac.* 14, p. 188.1 Boudon–Millot–Pietrobelli, text Lami (= *Sub.Nat.Fac.* 4.761.4 K.) τινὲς δὲ πνεῦμα. *SMT* 11.731.3–6 K. οἱ μὲν οὖν Στωϊκοὶ (SVF 2.777) ταῦτόν τοῦτο τὸ πνεῦμα τὴν οὐσίαν τῆς ψυχῆς εἶναι δοξάζουσιν· ἡμεῖς δὲ περὶ οὐσίας ψυχῆς οὔτε πάννυ τι τολμῶμεν ἀποφαίνεσθαι καὶ πρὸς τὰ παρόντα περιττὸν ὑπολαμβάνομεν. **Hierocles ELeth.** col. 3.56–61 Bastianini–Long πρῶτον [το]ῖνυ οὐκ ἀγνοητέον ὡς, | καθάπε[ρ] τὸ σῶμα τοῦ ζ[ώ]ου θικτόν ἐστι, ἵν' οὕτως εἴπω, καὶ | ἀπτόν, οὕτως οἶνυ καὶ ἡ [ψ]υχὴ· καὶ γὰρ αὕτῃ τοῦ γένους ἐστὶ τῶν σω-|μά[των]—ἀλλ' [ἐ]ν [τοῖς] οἰκείοις τοῦτο παρίσταται λό[γοις] ἀν[η]κ[έ]σ[το]ς ἀποφαίνουσι τὰς τῶν ἄλλων | ὑ[πὲρ] τῆς ψ[υχῆς] ἀτο[πίας] λε[γόν]των φοράς. **Alexander of Aphrodisias de An.** 26.16–17 οἱ τε ἀπὸ τῆς Στοᾶς (SVF 2.786), πνεῦμα αὐτὴν λέγοντες εἶναι συγκεϊμένον πως ἔκ τε πυρὸς καὶ

ἀέρος. **Alexander of Aphrodisias**(?) *de An.Mant.* 115.6–7 (SVF 2.785) ἔτι εἰ ἡ ψυχὴ σῶμα, ἢ πῦρ ἢ πνεῦμα λεπτομερές ἐστι διὰ παντός διήκον τοῦ ἐμψύχου σώματος. **Plotinus Enn.** 4.7.[2].3–8 passim. **Porphyry de An. adv. Boeth.** (fr. 249F Smith) at Eus. *PE* 15.11.4 (SVF 2.806) πῶς δὲ οὐκ αἰσχύνῃς γέμων ὁ πνευμά πως ἔχον αὐτὴν ἀποδιδούς ἢ πῦρ νοερόν; **Diogenes Laertius V.P.** 9.19 (on Xenophanes!, 21A1 DK) πρῶτός τε ἀπεφάνητο ὅτι ... ἡ ψυχὴ πνεῦμα. **Cassiodorus de An.** c. 10.1–7 Halporn *De qualitate animae. qualitatem itaque substantiae huius auctores igneam esse dixerunt propterea quod mobili semper ardore vegetetur et iuncta corpori calore suo membra vivificet. deinde quod cuncta caelestia flammis referunt vigore constare, non isto fumeo, consumptibili, et temporali, sed ex tranquillo nutritoque atque immortali.*

§4 Parmenides Hippasus Heraclitus: Theophrastus Sens. 3 Παρμενίδης (28A46 DK) μὲν γὰρ ὅλως οὐδὲν ἀφώρικεν ἀλλὰ μόνον, ὅτι δυοῖν ὄντων στοιχείοι κατὰ τὸ ὑπερβάλλον ἐστὶν ἡ γνῶσις. ἐὰν γὰρ ὑπεραίρη τὸ θερμὸν ἢ τὸ ψυχρόν, ἄλλην γίνεσθαι τὴν διάνοιαν, βελτίω δὲ καὶ καθαρωτέραν τὴν διὰ τὸ θερμόν. **Sextus Empiricus M.** 7.130 (cf. Aenesidemus B29 Polito) ἡ ἐπιξενωθείσα τοῖς ἡμετέροις σώμασιν ἀπὸ τοῦ περιέχοντος μοῖρα. **John Philoponus in de An.** 9.7–9 οἱ δὲ πῦρ, ὡς Ἡράκλειτος (T 969 Mouraviev), ἐπειδὴ καὶ πῦρ ἔλεγεν εἶναι τὴν ἀρχὴν τῶν ὄντων· οὕτως οὖν καὶ τὴν ψυχὴν πυρίαν εἶναι διὰ τὸ εὐκίνητον.

§5/§11 Democritus Epicurus: Papyrus Genevenses inv. 203, B27–29 at *CPF* I.1** p. 6 Democritus 2T σῶμα ἔφασ[αν οἱ περὶ Ἐπίκουρον, καὶ ὁ] | Δημόκριτος [ὁμο]ίως σ[υ]κ[ρ]ιν[ο]μέν[ων ἰ]δεῶν σῶμ[α αὐτῇ]ν (sc. τὴν ψυχὴν) εἶπ[εν]. **Iamblichus de An.** fr. 2 Finamore–Dillon at Stob. *Ecl.* 1.49.32, p. 363.16–17 ἀπὸ δὴ τῶν σφαιροειδῶν ἀτόμων εἶναι τὴν ψυχὴν.

§5 Democritus: Aristotle de An. 1.2 403b31–404a2 Δημόκριτος (fr. 443a Luria) μὲν πῦρ τι καὶ θερμόν φησιν αὐτὴν εἶναι· ἀπείρων γὰρ ὄντων σχημάτων καὶ ἀτόμων τὰ σφαιροειδῆ πῦρ καὶ ψυχὴν λέγει. *Resp.* 4 472a4–6 (Democritus, 68A106 DK) λέγει δ' ὡς ἡ ψυχὴ καὶ τὸ θερμόν ταύτόν, τὰ πρῶτα σχήματα τῶν σφαιροειδῶν. **Theophrastus Sens.** 58 (on Democritus, 68A135 DK) φανερόν, ὅτι τῇ κράσει τοῦ σώματος ποιεῖ τὸ φρονεῖν, ὅπερ ἴσως αὐτῷ καὶ κατὰ λόγον ἐστὶ σῶμα ποιοῦντι τὴν ψυχὴν. **Diogenes Laertius V.P.** 9.44 (on Democritus, 68A1 DK) τὸν τε ἥλιον καὶ τὴν σελήνην ἐκ τοιούτων λείων καὶ περιφερῶν ὄγκων συγκεκρίσθαι, καὶ τὴν ψυχὴν ὁμοίως. (differently *Scholia in Epicurum Ep.Hdt.* 66 at D.L. *V.P.* 10.66 λέγει (fr. 311 Usener) ἐν ἄλλοις καὶ ἐξ ἀτόμων αὐτὴν συγκεῖσθαι λειοτάτων καὶ στρογγυλωτάτων, πολλῶ τινι διαφερουσῶν τῶν τοῦ πυρός.) **Porphyry de An. adv. Boeth.** (fr. 249F Smith) at Eus. *PE* 15.11.4 πῶς δὲ οὐκ αἰσχύνῃς γέμων ... ὅ τε ἀτόμων ἄθροισμα θεῖς; **John Philoponus in de An.** 9.16–19 τῶν δὲ σύνθετον σῶμα ὑπειληφότες οἱ μὲν ἐξ ἀσυνάπτων στοιχείων, ὡς Δημόκριτος καὶ Λεύκιππος (—) καὶ ἀπλῶς οἱ τὰ ἄτομα εἰσάγοντες· ἔλεγον μὲν γὰρ ἀρχὰς τῶν ὄντων τὰ ἄτομα καὶ τὸ κενόν· εἶναι οὖν τὴν ψυχὴν ἐκ σφαιρικῶν ἀτόμων διὰ τὸ εὐκίνητον.

§6 Heraclides: Plutarch Lat. Viv. 1130B (Heraclides Ponticus fr. 100 Wehrli, 48 Schütrumpf) αὐτὴν τε τὴν ψυχὴν ἔνιοι τῶν φιλοσόφων φῶς εἶναι τῇ οὐσίᾳ νομίζουσιν κτλ. **Clement of Alexandria Paed.** 2.2.29.3 οὕτω δ' ἂν καὶ ἡ ψυχὴ ἡμῶν ὑπάρξαι καθαρὰ καὶ ξηρὰ καὶ φωτεινὴ, ἀυγὴ δὲ ψυχὴ ξηρὰ σφωτάτη καὶ ἀρί-

στη' (Heraclitus fr. 68 (a⁷) Marcovich). **John Philoponus** in *An.* 9.5–7 τῶν δὲ ἀπλοῦν σώμα εἰρηκότων τὴν ψυχὴν εἶναι οἱ μὲν εἰρήκασιν αἰθέριον εἶναι σώμα, ταῦτόν δὲ ἐστὶν εἰπεῖν οὐράνιον, ὥσπερ Ἡρακλείδης ὁ Ποντικός (fr. 99 Wehrli, 47 Schütrumpf).

§§8–9 **Diogenes of Apollonia Hippo: Simplicius** (? perhaps Priscianus Lydus) in *de An.* 32.16–20 ἐτίθετο μὲν καὶ Θαλῆς (fr. 423 Wöhrlé) ὕδωρ τὸ στοιχεῖον, ἀλλὰ σωμάτων, καὶ οὐχὶ τὴν ψυχὴν πάντως σώμα ᾤετο. (τὸν) δὲ Ἴππωνα ... φορτικὸν καλεῖ οὐ μόνον ὡς παχυμερέστερον αὐτὴν λέγοντα στοιχεῖον κτλ.

§8 **Diogenes of Apollonia: Aristotle** *de An.* 1.2 405a21–22 Διογένης (64A20 DK) δ' ὥσπερ καὶ ἕτεροί τινες ἀέρα.

§9 **Hippo: Aristotle** *de An.* 1.2 405b1–3 τῶν δὲ φορτικωτέρων καὶ ὕδωρ τινὲς ἀπεφώνησαν, καθάπερ Ἴππων· πεισθῆναι δ' εἰκόσιν ἐκ τῆς γονῆς, ὅτι πάντων ὑγρά. **John Philoponus** in *de An.* 9.10–12 οἱ δὲ ἐξ ὕδατος, ὡς Θαλῆς (fr. 440 Wöhrlé) καὶ Ἴππων (—) ὁ ἐπὶ κλην ἄθεος· ἐπειδὴ γὰρ τὴν γονὴν ἐώρων ἐξ ὑγρᾶς οὕσαν οὐσίαν, διὰ τοῦτο καὶ ὕδωρ τὴν ἀρχὴν τῶν ὄντων ἐνόμισαν. differently in *de An.* 86.23–34 οὐ γὰρ εἶπε φέρ' εἰπεῖν ὅτι Θαλῆς (—) τὸ ὕδωρ ψυχὴν τίθεται καὶ διὰ τοῦτο ἔλκειν φησὶ τὸν σίδηρον τὴν λίθον ὡς ἔμψυχον καὶ διὰ τοῦτο ἐξ ὕδατος οὕσαν. ... διὰ ταῦτα τούτου μὲν οὐ λέγει εἶναι τὴν δόξαν ταύτην ὅτι ἐξ ὕδατος ἡ ψυχὴ, ἀλλὰ τοσοῦτον μόνον ὅτι καὶ αὐτὸς τὴν κίνησιν τῇ ψυχῇ ἀπένειμεν. ἐφεξῆς δὲ Ἴππωνά (—) φησι τοῦτο δοξάσαι ὅτι ἐξ ὕδατος ἡ ψυχὴ· καὶ γὰρ τῶν πάντων ἀρχὴν καὶ αὐτὸς ἔλεγε τὸ ὕδωρ.

§10 **Xenarchus Peripatetics: Galen** *PHP* 7.7.25 εἰ δὲ καὶ περὶ ψυχῆς οὐσίας ἀποφώνασθαι χρή, δυοῖν θάτερον ἀναγκαῖον εἰπεῖν· ἢ τοῦτ' εἶναι τὸ οἶον αὐγοειδὲς τε καὶ αἰθερώδες σώμα λεκτέον αὐτὴν, εἰς δ' καὶ μὴ βούλωνται κατ' ἀκολουθίαν ἀφικνούνται Στωϊκοί (—) τε καὶ Ἀριστοτέλης, ἢ αὐτὴν μὲν ἀσώματον ὑπάρχειν οὐσίαν, ὅχημα δὲ τὸ πρῶτον αὐτῆς εἶναι τοῦτ' ὃ τὸ σώμα δι' οὐ μέσου τὴν πρὸς τὰλλα σώματα κοινωνίαν λαμβάνει. **Alexander of Aphrodisias** *de An.* 16.4–6 τὸ δὲ εἶδος, οὐ ἐστὶν εἶδος, ἐδείχθη καὶ τελειότης ὄν, ἔθος δὲ Ἀριστοτέλει τὴν τελειότητα καὶ ἐντελέχειαν λέγειν. cf. *de An.* 17.12–13. *de An.* 23.30–24.1. **Alexander of Aphrodisias**(?) *de An.Mant.* 103.2–4 ψυχὴ ἄρα ἐστὶν ἡ κατὰ τὸ εἶδος οὐσία. τὸ δὲ εἶδος τελειότητά τε καὶ ἐντελέχειαν ὁ Ἀριστοτέλης λέγει. **Plotinus** *Enn.* 4.7.[2].85.1–50.

§11 **Epicurus: Epicurus** *Ep.Hdt.* at D.L. 10.63 ἡ ψυχὴ σώμα ἐστὶ λεπτομερές ... προσεφερέστατον δὲ πνεύματι θερμοῦ τινα κράσιν ἔχοντι καὶ πῆ μὲν τούτῳ προσεφερές, πῆ δὲ τούτῳ· ἔστι δὲ τι μέρος πολλὴν παραλλαγὴν εἰληφὸς τῇ λεπτομερείᾳ καὶ αὐτῶν τούτων, συμπαθεῖ δὲ τοῦτο μᾶλλον καὶ τῷ λοιπῷ ἀθροίσματι· τοῦτο δὲ πᾶν αἰ δυνάμεις τῆς ψυχῆς δηλοῦσι καὶ τὰ πάθη καὶ αἰ εὐκίνησαι καὶ αἰ διανοήσεις. **Lucretius** *DRN* 3.203–205 *nunc igitur quoniamst animi natura reperta / mobilis egregie, perquam constare necessest / corporibus parvis et levibus atque rutundis.* *DRN* 3.231–242 *nec tamen haec simplex nobis natura putanda est, / tenuis enim quaedam moribundos deserit aura / mixta vapore, vapor porro trahit aëra secum; / ... / (237) iam triplex animi est igitur natura reperta; / nec tamen haec sat sunt ad sensum cuncta creandum, / nil horum quoniam recipit mens posse creare / sensiferos motus et quae quis [Smith, alii alia: quaedam*

codd.] *mente volutat. / quarta quoque his igitur quaedam natura necessest / adtribuatur; east omnino nominis expers.* DRN 3.269–272. **Plutarch** *Adv. Col.* 1118D–E (Epicurus fr. 315 Usener) τὴν οὐσίαν συμπηγνύντες αὐτῆς ἐκ τινος θερμοῦ καὶ πνευματικοῦ καὶ ἀερῶδους οὐκ ἐξικνούνται πρὸς τὸ κυριώτατον ἀλλ’ ἀπαγορεύουσι· τὸ γὰρ ᾧ κρίνει καὶ μνημονεύει καὶ φιλεῖ καὶ μισεῖ, καὶ ὅλως τὸ φρόνιμον καὶ λογιστικὸν ἐκ τινός φησιν ‘ἀκατονομάστου’ ποιότητος ἐπιγίνεσθαι. **Alexander of Aphrodisias** *de An.* 26.17–18 καὶ οἱ περὶ Ἐπίκουρον (—)· καὶ γὰρ κατ’ ἐκείνους σύνθετος ἡ ψυχὴ ἐκ πλειόνων τινῶν καὶ διαφερόντων σωμάτων.

§12 Empedocles: Aristotle *de An.* 1.2 404b11–15 Ἐμπεδοκλῆς (31B109 DK) μὲν ἐκ τῶν στοιχείων πάντων (sc. τὴν ψυχὴν), εἶναι δὲ καὶ ἕκαστον ψυχὴν τούτων, λέγων οὕτως: ‘γαίῃ μὲν γὰρ γαίαν ὁπώπαμεν, ὕδατι δ’ ὕδωρ, / αἰθέρι δ’ αἰθέρα διαν, ἀτὰρ πυρὶ πῦρ αἰδηλον’. **Sextus Empiricus** *M.* 7.115–116 Ἐμπεδοκλῆς δὲ ὁ Ἀκραγαντίνος (—) κατὰ μὲν τοὺς ἀπλούστερον δοκοῦντας αὐτὸν ἐξηγεῖσθαι ἐξ κριτήρια τῆς ἀληθείας παραδίδωσιν. δύο γὰρ δραστηρίους τῶν ὅλων ἀρχὰς ὑποθέμενος, Φιλίαν καὶ Νείκος, ἅμα τε τῶν τεσσάρων μνησθεὶς ὡς ὑλικῶν, γῆς τε καὶ ὕδατος καὶ ἀέρος καὶ πυρός, πάντων ταῦτα ἔφη κριτήρια τυγχάνειν. (116) παλαιὰ γὰρ τις ... ἄνωθεν παρὰ τοῖς φυσικοῖς κυλεῖται δόξα περὶ τοῦ τὰ ὅμοια τῶν ὁμοίων εἶναι γνωριστικά. *M.* 7.121 cites Empedocles 31B109 DK. **Empedocles** 31B105.3 DK αἷμα γὰρ ἀνθρώποις περικάρδιόν ἐστι νόημα. **Theophrastus** *Sens.* 10 (Empedocles 31A86 DK) τῷ αἵματι μάλιστα φρονεῖν· ἐν τούτῳ γὰρ μάλιστα κεκράσθαι {ἐστι} τὰ στοιχεῖα τῶν μερῶν. **Pythagorica Hypomnemata** at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58B1a DK) at D.L. *VP.* 8.28 εἶναι δὲ τὴν ψυχὴν ἀπόσπασμα αἰθέρος καὶ τοῦ θερμοῦ καὶ τοῦ ψυχροῦ. **Diogenes Laertius** *VP.* 9.29 (on Zeno of Elea, 29A1 DK) γεγενῆσθαι δὲ τὴν τῶν πάντων φύσιν ἐκ θερμοῦ καὶ ψυχροῦ καὶ ξηροῦ καὶ ὕγρου, λαμβανόντων αὐτῶν εἰς ἄλληλα τὴν μεταβολήν· ... ψυχὴν κράμα ὑπάρχειν ἐκ τῶν προειρημένων (sc. θερμοῦ καὶ ψυχροῦ καὶ ξηροῦ καὶ ὕγρου) κατὰ μὴδενὸς τούτων ἐπικράτησιν.

§13 Critias: Plato *Phd.* 96b καὶ πότερον τὸ αἷμα (Empedocles 31A76 DK) ἐστὶν ᾧ φρονούμεν. **Aristotle** *de An.* 1.2 405b5–6 ἔτεροι δ’ αἷμα, καθάπερ Κριτίας (see also above §12). **Lucretius** *DRN* 3.43 *animi naturam sanguinis esse.* **Seneca** *Nat.* 7.25.2 *non deerit qui sanguinem dicat.* **Pythagorica Hypomnemata** at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58B1a DK) at D.L. 8.30 τρέφεσθαι τε τὴν ψυχὴν ἀπὸ τοῦ αἵματος. **Galen** *PHP* 2.8.47 αἷμα φησιν εἶναι τὴν ψυχὴν, ὡς Ἐμπεδοκλῆς καὶ Κριτίας ὑπέλαβον (v. also *PHP* 2.8.48 below §14). **Plotinus** *Enn.* 4.7.[2].6.40 εἴτ’ οὖν εἰς αἷμα. **Simplicius** (? perhaps Priscianus Lydus) *in de An.* 32.22 ὁ δὲ τὸ αἷμα τὴν ψυχὴν θέμενος Κριτίας (—) εἶτε ὁ τῶν τριάκοντα γενόμενος εἰς εἶτε σοφιστὴς τις, οὐδὲν ἡμῖν διοίσει. **John Philoponus** *in An.* 9.19–21 οἱ δὲ ἐκ συνημμένων, ὡς Κριτίας ὁ εἰς τῶν τριάκοντα· αἷμα γὰρ ἔλεγεν εἶναι τὴν ψυχὴν· ‘αἷμα γάρ’, φησὶν, ‘ἀνθρώποις περικάρδιόν ἐστι νόημα’ (N.B. = Empedocles 31B105.3 DK).

§14 Heraclitus: Aristotle *de An.* 1.2 405a25–27 καὶ Ἡράκλειτος (T 189 Moutavriev) δὲ τὴν ἀρχὴν εἶναι φησι ψυχὴν, εἴπερ τὴν ἀναθυμίασιν, ἐξ ἧς τὰλλα συνίστησιν· καὶ ἀσωματώτατόν τε καὶ ῥέον αἰεὶ. **ps.Aristotle** *Probl.* 13.6 908a28–34 διὰ τί, ἐάν τις σκόροδα φάγη, τὸ οὖρον ὄζει, ἄλλων δὲ ἐχόντων ἰσχυράν ὁσμὴν οὐκ

ὄξει ἐδεσθέντων; πότερον, ὥσπερ τινὲς τῶν Ἡρακλειτιζόντων (Heraclitus 66 (*f*³) Marcovich) φασὶν ὅτι ἀναθυμιάται, ὥσπερ ἐν τῷ ὄλῳ, καὶ ἐν τῷ σώματι, εἴτα πάλιν ψυχθὲν συνίσταται ἐκεῖ μὲν ὑγρόν, ἐνταῦθα δὲ οὖρον, ἢ ἐκ τῆς τροφῆς ἀναθυμιάσις, ἐξ οὗ ἐγένετο αὕτη συμμιγνυμένη, ποιεῖ τὴν ὁσμὴν; αὕτη γὰρ ἐστίν, ὅταν μεταβάλλῃ. **Aristotle** *de An.* 1.5 410b27–30 τοῦτο δὲ πέπονθε καὶ ὁ ἐν τοῖς Ὀρφικοῖς καλουμένοις ἔπεσι (1B11 DK, 421(I) Bernabé) λόγος· φησὶ γὰρ τὴν ψυχὴν ἐκ τοῦ ὄλου εἰσιέναι ἀναπνεόντων, φερομένην ὑπὸ τῶν ἀνέμων. *de An.* 1.5 411a7–8 καὶ ἐν τῷ ὄλῳ δὴ τινες αὐτὴν μεμῖχθαι φασιν, ὅθεν ἴσως καὶ Θαλῆς (fr. 32 Wöhrlé) ᾤθη ἅπαντα πλήρη θεῶν εἶναι. *de An.* 1.2 404a1–13 (Democritus fr. 200 Luria) πῦρ τι καὶ θερμόν φησιν αὐτὴν (sc. τὴν ψυχὴν) εἶναι· ἀπείρων γὰρ ὄντων σχημάτων καὶ ἀτόμων τὰ σφαιροειδῆ πῦρ καὶ ψυχὴν λέγει (οἷον ἐν τῷ ἀέρι τὰ καλούμενα ξύσματα, ἃ φαίνεται ἐν ταῖς διὰ τῶν θυρίδων ἀκτίσιν), ... διὸ καὶ τοῦ ζῆν ὅρον εἶναι τὴν ἀναπνοήν· συνάγοντος γὰρ τοῦ περιέχοντος τὰ σώματα καὶ ἐκθλίβοντος τῶν σχημάτων τὰ παρέχοντα τοῖς ζῴοις τὴν κίνησιν διὰ τὸ μὴδ' αὐτὰ ἡρεμεῖν μηδέποτε, βοήθειαν γίνεσθαι θύραθεν ἐπεισιόντων ἄλλων τοιοῦτων ἐν τῷ ἀναπνεῖν. *de An.* 1.2 404a16–19 ἔοικε δὲ καὶ τὸ παρὰ τῶν Πυθαγορείων (58B.40 DK) λεγόμενον τὴν αὐτὴν ἔχειν διάνοιαν· ἔφασαν γὰρ τινες αὐτῶν ψυχὴν εἶναι τὰ ἐν τῷ ἀέρι ξύσματα, οἱ δὲ τὸ ταῦτα κινοῦν. *Resp.* 4 472a6–11 (68A106 DK) ἐν γὰρ τῷ ἀέρι πολλὸν ἀριθμὸν εἶναι τῶν τοιούτων ἃ καλεῖ ἐκείνος νοῦν καὶ ψυχὴν· ἀναπνεόντος οὖν καὶ εἰσιόντος τοῦ ἀέρος συνεισιόντα ταῦτα καὶ ἀνείργοντα τὴν θλίψιν κωλύειν τὴν ἐνοῦσαν ἐν τοῖς ζῴοις διέναι ψυχὴν, καὶ διὰ τοῦτο ἐν τῷ ἀναπνεῖν καὶ ἐκπνεῖν εἶναι τὸ ζῆν καὶ ἀποθνήσκειν. *GA* 3.11 762a18–21 γίνεται δ' ἐν γῇ καὶ ἐν ὑγρῷ τὰ ζῶα καὶ τὰ φυτὰ διὰ τὸ ἐν γῇ μὲν ὕδωρ ὑπάρχειν ἐν δ' ὕδατι πνεῦμα, ἐν δὲ τούτῳ παντὶ θερμότητα ψυχικὴν, ὥστε τρόπον τινὰ πάντα ψυχῆς εἶναι πλήρη. **Cleanthes** at *AD* fr. 39 Diels at *Eus. PE* 15.20.2–3 Κλεάνθης (*SVF* 1.519) ... φησιν ὅτι Ζήνων (*SVF* 1.141) τὴν ψυχὴν λέγει αἰσθητικὴν ἀναθυμιάσιν, καθάπερ Ἡράκλειτος· βουλόμενος γὰρ ἐμφανίσαι ὅτι αἱ ψυχαὶ ἀναθυμιώμεναι νοεραὶ αἰεὶ γίνονται, εἵκασεν αὐτάς τοις ποταμοῖς, λέγων οὕτως· 'ποταμοῖσι τοῖσιν αὐτοῖσιν ἐμβαίνουσιν ἔτερα καὶ ἔτερα ὕδατα ἐπιρρεῖ· καὶ ψυχαὶ δὲ ἀπὸ τῶν ὑγρῶν ἀναθυμίωνται' (22B12 DK). ἀναθυμιάσιν μὲν οὖν ὁμοίως τῷ Ἡρακλείτῳ τὴν ψυχὴν ἀποφαίνει Ζήνων, αἰσθητικὴν δὲ αὐτὴν εἶναι διὰ τοῦτο λέγει ὅτι τυποῦσθαί τε δύναται τὸ μέρος τὸ ἡγούμενον αὐτῆς ἀπὸ τῶν ὄντων καὶ ὑπαρχόντων διὰ τῶν αἰσθητηρίων καὶ παραδέχεσθαι τὰς τυπώσεις. **Diogenes of Babylon** at *Gal. PHP* 2.8.44 (*SVF* 3 *Diog.* 30, verbatim) 'τό' φησι 'κινοῦν τὸν ἄνθρωπον τὰς κατὰ προαίρεσιν κινήσεις ψυχικὴ τίς ἐστίν ἀναθυμιάσις, πᾶσα δὲ ἀναθυμιάσις ἐκ τῆς τροφῆς ἀνάγεται, ὥστε τὸ κινοῦν πρῶτον τὰς κατὰ προαίρεσιν κινήσεις καὶ τὸ τρέφον ἡμᾶς ἀνάγκη ἐν καὶ ταῦτόν εἶναι.' **Manilius** 4.884–885 ... *nostrumque parentem / pars sua perspicimus genitique accedimus astris*. **Seneca** *Dial.* 8.5.5 *an illud verum sit quo maxime probatur homines divini esse spiritus, partem ac veluti scintillas quasdam astrorum in terram desiluisse atque alieno loco haesisse*. **Plutarch** *Virt. Mor.* 441F ἢ τ' ἀνθρώπου ψυχὴ μέρος ἢ μίμημα τῆς τοῦ παντὸς οὐσα. *CN* 1084F–1085A (*SVF* 2.847) φαντασία γὰρ τις ἢ ἔννοια ἐστίν, φαντασία δὲ τύπωσις ἐν ψυχῇ· ψυχῆς δὲ φύσις ἀναθυμιάσις, ἣν τυπωθῆναι μὲν ἐργῶδες διὰ μανότητα δεξιμένην δὲ τηρῆσαι τύπωσιν ἀδύνατον. ἢ τε γὰρ τροφή καὶ ἡ γένεσις αὐτῆς ἐξ (1085A) ὑγρῶν οὐσα συνεχῇ τὴν ἐπιφορὰν ἔχει καὶ τὴν ἀνάλωσιν, ἢ τε πρὸς τὸν ἀέρα τῆς ἀνα-

πνοῆς ἐπιμιξία καινὴν αἰεὶ ποιεῖ τὴν ἀναθυμίασιν, ἐξισταμένην καὶ τρεπομένην ὑπὸ τοῦ θύραθεν ἐμβάλλοντος ὀχετοῦ καὶ πάλιν ἐξιόντος. **ps.Plutarch** *Hom.* 2 c. 127, 1406–1408 Kindstrand αὐτὴν δὲ ψυχὴν οἱ Στωικοὶ (—) ὀρίζονται πνεῦμα (ἡμῖν) συμφυὲς καὶ ἀναθυμίασιν αἰσθητικὴν, ἀναδιδομένην ἀπὸ τῶν ἐν τῷ σώματι ὑγρῶν. **Marcus Aurelius** 5.33 αὐτὸ δὲ τὸ ψυχάριον ἀναθυμιάσις ἀφ’ αἵματος. **Galen** *PHP* 2.8.48 εἰ δέ γε ἔπειτο (sc. Diogenes of Babylon, *SVF* 3 Diog. 30) Κλεάνθει (*SVF* 1.521) καὶ Χρυσίππῳ (—) καὶ Ζήνωνι (*SVF* 1.140) τρέφεσθαι μὲν ἐξ αἵματος φήσαντι τὴν ψυχὴν, οὐσίαν δ’ αὐτῆς ὑπάρχειν τὸ πνεῦμα (see also *PHP* 2.8.47 above §12). *Ut.Resp.* 5.502.6–8 K. καίτοι καὶ τῆς τοῦ αἵματος ἀναθυμιάσεως οὐκ ἀπεικὸς αὐτὸ (sc. τὸ ψυχικὸν πνεῦμα) τρέφεσθαι, καθάπερ καὶ πολλοὶς (*SVF* 2.782) ὅσοι γὰρ οἴονται τὴν ψυχὴν εἶναι πνεῦμα, διασώζεσθαι λέγουσιν αὐτὴν ἐκ τε τῆς ἀναθυμιάσεως τοῦ αἵματος καὶ τοῦ κατὰ τὴν εἰσπνοὴν ἀέρος ἐλκομένου διὰ τῆς τραχείας ἀρτηρίας εἶσω τοῦ σώματος. **Sextus Empiricus** *M.* 7.127–129 ἀρέσκει γὰρ τῷ φυσικῷ (sc. Ἡρακλείτῳ, 22A16 DK) τὸ περιέχον ἡμᾶς λογικὸν τε ὃν καὶ φρενῆρες. ... (129) τοῦτον οὖν τὸν θεῖον λόγον καθ’ Ἡράκλειτον δι’ ἀναπνοῆς σπᾶσαντες νοεροὶ γινόμεθα, καὶ ἐν μὲν ὕπνοις ληθαῖοι, κατὰ δὲ ἔγερσιν πάλιν ἔμφρονες κτλ. *M.* 7.349 οἱ μὲν ἐκτὸς τοῦ σώματος (sc. εἶναι τὴν διάνοιαν), ὡς Αἰνησίδημος (fr. B29 Polito) κατὰ Ἡράκλειτον (T 689 Mouraviev). *M.* 8.286 καὶ μὴν ῥητὸς ὁ Ἡράκλειτός (T 690 Mouraviev) φησὶ τὸ μὴ εἶναι λογικὸν τὸν ἄνθρωπον, μόνον δ’ ὑπάρχειν φρενῆρες τὸ περιέχον. *M.* 9.337 ὁ δὲ Αἰνησίδημος (fr. B25 Polito) κατὰ Ἡράκλειτον (T 698 Mouraviev) καὶ ἑτερόν φησὶ τὸ μέρος τοῦ ὅλου καὶ ταυτόν· ἡ γὰρ οὐσία καὶ ὅλη ἐστὶ καὶ μέρος, ὅλη μὲν κατὰ τὸν κόσμον, μέρος δὲ κατὰ τὴν τοῦδε τοῦ ζώου φύσιν. **Alexander of Aphrodisias** in *Phys.* lib. 4, *schol.* 47* Rashed οἱ Στωικοὶ ... τὸν δὲ νοῦν ἔλεγον εἶναι τὸ λεπτομερές πνεῦμα τὸ διὰ πάντων διήκον καὶ συνέχον πάντα· ὃ δὴ καὶ ψυχὴν τοῦ κόσμου ἔλεγον καὶ πλείους ψυχὰς ἐν ἐκάστῳ εἶναι, μίαν μὲν τὴν ὡς φύσιν καὶ μέρος τῆς τοῦ παντὸς ψυχῆς, ἄλλην δὲ τὴν οἰκείαν ἐκάστου. **Longinus** fr. 20 Patillon–Brisson (= 72(e) Männlein–Robert) at Eus. *PE* 15.21.3, cf. at Theod. *CAG* 5.27 Ζήνωνι (*SVF* 1.139) μὲν γὰρ καὶ Κλεάνθει (*SVF* 1.520) νεμεσήσειε τις ἂν δικαίως οὕτως σφοδρὰ ὑβριστικῶς περὶ αὐτῆς διαλεχθεῖσι καὶ ταῦτόν ἄμφω τοῦ στερεοῦ σώματος [*sic*] εἶναι τὴν ψυχὴν ἀναθυμίασιν φήσασι. τί γὰρ, ὦ πρὸς θεῶν, κοινὸν ὅλων ἀναθυμιάσει καὶ ψυχῇ; **Themistius** in *de An.* 13.26–28 καὶ Ἡράκλειτος (T 764 Mouraviev) δὲ ἣν ἀρχὴν τίθεται τῶν ὄντων, ταύτην τίθεται καὶ ψυχὴν· πῦρ γὰρ καὶ οὗτος. τὴν γὰρ ἀναθυμίασιν ἐξ ἧς τὰ ἄλλα συνίστησιν οὐκ ἄλλο τι ἢ πῦρ ὑποληπτέον, τοῦτο δὲ καὶ ἀσώματον καὶ ῥέον αἰεὶ. **Simplicius** (? perhaps Priscianus Lydus) in *de An.* 31.26–30 σαφὴ δὲ τὰ περὶ Διογένοους (—) ἱστορημένα. περὶ δὲ Ἡρακλείτου (T 955 Mouraviev) συλλογιζομένῳ ἔοικεν, οὐχ ὡς σαφῶς λέγοντος πῦρ ἢ ἀναθυμίασιν ξηρὰν τὴν ψυχὴν, ἀλλ’ ὡς τοῦ πυρὸς πρὸς τῷ λεπτομερεῖ καὶ τὸ εὐκίνητον ἔχοντος καὶ τῷ κινεῖσθαι τὰ ἄλλα κινουντος, καὶ διὰ ταῦτά {τε} τῇ ψυχῇ προσήκοντος ὡς διὰ παντὸς τοῦ ζώντος ἰούσης σώματος καὶ ὡς τῷ κινεῖσθαι κινήτικῃ καὶ ἔτι ὡς γνωστικῇ. κτλ. **John Philoponus** in *de An.* 87.10–13 (Heraclitus T 972A Mouraviev) εἰρηται πολλὰκις ὅτι ἀρχὴν ἔλεγεν εἶναι τῶν ὄντων οὗτος τὸ πῦρ, πῦρ δὲ οὐ τὴν φλόγα· ὡς γὰρ Ἀριστοτέλης (cf. *GC* 2.3 330b25–26, *Mete.* 1.3 340b23–24) φησὶν, ἡ φλόξ ὑπερβολὴ ἐστὶ πυρός· ἀλλὰ πῦρ ἔλεγε τὴν ξηρὰν ἀναθυμίασιν· ἐκ ταύτης οὖν εἶναι καὶ τὴν ψυχὴν ὡς εὐκινήτου καὶ λεπτομερεστάτης κτλ.

Diogenes of Apollonia 64B4 DK ἄνθρωποι γὰρ καὶ τὰ ἄλλα ζῶα ἀναπνέοντα ζῶει τῷ ἀέρι. καὶ τοῦτο αὐτοῖς καὶ ψυχὴ ἐστὶ καὶ νόησις. **Theophrastus Sens.** 42 (**Diogenes of Apollonia** 64A19 DK) ὁ ἐντὸς ἀήρ αἰσθάνεται μικρὸν ὢν μόνιον τοῦ θεοῦ. **Xenophon Mem.** 1.4.8 σὺ δὲ σαυτῷ δοκεῖς τι φρόνιμον ἔχειν; ἄλλοθι δὲ οὐδαμοῦ οὐδὲν οἶει φρόνιμον εἶναι; καὶ ταῦτ' εἰδὼς ὅτι γῆς τε μικρὸν μέρος ἐν τῷ σώματι πολλῆς οὔσης ἔχεις καὶ ὕγρου βραχὺ πολλοῦ ὄντος καὶ τῶν ἄλλων δῆπου μεγάλων ὄντων ἐκάστου μικρὸν μέρος λαβόντι τὸ σῶμα συνήρμοσταί σοι· νοῦν δὲ μόνον ἄρα οὐδαμοῦ ὄντα σε εὐτυχῶς πως δοκεῖς συναρπάσαι, καὶ τάδε τὰ ὑπερμεγέθη καὶ πληθὺς ἅπειρα δι' ἀφροσύνην τινά, ὥς οἶει, εὐτάκτως ἔχειν; **Plato Phlb.** 30a τὸ παρ' ἡμῖν σῶμα ἄρ' οὐ ψυχὴν φήσομεν ἔχειν;—δηλον ὅτι φήσομεν.—πόθεν, ὦ φίλε Πρωταρχε, λαβόν, εἴπερ μὴ τό γε τοῦ παντὸς σῶμα ἔμψυχον ὃν ἐτύγχανε, ταυτὰ γε ἔχον τούτῳ καὶ ἔτι πάντῃ καλλίονα; **Pythagorica Hypomnemata** at Alex. Polyh. fr. 9 Giannatasio Andria (**Pythagorei** 58B1a DK) at D.L. 8.30 τρέφεσθαι τε τὴν ψυχὴν ἀπὸ τοῦ αἵματος. at D.L. 8.32 εἶναι τε πάντα τὸν ἀέρα ψυχῶν ἔμπλεων. **Diogenes Laertius V.P.** 1.7 (on the Magi, Arist. fr. 36 R³) ἀλλὰ καὶ εἰδῶλων πλήρη εἶναι τὸν ἀέρα, κατ' ἀπόροισιν ὑπ' ἀναθυμιάσεως εἰσκρινομένων ταῖς ὀψεσι τῶν ὀξυδερκῶν. **Plotinus Enn.** 4.3[27].1.17–33 νῦν δὲ πάλιν ἐπανίσταμεν ἐπὶ τοὺς λέγοντας ἐκ τῆς τοῦ παντὸς ψυχῆς καὶ τὰς ἡμετέρας εἶναι. ... παραθήσονται δὲ καὶ Πλάτων (cf. **Phlb.** 30a, **Tim.** 30b) τοῦτο δοξάζοντα, ὅταν πιστούμενος τὸ πᾶν ἔμψυχον εἶναι λέγῃ, ὥς σῶμα μέρος ὃν τοῦ παντὸς τὸ ἡμέτερον, οὕτω καὶ ψυχὴν τὴν ἡμετέραν μέρος τῆς τοῦ παντὸς ψυχῆς εἶναι. καὶ τὸ συνέπεσθαι δὲ ἡμᾶς τῇ τοῦ παντὸς περιφορᾷ καὶ λεγόμενον καὶ δεικνύμενον ἐναργῶς εἶναι, καὶ τὰ ἦθη καὶ τὰς τύχας ἐκείθεν λαμβάνοντας εἴσω τε γενομένους ἐν αὐτῷ ἐκ τοῦ περιέχοντος ἡμᾶς τὴν ψυχὴν λαμβάνειν. καὶ ὅπερ ἐπὶ ἡμῶν μέρος ἕκαστον ἡμῶν παρὰ τῆς ἡμετέρας ψυχῆς λαμβάνει, οὕτω καὶ ἡμᾶς ἀνὰ τὸν αὐτὸν λόγον μέρη πρὸς τὸ ὅλον ὄντας παρὰ τῆς ὅλης ψυχῆς μεταλαμβάνειν ὡς μέρη.

Liber 4 Caput 4

P^B: ps.Plutarchus *Plac.* 898E–F; pp. 389^a8–390^a23 Diels—**P^E**: Eusebius *PE* 15.60 pp. 420.21–421.10 Mras—**P^Q**: Qustā ibn Lūqā pp. 192–193 Daiber
S: Stobaeus *Ecl.* 1.49.7a, p. 325.7–8 + 1.50.35, p. 477.18–19 Wachsmuth
T: Theodoretus *CAG* 5.19–21 pp. 127.14–128.8 Raeder
Cf. ps.Iustinus *Coh.* 6.2.17–21 Marcovich; Nem: Nemesis *NH* c. 15 p. 72.4–20 Morani

Titulus δ'. Περὶ μερῶν ψυχῆς (P,S)

- §1 Πυθαγόρας Πλάτων κατὰ μὲν τὸν ἀνωτάτω λόγον διμερῆ τὴν ψυχὴν, τὸ μὲν γὰρ ἔχειν λογικὸν τὸ δ' ἄλογον· κατὰ δὲ τὸ προσεχές καὶ ἀκριβές τριμερῆ, τὸ γὰρ ἄλογον διαιροῦσιν εἰς τε τὸ θυμικὸν καὶ τὸ ἐπιθυμητικόν. (P₁,T₁) 5
- §2 Ξενοκράτης τὸ μὲν αἰσθητικόν, τὸ δὲ λογικόν. (T₂)
- §3 Ἀριστοτέλης πέντε ἐνεργείας, τὴν ὀρεκτικὴν, τὴν θρεπτικὴν, τὴν αἰσθητικὴν, τὴν μεταβατικὴν, τὴν διανοητικὴν. (T₃)
- §4 οἱ Στωικοὶ ἐξ ὀκτῶ μερῶν φασι συνεστάναι, πέντε μὲν τῶν αἰσθητικῶν, ὁρατικοῦ ἀκουστικοῦ ὀσφρητικοῦ γευστικοῦ ἀπτικοῦ, ἔκτου δὲ φωνητικοῦ, ἐβδόμου δὲ σπερματικοῦ, ὀγδόου δ' αὐτοῦ τοῦ ἡγεμονικοῦ, ἀφ' οὗ ταῦτα πάντα ἐπιτέταται διὰ τῶν οἰκείων ὀργάνων, προσφερῶς ταῖς τοῦ πολυποδος πλεκτάναις. (P₂,T₄) 10
- §5 Ἀπολλοφάνης (ἐξ ἑνῆα μερῶν φησι τὴν ψυχὴν συνεστάναι). (S₁)
- §6 οἱ δὲ γε Πυθαγόρου διάδοχοι ἐκ πέντε στοιχείων τὸ σῶμα κραθῆναι φάντες—τοῖς γὰρ τέτταρσι ξυνέταξαν τὸ αἰθέριον—ἰσαριθμούς εἶναι ἔφασαν ταύτῃ καὶ τῆς ψυχῆς τὰς δυνάμεις· καὶ ταύτας ὠνομάκασιν νοῦν καὶ φρόνησιν καὶ ἐπιστήμην καὶ δόξαν καὶ αἴσθησιν. (T₅) 15

§1 Pythagoras Plato cf. e.g. *Resp.* 4 439d–e; §2 Xenocrates fr. 70 Heinze, F 126 Isnardi Parente²; §3 cf. Arist. *de An.* 2.2 413b11–13, 2.3 414a31–32; §4 Stoici *SVF* 2.827; §5 Apollophanes cf. *SVF* 1.405; §6 Pythagorae successores fort. cf. Arist. *de An.* 1.2 404b21–24, ubi deest φρόνησις

caput non hab. G **titulus** μερῶν ψυχῆς **P^{BQ}**: τῆς add. **P^{ES}**: περὶ τὴν ταύτης διαίρεσιν paraphr. T §1 [3] ἔχειν **P^{EQ}** Diels: ἔχει **P^B** Mau Lachenaud: om. T §3 [7] Ἀριστοτέλης scripsimus: ὁ δὲ Νικομάχου variatio T ret. Diels in app. §4 [9] φασι **P^{BQ}**: om. **P^E** || [11] δέ **P^E**: om. **P^{BQ}** || δ' **P^E** cf. Q: om. **P^B** || [12] ἐπιτέταται Zeller prob. Mau Lachenaud: ἐπιτέταται **P^B**: τέταται **P^E**: τέταται Mras: *geordnet werden* Q || [12–13] προσφερῶς ... πλεκτάναις **P^{BE}**: *wie (bei) dem Gewebe der Füße des 'vielfüßig' genannten Lebewesens* Q §5 om. PT || [1] Ἀπολλοφάνης (ἐξ ἑνῆα μερῶν φησι τὴν ψυχὴν συνεστάναι) ex indice Photiano atque Tert. *de An.* 14.2 in *novem penes Apollophanem* suppl. Wachsmuth Elter secutus §6 om. P non hab. S || ταύτῃ **T^{mss.1}** Raeder: τούτοις: **T^{mss.2}** Diels, cf. Gaisford

- §7 Δημόκριτος Ἐπίκουρος διμερῆ τὴν ψυχὴν, τὸ μὲν λογικὸν ἔχουσιν ἐν τῷ θώρακι καθιδρυμένον, τὸ δὲ ἄλογον καθ' ὅλην τὴν σύγκρισιν τοῦ σώματος διεσπαρμένον. (P3) 20
- §8 ὁ δὲ Δημόκριτος πάντα μετέχειν φησὶ ψυχῆς ποιᾶς, καὶ τὰ νεκρὰ τῶν σωμάτων, διότι αἰεὶ διαφανῶς τινος θερμοῦ καὶ αἰσθητικοῦ μετέχει, τοῦ πλείονος διαπνεομένου. (P4,S2)

§7 Democritus 68A105 DK, Epicurus fr. 312 Usener, cf. *Schol.Ep. Hdt.* 66; §8 Democritus 68A117 DK

§8 [22–24] ὁ δὲ Δημόκριτος ... διαπνεομένου P^{BQ} : Δημόκριτος τὰ νεκρὰ τῶν σωμάτων αἰσθάνεσθαι S || [22] φησὶ P^B Diels prob. Mau Lachenaud : φύσει P^E Mras || [23] αἰεὶ διαφανῶς P^B : ἀφανῶς P^E prob. Mras, 'vix recte' Diels DG : *etwas Leuchtendes* Q

Testes primi:

Theodoretus CAG 5.19–21 (CAG 5.16–17 vid. test. prim. ad c. 4.2)

5.19 (~ quaestio) καὶ μέντοι καὶ περὶ τὴν ταύτης διαίρεσιν πλείστη γε τοῦτοις γεγένηται διαμάχη.

5.19.1 (~ §1) Πυθαγόρας μὲν γὰρ καὶ Πλάτων διμερῆ ταύτην εἰρήκασιν, καὶ τὸ μὲν αὐτῆς εἶναι λογικόν, τὸ δὲ ἄλογον. διχῇ δ' αὖ πάλιν τὸ ἄλογον ἔτεμον, καὶ τὸ μὲν αὐτοῦ θυμικόν εἶναι, τὸ δὲ ἐπιθυμητικόν.

5.19.2 (~ §2) ὁ δὲ Ξενοκράτης, καὶ ταῦτα τρίτος ἀπὸ Πλάτωνος ὢν—Σπευσίππου γὰρ τοῦ Πλάτωνος ἀδελφίδου γεγένηται φοιτητής—τὸ μὲν αἰσθητικὸν εἶναι τῆς ψυχῆς ἔφη, τὸ δὲ λογικόν.

5.20.1 (~ §3) ὁ δὲ Νικομάχου πέντε εἶναι ταύτης ἔφησεν ἐνεργείας, τὴν ὀρεκτικὴν, τὴν θρεπτικὴν, τὴν αἰσθητικὴν, τὴν μεταβατικὴν, τὴν διανοητικὴν.

5.20.2 (~ §4) ἀλλ' οὐδὲ τοῦτον οἱ Στωϊκοὶ τὸν ἀριθμὸν ἔστερξαν· ἐξ ὁκτώ γὰρ μερῶν ἔφασαν τὴν ψυχὴν ξυνεστάναι, τῆς ὀπτικῆς αἰσθήσεως καὶ τῆς ἀκουστικῆς καὶ τῆς ὁσφρητικῆς καὶ τῆς γευστικῆς καὶ τῆς ἀπτικῆς· ἔκτον δὲ τὸ φωνητικὸν ἔφασαν καὶ τὸ σπερματικὸν ἔβδομον καὶ τὸ ἡγεμονοῦν ὄγδοον, ὅφ' οὗ τούτων ἕκαστον ἐνεργεῖται. εἶπον δὲ αὐτὴν καὶ ταῖς τοῦ πολυπόδοις εἰκέναι πλεκτάναις.

5.21.1 (~ §6) οἱ δὲ γε Πυθαγόρου διάδοχοι ἐκ πέντε στοιχείων τὸ σῶμα κραθῆναι φάντες—τοῖς γὰρ τέτταρσι ξυνέταξαν τὸ αἰθέριον—ισαριθμούς εἶναι ἔφασαν ταύτη καὶ τῆς ψυχῆς τὰς δυνάμεις· καὶ ταύτας ὠνομάκασιν νοῦν καὶ φρόνησιν καὶ ἐπιστήμην καὶ δόξαν καὶ αἴσθησιν.

Testes secundi:

ps.Iustinus Coh. 6.2.17–21 Πλάτων μὲν γὰρ τριμερῆ αὐτὴν εἶναι φησι, καὶ τὸ μὲν λογικὸν αὐτῆς, τὸ δὲ θυμικόν, τὸ δὲ ἐπιθυμητικὸν εἶναι λέγει (~ §1)· Ἀριστοτέλης δὲ οὐ κοινότεραν τὴν ψυχὴν εἶναι φησιν, ἐν ᾧ περιεῖληπται καὶ τὰ φθαρτὰ μόρια, ἀλλὰ τὸ λογικὸν μόνον.

Nemesius NH c. 15, p. 72.4–20 διαιροῦσι δὲ καὶ ἄλλως εἰς δυνάμεις ἢ εἶδη ἢ μέρη τὴν ψυχὴν (~ quaestio), εἰς τε τὸ φυτικόν, ὃ καὶ θρεπτικόν καὶ παθητικόν καλεῖ-

ται, καὶ εἰς τὸ αἰσθητικὸν καὶ εἰς τὸ λογικόν. (~ §4) Ζήνων δὲ ὁ Στωϊκὸς (SVF 1.143) ὀκταμερῆ φησὶν εἶναι τὴν ψυχὴν, διαιρῶν αὐτὴν εἰς τε τὸ ἡγεμονικόν, καὶ εἰς τὰς πέντε αἰσθήσεις, καὶ τὸ φωνητικὸν καὶ τὸ σπερματικόν. Παναίτιος (T 125 Alesse) δὲ ὁ φιλόσοφος τὸ μὲν φωνητικὸν τῆς καθ' ὁρμὴν κινήσεως μέρος εἶναι βούλεται λέγων ὀρθότατα· τὸ δὲ σπερματικὸν οὐ τῆς ψυχῆς μέρος, ἀλλὰ τῆς φύσεως (~ §4). (~ §3) Ἀριστοτέλης δὲ ἐν μὲν τοῖς Φυσικοῖς πέντε εἶναι λέγει τὰ μέρη τῆς ψυχῆς, τὸ τε φυτικὸν καὶ τὸ αἰσθητικὸν καὶ τὸ κινήτικόν κατὰ τόπον καὶ τὸ ὀρεκτικὸν καὶ τὸ διανοητικόν· φυτικὸν λέγων τὸ τρέφον καὶ αὔξειν καὶ γεννᾶν ποιοῦν καὶ διαπλάσσειν τὰ σώματα· καλεῖ δὲ τὸ φυτικὸν καὶ θρεπτικόν, τὸ πᾶν ἀπὸ τοῦ κρατίστου μέρους καλῶν τοῦ τρέφοντος, ἅφ' οὗ καὶ τὰ ἄλλα μέρη τοῦ φυτικοῦ τὴν ὑπαρξιν ἔχει. οὕτω μὲν ἐν τοῖς Φυσικοῖς (*de An.* 2.3 414a31–414b1), ἐν δὲ τοῖς Ἠθικοῖς (*EN* 1.7 1102a27–28) εἰς δύο τὰ πρῶτα καὶ γενικώτατα διαιρεῖ τὴν ψυχὴν, εἰς τε τὸ λογικὸν καὶ τὸ ἄλογον· ὑποδιαίρει δὲ τὸ ἄλογον εἰς τε τὸ ἐπιειθεὲς λόγῳ καὶ εἰς τὸ μὴ κατήκοον λόγου.

Loci Aetiani:

§1 A 4.7.1 Πυθαγόρας Πλάτων τὸ μὲν λογικόν ... τὸ δ' ἄλογον.

§4 A 4.5-7 (Ἀριστο(τέ)λης) οἱ Στωικοὶ πάντες ἐν ὅλῃ τῇ καρδίᾳ ἢ τῷ περὶ τὴν καρδίαν πνεύματι (sc. εἶναι τὸ ἡγεμονικόν). A 4.8.1 ... τὸ ἡγεμονικόν· πάλιν δ' αἰσθητήρια λέγεται πνεύματα νοερά ἀπὸ τοῦ ἡγεμονικοῦ ἅφ' οὗ συνίσταται ἐπὶ τὰ ὄργανα τεταμένα. A 4.10.1 οἱ Στωικοὶ πέντε τὰς εἰδικὰς αἰσθήσεις, ὅρασιν ἀκοὴν ὄσφρησιν γεῦσιν ἀφῆν. A 4.15.3 Χρύσιππος κατὰ τὴν συνέντασιν τοῦ μεταξὺ ἀέρος ὁρᾶν ἡμᾶς, νυγέντος μὲν ὑπὸ τοῦ ὀρατικοῦ πνεύματος, ὅπερ ἀπὸ τοῦ ἡγεμονικοῦ μέχρι τῆς κόρης διήκει. A 4.21.2–4 (*de Stoicis*) ἀπὸ δὲ τοῦ ἡγεμονικοῦ ἑπτὰ μέρη ἐστὶ τῆς ψυχῆς ἐκπεφυκότα καὶ ἐκτεινόμενα εἰς τὸ σῶμα, καθάπερ αἱ ἀπὸ τοῦ πολυπόδου πλεκτάναι· τῶν δ' ἑπτὰ μερῶν τῆς ψυχῆς πέντε μὲν εἰσὶ τὰ αἰσθητήρια, ὅρασις ὄσφρησις ἀκοὴ γεῦσις καὶ ἀφῆ· ὧν ἡ μὲν ὅρασις ἐστὶ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις ὀφθαλμῶν, ἀκοὴ δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις τῶν ὠτων, ὄσφρησις δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρι μυκτήρων {λεπτύνων}, γεῦσις δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρι γλώττης, ἀφῆ δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρι ἐπιφανείας εἰς θίξιν εὐαίσθητον τῶν προσπιπτόντων. τῶν δὲ λοιπῶν τὸ μὲν λέγεται σπερματικόν, ὅπερ καὶ αὐτὸ πνευμά ἐστι διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρι τῶν παραστατῶν· τὸ δὲ 'φωνᾶεν' ὑπὸ τοῦ Ζήωνος εἰρημένον, ὃ καὶ φωνη(τικ)ὸν (*scripsimus*) καλοῦσιν, ἐστὶ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρι φάρυγγος καὶ γλώττης καὶ τῶν οἰκείων ὀργάνων. A 4.23.1 οἱ Στωικοὶ τὰ μὲν πάθη ἐν τοῖς πεπονθόσι τόποις, τὰς δ' αἰσθήσεις ἐν τῷ ἡγεμονικῷ.

§6 A 1.3.7[36–43] διὰ τοῦτο οὖν νοῦς ἡ μονάς, ᾧ ταῦτα νοοῦμεν, καὶ ἡ δυὰς δ' ἡ ἀόριστος ἐπιστήμη, εἰκότως· πάσα γὰρ ἀπόδειξις καὶ πάσα πίστις ἐπιστήμης, πρὸς δὲ καὶ πᾶς συλλογισμὸς ἔκ τινων ὁμολογουμένων τὸ ἀμφισβητούμενον συνάγει καὶ ῥαδίως ἀποδείκνυται ἔτερον· ὧν ἡ ἐπιστήμη κατάληψις ἐστὶ, διὸ εἴη ἂν δυὰς. ἡ δὲ δόξα τριάς ἐκ καταλήψεως ἐστίν, εὐλόγως, ὅτι πολλῶν ἐστίν ἡ δόξα. A 1.3.21 Ἀριστοτέλης ... πέμπτον δὲ τὸ σῶμα αἰθέριον. A 1.7.23 Ἀριστοτέλης τὸν μὲν ἀνωτάτω θεὸν εἶδος (χωριστόν) ἐπιβεβηκότα τῇ σφαίρᾳ τοῦ παντός, ἥτις ἐστὶν αἰθέριον

σῶμα, τὸ πέμπτον ὑπ' αὐτοῦ καλούμενον. A 1.12.3 Ἀριστοτέλης βαρύτατον μὲν εἶναι τὴν γῆν ἀπλῶς, κουφότατον δὲ τὸ πῦρ· ἀέρα δὲ καὶ ὕδωρ ἄλλοτ' ἄλλως. μηδὲν δὲ πῦρ κυκλοτερώς φύσει κινεῖσθαι, μόνον δὲ τὸ πέμπτον σῶμα. A 1.28.1 αὕτη δ' ἐστὶ τὸ αἰθέριον σῶμα. A 2.30.7 ... τοῦ αἰθέρος, ὃν προσαγορεύει (sc. Ἀριστοτέλης) σῶμα πέμπτον. A 4.9.11 Πυθαγόρας Πλάτων καθαρὸν ἕκαστον εἶναι τῶν αἰσθητῶν ἐξ ἐκάστου στοιχείου προσερχόμενον. πρὸς μὲν οὖν τὴν ὄρασιν τὸ αἰθηρίον πεφυκέναι, πρὸς δὲ τὴν ἀκοὴν τὸ πνευματικόν, πρὸς δὲ τὴν ὄσφρησιν τὸ πυρῶδες, πρὸς δὲ τὴν γεῦσιν τὸ ὑγρόν, πρὸς δὲ τὴν ἀφὴν τὸ γεῶδες.

§7 A 4.5.6 Παρμενίδης ἐν ὄλῳ τῷ θώρακι καὶ Ἐπίκουρος. Al. A 4.5.1 Πλάτων Δημόκριτος ἐν ὄλῳ τῇ κεφαλῇ.

§8 A 4.7a.2 Παρμενίδης καὶ Ἐμπεδοκλῆς καὶ Δημόκριτος ταῦτόν νοῦν καὶ ψυχὴν, καθ' οὓς οὐδὲν ἂν εἴη ζῶον ἄλογον κυρίως. A 5.20.5 Διογένης μετέχειν μὲν αὐτὰ τοῦ νοητοῦ καὶ ἀέρος.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The witnesses are P and T (and S via Photius' index, see at (2) below). For this chapter in the P tradition we do have the evidence of E, but are lacking G. The latter does, however, supply parallel information in a different section of his tract (cf. above at ch. 4.2, Commentary A). As we have seen at chs. 4.2 and 4.3 and shall see at chs. 4.6 and 4.7, there are parallels in the mixed bag of G c. 24 (see *traditio proxima*), which have reached this destination via a different route. G there moreover has lemmata concerned with the topic of the present chapter that are not paralleled in A, which perhaps entails that in A as compared with an anterior tradition some lemmata have been lost—a thought that is encouraged by the presence of a very full series of soul-parts in Tertullian *De anima* 14.2 (Soranus *de An.* fr. 10 Podolak).

(2) In the mss. of S the chapter is lacking, so reconstruction is more difficult, but Wachsmuth following Elter (1880) 40 has restored in S a reference to Apollonophanes, not paralleled in either P, T, or G, from Photius' index of names and Tertullian's enumeration of doxai. See S *Ecl.* 1.49.7a with annotation in the apparatus and below, section D(b).

(3) As noted above, for P we have P^B, P^Q, and this time also P^E who from Book 4 cites a mere two chapters, viz. 4.4–5, so at least includes our present chapter. P has four lemmata, T five, G five (though not directly from P). G's five moreover contain two lemmata (anonymous philosophers who hold that there are no parts; Mnesarchus who disagrees with 'the Stoics') to which noth-

ing corresponds in either P or T, but the view that the soul has no parts is also found in this context in Tertullian. Only two lemmata of P and T, one on Pythagoras–Plato (P₁ and T₁) and one on the Stoics (P₂ and T₄), correspond with each other; these are to some extent paralleled in G, as is the Aristotle lemma (T₃ only). T is more wordy than usual, and must have consulted or remembered a source which paid attention to Successions and other personalia (for other cases see above, at ch. 4.3 Commentary A(5) *ad finem*, and below, ch. 4.5, Commentary D(d)§7), for he adds that Xenocrates is said to be third counting from Plato and to have been a pupil of Plato's nephew Speusippus (no such details at A 1.3.20 Diels). That the name-label Aristotle is replaced by the formula 'the son of Nicomachus' (parallel only at A 1.3.12 Diels, patronymic as part of full credentials) is a more standard though entirely similar embellishment. We have restored the proper name in the text. And his 'the *diadochoi* of Pythagoras' probably replaces the standard formula οἱ ἀπὸ Πυθαγόρου. Because no help is available for those among T's this time rather wordy lemmata which are not paralleled in the more austere P, reconstructing A's text is this time trickier than usual, and impossible to determine exactly.

(4) Special difficulties are caused by P's two final lemmata. P₃ (Democritus–Epicurus) is not paralleled in the other sources; P₄ (Democritus) however is paralleled in an abridged form at S 1.50.35 (Δημόκριτος τὰ νεκρὰ τῶν σωμάτων αἰσθάνεσθαι, printed by Diels as ch. 4.9.20), i.e. not in the Stobaeon chapter on the soul but in that on sensation etc. The relation of S 1.50.35 to the rest of ch. 4.9 is not obvious. Diels noticed the parallel between the two lemmata, see *DG* apparatus for A 4.9.20 and p. 2.111.30 DK on 68A17, but decided (we do not know his reasons) to refrain from placing the two lemmata next to each other in parallel columns either at the end of ch. 4.4 or at that of ch. 4.9. As P is an epitome, the final position of P₄ ~ A 4.4.8 is secure. Because S habitually rearranges matters, that of the parallel Stobaeon lemma at the end of 4.9 is less certain. See also the preliminary account at Mansfeld (1990a) 3190–3192.

(5) S, as we have seen, is missing apart from a probable reference to Apollophanes and a summary version of §8. §§2, 3, and 6 are not in P^{BE} but present in T, who therefore cannot have taken this extra material from the tradition of P. Just as elsewhere he must have taken it from A, but this time no confirmation can be forthcoming from S.

(6) On ps.Justin's brief text, which this time is not very close to either P or A and has no parallel in Hermias, see our remarks at ch. 4.2 Commentary A(5).

B Proximate Tradition and Sources

(1) *Proximate tradition.* The parts of souls are paralleled in detail in Tertullian, *De an.* 14, see above, section A(1). On the Aëtian chapter and its parallels in the tradition see e.g. Mansfeld (1990a) 3085–3089. The parallel passage at the end of the mixed bag of physical and ethical excerpts deriving from a different tradition that constitute G c. 24 (cited below, section E(b) General texts *ad finem*) is less obviously structured by numbers in succession, though a bit of computation will go a long way to recover this structure. But while T, in preserving §6, has also preserved an intimation of the category of place, a category more clearly attested at §§7–8 as extant in P, this aspect has been lost in G. On the other hand G has preserved, though in a somewhat odd position, the entirely relevant tenet according to which the soul has no parts at all, which is not found in P and T.

(2) *Sources.* The explicit issue of the parts derives from Arist. *de An.* 1.2 402b1 σκεπτέον δὲ καὶ εἰ μεριστὴ ἢ ἀμερής (cf. 1.5 411b5, 3.9 432a22–23), see Mansfeld (1990a) 3087, 3203–3204, 3210, M–R. 2.139–142, and above, Introduction to Book 4, section (6). Alexander *in Sens.* 1.3–5 tells us that Aristotle in the *De anima* treated περὶ τε ψυχῆς τῆς συμπάσης κοινῶς καὶ καθόλου καὶ ἰδίᾳ περὶ ἐκάστης τῶν δυνάμεων αὐτῆς, πόσαι τέ εἰσι καὶ τίνες καὶ ἐν τίσιν ἐκάστη αὐτῶν τὸ εἶναι. See also section D(e) below.

C Chapter Heading

Of the standard umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C). As a heading it is found in P only, but referred to by G who begins with εἶναι δὲ τὰ μέρη τῆς ψυχῆς; it is implicit in T, who speaks of the διαίρεσις of the soul, as does Nem *NH* 15, p. 72.3, and in Tertullian *de An.* 14.2, *dividitur ... in partes*. It covers the lemmata of ch. 4 in a general way only, and in relation to the two final lemmata could have been augmented with the specification ἐν τίνι (or ποῦ) ἐστίν, pertaining to the category of place, as noted above on the proximate tradition.

D Analysis

a Context

Ch. 4.4, dealing with a quantitative aspect of soul, follows on upon the two chapters dealing with the soul's substance/definition, 4.2–3, just as ch. 2.12 'On the division of heaven, into how many circles it is divided' follows after ch. 2.11, 'On the heaven, what is its substance', as ch. 2.21 'On the size of the sun' follows after ch. 2.20, 'On the substance of the sun', and ch. 2.26, 'On the size of the moon', follows after ch. 2.25, 'On the substance of the moon'. It is followed by ch. 4.5, 'On the regent part and in what place it is', which is in fact mostly about

the location (category of place) of the regent part. The two final lemmata of ch. 4.4 anticipate this theme by including references to the location of parts of the soul, which at the same time helps explain their final position, close to the next chapter. Compare Chrysippus, who in Book I of his *On the soul* at Galen *PHP* 3.1.9–15 (*SVF* 2.885, cited above at Book 4 titulus et index, Further Related Texts), first says what the soul is, next lists its (eight) parts, and then discusses the location of its regent part.

b Number–Order of Lemmata

P and T confirm each other as to the relative order. Since the chapter deals with the number of the parts (category of quantity) one expects the lemmata to follow each other on either a rising or a descending scale. In a parallel dialectical-doxographical passage, viz. Tertullian *de An.* 14.2, we for instance find an ascending series of soul-parts from two via three, five, six, seven, eight, nine, twelve, and fourteen, to as far as seventeen: a total of ten lemmata. As we do not know to what extent Tertullian's list may have grown in the meantime it is pointless to speculate about lemmata that may have been lost in P and T, though G's again partly different account too suggests that more material may have been present originally.

The rising scale of P and T changes to a descending scale *ad finem*. Compare chs. 4.3.1–13 and 4.8.1–4, both times with Commentary D(c).

P moreover has only four lemmata, and T and G only have five. In P the order according to number is: P₁ (Pythagoras Plato): two but also three parts, P₂ (Stoics): eight parts. So a quite rigorous abridgement though still a rising scale; P then makes a new start with P₃ (Democritus Epicurus): two parts, so a descending scale beginning at P₂ which is simultaneously the end of one and the beginning of another series. T has T₁ (Pythagoras Plato), contents precisely parallel to 'two or rather three' as at P₁, adds T₂ (Xenocrates) as a parallel for the Pythagorean/Platonic bipartition, goes on with T₃ (Aristotle): five parts, T₄ (Stoics): eight parts, all on a rising scale, but then appends a lemma T₅ (Pythagoreans) where we again find five parts, thus finishing with a descending scale beginning at the end of the other scale, viz. T₄. The proximate parallel passage in G has G₁ (Plato): three parts, G₂ (Aristotle): five parts (we have to do the computation ourselves), G₃ (Stoics): four parts, surprisingly, but since the αἰσθητικόν counts as five we get in fact eight parts as in the other sources. G₄, no parts at all, looks out of place; it could have stood at the beginning (as in the parallel at Tert. *de An.* 14.1), or at the end, and seems to have been cited in its actual position as the odd view different from all the others. However this may be, G ends with G₅ (Mnesarchus), a formally dissenting Stoic tenet allowing for only two parts because the speaking and the generative part have been

included in the sensing part (now comprising seven sub-parts, not five as in G3). G5 follows upon G3, on Stoics, as T2 follows upon T1, on Pythagoreans/Platonists.

We have placed the nine parts of Apollophanes (name-label of this hypothetical lemma according to the index of Photius for S, augmented with the doxa from Tertullian) at the end of the rising part of the scale.

P3 (Democritus Epicurus) provides an extra reference to the location in the body of the two parts mentioned, which agrees with the position of the lemma near the end of the chapter. P4 (Democritus) comes last because of its special character: it is not about the parts of the single human soul, but about souls of things as partaking of a general soul-substance. P4 links up with 4.3.14, also a final lemma and also about individual souls in relation to an overarching Soul.

c Rationale–Structure of Chapter

The rationale of the chapter is quite straightforward as long as we look at the main tradition, viz. P and T. In the first part of the chapter the lemmata are listed one after the other according to the number of the parts of soul, so it is the category of quantity that determines their sequence. Number may even override other considerations: §3, the Aristotle lemma, comes before §4, the Stoics lemma, because for Aristotle we have the number five and for the Stoics the number eight. Yet it is clear that the Aristotle lemma echoes the well-known distinction between part of soul and psychic function (*An.* 2.3 414a29–32), and attributes functions or faculties, ‘activities’, rather than parts, to the Aristotelian concept of the soul, although Aristotle himself may use ‘part’ (μέρος) and ‘function’ (δύναμις) interchangeably. (A distinction explicitly acknowledged elsewhere, e.g. Tert. *de An.* 14.3, Them. *in de An.* 117.1–6.) The Aristotle lemma could also have been placed after the Apollophanes lemma (§5), the better to indicate that we are no longer dividing into parts but distinguishing according to function. In §6, too, ‘powers’ of soul, that is to say functions are mentioned, not parts, so from the point of view of function the Aristotle lemma could indeed have been placed immediately before the lemma with the name-label Pythagoreans. Presumably the order in our reconstruction of the chapter (an order based on the principle of least intervention in the orderings of the sources) is as it is because §6, in mentioning the elements of the (human) *body*, preludes upon the *body* in §7 and the *bodies* in §8, and thus also, to some extent, upon the category of place. For in these two final lemmata of the chapter too the category of place comes into view. §7 (Democritus, Epicurus) refers to the location in the body of the two parts of soul. §8 (Democritus) is about the soul of things in general, and that there is some part (in a very literal sense) of soul everywhere. This makes for a rather smooth transition to the next chapter, 4.5,

which is determined by the category of place. We may further note that two of the three final lemmata of ch. 4 are concerned with the category of substance as well. According to §6, name-label Pythagoreans, the five psychic functions that are listed are dependent on the five elements that constitute the body. According to §8, there exists a something that is both warm and sensing out there as well as in here.

d Further Comments

General Points

It is of some importance to note that the division of the soul into parts entails that into a rational and an irrational part, or parts (cf. chs. 4.5-15, 4.7-5), and/or into reason and perception. So it has cognitive import and helps to prepare the ground for the discussion of perception in chs. 4.8–12 and of thought/reason in chs. 4.7a and 4.11.

Individual Points

§1 On the doxai of this lemma see Vander Waerdt (1985b) and Runia (1986) 301–306. Bipartition and tripartition of the soul could (and sometimes did) give rise to differences of opinion and open diaphonia, but here they are presented as complementary. Also note that the problematic issue of the location of the two or three parts or functions of the soul *according to Plato* (later reinterpreted by Galen, see Vegetti 2000, and by the tradition represented by Alcinous and Apuleius, see at section E(b) §3) is not mentioned, so the category of place plays no part in this lemma. We only read in the next chapter, 4.5.1, that according to Plato the location of regent part, the λογικόν, is the head.

The necessary emendation of Tertullian *de An.* 14 *nunc in duas a Platone, nunc in tres*, (*nunc in quattuor a Zenone*) was made by Philippson (1937) 152 n. 6 (missed by Waszink). ‘The highest account (or definition)’ because these two parts are the ἀνωτάτω γένη (cf. Diogenes Laertius *V.P.* 7.110, *SVF* 1.211); the ‘proximate account (or definition)’ because they (sub)divide (διαίρουσιν) the second genus into two species. For the idea see Diogenes Laertius *V.P.* 3.49, τοῦ δὴ (δια)λόγου τοῦ Πλατωνικοῦ δύο εἰσὶν ἀνωτάτω χαρακτῆρες, ὃ τε ὑφηγητικός καὶ ὁ ζητητικός. διαίρεται δὲ ὁ ὑφηγητικός εἰς ἄλλους δύο χαρακτῆρας κτλ.; for the terminology cf. the division of Eudorus fr. 3 Mazzarelli at Simplicius *in Phys.* 181.10–13, κατὰ τὸν ἀνωτάτω λόγον φατέον τοὺς Πυθαγορικοὺς τὸ ἐν ἀρχὴν τῶν πάντων λέγειν, κατὰ δὲ τὸν δεῦτερον λόγον δύο ἀρχὰς τῶν ἀποτελουμένων εἶναι, τό τε ἐν καὶ τὴν ἐναντίαν τούτῳ φύσιν. Also cf. Nem *NH* 15, p. 72.18–20, εἰς δύο τὰ πρῶτα καὶ γενικώτατα διαίρει τὴν ψυχὴν, ... ὑποδιαίρει δὲ τὸ ἄλογον, and Heraclitus *All.Hom.* 17.6–8, τὴν γὰρ ὅλην ψυχὴν διήρηκεν εἰς γένη δύο, ... τοῦ δ’ ἀλόγου μέρους ἰδικωτέραν ὑφίσταται διαίρεσιν, both cited at section E(b)§1.

§3 Aristotle. The parallel in Nem explicitly states that Aristotle's definition belongs with physics. A combination of five Platonic and Aristotelian parts/functions is at Plutarch *De E* 390E–F. Though the lemma, as noted at section D(c) above, reflects a preference for functions or faculties, 'activities', over parts, both Plutarch and Alexander of Aphrodisias may use the words *μόρια* and *δυνάμεις* interchangeably, see section E(b)§3. For Aristotle these 'parts' are different qua definition, not as to location, cf. *de An.* 2.2 413b13–16, *πότερον δὲ τούτων ἕκαστόν ἐστι ψυχὴ ἢ μόριον ψυχῆς, καὶ εἰ μόριον, πότερον οὕτως ὥστ' εἶναι χωριστόν λόγῳ μόνον ἢ καὶ τόπῳ, περὶ μὲν τινῶν τούτων οὐ χαλεπὸν ἰδεῖν*. Also see *de An.* 3.4 429a10–14. The issue is also discussed in ps.Plutarch *Utrum pars an facultas animi affectibus subiecta sit*.

§§4–5 Stoics. The related passages in Nem and G are further variations on the theme of slight differences of view in the Stoic school.

§6 Arist. *Sens.* 2 437a20–22 tells us that his predecessors were confronted with the vexing problem of connecting the five senses to the four elements: *ἐνιοὶ μὲν ζητοῦσι κατὰ τὰ στοιχεῖα τῶν σωμάτων· οὐκ εὐποροῦντες δὲ πρὸς τέτταρα πέντ' οὐσας συνάγειν, γλίσχονται περὶ τῆς πέμπτης*. The Pythagorean doctrine found in §6, neglected in the literature on the topic, presumably belongs with the context of Plutarch's extensive numerological exposition on the number five at *De E* 387D–391E, though the parallel is not precise. The five elements are of course standard Aristotelian fare, but we should also think of the Pythagoreanism of the Ancient Academy, see Baltes (1999). Speusippus, for instance, fr. 4 Lang (F 122 Isnardi Parente, 28 Tarán), calls the five elements Pythagorean. Another backdrop is Plato's unwritten doctrine as described by Aristotle *de An.* 1.2 404b22–24. In this Aristotelian passage *φρόνησις* is lacking, just as in the Neopythagorean parallel in the *Placita* itself, above ch. 1.3.7 [74–89] about the tetrad, which is also different in that there is no mention of the four (let alone five) elements. Burkert (1972) 69–70 with n. 10 correctly points out that what is at §6 is Platonism posing as Pythagoreanism, but *pace* Burkert we contend that, ultimately, A also depends on Aristotle *de An.* 1.2 404b22–24, via Platonizing and Pythagoreanizing intermediaries. The passages are proof of Neopythagorean colouring. An important parallel is found below at ch. 4.9.11, where Pythagoras(!) and Plato are said to hold that each sense (rather than, as here, each cognitive function, sensation only being one of five) is connected with one of five elements: 'The aetherial is attached to sight, the pneumatic to hearing, the fire-like to smell, the wet to taste, and the earth-like to touch'. The only element identified in ch. 4.4.6, τὸ αἰθέριον, corresponds with the αἰθερώδες of ch. 4.9.11, and the (probable, because not explicit) correspondence between aether/mind in the first passage with aether/sight in the second is telling: as a further backdrop we may assume an argument from the visible to the invisible,

as in the case of Posidonius F 85 E.-K. (fr. 395a Theiler) at Sextus Empiricus *M.* 7.93. For the correspondence between aether and mind see also the doctrine attributed to Aristotle in the harmonizing Antiochean account of the history of philosophy at Cicero *Varr.* 1.26, *quintum genus, e quo essent astra mentesque, singulare eorumque quattuor quae supra dixi dissimile Aristoteles quoddam esse rebatur*. Baltes (1978) 35–36 lists thirteen passages where the senses are connected with the elements; as a fourteenth we should add A 4.4.6, and as a fifteenth the passage from ps.Hippocrates *Letter to Ptolemy* cited section E(b)§6.

§7 The name-label Democritus has caused offence, because at ch. 4.5.1 Democritus is said to have placed the regent part, equivalent to the λογικόν, ‘in the whole head’, not in the chest as here. Cf. Diels *DG ad loc.*, ‘Democritus male videtur a Plutarcho additus [sc. here in 4.4.7] cf. 5.1’, who thinks of a blunder by P rather than A. But the *Placita* tradition concerned with Democritus’ psychology is firmly Aristotelian. The substance of the soul assigned to him at A 4.3.5 derives from *de An.* 1.2 403b31–404a2 and 405a8–13, see section E(b)§7, where we learn that soul-atoms are breathed in (and out). Ibid. 404a26–32 we learn that according Democritus soul and mind are the same, which is echoed at A 4.7a.2 (4.5.12 Diels, again see section E(b)§7). The conclusion that for this kind of soul/mind the chest is the right location is obvious, even if it is based on Aristotle’s information only and is merely a conclusion drawn by one of A’s doxographical predecessors. Complementing our explanation so far could be the fact that, *more doxographico*, the tenet of Epicurus is also attributed to *ur*-atomist Democritus. Which, again from a purely doxographical point of view, need not mean that the attribution of the tenet that the regent part is in the head to Democritus at A 4.5.1 is entirely false. This alternative attribution may very well derive from a different current of the tradition, a more biographical or diadochical one, which attributed this view to Democritus because he was believed to be the teacher of Hippocrates, who is mentioned together with Democritus and Plato in T’s version of the lemma. See the preliminary discussion of the evidence at Mansfeld (1990a) 3088–3089 n. 120. It is a not uncommon practice in ancient historiography to preserve various bits of information even when these conflict with each other, for instance already at the basic level of whose son someone is or what city he came from.

§8 See the parallels cited in section E(b); for the backdrop cf. above, ch. 4.3, Commentary (d)§14. The idea is attested for Parmenides and Empedocles in verbatim fragments. See also Mansfeld (1990a) 3191.

e Other Evidence

Parts or functions of what we may call ‘soul’ (*noos/nous*, *thumos*, *menos*, *phrenes*, *ker*, *kradie*) are of course already familiar from Homer and poetry in gen-

eral, see Jahn (1987). In Plato the division of the soul into two or three parts is a topic in several dialogues. The theme is on Aristotle's checklist of issues at the beginning of the *De anima*, 1.1 402b1, *σκεπτέον δὲ καὶ εἰ μεριστὴ ἢ ἀμερής*, and widely illustrated in the treatise. It is found in quite a few dialectical-doxographical parallels, see material in Mansfeld (1990a) 3085–3089. The division of the soul is also an important topic in Hellenistic philosophy, and later in the treatises of Porphyry and Iamblichus partially preserved by Stobaeus. Cf. Dörrie (1959) 104: 'Schon Aetios ließ in seiner Doxographie dem Abschnitt über das Wesen der Seele (4.3) ein Kapitel über ihre Teile (4.4) folgen. Wahrscheinlich folgte Porphyrios [sc. in the *Symmikta Zetemata*] dieser sinnvollen Einteilung des Stoffes.' For curiosity's sake one may mention the seven corporeal parts of the soul according to the (Hellenistic) pseudo-Hippocratic *De hebdomadibus*, cf. section E(b) General texts; see West (1971) 380–381, Mansfeld (1971) 209–211.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *Luc.* 124 *si est* (sc. animus, tenemus), *trisne partes habeat ut Platoni placuit, rationis irae cupiditatis, an simplex unusque sit? si simplex, utrum sit ...* (for the sequel see ch. 4.3, section E(a) General texts). Pollux *Onom.* 2.226 (Soranus *de An.* fr. 13[b] Podolak) *μέρη δ' αὐτῆς* (sc. τῆς ψυχῆς) *νοῦς ἐπιθυμία θυμός*. Tertullian *de An.* 14.2 (Soranus *de An.* fr. 10 Podolak) *dividitur autem in partes* (for the details see below). ps.Galen *Def.Med.* 19.459.11–13 K. *ὑξ'. ὁ ἐγκέφαλος τὴν ψυχικὴν ἔχει δύναμιν καὶ ταύτης τὸ ἡγεμονικὸν ὅπερ ἐστὶ λογιστικὸν καὶ ὁ νοῦς, ἡ δὲ καρδιά τὸ θυμικόν, τὸ δὲ ἥπαρ τὸ ἐπιθυμητικόν*. Galen *PHP* 6.2.3–6 *ἡμῶν τὴν ψυχὴν ὁ Πλάτων εἶναι (4) φησιν ἐκ τριῶν μερῶν συγκεϊμένην. εἰκάζει (Resp. 588c–d) δ' οὕτω τὸ μὲν ἐπιθυμητικὸν θηρίῳ ποικίλῳ τε καὶ πολυκεφάλῳ, τὸ δὲ θυμοειδὲς λέοντι, τὸ δὲ λογιστικὸν ἀνθρώπῳ. ... (5) ... ὁ μὲν οὖν Πλάτων καὶ τοῖς τόποις τοῦ σώματος κεχωρίσθαι νομίζων αὐτὰ καὶ ταῖς οὐσίαις πάμπολυ διαλλάττειν εὐλόγως εἶδῃ τε καὶ μέρη προσαγορεύει· ὁ δ' Ἀριστοτέλης τε καὶ ὁ Ποσειδώνιος (F 146 E.-K., 399 Theiler) εἶδῃ μὲν ἡ μέρη ψυχῆς οὐκ ὀνομάζουσιν, δυνάμεις δ' εἶναι φασι μῆς οὐσίας ἐκ τῆς καρδίας ὀρμωμένης· ὁ δὲ Χρύσιππος (—) ὥσπερ εἰς μίαν οὐσίαν, οὕτως καὶ εἰς δύναμιν μίαν ἄγει καὶ τὸν (6) θυμὸν καὶ τὴν ἐπιθυμίαν*. Lactantius *Op.D.* 18.1–3 Perrin *sequitur alia et ipsa inextricabilis quaestio, idem ne sit anima et animus an vero aliud sit illud quo vivimus, aliud autem quo sentimus et sapimus. non desunt argumenta in utramque partem. (2) qui unum esse dicunt, hanc rationem secuntur, quod neque vivi sine sensu possit nec sentiri sine vita, ideoque non posse esse diversum id quod separari non potest, sed quidquid est illud, et vivendi officium et sentiendi habere rationem. idcirco animum et animam indifferenter appellant duo Epicurei poetae* (sc. Empedocles(?) and Lucretius). (3) *qui autem dicunt esse diversa, sic argumentantur: ex eo posse intellegi aliud esse mentem, aliud animam, quia incolumi*

anima mens possit extinguī, quod accidere soleat insanis, item quod anima morte sopiatur, animus somno et quidem sic, ut non tantum quid faciat aut ubi sit ignoret, sed etiam rerum falsarum contemplatione fallatur. **Porphyrus de An.** (251F Smith) at Stob. *Ecl.* 1.49.25a, p. 350.9–12 διαπεφώνηται δὲ ... τοῖς παλαιοῖς ... ἐξ ἀρχῆς τὰ περὶ τῶν μερῶν τῆς ψυχῆς, καὶ ὅλως τί τὸ μέρος καὶ τίς ἡ δύναμις καὶ τί τὰ αὐτὰ διενήνοχεν. **Iamblichus de An.** at Stob. 1.49.33, p. 367.33 (heading bracketed at fr. 10 Finamore–Dillon) ἐν ταύτῳ [sc. the Περὶ ψυχῆς]· περὶ δυνάμεων ψυχῆς. *de An.* at Stob. 1.49.34, p. 369.5 (heading bracketed at fr. 12 Finamore–Dillon) ἐν ταύτῳ· περὶ πλήθους δυνάμεων. *de An.* at Stob. 1.49.35, p. 369.18–19 (heading bracketed at fr. 13 Finamore–Dillon) ἐν ταύτῳ· περὶ τῶν κατ' οὐσίαν τῆς ψυχῆς καὶ τῶν προστιθεμένων αὐτῇ δυνάμεων. **Eusebius PE** 15.59.7 ταῦτα μὲν οὖν καὶ περὶ θαλάσσης (i.e. ch. 3.16 at Eus. *PE* 15.59.1–6). ὅπως δὲ οἱ περὶ τοῦ παντὸς κόσμου οὐρανίων τε πέρι καὶ αἰθερίων καὶ τῆς τῶν ὅλων καταλήψεως φυσιολογεῖν ἐπαγγεῖλάμενοι οὐδὲ τὰ καθ' ἑαυτοὺς ᾗδεσαν, μάθοις ἂν ἐξ ὧν καὶ περὶ τούτων ὧδέ πως διαπεφωνήκασιν' (chs. 4.4–5 follow on). **ps.Galen HPh** c. 24, *DG* p. 615.1–10 εἶναι δὲ τὰ μέρη τῆς ψυχῆς Πλάτων μὲν τρία νενόμικε λογικὸν θυμικὸν ἐπιθυμητικὸν (~§2). Ἀριστοτέλης δὲ προσήγαγε καὶ τὸ φυσικὸν τε καὶ τὸ ζωτικὸν (~§3). Στωικοὶ (—) δὲ τέσσαρα μέρη τῆς ψυχῆς εἶναι φασὶ λογικὸν αἰσθητικὸν φωνητικὸν σπερματικὸν (~§6)· τινὲς δὲ τὴν ψυχὴν ἀπλήν καὶ ἀμερὴ τυγχάνειν εἰρήκασιν (~§ο). οὐδὲν γὰρ ἄλλο τὴν ψυχὴν ὑπολαμβάνουσιν ἢ φρόνησιν ὑπάρχειν, ἣν καὶ νοῦν καὶ νόησιν προσεῖρήκασιν (—). Μνήσαρχος δὲ τὴν Στωικῶν ὑπόληψιν ἐπικρίνων τὸ φωνητικὸν (καὶ) τὸ σπερματικὸν περιεῖλεν οἰηθεὶς τῆς αἰσθητικῆς δυνάμεως ταῦτα μετέχειν, μέρη δὲ τῆς ψυχῆς ὥθηθαι μόνον τὸ λογικὸν καὶ τὸ αἰσθητικὸν, ᾧ καὶ μάλλον ἂν τις συγχωρήσειεν εὐλόγως (~§6).

Chapter heading: **Calcidius in Tim.** c. 7, p. 61.1 Waszink *De anima et partibus eius et locis.* **Suda** s.v. Φ 862, p. 775.28–776.7 Adler φυσικὸς λόγος παρὰ φιλοσόφοις ... ἔστι δὲ φυσικοῦ μὲν περὶ πάντων τῶν εἰρημένων τῆς ψυχῆς μερῶν διαλεχθῆναι.

§ο **Question of existence:** **Tertullian de An.** 14.1 *singularis alioquin et simplex et de suo tota est, non magis instructilis aliunde quam divisibilis ex se.* *de An.* 14.5 (**Soranus de An.** fr. 10 Podolak) *non longe hoc exemplum* (sc. organum Archimedis) *est a Stratone* (fr. 108 Wehrli, 59 Sharples) *et Aenesidemo* (fr. B24C Polito) *et Heraclito* (p. 578 on fr. 115 Marcovich); *nam et ipsi unitatem animae tuentur, quae in totum corpus et ubique ipsa, velut flatus in calamo per cavernas, ita per sensuality variis modis emicet, non tam concisa quam dispensata.*

§1 **Pythagoras Plato: Chrysippus de An.** at Gal. *PHP* 3.1.14 (SVF 2.885, verbatim) Πλάτων δὲ καὶ τριμερὴ τὴν ψυχὴν φήσας εἶναι, τὸ μὲν λογιστικὸν ἔλεγεν ἐν τῇ κεφαλῇ εἶναι, τὸ δὲ θυμοειδὲς περὶ τὸν θώρακα, τὸ δ' ἐπιθυμητικὸν περὶ τὸν ὀμφαλόν. **Cicero Luc.** 124 *trisne partes habeat ut Platoni placuit, rationis irae cupiditatis.* *Tusc.* 1.20 *Plato triplicem finxit animum, cuius principatum, id est rationem, in capite sicut in arce posuit, et duas partes parere voluit, iram et cupiditatem, quas locis disclusit.* *Tusc.* 4.10 *veterem illam equidem Pythagorae primum, dein Platonis discriptionem sequar, qui animum in duas partes dividunt: alteram rationis participem faciunt, alteram expertem.* **Divisiones Aris-**

toteleae at D.L. 3.90 = cod. Marc., p. 15.2–5 Mutschmann ἡ ψυχὴ διαιρεῖται εἰς τρία· τὸ μὲν γὰρ αὐτῆς ἐστὶ λογιστικόν, τὸ δὲ ἐπιθυμητικόν, τὸ δὲ θυμικόν. **Tertullian** *de An.* 16.1 *Plato bifariam partitur animam, per rationale et irrationale.* *de An.* 16.3 *Plato soli Deo segregans rationale duo genera subdividit ex irrationali, indignativum, quod appellant θυμικόν, et concupiscentivum, quod vocant ἐπιθυμητικόν.* *de An.* 14.2 (SVF 1.405) *nunc in duas* (sc. partes dividitur) *a Platone, nunc in tres a Zenone* [sic, cf. SVF 1.144; but we must accept Philippon's emendation *nunc in tres*—sc. iterum a Platone—, (*nunc in quattuor*)—sc. hegemonicum, aestheticum, vocem, generativum—a Zenone]. **Calcidius** *in Tim.* c. 229 *est enim quaedam virtus eius* (sc. of the soul according to Plato) *in ratiocinando et item alia quae dicitur vigor iracundiae et item quae cupit, quae species sunt appetitus quae tamen rationi naturaliter pareant. erit igitur optima virtus eius quae ratiocinatur, ceterae secundae ac tertiae potestatis.* **Augustine** *C.D.* 14.19.1–7 *Dombart–Kalb illi philosophi, qui veritati proprius accesserunt, iram atque libidinem vitiosas animi partes esse confessi sunt, ... ac per hoc opus habere moderatrice mente atque ratione. quam partem animi tertiam velut in arce quadam ad istas regendas perhibent conlocatam.* **Epiphanius** *Haer.* 3.22, p. 507.5–6 *Holl* (on Plato) εἶναι δὲ αὐτῆς τρία μέρη, λογικόν θυμικόν καὶ ἐπιθυμητικόν.

§3 **Aristotle:** *Tertullian de An.* 14.2 (**Soranus de An.** fr. 12 Podolak) *nunc in quinque* (sc. by Aristotle). *de An.* 14.3 (**Soranus de An.** fr. 12 Podolak) *non tam partes animae habebuntur quam vires et efficaciae et operae, sicut de quibusdam et Aristoteles iudicavit. non enim membra sunt substantiae animalis, sed ingenia, ut motorium, ut actorium, ut cogitatorium, et si qua in hunc modum distinguunt, ut et ipsi illi quinque notissimi sensus, visus auditus gustus tactus odoratus.* **Iamblichus de An.** fr. 12 **Finamore–Dillon** at **Stob. Ecl.** 1.49.34, p. 369.14–17 **Wachsmuth** Ἀριστοτέλης δὲ εἰς πέντε αὐτάς (sc. τὰς δυνάμεις) διαιρεῖ, φύσιν (i.e., θρεπτικόν), αἰσθησιν, κίνησιν κατὰ τόπον, ὄρεξιν, διάνοησιν. **Nemesius NH** c. 6, p. 56.5–21 ἔστι δὲ αἰσθητήρια μὲν πέντε· ... ἔδει τοίνυν, ... ἐπειδὴ τέσσαρα στοιχεῖα, τέσσαρας εἶναι καὶ τὰς αἰσθήσεις· ἀλλ' ἐπειδὴ περὶ ὁ ἄτμος καὶ τὸ τῶν ὁσμῶν γένος μεταξὺ τῆν φύσιν ἐστὶν ἄερος καὶ ὕδατος ..., τοῦτου χάριν ἐμπέτον αἰσθητήριον ἢ ὀσφρησὶς ὑπὸ τῆς φύσεως ἐξεύρηται, ἵνα μηδὲν τῶν δυναμένων εἰς γνῶσιν ἐλθεῖν διαφύγῃ τὴν αἰσθησιν.

§§4–5 **Stoics Apollophanes:** *Tertullian de An.* 14.2 (**Soranus de An.** fr. 10 Podolak) (SVF 1.144, 405) (*nunc in quattuor*—sc. hegemonicum aestheticum vocem generativum—a Zenone), ... *in sex a Panaetio* (T 128 Alesse), ... *etiam in octo penes Chrysippum, etiam in novem penes Apollophanem* (SVF 1.405), *sed et in duodecim apud quosdam Stoicorum, et in duas amplius apud Posidonium* (F 147 E.-K., 396 Theiler), *qui a duobus exorsus titulis, principale, quod aiunt hegemonicon, et a rationali, quod aiunt λογικόν, in decem septem inde prosecuit.*

§4 **Stoics: Arius Didymus** fr. 39.5 **Diels** at **Eus. PE** 15.20.5 (SVF 2.821) ἔχειν δὲ πᾶσαν ψυχὴν ἡγεμονικόν τι ἐν αὐτῇ, ὃ δὴ ζωὴ καὶ αἰσθησὶς ἐστὶ καὶ ὁρμῇ. fr. 39 **Diels** at **Eus. PE** 15.20.3 (SVF 1.141, 1.519) αἰσθητικὴν δὲ αὐτὴν εἶναι διὰ τοῦτο λέγει

(sc. τὴν ψυχὴν Ζήνων) ὅτι τυποῦσθαι τε δύναται τὸ μέρος τὸ ἡγούμενον αὐτῆς ἀπὸ τῶν ὄντων καὶ ὑπαρχόντων διὰ τῶν αἰσθητηρίων καὶ παραδέχεσθαι τὰς τυπώσεις. **Diogenes Laertius** *V.P.* 7.110 (*SVF* 2.828, in the ethics section) φασὶ δὲ τὴν ψυχὴν εἶναι ὀκταμερῆ· μέρη γὰρ αὐτῆς τὰ τε πέντε αἰσθητήρια καὶ τὸ φωνητικὸν μόριον καὶ τὸ διανοητικόν, ὅπερ ἐστὶν αὐτὴ ἡ διάνοια, καὶ τὸ γεννητικόν. *V.P.* 7.157 (*SVF* 2.828, in the physics section) μέρη δὲ ψυχῆς λέγουσιν ὀκτώ, τὰς πέντε αἰσθήσεις καὶ τοὺς ἐν ἡμῖν σπερματικούς λόγους καὶ τὸ φωνητικὸν καὶ τὸ λογιστικόν. **Iamblichus de An.** fr. 12 Finamore–Dillon at Stob. *Ecl.* 1.49.34, p. 369.6–9 Wachsmuth οἱ ἀπὸ Ζήνωνος (*SVF* 2.831) ὀκταμερῆ τὴν ψυχὴν {δια}δοξάζουσι, περὶ {ἥν} τὰς δυνάμεις εἶναι πλείονας, ὥσπερ ἐν τῷ ἡγεμονικῷ ἐνυπαρχουσὴν φαντασίας, συγκαταθέσεως, ὁρμῆς, λόγου. **Clement of Alexandria** *Strom.* 2.11.50.3–4 ἡ τὸν ἄνθρωπον συν-έχουσα δεκάς, ἣν ἐπὶ κεφαλαίων τὰ προειρημένα τρία ἐδήλωσεν μέτρα. (4) εἴη δ' ἂν σῶμά τε καὶ ψυχὴ αἷ τε πέντε αἰσθήσεις καὶ τὸ φωνητικὸν καὶ σπερματικὸν καὶ τὸ διανοητικὸν ἢ πνευματικὸν ἢ ὅπως καὶ βούλει καλεῖν. **Capitula Lucretiana** at *DRN* 3.94 *de animi et animae natura sensuque*. **Calcidius in Tim.** c. 220 *haec igitur, inquit* (sc. Chrysippus, *SVF* 2.879), *octo in partes divisa invenitur; constat enim e principali et quinque sensibus, etiam vocali substantia et serendi procreandique potentia. porro partes animae velut ex capite fontis cordis sede manantes per universum corpus porriguntur omniaque membra usque quaque vitali spiritu complent reguntque et moderantur etc. sicut aranea in medietate cassis omnia filorum tenet pedibus exordia ..., sic animum principale ... sensuum exordia retinere etc.*

§7 **Democritus Epicurus**: **ps.Galen** *Def.Med.* 19.378.9–11 K. ριθ'. ὑπηρετικὸν μέρος τῆς ψυχῆς τὸ ὑποτεταγμένον καὶ ὑπηρετοῦν τῷ ἡγεμονικῷ, τεταγμένον δὲ ἐν τῷ ἄλλῳ λοιπῷ σώματι.

§8 **Democritus**: **Cicero** *Tusc.* 1.82 *fac enim sic animum interire ut corpus: num igitur aliquis dolor aut omnino post mortem sensus in corpore est? nemo id quidem dicit, etsi Democritum* (68A160 DK) *insimulat Epicurus* (fr. 17* Usener), *Democriti negant*. **Tertullian** *de An.* 51.2 *ad hoc* (sc. ut velint credi etiam post mortem quasdam animas adhaerere corporibus) *et Democritus* (68A160 DK) *crementa unguium et comarum in sepulturis aliquanti temporis denotat*. **Alexander of Aphrodisias in Top.** 21.19–22 ὁμοίως καὶ εἰ λάβοι τις τὰ νεκρὰ τῶν σωμάτων κινεῖσθαι καὶ ἀλλοιοῦσθαι, ἀλλὰ καὶ τὰ αἰσθανόμενα κινεῖσθαι, καὶ ἐκ τούτου οἷοιτο δεικνύναι ὅτι τὰ νεκρὰ τῶν σωμάτων αἰσθάνεται, ὡς ᾤετο Δημόκριτος (68A117 DK). **Epiphanius** *Pan.* 3.33, p. 508.11–13 *Holl* Στράτων{ων} ἐκ Λαμψάκου (fr. 48 Wehrli, 47 Sharples) τὴν θερμὴν οὐσίαν ἔλεγεν αἰτίαν πάντων ὑπάρχειν. ... καὶ πᾶν ζῶον ἔλεγε νοῦ δεκτικὸν εἶναι.

b Sources and Other Parallel Texts

General texts: **Aristotle** *de An.* 1.1 402b1 σκεπτέον δὲ καὶ εἰ μεριστὴ ἢ ἀμερής. *EN* 1.13 1102a23–32 θεωρητέον δὴ καὶ τῷ πολιτικῷ περὶ ψυχῆς, θεωρητέον δὲ τούτων χάριν, καὶ ἐφ' ὅσον ἰκανῶς ἔχει πρὸς τὰ ζητούμενα· τὸ γὰρ ἐπὶ πλεῖον ἐξακριβοῦν ἐργωδέστερον ἴσως ἐστὶ τῶν προκειμένων. λέγεται δὲ περὶ αὐτῆς καὶ ἐν τοῖς ἐξωτερικοῖς λόγοις ἀρκούντως ἔναι, καὶ χρηστέον αὐτοῖς· οἷον τὸ μὲν ἄλλογον αὐτῆς εἶναι, τὸ

δὲ λόγον ἔχον. ταῦτα δὲ πότερον διώρισται καθάπερ τὰ τοῦ σώματος μόρια καὶ πᾶν τὸ μεριστόν, ἢ τῷ λόγῳ δύο ἐστὶν ἀχώριστα πεφυκότα καθάπερ ἐν τῇ περιφερείᾳ τὸ κυρτόν καὶ τὸ κοῖλον, οὐθὲν διαφέρει πρὸς τὸ παρόν. *EE* 2.1 1219b32–33 διαφέρει δ' οὐδὲν οὐτ' εἰ μεριστὴ ἢ ψυχὴ οὐτ' εἰ ἀμερῆς, ἔχει μέντοι δυνάμεις διαφόρους. *Corpus Hippocraticum Hebd.* 10.114 *West anima[m] itaque septenarium habet* etc. **Clement of Alexandria** *Paed.* 3.1.1.2 τριγενοῦς οὖν ὑπαρχούσης τῆς ψυχῆς τὸ νοερόν, ὃ δὴ λογιστικὸν καλεῖται, ὁ ἀνθρωπὸς ἐστὶν ὁ ἔνδον, ὁ τοῦ φαινομένου τοῦδε ἄρχων ἀνθρώπου, αὐτόν δὲ ἐκεῖνον ἄλλος ἄγει, θεός· τὸ δὲ θυμικόν, θηριώδες ὄν, πλησίον μανίας οἰκεῖ· πολύμορφον δὲ τὸ ἐπιθυμητικὸν καὶ τρίτον, ὑπὲρ τὸν Πρωτέα τὸν θαλάττιον δαίμονα ποικίλον, ἄλλοτε ἄλλως μετασχηματιζόμενον, εἰς μοιχείας καὶ λαγνείας καὶ εἰς φθοράς ἐξαρεσκευόμενον. **Galen** *PHP* 5.7.1–3 μεταβήσομαι δ' ἤδη πρὸς τὴν ὑπὸ Πλάτωνος εἰρημένην ἐπίδειξιν ἐν τῷ τετάρτῳ τῆς Πολιτείας ὑπὲρ τοῦ τρία τῆς ψυχῆς εἶναι μόρια τὰ καθ' ὁρμὴν ἡμᾶς κινουντα. γινώσκειν δὲ χρὴ κἀνταῦθα τὸ μὲν ὅτι μόρια διαφέρONT' ἀλλήλων ἐστίν, οὐκ ἀναγκαστικῶς ἀποδεικνύμενον· οὐδὲ γὰρ μᾶλλον τρεῖς εἶναι δυνάμεις ἢ τρία μόρια δείκνυσιν ὁ λόγος· ὅτι μὲν(τοι) γε τρία τὰ σύμπαντ' ἐστὶν εἴτε μόρια ψυχῆς εἴτε δυνάμεις ὑφ' ὧν ὁ βίος ἡμῶν διοικεῖται, βιαστικῶς τε καὶ ἀναντιρρήτως ἀποδείκνυται. ὥστε καὶ ἐκ τῶν νῦν λεχθησομένων ἢ μὲν τοῦ Χρυσίππου (—) διαβληθήσεται δόξα κατασκευασθήσεται δὲ τὸ κοινὸν Ἀριστοτέλει καὶ Πλάτῳ καὶ Ποσειδωνίῳ (F 143 E.-K., 421a Theiler) δόγμα, τὸ καθ' ἑτέραν μὲν ἡμᾶς δύνανται λογίζεσθαι, καθ' ἑτέραν δὲ θυμοῦσθαι, κατ' ἄλλην δ' ἐπιθυμεῖν. **Alexander of Aphrodisias** *de An.* 1.3–4 τίνες αἱ δυνάμεις καὶ πόσαι. **Sextus Empiricus** *M.* 7.234 φασὶ γὰρ ψυχὴν λέγεσθαι διχῶς, τό τε συνέχον τὴν ὅλην σύγκρισιν καὶ κατ' ἰδίαν τὸ ἡγεμονικόν. **Porphyry** Περὶ τῶν τῆς ψυχῆς δυνάμεων (253F Smith) at *Stob. Ecl.* 1.49.25a, p. 350.9–12 διατεφώνηται ... τοῖς παλαιοῖς ... τὰ περὶ τῶν μερῶν τῆς ψυχῆς, καὶ ὅλως τί τὸ μέρος καὶ τίς ἡ δύναμις καὶ τίνα ταῦτα διενήνοχεν. **Servius auctus in Aen. 5.81, p. 602.4–12 *Thilo nam Plato et Aristoteles et omnes periti dicunt in homine quattuor esse animas: unam vitalem, ut in vermibus, qui tantum moventur: aliam sensualem, ut in mutis animalibus, in quibus est sensus et timoris et gaudii: tertiam intellectualem, ut in hominibus, qui et cogitare et recte iudicare possunt: esse etiam quartam infra omnes quae φυσική vocatur [naturalis,] ut est in herbis et arboribus, quae etiam motu carentes, vitam tamen habent; nam et nascuntur et crescunt et pereunt.* **Proclus in Remp. 1.233.29–234.8 οἶδα δὲ ἔγωγε τὸν Πορφύριον (263F Smith) ἐν τοῖς Συμμίκοις ἱστοροῦντα προβλήμασι Μηδίου πρὸς Λογγίνον (fr. 21 Patillon–Brisson, 69 Männlein–Robert) συνουσίαν τινὰ περὶ τῶν μορίων τῆς ψυχῆς, ἣν οὐκ ἄξιον παραδραμεῖν. τοῦ γὰρ Μηδίου τὴν ψυχὴν ὀκταμερῇ ποιοῦντος καὶ διαιρουντος εἰς τὸ ἡγεμονικόν, εἰς τὰς πέντε αἰσθήσεις, εἰς τὸ σπερματικόν, καὶ ἐπὶ πᾶσιν εἰς τὸ φωνητικόν, τὸν Λογγίνον φάναι· τί οὖν τὸ μίαν τὴν ψυχὴν ποιοῦν εἰς ὀκτῶ διηρημένην; τὸν δὲ Μηδίον ἀντερωτῆσαι· τί δὲ τὸ μίαν ποιοῦν τὴν ψυχὴν κατὰ Πλάτωνα τριμερῇ οὖσαν; **Hermias in Phaedr. 3.215, p. 244.27–28 καὶ ἐπὶ ψυχῆς δεῖ σκοπεῖν, πρῶτον μὲν εἰ μονοειδὴς ἐστὶν ἢ τριμερὴς, καὶ εἰ τριμερὴς διελέσθαι τὰ μέρη τῆς ψυχῆς. **Themistius in de An. 117.1–9 καίτοι γε αὐτὸ τοῦτο ἀπορίαν ἔχει πολλήν, πότερον δεῖ μόρια λέγειν ψυχῆς μεγέθει καὶ τόπῳ διεστηκότα, ἢ δυνάμεις πλείους ἐν ταύτῳ ὑποκειμένῳ διαφερούσας, ὥσπερ εἶχεν ἐπὶ τοῦ μήλου τὸ γλυκὺ καὶ********

τὸ εὐώδες καὶ τὸ λευκόν. εἰ δὲ μόρια, πόσα ἄρα τὸν ἀριθμόν, καὶ εἰ μόνα τὰ τρία, ὡς τίθενται τινες, ἢ καὶ πλείω. σχεδὸν γὰρ οὐκ εὐαρίθμητα φαίνεται τὰ μέρη τῆς ψυχῆς, εἰ τοιαύτας λαμβάνοι τις τὰς διαφοράς, αἷς τὸν θυμὸν καὶ τὴν ἐπιθυμίαν καὶ τὸν λογισμὸν χωρίζουσι· φαίνεται γὰρ ἄλλα μόρια μεῖζω διάστασιν ἔχοντα τούτων. **Servius in Aen.** 8.564, p. 2.279.14–16 Thilo *‘cui tris animas’ per transitum ostendit illam Platonis et Aristotelis contentionem, qui dubitant, utrum quattuor, an tres animae sint in homine*, φυσικὴ αἰσθητικὴ νοητικὴ, *remota* κινητικὴ. **Suda** s.v. Ψ 164, p. 4.852.19–20 Adler ψυχὴ· ... ὅτι μέρη τῆς ψυχῆς ἢ εἶδη τρία· λογιζόμενον, θυμούμενον, ἐπιθυμούν.

Chapter heading: Philo of Alexandria *Sacr.* 112 τὸν περὶ τῶν μερῶν τῆς ψυχῆς λόγον ἡγεμονικὸν τε καὶ ὑπηκόου. **Galen** *Libr. Propr.* c. 16.3, 19.46.19–20 K. Περί τῶν τῆς ψυχῆς μερῶν καὶ δυνάμεων τρία (= Περί τῶν τῆς ψυχῆς εἰδῶν, *Foet. Form.* 4.701.16 K.).

§1 Pythagoras Plato: Plato *Resp.* 4 439d–e ‘οὐ δὴ ἀλόγως, ἦν δ’ ἐγώ, ‘ἄξι-
ώσομεν αὐτὰ διττά τε καὶ ἕτερα ἀλλήλων εἶναι, τὸ μὲν ᾧ λογίζεται λογιστικὸν
προσαγορεύοντες τῆς ψυχῆς, τὸ δὲ ᾧ ἐρᾷ τε καὶ πεινῇ καὶ διψῇ καὶ περὶ τὰς ἄλλας
ἐπιθυμίας ἐπτόγηται ἀλόγιστόν τε καὶ ἐπιθυμητικόν, πληρώσεών τινων καὶ ἡδονῶν
ἐταίρον’. οὐκ, ἀλλ’ εἰκότως, ἔφη, ‘ἡγοίμεθ’ ἂν οὕτως’. ‘αὐτὰ μὲν τοῖνυν, ἦν δ’ ἐγώ,
‘δύο ἡμῖν ὠρίσθω εἶδη ἐν ψυχῇ ἐνόντα· τὸ δὲ δὴ τοῦ θυμοῦ καὶ ᾧ θυμούμεθα πότε-
ρον τρίτον, ἢ τούτων ποτέρῳ ἂν εἴη ὁμοφύες’ (cited at Gal. *PHP* 6.2.11). *Tim.* 89e
εἶπομεν πολλάκις, ὅτι τρία τριχῇ ψυχῆς ἐν ἡμῖν εἶδη κατὰκτισται (cited at Gal. *PHP*
6.2.11). **Aristotle** *Top.* 5.4 133a30–31 οἷον ἐπεὶ ἀνθρώπου, ἢ ἀνθρωπὸς ἐστὶ, λέγε-
ται ἴδιον τὸ τριμερὲ ψυχὴν ἔχειν. *de An.* 3.9 432a22–26 ἔχει δὲ ἀπορίαν εὐθὺς
πῶς τε δεῖ μόρια λέγειν τῆς ψυχῆς καὶ πόσα. τρόπον γάρ τινα ἄπειρα φαίνεται,
καὶ οὐ μόνον ἃ τινες λέγουσι διορίζοντες, λογιστικὸν καὶ θυμικὸν καὶ ἐπιθυμητι-
κόν, οἱ δὲ τὸ λόγον ἔχον καὶ τὸ ἄλογον. **ps.Aristotle** *MM* 1.1.8 Πλάτων διείλετο
τὴν ψυχὴν εἰς τε τὸ λόγον ἔχον καὶ εἰς τὸ ἄλογον. *VV* 1 1249a30–31 τριμεροῦς δὲ
τῆς ψυχῆς λαμβανομένης κατὰ Πλάτωνα. **Philo of Alexandria** *Leg.* 1.70 νοητέον
οὖν ὅτι ἐστὶν ἡμῶν τριμερὴς ἡ ψυχὴ καὶ ἔχει μέρος τὸ μὲν λογικόν, τὸ δὲ θυμι-
κόν, τὸ δὲ ἐπιθυμητικόν. ἡ ψυχὴ καὶ ἔχει μέρος τὸ μὲν λογικόν, τὸ δὲ θυμικόν, τὸ
δὲ ἐπιθυμητικόν. καὶ συμβέβηκε τοῦ μὲν λογικοῦ χωρίον εἶναι καὶ ἐνδιαίτημα τὴν
κεφαλὴν, τοῦ δὲ θυμικοῦ τὰ στέρνα, τοῦ δὲ ἐπιθυμητικοῦ τὸ ἥτρον. *Leg.* 3.115 τρι-
μερὲ συμβέβηκε τὴν ψυχὴν ἡμῶν εἶναι καὶ ἔχειν μέρος μὲν ἐν λογιστικόν, δεύτερον
δὲ θυμικόν, τρίτον δὲ ἐπιθυμητικόν. *Congr.* 26 τῆς γὰρ ψυχῆς ἡμῶν διμεροῦς ὑπαρ-
χούσης καὶ τὸ μὲν λογικόν τὸ δὲ ἄλογον ἐχούσης. **Anon.** *Lond. Iatr.* col. xvi.33–44
Manetti [λ]έγει δὲ καὶ περὶ τῆς ψυχῆς ὡς τρι[μ]ερῆς ἐστίν, καὶ τὸ μὲν τι αὐτῆς
ἐστὶν λογικόν, | τὸ δὲ θυμικόν, τὸ δὲ ἐπιθυμητικόν. καὶ τὸ μὲν λογικόν ἀπολεί-
πει περὶ | τοὺς κατὰ τὴν κεφαλὴν τόπους· εὐφυεῖς γὰρ | οἱ[ῶ]τοι πρὸς παραδοχὴν
τοῦ ἡγεμονικοῦ. | [τὸ] δὲ θυμικόν ἔταξεν περὶ τὴν καρδίαν, | [οὐ] πόρρω μὲν τετα-
γμένον τοῦ λογικοῦ, | [ὑπ]οτεταγμένον δὲ τῷ λογικῷ, | [ἴν]α δὴ καὶ ὑπήκο(ον)
αὐτῷ γίνηται τὸ μέντοι | [γε] ἐπιθυμη(η)τικόν ἔταξεν μεταξύ δια[φ]ράγματος καὶ
ὁμφαλοῦ. **Galen** *PHP* 5.4.3 τὸ μὲν δὴ τὰς δυνάμεις τῆς ψυχῆς τρεῖς εἶναι τὸν ἀρι-
θμόν, αἷς ἐπιθυμούμεν τε καὶ θυμούμεθα καὶ λογιζόμεθα, καὶ Ποσειδώνιος (F 142
E–K, 414 Theiler) ὁμολογεῖ καὶ Ἀριστοτέλης· τὸ δὲ καὶ τοῖς τόποις αὐτὰς ἀλλή-

λων κεχωρίσθαι καὶ τὴν ψυχὴν ἡμῶν μὴ μόνον ἔχειν ἐν ἑαυτῇ δυνάμεις πολλὰς, ἀλλὰ καὶ σύνθετον ἐκ μορίων ὑπάρχειν ἑτερογενῶν τε καὶ διαφερόντων ταῖς οὐσίαις Ἰπποκράτους ἐστὶ καὶ Πλάτωνος δόγμα. *in Tim.* fr. 2.64–67 Schröder ὁ δὲ Πλάτων οὐ τὴν αὐτὴν οὐσίαν τὸ λογιστικὸν τῆς ψυχῆς τῷ ἀλόγῳ καὶ ἐπιθυμητικῷ φησιν ὑπάρχειν, ἀλλ' ἕτερον ἐκείνου, καὶ τοῦτο καὶ τῷ θυμοειδῆς πολλάκις διαμάχῃσθαι, καὶ μέντοι καὶ σύμμαχον ἔχειν ποτὲ τὸ θυμοειδῆς κατὰ τοῦ ἐπιθυμ(η)τικοῦ, (ἐν ἄλλῳ μέρει τοῦ) σώματος ὥκισμένον. *QAM* c. 3, p. 13.9–12 Bazou. **Maximus of Tyre** *Diss.* 20.4 καὶ μὴν τῆς ψυχῆς δῖχα νενεμημένης, ὡς ὁ Πλάτωνος φησιν λόγος, ἥς τῷ μὲν τῶν μερῶν ὄνομα λόγος, τῷ δὲ πάθος. *Diss.* 27.5 λέξω δὲ οὐκ ἑμαυτοῦ λόγον, ἀλλὰ ἐξ Ἀκαδημίας ὀρμηθέντα καὶ ἐπιχώριον τῆς Πλάτωνος μούσης τε καὶ ἐστίας· ἀπεδέξατο δὲ αὐτόν καὶ Ἀριστοτέλης αὐτοῦ· ἐγὼ δὲ καὶ πορρωτέρω ἐπανάγω· ὑποπτεύω γὰρ ἐξ Ἰταλίας Ἀθήνας ἐλθεῖν τὸν λόγον, Πυθαγορείων τινῶν ἐμπορίαν ταύτην καλὴν στείλαμένων εἰς τὴν ἀρχαίαν Ἑλλάδα. ὁ δ' οὖν λόγος ταύτῃ ἔχει. ἢ τοῦ ἀνθρώπου ψυχὴ νενέμηται δῖχα κατὰ πρώτην νομήν, καὶ τὸ μὲν αὐτῆς ἐστὶν λόγος, τὸ δὲ πάθος. **Heraclitus** *All.Hom.* 17.6–8 (Plato as imitator of Homer) τὴν γὰρ ὅλην ψυχὴν διήρηκεν εἰς γένη δύο, τὸ τε λογιστικὸν καὶ τὸ ἄλογον ὑπ' αὐτοῦ προσαγορευόμενον. τοῦ δ' ἀλόγου μέρους ἰδικωτέραν ὀφίσταται διαίρεσιν, εἰς δύο μερίζων, καὶ τὸ μὲν ἐπιθυμητικὸν ὀνομάζει, τὸ δ' ἕτερον θυμοειδῆς, καὶ καθάπερ δὲ οἴκους τινὰς ἐκάστω μερίζει καὶ διατριβάς ἐν τῷ σώματι διένειμεν· τὸ μὲν οὖν λογικὸν τῆς ψυχῆς ἀκρόπολιν τινα τὴν ἀνωτάτω τῆς κεφαλῆς μοῖραν εἰληχῆναι νομίζει, πᾶσι τοῖς αἰσθητηρίοις ἐν κύκλῳ δορυφορούμενον, τοῦ δ' ἀλόγου μέρους ὁ μὲν θυμὸς οἰκεῖ περὶ τὴν καρδίαν, αἱ δὲ τῶν ἐπιθυμιῶν ὀρέξεις ἐν ἥπατι. **Apuleius** *Plat.* 1.207 *tres partes animae ducat esse, rationabilem, id est mentis optumam portionem, hanc ait capitis arcem tenere; irascentiam vero procul a ratione ad domicilium cordis deductam esse obsequique eam in loco respondere sapientiae; cupidinem atque adpetitus, postremam mentis portionem, infernas abdominis sedes tenere.* *Plat.* 1.216 *tripertitam animam idem dicit: primam eius rationabilem esse partem, aliam excandescentiam vel irritabilitatem, tertiam appetitus; eandem cupiditatem possumus nuncupare. sed tunc animanti sanitatem adesse, vires, pulchritudinem, cum ratio totam regit parentesque ei inferiores duae partes concordantesque inter se iracundia et voluptas nihil appetunt, nihil commovent, quod inutile esse duxerit ratio.* **Apuleius** *Plat.* lib. 3(?) sive **Anonymus** *Compendiosa expositio* 2.13–16 *Stover hic animam in partes dividit et demonstrat quemadmodum una sit rationalis, altera θυμοειδής, id est animositas, tertia desiderii quam ἐπιθυμητικὸν vocat.* **Ptolemy** *Harm.* 3.5 ἐστὶ τοῖνον τὰ μὲν πρῶτα τῆς ψυχῆς μέρη τρία, νοερόν, αἰσθητικόν, ἐκτικόν, τὰ δὲ πρῶτα τῶν ὁμοφώνων καὶ συμφώνων εἶδη τρία, τὸ τε διὰ πασῶν ὁμόφωνον καὶ σύμφωνα τὸ τε διὰ πέντε καὶ διὰ τεσσάρων, ὥστε ἐφαρμόζεσθαι τὸ μὲν διὰ πασῶν τῷ νοερῷ—πλείστον γὰρ ἐν ἑκατέρῳ τῷ ἀπλοῦν καὶ ἴσον καὶ ἀδιάφορον—τὸ δὲ διὰ πέντε τῷ αἰσθητικῷ, τὸ δὲ διὰ τεσσάρων τῷ ἐκτικῷ. *Iudic.* c. 14, 21.2–7 τὸ μὲν ὀρεκτικὸν καὶ ἀεροειδέστερον περὶ τὴν γαστέρα καὶ τὸ ἥτρον πως ἀναστρέφεισθαι, τὸ δὲ θυμικὸν καὶ πυροειδέστερον περὶ τὰ σπλάγχνα καὶ τὴν καρδίαν· τὸ δὲ διανοητικὸν ἀμέριστον ὃν τῇ οὐσίᾳ καθιδρῦσθαι μὲν ἐν τῇ κεφαλῇ καὶ περὶ τὸν ἐγκέφαλον. **Diogenes Laertius** *V.P.* 3.67 (on Plato) εἶναι (sc. τὴν ψυχὴν) ... τριμερῇ· τὸ μὲν γὰρ αὐτῆς

λογιστικόν μέρος περί τήν κεφαλὴν καθιδρῦσθαι, τὸ δὲ θυμοειδὲς περί τήν καρδίαν, τὸ δὲ ἐπιθυμητικόν περί τὸν ὄμφαλόν καὶ τὸ ἥπαρ συνίστασθαι. **Porphyrus** *Περὶ τῶν τῆς ψυχῆς δυνάμεων* 253F Smith at Stob. *Ecl.* 1.49.25a, p. 350.12–13 παρὰ δὲ Πλάτωνι καὶ Ἀριστοτέλει ἐν τοῖς ἠθικοῖς τριμερὴς ἡ ψυχὴ λέγεται εἶναι. **Iamblichus** *de An.* fr. 11 Finamore–Dillon at Stob. *Ecl.* 1.49.33, pp. 368.23–369.2 Wachsmuth κατὰ δὲ Πλάτωνα ἄλλως μὲν λέγεται ἡ ψυχὴ τριμερὴς, ὡς ἐν ἐτέραις οὐσίαις τριπλῇ ζωῇ παραλλάττουσα, ἄλλως δὲ πολυδύναμος, οὐκέτι κατ' οὐσίαν ζωῇ διαφέρουσα, ἐν ταύτῳ δὲ πολλαῖς ιδιότησι διακρινομένη. *de An.* fr. 12 Finamore–Dillon at Stob. *Ecl.* 1.49.34, p. 369.9–11 Wachsmuth οἱ δὲ περὶ Πλάτωνα καὶ Ἀρχύτας καὶ οἱ λοιποὶ Πυθαγόρειοι τὴν ψυχὴν τριμερῇ ἀποφαίνονται, διαιροῦντες εἰς λογισμὸν καὶ θυμὸν καὶ ἐπιθυμίαν. **Gregory of Nyssa** *Ep. ad Letoium* MPG 45, p. 224.12–14 τρία ἐστὶ τὰ περὶ τὴν ψυχὴν ἡμῶν θεωρούμενα κατὰ τὴν πρώτην διαίρεσιν· τὸ τε λογικόν, καὶ τὸ ἐπιθυμητικόν, καὶ τὸ θυμοειδὲς. **Macrobius** *in Somn.* 1.6.42 *ternarius* (sc. *numerus*) *vero adsignat animam tribus suis partibus absolutam, quarum prima est ratio quam λογιστικὸν appellant, secunda animositas quam θυμικόν vocant, tertia cupiditas quae ἐπιθυμητικὸν nuncupatur.* **Proclus** *in Remp.* 1.234.3–5 (Porphyrus 263F Smith) τὸν δὲ Μῆδιον ἀντερωτήσαι· τί δὲ τὸ μίαν ποιοῦν τὴν ψυχὴν κατὰ Πλάτωνα τριμερῇ οὖσαν; τοῦτο δὴ οὖν ἡμεῖς ἀξιῶσμεν λόγου τινός. differently *Pythagorica Hypomnemata* at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58Bia DK) at D.L. 8.30 τὴν δ' ἀνθρώπου ψυχὴν διηρηθῆσαι τριχῇ, εἰς τε νοῦν καὶ φρένας καὶ θυμὸν. νοῦν μὲν οὖν καὶ θυμὸν εἶναι καὶ ἐν τοῖς ἄλλοις ζῴοις, φρένας δὲ μόνον ἐν ἀνθρώπῳ. εἶναι δὲ τὴν ἀρχὴν τῆς ψυχῆς ἀπὸ καρδίας μέχρις ἐγκεφάλου· καὶ τὸ μὲν ἐν τῇ καρδίᾳ μέρος αὐτῆς ὑπάρχειν θυμὸν, φρένας δὲ καὶ νοῦν τὰ ἐν τῷ ἐγκεφάλῳ.

§3 **Aristotle: Aristotle** *de An.* 2.2 413b11–13 ἐστὶν ἡ ψυχὴ τῶν εἰρημένων τούτων ἀρχὴ καὶ τούτοις ὥρισται, θρεπτικῷ, αἰσθητικῷ, διανοητικῷ, κινήσει. *de An.* 2.2 413b27–28 τὰ δὲ λοιπὰ μόρια τῆς ψυχῆς. *de An.* 2.3 414a31–32 δυνάμεις δ' εἴπομεν θρεπτικόν, αἰσθητικόν, ὀρεκτικόν, κινήτικόν κατὰ τόπον, διανοητικόν. *Iuv.* 1 467b10–18 ἐπεὶ δὲ περὶ ψυχῆς ἐν ἐτέροις διώρισται, καὶ δῆλον ὅτι οὐχ οἶόν τ' εἶναι σῶμα τὴν οὐσίαν αὐτῆς, ἀλλ' ὅμως ὅτι γ' ἐν τινι τοῦ σώματος ὑπάρχει μορίῳ φανερόν, καὶ ἐν τούτῳ τινὶ τῶν ἐχόντων δύναμιν ἐν τοῖς μορίοις, τὰ μὲν οὖν ἄλλα τῆς ψυχῆς ἢ μόρια ἢ δυνάμεις, ὁποτέρως ποτὲ δεῖ καλεῖν, ἀφείσθω τὰ νῦν. **Philo of Alexandria** *Mos.* 2.81 ἡ πεντὰς αἰσθήσεων ἀριθμὸς ἐστίν. *Plant.* 133 αἰσθήσεως πεντὰς ἀριθμὸς οἰκείος (also *QE* 2.97). **Nicolaus of Damascus** at Porph. at Stob. *Ecl.* 1.49.25a (Porphyrus 253F Smith), pp. 353.12–354.4 Νικόλαος δὲ οὐκ ἤξει οὐ τὰ μέρη τῆς ψυχῆς κατὰ τὸ ποσὸν λαμβάνειν, ἀλλὰ μάλλον κατὰ τὸ ποιόν. ... ἀκούει τοίνυν Νικόλαος τὰ μέρη τῆς ψυχῆς ὡς δυνάμεις τοῦ ἔχοντος· τὸ γὰρ ζῶον καὶ ὅλως τὸ ἔμψυχον τῷ ψυχὴν ἔχειν πολλὰ δύναται, οἷον ζῆν, αἰσθάνεσθαι, κινεῖσθαι, νοεῖν, ὀρέγεσθαι, ὦν πάντων αἰτία καὶ ἀρχὴ ἡ ψυχὴ. ταύτας οὖν τὰς δυνάμεις, ἀφ' ὧν λέγεται τὸ ἔμψυχον ταῦτα δρᾶν ἢ πάσχειν, μέρη τῆς ψυχῆς τίθεται ὡς εἴρηται. **Plutarch** *Def.Or.* 429E ἔνειμε γὰρ ἡμῖν αὐτοῖς αἰσθήσεις πέντε καὶ μέρη ψυχῆς, φυτικὸν αἰσθητικὸν ἐπιθυμητικὸν θυμοειδὲς λογιστικόν. **Galen** *QAM* c. 4, p. 27.1–3 Bazou εἰ γὰρ ἡ ψυχὴ πολλὰς ἔχει δυνάμεις οὐσία τις οὐσα καὶ τοῦτ' ὀρθῶς Ἀριστοτέλει ἐλέλεκται. **Maximus of Tyre** *Diss.* 11.8 ἀλλὰ καὶ ἐν λογικῇ ψυχῇ (sc. *κρεῖττον* δὲ τὸ λογικόν ἐστὶν τοῦ

ἀλόγου), ἐπειδὴ περ ἐστὶν ἡ πᾶσα ὥσπερ ἄθροισμά τι, θρεπτικόν, αὐξητικόν, κινητικόν, παθητικόν, νοητικόν. **Alexander of Aphrodisias** *de An.Mant.* 105.3 δύνανται. *de An.Mant.* 105.18 μόρια. differently *Doxographia Ethica C* (attributed to AD) at Stob. **Nicolaus of Damascus** at Porph. at Stob. *Ecl.* 2.7.13, p. 117.11–12 τῆς δὲ ψυχῆς τὸ μὲν εἶναι λογικόν, τὸ δ' ἄλογον. at Stob. 2.7.20, p. 137.17–18 διμερῇ πρὸς τὴν παρούσαν θεωρίαν (sc. ἐν τοῖς Ἑθικοῖς) ὑπέθεντο τὴν ψυχὴν, τὸ μὲν λόγον ἔχουσιν, τὸ δ' ἄλογον. **Alcinous** *Did.* c. 17, p. 173.7–15 H. τὸ ἡγεμονικὸν κατὰ λόγον περὶ τὴν κεφαλὴν καθίδρυσαν, ... ἐν τούτῳ καὶ τὸ λογιστικὸν τῷ τόπῳ καὶ τὸ κρῖνόν τε καὶ τὸ θεωροῦν· τὸ δὲ παθητικὸν τῆς ψυχῆς κατωτέρω ἐποίησαν, τὸ μὲν θυμικὸν περὶ τὴν καρδίαν, τὸ δὲ ἐπιθυμητικὸν περὶ τὸ ἦτρον καὶ τοὺς περὶ τὸν ὀμφαλὸν τόπους. *Did.* c. 23, p. 176.12–22 H. τὸ θεῖον αὐτῆς καὶ ἀθάνατον κατώκισαν ἐπὶ τοῦ σώματος ἐπὶ τῆς οἶον ἀκροπόλεως ... οἰκιστὴν τε ἀπονειμάντες αὐτῷ τὴν κεφαλὴν, ... τὸ μὲν γὰρ θυμικὸν ἔταξαν ἐν καρδίᾳ, τὸ δὲ ἐπιθυμητικὸν ἐν τῷ μεταξὺ τόπῳ τοῦ τε πρὸς τὸν ὀμφαλὸν ὅρου καὶ τῶν φρενῶν. *Did.* c. 24, p. 176.35–41 H. ὅτι δὲ τριμερὲς ἐστὶν ἡ ψυχὴ κατὰ τὰς δυνάμεις, καὶ κατὰ λόγον τὰ μέρη αὐτῆς τόποις ἰδιοῖς διανενέμηται, μάθοιμεν ἂν ἐντεῦθεν. πρῶτον μὲν δὴ τὰ φύσει χωριζόμενα ἕτερα ὑπάρχει· φύσει δὲ χωρίζεται τὸ παθητικὸν καὶ λογιστικόν, εἴ γε τὸ μὲν περὶ τὰ νοητά ἐστί, τὸ δὲ περὶ τὰ λυπηρὰ καὶ ἡδέα, προσέτι τοῦ παθητικοῦ καὶ περὶ τὰ ζῶα ὄντος. *Did.* c. 29, p. 182.19–27 H. **Apuleius** *Plat.* 13 *at enim cum tres partes animae ducat esse, rationabilem, id est mentis optumam portionem, hanc ait capitis arcem tenere, irascentiam vero procul a ratione ad domicilium cordis deductam esse obsequique eam in loco respondere sapientiae, cupidinem atque appetitus, postremam mentis portionem, infernas abdominis sedes tenere.* **Anonymus Londiniensis** *Iatr.* col. xvi.33–36 Manetti [λ]έγει δὲ καὶ περὶ τῆς ψυχῆς, ὡς τρι[μ]ερὲς ἐστὶν, καὶ τὸ μὲν τι αὐτῆς ἐστὶ λογικόν, | τὸ δὲ θυμικόν, τὸ δὲ ἐπιθυμητι[κ]όν κτλ. **Porphyrus** Περὶ τῶν τῆς ψυχῆς δυνάμεων 253F Smith at Stob. *Ecl.* 1.49.25a, p. 351.11–19 τὰ μὲν μέρη παρῆρταιτο Ἀριστοτέλης ἐπὶ τῆς ψυχῆς, τὰς δὲ δυνάμεις οὐκέτι. τὸ γὰρ ἑτερομερές εὐθὺς ὑποκειμένου παραλλαγήν εισάγειν, τὸ δὲ ἑτεροδύναμον καὶ περὶ ἐν ὑποκείμενον ἐνίστασθαι. Λογίσιος (fr. 23 Patillon–Brisson, 71 Männlein–Robert) δὲ οὐδὲ τὸ ζῶον πολυμερές εἶναι ἀλλ' ἄμερές, πολυδύναμον δέ, τὸ τοῦ Πλάτωνος ἐν τοῖς σώμασι πολυμερὲς φάσκων τὴν ψυχὴν γίνεσθαι, καθ' ἑαυτὴν οὐσαν ἄμερῃ. ὅτι δὲ οὐ πολυμερές, οὐ διὰ τοῦτο καὶ μονοδύναμος· ἐνδέχεσθαι γὰρ ἐν ἄμερές δυνάμεις πλείους ἔχειν. **ps.Plutarch** *Utr.Pars* 1 περὶ τῆς παθητικῆς καὶ ἀλόγου ζωῆς, πότερος μέρος ἐστὶ τῆς ἀνθρώπου ψυχῆς ἢ δυνάμεις, ἐπισκεπτέον. εἰκόσιν γὰρ τῶν ἀρχαίων οἱ μὲν οὕτως, οἱ δ' ἐκείνως ἀποφηνάμενοι περὶ αὐτῆς. **Macrobius** in *Somn.* 1.14.7 *habet ergo* (sc. anima) *et purissimam ex mente, de qua est nata, rationem quod λογικόν vocatur et ex sua natura accipit praebendi sensus praebendique incrementi seminarium, quorum unum αἰσθητικόν alterum φυτικόν nuncupatur. sed ex his primum id est λογικόν quod innatum sibi ex mente sumpsit, sicut vere divinum est, ita solis divinis aptum; reliqua duo, αἰσθητικόν et φυτικόν, ut a divinis recedunt, ita convenientia sunt caducis.*

§4 Stoics: Chrysippus *de An.* at Gal. *PHP* 3.1.9–11 (verbatim) ὁ Χρύσιππος ... οὕτως λέγει (*SVF* 2.885)· ἡ ψυχὴ πνεῦμά ἐστι σύμφυτον ἡμῖν συνεχὲς παντὶ

τῷ σώματι διήκον ἔστ' ἂν ἡ τῆς ζωῆς εὐπνοια παρῇ ἐν τῷ σώματι. ταύτης οὖν τῶν μερῶν ἐκάστῳ διατεταγμένων μορίῳ τὸ διήκον αὐτῶν εἰς τὴν τραχεῖαν ἀρτηρίαν φωνὴν εἶναι, τὸ δὲ εἰς ὀφθαλμοὺς ὄψιν, τὸ δὲ εἰς ὦτα ἀκοήν, τὸ δ' εἰς ῥίνας ὄσφρησιν, τὸ δ' εἰς γλῶτταν γεῦσιν, τὸ δ' εἰς ὅλην τὴν σάρκα ἀφήν καὶ τὸ εἰς ὄρχεις ἑτερόν τιν' ἔχον τοιοῦτον λόγον, σπερματικόν, εἰς δὲ συμβαίνει πάντα ταῦτα ἐν τῇ καρδίᾳ εἶναι, μέρος δὲ αὐτῆς τὸ ἡγεμονικόν.' **Philo of Alexandria** *Opif.* 117 αὐτίκα τῆς ἡμετέρας ψυχῆς τὸ δίχα τοῦ ἡγεμονικοῦ μέρος ἐπταχὴ σχίζεται, εἰς πέντε αἰσθήσεις καὶ τὸ φωνητήριον ὄργανον καὶ ἐπὶ πᾶσι τὸ γόνιμον· ἃ δὴ πάντα καθάπερ ἐν τοῖς θαύμασιν ὑπὸ τοῦ ἡγεμονικοῦ νευροσπαστούμενα τοτὲ μὲν ἡρεμεῖ τοτὲ δὲ κινεῖται τὰς ἀρμοστούσας σχέσεις καὶ κινήσεις ἕκαστον. *Her.* 232 τὸ μὲν γὰρ ἄλογον ψυχῆς μέρος ἐξαχὴ διελὼν ὁ δημιουργὸς ἐπτὰ μοίρας εἰργάζεται, ὄρασιν, ἀκοήν, γεῦσιν, ὄσφρησιν, ἀφήν, φωνήν, γόνιμον, τὸ δὲ λογικόν, ὃ δὴ νοῦς ὠνομάσθη, ἄσχιστον εἶασε κατὰ τὴν τοῦ παντὸς ὁμοιότητα οὐρανοῦ. *Mut.* 110–111 'τῷ ἱερεῖ', φησὶν οὖν (*Exod* 2:16), τῆς κρίσεως καὶ τῆς δίκης 'εἰσὶν ἐπτὰ θυγατέρες', συμβολικῶς αἱ τοῦ ἀλόγου δυνάμεις, γονὴ τε καὶ φωνὴ καὶ πέντε αἰσθήσεις, ποιμαίνουσαι τὰ πρόβατα τοῦ πατρὸς. διὰ γὰρ τῶν ἐπτὰ δυνάμεων τούτων αἱ προβάσεις καὶ παραυξήσεις τοῦ πατρὸς νοῦ ταῖς ἐγγινομέναις καταλήψεσι συνίστανται. *Leg.* 1.111–112 ψυχῆς γε μὴν τὸ ἄλογον ἐπταμερές, αἰσθήσεις πέντε καὶ φωνητήριον ὄργανον καὶ τὸ διήκον ἄχρι παραστατῶν, ὃ δὴ γόνιμόν ἐστι. *Fug.* 182 (*SVF* 2.861) τὸ ἡγεμονικόν ἡμῶν ἐοικὸς πηγῇ δυνάμεις πολλὰς οἶα διὰ γῆς φλεβῶν ἀνομβροῦν, τὰς δυνάμεις ταύτας ἄχρι τῶν αἰσθήσεων {ὀργάνων}, ὀφθαλμῶν, ὠτων, ῥινῶν, τῶν ἄλλων, ἀποστέλλει· αἱ δ' εἰσὶ παντὸς ζῶου περὶ κεφαλὴν καὶ πρόσωπον. ποτίζεται οὖν ὥσπερ ἀπὸ πηγῆς τοῦ κατὰ ψυχὴν ἡγεμονικοῦ τὸ σώματος ἡγεμονικόν πρόσωπον, τὸ μὲν ὁρατικὸν πνεῦμα τείνοντος εἰς ὄμματα, τὸ δὲ ἀκουστικόν εἰς οὖς, εἰς δὲ μυκτῆρας τὸ ὄσφρησιν, τὸ δ' αὖ γεύσεως εἰς στόμα καὶ τὸ ἀφήν εἰς σύμπασαν τὴν ἐπιφάνειαν. See also 30, *Abr.* 29–30. **Seneca** *Ep.* 92.1 *in animo esse partes ministras, per quas movemur alimurque, propter ipsum principale nobis datas.* *Ep.* 121.10 'constitutio' inquit 'est, ut vos dicitis, principale animi quodam modo se habens erga corpus'. **Galen** *PHP* 5.3.7 (*SVF* 2.841) (μόρια δέ) τῆς ψυχῆς, ὡς αὐτὸς σὺ δι' ἐτέρων ἐκδιδάσκεις, τό τε ἀκουστικόν πνεῦμα καὶ τὸ ὀπτικόν ἔτι τε πρὸς τοῦτοις φωνητικόν τε καὶ γεννητικόν, καὶ πρὸ πάντων αὐτῶν τὸ ἡγεμονικόν, ἐν ᾧ καὶ τὸν λόγον ἔφης συνίστασθαι. **Sextus Empiricus** *M.* 9.102 πάσης γὰρ φύσεως καὶ ψυχῆς ἡ καταρχὴ τῆς κινήσεως γίνεσθαι δοκεῖ ἀπὸ ἡγεμονικοῦ, καὶ πᾶσαι αἱ ἐπὶ τὰ μέρη τοῦ ὅλου ἐξαποστελλόμεναι δυνάμεις ὡς ἀπὸ τίνος πηγῆς τοῦ ἡγεμονικοῦ ἐξαποστέλλονται, ὥστε πᾶσαν δύναμιν τὴν περὶ τὸ μέρος οὔσαν καὶ περὶ τὸ ὅλον εἶναι διὰ τὸ ἀπὸ τοῦ ἐν αὐτῷ ἡγεμονικοῦ διαδίδοσθαι. **Proclus** *in Remp.* 1.234.3–7 (*Porphyry* 263F Smith) τοῦ γὰρ Μηδίου τὴν ψυχὴν ὀκταμερῇ ποιοῦντος καὶ διαιρουντος εἰς τὸ ἡγεμονικόν, εἰς τὰς πέντε αἰσθήσεις, εἰς τὸ σπερματικόν, καὶ ἐπὶ πᾶσιν εἰς τὸ φωνητικόν. τὸν Λογγίνον (fr. 21 Patillon–Brisson, 69 Männlein–Robert) φάναι· τί οὖν τὸ μίαν τὴν ψυχὴν ποιοῦν εἰς ὀκτὼ διηρημένην; **Plotinus** *Enn.* 6.1[42].12–14 τὰς δὲ τῆς ψυχῆς πῶς (sc. τίνι ἂν διέλοι); ἐπιθυμητικοῦ, θυμοειδοῦς, λογιστικοῦ. ἢ ταῖς διαφοραῖς τῶν ἐνεργειῶν, αἱ γίνονται κατ' αὐτάς, ὅτι γεννητικαὶ αὐταὶ τούτων. **Porphry** Περὶ τῶν τῆς ψυχῆς δυνάμεων 253F Smith at *Stob. Ecl.* 1.49.25a, p. 350.13–17 αὐτίκα οἱ μὲν ἀπὸ τῆς Στοᾶς (*SVF* 2.830) ὀκταμερῇ τὴν ψυχὴν θέντες

καὶ πέντε μὲν μέρη τὰ αἰσθητικὰ λαβόντες, ἕκτον δὲ τὸ φωνητικὸν καὶ ἑβδομον τὸ σπερματικόν, {καὶ} λοιπὸν τὸ ἡγεμονικόν κτλ. Περὶ τῶν τῆς ψυχῆς δυνάμεων (251F Smith) at Stob. *Ecl.* 1.49.24, p. 348.1–9 Ἀρίστων (SVF 1.377) ἀντιληπτικὴν δύνανται τῆς ψυχῆς θέμενος ταύτην διαιρεῖ εἰς δύο, τὸ μὲν τι μέρος φάσκων μετὰ τίνος τῶν αἰσθητηρίων ὡς τὰ πολλὰ κινεῖσθαι, ὃ αἰσθητικὸν καλεῖ, ἀρχὴν καὶ πηγὴν ὑπάρχον τῶν κατὰ μέρος αἰσθήσεων, τὸ δὲ αἰεὶ καθ' ἑαυτὸ καὶ χωρὶς ὀργάνων, ὃ ἐπὶ μὲν τῶν ἀλόγων οὐκ ὠνομάσθαι ..., ἐν δὲ τοῖς λογικοῖς, ἐν οἷς δὴ μάλιστα (ἦ) μόνοις φαίνεται, νοῦν προσαγορεύεσθαι. *Scholía vetera in Iliadem* 12.386d Erbse δοκεῖ αὐτῷ (sc. τῷ Ὀμήρῳ) καὶ τοῖς ὁστοῖς τὸ ψυχικὸν παρεσπάρθαι, ὡς καὶ Ποσειδωνίῳ (F 28a E.-K., 389a Theiler) ἐν τῷ τρίτῳ Περὶ ψυχῆς. see also SVF 2.823–833.

§6 *Pythagoreans*: Aristotle *de An.* 1.2 404b21–24 (*Test. Plat.* 25A Gaiser, A22 Isnardi Parente) ἔτι δὲ καὶ ἄλλως, νοῦν μὲν τὸ ἔν, ἐπιστήμην δὲ τὰ δύο (μοναχῶς γὰρ ἐφ' ἑν), τὸν δὲ τοῦ ἐπιπέδου ἀριθμὸν δόξαν, αἰσθήσιν δὲ τὸν τοῦ στερεοῦ. *Plutarch De E* 390B εἰσὶ δ' οἱ καὶ τὰς τῶν αἰσθήσεων δυνάμεις ἰσαριθμούς οὕσας τοῖς πρῶτοις ἐκείνοις συννοικεῖν, τὴν μὲν ἀφὴν ὁρῶντες ἀντίτυπον οὖσαν καὶ γεῶδη, τὴν δὲ γεῦσιν ὑγρότητι τῶν γευστῶν τὰς ποιότητας προσιεμένην. ἀφ' ἧς πληγεῖς ἐν ἀκοῇ γίγνεται φωνὴ καὶ ψόφος. δεῖν δὲ τῶν λοιπῶν ὁσμὴ μὲν, ἣν ἡ ὄσφρησις εἴληχεν, ἀναθυμίασις οὖσα καὶ γεννωμένη θερμότητι πυρῶδες ἔστιν, αἰθέρι δὲ καὶ φωτὶ διὰ συγγένειαν διαλαμπούσης τῆς ὄψεως γίγνεται κρᾶσις ἐξ ἀμφοῖν ὁμοιοπαθῆς καὶ σύμπηξις. also *De E* 390F. *Def. Or.* 429E (on the parts of soul). *Alexander of Aphrodisias in Sens.* 14.18–23 λέγει δὲ τινὰς τῶν περὶ αἰσθήσεων εἰρηκῶτων ζητεῖν ἐκάστην αἰσθήσιν ἐξ ἐκάστου τῶν σωματικῶν στοιχείων ποιεῖν, καὶ {πέντε τῶν αἰσθήσεων οὐσῶν} οὐκ εὐποροῦντας συνάγειν εἰς τέσσαρα στοιχεῖα πέντε οὕσας αὐτὰς ζητεῖν περὶ τῆς πέμπτης, ἐκ τίνος αὐτὴν χρὴ λέγειν εἶναι σώματος. λέγοιτο δ' ἂν τοῦτο περὶ τῆς ἐν τῷ Τιμαίῳ δόξης, ἥτις ἀναφέρεται μὲν εἰς τοὺς Πυθαγορείους, εἴρηται δ' ἐν τῷ Τιμαίῳ (*Tim.* 66d–e). *Sextus Empiricus M.* 7.93 καὶ ὡς τὸ μὲν φῶς, φησὶν ὁ Ποσειδωνίος (F 85 E.-K., 395a Theiler) τὸν Πλάτωνος Τίμαιον ἐξηγουμένους, ὑπὸ τῆς φωτοειδοῦς ὄψεως καταλαμβάνεται, ἡ δὲ φωνὴ ὑπὸ τῆς ἀεροειδοῦς ἀκοῆς κτλ. *Porphyrus* Περὶ τῶν τῆς ψυχῆς δυνάμεων 253F Smith at Stob. *Ecl.* 1.49.25a, p. 351.11–12 τὰ μὲν μέρη παρηγεῖτο Ἀριστοτέλης ἐπὶ τῆς ψυχῆς, τὰς δὲ δυνάμεις οὐκέτι. *ps.Hippocrates Ep. Ptol.*, p. 287.1–7 Ermerins αἰσθητήρια δὲ ἔστιν ἐν τῷ ἀνθρώπῳ πέντε· ὄρασις, ὄσφρησις, ἀκοή, γεῦσις καὶ ἀφή· ἡ μὲν ὄρασις ἐκ τοῦ αἰθέρος, ἡ δὲ ὄσφρησις ἐκ τοῦ ἀέρος, ἡ δὲ ἀκοή ἐκ τοῦ πυρὸς, ἡ δὲ γεῦσις ἐκ τοῦ ὑγροῦ, ἡ δὲ ἀφή ἐκ τῆς γῆς. δυνάμεις εἰσὶ τῆς ψυχῆς πέντε· νοῦς, διάνοια, δόξα, φαντασία καὶ αἴσθησις. *Ammonius in Isag.* 11.16–17 πάλιν δὲ τῆς ἡμετέρας ψυχῆς διτταὶ αἱ ἐνέργειαι, αἱ μὲν γνωστικαὶ οἷον νοῦς διάνοια δόξα φαντασία καὶ αἴσθησις κτλ. *ps.Elias/David in Isag.* 18.11 Westerink γνωστικαὶ μὲν δυνάμεις εἰσὶ τῆς ψυχῆς αἱ ἀνωτέρω λεχθεῖσαι ε', νοῦς διάνοια δόξα φαντασία καὶ ἡ καθόλου αἴσθησις. *Symeon Seth CRN* 4.83 (~ §6) αἰσθήσεων πέντε οὐσῶν τῆς ψυχῆς, καθάπερ καὶ τοῦ σώματος, ἦτοι νοῦ, διανοίας, δόξης, φαντασίας καὶ αἰσθήσεως κτλ.

§7 *Democritus Epicurus*: Democritus at Gal. *Med. Exp.* 15.7 Walzer Δημόκριτος (68B125 DK) ... ἐποίησε τὰς αἰσθήσεις λεγούσας πρὸς τὴν διάνοιαν οὕτως· 'τάλαινα φρὴν, παρ' ἡμέων λαβοῦσα τὰς πίστεις ἡμέας καταβάλλεις; πτώμα τοι τὸ

κατάβλημα'. **Epicurus Ep.Hdt.** at D.L. 10.63 ἡ ψυχὴ σώμα ἐστὶ λεπτομερές παρ' ὅλον τὸ ἄθροισμα παρεσπαρμένον, προσεμφερέστατον δὲ πνεύματι θερμοῦ τινα κράσιν ἔχοντι καὶ πῆ μὲν τούτῳ προσεμφερές, πῆ δὲ τούτῳ. ἔστι δὲ τὸ μέρος πολλὴν παραλλαγὴν εἰληφὸς τῇ λεπτομερείᾳ καὶ αὐτῶν τούτων, συμπαθὲς διὰ τοῦτο μάλλον καὶ τῷ λοιπῷ ἄθροισματι' ... καὶ μὴν καὶ ὅτι ἔχει ἡ ψυχὴ τῆς αἰσθήσεως τὴν πλείστην αἰτίαν δεῖ κατέχειν. **Scholium in Epicurum Ep.Hdt.** at D.L. 10.66 (fr. 311 Usener) λέγει ἐν ἄλλοις ... τὸ μὲν τι ἄλογον αὐτῆς, ὃ τῷ λοιπῷ παρεσπάρθαι σώματι' τὸ δὲ λογικὸν ἐν τῷ θώρακι, ὡς δῆλον ἔκ τε τῶν φόβων καὶ τῆς χαρᾶς. **Lucretius DRN** 3.136–144 *nunc animum atque animam dico coniuncta teneri / inter se atque unam naturam conficere ex se, / sed caput esse quasi et dominari in corpore toto / consilium, quod nos animum mentemque vocamus. / idque situm media regione in pectoris haeret. / hic exultat enim pavor ac metus, haec loca circum / laetitiae mulcent: hic ergo mens animusquest. / cetera pars animae per totum dissita corpus / paret et ad numen mentis momenque movetur.* **DRN** 3.370–373 *illud in his rebus nequaquam sumere possis, / Democriti (68A108 DK) quod sancta viri sententia ponit, / corporis atque animi primordia singula primis / adposita alternis variare, ac nectere membra.* **Varro** at **Lact. Op.D.** 17.5 *Varro ita definit: anima est aër ... temperatus in corde, diffusus in corpus.* **Diogenes of Oenoanda** fr. 37 col. I.1–7 *Smith ... μὴ ζῆν αἰτίαν ἢ ψυχῇ παρέρχει τῇ φύσει. καὶ γὰρ εἰ | μὴ τὸν ἀριθμὸν ἴσον τῶν | ἀτόμων ἔχει τῷ σώματι, μετὰ τε τοῦ λογικοῦ | τιθεμένη μέρους αὐτῆς | καὶ τοῦ ἀλόγου κτλ.* **Sextus Empiricus M.** 7.349 οἱ δὲ ἐν ὅλῳ τῷ σώματι (sc. τὴν διάνοιαν περιέχεσθαι), καθάπερ τινὲς κατὰ Δημόκριτον (68A107 DK). **Servius auctus in Aen.** 10.487, p. 2.442.1–6 *Thilo [...]* *animusque secuntur': [‘animus’] pro anima: nam animus consilii est, anima vitae. [quidam secundum Epicureos (—) animam per totum corpus divisam esse volunt, et exinde posse fieri ut quis amputata parte corporis vivat: animum vero esse τὸ ἡγεμονικὸν animae, sine quo vivere non possumus: ergo secundum sectam sibi notam poetam locutum].*

§8 **Democritus: Parmenides** 22B16.2–4 DK τὸ γὰρ αὐτό / ἔστιν ὅπερ φρονέει μελέων φύσις ἀνθρώποισιν / καὶ πᾶσιν καὶ παντί. **ps.Epicharmus** 23B4.1–2 DK, fr. 278.1–2 *Kassel–Austin* at D.L. 3.16 *Εὐμαίε, τὸ σοφὸν ἔστιν οὐ καθ' ἐν μόνον, / ἀλλ' ὅσσα περ ζῆ, πάντα καὶ γνῶμαν ἔχει.* **Theophrastus Sens.** 4 (**Parmenides** 28A46 DK) ... *φησι τὸν νεκρὸν φωτὸς μὲν καὶ θερμοῦ καὶ φωνῆς οὐκ αἰσθάνεσθαι διὰ τὴν ἔκλειψιν τοῦ πυρός, ψυχροῦ δὲ καὶ σιωπῆς καὶ τῶν ἐναντιῶν αἰσθάνεσθαι. καὶ ὅλως δὲ πᾶν τὸ ὄν ἔχειν τινὰ γνῶσιν.* **Sextus Empiricus M.** 8.286 ὁ δὲ Ἐμπεδοκλῆς ἔτι παραδοξότερον πάντα ἡξίου λογικὰ τυγχάνειν, καὶ οὐ ζῶα μόνον ἀλλὰ καὶ φυτὰ, ῥητῶς γράφων (31B110.10 DK): *‘πάντα γὰρ ἴσθι φρόνησιν ἔχειν καὶ νώματος αἴσαν’.* **Aristotle GA** 3.11 762a18–21 (on spontaneous generation) *γίνεται δ' ἐν γῇ καὶ ἐν ὑγρῷ τὰ ζῶα καὶ τὰ φυτὰ διὰ τὸ ἐν γῇ μὲν ὕδωρ ὑπάρχειν ἐν δ' ὕδατι πνεῦμα, ἐν δὲ τούτῳ παντὶ θερμότητα ψυχικὴν, ὥστε τρόπον τινὰ πάντα ψυχῆς εἶναι πλήρη* (cf. *ibid.* 2.3 736b29–737a7 *πάσης μὲν οὖν ψυχῆς δυνάμεις ἐτέρου σώματος ἔοικε κεκοινωνηκέναι καὶ θειοτέρου τῶν καλουμένων στοιχείων κτλ.*). **Galen Propr.Plac.** 7, p. 179.24–26 *Boudon–Millot–Pietrobelli, text Lami ἢ διὰ παντὸς μορίου τῶν στερεῶν σωματῶν τεταμένον, ὡς μηδὲν αὐτῶν εἶναι ψυχῆς ἄμοιρον.* **Propr.Plac.** 13,

p. 186.19–31 Boudon-Millot–Pietrobelli, text Lami (= *Sub.Nat.Fac.* 4.758.2–16)
 ἀλλ' ὅταν ἐν Τιμαίῳ ... εἰς ὅλον τὸν κόσμον ἐκτετάσθαι λέγει τὴν ψυχὴν αὐτοῦ ...
 (but) οὐδὲ διὰ τῶν λίθων καὶ τῶν ὀστράκων καὶ τῆς ψάμμου καὶ τῶν κατακαί-
 ομένων ἢ σηπομένων νεκρῶν ζώων τὴν τοῦ κόσμου διήκειν ψυχὴν. **Hippolytus**
 (Archelaus, 60A4 DK) *Ref.* 1.9.6 νοῦν δὲ λέγει πᾶσιν ἐμφύεσθαι ζώοις ὁμοίως.

Liber 4 Caput 5

P^B: ps.Plutarchus *Plac.* 899A–B; pp. 391^{a1}–392^{a2} Diels—P^E: Eusebius *PE* 15.61.1–10, p. 421.11–24 Mras—P^Q: Qustā ibn Lūqā pp. 192–195 Daiber
T: Theodoretus *CAG* 5.22, p. 128.8–19 Raeder

Titulus ε'. Τί τὸ τῆς ψυχῆς ἡγεμονικὸν καὶ ἐν τίνι ἐστίν (P,T)

§1 Πλάτων Δημόκριτος ἐν ὅλῃ τῇ κεφαλῇ. (P1,T1b)

§2 Ἴπποκράτης ἐν ἐγκεφάλῳ. (T1a)

§3 Στράτων ἐν μεσοφρύῳ. (P2,T2)

§4 Ἐρασίστρατος δὲ ὁ ἰατρός περὶ τὴν τοῦ ἐγκεφάλου μήνιγγα, ἣν ἐπικρα- 5
νίδα λέγει. (P3,T3)

§5 Ἡρόφιλος ἐν τῇ τοῦ ἐγκεφάλου κοιλίᾳ, ἣτις ἐστὶ καὶ βάσις. (P4,T4)

§6 Παρμενίδης ἐν ὅλῳ τῷ θώρακι καὶ Ἐπίκουρος. (P5,T5)

§7 Ἀριστο(τέ)λης οἱ Στωικοὶ πάντες ἐν ὅλῃ τῇ καρδίᾳ ἢ τῷ περὶ τὴν 10
καρδίαν πνεύματι. (P6,T6)

§8 Διογένης ἐν τῇ ἀρτηριακῇ κοιλίᾳ τῆς καρδίας, ἣτις ἐστὶ πνευματική.
(P7,T7)

§1 Democritus 68A105 DK; Plato cf. e.g. *Tht.* 184d, *Tim.* 44d–e; §2 Hippocrates cf. *Morb.Sacr.* 14, 17; §3 Strato fr. 119a,b Wehrli, 57 Sharples; §4 Erasistratus fr. 40 Garofalo; §5 Herophilus fr. 137a Von Staden; §6 Parmenides 28A45 DK; Epicurus fr. 312 Usener; §7 cf. Aristoteles *Iuv.* 3 469a4–7, 469a33–b1, *PA* 3.4 665b18–23; Stoici *SVF* 2.838; §8 Diogenes 64A20 DK cf. Empedocles 31A97 DK, Diogenes S2 Laks, probabilior Diogenes Stoicus cf. *SVF* 3 Diog. 30

caput non hab. GS **titulus** τί ... ἐστίν P^B : περὶ ἡγεμονικοῦ P^E : *Über den leitenden Teil unter den Seelenteilen* Q : ὅσα δὲ καὶ περὶ τῆς τοῦ ἡγεμονικοῦ χώρας διηνέχθησαν paraphr. T §§1–2 Πλάτων ... ἐγκεφάλῳ : Πλάτων Δημόκριτος ἐν ὅλῃ τῇ κεφαλῇ P : Ἴπποκράτης μὲν γὰρ καὶ Δημόκριτος καὶ Πλάτων ἐν ἐγκεφάλῳ τοῦτο ἰδρῦσθαι εἰρήκασιν T §2 [3] Ἴπποκράτης ... ἐγκεφάλῳ : om. P : nomen et placitum addidimus ex T 5.22, cf. Tert. *de An.* 15.5 *in cerebro secundum Hippocratem* §4 [5] ὁ ἰατρός om. P sive add. T || τὴν P^{B(DEQT)} : om. P^{B(LI11)} || τοῦ ἐγκεφάλου P^{BET} : om. P^Q §5 [7] ἣτις ... βάσις P^B : om. T : καὶ om. P^{EQ} §6 [8] Παρμενίδης ... Ἐπίκουρος P^{B(LI11)} : Παρμενίδης καὶ Ἐπίκουρος ἐν ὅλῳ τῷ θώρακι P^{B(11)} : *Parmenides und Epikuros* Q : καὶ Ἐπίκουρος om. P^E : olim schol. in marg. susp. Diels || post θώρακι add. sine uncis τὸ ἡγεμονικὸν DK ad 28A45 §7 [9] Ἀριστο(τέ)λης ... πάντες scripsimus : οἱ Στωικοὶ πάντες P^{BQ} : Ἐπίκουρος οἱ Στωικοὶ πάντες P^E : Ἐμπεδοκλῆς δὲ καὶ Ἀριστοκλῆς καὶ τῶν Στωικῶν ἡ ἑξυμμορία T : Ἀριστο(τέ)λης καὶ Διο(κ)λῆς coni. Diels *DG* 204 n. 1 prob. Wellmann (1901) 122 n. : Ἀριστοτέλης vulgo prob. Raeder quod Aetio tribuendum || [9–10] τῷ ... πνεύματι P^{BQ} : om. P^E §8 [11] Διογένης P^{BQ} : Διοκλῆς Wellmann (1901) 122 n. || τῇ ... κοιλίᾳ P^{BT} : *der linken der beiden Höhlungen* Q || τῆς καρδίας P^{B(LI1)} : περὶ καρδίαν P^{B(11)}

- §9 Ἐμπεδοκλῆς ἐν τῇ τοῦ αἵματος συστάσει. (P8,T6)
 §10 οἱ δ' ἐν τῷ τραχήλῳ τῆς καρδίας, (P9)
 §11 οἱ δ' ἐν τῷ περικαρδίῳ ὑμένι, (P10,T8) 15
 §12 οἱ δ' ἐν τῷ διαφράγματι. (P11,T9)
 §13 τῶν νεωτέρων τινὲς διήκειν ἀπὸ κεφαλῆς μέχρι τοῦ διαφράγματος.
 (P12)
 §14 Πυθαγόρας τὸ μὲν ζωτικὸν περὶ τὴν καρδίαν, τὸ δὲ λογικὸν καὶ νοερὸν
 περὶ τὴν κεφαλὴν. (P13) 20

§9 Empedocles 31A97 DK; §10 anonymi—; §11 anonymi—; §12 anonymi—; §13 recentiores—; §14 Pythagoras—

§9 om. T || [13] ἐν ... συστάσει P^B : συστάσει om. P^E, suppl. Mras (κοιλία P^E(ms.B)) : *glaubte, daß jener im Blut ist* Q : οἱ δὲ ἐν τῷ αἵματι T || fort. (περικαρδίου) post αἵματος addendum, cf. §11 et Emp. 31B105.3 DK §10 om. TP^E || [14] τῷ τραχήλῳ P^{BQ} : τῇ κοιλίᾳ T §11 [15] περικαρδίῳ P^{B(1)ET} : περὶ τὴν καρδίαν P^{B(111)} : *welches über dem Herzen liegt* Q §12 [16] διαφράγματι P^{BT} : *Zwerchfell* Q : διαφράγματι τῶν νεφρῶν P^E, φρενῶν conl. Mras conl. Pl. *Tim.* 70a §§13–14 om. T §14 [20] κεφαλὴν P^{BE} : *Gehirn* Q

Testes primi:

Theodoretus CAG 5.22

- T 5.22 (quaestio) ὅσα δὲ καὶ περὶ τῆς τοῦ ἡγεμονικοῦ χώρας διηγήθησαν πρὸς ἀλλήλους, ῥᾶδιον διαγινώσκειν.
 5.22.1 (~ §1–2) Ἰπποκράτης μὲν γὰρ καὶ Δημόκριτος καὶ Πλάτων ἐν ἐγκεφάλῳ τοῦτο ἰδρῦσθαι εἰρήκασιν.
 5.22.2 (~ §3) ὁ δὲ Στράτων ἐν μεσοφρύῳ.
 5.22.3 (~ §4) Ἐρασίστρατος δὲ ὁ ἰατρὸς περὶ τὴν τοῦ ἐγκεφάλου μήνιγγα, ἣν ἐπικρανίδα λέγει.
 5.22.4 (~ §5) Ἡρόφιλος δὲ ἐν τῇ τοῦ ἐγκεφάλου κοιλίᾳ.
 5.22.5 (~ §6) Παρμενίδης δὲ καὶ Ἐπίκουρος ἐν ὅλῳ τῷ θώρακι.
 5.22.6 (~ §§7–9) Ἐμπεδοκλῆς δὲ καὶ Ἀριστοκλῆς καὶ τῶν Στωϊκῶν ἡ ξυμμορία τὴν καρδίαν ἀπεκλήρωσαν τούτῳ.
 5.22.7 (~ §8) οἱ μὲν ἐν τῇ κοιλίᾳ τῆς καρδίας.
 5.22.8 (~ §11) καὶ οἱ μὲν ἐν τῷ περικαρδίῳ ὑμένι.
 5.22.9 (~ §12) οἱ δὲ ἐν τῷ διαφράγματι.

Loci Aetiani:

titulus A 4.21 πόθεν αἰσθητικὴ γίνεται ἡ ψυχὴ καὶ τί αὐτῆς τὸ ἡγεμονικόν.

- §1 A 4.4.7 Δημόκριτος vid. infra §6 A 1.6.3 σφαιροειδὴς γὰρ ὁ κόσμος, ὃ πάντων τῶν σχημάτων πρωτεύει· μόνον γὰρ τοῦτο τοῖς ἑαυτοῦ μέρεσιν ὁμοιοῦται· περιφερὴς δ' ὢν ἔχει τὰ μέρη περιφερῆ· διὰ τοῦτο γὰρ κατὰ τὸν Πλάτωνα ἐν τῇ κεφαλῇ τὸ ἱερώτατον συνέστηκε νοῦς. A 4.16.4 Πλάτων καὶ οἱ ἀπ' αὐτοῦ πλήττεσθαι τὸν ἐν τῇ κεφαλῇ ἄερα· τοῦτον δ' ἀνακλᾶσθαι εἰς τὰ ἡγεμονικὰ καὶ γίνεσθαι τῆς ἀκοῆς τὴν αἴσθησιν. A 4.21.5 αὐτὸ δὲ τὸ ἡγεμονικὸν ὥσπερ ἐν κόσμῳ (ὃ θεός) κατοικεῖ

ἐν τῇ ἡμετέρᾳ σφαιροειδεῖ κεφαλῇ. A 5.17.3 Ἀλκμαίων τὴν κεφαλὴν (sc. πρῶτον τελεσιουργεῖται ἐν τῇ γαστρὶ), ἐν ᾗ ἔστι τὸ ἡγεμονικόν.

§2 A 4.17.1 Ἀλκμαίων ἐν τῷ ἐγκεφάλῳ εἶναι τὸ ἡγεμονικόν.

§3 A 5.24.4 Στράτων οἱ Στωικοὶ τὸν μὲν ὕπνον γίνεσθαι ἀνέσει τοῦ αἰσθητικοῦ πνεύματος ... φερομένου δ' ὡς ἐπὶ τὸ ἡγεμονικόν (ᾗ) μεσόφρυνον.

§6 A 4.4.7 Δημόκριτος Ἐπίκουρος διμερῇ τὴν ψυχὴν, τὸ μὲν λογικὸν ἔχουσιν ἐν τῷ θώρακι καθιδρυμένον, τὸ δ' ἄλογον καθ' ὅλην τὴν σύγκρισιν τοῦ σώματος διασπαρμένον. A 4.23.2 Ἐπίκουρος καὶ τὰ πάθη καὶ τὰς αἰσθήσεις ἐν τοῖς πεπονθόσι τόποις· τὸ γὰρ ἡγεμονικὸν ἀπαθές.

§7 al. A 4.21.4 (de Stoicis) αὐτὸ δὲ τὸ ἡγεμονικὸν ὥσπερ ἐν κόσμῳ κατοικεῖ ἐν τῇ ἡμετέρᾳ σφαιροειδεῖ κεφαλῇ.

§8 A 4.18.2 Διογένης ... διὰ τὸ συνάπτειν τὰς ἀπὸ τοῦ σώματος εἰς αὐτὴν (sc. τὴν γλῶτταν) φλέβας διαχεῖσθαι τοὺς χυμοὺς ἐλκομένους ἐπὶ τὴν αἴσθησιν καὶ τὸ ἡγεμονικόν, καθάπερ ἀπὸ σπογγίας. A 5.17.4 οἱ ἰατροὶ τὴν καρδίαν, ἐν ᾗ αἱ φλέβες καὶ αἱ ἀρτηρίαι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The only witnesses for this chapter are P and T. The witnesses for P are P^B, P^E, and P^Q. P has thirteen lemmata, which makes this one of his longest chapters in terms of lemmata. As has been previously noted, in the final Book of the *Praeparatio evangelica* E includes P's chapters 4.4–5. He omits §10 (= P₉), and moves the name-label Epicurus from P₅ to his version of P₆. S is unfortunately lost, which makes the reconstruction of the chapter difficult (we do not include in the present chapter the two lemmata from S Diels *DG* 392 located *ad finem*; for these see ch. 4.7a below). Although the doxographical tradition is a living and open one, that is, one hospitable to further material, so later evidence could have come in independently from what was in A, comparison with the wider and richer dialectical-doxographical tradition leads one to suspect that P, true to his method, has abridged the chapter. T too has been abridging and summarizing and as is his wont done so even more rigorously than P, but his remaining lemmata are very close to their parallels in P.

(2) T has only nine lemmata. Evidence not paralleled in P, namely §2, the information regarding Hippocrates and the brain which itself is confirmed by other representatives of the doxographical tradition, again confirms that T here does not derive from P but from A as the *uberior fons*. P and T's shared ἐν ὅλῃ τῇ καρδίᾳ in §6 is in favour of preserving P's ἐν ὅλῃ τῇ κεφαλῇ in §1. The first lemma

in T combines the contents of the first two lemmata in A, combining the three name-labels Hippocrates Democritus Plato, and for the doxa itself omitting ἐν ὅλῃ τῇ κεφαλῇ in favour of ἐν ἐγκεφάλῳ. In this way we get the required contrast between the first paragraph of the section dealing with the head and the first paragraph of the section dealing with the chest, viz. of §1 with §6. The restored name-label Ἀριστο(τέ)λης at the beginning of §7, not paralleled in P (or E), is based on T's Ἀριστοκλῆς. The overall resemblance between P and T, and the extra lemmata concerned with early name-labels to be found in other strands of the tradition (e.g. Macrobius), suggest that A already abridged the material. At any rate the exceptionally rich and diverse dialectical-doxographical parallels suggest that P and T must have considerably abridged their source, which again makes us deplore the loss of S.

B Proximate Tradition and Sources

(1) *Proximate tradition.* For the proximate tradition see the various and variously detailed accounts of e.g. Cicero *Tusc.* 1.19–21 (who includes related issues), Philo *Somn.* 1.32, and Tertullian *de An.* 1.5. Paul Wendland, who discovered and analyzed the Philo passage, argued at (1897) 1095 that this proves that Philo used Diels' *Vetusta placita*. In general see Mansfeld (1990a) 3092–3108 (P and T, Soranus, Pollux, Anonymus Parisinus olim Darembergii sive Fuch-sii), plus 3108–3131 (Alexander, Calcidius), 3117 (Philo), and 3127 (Cicero); cf. above ch. 2.11, Commentary B; ch. 4.2, Commentary B; and ch. 4.3, Commentary B. To some extent Cicero, Philo, Soranus and Tertullian are dependent on earlier and richer versions of the tradition, but extra material has also been incorporated subsequently: not only new tenets, but also earlier ones through retrograde contamination. For the much earlier version of our chapter abstracted by Chrysippus see below, section D(e).

(2) *Sources.* See below, section E(b) General texts, for the widespread tradition. The *hegemonikon* is what we think with and even, according to some, the seat of our feelings. Before the term *hegemonikon* became popular the discussion about the location of this part or function was formulated in terms of 'what we think with' or 'what is primary'. The opposition between brain and heart is already found in the *Corpus Hippocraticum*, namely at *De morbo sacro* chs. 14 and 17, where the author argues for the brain against those who favour the heart as the seat of the seat of both 'understanding' (ξύνεσις) and emotion. It is touched upon at Plato *Phd.* 96b, who lists no less than three of the fourteen alternative views in our *Placita* chapter, namely that 'what we think with' (ὃ φρονοῦμεν) is blood (cf. §9), or air (cf. §§7–8), or the brain (cf. §2); cf. Mansfeld (2000a) 8–10 = M–R 3.191–193. The location of the regent part and the conflicting views concerning its location are *not* at all an issue in Aristotle's

psychological treatise, see M–R 2.1.142. He briefly refers to it elsewhere, viz. *Met.* Z.10 1035b25–28 and *Met.* Δ.1 1013a4–7, where he speaks of the ‘first (part),’ be this heart or brain, or ‘the primary (part), in which the essence and the *logos* are present’ (ἐν ᾧ πρῶτον ὁ λόγος καὶ ἡ οὐσία). For the problem discussed in these passages this issue is (as he says) irrelevant, which obviously implies that in another context it is not. Cf. below, ch. 5.17, Commentary B(b). According to Demetrius Laco (below section E(a)§6) Epicurus argued in favour of the position of the *hegemonikon* in the chest against ‘many doctors’ (we may think of Hippocratics, perhaps of Epicurus’ near contemporary Herophilus) who placed it in the head (see below, section E(b)§§7/14). Alexander of Aphrodisias updates the issue from a Peripatetic point of view by arguing at some length in favour of the chest and the heart as the seat of the *hegemonikon*, *de An.* 98.8–100.13, and clearly refers to the diaphonia as formulated in the doxographical tradition and its dependants, see Mansfeld (1990a) 3108–3122 and Accatino–Donini (1996) 309. Bergeron–Dufour (2008) 360–364, 373 are not aware of the doxographical background.

C Chapter Heading

A long and detailed heading, preserved in P only. It is concerned with the question type/category of substance and the category of place. Compare the heading of ch. 2.5a, ‘Where does the cosmos have its regent part’ (ποῦ ἔχει τὸ ἡγεμονικόν ὁ κόσμος), derived by us from the general heading of S 1.21; see M–R 2.1.186, 2.2.374. Also cf. the heading of ch. 4.21 ‘How the soul comes to be sentient and what is its regent part’ (πόθεν αἰσθητικὴ γίνεται ἡ ψυχὴ καὶ τί αὐτῆς τὸ ἡγεμονικόν in P, τί αὐτῆς τὸ ἡγεμονικόν in S). It is echoed at Alexander *de An.* 94.7–8, see section E(b) General texts. For the τί ἐστὶ aspect see above, ch. 1.1, Commentary C. According to Galen *PHP* 7.1.1 there were far too many books dealing with the *hegemonikon*. E’s brief version Περί ἡγεμονικοῦ, presumably of his own devising, is noteworthy. A similar title is attested for one of the Stoic scholars, Galen *PHP* 2.5.7 ‘Diogenes of Babylon wrote in his *On the Regent Part of the Soul*’ (ἔγραψεν ἐν τῷ Περί τοῦ τῆς ψυχῆς ἡγεμονικοῦ Διογένης ὁ Βαβυλωνίος, *SVF* 3 Diog. 29), and for Ptolemy’s extant treatise *On the Criterion and the Hegemonikon* (Περὶ κριτηρίου καὶ ἡγεμονικοῦ). Galen *PHP* 3.3.24 (*SVF* 2.906) and elsewhere refers to Book 1 of Chrysippus’ *On the Soul* with the formula ὁ περὶ ἡγεμονικοῦ λόγος.

D Analysis

a Context

Our chapter follows on after ch. 4 dealing with the parts of soul, which in §1, §2, §4 (with the term ἡγεμονικοῦ), §6 and §7 distinguishes the rational or thinking

part of soul from another part or parts of soul, and in §7 also anticipates the category of place of ch. 4.5. It is followed at some distance (in our reconstruction) by a short chapter on intellect (ch. 7a). The regent part can be qualified as intellect, e.g. Philo *Leg.* 1.39, ‘just as the regent part of the body is the face, so the regent part of the soul is the intellect’ (ὥσπερ σώματος ἡγεμονικόν ἐστὶ πρόσωπον, οὕτως ψυχῆς ἡγεμονικόν ἐστὶν ὁ νοῦς). This is not generally so in ch. 4.5, but there is a hint in the final lemma, where the regent part qua ‘rational and intelligent’ or *nous*-like (λογικὸν καὶ νοερόν), is said to be in the head.

By and large the chapters on the soul and the senses in Book 4 follow the order of treatment of these topics in Aristotle’s *De anima* and in Chrysippus’ *On the Soul*, see M–R 2.1.138–144, 145–147, and above, Introduction to Book 4, section 6, and ch. 4.2, Commentary D(a) and (c). At *de An.* 3.4 Aristotle argues that the thinking part of the soul has no bodily organ, so lacks a specific location. The insertion of the present topic in the (Aristotelian) series of psychological chapters of the doxography mirrors the priorities of the Hellenistic philosophical agenda: for the main schools, the Stoics and Epicureans, the soul is corporeal, so its regent part must have a location in physical space. Disagreement about its location virtually never stopped.

b Number–Order of Lemmata

The fourteen lemmata of P and the nine of T as found in the sources, that is, as not interfered with by our reconstruction (our addition of §2), occur in exactly the same relative order, so must reproduce the order of A. From this point of view the reconstruction of the chapter is very safe. The only differences as to number and sequence with Diels’ chapter in the *DG* are on the one hand the addition of lemma 4.5.2 (Hippocrates), and on the other our distribution of the four doxai of a single Dielsian paragraph over §§9–12. See further above at section A.

c Rationale–Structure of Chapter

The rationale of the chapter, which in a very conspicuous way provides answers to the question ‘where?’ and so is about the category of place, is determined by a sequence of bodily parts *a capite ad calcem*. At the same time it is concerned with the category of substance, because it tells us what these parts are. The main diaphonia is between first the head as a whole, §§1–5, and second the thorax as a whole, §§6–13 so the list goes down from the head to the chest. In each of these main parts we find again a movement from top to bottom: in the region of the head from the membrane of the brain to the ventricle at its basis, in the region of the chest from the *pneuma* about the heart to the diaphragm at the boundary between chest and belly. And in each of these main parts there is

a further subdivision, viz. into the parts of the head and into those of the heart, respectively. At the end, §§14–15, we find two compromise positions, two varieties of ‘both’. The ‘younger ones’, not further identified (perhaps later Hellenistic philosophers or later doctors), say that the regent part outflanks the main division and reaches from the head to the diaphragm so is in both locations. A different overarching view is assigned to Pythagoras, who at a first glance is somewhat strangely said to have thought of two regent parts, a rational one in the head and a biotic one (ζωτικόν) in the heart, each occupying one of the main positions. This can actually be paralleled, see below, section D(d).

d Further Comments

General Points

In view of the openness of the tradition one should be reluctant to attribute to A every extra piece of information in Tertullian or Macrobius or Augustine or Caelius Aurelianus. Diels *DG* 202–204 attributed the richer information in Cicero and the later sources to his hypothetical *Vetusta placita*. We prefer to speak of the anterior doxographical tradition in general.

Of specific interest is the presence of *medical* tenets, some with name-labels, and some without. ‘Doctors’ (no names, but some doxai correspond) were already mentioned in the passage of Chrysippus *On Soul* (see below, section D(e)), which constitutes our earliest evidence for a collection of doxai concerned with the location of the regent part in a diaeresis including *parts* of the chest and *parts* of the head. The third subpart of the generic division of Stoic physics, called *aetiologikon* and dealing with the *hegemonikon* and related issues, was shared between philosophers and doctors, see M–R 2.1.105–107. An even earlier discussion of the seat of the regent part, with reference to doctors (no names, but they are said to be ‘numerous’), is in Epicurus fr. 313 Usener in Demetrius Laco, cited section E(b)§§4–5. Here, however, there is no evidence of a full diaeresis, and Demetrius only tells us that Epicurus argued against the doctors, not that he did so against the philosophers as well (though it is likely enough that in the lost portion of the text he included the latter, for refraining from criticizing his philosophical opponents is not typical of Epicurus). See Mansfeld (1990a) 3177–3179. Names of doctors are also listed at Tertullian *de An.* 15.3: Strato (the Erasistratean), Andreas, Asclepiades, Herophilus, Erasistratus, Diocles, Hippocrates, and Soranus (who may be Tertullian’s immediate source, see Waszink 1947, 224, and Podolak 2011, 117–120, 144–148).

Individual Points

§1 For the name-label Democritus, whose doxa here conflicts with that of ch. 4.4.7, see the tentative explanation at ch. 4.4 Commentary D(d)§7 above.

§2 Hippocrates is not placed first, as in T's lemma, because he places the regent part in the brain, i.e. in a part of the head, and not in the head as a whole. The head as a whole is taken care of at the beginning of the series concerned with the head, in §1, just as the chest as a whole is taken care of in §6, at the beginning of the series concerned with the chest. For further observations on the links between this chapter on the ἡγεμονικόν and ch. 5.17 see Mansfeld (1990a) 3013, 3212–3216.

§3 On Strato's regent part in ps.Plutarch *De aegritudine et libidine* ch. 4, partly cited section E(b)§2, see Sandbach (1969) 42–43 n. c.

§7 Diels *DG* 204 n. 1 naturally pointed out that T's Aristocles must be a mistake and suggested Ἀριστο(τέλης καὶ Διο)κλῆς, though he did not put this reading in his text at *DG* 391, where he cites the traditional conjecture Ἀριστο(τέ)λης. His own conjecture is too clever (it is questioned at Mansfeld 1990a, 3095, considered too speculative by Runia 1999a, 208 = M–R 3.2.534, and not mentioned by Van der Eijk 2000–2001). It is simpler to assume a trivial case of perseveration, the -κλῆς after Ἀριστο- echoing the -κλῆς after Ἐμπεδο- in T. The mistake is scribal (a case of mishearing or -reading) and not to be explained as a wilful modification on the part of T. At *CAG* 5.17 (~ A 4.2.6, see ad loc.) T replaced A's name-label by the more recherché ὁ δὲ Σταγειρίτης; he added similar information on Aristotle and Epicurus and Xenocrates and others in earlier chapters, see above, ch. 4.3 Commentary A(5) *ad finem* and 4.4 Commentary A(3). The ethnicon is paralleled at *CAG* 4.11, where it derives from A's chapter on the principles, as is clear from P 1.3.12 (and in P it occurs only here), and confirmed at Ach 3.3, p. 9.16 (the only occurrence in Ach). So T lets on that he knows whom he is writing about. It is also relevant that the combined name-labels Aristotle and Stoa are paralleled in Pollux in a very similar context, though he ascribes different doxai to the two name-labels Aristotle and the Stoa (*Onomast.* 2.226–227 εἴτε περὶ τὸ αἶμα, ὥς Ἐμπεδοκλῆς τε καὶ Ἀριστοτέλης, εἴτε περὶ τὴν καρδίαν, ὥς ἡ Στοά). The view involved is well-attested for Aristotle, e.g. *Iuv.* 3 469a4, 469a33–b1, *PA* 3.4 665b18–23. (It is attested for Diocles too, see frs. 78, 80, 102, 108 Van der Eijk, so one understands why Diels was tempted).

The Stoic doxa is that of the majority. πάντες fails to take the view of those Stoics into account who placed the regent part in the head. In the *Placita* this minority view is stated in the Stoic chapter 4.21.1 & 4, where the regent part is the 'highest part', and located 'in our spherical head'. πάντες is explicit. So there is a long-distance diaphonia, possibly unintentional, between chs. 4.5.7 and 4.21.4.

§8 Perhaps a doxographer wished to suggest, or even believed, that the name-label Diogenes pertains not to the Stoic philosopher from Babylon but to the earlier philosopher from Apollonia, though qua contents it is more likely

that the doxa represents a refinement of the general Stoic view (above, §4). A lemma in the chapter ‘On taste’, 4.18.2, links the tongue via veins ‘to the sense and the regent part’; it is more likely that this pertains to the Stoic Diogenes as well, since the route to the regent part via a sense is a Stoic idea—the said sense consisting of a pneumatic current.

§9 This view goes all the way back to Empedocles 31B105 DK. Both Tertulian and Calcidius quote the third line, in a different Latin translation each time, and a partial translation is already found at Cicero *Tusc.* 1.19. Perhaps we should cautiously suppose that the fuller quotation entered the tradition at a later moment, though it cannot be excluded that it was quoted by A and/or already by one of his predecessors. Verbatim quotations of Empedocles have been preserved in other *Placita* chapters, viz. at 1.3.19 (31B6 DK) and 1.30.1 (31B8 DK). That the blood at the heart is meant and not blood in general is clear from the position of the doxa in the sequence of lemmata, so θέσει not φύσει. Perhaps, moreover, we should consider adding the adjective περιχάρδιος, used by Empedocles himself, translated in a passage depending on the wider doxographical tradition by Cicero (cited above), and here used a few lines down, at §11. On the other hand ps.Plutarch *Strom.* 10 tells us that according to Empedocles the regent part is neither in the head nor in the breast but in the blood, and that people are more capable depending on the part of the body where it is present to a greater extent. This is a not unfair summary of (an account like) Theophrastus *Sens.* 10–11 as a whole, which contains the lapidary phrase ‘we think mostly with the blood’. The version of the doxa found in the (unemended) Aëtian lemma *de facto* turns its content into a compromise position comparable to that formulated in the *Stromateis*, but as pointed out above its position in the chapter shows that *de iure* it belongs with the second horn of the diaphonia. Even so, the parallel in the other ps.Plutarch shows what sort of inference could be based on the shorter version.

Diels *DG* 222, in his presentation of the evidence he could find for the (partial) dependence of sections and lemmata of the *Placita* on Theophrastus’ *De sensibus*, compared §9 with *Sens.* 10 τῷ αἵματι μάλιστα φρονεῖν, of course adding that the point about the ἡγεμονικόν is ‘recentiore sermone expressum’. *Ibid.* 223 he expresses himself more strongly, arguing that the attribution to Philolaus of a ἡγεμονικόν of the cosmos at ch. 2.4.15 Diels (~ 2.5a.4 M–R—he could have referred to ch. 2.5a as a whole, inclusive of the heading) is a case of ‘fraus’, and he refers back to our §9 for the same situation. For Diels on what he sees as doxographical fraud see M–R 1.99–100.

§12 E adds τῶν νεφρῶν after διαφράγμα, thus preserving extra material (rare in E, see M–R 1.139 with n. 54). From an anatomical point of view this reading is unobjectionable, because the kidneys are immediately below the diaphragm,

the position of which is thus indicated quite precisely. Mras, referring to Plato *Tim.* 72a, conjectures φρενῶν (another word for diaphragm) for E's νεφρῶν. The phrase διαφράγμα τῶν φρενῶν presumably is supposed to mean 'the partition consisting of the diaphragm'. However, this brilliant conjecture seems hardly necessary. Since τῶν νεφρῶν may be no more than a glossema, we have not included these words in the text.

§13 In A the formula τῶν νεωτέρων τινες is only paralleled at ch. 2.29.4–5, where the context shows that later Pythagoreans are meant (the better text of S contrasts them with 'the Pythagoreans according to the research of Aristotle and the assertion of Philip of Opus', fr. x Tarán). The striking parallel with the psychology of Alexander Polyhistor's *Pythagorean Hypomnemata* at Diogenes Laertius *VP.* 8.30 (quoted section E(b) ad loc.) suggest that this identification applies also here. The doxa attributed to Pythagoras himself at §14 is paralleled at *VP.* 8.30 as well; Theiler (1982) 335–336 attributes these doxai to Posidonius.

§14 For two regent parts, one in the head and one in the chest, compare Calcidius in *Tim.* cc. 231–232 (a sentence from c. 231 is quoted section E(a)§14). There is also a link with the first two of the four principles of the rational living being according to Philolaus, see 44B13 DK (cited below section E(b)§14): 'the head is the (seat) of the intellect, the heart of life and sensation ... the brain (contains) the principle of man, the heart of the living being'. It is very likely that the doxa refers to these kinds of reports. So the name-label Pythagoras may have supplanted Philolaus.

e Other Evidence

The Ciceronian and Philonic parallels are important because they show the indebtedness of A to a shared anterior tradition, just as in the previous chapters (4.2 and 4.3), and as in ch. 4.9 below, where A's parallels with Cicero show the same sort of dependence. The evidence in Tertullian, as indicated above, is also richer. More sensationally, as far as we know a version of the present *Placita* chapter was for the first time cited by Chrysippus in Book 1 of his *On Soul* (cited above Book 4 titulus et index, related texts, and in part below section E(a) General texts)—a unique testimony concerning the use of a predecessor of our *Placita* chapter in the third cent. BCE, see Mansfeld (1989a). Qua importance for the history of doxography this testimony is on a similar level as the evidence of *PPack*² 1499 for ch. 4.16, where see at Commentary B, Proximate tradition. See further above at section B, sources.

E Further Related Texts

a Proximate Tradition

General texts: *Chrysippus de An.* at Gal. *PHP* 3.1.12–15 (*SVF* 2.885 verbatim, i.e. ἐν τῷ περὶ τοῦ τῆς ψυχῆς ἡγεμονικοῦ λόγῳ *PHP* 3.8.39) περὶ δὲ τοῦ ἡγεμονικοῦ μέρους τῆς ψυχῆς διαφωνοῦσιν ἄλλοι ἐν ἄλλοις λέγοντες αὐτὸ εἶναι τόποις· οἱ μὲν γὰρ περὶ τὸν θώρακά φασιν εἶναι αὐτό, οἱ δὲ περὶ τὴν κεφαλὴν. κατὰ τὰ αὐτὰ δὲ ταῦτα διαφωνοῦσι, ποῦ τῆς κεφαλῆς καὶ τοῦ θώρακός ἐστιν, οὐ συμφωνοῦντες αὐτοῖς. ... οὕτω φαίνεται διαφεύγειν ὁ τόπος ἡμᾶς ... ὁ δὲ γὰρ ἂν ἀντιλογία ἐπὶ τοσοῦτον προήλθεν καὶ ἐν ἱατροῖς καὶ ἐν φιλοσόφοις. **Lucretius** *DRN* 3.548–549 *et quoniam mens est hominis pars una locoque / fixa manet certo.* *DRN* 3.615–621 *denique cur animi numquam mens consiliumque / gignitur in capite aut pedibus* (cf. below, **Seneca** *Ep.* 113.23) *manibusve, sed unis / sedibus et certis regionibus omnibus haeret* (etc.). *DRN* 3.789–792 = 5.133–136 *quod si posset enim, multo prius ipsa animi vis / in capite aut umeris aut imis calcibus esse / posset et innasci quavis in parte soleret, / tandem in eodem homine atque in eodem vase manere.* **Cicero** *Tusc.* 1.18–19 *quid sit porro ipse animus aut ubi aut unde, magna dissensio est. aliis cor ipsum animus videtur. ... (19) aliis pars quaedam cerebri visa est animi principatum tenere; aliis nec cor ipsum placet nec cerebri quandam partem esse animum, sed alii in corde, alii in cerebro dixerunt animi esse sedem et locum.* *Tusc.* 1.70 *in quo igitur loco est* (sc. mens hominis)? *credo equidem in capite et cur credam adferre possum. sed alias, ubi sit animus; certe quidem in te est.* **Philo of Alexandria** *Somn.* 1.32 τοῦ δ' ἐμπεφύλευκεν ὁ νοῦς αὐτῷ; ἄρα οἶκον κεκλήρωται; οἱ μὲν γὰρ τὴν ἀκρόπολιν ἐν ἡμῖν ἀνιέρωσαν αὐτῷ κεφαλὴν, περὶ ἣν καὶ αἱ αἰσθήσεις λοχῶσιν, εἰκὸς εἶναι νομίσαντες ἐγγὺς οἶα μεγάλου βασιλέως ἐφεδρεύειν τοὺς δορυφόρους· οἱ δ' ὑπὸ καρδίας αὐτὸν ἀγαλματοφορεῖσθαι διανοηθέντες γνωσιμαχοῦσιν. *Spec.* 1.213–214 οὕτε δὲ καρδίαν οὕτε ἐγκέφαλον, τοῦ ἡγεμονικοῦ τῷ ἐτέρῳ τούτων ἐνδιαιτωμένου. *Post.* 137 ὅπερ (sc. ἡγεμονικόν) εἴτε μήνιγγα εἴτε καρδίαν εἶναι συντέτευχεν, οἱ περὶ ταῦτα δεινοὶ φιλοσοφεῖτωσαν. **Pollux** *Onom.* 2.226–227 (**Soranus de An.** fr. 13[b] Podolak) μέρη δ' αὐτῆς νοῦς ἐπιθυμία θυμός. καὶ ὁ μὲν νοῦς καὶ λογισμός καὶ ἡγεμονικόν, εἴτε περὶ ἐγκεφάλῳ κατὰ Πυθαγόραν καὶ Πλάτωνα ἰδρυμένος, εἴτε ἐν παρεγκεφαλίδι ἢ μήνιγγιν, ὥς πολλοῖς τῶν ἱατρῶν δοκεῖ, εἴτε κατὰ τὸ μεσόφρουρον, ὥς ἔλεγε Στράτων, εἴτε περὶ τὸ αἶμα, ὥς Ἐμπεδοκλῆς τε καὶ Ἀριστοτέλης, εἴτε περὶ τὴν καρδίαν, ὥς ἡ Στοά. θυμοῦ δὲ τόπος ἄντικρυς ἢ καρδία, καθάπερ ὁ περὶ τὸ ἦπαρ τόπος ἐπιθυμίας. **Seneca** *Ep.* 113.23 *ne putes autem primum me ex nostris non ex praescripto loqui, sed meae sententiae esse: inter Cleanthen (—) et discipulum eius Chrysippum* (*SVF* 2.836) *non convenit, quid sit ambulatio. Cleanthes ait spiritum esse a principali usque in pedes permissum, Chrysippus ipsum principale.* **Plutarch** *Adv. Col.* 119A ἡ τῆς ψυχῆς τὸ κυριώτατον, ᾧ φρονούμεν καὶ λογιζόμεθα καὶ πράττομεν, ἕκαστος ἡμῶν ἐστί, τὰ δὲ λοιπὰ καὶ ψυχῆς μῦρια πάντα καὶ σώματος ὄργανα τῆς τούτου δυνάμεως; **ps.Galen** *Def. Med.* 19.378.4–8 K. ριγ'. ἡγεμονικόν ἐστὶ ψυχῆς τὸ ἄρχον τῶν μερῶν τῆς ψυχῆς, τὸ βασιλεύον καὶ ἐπιτάσσειν, καθιδρυμένον δὲ ἐν τῇ βάσει τοῦ ἐγκεφάλου. οἱ δὲ οὕτως· ἡγεμονικόν ψυχῆς ἐστὶ τὸ κατάρχον τῆς ὅλης τοῦ ζώου διοικήσεως, τεταγμένον δὲ ἐν τῇ καρδίᾳ {τοῦ ἐγκεφάλου}. **Galen** *Loc. Aff.* 8.158.11–160.7 ὥσπερ δ'

ἐνταῦθα φιλονεικίαν αἰσχροὺς ἐπιδείκνυνται προφανῶς, οὕτως ἄνοιαν, ὅταν οἴωνται πάνθ' ἑαυτῶν σαλεύεσθαι τὰ δόγματα, καὶ ἐν ὅτιον ἐλεγχθῇ· τινὰ μὲν γὰρ ἀλλήλοις ἀκολουθεῖ, καθάπερ γε πάλιν ἕτερα μάχεται, τινὰ δὲ οὐτ' ἀκολουθίαν οὔτε μάχην ἀναγκαίαν ἔχει, καθάπερ αὐτὸ τοῦτο τὸ περὶ τοῦ τῆς ψυχῆς ἡγεμονικοῦ. ἐάν τε γὰρ ἐν καρδίᾳ τις ἐάν τ' ἐν ἐγκεφάλῳ περιέχεσθαι τοῦτο φησι, δυνατόν ἐστὶν αὐτῷ καὶ περὶ τῶν φυσικῶν στοιχείων ἢν ἂν ἐβελήσῃ δόξαν ἐλομένῳ μῆτε μάχεσθαι τοῦτ' μῆτ' ἀκολουθεῖν. ... οὐδενὶ γὰρ ὦν εἴρηκα δογμάτων οὐτ' ἀκολουθία τίς ἐστὶν οὔτε μάχη πρὸς τὸ τῆς ψυχῆς ἡγεμονικόν, ἐάν τε ἐν καρδίᾳ τις ἐάν τε ἐν ἐγκεφάλῳ φησὶ περιέχεσθαι. προδιδοῦσιν οὖν ὅλην τὴν δογματικὴν αἵρεσιν οἱ τοιαύτας γράφοντες θεραπείας· περὶ γὰρ ἡγεμονικοῦ ψυχῆς ἀποδείξεων οὐσῶν ἐναργῶν, ὡς ἅπαντες ἀνθρώποις πεπιστευθῆαι τὸ μόνιον ἐν ᾧ κατῴκισται, μόνους ἰατρῶν τε καὶ φιλοσόφων τοῖς ἀρίστοις οὐ φαίνεται, τοῖς ἐν καρδίᾳ τιθεμένοις αὐτό. τὰς μὲν οὖν ἀποδείξεις ἐν τοῖς ὑπομνήμασιν εἶπον ἐν οἷς ἔγραψα περὶ τῶν Ἱπποκράτους καὶ Πλάτωνος δογμάτων· ὅτι δὲ καὶ πᾶσιν ἀνθρώποις πεπίστευται, τὸ μὲν λογιζόμενον ἐν ἐγκεφάλῳ καθιδρῦσθαι, τὸ δ' ἀνδρείον τε καὶ θυμοειδὲς ἐν καρδίᾳ, τὸ δ' ἐπιθυμητικὸν ἐν ἥπατι, μαθεῖν ἔστιν ὁσημέραι λεγόντων αὐτῶν ἀκούοντα, πρὸς μὲν τὸν ἀνόητον, ὡς ἐγκέφαλον οὐκ ἔχει· πρὸς δὲ τὸν ἀτολμον καὶ δειλόν, ὡς ἀκάρδιος εἴη· τοῦ Τιτυοῦ δ' ὑπ' αἵτου τὸ ἥπαρ ἐσθιόμενον, οὐ μόνον ἐν ποιήμασι λεγόντων, ἀλλὰ καὶ πλαττόνων τε καὶ γραφόντων. **Clement of Alexandria Strom.** 8.4.14.4–5.15.1 δευτέρα δ' ἦν διαφορὰ προβλημάτων ἐφ' οὗ τὰ μὲν ἔργα καὶ πάθη γινώσκωμεν ἅπαντες, ἀγνοοῦμεν δὲ τὴν οὐσίαν, οἷον ἐν τίνι τοῦ σώματος μορίῳ τὸ ἡγεμονικόν ἐστὶ τῆς ψυχῆς. ... (5.15.1) φασὶν οὖν τινες μὴ ἐγχωρεῖν πλείους ἀρχὰς ἐνὸς εἶναι ζώου. ὁμογενεῖς μὲν οὖν ἀρχὰς οὐκ ἐγχωρεῖ πλείους ὑπάρχειν ἐνὸς ζώου, διαφερούσας δὲ τοῖς γένεσιν οὐδὲν ἄτοπον. **Tertullian de An.** 15.1–3 (**Soranus de An.** fr. 12[a] Podolak) *inprimis an sit aliqui summus in anima gradus vitalis et sapientialis, quod ἡγεμονικόν appellat, id est principale, quia si negetur, totus animae status periclitatur. denique qui negant principale, ipsam prius animam nihil censuerunt.* (2) **Messenius aliqui Dicaearchus** (fr. 8h Wehrli, 25 Mirhady) ... *ex medicis autem Andreas et Asclepiades* (cf. Vallance ANRW 2.37.1, p. 727) ... *abstulerunt principale, dum in animo ipso volunt esse sensus, quorum vindicatur principale. Asclepiades etiam illa argumentatione vectatur, quod pleraque animalia ademptis eis partibus corporis, in quibus plurimum existimatur principale consistere, et insuper vivant aliquatenus ... si capita decideris, ... si corda detraxeris; itaque principale non esse, quo, si fuisset, amisso cum suis sedibus vigor animae non perseveraret.* (3) *sed plures et philosophi adversus Dicaearchum: Plato Strato* (fr. 116 Wehrli, 56 Sharples) *Epicurus* (—) *Democritus* (fr. 458 Luria) *Empedocles* (—) *Socrates Aristoteles, et medici adversus Andrean et Asclepiaden: Herophilus* (T 139 Von Staden) *Erasistratus* (—) *Diocles* (fr. 37 Van der Eijk) *Hippocrates et ipse Soranus. Sextus Empiricus M.* 7.313 εἰ δὲ καὶ τὸν τόπον ὁ νοῦς ᾗ ἐστι συγκαταλαμβάνει ἑαυτῷ, ἐχρῆν μὴ διαφωνεῖσθαι τοῦτον παρὰ τοῖς φιλοσόφοις, τῶν μὲν κεφαλὴν λεγόντων εἶναι τῶν δὲ θώρακα, καὶ ἐπ' εἶδους τῶν μὲν ἐγκέφαλον τῶν δὲ μῆνιγγα, τινῶν δὲ καρδίαν, ἄλλων δὲ ἥπατος πύλας ἢ τι τοιοῦτο μέρος τοῦ σώματος. *M.* 7.348–349 τὴν διάνοιαν ... (349) οἱ μὲν μὴδὲν φασὶν εἶναι αὐτὴν παρὰ τὸ πῶς ἔχον σῶμα, καθάπερ ὁ Δικαίαρχος (fr. 8a Wehrli, 24 Mirhady), οἱ δὲ εἶναι μὲν

ἔλεξαν, οὐκ ἐν τῷ αὐτῷ δὲ τόπῳ περιέχεσθαι, ἀλλ' οἱ μὲν ἐκτὸς τοῦ σώματος, ὡς Αἰνησίδημος (fr. B24A Polito) κατὰ Ἡράκλειτον (T 689 Mouraviev), οἱ δὲ ἐν ὅλῳ τῷ σώματι, καθάπερ τινὲς κατὰ Δημόκριτον (68A107 DK), οἱ δὲ ἐν μέρει τοῦ σώματος, ὧν πάλιν πολυσχιδεῖς εἰσιν αἱ γνώμαι. *M.* 7.38ο εἰ ἔστι τὸ ἡγεμονικόν, καὶ ἐν τίνι τόπῳ ἔστιν, οὐχ ὠμολόγηται, ἄλλων μὲν οὐδ' ὅλως ὑπάρχειν τι λεγόντων ἡγεμονικόν, ὡς τῶν περὶ τὸν Ἀσκληπιάδην (cf. Vallance ANRW 2.37.1, p. 726), τινῶν δὲ εἶναι μὲν νομιζόντων, οὐ συμφωνούντων δὲ περὶ τοῦ περιέχοντος αὐτὸ τόπου. *P.* 1.128 περὶ γὰρ ἕκαστον τῶν τόπων ἐν οἷς τὸ ἡγεμονικόν εἶναι δοκοῦσιν οἱ δογματικοί, χυμούς τινας ὑποκειμένους θεωροῦμεν, εἴτε περὶ ἐγκέφαλον εἴτε περὶ καρδίαν εἴτε περὶ ὀτιδήποτε οὖν μέρος τοῦ ζώου τοῦτο τίθεσθαι βούλοισι τις. **Tertullian** *Res.* 15.16 *sed etsi in cerebro vel in medio supercilliorum discrimine vel ubiubi philosophis placet principalitas sensuum consecrata est, quod ἡγεμονικόν appellatur, caro erit omne animae cogitatorium.* **Lactantius** *Op.D.* 16.1 *Perrin mentis quoque rationem incomprehensibilem esse quis nesciat nisi qui omnino illam non habet, cum ipsa mens quo loco sit aut cuiusmodi nesciatur? varia ergo a philosophis de natura eius et loco disputata sunt.* *Op.D.* 16.11 *sive igitur in capite mens habitat sive in pectore, potestne aliquis comprehendere quae vis rationis efficiat ut sensus ille incomprehensibilis aut in medulla cerebri haereat aut in illo sanguine bipertito qui est conclusus in corde.* **Calcidius** in *Tim.* cc. 213–214 *quod hegemonicon a philosophis dicitur, ... sed quoniam de hoc diversae opinioniones philosophorum tam veterum quam novorum extiterunt, recensendae nobis singulae sunt.* **Gregory of Nyssa** *Opif.Hom.* c. 12, *MPG* 44, p. 156.33–53 οἱ μὲν ἐν καρδίᾳ τὸ ἡγεμονικόν εἶναι τίθενται, οἱ δὲ τῷ ἐγκεφάλῳ τὸν νοῦν ἐνδαιτιάσθαι φασιν, ἐπιπολαίοις τισὶ πιθανότησι τὰς τοιαύτας ἐπινοίας κρατοῦντες. ὁ μὲν γὰρ τῇ καρδίᾳ προστιθεὶς τὴν ἡγεμονίαν, τὴν κατὰ τόπον αὐτῆς θέσιν ποιεῖται τοῦ λόγου τεκμήριον, διὰ τὸ δοκεῖν πως τὴν μέσσην τοῦ παντὸς σώματος ἐπέχειν χώραν αὐτὴν, ὡς τῆς προαιρετικῆς κινήσεως εὐκόλως ἐκ τοῦ μέσου πρὸς ἅπανα μεριζομένης σώμα, καὶ οὕτως εἰς ἐνέργειαν προϊούσης. καὶ μαρτύριον ποιεῖται τοῦ λόγου τὴν λυπηράν τε καὶ θυμῳδὴν τοῦ ἀνθρώπου διάθεσιν, ὅτι δοκεῖ πως τὰ τοιαῦτα πάθη συγκινεῖν τὸ μέρος τοῦτο πρὸς τὴν συμπάθειαν. οἱ δὲ τὸν ἐγκέφαλον ἀφιερῶντες τῷ λογισμῷ, ὥσπερ ἀκρόπολιν τινα τοῦ παντὸς σώματος τὴν κεφαλὴν δεδομησθαι παρὰ τῆς φύσεως λέγουσιν· ἐνοικεῖν δὲ ταύτῃ καθάπερ τινὰ βασιλέα τὸν νοῦν, οἷον τισιν ἀγγελιαφόροις ἢ ὑπασπισταῖ, τοῖς αἰσθητηρίοις ἐν κύκλῳ δορυφορούμενον. σημειῖον δὲ καὶ οὗτοι τῆς τοιαύτης ὑπονοίας ποιοῦνται, τὸ παράγασθαι τοῦ καθεστῶτος τὸν λογισμὸν τῶν κεκακωμένων τὰς μήνιγγας κτλ. **Caelius Aurelianus** *Cel.Pass.* 1.8.53–54 see details below. **Augustine** *Trin.* 10.7.1–5 *Mountain–Glorie et quia sibi bene conscia est principatus sui quo corpus regit, hinc factum est ut quidam quaerent quid corporis amplius valet in corpore, et hoc esse mentem vel omnino totam animam existimarent. itaque alii sanguinem, alii cerebrum, alii cor.* differently **Nemesius** *NH* c. 3, pp. 41.5–42.8 (using a Neoplatonist source) ἡ δὲ ψυχὴ, ἀσώματος οὖσα καὶ μὴ περιγραφομένη τόπῳ, ὅλη δι' ὅλου χωρεῖ καὶ τοῦ φωτὸς ἑαυτῆς καὶ τοῦ σώματος, καὶ οὐκ ἔστι μέρος φωτιζόμενον ὑπ' αὐτῆς, ἐν ᾧ μὴ ὅλη πάρεστιν. οὐ γὰρ κρατεῖται ὑπὸ τοῦ σώματος, ἀλλ' αὐτὴ κρατεῖ τὸ σῶμα, οὐδὲ ἐν τῷ σώματι ἔστιν ὡς ἐν ἀγγεῖῳ ἢ ἀσκάῳ, ἀλλὰ μάλλον τὸ σῶμα ἐν αὐτῇ. μὴ κωλυόμενα γὰρ ὑπὸ

τῶν σωμάτων τὰ νοητά, ἀλλὰ διὰ παντὸς σώματος χωροῦνται καὶ διαφοιτῶνται καὶ διεξιόντα, οὐχ οἷά τέ ἐστιν ὑπὸ τόπου σωματικοῦ κατέχεσθαι· νοητὰ γὰρ ὄντα ἐν νοητοῖς καὶ τόποις ἐστίν, ἢ γὰρ ἐν ἑαυτοῖς ἢ ἐν τοῖς ὑπερκειμένοις νοητοῖς, ὡς ἡ ψυχὴ ποτὲ μὲν ἐν ἑαυτῇ ἐστίν, ὅταν λογίζεται, ποτὲ δὲ ἐν τῷ νῷ, ὅταν νοῇ. ... ἀμέγεθες γὰρ ὂν καὶ ἄογκον καὶ ἀμερὲς τῆς κατὰ μέρος τοπικῆς περιγραφῆς κρείττον ἐστίν. τὸ γὰρ μὴ ἔχον μέρος ποῖω δύναται τόπῳ περιγράφεσθαι. ... (42.4) δέδεικται γὰρ μὴ δύνασθαι περιληφθῆναι τόπῳ· ὅταν οὖν ἐν σχέσει γένηται νοητὸν τόπου τινὸς ἢ πράγματος ἐν τόπῳ ὄντος, καταχρηστικώτερον λέγομεν ἐκεῖ αὐτὸ εἶναι διὰ τὴν ἐνέργειαν αὐτοῦ τὴν ἐκεῖ, τὸν τόπον ἀντὶ τῆς σχέσεως καὶ τῆς ἐνεργείας λαμβάνοντες.

Chapter heading: Diogenes Laertius V.P. 7.132–133 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. the Stoics) ... (133) τὸν τ' αἰτιολογικὸν εἶναι καὶ αὐτὸν διμερῆ· μιᾷ δ' αὐτοῦ ἐπισκέψει ἐπικοινωνεῖν τὴν τῶν ἱατρῶν ζήτησιν, καθ' ἣν ζητοῦσι περὶ τοῦ ἡγεμονικοῦ τῆς ψυχῆς, excerpted at *Suda* s.v. Φ 862, p. 4.775.28–29 Adler φυσικὸς λόγος παρὰ φιλοσόφοις ... διεξέρχονται περὶ τοῦ ἡγεμονικοῦ. **Calcidius in Tim.** c. 7 *De anima et partibus eius et locis*.

§0 **Whether it exists: Tertullian de An.** 15.1 (Soranus de An. fr. 12[a] Podolak) *denique qui negant principale, ipsam prius animam nihil censuerunt* etc. (see General texts). **Lactantius Op.D.** 16.1 *Perrin mentis quoque rationem incomprehensibilem esse quis nesciat nisi qui omnino illam non habet, cum ipsa mens quo loco sit aut cuiusmodi nesciatur?* **Calcidius in Tim.** c. 214 *qui dividuam fore silvae substantiam censuerunt interponentes immenso inani modo expertia, modo partes quidem, sed indifferentes, sui similes, tum atomos vel solidos moles, nullum locum certum definitumque principali animae parti dederunt*; also c. 216. **Caelius Aurelianus Cel.Pass.** 1.14.115 (Asclepiades cf. Vallance *ANRW* 2.37.1, p. 713) *deinde regnum animae aliqua in parte corporis constitutum negat*.

§§1–2 **Plato Democritus Hippocrates: Ptolemy Iudic.** c. 15, pp. 21.23–22.6 τούτων δὲ οὕτως ἐφωδευμένων, ὅτι μὲν ἡγεμονικὸν γίνεται τοῦ σώματος, ἐν ᾧ τὸ ἡγεμονικὸν τῆς ψυχῆς, οὐδὲ εἰς ἂν ἀπορήσειεν· εἰ δ' αὐτὸ τὸ ἡγεμονικὸν οὕτως ἀπλῶς ληπτέον καὶ οὐχ ὡς τῶν πρὸς τι ὂν, ὥδι πως κατὰ τὸ κεφαλαιώδες διοριστέον· ἐὰν μὲν γὰρ τὸ βέλτιστον ἀπλῶς καὶ τιμιώτατον καλῶμεν ἡγεμονικόν, ἐν ἐγκεφάλῳ τοῦτο ἔσται. δέδεικται γὰρ ἡμῖν ἱκανῶς, ὅτι τὸ διανοητικὸν καὶ δυνάμει καὶ οὐσίᾳ τιμιώτερον καὶ θεϊότερόν ἐστιν ἢ τε τῷ παντὶ καὶ ἐν ἡμῖν· καὶ ὅτι τόπος αὐτοῦ τὰ ἀνωτάτω, τοῦ κόσμου μὲν ὁ οὐρανός, ἀνθρώπου δὲ ἡ κορυφή.

§1 **Plato Democritus: Chrysippus de An.** at Gal. *PHP* 3.1.14 (verbatim) Πλάτων ... τὸ μὲν λογιστικὸν ἔλεγεν ἐν τῇ κεφαλῇ εἶναι. **Cicero Tusc.** 1.20 *Plato ... principatum, id est rationem, in capite sicut in arce posuit*. **Philo of Alexandria Somn.** 1.32 οἱ μὲν γὰρ τὴν ἀκρόπολιν ἐν ἡμῖν ἀνιέρωσαν αὐτῷ κεφαλῇ. **Pollux Onom.** 2.225–226 (Soranus de An. fr. 13[b] Podolak) καὶ ὁ μὲν νοῦς καὶ λογισμὸς καὶ ἡγεμονικόν, εἴτε περὶ ἐγκεφάλῳ κατὰ Πυθαγόραν καὶ Πλάτωνα ἰδρυμένος. **Censorinus DN** c. 6.1 *Hippon* (38A15 DK) *vero caput* (sc. *primum in infante formari censuit*), *in quo est animi principale*. **Tertullian de An.** 15.5 (Soranus de An. fr. 13[a] Podolak) *in capite concludi secundum Platonem, neque in vertice*

potius [i.e. in a part of the head, doxa not paralleled in A] *praesidere secundum Xenocratem* (fr. 72 Heinze, F 128 Isnardi Parente²). *Lactantius Op.D.* 5.6 Perrin *in summo vero constructionis eius* (sc. corporis) *quam similem navali carinae diximus, caput conlocavit, in quo esset regimen totius animantis, 'datumque illi hoc nomen est', ut quidem Varro* (fr. 33 Goetz & Schoell) *ad Ciceronem scribit, 'quod hinc capiant initium sensus ac nervi'.* *Op.D.* 16.6–8 Perrin *videtur enim mens, quae dominatum corporis tenet, in summo capite constituta tamquam in caelo deus, sed cum in aliqua sit cogitatione, commeare ad pectus et quasi ad secretum aliquod penetrare secedere, ut consilium tamquam ex thesauro recondito eliciat ac proferat;* (7) *ideoque cum intenti ad cogitandum sumus et cum mens occupata in altum se abdiderit, neque audire quae circumsonant neque videre quae obstant solemus.* (8) *id vero sive ita est, admirandum profecto est quomodo id fiat, cum ad pectus a cerebro nullum iter pateat, sin autem non est ita, tamen nihilo minus admirandum est quod divina nescio qua ratione fiat ut ita esse videatur.* *Calcidius in Tim.* c. 213 *principalem animae potestatem asserit in capite sedes habere* (*Tim.* 45a–b). *in Tim.* c. 231 *rationabili velut arx corporis et regia, utpote virtuti quae regali quadam eminentia praestet, id est domicilium capitis, in quo habitet animae principale, quod ad similitudinem mundi sit exaedificatum, teres et globosum dogma Platonis probatur, quod animae vis principalis in cerebri locata sit sede.*

§2 *Hippocrates: Demetrius Laco* *Apor.Test.*, *PHerc* 1012 col. 47.8–11 (see below §§4–5). *Cicero Tusc.* 1.19 *alii in cerebro dixerunt animi esse sedem et locum.* *Tusc.* 1.19 *cerebrum.* *Tusc.* 1.41 *cerebrove.* *Tertullian de An.* 15.5 (*Soranus de An.* fr. 13[a] Podolak) *in cerebro ... secundum Hippocratem.* *ps.Galen Def.Med.* 19.459.11–12 K. υξζ'. ó ἐγκέφαλος τὴν ψυχικὴν ἔχει δύναμιν καὶ ταύτης τὸ ἡγεμονικὸν ὅπερ ἐστὶ λογιστικὸν καὶ ὁ νοῦς. *Lactantius Op.D.* Perrin 16.4 *alii sedem eius in cerebro esse dixerunt.* *Caelius Aurelianus Cel.Pass.* 1.8.53 *alii igitur cerebrum pati dixerunt.* *Tard.Pass.* 1.4.60 *sive quod in capite fiat, quod multorum philosophorum iudicio sacrum atque templum est partis animae in corpore natae.*

§3 *Strato: Pollux Onom.* 2.226 (*Soranus de An.* fr. 13[b] Podolak) εἴτε κατὰ τὸ μεσόφρουον, ὡς ἔλεγε Στράτων (fr. 121 Wehrli, app. fr. 57 Sharples). *Tertullian de An.* 15.5 (*Soranus de An.* fr. 13[a] Podolak) *in superciliorum meditullio, ut Strato physicus* (fr. 120 Wehrli, 58 Sharples).

§§4–5 *Erasistratus Herophilus: Demetrius Laco* *Apor.Test.*, *PHerc* 1012 col. xl.8–11 *Puglia μετὰ ταῦτα δ' ἀντιπροφέ|ρεται* (sc. Epicurus, fr. 313 Usener) *τὴν σημηωσιν, ἧ | χράνται πολλοὶ τῶν |α|τρῶ[ν ὅ]πέρ το[ῦ] τὸ[ν] λογισμὸν ἐν κεφ[αλῇ] ἐστηρ[ί]χθαι.* *Cicero Tusc.* 1.19 *aliis pars quaedam cerebri visa est animi principatum tenere.* *Pollux Onomast.* 2.226 (*Soranus de An.* fr. 13[b] Podolak) εἴτε ἐν παρεγκεφαλίδι ἢ μήνιγι, ὡς πολλοῖς τῶν |α|τρῶν δοκεῖ.

§4 *Erasistratus: Tertullian de An.* 15.5 (*Soranus de An.* fr. 13[a] Podolak) *nec in membranulis, ut Strato* (sc. the Erasistratean) *et Erasistratus* (fr. 41 Garofalo). *Caelius Aurelianus Cel.Pass.* 1.8.53 *alii membranas, alii et cerebrum et membranas.*

§5 **Herophilus:** *Tertullian de An.* 15.5 (*Soranus de An.* fr. 13[a] Podolak) *circa cerebri fundamenta, ut Herophilus* (T 139 Von Staden). **Caelius Aurelianus** *Cel.Pass.* 1.8.53 *alii eius* (sc. cerebri) *fundum sive basin*.

§6 **Parmenides:** **Demetrius Laco** *Apor.Test.* (*PHerc* 1012) col. xlvi.1–3 + xlvii.5–6 *Puglia κα]τελέξαθ' ὁ Ἐπίκουρος* (fr. 313 Usener) καὶ π[ε]ρὶ τοῦ τόπου λογιζομένου μέρους τῆς ψυχῆς ... φανερώς γὰρ ἐπὶ τὸν | θώρακα ἢ ὅλην γέινεται (for continuation see above §§4–5). **Lucretius** *DRN* 3.138–144 *sed caput esse quasi et dominari in corpore toto / consilium, quod nos animum mentemque vocamus. / idque situm media regione in pectoris haeret. / hic exultat enim pavor ac metus, haec loca circum / laetitia mulcent: hic ergo mens animusquest. / cetera pars animae per totum dissita corpus / paret et ad numen mentis momenque movetur*. **Tertullian de An.** 15.5 (*Soranus de An.* fr. 13[a] Podolak) *in tota lorica pectoris, ut Epicurus* (fr. 312 Usener).

§7 **Aristotle Stoics:** **Philo of Alexandria** *Somn.* 1.32 οἱ δ' ὑπὸ καρδίας αὐτὸν ἀγαλματοφορεῖσθαι. **Pollux Onomast.** 2.226 (*Soranus de An.* fr. 13[b] Podolak) εἴτε περὶ τὴν καρδίαν, ὡς ἡ Στοά (—). **Arius Didymus** fr. 39 Diels, *DG* p. 471.15–16 at Eus. *PE* 15.20.6 (*SVF* 2.821) ἔχειν δὲ πᾶσαν ψυχὴν ἡγεμονικὸν τι ἐν αὐτῇ, ὃ δὴ ζωὴ καὶ αἴσθησις ἐστὶ καὶ ὁρμή. **Diogenes Laertius** *VP.* 7.159 (*SVF* 2.837) ἡγεμονικὸν δ' εἶναι τὸ κυριώτατον τῆς ψυχῆς, ἐν ᾧ αἱ φαντασίαι καὶ αἱ ὁρμαὶ γίνονται καὶ ὁθεν ὁ λόγος ἀναπέμπεται (cf. chs. 4.11–12, 4.21)· ὅπερ εἶναι ἐν καρδίᾳ. **Calcidius in Tim.** c. 220 *Stoici (SVF 2.879) vero cor quidem sedem esse principalis animae partis consentiunt nec tamen sanguinem qui cum corpore nascitur. in Tim.* 224 *principalis vero animae pars ... hanc vero Aristoteles asserit locatam esse in penetralibus cordis*. **Caelius Aurelianus** *Cer.Pass.* 1.8.53 *alii cor, alii cordis summitatem*.

§9 **Empedocles:** **Cicero Tusc.** 1.19 *Empedocles animum esse censet cordi suffusum sanguinem* (namely αἷμα περικάρδιον, 31B105.3 DK). **Pollux Onom.** 2.226 (*Soranus de An.* fr. 13[b] Podolak) εἴτε περὶ τὸ αἷμα, ὡς Ἐμπεδοκλῆς τε καὶ Ἀριστοτέλης. **ps.Plutarch Strom.** 10 (fr. 179 Sandbach) at Eus. *PE* 1.8.10 (on Empedocles, 31A30 DK) τὸ δ' ἡγεμονικὸν οὗτ' ἐν κεφαλῇ οὗτ' ἐν θώρακι ἀλλ' ἐν αἵματι· ὁθεν καθ' ὃ τι ἂν μέρος τοῦ σώματος πλεῖον ἢ παρεσπαρμένον {τὸ ἡγεμονικόν}, οἶεται κατ' ἐκεῖνο προτερεῖν τοὺς ἀνθρώπους. **Tertullian de An.** 15.5 (*Soranus de An.* fr. 13a] Podolak) *ut et ille versus Orphei vel Empedoclis* (31B105.3 DK): *'namque homini sanguis circumcordialis est sensus'*. **Calcidius in Tim.** c. 218 *Empedocles quidem principalem animae vim constituit in corde, dicens* (31B105.3 DK): *'sanguine cordis enim noster viget intellectus, siquidem intimis sensibus nostris sentiamus ea quae sunt extra nos propter cognationem. ideoque ait* (31B109.1–2 DK): *'terram terreno sentimus, at aethera flammis, humorem humecto, nostro spirabile flatu. sed de his omnibus, qualia sint quantamve inter se habeant differentiam, cordis sanguine diiudicamus* (cf. also above under General texts, Augustine *Trin.* 10.vii.4 *alii sanguinem*).

§11 **Anonymi:** **Caelius Aurelianus** *Cel.Pass.* 1.8.53–54 *alii membranam, quae cor circumtegit, alii arteriarum eam, quam Graeci ἀορτήν appellant, alii venam crassam, quam iidem φλέβα παχείαν vocaverunt*.

§12 *Later anonymi: Caelius Aurelianus Cel.Pass.* 1.8.54 *alii diaphragma.*

§14 *Pythagoras: Calcidius in Tim.* cc. 231–232 ... *dogma Platonis probatur, quod animae vis principalis in cerebri locata sit sede.* (232) *illud vero aliud principale, quod secundae dignitatis esse praediximus, non rationabilis animantis, sed id ipsum animantis. commune ergo ut animalis in corde et medietate, ut vero rationabilis animantis in cerebro.*

b Sources and Other Parallel Texts

General texts: *Corpus Hippocraticum Morb.Sacr.* 17 διὸ φημὶ τὸν ἐγκέφαλον εἶναι τὸν ἐρμηνεύοντα τὴν ξύνεσιν. ... λέγουσι δὲ τινες ὡς φρονέομεν τῇ καρδίῃ καὶ τὸ ἀνιῶμενον τοῦτό ἐστι καὶ τὸ φροντίζον· τὸ δὲ οὐχ οὕτως ἔχει. **Plato** *Phd.* 96b καὶ πότερον τὸ αἷμά ἐστιν ᾧ φρονούμεν (Empedocles 31A76 DK) ἢ ὁ ἀήρ (cf. Anaximenes 13A23 DK) ἢ τὸ πῦρ, ἢ τούτων μὲν οὐδέν, ὁ δ' ἐγκέφαλός ἐστιν (cf. Alcmaeon 24A11DK) ὁ τὰς αἰσθήσεις παρέχων τοῦ ἀκούειν καὶ ὁρᾶν καὶ ὁσφραίνεσθαι, ἐκ τούτων δὲ γίγνοιτο μνήμη καὶ δόξα, ἐκ δὲ μνήμης καὶ δόξης λαβοῦσης τὸ ἡρεμεῖν, κατὰ αὐτὰ γίγνεσθαι ἐπιστήμην. **Aristotle** *Met.* Δ.2 1013a4–7 (ἀρχὴ λέγεται) ... ὅθεν πρῶτον γίγνεται ἐνυπάρχοντος, οἷον ὡς πλοίου τρόπισ καὶ οἰκίας θεμέλιος, καὶ τῶν ζώων οἱ μὲν καρδίαν οἱ δὲ ἐγκέφαλον οἱ δ' ὅ τι ἂν τύχῃσιν τοιοῦτον ὑπολαμβάνουσιν. *Met.* Ζ.10 1035b25–28 ἔνια δὲ ἄμα, ὅσα κύρια καὶ ἐν ᾧ πρῶτῳ ὁ λόγος καὶ ἡ οὐσία, οἷον εἰ τοῦτο καρδίᾳ ἢ ἐγκέφαλος· διαφέρει γὰρ οὐθὲν πότερον τοιοῦτον. **Cicero** *ND* 2.29 *omnem enim naturam necesse est, quae non solitaria sit neque simplex sed cum alio iuncta atque conexas, habere aliquem in se principatum, ut in homine mentem, in belva quiddam simile mentis unde oriantur rerum adpetitus; in arborum autem et earum rerum quae gignuntur e terra radicibus inesse principatus putatur. principatum autem id dico quod Graeci ἡγεμονικὸν vocant, quo nihil in quoque genere nec potest nec debet esse praestantius.* **Alexander of Aphrodisias** in *Top.* 218.23–24 κατὰ δὲ τὸ πού ἢ ζήτησις, ὅταν ζητῇται ἐν ποτέρῳ μᾶλλον τὸ ἡγεμονικόν, ἐν καρδίᾳ ἢ ἐν ἐγκεφάλῳ. *de An.* 94.7–8 πού δὲ ἐστὶν τὸ ἡγεμονικόν τῆς ψυχῆς καὶ ἐν τίνι μορίῳ τοῦ σώματος, καὶ πότερον ἐν ἐνὶ ὑποκειμένῳ κατ' ἀριθμὸν πᾶσα ἢ ψυχὴ κατὰ τὰς δυνάμεις μόνον καὶ κατὰ τὸν λόγον ἔχουσα τὰς διαφοράς, ἢ καὶ κατὰ τόπον εἰσὶν ἀλλήλων αἱ τῆς ψυχῆς δυνάμεις κεχωρισμέναι, ἄξιον ἐπὶ τούτοις ἰδεῖν. *de An.* 99.30–100.1 τὰ δὲ λεγόμενα πρὸς δεῖξιν τοῦ τὸ ἡγεμονικὸν περὶ κεφαλῇν τε καὶ ἐγκέφαλον εἶναι τὰ μὲν ἐστὶ κενὰ κτλ. **Galen** *PHP* 2.5.40–41 λοιπὸν εἴτ' ἐγκέφαλός ἐστιν εἴτε καρδίᾳ τὸ τῆς ψυχῆς ἡγεμονοῦν, οὐδὲν οἶμαι διαφέρειν εἰς γε τὴν τοῦ προκειμένου λόγου διάλυσιν. *PHP* 7.1.1 οὐκ ἐγὼ τοῦ μήκους τῆς πραγματείας αἵτιος ... ἀλλ' οἱ ψευδῶν λόγων ὧν ἡρώτησαν ὑπὲρ ἡγεμονικοῦ ψυχῆς οὐκ ὀλίγας πληρώσαντες βίβλους. *ArsMed.* c. 37.10, 1.409.6–10 K. ὑπὲρ ἡγεμονικοῦ δὲ καὶ τῶν ἄλλων ἀπάντων, ὅσα περὶ φυσικῶν ἢ ψυχικῶν ἐνεργειῶν ζητεῖται, διὰ πολυβίβλου πραγματείας ἐδηλώσαμεν, ἣν Περὶ τῶν Ἱπποκράτους καὶ Πλάτωνος δογμάτων ἐπιγράφομεν. **Gregory of Nyssa** *Opif.Hom.* MPG 44, p. 156.34–49 οἱ μὲν ἐν καρδίᾳ τὸ ἡγεμονικὸν εἶναι τίθενται, οἱ δὲ τῷ ἐγκεφάλῳ τὸν νοῦν ἐνδιαιτᾶσθαι φασιν, ἐπιπολαίοις τισὶ πιθανότησι τὰς τοιαύτας ἐπινοίας κρατοῦντες. ὁ μὲν γὰρ τῇ καρδίᾳ προστιθεὶς τὴν ἡγεμονίαν, τὴν κατὰ τόπον αὐτῆς θέσιν ποιεῖται τοῦ λόγου τεκμήριον, διὰ τὸ δοκεῖν πως

τὴν μέσῃν τοῦ παντὸς σώματος ἐπέχειν χώραν αὐτὴν, ὡς τῆς προαιρετικῆς κινήσεως εὐκόλως ἐκ τοῦ μέσου πρὸς ἅπαν μεριζομένης σώμα. ... οἱ δὲ τὸν ἐγκέφαλον ἀφιεροῦντες τῷ λογισμῷ, ὥσπερ ἀκρόπολιν τινα τοῦ παντὸς σώματος τὴν κεφαλὴν δεδομηθῆαι παρὰ τῆς φύσεως λέγουσιν· ἐνοικεῖν δὲ ταύτῃ καθάπερ τινὰ βασιλείαν τὸν νοῦν. **Stephanus in Progn.** 1.48, pp. 124.30–126.15 Duffy ἥν γὰρ αἱ ὄψεις πυκνὰ κινέωνται, μανῆναι τούτους ἐλπίς' (ps.Hipp. *Progn.* 7, p. 2.126.6 Littre): ἐκ τούτου τοῦ ῥησιδίου κατασκευάζουσιν οἱ ἐξηγηταὶ ὅτι ἐν ἐγκεφάλῳ ἐστὶ τὸ ἡγεμονικόν· ἐὰν γὰρ ἡ βλάβη τῶν ὀφθαλμῶν δηλοῖ τὸν ἐγκέφαλον κακῶς διακείμενον, ἡ δὲ παραφροσύνη βλάβη ἐστὶ τοῦ ἡγεμονικοῦ, οὐκοῦν ἐν ἐγκεφάλῳ ἐστὶ τὸ ἡγεμονικόν. ὁ δὲ νέος ἐξηγητὴς (perhaps Asclepius) λέγει ὅτι 'καὶ πόθεν δηλόν ὅτι ἐν καρδίᾳ οὐκ ἔστι τὸ ἡγεμονικόν; τί γάρ; ...' καὶ μέχρι τοῦ νῦν ἐν διαταγῇ ἐστὶν ἡ τοιαύτη ζήτησις, εἴτε ἐν ἐγκεφάλῳ ἐστὶ τὸ ἡγεμονικόν εἴτε ἐν καρδίᾳ. **Cassiodorus de An.** c. 10.1–14 Halporn *quidam sedem animae, quamvis sit corpore toto diffusa, in corde esse voluerunt, dicentes quod ibi purissimus sanguis et vitalis spiritus continetur ut inde etiam cogitationes sive malas sive bonas exire confirment; quod animae virtutem operari posse non dubium est. plurimi autem in capite insidere manifestant, si fas est cum reverentia tamen dicere, ad similitudinem aliquam divinitatis, quae licet omnia ineffabili substantia sua repleat, scriptura tamen caelos insidere confirmat. dignum enim fuit ut arcem peteret quae se noverat caelesti operatione sublimen et tali loco prae ceteris versari unde reliqua membra debuissent competenti regimine gubernari. nam et ipsa figura capitis sphaeroides pulcherrima est in qua sibi immortalis atque rationalis anima dignam faceret mansionem.* **Ioannes Lydus Mens.** 54.2–6 κεφαλαίαν δὲ Ἀθηνᾶν τὴν φρόνησιν ἄν τις εἴποι· καὶ γὰρ ἐπὶ τοῦ βρέγματος κατὰ τὸ ἀντικέφαλον ἐναποκεῖσθαι λέγεται πρὸς ταῖς ρίζαις τοῦ ἐγκεφάλου τοῖς ἀνθρώποις ἡ φρόνησις. **Dionysius of Aigai Dict.** at Phot. *Bibl.* 185, p. 130b15–18 Henry 2η'. ὅτι οὐ περὶ καρδίαν τὸ διανοητικὸν ἀλλὰ περὶ κεφαλὴν, 2θ'. καὶ ὅτι οὐ περὶ κεφαλὴν ἀλλὰ περὶ καρδίαν τὸ διανοητικόν, ρ'. ὅτι τὸ διανοητικόν ἐστὶ περὶ κοιλίαν ἐγκεφάλου. **Tzetzes Exeges. in Iliad.** A.97, schol. 94 Lolos 'στῇ δ' ὅπιθεν' ἐντεῦθεν διδάσκει (sc. Homer) ἡμᾶς καὶ περὶ ποῖον μέρος τῆς κεφαλῆς τὸ λογιστικὸν κεῖται, κἂν Ἐμπεδοκλῆς περὶ τὴν καρδίαν φησὶ τὸ λογιστικὸν εἶναι λέγων· 'αἷμα γὰρ ἀνθρώποις περικάρδιόν ἐστι νόημα' (31B105.3 DK). **Shakespeare Merchant of Venice** 64–66 'Tell me where is fancy bred, or in the heart or in the head? How begot, how nourishèd?'

Chapter heading: Galen *PHP* 2.5.7 ἔγραψεν ἐν τῷ Περὶ τοῦ τῆς ψυχῆς ἡγεμονικοῦ Διογένους ὁ Βαβυλώνιος (*SVF* 3 Diog. 29). *PHP* 3.3.24 ἐμπέπλησται γὰρ ὁ Περὶ ἡγεμονικοῦ λόγος ὑπὸ Χρυσίππου (*SVF* 2.906) γεγραμμένος ἐπὶ ποιητικῶν. **Cassiodorus de An.** c. 10 *de sede animae*.

§ο **Whether it exists:** Galen in *Hipp. Off. Med.* 18b.66o.12–14 K. νοῦν καὶ μνήμην καὶ προαίρεσιν, ἃ πρὸς ἄλλοις πολλοῖς ἀνατρέπειν ἐπεχείρησεν Ἀσκληπιάδης (cf. Vallance *ANRW* 2.37.1, p. 720). **Sextus Empiricus M.** 7.202 εἰκοι ... ὁ Ἀντίοχος (fr. 66 Luck) ... Ἀσκληπιάδην τὸν ἱατρὸν (—) αἰνίττεσθαι, ἀναιροῦντα μὲν τὸ ἡγεμονικόν. *M.* 7.380 ἄλλων μὲν οὐδ' ὅλως ὑπάρχειν τι λεγόντων ἡγεμονικόν, ὡς τῶν περὶ τὸν Ἀσκληπιάδην (cf. Vallance *ANRW* 2.37.1, p. 726).

§§1–3 *Plato Democritus Hippocrates Strato*: ps.Galen *Int.* c. 11.2, 14.710.1–3 K. ἔστι (sc. ὁ ἐγκέφαλος) δ' ἀπλοῦν σῶμα καὶ διὰ τοῦτο ἀρχικὸν καὶ κυριώτατον τῶν ἐν ἡμῖν. διὸ καὶ τὸ ἡγεμονικὸν τῆς ψυχῆς αὐτῷ πιστεύουσιν, ὡς Πλάτων καὶ Ἱπποκράτης (see also §2).

§1 *Plato Democritus*: Plato *Tht.* 184d, *Tim.* 44c–d, 69d–71a, 73b–d. Alcinous *Did.* 17, p. 173.7–8 H. τὸ ἡγεμονικὸν κατὰ λόγον περὶ τὴν κεφαλὴν καθίδρυσαν. *Did.* 23, p. 176.12–15 τὸ θεῖον αὐτῆς καὶ ἀθάνατον κατῴκισαν ἐπὶ τοῦ σώματος ἐπὶ τῆς οἷον ἀκροπόλεως ... οἴκησιν τε ἀπονεύμαντες αὐτῷ τὴν κεφαλὴν. Apuleius *Plat.* 1.207 *at enim cum tres partes animae ducat esse, rationabilem, id est mentis optumam portionem, hanc ait capitis arcem tenere.* ps.Galen *Int.* c. 13.9, 14.732.18–733.2 K. φρενίτις ... συνίσταται δὲ περὶ ἐγκέφαλον. Galen *PHP* 7.6.12–13. Macrobius *in Somn.* 1.14.10 *solī ergo hominī rationem, id est vim mentis, infudit cui sedes in capite est.*

§2 *Hippocrates*: *Corpus Hippocraticum Morb.Sacr.* 14 τοῦτῳ (sc. τῷ ἐγκεφάλῳ) φρονέμεν μάλιστα καὶ νοεῦμεν καὶ βλέπομεν καὶ ἀκούομεν καὶ γινώσκουμεν τὰ τε αἰσχρὰ καὶ τὰ καλὰ καὶ τὰ κακὰ καὶ ἀγαθὰ καὶ ἡδέα καὶ ἀηδέα κτλ. *Morb.Sacr.* 17 διὸ φημί τὸν ἐγκέφαλον εἶναι τὸν ἐρμηνεύοντα τὴν ζύνεσιν. Soranus[?] *Vit.Hipp.* 12 ἐν δὲ ταῖς πολλαῖς εἰκόσιν ἐσκεπασμένος τὴν κεφαλὴν γράφεται (sc. ὁ Ἱπποκράτης), ... οἱ δὲ δι' ἔμφασιν τοῦ δεῖν τὸ τοῦ ἡγεμονικοῦ χωρίον φρουρεῖν. Ptolemy *Iudic.* c. 15 p. 22.1–6 see above, section E(a)§§1–2. Galen *Propr.Plac.* 6, p. 177.10–13 Boudon-Millot–Pietrobelli, text Lami (= fr. ined. 6 Helmreich 1894) πρῶτον μὲν γὰρ ἐδείξαμεν αἰσθητικὸν εἶναι τὸ μόριον, ὡς καὶ τοῖς παλαιοῖς ἔδοξεν εἶναι, (ἐν) ᾧ τὸ τῆς ψυχῆς ἡγεμονικὸν ἐστίν· ἐπιρρεῖν γοῦν ἅπ' ἐκείνου διὰ τῶν νεύρων ἐπὶ πάντα τοῦ σώματος τὰ μόρια δύναμιν αἰσθήσεως τε καὶ τῆς καθ' ὁρμὴν κινήσεως. *Pythagorica Hypomnemata* at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58B1a DK) at D.L. 8.30 φρένας δὲ καὶ νοῦν τὰ ἐν τῷ ἐγκεφάλῳ. Iamblichus *Protr.* p. 123.13–15 Pistelli τοῦτῳ δὲ ἔοικε καὶ τὸ ἐγκέφαλον μὴ ἔσθιε· καὶ γὰρ αὐτὸς οὗτος ἡγεμονικόν· ἐστὶ τοῦ φρονεῖν ὄργανον. Anon. Parisinus (olim Fuchsii) *Morb.Acut.* 1.1.4 (Soranus *de An.* fr. 13[c] Podolak) ὁ δὲ Ἱπποκράτης τὸν μὲν νοῦν φησιν ἐν τῷ ἐγκεφάλῳ τετάχθαι καθάπερ τι ἱερὸν ἄγαλμα ἐν ἀκροπόλει τοῦ σώματος (see also §1).

§3 *Strato*: ps.Plutarch *Lib.Aegr.* 4 (Strato fr. 111 Wehrli, 63B Sharples) διὸ καὶ προσκόψαντες αὐτίκα τὰς ὀφρὺς συνάγομεν, τῷ πληγέντι μορίῳ τοῦ ἡγεμονικοῦ τὴν αἰσθησιν ὀξέως ἀποδιδόντες.

§4 *Erasistratus*: Galen *PHP* 7.3.6–10 Ἐρασίστρατος (fr. 289 Garofalo) δ' ἄχρι πολλοῦ τὴν ἔξωθεν μοῖραν ὥρῳ μόνῃν τοῦ νεύρου τὴν ἀπὸ τῆς παχείας μνήνιγος ὀρμωμένην, ἅπ' ἐκείνης ὤτετο πεφυκέναι σύμπαν τὸ νεῦρον καὶ μεστὰ γε τὰ πλεῖστα τούτου τῶν συγγραμμάτων ἐστὶν ἀπὸ τῆς περιεχούσης τὸν ἐγκέφαλον μνήνιγος πεφυκέναι φάσκοντος τὰ νεύρα. (8) ἔχει δ' ἡ ῥῆσις αὐτοῦ τόνδε τὸν τρόπον· ἔθεωροῦμεν δὲ καὶ τὴν φύσιν τοῦ ἐγκεφάλου ... (9) ... καὶ ὁ ἐγκέφαλος παραπλήσιος ὧν νήσται καὶ πολὺπλοκος, πολὺ δ' ἔτι μᾶλλον τούτου ἢ ἐπεγκρανὶς πολλοῖς ἐλιγμοῖς καὶ ποικίλοις κατεσκευάστο. (10) ὥστε μαθεῖν (ἐκ) τούτων τὸν θεωροῦντα ὅτι ὥσπερ ἐπὶ τῶν λοιπῶν ζώων, ἐλάφου τε καὶ λαγωῦ καὶ εἴ τι ἄλλο κατὰ τὸ τρέχειν πολὺ τι τῶν λοιπῶν ζώων ὑπεραίρει τοῖς πρὸς ταῦτα χρήσιμοις εὖ κατε-

σκευασμένον μυσί τε καὶ νεύροις, οὕτω καὶ ἀνθρώπῳ, ἐπειδὴ τῶν λοιπῶν ζώων πολὺ τῷ διανοεῖσθαι περίεστι, πολὺ τοῦτ' ἔστι (καὶ) πολὺπλοκον. ...' *Propr.Plac.* 7, p. 179.19–22 Boudon-Millot–Pietrobelli, text Lami οὐ διωρισάμεος δὲ σαφῶς, ὡς Ἑρασίστρατος διωρίσατο, πότερον αὐτὸ καθ' αὐτὸ κατὰ τινος κοίλου ἐν τῷ τοῦ ζώου σώματι περιέχεται τὸ πνεῦμα τὸ ψυχικόν, ἢ δι' ὧν διελήλυθεν τῶν στερεῶν σωμάτων. *Corpus Hermeticum* 10.11 τῷ ὑμένι τῆς κεφαλῆς ταύτης, (ἐν ἧ) ἐστὶν ἡ ψυχὴ. *Anon. Parisinus* (olim Fuchsii) *Morb.Acut.* 1.1.1 (*Soranus de An.* fr. 13[c] Podolak) Ἑρασίστρατος (fr. 176 Garofalo) μὲν ἐξ ἀκολουθοῦ τῶν ἑαυτοῦ δογματικῶν φησὶ γίνεσθαι τὴν φρενίτιν κατὰ τι πάθος τῶν κατὰ τὴν μήνιγγα ἐνεργειῶν· οὐ γὰρ τόπου κατ' αὐτὸν ἢ νόησις φρόνησις, ἐπὶ τούτου ἢ παρανόησις παραφρόνησις ἂν εἴη. *ps.Galen Int.* c. 13.9, 14.732.18–733.3 K. φρενίτις ... συνίσταται δὲ περὶ ... ἡ μήνιγγας.

§5 Herophilus: *ps.Galen Def.Med.* 19.378.5–6 K. ριγ' ... ἐν τῇ βράσει τοῦ ἐγκεφάλου. *ps.Galen Int.* c. 11.3, 14.711.6–8 K. κοιλίας δὲ ἔχει ὁ ἐγκέφαλος δύο· κατ' ἐνίους δὲ μίαν· ἔνθα τὸ ἡγεμονικόν τῆς ψυχῆς ἵδρυται. *Galen UP* 8.11, 3.667.7–10 K. καὶ οἷς γε τετάρτη τις αὕτη κοιλία (sc. τὸ δ' ὑπὲρ τὴν κοινὴν κοιλότητα μόριον ἐγκεφάλου ... οὐκ ἂν ἀλόγως δόξειεν ὠνομάσθαι καμάριον τε καὶ ψαλιδοειδές) νενόμισται, κυριωτάτην εἶναι φασιν αὐτὴν ἀπασῶν τῶν καθ' ὅλον τὸν ἐγκέφαλον. Ἡρόφιλος (fr. 78 (resp. 138) Von Staden) μὴν οὐ ταύτην, ἀλλὰ τὴν ἐν τῇ παρεγκεφαλίδι κυριωτέραν ἔοικεν ὑπολαμβάνειν.

§6 Parmenides: *Parmenides* 28B6.4–6 DK αὐτὰρ ἔπειτ' ἀπὸ τῆς, ἣν δὴ βροτοὶ εἰδότες οὐδὲν / πλάζονται, δίκρανοι· ἀμηχανίη γὰρ ἐν αὐτῶν / στήθεσιν ἰθύνει πλαγκτὸν νόον. *Lucretius DRN* 3.138–140 *sed caput esse quasi et dominari in corpore toto / consilium, quod nos animum mentemque vocamus, / idque situm media regione in pectoris haeret.* *Diogenes Laertius V.P.* 10.66 λέγει (Epicurus fr. 311 Usener) ἐν ἄλλοις ... τὸ δὲ λογικὸν ἐν τῷ θώρακι, ὡς δῆλον ἐκ τε τῶν φόβων καὶ τῆς χαρᾶς. *Lactantius Op.D.* 16.3 Perrin *quidem sedem mentis in pectore esse voluerunt.*

§7/§14 Aristotle Stoics Pythagoras: *Galen PHP* 1.6.3 Ἑρασίστρατος (fr. 203 Garofalo) μὲν γὰρ ζωτικὸν πνεύματος, Χρύσιππος (*SVF* 2.897) δὲ τοῦ ψυχικοῦ πνεύματος πλήρη φησὶν εἶναι τὴν κοιλίαν ταύτην τὴν ἀριστεράν τῆς καρδίας.

§7 Aristotle: *Aristotle Iuv.* 3 469a6–9 ἀνάγκη καὶ τῆς αἰσθητικῆς καὶ τῆς θρεπτικῆς ψυχῆς ἐν τῇ καρδίᾳ τὴν ἀρχὴν εἶναι τοῖς ἐναιμίσις. *GA* 2.1 735a23–25 εἰ ἡ καρδιά πρῶτον ἐν τισὶ ζώοις γίγνεται, ἐν δὲ τοῖς μὴ ἔχουσι καρδίαν τὸ ταύτη ἀνάλογον, ἐκ ταύτης ἂν εἴη ἡ ἀρχὴ τοῖς ἔχουσι. *GA* 2.6 743b25–26 τὴν ἀρχὴν ἐν τῇ καρδίᾳ τῶν αἰσθήσεων εἶναι καὶ τοῦ ζώου παντός (cf. Bonitz 365b34–54, 'animae facultates, quae in corde sedem habent'). *PA* 3.9 672b30–33 καλοῦνται (sc. τὸ διάζωμα) φρένες ὡς μετέχουσαι τι τοῦ φρονεῖν. αἱ δὲ μετέχουσι μὲν οὐδὲν, ἐγγὺς δ' οὔσαι τῶν μετεχόντων ἐπίδηλον ποιοῦσι τὴν μεταβολὴν τῆς διανοίας. *ps.Aristotle Probl.* 30.1 954a34–36 πολλοὶ δὲ καὶ διὰ τὸ ἐγγὺς εἶναι τοῦ νοεροῦ τόπου (sc. τῆς καρδίας) τὴν θερμότητα ταύτην (sc. τῆς χολῆς μελαίνης) νοσήμασιν ἀλίσκονται μανικοῖς ἢ ἐνθουσιαστικοῖς. *ps.Galen Def.Med.* 19.378.8 K. ριγ' ... ἐν τῇ καρδίᾳ. *Galen PHP* 6.1.1 προὔκειτο μὲν ἐξ ἀρχῆς ἐπισκέψασθαι περὶ τῶν διοικουσῶν ἡμᾶς δυνάμεων, εἴτ' ἐκ τῆς καρδίας μόνης ὁρμῶνται σύμπασαι, καθάπερ Ἀριστοτέλης

τε καὶ Θεόφραστος ὑπελάμβανον. *PHP* 3.1.9 (*SVF* 3.885 ad init.) ὁ Χρῦσιππος κατὰ τὸ(ν) πρῶτον αὐτοῦ περὶ ψυχῆς λόγον τῶν μερῶν αὐτῆς τοῦ ἡγεμονικοῦ μνημονεύειν ἀρχόμενος, ἔνθα δὴ δεικνύναι πειράται τὴν ἀρχὴν τῆς ψυχῆς ἐν τῇ καρδίᾳ μόνῃ περιέχεσθαι. *Propr.Plac.* 8, p. 180.23–25 Boudon-Millot–Pietrobelli, text Lami Χρῦσιππος δὲ καὶ οἱ μετ’ αὐτὸν περὶ μὲν ἡγεμονικοῦ ψυχῆς, ἐν ᾧ μορίῳ σώματος κατῴκισται γεγράψασιν. more substantial version *PHP* 8.1.10 (not in *SVF*, probably not verbatim) ὁ Χρῦσιππος ἔγραψεν ἔνθα τὰ πάθη τῆς ψυχῆς, ἐνταῦθα καὶ τὸ ἡγεμονικόν· τὰ δὲ πάθη τῆς ψυχῆς ἐν καρδίᾳ· ἐν ταύτῃ ἄρα καὶ τὸ ἡγεμονικόν. criticizing other Stoics *Chrysippus de An.* at Gal. *PHP* 3.8.3–4 (*SVF* 2.908, verbatim) ἀκούω δὲ τινος λέγειν παραμυθουμένους πρὸς τὸ ἐν τῇ κεφαλῇ εἶναι τὸ ἡγεμονικόν τῆς ψυχῆς μέρος. τὸ γὰρ τὴν Ἀθηνᾶν, μῆτιν οὖσαν καὶ οἷον φρόνησιν, ἐκ τῆς κεφαλῆς γενέσθαι τοῦ Διὸς σύμβολόν φασιν εἶναι τοῦ ταύτῃ τὸ ἡγεμονικόν εἶναι· οὐ γὰρ ἄλλως ἂν ἐν τῇ κεφαλῇ γενέσθαι μῆτιν καὶ φρόνησιν, εἰ μὴ τὸ ἡγεμονικόν ἐν ταύτῃ ἐστὶ· πιθανοῦ μὲν τινος ἐχόμενοι, διαμαρτάνοντες δ’ ὡς ἐμοὶ φαίνεται καὶ ἀγνοοῦντες τὰ περὶ τούτων ἰστορούμενα κτλ. also *PHP* 2.5.6–24 (*SVF* 1.148, 2.894, 3 Diog. 29). *Anon. Parisinus* (olim Fuchsii) *Morb.Acut.* 1.1.2 (*Soranus de An.* fr. 13[c] Podolak) Πραξαγόρας (fr. 62 Steckerl) δὲ φλεγμονὴν τῆς καρδίας εἶναι φησι τὴν φρενίτιν, ἥς καὶ τὸ κατὰ φύσιν ἔργον φρόνησιν οἶεται εἶναι. *John Philoponus in de An.* 587.25 ἐν καρδίᾳ γὰρ ὁ Ἀριστοτέλης δοξάζει τὸ ἡγεμονικόν. *Scholia vetera in Iladem* 10.10a Erbse ‘νειόθεν ἐκ κραδῆς’: ἐκ τῶν ἐσωτάτω λογισμῶν· ἔνδον γὰρ ἐν τοῖς ἐπιλογισμοῖς τὰ δεινὰ ὁρῶν καθ’ ἑαυτὸν στένει. ἐντεῦθεν κινηθεὶς Φιλότιμος (fr. 1 Steckerl) ἐν καρδίᾳ τὸ ἡγεμονικόν ἔθετο· ὅθεν γὰρ τὸ χαίρειν καὶ τὸ λυπεῖσθαι τὰς ἀρχὰς ἔχει, δῆλον ὅτι ὁ νοῦς ἐκείθεν ἤρτηται. *SVF* 2.834–849.

§8 *Diogenes Stoicus: Galen PHP* 2.8.40 οὐθ’ ὅταν ὁ Διογένης (*SVF* 3 Diog. 30) εἴπῃ: ‘ὁ πρῶτον τροφῆς καὶ πνεύματος ἀρύεται, ἐν τούτῳ ὑπάρχει τὸ ἡγεμονικόν, ὃ δὲ πρῶτον τροφῆς καὶ πνεύματος ἀρύεται, ἡ καρδία’. *PHP* 1.6.3 Χρῦσιππος (*SVF* 2.897) δὲ τοῦ ψυχικοῦ πνεύματος πλήρη φησὶν εἶναι τὴν κοιλίαν ταύτην (sc. τὴν ἀριστεράν τῆς καρδίας).

§9 *Empedocles: Empedocles* 31B105.3 DK αἷμα γὰρ ἀνθρώποις περικάρδιόν ἐστι νόημα. *Corpus Hippocraticum Morb.* 1.30 φρενίτις δὲ ὧδε ἔχει· τὸ αἷμα τὸ ἐν τῷ ἀνθρώπῳ πλείστον ξυμβάλλεται μέρος συνέσιος· ἔνιοι δὲ λέγουσι, τὸ πᾶν (cited ps.Gal. *de Causa affectionum* p. 18.28–30 Helmreich). *NH* 6, p. 178.15–27 Jouanna ὁρέοντες ἀποσφαζομένους τοὺς ἀνθρώπους καὶ τὸ αἷμα ῥέον ἐκ τοῦ σώματος, τοῦτο νομίζουσιν εἶναι τὴν ψυχὴν τῷ ἀνθρώπῳ. *Flat.* 14 ἡγεύμαι δὲ ἔμπροσθεν, μὴδὲν εἶναι μᾶλλον τῶν ἐν τῷ σώματι ξυμβαλλόμενον ἐς φρόνησιν, ἢ τὸ αἷμα. *Plato Phd.* 96b καὶ πότερον τὸ αἷμά (on Empedocles, 31A76 DK) ἐστὶν ᾧ φρονούμεν. *Theophrastus Sens.* 10 (on Empedocles, 31A86 DK) διὸ καὶ τῷ αἵματι μάλιστα φρονεῖν· ἐν τούτῳ γὰρ μάλιστα κεκράσθαι {ἐστὶ} τὰ στοιχεῖα τῶν μερῶν. *Porphyry de Styge* at Stob. *Ecl.* 1.4.53, p. 424.9–19 Wachsmuth (377F Smith) οἶεται γὰρ καὶ ‘Ὁμηρος, καθὰ καὶ πλείστοι τῶν μετ’ αὐτὸν ὑπέλαβον, ἐν τῷ αἵματι εἶναι τοῖς ἀνθρώποις τὴν περὶ τὰ θνητὰ φρόνησιν, ἐπεὶ καὶ τῶν μετ’ αὐτὸν πολλοὶ τοῦτο πιστοῦνται δεικνύντες ὅτι καὶ ὑπερθερμανθέν ὑπὸ πυρετοῦ καὶ χολῆς ἀφραίνειν ποιεῖ καὶ ἀνοηταίνειν. Ἐμπεδοκλῆς τε οὕτω φαίνεται ὡς ὄργανον πρὸς σύνεσιν τοῦ αἵματος ὄντος λέγειν (31B105 DK follows). cf. *Hippolytus Ref.* 1.22.5 (Epicurus fr. 340 Usener)

τάς δὲ ψυχὰς τῶν ἀνθρώπων λύεσθαι ἅμα τοῖς σώμασιν, ὥσπερ καὶ συγγενᾶσθαι αὐτοῖς τίθεται· αἷμα γὰρ αὐτὰς εἶναι.

§12 *Anonymi*: ps.Galen Int. c. 13.9, 14.732.18–733.4 K. φρενίτις ... συνίσταται ... ἢ ὥς τινες λέγουσι περὶ φρένας, ὃ διάφραγμα καλεῖται. **Anon. Parisinus** (olim Fuchsii) *Morb.Acut.* 1.1.3 ὁ δὲ Διοκλῆς (fr. 72 Van der Eijk) φλεγμονὴν τοῦ διαφράγματος φησὶν εἶναι τὴν φρενίτιν (ἀπὸ τόπου καὶ οὐκ ἀπὸ ἐνεργείας τὸ πάθος καλῶν), συνδιατιθεμένης καὶ τῆς καρδίας (ἔοικε γὰρ καὶ οὗτος τὴν φρόνησιν περὶ ταύτην ἀπολείπειν).

§13 *Later anonymi*: cf. Erasistratus fr. 112B Garofalo at Gal. *PHP* 4.1.25 Ἐρασίστρατος οὖν οὐχ ἀπλῶς, ὥσπερ οὔτοι (sc. Hippocrates and Plato) τὸ ζητούμενον λαμβάνων, ἀλλὰ μετὰ κατασκευῆς λόγων οὐκ ὀλίγης, ἐκ μὲν κεφαλῆς φησὶ τὸ ψυχικόν, ἐκ δὲ τῆς καρδίας τὸ ζωτικὸν ὁρμᾶσθαι πνεῦμα.

§14 *Pythagoras*: Philolaus 44B13 DK at Iambl. *Theol.Ar.* 25.17–26.3 = Nicom. *Ar.* 25.17–26.3 καὶ τέσσαρες ἀρχαὶ τοῦ ζώου τοῦ λογικοῦ, ὥσπερ καὶ Φιλόλαος ἐν τῷ Περὶ φύσεως λέγει· ἑγκέφαλος, καρδία, ὀμφαλός, αἰδοῖον· κεφαλὰ μὲν νόου, καρδία δὲ ψυχᾶς καὶ αἰσθήσιος, ὀμφαλός δὲ ριζώσιος καὶ ἀναφύσιος τοῦ πρώτου, αἰδοῖον δὲ σπέρματος {καὶ} καταβολᾶς τε καὶ γεννήσιος. ἑγκέφαλος δὲ (ἔχει) τὰν ἀνθρώπων ἀρχάν, καρδία δὲ τὰν ζώου, ὀμφαλός δὲ τὰν φυτοῦ, αἰδοῖον δὲ τὰν ξυνάπαντων· πάντα γὰρ ἀπὸ σπέρματος καὶ θάλλοντι καὶ βλαστάνοντι. ***Pythagorica Hypomnemata*** at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58Bia DK) ap. D.L. 8.30 εἶναι δὲ τὴν ἀρχὴν τῆς ψυχῆς ἀπὸ καρδίας μέχρις ἐγκεφάλου· καὶ τὸ μὲν ἐν τῇ καρδίᾳ μέρος αὐτῆς ὑπάρχειν θυμόν, φρένας δὲ καὶ νοῦν τὰ ἐν τῷ ἐγκεφάλῳ. **Ptolemy Iudic.** c. 15, p. 22.10–12 ἐκάστη τῶν ψυχικῶν δυνάμεων ἡγεμονικὸν ἔσται τοῦ οἰκείου ἔργου καὶ οὕτως πανταχῇ τοῦ σώματος ἐρούμεν τὰ ἡγεμονικά. **Iudic.** c. 16, p. 22.13–19 καλῶς ἂν οὖν ἔχοι συγκεράσασθαι πῶς ἀμφοτέρω τὰ σημαινόμενα τοῦ ἡγεμονικοῦ, δύο ποιεῖν αὐτὰ λαβοῦσιν ἀπὸ τῶν κυριωτάτων· τὸ μὲν ὡς τοῦ ζῆν αὐτοῦ, τὸ δὲ ὡς τοῦ εὖ ζῆν αἰτιώτατον· καὶ τὸ μὲν ὡς κατὰ τὸ ἀναγκαῖον, τὸ δὲ ὡς κατὰ τὸ βέλτιον· κυριώτατον δὲ τῆς ψυχῆς πρὸς μὲν τὸ ζῆν μόνον τὸ περὶ τὴν καρδίαν· πρὸς δὲ τὸ τε ζῆν καὶ τὸ εὖ ζῆν, τὸ περὶ τὸν ἐγκέφαλον.

Liber 4 Caput 6

P^B: ps.Plutarchus *Plac.* 899B; pp. 392^a3–10 Diels—**P^J**: ps.Iustinus *Coh.* 6.2.23–25 Marcovich—**P^Q**: Qustā ibn Lūqā p. 195 Daiber
S: Stobaeus *Ecl.* 1.49.7b–c, p. 325.11–16 Wachsmuth
Cf. **Nem**: Nemesius *NH* c. 2, p. 28.12–14, p. 29.13–15 Morani

Titulus ζ'. Περὶ κινήσεως ψυχῆς (P,S)

- §1 Πλάτων ἀεικίνητον μὲν τὴν ψυχὴν, τὸν δὲ νοῦν ἀκίνητον τῆς μεταβατικῆς κινήσεως. (P1,S2)
- §2 Ἀριστοτέλης ἀκίνητον τὴν ψυχὴν πάσης κινήσεως προηγουμένην, τῆς δὲ κατὰ συμβεβηκὸς μετέχειν, καθάπερ τὰ σχήματα καὶ τὰ πέρατα καὶ καθάπαξ τὰ περὶ τοῖς σώμασιν εἶδη. (P2,S1) 5

§1 Plato cf. *Phdr.* 245b–c; §2 Aristoteles cf. *de An.* 1.3 405b32–406a2, 406a17–20; 1.4 408b30–31

caput non hab. G **titulus** Περὶ ... ψυχῆς P: Περὶ κινήσεως καὶ ἀφθαρσίας (tit. cc. 4.6–7) ψυχῆς S §1 [2–3] Πλάτων ... κινήσεως P: Πλάτων ἀφθαρτον καὶ ἀεικίνητον S || [2] τῆς P^{B(I,II)Q}: πάσης P^{B(III)} §2 [4] προηγουμένην P^{B(I,II)JS} prob. Diels Mau: προηγουμένης P^{B(II)} || [5–6] τὰ σχήματα ... καθάπαξ S: om. P^{BQ} (per haplographiam) || [6] τὰ ... σώμασιν S: περὶ τὰ σώματα dub. Diels conl. 4.8.9[30]: ἐπὶ τοῖς σώμασιν Meineke: τὰ εἶδη τῶν σωμάτων P^B: wie die Körper an den Formen teilhaben Q

Testes primi:

Traditio ps.Plutarchi:

ps.Iustinus Coh. 6.2 (~ §1) καὶ ὁ μὲν (Πλάτων) ἀεικίνητον αὐτὴν εἶναι λέγει. (~ §2) Ἀριστοτέλης δὲ ἀκίνητον αὐτὴν εἶναι φησιν, ἀπάσης κινήσεως προηγουμένην

Testes secundi:

Nemesius NH c. 2, p. 28.12–14 (~ ch. 4.2.6) (de Aristotele) ἔπειτ' αὖ φησιν ἐντελέχειαν οὖσαν τὴν ψυχὴν, (~ §2) ἀκίνητον εἶναι καθ' ἑαυτήν, κινεῖσθαι δὲ κατὰ συμβεβηκὸς. *NH* c. 2, p. 29.13–15 τὸν αὐτὸν τρόπον καὶ ἡ ψυχὴ κατὰ φύσιν ἀεικίνητος οὖσα, κινουμένη κατὰ φύσιν ἡρεμεῖν οὐ δύναται· ἡ γὰρ ἡρεμία φθορὰ τῆς ψυχῆς ἐστὶ καὶ παντὸς ἀεικινήτου (~ §1).

Loci Aetiani:

quaestio cf. A 1.13.6–7 Θαλῆς καὶ οἱ ἐφεξῆς τὸ πρῶτον αἴτιον ἀκίνητον ἀπεφάναντο. Στωικοὶ τὸ πρῶτον αἴτιον ὥρισαντο κινήτόν.

§1 A 4.2.1 Θαλῆς τὴν ψυχὴν φύσιν ἀεικίνητον ἢ αὐτοκίνητον. A 4.2.2 Ἀλκμαίων φύσιν αὐτοκίνητον. A 4.2.5 Πλάτων οὐσίαν νοητὴν ἐξ ἑαυτῆς κινήτην.

§2 A 1.7.23 Ἀριστοτέλης ... ἡ ψυχὴ δὲ λόγος ἀκίνητος αἴτιος τῆς κινήσεως κατ' ἐνέργειαν. A 4.20.1 πᾶσα δ' ἐπιφάνεια ἀσώματος. συγκινεῖται μὲν γὰρ τοῖς σώμασιν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The witnesses are P (represented by P^B, P^Q but not by P^E; on P^J see below (2)), and S. P has two lemmata, P₁ and P₂. *Ad sententiam* the main point is the same in S. Parallel to P₂, S at 1.49.7b has a single lemma with name-label Aristotle. Parallel to P₁, S coalesces one name-label (Plato) and the two different attributes of the soul (ἄφθαρτον and ἀεικίνητον) from A 4.7.1 and A 4.6.1, in that order, at 1.49.7c. Lactantius *Op.D.* 17.1 (see section E(a)§1) and G c. 24 *DG* p. 613.15–16 ἀλλ' ὁ Πλάτων ἀεικίνητον καὶ οὐδέποτε διαφθαρησομένην interestingly provide a parallel for S's coalescence.

(2) The diaeresis of ps.Justin is very close to P (the verbal parallels are exact), so it is very likely that in this case, differing from chs. 4.2–4, he drew on the *Epitome*. On the question of his relation to P and A see also General Introduction section 4.1.(3), and our remarks in ch. 4.2 Commentary A(5).

(3) T has not excerpted this chapter.

(4) The numbering and division at S *Ecl.* 1.49.7a (= A 4.4.5), 7b, and 7c based on the chapters of A in the *DG* introduced (as always) by Wachsmuth in S proves quite confusing here, for to our surprise he has failed to notice that S has coalesced the two chapters 4.6 and 4.7. This intervention is compounded by partly mistaken references, as Wachsmuth refers 1.49.7b to A 4.3.2 instead of 4.6.2, and 1.49.7c to A 4.3.1 instead of 4.6.1 (but his references to the pages of *DG* are correct). We note that S's coalescence results in his reversing the order of the doxai.

B *Proximate Tradition and Sources*

(1) *Proximate tradition*. In G this material probably arrived from a parallel tradition. G c. 24 *DG* 613.16 notes that Plato's soul is ἀεικίνητον (as at *Phdr.* 245c), but this has to do more with its indestructibility (as in A 4.7) than with a contrast to something that does not move. Several lines up, p. 613.10–11, he tells us that 'according to some it is the principle of the motion of all the things that are and are becoming', οἱ δὲ κινήσεως ἀρχὴν πάντων τῶν γινομένων καὶ τῶν ὄντων. This is best interpreted as another reminiscence of the famous passage in *Phaedrus*. The parallel chapter in Iamblichus has also preserved the contrasting views of Stoics and physicists and others who attribute corporeal movements to the soul, see Festugière (1953) 11.

(2) *Sources*. Both lemmata go back in part to passages in Plato and Aristotle, namely the famous passage in the *Phaedrus* on the ever-moving self-moved

immortal soul as principle of motion (246b–c), and esp. the third chapter of Book 1 of the *De anima*, which begins by criticizing Plato's view of self-motion, continues this criticism further down, and for the soul admits only motion *per accidens*. Thus, the diaphonia of the present chapter is anticipated in Aristotle.

C Chapter Heading

The heading is again a case of the umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C), and here refers precisely to one aspect: the soul's *motion*, a concept about which questions can be put in all categories, see Theophrastus fr. 153B FHS&G at ch. 1.23 above, Commentary C. It is found in P^B, confirmed by P^Q, and also occurs in S. It is clearly adumbrated by the embedded heading at Aristotle *de An.* 1.3 405b30–31, cited below section E(b) Chapter heading. But note that S coalesces the two headings of chs. 4.6 and 4.7 into a single short sub-heading of his major ch. 1.49 at 1.49.7b, p. 325.9: 'On movement and indestructibility of soul' (Περὶ κινήσεως καὶ ἀφθαρσίας ψυχῆς). Though the phrase κίνησις ψυχῆς is not unusual, Περὶ κινήσεως ψυχῆς cannot be paralleled as a phrase, heading, or title. For parallels for the heading of ch. 4.7 see at that chapter, Commentary C.

D Analysis

a Context

This is the penultimate chapter of the cluster of six on the soul *per se*. Together with ch. 7 it forms a sort of appendix in which remaining issues are mopped up, after the rather more substantial chs. 4.2–5. The *Placita* didactically separate themes that may be treated together in other literature and often are in fact so treated, cf. Diels (1897) 112, cited above, Introduction to Book 1, section 2. S for the sake of efficiency again combines them—an efficiency much enhanced by the ruthless Byzantine excerptors of the pages corresponding to chs. 4.6–7. The soul's motion is a major theme in the critical overview of doctrines in Aristotle's *De anima*, see e.g. on the predecessors 1.2 403b28–29; M–R 2.1.143–144. The νοῦς mentioned in the second clause of §1 connects up with the theme of ch. 4.7a Περὶ νοῦ.

b Number–Order of Lemmata

Both P and S have two lemmata. The order in S is the converse of that in P. But S at *Ecl.* 1.49.7b–c has interfered with the sequence, so we should follow that of P just as Diels has done in the *DG*. S moreover has coalesced the Plato lemma of ch. 4.7.1 with that of 4.6.1, thus reading Πλάτων ἀφθαρτον καὶ ἀεικίνητον, in the process considerably abridging the contents. This new lemma S2 serves to introduce the verbatim quotation in S of Plato, *Phd.* 69e–70b, which in its turn justifies the abridgement of the original lemma, of which we have a much

fuller text in P₁ (cf. Jeremiah 2018 at M–R 4.286 and 353). On the other hand the text of the second lemma has (as so often) been somewhat abridged in P. Diels has bracketed {ἄφθαρτον καὶ} at 4.6.1, though he could have divided the contents of the coalesced lemma over chs. 4.6 and 4.7 in his column for S, as we do now in the text of both reconstructed chapters.

The chapter comprises the main diaphonia going back to Aristotle (cf. above, section A). Now Aristotle at *de An.* 1.3 406b15–25 also includes Democritus' view of the soul's self-motion, not represented in the present chapter, as a parallel to Plato's view. The previous ch. 4.2 moreover attributes self-motion to the soul not only to Plato in §5, but also to Thales in §1, Alcmaeon in §2, Pythagoras in §3, and Xenocrates in §4 (no Democritus here either). Xenocrates' view that the soul is a self-moving number is sharply criticized at *de An.* 1.4 408b32–409a10 (followed by further criticism of Democritus) and at *de An.* 1.5 409a31–b8 together with that of Democritus. We note that in ch. 4.2.6 on Aristotle, motion is not mentioned. Arguably, one of A's little chapters, anticipated in the extensive discussion of the question in *de An.* 1.3–5, was required for the main diaphonia regarding the soul's motion including Aristotle's own view, while there was apparently no need to repeat the parallels to Plato's view. So in this sense the chapter is complete.

c Rationale–Structure of Chapter

The chapter is about the categories of action and passivity. The main division, or rather diaphonia, is between perpetual mobility on the one hand and immobility on the other, and recalls the diaphonia in A at S 1.13.1d = ch. 1.11.6–7, two lemmata of the chapter 'On causes', where according to Thales the First Cause is immobile, whereas the Stoics held it to be moving. See M–R 3.381, where it is pointed out that this diaphonia may represent a separate chapter of an earlier version. Our dilemmatic ch. 4.6 shows that two lemmata may indeed be sufficient for a diaphonic chapter, cf. ch. 4.7a, and in Book 2 chs. 2.8, 2.10, 2.12, and 2.18. We have seen that the soul's self-motion is already a theme in ch. 4.2. In ch. 4.2 as well as in the present chapter motion is taken in a strictly corporeal sense: there is no reference to thought or perception or emotion as motions of the soul.

Here, in ch. 4.6, both opposed doxai also sport an exception of their own, which to some extent conflicts with the general position in a sort of internal sub-diaeresis. Though the Platonic soul is perpetually moving, its (indwelling) mind is said to be immobile as far as locomotion is concerned. The Aristotelian soul is said to be immobile and prior to each kind of motion, yet is (exceptionally) able to participate in (loco)motion *per accidens*, just as the shapes and boundaries and forms of things do. These exceptions constitute a subsidiary point in the context of the debate of the soul's motion in general.

d Further Comments

Individual Points

§1 This Plato is a *Plato interpretatus*. The immobility of the Platonic *nous* is attested in e.g. Plutarch *An.Procr.* 1024C. This makes the evidence of the *Placita*, about contemporaneous with the genuine Plutarch, quite interesting, while the Plutarchan parallel reveals the impact of Middle Platonism also in the present lemma. We must however note that Plutarch speaks of the *Nous* of the World Soul, A of the *nous* of man. Its immobility explicitly pertains to locomotion, so thinking qua motion is not excluded. Aristotle, whose Immobile Mover is a *Nous*, ascribes an immobile *Nous* to Anaxagoras at *Phys.* 8.5 256b24–27.

For ἀεικίνητον rather than αὐτοκίνητον at Pl. *Phdr.* 245c see the definitive account of Haslam (1999) 265–267.

§2 Aristotle. P's abridgement does not do much harm, because ps.Justin (see *testes primi*) confirms the reading of S. The doxa reproduces Aristotle's doctrine remarkably well, esp. in the longer version extant in S: the shapes, boundaries and forms echo the colour and length mentioned as moving along with things as stated in Arist. *de An.* 1.3, and motion *per accidens* is indeed Aristotle's view of the motion permitted for soul.

e Other Evidence

The main opposition, between Plato and Aristotle, is echoed in various ways in the later literature; see esp. the long discussion at Macrobius *in Somn.* 2.12.16–2.16. The issue of the soul's motion is often treated together with that of its mortality or immortality, put in a different next chapter in the *Placita*. S coalesced the two chapters under a common heading, as is still visible from what is left of them at 1.49.7a–b.

E Further Related Texts

a Proximate Tradition

General texts: *Capitula Lucretiana* at DRN 3.182 *de mobilitate animi.* ad DRN 4.722 *de animi motu.* **Hippolytus** *Ref.* 1.19.10 καὶ τὴν ψυχὴν οἱ μὲν φασιν αὐτὸν ἀγέννητον λέγειν καὶ ἄφθαρτον, ὅταν λέγῃ (Pl. *Phdr.* 245c)· ‘ψυχὴ πᾶσα ἀθάνατος· τὸ γὰρ ἀεικίνητον ἀθάνατον’, καὶ ὅταν αὐτοκίνητον αὐτὴν ἀποδεικνύῃ καὶ ἀρχὴν κινήσεως. **Iamblichus** *de An.* fr. 16 Finamore–Dillon at Stob. *Ecl.* 1.49.36 370.14–26 W. τίς οὖν ἀνήκοός ἐστι τῆς Περιπατητικῆς δόξης, ἡ τὴν ψυχὴν ἀκίνητον μὲν εἶναι φησιν, αἰτίαν δὲ κινήσεων; εἰ δὲ καὶ ἀνενέργητόν ἐστι τὸ ἀκίνητον, ἔσται καὶ χορηγὸν τῶν ἐνεργειῶν τὸ τῆς ψυχῆς ἀνενέργητον. εἰ δ’ ὡς ἔνιοι λέγουσι, τέλος καὶ συνοχή καὶ ἔνωσις καὶ μόνιμος αἰτία τῶν κινήσεων ἐστὶν ἡ ἐνέργεια καὶ αὐτὴν ἐν ἑαυτῇ συνείληφεν ἡ κατ’ Ἀριστοτέλην ἀκίνητος ἐντελέχεια τῆς ψυχῆς, ἔσται ἀπὸ τῆς τελειοτάτης ἐνεργείας προϊούσα {ἀπὸ τῆς ψυχῆς} ἡ ἐν τοῖς καθ’ ἕκαστα τῶν ζώων ἔργοις ἀπεργασία. αὕτη τοίνυν κατὰ γε Πλάτωνα πολλοῦ δεῖ ἢ αὕτη

εἶναι τῇ συμφύτῳ τῆς ψυχῆς οὐσίᾳ καὶ ζωῇ. also pp. 371.22–372.2 οὐ μὴν ἔτι γε τοῦ-
τοις συγχωροῦσιν οἱ σώμα τὴν ψυχὴν ὑπολαμβάνοντες, οἷον οἱ Στωικοὶ (SVF 2.801)
καὶ ἄλλοι πλείονες· οὐδ' ὅσοι συγκεκράσθαι αὐτὴν εἰς τὴν γένεσιν οἶονται, ὥσπερ
οἱ πλείστοι τῶν φυσικῶν· οὐδὲ ὅσοι βλάβστημα αὐτὴν ἀπὸ τῶν σωμάτων ποιοῦσιν ἐν
ἀρμονίας εἶδει οὖσαν. πάντες γὰρ οὗτοι σωματοειδεῖς τὰς κινήσεις αὐτῇ ἀποδιδόα-
σιν.

§1 Plato: Cicero *Tusc.* 1.66–67 (Cons. fr. 10) (*deus*) *mens soluta ... ipsaque
praedita motu sempiterno.* (67) *hoc e genere atque eadem e natura est humana
mens.* Lactantius *Op.D.* 17.1 Perrin *nec ... immortalem esse animam non intel-
ligemus, quoniam quidquid viget moveturque per se semper nec videri nec tangi
potest, aeternum sit necesse est.* ps.Galen *HPh c.* 24 DG p. 613.16 ἀλλ' ὁ Πλάτων
ἀεικίνητον.

§2 Aristotle: Arius Didymus fr. 17 Diels at Stob. *Ecl.* 1.56, p. 496.20–23 τοῦ
δὲ κινήτικοῦ κατὰ τόπον ὃ δὴ προσείπομεν ὀρμητικόν, τὸ πρῶτον κινοῦν, καὶ ἐν ἡμῖν
καὶ ἐν τοῖς ἄλλοις ζώοις ἀκίνητον εἶναι. Calcidius in *Tim.* c. 223 (on the Peripatet-
ics) *animam ... , quae tamen recipiatur a corpore, quippe corpori perfectionem
det ipsa sitque eius entelechia, res per semet ipsam immobilis, sicut sunt artes
et disciplinae, ex accidenti vero aliquo mobilis propterea quod sit in animalibus
quae, dum vivunt, moventur.*

b Sources and Other Parallel Texts

General texts: Aristotle *Top.* 2.4 111b4–8 ἐὰν οὖν τι τεθῇ λεγόμενον ἀπὸ τοῦ
γένους ὅπως οὖν, οἷον τὴν ψυχὴν κινεῖσθαι, σκοπεῖν εἰ κατὰ τι τῶν εἰδῶν τῶν τῆς
κινήσεως ἐνδέχεται τὴν ψυχὴν κινεῖσθαι, οἷον αὔξεσθαι ἢ φθίρεσθαι ἢ γίγνεσθαι
ἢ ὅσα ἄλλα κινήσεως εἶδη· εἰ γὰρ κατὰ μηδέν, δηλον ὅτι οὐ κινεῖται. *de An.* 1.2
403b28–31 φασὶ γὰρ ἔνιοι καὶ μάλιστα καὶ πρῶτως ψυχὴν εἶναι τὸ κινοῦν, οἰηθέν-
τες δὲ τὸ μὴ κινούμενον αὐτὸ μὴ ἐνδέχεσθαι κινεῖν ἕτερον, τῶν κινουμένων τι τὴν
ψυχὴν ὑπέλαβον εἶναι. *de An.* 1.3 405b31–406a2 ἴσως γὰρ οὐ μόνον ψευδὸς ἐστὶ
τὸ τὴν οὐσίαν αὐτῆς τοιαύτην εἶναι οἷαν (406a1) φασὶν οἱ λέγοντες ψυχὴν εἶναι τὸ
κινοῦν ἑαυτὸ (Pl. *Phdr.* 245b–c) ἢ δυνάμενον κινεῖν, ἀλλ' ἐν τι τῶν ἀδυνάτων τὸ
ὑπάρχειν αὐτῇ κίνησιν. 1.3 *de An.* 1.3 406a11–12 νῦν ἐπισκοποῦμεν περὶ τῆς ψυχῆς
εἰ καθ' αὐτὴν κινεῖται καὶ μετέχει κινήσεως. Tertullian *de An.* 6.3 *dehinc si cor-
poris est moveri extrinsecus ab aliquo, ostendimus autem supra* (sc. in the *De
censu animae*) *moveri animam et ab alio, cum vaticinatur, cum furit, utique
extrinsecus, cum ab alio, merito quod movebitur extrinsecus ab alio secundum
exempli propositionem corpus agnoscam. enimvero si ab alio moveri corporis
est, quanto magis movere aliud? anima autem movet corpus, et conatus eius
extrinsecus foris parent.* Macrobius in *Somn.* 2.12.16–end of ch. 2.16 (too long
to quote). in *Somn.* 2.12.16 in fine autem validissimum immortalitatis animae
argumentum ponit (sc. Cicero following Plato) *quia ipsa corpori praestat agit-
atum.* 2.13.9 *his praemissis iam quibus syllogismis de immortalitate animae
diversi sectatores Platonis ratiocinati sint oportet aperiri.* 2.14.2 *Aristoteles vero
adeo non adquirescit, ut animam non solum ex se non moveri, sed ne moveri
quidem penitus conetur adserere.* 2.15.1 *contra has tam subtiles et argutas et*

veri similes argumentationes accingendum est secundum sectatores Platonis, qui inceptum quo Aristoteles tam veram tamque validam definitionem magistri sauciare temptaverat subruerunt.

Chapter heading: Aristotle *de An.* 1.3 405b31 (beginning of chapter) ἐπισκεπτέον δὲ πρῶτον μὲν περὶ κινήσεως (sc. τῆς ψυχῆς).

§1 Plato: Plato *Phdr.* 245c (cited Calc. in *Tim.* c. 57) ψυχὴ πᾶσα ἀθάνατος, τὸ γὰρ ἀεικίνητον ἀθάνατον κτλ. cf. Cicero *Rep.* 6.27 (= *Somn. Scip.*) *nam quod semper movetur, aeternum est etc.*, cited Macrobius in *Somn.* 2.13.1–6 *quod quale sit ex ipsis verbis Ciceronis quae sequuntur invenies ... omnis hic locus de Phaedro Platonis ad verbum a Cicerone translatus est, in quo validissimis argumentis animae immortalitas adseritur, et haec est argumentorum summa, esse animam mortis immunem quoniam ex se movetur.* ND 2.32 *audiamus enim Platonem quasi quendam deum philosophorum; cui duo placet esse motus, unum suum alterum externum, esse autem divinius quod ipsum ex se sua sponte moveatur quam quod pulsu agitur alieno. hunc autem motum in solis animis esse ponit, ab isque principium motus esse ductum putat.* Philo of Alexandria *Aet.* 84 τὸ γὰρ ἀεικίνητον ἐὰν ἀνέλξης ψυχῆς, καὶ αὐτὴν πάντως συναναλεῖς. Plutarch *An. Procr.* 1013C κίνησιν αὐτοκίνητον αἰεὶ καὶ 'κινήσεως πηγὴν καὶ ἀρχὴν' (sc. ὁ Πλάτων τὴν ψυχὴν προσεῖπεν *Phdr.* 245c). *Ep. An. Procr.* 1032B ὁ δὲ νοῦς αὐτὸς ἐφ' ἑαυτοῦ μόνιμος ἦν καὶ ἀκίνητος. Diogenes Laertius *V.P.* 3.67 (soul according to Plato) αὐτοκίνητόν τε εἶναι. Alcinous *Did.* c. 5, p. 157.27–36 H. ζῴων εἰ ἀθάνατός ἐστιν ἡ ψυχὴ, ὑποθέμενος αὐτὸ τοῦτο ζῴῳ εἰ ἀεικίνητος, καὶ τοῦτο ἀποδείξας ζῴῳ εἰ τὸ ἀεικίνητον αὐτοκίνητον, καὶ πάλιν τοῦτο ἀποδείξας σκοποῦ εἰ τὸ αὐτοκίνητον ἀρχὴ κινήσεως, εἴτα εἰ ἡ ἀρχὴ ἀγέννητος, ὅπερ τίθενται ὡς ὁμολογούμενον, τοῦ ἀγενήτου καὶ ἀφθάρτου ὄντος· ἀφ' οὗ ἀρξάμενος ἐναργοῦς ὄντος συνθήσω τοιαύτην ἀπόδειξιν· ἡ ἀρχὴ ἀγέννητον, καὶ ἀφθαρτον, ἀρχὴ κινήσεως τὸ αὐτοκίνητον, τὸ αὐτοκίνητον δὲ ψυχὴ, ἀφθαρτος ἄρα καὶ ἀγέννητος καὶ ἀθάνατος ἡ ψυχὴ. c. 25, p. 178.15–23 H. τό γε μὴν αὐτοκίνητον ἀρχικῶς ἀεικίνητον, τὸ δὲ τοιοῦτον ἀθάνατον· αὐτοκίνητον δὲ ἡ ψυχὴ. τὸ δὲ αὐτοκίνητον ἀρχὴ πάσης κινήσεως καὶ γενέσεως, ἀρχὴ δὲ ἀγέννητον καὶ ἀνώλεθρον, ὥστε ἡ τε τῶν ὄλων ψυχὴ τοιαύτη ἂν εἴη καὶ ἡ ἀνθρωπίνη, τοῦ αὐτοῦ γε κράματος ἀμφοτέραι μεταλαβούσαι. αὐτοκίνητον δὲ φησι τὴν ψυχὴν, ὅτι σύμφυτον ἔχει τὴν ζωὴν αἰεὶ ἐνεργοῦσαν καθ' αὐτήν. Plotinus *Enn.* 5.1.[10].8 ἦπτετο μὲν οὖν καὶ Παρμενίδης (cf. 28B3 DK) πρότερον τῆς τοιαύτης δόξης (sc. Plato's) καθόσον εἰς ταῦτ' οὐκ ἦν (sc. ἡ ψυχὴ) ἐξ ἀζωίας καὶ ζωῆς συγκείμενον πρᾶγμα, ἀλλὰ ζωὴ μόνον· καὶ τοῦτο ἦν τῷ Πλάτῳ τὸ οὐσίαν εἶναι καὶ λόγον τῆς ψυχῆς τὸ αὐτοκίνητον. Macrobius in *Somn.* 2.15.6 *Plato enim cum dicit animam ex se moveri, id est cum αὐτοκίνητον (cf. Phdr. 245c τὸ αὐτὸ κινεῖν) vocat, non vult eam inter illa numerari quae ex se quidem videntur moveri, sed a causa quae intra se latet moventur, ut moventur animalia auctore quidem alio sed occulto, nam ab anima moventur, aut ut moventur arbores, quarum etsi non videtur agitator, a natura tamen eas interius latente constat agitari; sed Plato ita animam dicit ex se moveri ut non aliam causam vel extrinsecus accidentem vel interius latentem huius motus dicat auctorem.*

§2 Aristotle: *Aristotle de An.* 1.3 408b30–31 ὅτι μὲν οὖν οὐχ οἷόν τε κινεῖσθαι τὴν ψυχὴν, φανερόν ἐκ τούτων. *de An.* 1.3 406a16–20 εἰ δ' ἐστὶν ἡ οὐσία τῆς ψυχῆς τὸ κινεῖν ἑαυτήν, οὐ κατὰ συμβεβηκὸς αὐτῇ τὸ κινεῖσθαι ὑπάρξει, ὥσπερ τῷ λευκῷ ἢ τῷ τριπλήχει· κινεῖται γὰρ καὶ ταῦτα, ἀλλὰ κατὰ συμβεβηκός· ᾧ γὰρ ὑπάρχουσιν, ἐκεῖνο κινεῖται, τὸ σῶμα. *de An.* 3.8 433b15–17 ἔστι δὲ τὸ μὲν ἀκίνητον τὸ πρακτὸν ἀγαθόν, τὸ δὲ κινεῖν καὶ κινούμενον τὸ ὁρεκτικόν. **Alexander of Aphrodisias** *de An.* 22.7–15 ὥς γὰρ ἡ βαρύτερος αἰτία μὲν γίνεται τῇ γῇ τῆς εἰς τὸ κάτω φορᾶς καὶ κατὰ τοῦτ' αὐτῆς ἐστὶ κινήσις, οὐ μὴν κινουμένη καθ' αὐτήν ... , οὕτως καὶ ἡ ψυχὴ τῶν ζώων πασῶν τῶν ὡς ζώου κινήσεων ἔχουσα τὴν αἰτίαν, ἐπεὶ κατὰ ταύτην αὐτῷ ἢ τοῦ κινεῖσθαι τοῦτον τὸν τρόπον ἐξουσία, οὐκ αὐτὴ κινουμένη καθ' αὐτήν οὕτως κινεῖ τὸ σῶμα. κινουμένῳ μέντοι τῷ σώματι συγκινεῖται καὶ αὐτὴ, καὶ γίνεται κινουμένη κατὰ συμβεβηκός, ὅπερ καὶ πᾶν εἶδος πάσχειν ἀνάγκη συνὸν καὶ συνοδεῦον τῷ σώματι, οὗ ἐστὶ, τῷ εἶναι ἀχώριστον αὐτοῦ. **Alexander of Aphrodisias(?)** *de An.Mant.* 106.6–7 αὐτὴ γὰρ ἀκίνητος καθ' αὐτήν. **Porphyry** *de An. adv. Boeth.* 247F Smith (verbatim) at Eus. *PE* 15.11.1 πρὸς δὲ τὸν ἐντελέχειαν τὴν ψυχὴν εἰπόντα καὶ ἀκίνητον παντελῶς οὕσαν κινεῖν ὑπειληφότα ῥητέον, πόθεν οἱ ἐνθουσιασμοὶ τοῦ ζώου μηδὲν μὲν ξυνιέντος ὧν ὁρᾷ τε καὶ λέγει, τῆς δὲ ψυχῆς καὶ τὸ μέλλον καὶ μὴ ἐνεστὼς βλεπούσης καὶ κατὰ ταῦτὸ κινουμένης, πόθεν δὲ καὶ ἐπὶ τῆς τοῦ ζώου συστάσεως αἰ τῆς ὡς ζώου ψυχῆς βουλαὶ τε καὶ σκέψεις καὶ θελήσεις, ῥοπαὶ οὖσαι τῆς ψυχῆς καὶ οὐ τοῦ σώματος; **Themistius** *in Phys.* 40.19–21 ὅταν (sc. ὁ φυσικός) τὰ σχήματα θεωρῇ, ὡς πέρατα φυσικοῦ σώματος αὐτὰ θεωρεῖ, ὁ δὲ μαθηματικός οὐχ ὡς πέρατα, ἀλλ' ὡς εἶδη τινὰ ὄντα καθ' αὐτὰ ἀπάσης ἔξω κινήσεως. **Macrobius** *in Somn.* 2.14.2 *Aristoteles vero adeo non adquiescit, ut animam non solum ex se non moveri, sed ne moveri quidem penitus conetur adserere.*

Liber 4 Caput 7

P^B: ps.Plutarchus 899C; pp. 392^a11–393^a13 Diels—P^Q: Qustā ibn Lūqā pp. 194–195 Daiber

S: Stobaeus *Ecl.* 1.49.7c, p. 325.9 + 15 Wachsmuth

T: Theodoretus *CAG* 1.63, p. 21.3–6, 5.23–24, pp. 128.19–129.4 Raeder

Cf. Nem: Nemesius *NH* c. 2, pp. 16.22–17.1 Morani; ps.Ath.: ps.Athenagoras *de Res.* 20.1, p. 45.25–29 Marcovich; Hermias *Irr.* 3.6–10 Hanson; ps.Iustinus *Coh.* 6.2.19–23 Marcovich; Epiphanius *Haer.* 3.508.21–24 Holl

Titulus ζ'. Περὶ ἀφθαρσίας ψυχῆς (P,S)

§1 Πυθαγόρας Ἀναξαγόρας Διογένης Πλάτων Ἐμπεδοκλῆς Ξενοκράτης ἀφθαρτον εἶναι τὴν ψυχὴν. (P1a,S1,T1)

§2 Ἡράκλειτος ἐξιοῦσαν τοῦ σώματος εἰς τὴν τοῦ παντὸς ἀναχωρεῖν ψυχὴν πρὸς τὸ ὁμογενές. (P1b,T2)

§3 οἱ Στωικοὶ ἐξιοῦσαν ἐκ τῶν σωμάτων οὐπω φθείρεσθαι τὴν μὲν ἀσθενεστέραν ἅμα τοῖς συγκρίμασι {γίνεσθαι}, ταύτην δ' εἶναι τῶν ἀπαιδεύτων τὴν δ' ἰσχυροτέραν, οἷα ἐστὶ περὶ τοὺς σοφοὺς, καὶ μέχρι τῆς τοῦ παντὸς ἐκπυρώσεως (ἐπιδιαμένειν). (P2,T3)

5

§1 Pythagoras—; Anaxagoras 59A93 DK; Diogenes 64A20 DK, T5c Laks; Plato cf. *Phdr.* 245c; Empedocles—; Xenocrates fr. 74 Heinze, F 130 Isnardi Parente²; §2 Heraclitus 22A17 DK; §3 Stoici *SVF* 2.810

caput non hab. G §§1[3]–2[4] τὴν ψυχὴν ὁ δὲ Ἡράκλειτος T (qui verisimiliter ὁ δὲ add.): τὴν ψυχὴν*** ἐξιοῦσαν P^{BQ}, lac. indic. Reiske prob. edd. || γὰρ post ψυχὴν add. P^{BQ} lac. occultans §1 [2] Πυθαγόρας ... Ξενοκράτης T : Πυθαγόρας Πλάτων P^{BQ} : Πλάτων S || [3] ἀφθαρτον ... ψυχὴν P^{BQ}T : ἀφθαρτον καὶ ἀεικίνητον S cf. app. crit. ad c. 4.6[2–3] §2 [4] ὁ δὲ Ἡράκλειτος T : om. P^{BQ} || (Ἡ. ἀφθαρτον εἶναι τὴν ψυχὴν) ante ἐξιοῦσαν perperam add. Diels 22A17 DK ex T, ubi invenitur in §1 (ut etiam in P) || ἐξιοῦσαν P^{BQ} : τὰς ἀπαλλαττομένης T || post ἐξιοῦσαν interpol. γὰρ P || τοῦ σώματος T: om. P^{BQ} || [5] πρὸς ... ὁμογενές P^{BQ} : al. T ἔφησεν, οἷα δὴ ὁμογενὴ τε οὖσαν καὶ ὁμοούσιον §3 [6] ἐξιοῦσαν ... σωμάτων P^B : wenn die Seele den Körper verläßt Q : τὰς χωριζομένης τῶν σωμάτων ψυχᾶς T || οὐπω φθείρεσθαι conii. Diels prob. ab Arnim Lachenaud : ὑποφέρεσθαι P^B : crucif. Mau : om. P^Q : διαρκεῖν μὲν T || [7] {γίνεσθαι} seclusimus vid. comm. D(d)§3 : verba τὴν μὲν ἀσθενεστέραν ἅμα τοῖς συγκρίμασι {γίνεσθαι} P^B tamquam aliena ab hoc lemmate secl. Diels *DG* : bleibt die schwache (Seele) mit den Dingen zusammen, die mit ihr zusammenhängen Q : τὴν μὲν ἀσθενεστέραν ἐπ' ὀλίγον T : (ἀλλ' ἐπιδιαμένειν τινὰς χρόνους καθ' αὐτήν, καὶ) τὴν μὲν ἀσθενεστέραν (ἐπ' ὀλίγον) conii. Diels *DG* in app. : (καὶ) τὴν μὲν ἀσθενεστέραν ἅμα(υρὸν) {τοῖς} σύγκριμα[σι] γίνεσθαι perperam conii. Arnim prob. Algra || [7–8] ταύτην ... ἀπαιδεύτων P^{BQ} : om. T || [8] οἷα ... σοφοὺς P^{BQ} : om. T || [8] καὶ P^{BQ} : om. T || [9] (ἐπιδιαμένειν) coniecimus : non hab. P^{BQ} vid. comm. D(d)§3

- §4 Δημόκριτος Ἐπίκουρος Ἀριστοτέλης φθαρτὴν τῷ σώματι συνδια- 10
φθειρομένην. (P₃, T₄)
- §5 Πυθαγόρας Πλάτων τὸ μὲν λογικὸν ἄφθαρτον· καὶ γὰρ τὴν ψυχὴν οὐ
θεὸν ἀλλ' ἔργον τοῦ αἰδίου θεοῦ ὑπάρχειν· τὸ δ' ἄλογον φθαρτόν.
(P₄, T₅)

§4 Democritus 68A109 DK; Aristoteles *Resp.* 17 478b22–479a7; Epicurus fr. 336 Usener; §5 Pythagoras—; Plato cf. *Tim.* 30b, 69c–e

§4 [10] Ἀριστοτέλης T : om. P^{BQ}, prob. DK ad 68A109 §5 [12] post λογικὸν add. T αὐτῆς || [12–13] καὶ ... ὑπάρχειν P^{BQ} : om. T || οὐ ... ἀλλ' P^{BQ} : ἀθάνατον coni. Diels || [13] τὸ δ' ἄλογον φθαρτόν P^{BQ} : inv. T

Testes primi:

Theodoretus CAG 1.63, 5.23–24

- 1.63 (quaestio) οἱ μὲν γὰρ ἀθάνατον ἔφασαν τὴν ψυχὴν, οἱ δὲ θνητὴν, οἱ δὲ μικτὴν
τινα ὥρισαντο καὶ τὸ μὲν αὐτῆς θνητόν, τὸ δὲ ἀθάνατον ἔφασαν.
- 5.23.1 (~ §1) καὶ Πυθαγόρας μὲν καὶ Ἀναξαγόρας καὶ Διογένης καὶ Πλάτων καὶ
Ἐμπεδοκλῆς καὶ Ξενοκράτης ἄφθαρτον εἶναι τὴν ψυχὴν ἀπεφάναντο·
- 5.23.2 (~ §2) ὁ δὲ Ἡράκλειτος τὰς ἀπαλλαττομένας τοῦ σώματος εἰς τὴν τοῦ παντὸς
ἀναχωρεῖν ψυχὴν ἔφησεν, οἷα δὴ ὁμογενὴ τε οὖσαν καὶ ὁμοούσιον.
- 5.23.3 (~ §3) οἱ δὲ Στωϊκοὶ τὰς χωριζομένας τῶν σωμάτων ψυχὰς διαρκεῖν μὲν καὶ
καθ' ἑαυτὰς ζῆν ἔφασαν, ἀλλὰ τὴν μὲν ἀσθενεστέραν ἐπ' ὀλίγον, τὴν δὲ ἰσχυρο-
τέραν μέχρι τῆς τοῦ παντὸς ἐκπυρώσεως.
- 5.24.1 (~ §4) Δημόκριτος δὲ καὶ Ἐπίκουρος καὶ Ἀριστοτέλης φθαρτὴν εἶναι ταύτην
ἀνέδην εἰρήκασιν·
- 5.24.2 (~ §5) Πλάτων δὲ καὶ Πυθαγόρας τὸ μὲν λογικὸν αὐτῆς ἄφθαρτον εἶναι, φθα-
ρτόν δὲ τὸ ἄλογον.
- cf. 1.63 οἱ μὲν γὰρ ἀθάνατον ἔφασαν τὴν ψυχὴν (~ §1), οἱ δὲ θνητὴν (~ §4), οἱ δὲ
μικτὴν τινα ὥρισαντο καὶ τὸ μὲν αὐτῆς θνητόν, τὸ δὲ ἀθάνατον ἔφασαν (~ §5).

Testes secundi:

Traditio ps.Plutarchi:

Hermias *Irr.* 3.6–10 στασιάζουσι μὲν περὶ τῆς ψυχῆς ... τὴν δὲ φύσιν αὐτῆς οἱ μὲν
ἀθάνατόν φασιν, οἱ δὲ θνητὴν (~ quaestio), οἱ δὲ πρὸς ὀλίγον ἐπιδιαμένουσαν (~
P₃). οἱ δὲ ἀποθηριοῦσιν αὐτήν, οἱ δὲ εἰς ἀτόμους διαλύουσιν (~ P₄), οἱ δὲ τρις
ἐνσωματοῦσιν, οἱ δὲ τρισχιλίων ἐτῶν περιόδους αὐτὴ ὀρίζουσιν.

ps.Iustinus *Coh.* 6.2.19–23 Ἀριστοτέλης δὲ οὐ κοινὸν ὅρον τῆς ψυχῆς εἶναί φησιν,
ἐν ᾧ περιεῖληπται καὶ τὰ φθαρτὰ μόρια, ἀλλὰ τὸ λογικὸν μόνον (~ P₅). καὶ ὁ
μὲν Πλάτων 'ψυχὴ πᾶσα ἀθάνατος' κέκραγε λέγων· Ἀριστοτέλης δὲ, ἐντελέχειαν
αὐτὴν ὀνομάζων, οὐκ ἀθάνατον, ἀλλὰ θνητὴν αὐτὴν εἶναι βούλεται (~ quaes-
tio).

ps.Athenagoras de Res. 20.1 ἦτοι γὰρ παντελής ἐστι σβέσις τῆς ζωῆς ὁ θάνατος συνδιαλυομένης τῷ σώματι τῆς ψυχῆς καὶ συνδιαφθειρομένης, ἥ μένει (μέν) ἡ ψυχὴ καθ' ἑαυτὴν ἄλυτος ἀσκέδαστος ἀδιάφθορος, φθείρεται δὲ καὶ διαλύεται τὸ σῶμα, οὐδεμίαν ἔτι σῶζον οὔτε μνήμην τῶν εἰργασμένων, οὔτ' αἴσθησιν τῶν ἐπ' αὐτῇ παθημάτων (~ quaestio).

Nemesius NH c. 2, pp. 16.22–17.1 τῶν μὲν οὐσίαν αὐτὴν καὶ ἀθάνατον λεγόντων, τῶν δὲ ἀσώματον μὲν, οὐ μὴν οὐσίαν οὐδὲ ἀθάνατον (~ quaestio).

Loci Aetiani:

titulus A 2.4 Εἰ ἄφθαρτος ὁ κόσμος.

§1 A 4.2.2 Αλκμαίων [...] ἀθάνατον αὐτήν. A 5.25.1 Ἀριστοτέλης θάνατον δ' εἶναι μόνου τοῦ σώματος οὐ ψυχῆς· ταύτης γὰρ οὐχ ὑπάρχει θάνατος. al. A 5.25.2 Ἀναξαγόρας ... εἶναι δὲ καὶ ψυχῆς θάνατον τὸν διαχωρισμόν. A 5.25.4 Ἐμπεδοκλῆς τὸν θάνατον γεγενῆσθαι διαχωρισμόν τοῦ πυρώδους (καὶ ἀερώδους καὶ ὑδατώδους καὶ γεώδους), ἐξ ὧν ἡ σύγκρισις τῷ ἀνθρώπῳ συνεστάθη· ὥστε κατὰ τοῦτο κοινὸν εἶναι τὸν θάνατον σώματος καὶ ψυχῆς.

§2 A 2.3 Εἰ ἔμψυχος ὁ κόσμος καὶ προνοία διοικούμενος. A 2.3.1 οἱ μὲν ἄλλοι πάντες ἔμψυχον τὸν κόσμον καὶ προνοία διοικούμενον. A 4.2.14 Ἡράκλειτος τὴν μὲν τοῦ κόσμου ψυχὴν ἀναθυμιάσιν ἐκ τῶν ἐν αὐτῷ ὑγρῶν, τὴν δ' ἐν τοῖς ζώοις ἀπὸ τῆς ἐκτὸς καὶ τῆς ἐν αὐτοῖς ἀναθυμιάσεως, ὁμογενή.

§4 A 5.1.4 Ἀριστοτέλης καὶ Δικαίαιρχος ... ἀθάνατον μὲν εἶναι οὐ νομίζοντες τὴν ψυχὴν, θείου δὲ τινος μετέχειν αὐτήν.

§5 A 4.4.1 Πυθαγόρας Πλάτων κατὰ μὲν τὸν ἀνωτάτω λόγον διμερῆ τὴν ψυχὴν, τὸ μὲν γὰρ ἔχειν λογικὸν τὸ δ' ἄλογον.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) The witnesses for P are P^B and P^Q. E and G did not excerpt this chapter. P has four lemmata, T five. Comparison with T shows that four name-labels, viz. Anaxagoras, Diogenes, Empedocles, and Xenocrates have been eliminated in the first lemma of P. Either through an unfortunate application of the technique of abridgement, or, perhaps no less likely, because of an accident in the transmission the name-label Heraclitus, attested by T, has been eliminated in what originally was the second lemma. This happened in the entire tradition of P (including P^Q), so at an early stage of the transmission. (For similar cases see Diels *DG* 64, and above at ch. 1.21, Commentary A(4)). The net result is that the return of the souls to the Soul of the All is attributed to Pythagoras and

Plato, acceptance of which fails to surprise in relation to the Middle Platonist or Neopythagoreanizing backdrop that is regularly to be discerned in the *Placita*. Because of the parallels in T we are again in a position to detect the birth or fabrication of a new, though spurious, doxa here in P. The theme of the chapter is anticipated at T 1.63, see ch. 1.3 Commentary A(5)(a).

(2) That T indeed used A here is proved beyond any doubt (1) by his two distinct paragraphs (§§1–2) and his preservation of the name-label Heraclitus (§2), fallen by the wayside in P's tradition inclusive of Q's copy of the Greek text, while in P, as we have seen, §2 has been unfortunately fused with §1. T cannot therefore have copied P here. The four extra names in T for §1 as compared with P also show that he abstracted A not P, unless one wants to avail oneself of the hypothesis that he imported them from somewhere else. But this move fails to neutralize the point about the blend of §1 with §2. For T's contribution see Mansfeld (2018a) at M–R 4.180–187, and esp. 4.184–186 on 4.7.1–2 and on the parallel case of extra names in T (and this time also in S) as compared with P in 2.1.1–2; also above, General Introduction section 2.5.

After ch. 4.7 no further chapters from Book 4 (or Book 5) are abstracted by T.

(3) S has only one lemma, parallel to P₁, a very brief and partly different one, in which he coalesces a single name-label (Plato) and the two different attributes of the soul (ἄφθαρτον and ἀεικίνητον) from §7.1 and §6.1, in that reversed order. For Wachsmuth's numbering and division into 7a, 7b, and 7c based on the chapters of A in the *DG* see ch. 4.6 Commentary A(2) above. Lactantius *Op.D.* 17.1 (see section E(b) General texts) and G c. 24 p. 613.15–16 ἀλλ' ὁ Πλάτων ἀεικίνητον καὶ οὐδέποτε διαφθαρσομένην interestingly provide a parallel for S's coalescence of the two chapters.

(4) The *testes secundi* are well-represented, but none of them (including ps.Justin) are particularly close to either P or A.

(5) The parallel evidence of G in the first non-*Placita* part of his compendium (see section E(a) General texts), equivalent to three lemmata in the order P 4–5–3, is useful, and he interestingly preserves the name-label Dicaearchus for §4. Though P's chapter was not abstracted by E, his reference to Xenophanes, Pythagoras and Anaxagoras at *PE* 14.15.11 may be a fuzzy reminiscence of P 4.7.

B Proximate Tradition and Sources

(1) *Proximate tradition*. The main division is also found in Cicero; further at G c. 24, *DG* p. 613.14–19, who opposes Epicurus and Dicaearchus (θνητὴν ... ψυχὴν) to Plato and the Stoics (ἀθάνατον—for the word cf. A 4.2.2), but corrects the Stoics lemma by adding—the sentence is mutilated—that the immortality of the soul lasts a whole cosmic period(?), but that this soul too will be destroyed (διαφθαρῆναι). The name-label Dicaearchus is lacking in P and T, but may have

been present in A because it is extant in G, who depends on the wider doxographical tradition as well. A further difference is that G has *θνητὴν* and *ἀθάνατον* where P and T have *ἄφθαρτον* and *φθαρτὴν*, though as we see G also has *διαφθαρήναι*. In G we seem to have an echo of the above-mentioned notion that immortality is not the same as indestructibility.

(2) *Sources*. In e.g. Plato's *Phaedo* (followed by many) the indestructibility of the soul is a large issue, in Aristotle's *De anima* it is not. The views of the Stoics and Epicurus and his followers are rather widely attested.

C Chapter Heading

Another umbrella heading (*περὶ τοῦ δεῖναι*) of the kind that dominates in the *Placita* (see above, ch. 1.3 Commentary C), but a precise one, focusing on a specific property. Found in P only, but note that S 49.7a *ad finem* combines the headings of chs. 4.6 and 4.7 into a single sub-heading of *Ecl.* ch. 1.49: 'On the movement and indestructibility of soul' (*Περὶ κινήσεως καὶ ἀφθαρσίας ψυχῆς*). A touch insufficient, because the chapter also deals with the destructibility of soul. Compare the similarly unsatisfactory heading of ch. 2.4, 'Whether the cosmos is indestructible' (*Εἰ ἄφθαρτος ὁ κόσμος*), on which see M–R 2.2.358, and ch. 2.4, Commentary C. See also ch. 5.26, Commentary D(b). The heading, title, or expression *Περὶ κινήσεως καὶ ἀφθαρσίας ψυχῆς* can be paralleled. It occurs at Philo *Somn.* 1.181 and Strabo 15.1.59 (Megasthenes *FGrH* 715 fr. 33 Jacoby, comparing a doctrine of the Brahmins with one of Plato, see M–R 2.1.37). As an embedded phrase ('eorum fit mentio quae proxime vel antecedunt vel sequuntur', Bonitz 95b33) such a formula is the predecessor or equivalent of the heading, or title, see M–R 2.1.48, 159–161, 162–163, 170, 202–204. The second book of a treatise with this title is cited for Numenius at Origen *CC* 5.57, p. 368.23–24 Marcovich, τῷ Πυθαγορείῳ Νουμηνίῳ ἐν τῷ δευτέρῳ Περὶ ἀφθαρσίας ψυχῆς (Numenius fr. 29 Des Places); see Des Places (1973) 117.

D Analysis

a Context

This is the last of the group of six chapters dealing with the soul *per se*. Together with ch. 4.6 it forms a sort of appendix in which remaining issues are mopped up, following on after the more substantial chs. 4.2–5. The *Placita* didactically separates themes that may be treated together in other literature, and often are, see Diels' acerbic remark cited in the Introduction to Book 1, section 2. The next series, chs. 4.8–12, continue the psychology by dealing in detail with the senses and sensation in general. In Aristotle's *De anima*, too, the discussion of sensation and the senses in Books 2.5–3.2 follows on after that of more general issues discussed in the previous Book and chapters.

b Number–Order of Lemmata

The four lemmata of P and the five of T, taking into account that P₁ is a misleading, or at any rate mistaken blend of two successive lemma, occur in exactly the same order, which therefore should correspond to the order of A. Whether originally there were more lemmata in A we cannot know, as S is almost entirely lost. T's Aëtian material on the soul ends at CAG 5.24 with three lemmata Diels printed at the bottom of *DG* 393 as the final section of 4.7, although they are not about this theme at all, but about the issue of whether and in what sense a soul may be attributed to plants, and whether plants may be called 'living beings', ζῶα. They are precisely paralleled at Clement *Strom.* 8.4.10.3–4; see Mansfeld (1990a) 3187–3190 and below, ch. 5.26 Commentary D(e).

c Rationale–Structure of Chapter

The category at issue is that of time. The main division, or rather diaphonia, is between the indestructibility of soul, as in §1 and less explicitly stated §2, and its destructibility as in §4. It constitutes a very clear example of A's method. In Aristotle's *De anima* this is not a prominent issue, see M–R 2.1.144. We note the diaeresis on a gliding scale: §1 soul indestructible, §2 soul eventually destroyed by absorption into Soul, §3 some souls immediately destroyed, others eventually by absorption into Soul, §4 souls immediately destroyed, §5 compromise: a part of soul indestructible, another part destructible. Actually the final lemma, placed in the standard compromise position at the end of the chapter, renders the diaphonia harmless by accepting both contrasting qualifications, viz. by positing that one part of the soul is indestructible and another is not.

d Further Comments

Individual Points

§§1 & 5 The contrast between lemmata 1 and 5, viz. on the one hand the tenet of (Pythagoras and) Plato that the whole soul is indestructible and on the other the tenet that this only holds for its rational part mirrors the development of Plato's unitary soul, as in *Phaedo*, to one with parts, as in *Republic* and *Ti-maeus* (though in §5 there is no emphasis on differing locations for the parts as developed in the latter work).

§§1–2 See above at section A(2) on Theodoret's use of A.

§1 Alcmaeon's acceptance of the view that the soul is immortal (ἀθάνατον not ἄφθαρτον) was included at ch. 4.2.2, and is not repeated here. The doctrine is attributed to both Plato's purported master Pherecydes (in Cicero) and Thales (in Diogenes Laertius), as archegete of respectively the Italic/Pythagorean and

the Ionian Succession, see section E(a)§1. At ch. 4.2.1 (where see for further information Commentary D(d)§1) the view that ‘the soul is ever-moving or rather self-moved’ is also attributed to Thales, and *ibid.* 4.2.2, name-label Alcmaeon, the soul’s self-motion proves its immortality—which explains by what sort of reasoning this view came to be attributed to Thales as well. A here has gathered quite an impressive number of supporters for it.

For Plato the indestructibility of the soul has to be proved separately, see e.g. *Phd.* 96b, while Strato physicus (*ap.* Damascius *in Phd.* (versio 1) sect. 438, p. 231 Westerink = fr. 123h Wehrli, 80.185 Sharples) states that a stone, though immortal (ἀθάνατος), i.e. not ‘dying’, is not ‘indestructible’ (ἀνώλεθρος). Though these words can be used interchangeably, their meanings were sometimes carefully distinguished, e.g. Aristotle *Cael.* 2.1 284a11–13 ‘the ancients assigned heaven, the upper region, to the gods, in the belief that it alone is immortal; our present argument attests that it is indestructible and ungenerated’ (tr. Guthrie LCL modified: τὸν δ’ οὐρανὸν καὶ τὸν ἄνω τόπον οἱ μὲν ἀρχαῖοι τοῖς θεοῖς ἀπένειμαν ὡς ὄντα μόνον ἀθάνατον· ὁ δὲ νῦν μαρτυρεῖ λόγος ὡς ἀφθαρτος καὶ ἀγέννητος). Alexander of Aphrodisias(?) *de An.Mant.* 108.30–109.1, however, attributes to Aristotle the view that the mind which enters from outside is ‘immortal’ (εἰκότως ἀθάνατος ὑπ’ Ἀριστοτέλους καλεῖται νοῦς). Sharples (2008) 151 refers to Aristotle *de An.* 3.5 430a23, ‘and only that is immortal and everlasting’ (καὶ τοῦτο μόνον ἀθάνατον καὶ αἰδῖον). Note that Aristotle carefully adds ‘everlasting’ to ‘immortal’, and that Cicero, aware of this problem, translates *Phdr.* 245c τὸ γὰρ ἀεικίνητον ἀθάνατον as *nam quod semper movetur, aeternum est*, not as *immortale est* (*Resp.* 6.27 = *Somn.Scip.*). Damascius reports Strato’s argument, but other late Platonists often just go on to speak of the soul’s ‘immortality’. Plato’s argument, variously reproduced by later Platonists in syllogistic form (listed Macrobius *in Somn.* 2,13.9–12), in later commentators (from Hermias to John Philoponus) ended up as a mere example of a syllogism; for some texts see below, section E(b)§1. Commentators on Macrobius (Flamant 1977, Regali 1990, Armisen-Marchetti 2003), who argue that the Platonists mentioned here by Macrobius are fictional, have overlooked the late followers.

For the attribution to Aristotle of the view that the intellect enters from outside see below, ch. 7a, Commentary D(d)§1, and M–R 2.1.144.

According to Anaxagoras as cited at ch. 5.25.2 the soul is mortal, like the body: this conflicts with the first lemma of the present chapter, where the presence of the name-label is in fact surprising.

§2 Compare the Heraclitus lemma ch. 4.3.14 and our remarks there at Commentary D(d)§14. Our sources now go a quite significant step further, for here human souls are said to return to the Soul of the universe; cf. Dörrie-Baltes (2002) 2.190, 416–417, and for parallels section D(e) below. We have seen that

Aristotle cautiously suggested that Thales said that ‘everything is full of gods’ because like ‘some people, he believed that the soul is intermingled with the whole universe’ (*de An.* 1.2 411a7–8).

T goes further than P in adding ὁμοούσιον, ‘con-substantial’, to ὁμογενές (Heraclitus fr. 66 (*f*³) n. 2 Marcovich). The word ὁμοούσιος does not occur before the first cent. CE; it is not uncommon in Irenaeus and Origen, and may be thought to belong with bishop Theodoret’s theological vocabulary. But it occurs in a comparable way in Plotinus *Enn.* 4.7[2].10.19, διὰ συγγένειαν καὶ τὸ ὁμοούσιον (sc. τῆς ψυχῆς τοῖς θεοῖς), so could have entered the open *Placita* tradition before T’s time. On the term in Gnostic, Hermetic and Christian literature before T see Beatrice (2002), who on its use in Plotinus, Porphyry and Iamblichus points out (p. 257): ‘only in the general meaning of “made of the same nature” or “of the same substance”, without any particular theological connotation’. Aristotle’s question about affinity (402b2, ὁμοειδής) is different. The context shows that he is not thinking of souls as parts of a super-Soul, but of parts, or components, of the single human soul, which (as the component elements of Empedocles’ cognitive faculty at *de An.* 1.2 404b12) may be characterised as individual souls themselves.

§3 For the Stoic view see the parallel passages collected by Pease *ad Cic. ND* 1.27 and the texts collected at *SVF* 2.809–822. We have restored the text *ad probabilem sententiam*, bracketing the superfluous γίνεσθαι (which is also odd: cf. Philo *Somn.* 1.31 συμφθίρεται and ps.Alexander fr. 2 Vitelli φθείρεσθαι σὺν τοῖς φθειρομένοις), and we have borrowed ἐπιδιαμένειν from the parallel accounts in Diogenes of Oenoanda, Diogenes Laertius, Hippolytus, and Origen (ἐπιμένειν or διαμένειν, found in G and AD, are also possible); see texts below at section E(a)§3. The close parallel with the physical section of the Stoic doxography at Diogenes Laertius *V.P.* 7.156–157 was indicated by Von Arnim, who prints §3 as *SVF* 2.810 and part of the Diogenes passage as *SVF* 2.811, though he also divides it over *SVF* 1.171, 1.522, and 2.774.

§4 Aristotle restricted indestructibility to a part (or function) of *nous*, *de An.* 3.5.

§5 For a generous discussion of the differences between Plato and Aristotle concerning the immortality of the soul see Atticus fr. 7 Des Places at Eusebius *PE* 15.9.

For the view sometimes (wrongly) attributed to Plato that the soul is a god cf. Tertullian *de An.* 24.1–2. For the idea see the poetic line attributed to Euripides or Menander, quoted by various authors (see Kannicht 2004, 2.988 ad loc.). For Diogenes of Apollonia see ad ch. 4.3 above, Commentary D(d)§14. That the World Soul is a god is Stoic doctrine; that the human soul (or a part of the human soul) is a god, or at least divine, can be concluded from the fact that

according to the Stoics the human soul is a part of the divine Soul (*SVF* 2.774, quoted at §2 above). A's rejection, in line with Plato's account in the *Timaeus*, where the soul is the creation of the Demiurge, is explicit, and may have an anti-Stoic point. For the Plutarchean parallel cited at section E(b)§5 below see Ferrari (1996). The formula 'the product of the eternal God' sounds Christian, but here only blends, in a Middle Platonist way, the Demiurge who produces both the World Soul and human souls in the *Timaeus* with Aristotle's First God: we only have the term 'product', not the act of creation.

e Other Evidence

There are several parallels for the doctrine ascribed to Heraclitus at §2. Macrobius in *Somn.* 1.14.19 on the soul according to *Heraclitus physicus* as 'a spark of stellar essence' (*scintillam stellaris essentiae*) may be due to Stoic influence. Cf. Seneca *Dial.* 8.5.5 'or whether that theory is true which strives especially to prove that man is part of the divine spirit, and that some sparks, as it were, of the stars fell down to earth and remained in a strange place' (tr. Basore *LCL*, slightly modified). Or due to the influence of Platonism, cf. Plato *Tim.* 41d–42b, Cicero *Resp.* 6.15 (= *Somn. Scip.*) 'humans, ... and to them has the mind been given from those eternal fires you call constellations and stars' (*homines ..., eis que animus datus est ex illis sempiternis ignibus, quae sidera et stellas vocatis*). Or of later Platonism, e.g. Numenius (fr. 31 Des Places at Porph. *Antr.* 21–23) and Porphyry (e.g. in *Tim.* 1 frs. 16, 22, 2. fr. 80 Sodano), who have the soul descend to the body through a star. Or of all of these together. On the scattered evidence for astral immortality see Burkert (1972) 360–368. See also Tardieu (1975), who mainly discusses Gnostic examples, cites the passage of Seneca, and hypothesizes that the metaphor of the 'spark of soul', *scintilla animae*, is originally Platonic. But his evidence for this hypothesis consists of Proclus' interpretation of souls as stars in the myth of Er.

Seneca's formula 'in a strange place' (*in alieno loco*) is Platonic or Pythagorean rather than Stoic. The expression is paralleled in the Aenesidemean account of Heraclitus in Sextus Empiricus *M.* 7.130, where the inhaled portion of the Divine Logos is said to be 'a stranger in our bodies' (ἡ ἐπιξενωθεῖσα τοῖς ἡμετέροις σώμασιν ἀπὸ τοῦ περιέχοντος μοῖρα). Also compare Philo *Agr.* 65 (on Gen 47:4, παροικεῖν, οὐ κατοικεῖν ἤλθομεν, 'we have come to dwell as strangers, not as inhabitants'): 'in reality each soul of a wise man has won heaven as its fatherland and been given earth as a foreign country, and it regards the house of wisdom as its own but the body as foreign, believing it dwells there as in a foreign country' (τῷ γὰρ ὄντι πάντα ψυχὴ σοφοῦ πατρίδα μὲν οὐρανόν, ξένην δὲ γῆν ἔλαχε, καὶ νομίζει τὸν μὲν σοφίας οἶκον ἴδιον, τὸν δὲ σώματος ὀθνείον, ᾧ καὶ παρεπιδημεῖν οἴεται). And Plutarch *Ex.* 607C–D (commenting on the lines of Emp. 31B115

DK he quotes): ‘we are strangers and fugitives ... ; as the soul has come here from elsewhere he kindly calls its birth a “journey to foreign country”’ (ξένους καὶ φυγάδας ἡμᾶς ὄντας ... τῆς δὲ ψυχῆς ἀλλαχόθεν ἡκούσης δεῦρο τὴν γένεσιν ἀποδημίαν ὑποκορίζεται τῷ πρασιότατῳ τῶν ὀνομάτων). A different evaluation is found at *Tranq.* 477C, where the wise man ‘despises those who bewail life as a place of evils or a place of exile for our souls’ (καταφρονεῖ τῶν ὀδυρομένων καὶ λοιδορούντων τὸν βίον, ὥς τινα κακῶν χώραν ἢ φυγαδικὸν τόπον ἐνταῦθα ταῖς ψυχαῖς ἀποδεδιγμένον). See further Mansfeld (2015c) at Mansfeld (2018d) 231–233.

For the conflict between Plato and Aristotle see above, ch. 4.6 Commentary D(e), where the question of immortality vs. mortality hinges on that of (self-)motion.

Ptolemy allows himself a parody of the Stoic doctrine, in which the soul is immediately dispersed, while the body continues to exist (note the verbal form ἐπιδιαμένον); cited below section E(b)§3.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *Luc.* 124 ... *et quidquid est, mortale sit an aeternum, nam utramque in partem multa dicuntur.* *Tusc.* 1.18 *sunt enim qui discessum animi a corpore putent esse mortem; sunt qui nullum censeant fieri discessum, sed una animum et corpus occidere, animumque in corpore extinguī. qui discedere animum censent, alii statim dissipari, alii diu permanere, alii semper.* *Tusc.* 1.26–58. *Tusc.* 1.76–79. Philo of Alexandria *Somn.* 1.31 τί δέ; τελευτώντων σβέννυται καὶ συμφθείρεται τοῖς σώμασιν ἢ πλείστον ἐπιβιοῖ χρόνον ἢ κατὰ τὸ παντελές ἀφθαρτόν ἐστι; *Cher.* 114 ποῖ δὲ χωρήσει (sc. the soul), πόσον δὲ χρόνον ἡμῖν ὁμοδιαίτος ἔσται; Seneca *Ep.* 88.34 *innumerabiles quaestiones sunt de animo tantum: ... quamdiu sit, aliunde alio transeat et domicilia mutet in alias animalium formas aliasque coniectus, an non amplius quam semel serviat et emissus vagetur in toto; ... quid sit facturus cum per nos aliquid facere desiderit, quomodo libertate sua usus cum ex hac effugerit cavea.* Galen *QAM c.* 3, p. 13.12–16 Βαζου ὅτι δ’ ἐκ τούτων τῶν εἰδῶν τε καὶ μερῶν τῆς ὅλης ψυχῆς τὸ λογιστικὸν ἀθάνατόν ἐστι, Πλάτων μὲν φαίνεται πεπεισμένος, ἐγὼ δ’ οὐθ’ ὥς ἔστιν οὐθ’ ὥς οὐκ ἔστιν ἔχω διατείνεσθαι πρὸς αὐτόν. *Propr.Plac.* 3, p. 173.16–18 Boudon-Millot–Pietrobelli, text Lami ἥτις δ’ ἐστὶν ἡ οὐσία τῆς ψυχῆς ἀγνοεῖν ὁμολογῶ, καὶ πολὺ γε μάλλον, εἰ ἀθάνατος ἐστὶν ἢ θνητή. *Propr.Plac.* 7, p. 179.14–16 Boudon-Millot–Pietrobelli, text Lami καθάπερ οὖν ἱατρῷ περ(ι)τὸν γινώσκειν εἴτ’ ἀθάνατός ἐστιν ἡ ψυχὴ εἴτ’ οὐκ ἀθάνατος πρὸς τὰς ἰάσεις. *Propr.Plac.* 15, p. 188.26–35 Boudon-Millot–Pietrobelli, text Lami (= *Sub.Nat.Fac.* 4.762.16–763.7 K.) τὴν γε μὴν ψυχὴν, εἰ μὲν ἀθάνατος οὐσα ταῖς σωματικαῖς οὐσίαις κεραννυμένη τὰ ζῶα διοικεῖ, γινώσκειν βεβαίως οὐκ ἀπαγγέλλομαι, καθάπερ οὐδὲ εἰ μηδεμία καθ’ ἑαυτὴν ἐστὶν ἡ οὐσία ψυχῆς· ἐκεῖνο μέντοι φαίνεται μοι σαφῶς ὅτι, καθὼς εἰσοικίζηται τοῖς σώμασι, δουλεύει ταῖς φύσεσιν αὐτῶν, αἵπερ εἰσιν, ὥς ἔφη, ἐκ τῆς τῶν τετ-

τάρων στοιχείων ποιᾶς κράσεως γιγνόμεναι. καὶ κατὰ γε τοῦτο πρὸς τὴν ἰατρικὴν τέχνην οὐδὲν ἡγοῦμαι βλαβήσεσθαι τινα διὰ τὴν ἄγνοιαν τῆς καλουμένης ἐμψυχώσεώς τε καὶ μετεμψυχώσεως. **Sextus Empiricus** *M.* 9.72–73 (*SVF* 2.812) καὶ (sc. according to the Stoics) καθ' αὐτὰς δὲ διαμένουσι καὶ οὐχ, ὥς ἔλεγεν ὁ Ἐπίκουρος (fr. 337 Usener), ἀπολυθεῖσαι τῶν σωμάτων καπνοῦ δίκην σκιδνάνται. οὐδὲ γὰρ πρότερον τὸ σῶμα διακρατητικὸν ἦν αὐτῶν, ἀλλ' αὐταὶ τῷ σώματι συμμονῆς ἦσαν αἷται, πολὺ δὲ πρότερον καὶ ἑαυταῖς. *P* 1.151 δογματικὰς δὲ ὑπολήψεις ἀλλήλῃς ἀντιτίθεμεν, ὅταν λέγωμεν ... τοὺς μὲν θνητὴν τὴν ψυχὴν (sc. ἀποφαίνεσθαι), τοὺς δὲ ἀθάνατον. **Hippolytus** *Ref.* 1.2.11 οὗτος (sc. ὁ Πυθαγόρας) καὶ ψυχὴν ἀθάνατον εἶπε καὶ μετενσωμάτωσιν κτλ. *Ref.* 1.19.10 (on Plato's followers) καὶ τὴν ψυχὴν οἱ μὲν φασιν αὐτὸν ἀγέννητον λέγειν καὶ ἀφθαρτον, ὅταν λέγῃ (*Phdr.* 245c)· 'ψυχὴ πάσα ἀθάνατος· τὸ γὰρ ἀεικίνητον ἀθάνατον' καὶ ὅταν αὐτοκίνητον αὐτὴν ἀποδεικνύῃ καὶ ἀρχὴν κινήσεως· οἱ δὲ γενετὴν μὲν, ἀφθαρτον δὲ διὰ τὴν τοῦ θεοῦ βούλησιν. οἱ δὲ σύνθετον καὶ γενετὴν καὶ φθαρτὴν κτλ. *Ref.* 6.25.4 λέγει δὲ Πυθαγόρας ... εἶναι δὲ αὐτὰς (sc. τὰς ψυχὰς) θνητὰς μὲν, ὅταν ὦσιν ἐν τῷ σώματι—οἷον ἐγκατορωρυγμένας {ὡς} ἐν τάφῳ—, ἀνίστασθαι δὲ καὶ γίνεσθαι ἀθανάτους, ὅταν τῶν σωμάτων ἀπολυθῶσιν. *Ref.* 1.20.3–4 (on Aristotle) καὶ σχεδὸν τὰ πλεῖστα τῷ Πλάτῳ σύμφωνός ἐστιν πλὴν τοῦ περὶ ψυχῆς δόγματος· (4) ὁ μὲν γὰρ Πλάτων ἀθάνατον, ὁ δὲ Ἀριστοτέλης ἐπιδιαμένειν (***) καὶ μετὰ ταῦτα καὶ ταύτην ἐναφανίζεσθαι τῷ πέμπτῳ σώματι, ὃ ὑποτίθεται εἶναι μετὰ τῶν ἄλλων τεσσάρων, τοῦ τε πυρὸς καὶ τῆς γῆς καὶ τοῦ ὕδατος καὶ τοῦ ἀέρος λεπτότερον, οἷον πνεῦμα. *Ref.* 6.26.3 (on Pythagoras) δύνασθαι οὖν φησί ποτε τὴν ψυχὴν καὶ θνητὴν γενέσθαι, ἐὰν ὑπὸ τῶν Ἑρινύων κρατῇται—τουτέστι τῶν παθῶν—, καὶ ἀθάνατον, ἐὰν τὰς Ἑρινύς ἐκφύγῃ, ἃ ἐστι (τὰ) πάθη. **Hermogenes** *Id.* 1.6.8.3–4 Patillon οἷον εἰ περὶ ψυχῆς, ὅτι ἀθάνατος. **Tertullian** *de An.* 3.2 *alii immortalem negant animam, alii plus quam immortalem adfirmant.* *de An.* 51.1–2 *sed quidam ad immortalitatem animae, quam quidem non a deo edocti infirmes tumentur, ita argumentationes emendicant, ut velint credi etiam post mortem quasdam animas adhaerere corporibus.* (2) *ad hoc enim et Plato, etsi quas vult animas ad caelum statim expedit, in Politia tamen cuiusdam insepulti cadaver opponit longo tempore sine ulla labe prae animae scilicet individuitate (sic; Resp. 614b is different) servatum. ad hoc et Democritus (68A16o DK) crementa unguium et comarum in sepulturis aliquanti temporis denotat.* *de An.* 54.1–2 *omnes ferme philosophi, qui immortalitatem animae, qualiter volunt, tamen vindicant, ut Pythagoras (—), ut Empedocles (—), ut Plato, quique aliquod illi tempus indulgent ab excessu usque in conflagrationem universitatis, ut Stoici (SVF 2.814), suas solas, id est sapientium, animas in supernis mansionibus collocant.* (2) *Plato quidem non temere philosophorum animabus hoc praestat, sed eorum qui philosophiam scilicet exornaverint amore puerorum. ... itaque apud illum in aethera sublimantur animae sapientes, apud Arium (?AD fr. 39 Diels) in aërem, apud Stoicos (SVF 2.814) sub lunam.* **Arnobius** *Adv.Nat.* 1.38, p. 33.16–20 Marchesi (*qui ... monstravit*) *mortis particeps degat an immortalitatis perpetuitate donata sit* (sc. anima), *qui status nos maneat, cum dissolutis abierimus a membris, visuri ne nos sumus an memoriam nullam nostri*

*sensus et recordationem habituri. Adv.Nat. 2.57, pp. 131.16–132.2 non alia neque absimili ratione de animarum ab his condicione disseritur. hic enim eas retur et esse perpetuas et superesse mortalium functioni, superesse ille non credit, sed cum ipsis corporibus interire: alterius vero sententia est nihil eas continuo perire, sed post hominem positum aliquid eis ad vitam dari, mortalitatis deinde in iura succedere. et cum omnia nequeant veri esse consortia, ita tamen fortibus et validissimis probationibus omnes agunt, ut repperire non possis quidnam tibi videatur falsum, quamvis ex omni parte diversa dici aspicias et rerum contrarietatibus dissonare. Lactantius Op.D. 17.1 nec ... immortalem esse animam non intelligemus, quoniam quidquid viget moveturque per se semper nec videri nec tangi potest, aeternum sit necesse est. Inst. 7.7.12–14 immortales esse animas Pherecydes (fr. 85a Schibli) et Plato disputaverunt: haec vero propria est in nostra religione doctrina. ergo Dicaearchus (fr. 10b Wehrli 29 Mirhady) cum Democrito (fr. 466 Luria) erravit, qui perire cum corpore ac dissolui argumentatus est (cf. Cic. Tusc. 1.38–41). (13) esse inferos Zeno Stoicus (SVF 1.147) docuit et sedes piorum ab impiis esse discretas et illos quidem quietas ac delectabiles incolere regiones, hos vero luere poenas in tenebrosis locis atque in caeni voraginibus horrendis: idem nobis prophetae palam faciunt. ergo Epicurus (fr. 341 Usener) erravit, qui poetarum id esse figmentum putavit et illas inferorum poenas quae ferantur in hac esse vita interpretatus est (cf. Lucr. DRN 3.978–1023). (14) totam igitur veritatem et omne divinae religionis arcanum philosophi attigerunt, sed aliis refellentibus defendere id quod invenerant nequiverunt, quia singulis ratio non quadravit, nec ea quae vera senserant in summam redigere potuerunt, sicut nos superius fecimus. Iamblichus de An. fr. 36 Finamore–Dillon at Stob. Ecl. 1.49.43, p. 383.15–22 ἐν ταύτῳ· Περὶ θανάτου. ἐπειδὴν μετὰ τὸν τῆδε βίον ἡ τελευτὴ συμπίπτῃ, τί ποτε συμβαίνόν ἐστι; πότερον ὥσπερ ἐν τῇ γενέσει προϋπῆρχεν ἢ συνυφίστατο ἢ ὑστέρα πως ἐπεγίγνετο τοῖς σώμασιν ἢ ψυχῇ κατὰ τὰς διαφόρους αἱρέσεις, οὕτω καὶ ἐν τῷ ἀποθνήσκειν προφθεύρεται τοῦ σώματος ἢ συναπόλλυται αὐτῷ ἢ καὶ διαμένει καθ' ἑαυτὴν μετὰ τὴν ἐνθνήδε ἔξοδον; τὸ μὲν οὖν πᾶν κεφάλαιον τοιοῦτον· μέρη δὲ αὐτοῦ καὶ ἡ κατὰ τὰ εἶδη διαίρεσις δέχεται πολλὰς τοιαύτας ἀμφισβητήσεις (continued below, section E(b) §3). Eusebius PE 14.15.11 πλὴν ἀλλὰ φυσικοὶ καὶ ἄλλοι Ξενοφάνης (—) καὶ Πυθαγόρας (—), συνακμάσαντες Ἀναξαγόρα (—), περὶ ἀφθαρσίας θεοῦ καὶ ψυχῆς ἀθανασίας ἐφιλοσόφησαν. Nemesius NH 2, pp. 23.24–24.4 Γαληνὸς δὲ ἀποφαίνεται μὲν οὐδέν, ἀλλὰ καὶ διαμαρτύρεται ἐν τοῖς Ἀποδεικτικοῖς λόγοις ὡς οὐδὲν εἶη περὶ ψυχῆς ἀποφηνάμενος· ἔοικε δέ, ἐξ ὧν λέγει, δοκιμάζειν μᾶλλον τὸ κράσιν εἶναι τὴν ψυχὴν (ταύτῃ γὰρ ἐπακολουθεῖν τὴν τῶν ἡθῶν διαφορὰν), ἐκ τῶν Ἱπποκράτους κατασκευάζων τὸν λόγον. εἰ δὲ τοῦτο, δῆλον ὅτι καὶ θνητὴν αὐτὴν εἶναι οἶεται, οὐ πᾶσαν δέ, ἀλλὰ τὴν ἄλογον μόνην ψυχὴν τοῦ ἀνθρώπου. περὶ δὲ τῆς λογικῆς ἀμφιβάλλει, λέγων οὕτως· (***) (sed cf. Galen QAM c. 4, p. 26.9–27.1 Bazou Ἀνδρόνικον δὲ τὸν Περιπατητικόν, ὅτι μὲν ὅλως ἐτόλμησεν ἀποφηνᾶσθαι τὴν οὐσίαν τῆς ψυχῆς ... ἐπαίνω τε πάνυ ..., ὅτι δ' ἦτοι κράσιν εἶναι φησιν ἢ δύναμιν ἐπομένην τῇ κράσει, μέφομαι τῇ προσθέσει τῆς δυνάμεως). ps.Galen HPh c. 24, DG p. 613.12–17 θνητὴν μὲν ψυχὴν ὁ Ἐπίκουρος (—) καὶ Δικαίαρχος (fr. 10a Wehrli, 28 Mirhady) ᾤθησαν, ἀθάνατον δὲ Πλάτων καὶ οἱ*

Στωικοί (—). ἀλλ' ὁ Πλάτων ἀεικίνητον καὶ οὐδέποτε διαφθαρησομένην. οἱ Στωικοὶ δὲ καθ' ἐκάστην τοῦ κόσμου μεταβολὴν διαμένειν ἀθάνατον, ἕως ἂν (ἦ) ἡ τοῦ κόσμου μεταβολὴ συστάσῃ *** καὶ αὐτὴν τυχεῖν διαφθαρῆναι ᾧθήσαν. **Augustine Trin.** 10.7.17–24 *Mountain–Glorie eique omnes eam mortalem esse senserunt quia sive corpus esset sive aliqua compositio corporis non posset utique immortaliter permanere. qui vero eius substantiam vitam quandam nequaquam corpoream ... reppererunt, consequenter et immortalem ... probare conati sunt.* **Servius auctus in Aen.** 4.705, p. 586.1–6 Thilo 'in ventos vita recessit' id est anima, ut in quarto Georgicorum (4.224) 'quemque sibi tenues nascentem arcessere vitas'. et dicendo 'in ventos' aut eos sequitur, qui animam aërem dicunt, hoc est in materiam suam rediit: aut certe eos qui dicunt animam perire cum corpore, ut intellegamus 'evanuit, in ventos recessit', ut in nono (Aen. 9.312–313) 'sed aurae omnia discernunt'. **Commenta Bernensia in Lucanum** p. 289.3–14 Usener (on Phars. 9.1) alii existimant animas statim elisas corpore solvi ac dissipari in principia sua, inter quos Epicurus (—). alii solidas quidem, postquam exierint de corpore, permanere, sed deinde tractu temporis dissipari: haec opinio Stoicorum (SVF 2.817). alii integras decedere, sicuti venerint in corpora, et semper manere. haec auctoritas in duas opiniones scinditur. alii enim dicunt liberatas a vinculo corporis in caelum reverti, inter quos sunt Peripatetici et cum Platone suo Academici. alii ire per corpora multorum animalium, quadringentesimo sexagesimo et altero anno rursus in corpora reverti humana: huius opinionis conditor Pythagoras. p. 290.18–22 Usener (ad Phars. 9.6; cf. below) mixtum dogma cum Platónico Stoicorum (—). qui virorum fortium animas existimant in modum siderum vagari in aëre et esse sic inmortales, ut non moriantur sed resolvantur, secundum Platonem ne resolvantur quidem.

§1 + §3 **Pythagoras Anaxagoras Diogenes Plato Empedocles Xenocrates Stoics: Tertullian de An.** 3.2 hi exitum aliorum abducunt. de An. 54.1 omnes ferme philosophi, qui immortalitatem animae [...] vindicant, ut Pythagoras (—), ut Empedocles (—), ut Plato, quique aliquod illi tempus indulgent ab excessu usque in conflagrationem universitatis, ut Stoici (—), suas solas, id est sapientium, animas in supernis mansionibus collocant.

§1 **Pythagoras Anaxagoras Diogenes Plato Empedocles Xenocrates: Cicero Tusc.** 1.38–39 Pherecydes Syrius (7A5 DK) primus dixit animos esse hominum sempiternos hanc opinionem discipulus eius Pythagoras (—) maxime confirmavit. ... (39) Platonem ferunt, ut Pythagoreos cognosceret, in Italiam venisse et didicisse Pythagorea omnia primumque de animorum aeternitate non solum sensisse idem quod Pythagoram, sed rationem etiam attulisse. Tusc. 5.38 humanus autem animus decerptus ex mente divina cum alio nullo nisi cum ipso deo, si hoc fas est dictu, comparari potest. Div. 1.110 altera divinatio est naturalis, ut ante dixi; quae physica disputandi subtilitate referenda est ad naturam deorum, a qua, ut doctissimis sapientissimisque placuit, haustos animos et libatos habemus; cumque omnia completa et referta sint aeterno sensu et mente divina, necesse est cognitione divinorum animorum animos humanos commoveri. **Diogenes Laertius V.P.** 1.24 (on Thales, 11A1 DK) ἔνιοι δὲ καὶ αὐτὸν

πρώτον εἰπεῖν φασιν ἀθανάτους τὰς ψυχάς· ὧν ἐστὶ Χοιρίλος ὁ ποιητής (fr. 12 Bernabé). *Commenta Bernensia in Lucanum* p. 289.7–8 Usener (cf. above, General texts) *alii integras* (sc. animas) *decedere, sicuti venerint in corpora, et semper manere*.

§2 **Heraclitus: Cicero** ND 1.27 *Pythagoras, qui censuit animum esse per naturam rerum omnem intentum et commeantem, ex quo nostri animi carperentur*. **Macrobius in Somn.** 1.14.20 *Heraclitus physicus* (22A15 DK) *scintillam stellari essentiae*. *Commenta Bernensia in Lucanum* p. 288.9–11 Usener (cf. above, General texts) *alii enim dicunt* (sc. animas) *liberatas a vinculo corporis in caelum reverti, inter quos sunt Peripatetici et cum Platone suo Academici*.

§3 **Stoics: Cicero** Tusc. 1.77 *Stoici ... diu mansuros aiunt animos, semper negant*. **Arius Didymus** fr. 39.6–7 Diels, DG p. 471.18–24 at Eus. PE 15.20.6–7 τὴν δὲ ψυχὴν γεννητὴν τε καὶ φθαρτὴν λέγουσιν (SVF 2.809). οὐκ εὐθὺς δὲ τοῦ σώματος ἀπαλλαγείσαν φεῖρεσθαι, ἀλλ’ ἐπιμένειν τινὰς χρόνους καθ’ ἑαυτήν· τὴν μὲν τῶν σπουδαίων μέχρι τῆς εἰς πῦρ ἀναλύσεως τῶν πάντων, τὴν δὲ τῶν ἀφρόνων πρὸς ποσοῦς τινὰς χρόνους. (7) τὸ δὲ διαμένειν τὰς ψυχὰς οὕτως λέγουσιν, ὅτι διαμένομεν ἡμεῖς ψυχαὶ γενομένοι τοῦ σώματος χωρισθέντες καὶ εἰς ἐλάττω μεταβαλόντες οὐσίαν τὴν τῆς ψυχῆς, τὰς δὲ τῶν ἀφρόνων καὶ ἀλόγων ζῶων ψυχὰς συναπόλλυσθαι τοῖς σώμασι. **Diogenes of Oenoanda** fr. 39.iii.13–iv.12 Smith οἱ Στ[ω]ικοί δὲ | ([κ]αὶ γὰρ ἐντ[αῦθα] καὶ νώτερα λ[έ]γειν ἄλ[λ]ων θέλ[ο]υσιν) ἀπλῶ[ς] | μὲν ἀφθ[ά]ρτους οὐ | φασὶ τὰς [ψυ]χὰς, ἥδη | δὲ τὰς με[τ] τῶν ἀφ[υ]ῶν εὐθέως μετὰ τῇ[ν] | διάκρισιν τοῦ σώματος φεῖρεσθαι λέ[γου]σιν, τὰς δὲ τῶν σπ[ου]δαιῶν ἐπιδιαμένειν | ἀνδρῶν, καὶ αὐτὰς | δὲ φεῖρεσθαι ποτε. **Diogenes Laertius** V.P. 7.156 (physical section) (SVF 2.774) τὴν δὲ ψυχὴν αἰσθητικὴν (φύσιν add. ab Arnim non prob. Dorandi). ταύτην δὲ εἶναι τὸ συμφυὲς ἡμῖν πνεῦμα· διὸ καὶ σῶμα εἶναι καὶ μετὰ τὸν θάνατον ἐπιμένειν· φθαρτὴν δὲ ὑπάρχειν. τὴν δὲ τῶν ὅλων ἀφθαρτον, ἥς μέρη εἶναι τὰς ἐν τοῖς ζῴοις. V.P. 7.157 Κλεάνθης (SVF 1.522) μὲν οὖν πάσας ἐπιδιαμένειν μέχρι (τῆς) ἐκπυρώσεως, Χρύσιππος (SVF 2.811) δὲ τὰς τῶν σοφῶν μόνων. **Hippolytus** Ref. 1.21.3 τὴν δὲ ψυχὴν λέγουσι (SVF 2.807) μὲν ἀθάνατον, εἶναι δὲ σῶμα καὶ γενέσθαι ἐκ τῆς περιψύξεως τοῦ ἀέρος τοῦ περιέχοντος· διὸ καὶ καλεῖσθαι ψυχὴν. **Iamblichus de An.** fr. 36 Finamore–Dillon at Stob. Ecl. 1.49.43, p. 383.24–384.2 ἀρὰ γε πνιγμῶ τῶν ἀρτηρίων ἀποκλειομένων τοῦ δέχεσθαι τὸ ἐκτὸς πνεῦμα, ἢ ἐκλυομένου τοῦ τόνου καὶ παριεμένου, ἢ τοῦ θερμοῦ ἐναποσβεννυμένου πως εἰς τὰ εἶσω τὰ ζῶντα πρότερον εἰσαύθις ἀποθνήσκει; ἀλλ’ εἰ οὕτως γίνεται ὁ θάνατος, προαναίρεται ἢ συναναίρεται ἢ ψυχὴ τῷ σώματι, καθάπερ Κουρνούτος οἶεται. **Theodoret** CAG 5.26 (= AD fr. 39.6 at Eus. PE 15.20.6–7, wrongly attributed to Numenius, see text cited above) τὴν δὲ ψυχὴν γεννητὴν τε καὶ φθαρτὴν λέγουσιν. οὐκ εὐθὺς δὲ τοῦ σώματος ἀπαλλαγείσαν φεῖρεσθαι, ἀλλ’ ἐπιμένειν τινὰς χρόνους καθ’ ἑαυτήν· τὴν μὲν τῶν σπουδαίων μέχρι τῆς εἰς πῦρ ἀναλύσεως τῶν πάντων, τὴν δὲ τῶν ἀφρόνων πρὸς ποσοῦς τινὰς χρόνους. τὸ δὲ διαμένειν τὰς ψυχὰς οὕτως λέγουσιν, ὅτι διαμένομεν ἡμεῖς ψυχαὶ γενομένοι τοῦ σώματος χωρισθέντες καὶ εἰς ἐλάττω μεταβαλόντες οὐσίαν τὴν τῆς ψυχῆς, τὰς δὲ τῶν ἀφρόνων καὶ ἀλόγων ζῶων ψυχὰς συναπόλλυσθαι τοῖς σώμασι. *Commenta Bernensia in Lucanum* p. 289.5–7 Usener (SVF 2.817) *alii solidas quidem, postquam exierint de cor-*

pore, permanere, sed deinde tractu temporis dissipari: haec opinio Stoicorum (cf. above, General texts). p. 290.18–21 Usener *dogma ... Stoicorum* (SVF 2.817). *qui virorum fortium animas existimant in modum siderum vagari in aëre et esse sic immortales, ut non moriantur sed resolvantur* (cf. above, General texts). **Epiphanius Haer.** 3 p. 508.21–24 (SVF 1.146) ἔλεγε (sc. Zenon Citiensis) δὲ καὶ μετὰ χωρισμὸν τοῦ σώματος *** καὶ ἐκάλει τὴν ψυχὴν πολυχρόνιον πνεῦμα, οὐ μὴν δὲ ἄφθαρτον δι' ὅλου ἔλεγεν αὐτὴν εἶναι· ἐκδαπανᾶται γὰρ ὑπὸ τοῦ πολλοῦ χρόνου εἰς τὸ ἀφανές, ὥς φησι.

§4 Epicurus Democritus Aristotle: Cicero Tusc. 1.18 *una animum et corpus occidere*. **Iamblichus de An.** fr. 36 Finamore–Dillon at Stob. 1.49.43, p. 384.12–18 εἰ δὲ παρέσπαρται μὲν καὶ ἔνεστιν ἡ ψυχὴ τῷ σώματι καταπερεῖ ἐν ἀσκή πνεῦμα, περιεχομένη ἢ συμμιγνυμένη πρὸς αὐτὸ καὶ ἐγκινουμένη ὥσπερ τὰ ἐν τῷ ἀέρι ξύσματα διὰ τῶν θυρίδων φαινόμενα (cf. Arist. *de An.* 1.2 404a34 ~ Leucippus 67A28 DK) δηλὸν που τοῦτο ὅτι ἔξισιν μὲν ἀπὸ τοῦ σώματος, ἐν δὲ τῷ ἐκβαίνειν διαφορεῖται καὶ διασκεδάννυται, ὥσπερ Δημόκριτος (—) καὶ Ἐπίκουρος (fr. 337 Usener) ἀποφαίνονται. **Hippolytus Ref.** 1.22.5 (Epicurus fr. 340 Usener) τὰς δὲ ψυχὰς τῶν ἀνθρώπων λύεσθαι ἅμα τοῖς σώμασιν, ὥσπερ καὶ συγγενᾶσθαι αὐτοῖς τίθεται· αἶμα [sic] γὰρ αὐτάς εἶναι, οὐ ἐξεληθόντος ἢ τραπέντος ἀπόλλυσθαι ὅλον τὸν ἀνθρώπον. **Ref.** 1.20.6 (on Aristotle) τὴν δὲ ψυχὴν τὴν μὲν ὅλου τοῦ κόσμου ἀθάνατον εἶναι, καὶ αὐτὸν τὸν κόσμον αἰδίδον, τὴν δὲ καθ' ἕκαστον, ὡς προεῖπομεν, ἀφανίζεσθαι. **Lactantius Inst.** 7.13.7–8 Heck–Wlosok *falsa est ergo Democriti* (—) *et Epicuri* (fr. 336 Usener) *et Dicaearchi* (fr. 10b Wehrli, 29 Mirhady) *de animae dissolutione sententia*. ... (8) *quia non pervidebant animae rationem, quae tam subtilis est, ut oculos humanae mentis effugiat, interire dixerunt*. **ps.Galen HPh** c. 24, *DG* p. 613.14–15 θνητὴν μὲν ψυχὴν ὁ Ἐπίκουρος (—) καὶ Δικαίαρχος (fr. 10a Wehrli, 28 Mirhady). **Capitula Lucretiana** at *DRN* 3.417 *animam nativam et mortalem esse*. at *DRN* 3.445 *animam et corpus simul nasci et simul interire*. at *DRN* 5.59 *animam nativam esse*. **Commenta Bernensia in Lucanum** p. 288.3–5 Usener (cf. above, General texts) *alii existimant animas statim elisas corpore solvi ac dissipari in principia sua, inter quos Epicurus* (—).

§5 Plato Pythagoras: Tertullian de An. 24.1 *quia hoc et deum credidit*. **Lactantius Op.D.** 17.4 Perrin *unde apparet animam nescio quid esse deo similis*. **Proclus in Tim.** 3.234.8–18 Diehl τί τὸ ἀθάνατόν ἐστι τοῦτο καὶ τί τὸ θνητόν, ἐζητῆται παρὰ τοῖς τοῦ Πλάτωνος ἐξηγηταῖς. καὶ οἱ μὲν τὴν λογικὴν ψυχὴν μόνην ἀθάνατον ἀπολείποντες φθεῖρουσι τὴν τε ἄλογον ζωὴν σύμπασαν καὶ τὸ πνευματικὸν ὄχημα τῆς ψυχῆς, κατὰ τὴν εἰς γένεσιν ῥοπὴν τῆς ψυχῆς τὴν ὑπόστασιν διδόντες αὐτοῖς μόνον τε τὸν νοῦν ἀθάνατον διατηροῦντες ὡς μόνον καὶ μένοντα καὶ ὁμοούμενον τοῖς θεοῖς καὶ μὴ φθειρόμενον, ὥσπερ οἱ παλαιότεροι καὶ ἔπεισθαι τῇ λέξει κρίναντες, δι' ἧς ὁ Πλάτων φθείρει τὴν ἄλογον, θνητὴν αὐτὴν καλῶν, τοὺς Ἀττικούς (fr. 15 Des Places) λέγω καὶ Ἀλβίνους (fr. 15 Gioè) καὶ τοιοῦτους τινάς. **Suda s.v.** Ψ 164, p. 4.853.3–4 Adler ὅτι Πλάτων τὴν τῶν ἀλόγων ψυχὴν ἐν τοῖς ἑαυτοῦ διαλόγοις θνητὴν ὠμολόγηκεν.

b Sources and Other Parallel Texts

General texts: **Plato** *Apol.* 40c δυοῖν γάρ θάτερόν ἐστιν τὸ τεθνάναι· ἢ γὰρ οἶον μηδὲν εἶναι μηδὲ αἰσθῆσιν μηδεμίαν μηδενὸς ἔχειν τὸν τεθνεῶτα, ἢ κατὰ τὰ λεγόμενα μεταβολή τις τυγχάνει οὐσα καὶ μετοίκησις τῇ ψυχῇ τοῦ τόπου τοῦ ἐνθένδε εἰς ἄλλον τόπον. **Aristotle** *SE* 17 176b16–17 πότερον γὰρ φθαρτὴ ἢ ἀθάνατος ἡ ψυχὴ τῶν ζώων, οὐ διώρισται τοῖς πολλοῖς. *Top.* 2.3 110a38–b3 οὐ γὰρ ἀπόχρη πρὸς τὸ δεῖξαι ὅτι παντὶ ὑπάρχει τὸ ἐφ' ἑνὸς διαλεχθῆναι, οἶον εἰ ἡ τοῦ ἀνθρώπου ψυχὴ ἀθάνατος, ὅτι ψυχὴ πᾶσα ἀθάνατος. **ps.Plato** *Ax.* 370d πολλοὺς καὶ καλοὺς εἶναι λόγους περὶ τῆς ἀθανασίας τῆς ψυχῆς. **Lucretius** *DRN* 1.112–116 *ignoratur enim quae sit natura animai, / nata sit an contra nascentibus insinuetur / et simul intereat nobiscum morte dirempta / an tenebras Orci visat vastasque lacunas, / an pecudes alias divinitus insinuet se.* **Dionysius of Halicarnassus** *Ant.Rom.* 8.62.1 εἰ μὲν οὖν ἅμα τοῖς σώμασι διαλυομένοις καὶ τὸ τῆς ψυχῆς, ὅτιδῆποτ' ἐστὶν ἐκεῖνο, συνδιαλύεται, καὶ οὐδαμῇ οὐθὲν ἔτι ἐστίν, οὐκ οἶδ' ὅπως μακαρίους ὑπολάβω τοὺς μηθὲν μὲν ἀπολαύσαντας τῆς ἀρετῆς ἀγαθόν, δι' αὐτὴν δὲ ταύτην ἀπολομένους. εἰ δ' ἄφθαρτοι μέχρι τοῦ παντὸς αἱ ψυχαὶ τυγχάνουσιν ἡμῶν οὐσαι καθάπερ οἶονταί τινες, ἢ χρόνον τινὰ μετὰ τὴν ἀπαλλαγὴν τῶν σωμάτων ἔτι διαμένουσι, μήριστον μὲν αἱ τῶν ἀγαθῶν ἀνδρῶν, ἐλάχιστον δ' αἱ τῶν κακῶν, ἀποχωρῶσα τιμὴ φαίνεται' ἂν, οἷς ἀρετὴν ἀσκοῦσιν ἡναντιώθη τὰ ἐκ τῆς τύχης, ἢ παρὰ τῶν ζώντων εὐλογία καὶ μνήμη μέχρι πλείστου παραμείνασα χρόνου. **Anon.** **Photii** *cod.* 249, p. 240.5–7 *Thesleff* ὅτι καὶ Πλάτων, φησι, καὶ Ἀριστοτέλης ἀθάνατον ὁμοίως λέγουσι τὴν ψυχὴν, καὶ τινες εἰς τὸν Ἀριστοτέλους νοῦν οὐκ ἐμβαίνοντες θνητὴν αὐτὴν νομίζουσιν αὐτὸν λέγειν. **Diogenes of Oenoanda** *frs.* 38–39 *Smith* see below. **Galen** *QAM* c. 3, p. 16.3–11 εἰ μὲν οὖν τὸ λογιζόμενον εἶδος τῆς ψυχῆς ἐστὶ θνητόν, ἔσται καὶ αὐτὸ κρᾶσις τις ἐγκεφάλου ...· εἰ δ' ἀθάνατον ἔσται, ὡς ὁ Πλάτων βούλεται, διὰ τί χωρίζεται (αὕτη *add.* *Bazou*) ψυχθέντος σφοδρῶς ἢ υπερθερμανθέντος ἢ υπερξηρανθέντος ἢ ὑπερυγρυνθέντος τοῦ ἐγκεφάλου, καλῶς ἂν ἐπεποιήκει γράψας αὐτός, ὥσπερ καὶ τᾶλλα τὰ κατὰ ταῦτόν ἔγραψε. *in Epid.* vi p. 272.19–25 *Wenkebach–Pfaff* μέγιστον δ' ἐνταῦθα κινεῖται δόγμα διαπεφωνημένον καὶ αὐτοῖς τοῖς φιλοσόφοις. ἔνιοι μὲν ἡγοῦνται μίαν οὐσίαν εἶναι ψυχῆς τε καὶ φύσεως, ... τινὲς δὲ οὐ μίαν, ἀλλ' ἰδίαν ἑκατέρᾳ τὴν οὐσίαν εἶναι φασὶ καὶ οὐ σμικρῷ γ' (εἶδει) τινὶ διαφερούσας, ἀλλ' ὅλῳ τῷ γένει, ὅπου γε καὶ τὴν μὲν τῆς φύσεως φθαρτὴν εἶναι ἡγοῦνται, τὴν δὲ τῆς ψυχῆς ἄφθαρτον. **Alexander of Aphrodisias** *in Top.* 76.26–28 ἑαυτοῖς ἐναντίως δοξάζουσιν, ἐν μὲν τοῖς σοφοῖς ... περὶ τῆς ἀθανασίας τῆς ψυχῆς, περὶ τῶν τοιούτων. **ps.Alexander** *Quaest.* fr. 2 *Vitelli* at *FS Gomperz* Vienna 1902 p. 93.16–17 λέγει (sc. Plato) δὲ καὶ τὴν ψυχὴν ἀσώματόν τινα οὐσίαν καὶ ἄφθαρτον εἶναι, ὧν θάτερον περὶ αὐτῆς καὶ ὑπὸ Ἀριστοτέλους δείκνυται. οἱ δὲ (sc. the Stoics) ... λέγουσι δὲ καὶ τὴν ψυχὴν σῶμα εἶναι, λέγουσι δὲ αὐτὴν καὶ φθαρτὴν, καὶ τὰς μὲν τινὰς τῶν ψυχῶν φθεῖρεσθαι σὺν τοῖς φθειρομένοις ἔχουσιν αὐτάς, τὰς δὲ σώζεσθαι ἕως τῆς παραλογωτάτης ἐκπυρώσεως. *Probl.* 2 pr. 19–23 ὥσπερ γὰρ ψυχὴ ὁμολογηθεῖσα μὲν τοῖς πολλοῖς τῶν φιλοσόφων ἀθάνατος διὰ τὸ ἀσώματον καὶ αὐτοκίνητον, ἐτέροις δὲ διαπεφώνητο τοῦμπαλιν ὁ λόγος. φασὶ γὰρ φθαρτὴν αὐτὴν, τῷ πάθει βαπτιζομένην τῆς ὕλης. **Sextus Empiricus** *P.* 1.151 (tenth mode) δογματικὰς δὲ ὑπολήψεις ἀλλήλαις ἀντιτίθεμεν, ὅταν λέγωμεν ... τοὺς μὲν θνητὴν τὴν ψυχὴν (sc. ἀποφάνεσθαι),

τοὺς δὲ ἀθάνατον. **Plotinus** *Enn.* 4.7.[2].1.1–4 (opening lines) εἰ δὲ ἐστὶν ἀθάνατος ἕκαστος ἡμῶν, ἢ φθείρεται πᾶς, ἢ τὰ μὲν αὐτοῦ ἄπεισιν εἰς σκέδασιν καὶ φθοράν, τὰ δὲ μένει εἰς αἰεῖ, ἅπερ ἐστὶν αὐτός, ὥδ' ἂν τις μάθοι κατὰ φύσιν ἐπισκοπούμενος (κτλ.). **Origen** *CC* 3.22, p. 167.16–20 Marcovich ὥσπερ οἴονται τινες περὶ τῆς τῶν ἀνθρώπων ψυχῆς ὡς παραχρῆμα διαφθειρομένης, διεφθάρη καὶ τούτων ἡ ψυχὴ· ἢ κατὰ τὴν δόξαν τῶν λεγόντων ἐπιδιαμένειν ἢ ἀθάνατον αὐτὴν εἶναι ἐπιδιαμένουσιν οὕτοι ἢ ἀθάνατοί εἰσι, καὶ θεοὶ μὲν οὐκ εἰσὶν ἥρωες δέ· ἢ οὐδὲ ἥρωες ἀλλ' ἀπαξαπλῶς ψυχαί; *CC* 1.13, p. 16.21–26 Marcovich ὡς εἰ λέγοιμεν καὶ τὸν Πλατωνικόν, πιστεύοντα τῇ ἀθανασίᾳ τῆς ψυχῆς καὶ τοῖς περὶ αὐτῆς λεγομένοις περὶ μετενσωματώσεως, μωρίαν ἀνειληφέναι ὡς πρὸς τοὺς Στωϊκοὺς (*SVF* 2.819) διασύροντας τὴν τούτων συγκατάθεσιν, καὶ ὡς πρὸς Περιπατητικοὺς θρυλοῦντας τὰ Πλάτωνος τερετίσματα (cf. Aristotle *APr.* 1.22 83a33, Atticus fr. 13.1 at Eus. *PE* 15.13.1, Themistius in *APr.* 34.34–35.3), καὶ ὡς πρὸς Ἐπικουρείους (fr. 369 Usener) δεισιδαιμονίαν ἐγκαλοῦντας τοῖς εἰσάγουσι πρόνοιαν καὶ θεὸν ἐφιστάσι τοῖς ὅλοις. **Eusebius** *PE* 14.10.3 (Porphyry 246F Smith) ἀλλὰ καὶ ἐν οἷς ἀντέγραψε Βοήθῳ Περὶ ψυχῆς ὁ αὐτὸς ὥδε γράφων ὁμολογεῖ πρὸς λέξιν· ‘... ὡς τὰ μὲν τῶν ἐννοιῶν καὶ τὰ τῆς ἱστορίας ἀναμφιλέκτως συνίστησι τὴν ψυχὴν εἶναι ἀθάνατον· οἱ δὲ εἰς ἀπόδειξιν παρὰ τῶν φιλοσόφων κομισθέντες λόγοι δοκοῦσιν εἶναι εὐανάτρεπτοι διὰ τὴν ἐν πᾶσιν εὐρησιλογίαν τῶν ἐριστικῶν. τίς γὰρ λόγος τῶν ἐν φιλοσοφίᾳ οὐκ ἀμφισβητήσιμος τοῖς ἑτεροδόξοις, ὅπου καὶ περὶ τῶν δοκούντων ἐναργῶν ἐπέχειν αὐτῶν τισιν ἐδόκει;’ **Lactantius** *Inst.* 7.13.5–6 Heck–Wlosok *polites quidam consuluit Apollinem Milesium utrumne maneat anima post mortem an dissolvatur, et respondit his versibus* (Greek text of poem follows) = *Theosophorum graecorum* fr. 37 Erbse ὅτι πυθομένου τινὸς τὸν Ἀπόλλωνα, πότερον μένει ἢ ψυχὴ μετὰ θάνατον ἢ διαλύεται, ἀπεκρίθη οὕτως· ‘ψυχὴ, μέχρι μὲν [μὲν μέχρις Lact.] οὐ δεσμοῖς πρὸς σῶμα κρατεῖται / φθαρτόν, εἰοῦσ’ ἀπαθὴς ταῖς τοῦδ’ [φθαρτά νοοῦσα πάθη θηνηταῖς Lact.] ἀλγηδὸσιν εἵκει· / ἡνίκα δ’ αὐτὴ λύσιν βρότεον [ἀνάλυσιν βροτέην Lact.] μετὰ σῶμα μαρανθὲν / ὠκίστην εὕρητ’ [εὕρηται Lact.], εἰς αἰθέρα πᾶσα φορεῖται / αἰὲν ἀγήραος οὔσα, μένει δ’ ἐς πάμπαν ἀτειρής. / τοῦτο δὲ πρωτογόνος θεία [πρωτογόνος γὰρ τοῦτο θεία Lact.] διέταξε πρόνοια’. **Cyranides** 1.7.76–77 Kaimakes ἐρώτησις πρὸς τὸν τεχνίτην. λέγε μοι πρότερον· ἢ ψυχὴ ἀθάνατός ἐστιν ἢ θνητή; κτλ. **Olympiodorus** in *Phd.* 10.2.1, p. 139 Westerink τρεῖς γὰρ αὐταὶ δόξαι ψευδεῖς περὶ ψυχῆς γεγόνασι, see below §§2–3, §4. **Damascius** (olim Olympiodorus) in *Phd.* 177.1–7, pp. 107–109 Westerink ὅτι οἱ μὲν ἀπὸ τῆς λογικῆς ψυχῆς ἄχρι τῆς ἐμψύχου ἕξεως ἀπαθανατίζουσιν, ὡς Νουμήνιος (fr. 46a Des Places)· οἱ δὲ μέχρι τῆς φύσεως, ὡς Πλωτῖνος ἐν ἱπποῦ (*Enn.* 4.7.[2]14)· οἱ δὲ μέχρι τῆς ἀλογίας, ὡς τῶν μὲν παλαιῶν Ξενοκράτης (fr. 75 Heinze, F 131 Isnardi Parente²) καὶ Σπεύσιππος (fr. 55 Lang, 99 Isnardi Parente, 55 Tarán), τῶν δὲ νεωτέρων Ἰάμβλιχος (*de An.* fr. 36 Finamore–Dillon?) καὶ Πλούταρχος· οἱ δὲ μέχρι μόνης τῆς λογικῆς, ὡς Πρόκλος (e.g. in *Remp.* 1.215.5–6) καὶ Πορφύριος (450F Smith)· οἱ δὲ μέχρι μόνου τοῦ νοῦ, φθεῖρουσι γὰρ τὴν δόξαν, ὡς πολλοὶ τῶν Περιπατητικῶν· οἱ δὲ (sc. the Stoics, —) μέχρι τῆς ὅλης ψυχῆς, φθεῖρουσι γὰρ τὰς μερικὰς εἰς τὴν ὅλην. **Simplicius** in *Ench.* p. 1.47–2.11 Dübner = p. 194.35–44 Hadot καὶ τοῦτο δ’ ἂν τις τῶν λόγων τούτων θαυμάσειεν, ὅτι τοὺς πειθομένους καὶ ἐργαζομένους τὰ λεγόμενα μακαρίου ἀποτελοῦσι καὶ εὐδαί-

μονας, οὐδὲν δεηθέντας τὰς μετὰ θάνατον τῆς ἀρετῆς ἀμοιβὰς ἐπαγγέλλεσθαι, καὶ πάντως ἀκολουθῶσι καὶ αὐταί. τὸ γὰρ ὡς ὀργάνοις χρώμενον τῷ σώματι καὶ τοῖς ἀλόγοις πάθεισι πάντῃ πάντως χωριστὴν ἔχει τὴν οὐσίαν καὶ ἐπιδιαμένουσιν μετὰ τὴν ἐκείνων φθοράν, καὶ δηλονότι καὶ τὴν τελειότητα σύστοιχον τῇ οὐσίᾳ. ἀλλὰ καὶ θνητὴν τις ὑποθῆται τὴν ψυχὴν, συναπολλυμένην τῷ σώματι, ὁ κατὰ ταύτας ζῶν τὰς ὑποθήκας, τὴν ἑαυτοῦ τελειότητα ἀπολαμβάνων, τὸ οἰκεῖον καρπούμενος ἀγαθόν, εὐδαίμων ὄντως ἐστὶ καὶ μακάριος. in *Ench.* p. 110.25–32 Dübner = p. 394.58–62 Hadot ἀλλ’ ἐκεῖνο ἄξιον ἐπισκέψεως, εἰ περὶ τῶν ἐφ’ ἡμῖν ὅλως οὐ μαντευτέον· πῶς χρὴ ὑπολαβεῖν περὶ τῆς ψυχῆς; πότερον θνητὴ ἐστίν, ἢ ἀθάνατος; καὶ εἰ χρὴ τῷδὲ τινι διδασκάλῳ χρῆσασθαι; πολλοὶ γὰρ τῶν παλαιῶν φαίνονται περὶ τῆς φύσεως τῶν ὄντων ἐρωτήσαντες, καίτοι τὸ ὑπολαμβάνειν τοίως ἢ τοίως ἡμέτερόν φαμεν καὶ τῶν ἐφ’ ἡμῖν εἶναι. **Zeno of Verona** *Tractatus* 1.2.4 *philosophi de anima varia disserunt, sed tamen hanc esse inmortalem* (et) *Epicuri* (—), *Dicaearchi* (fr. 29 app. Mirhady) *Democritique* (—) *vanitatem argumentatione manifesta convincunt*.

Chapter heading: **Strabo** 15.1.59 (Megasthenes *FGH*715 F33) Πλάτων περὶ τε ἀφθαρσίας ψυχῆς. **Philo of Alexandria** *Somn.* 1.181 ἴσως δὲ καὶ τὸ περὶ ἀφθαρσίας ψυχῆς ὑπαινίττεται δόγμα. **Origen** *CC* 5.57, p. 368.23–24 Marcovich τῷ Πυθαγορείῳ Νουμηνίῳ (fr. 29 Des Places) ἐν τῷ δευτέρῳ Περὶ ἀφθαρσίας ψυχῆς. cf. **Plotinus** *Enn.* 4.7[2] title also cited by Porphyry *Plot.* 25 Περὶ ἀθανασίας ψυχῆς, but at *Plot.* 4 he writes Περὶ ψυχῆς ἀθανασίας. **Salustius** 15. “Ὅτι ἀθάνατος ἡ ψυχὴ.

§1 & §3 Pythagoras Anaxagoras Diogenes Plato Empedocles Xenocrates Stoics: **Diogenes of Oenoanda** fr. 38 i.3–7 Smith καθ’ ἑαυτὴν μὲν γὰρ [ῥῆ] | ψυχῇ οὕτ’ εἶναι δύναι[ταί] | ποτε, εἰ καὶ πολλὰ π[ερί] | [τού]του φλυαρεῖ Πλ[άτων] | [καὶ οἱ] Στωικοί.

§1 Pythagoras Anaxagoras Diogenes Plato Empedocles Xenocrates: Herodotus 2.123 πρῶτοι δὲ καὶ τόνδε τὸν λόγον Αἰγύπτιοι εἰσι οἱ εἰπόντες, ὡς ἀνθρώπου ψυχὴ ἀθάνατος ἐστὶ, τοῦ σώματος δὲ καταφθίνοντος ... τῶν ἐγὼ εἰδῶς τὰ οὐνόματ’ οὐ γράφω. **Plato** *Phd.* 73a τοῦτο δὲ ἀδύνατον, εἰ μὴ ἦν που ἡμῖν ἡ ψυχὴ πρὶν ἐν τῷδε τῷ ἀνθρωπίνῳ εἶδει γενέσθαι· ὥστε καὶ ταύτῃ ἀθάνατον ἡ ψυχὴ τι εἶοικεν εἶναι. *Phd.* 88b ὅτι ἐστὶ ψυχὴ παντάπασιν ἀθάνατόν τε καὶ ἀνώλεθρον. *Phd.* 106c–e οὐκοῦν καὶ νῦν περὶ τοῦ ἀθανάτου, εἰ μὲν ἡμῖν ὁμολογεῖται καὶ ἀνώλεθρον εἶναι, ψυχὴ ἂν εἴη πρὸς τῷ ἀθά(δ)νατος εἶναι καὶ ἀνώλεθρος. *Phdr.* 245c–246a ψυχὴ πᾶσα ἀθάνατος. τὸ γὰρ ἀεικίνητον ἀθάνατον. ... (d) ... ἐπειδὴ δὲ ἀγέννητόν ἐστιν, καὶ ἀδιάφθορον αὐτὸ ἀνάγκη εἶναι. ... (e) ... μὴ ἄλλο τι εἶναι τὸ αὐτὸ ἑαυτὸ κινεῖν ἢ ψυχὴν, ἐξ ἀνάγκης ἀγέννητόν τε καὶ ἀθάνατον ψυχὴ ἂν εἴη. (tr. **Cicero** *Resp.* 6.27 (= *Somn.Scip.*) *nam quod semper movetur, aeternum est. ... id autem nec nasci potest nec mori. ... cum pateat igitur aeternum id esse quod se ipsum moveat, quis est qui hanc naturam animis esse tributam neget?*) *Leg.* 10.896a–b φημί γε· εἰ δ’ ἐστὶ τοῦτο οὕτως ἔχον, ἄρα ἔτι ποθοῦμεν μὴ ἱκανῶς δεδειχθαι ψυχὴν ταυτὸν ὃν καὶ τὴν χσπρώτην γένεσιν καὶ κίνησιν τῶν τε ὄντων καὶ γεγονότων καὶ ἐσομένων καὶ πάντων αὐτῶν ἐναντίων τούτοις, ἐπειδὴ γε ἀνεφάνη μεταβολῆς τε καὶ κινήσεως ἀπάσης αἰτία ἅπασιν;—οὐκ, ἀλλὰ ἱκανώτατα δεδεικται ψυχὴ τῶν πάντων πρεσβυτάτῃ, γενομένη γε ἀρχὴ κινήσεως. **Pythagorica Hypomnemata** at Alex.

Polyh. fr. 9 Giannatasio Andria (Pythagorei 58B1a DK) at D.L. 8.28 ἀθάνατόν τ' εἶναι αὐτήν, ἐπειδὴ περ καὶ τὸ ἀφ' οὗ ἀπέσπασται ἀθάνατόν ἐστι. 8.30 (Pythagorei 58B1a DK) καὶ τὸ μὲν φρόνιμον ἀθάνατον, τὰ δὲ λοιπὰ θνητά. **ps.Plutarch Cons.** 120D–E ὁ δὲ θεῖος Πλάτων πολλὰ μὲν ἐν τῷ Περὶ ψυχῆς περὶ τῆς ἀθανασίας αὐτῆς εἴρηκεν, οὐκ ὀλίγα δ' ἐν τῇ Πολιτείᾳ καὶ τῷ Μένωνι καὶ τῷ Γοργίᾳ καὶ σποράδην ἐν τοῖς ἄλλοις διαλόγοις. **Flavius Josephus B.J.** 2.154 (on the Essenes) ἔρρωται παρ' αὐτοῖς ἡδὲ ἡ δόξα, φθαρτὰ μὲν εἶναι τὰ σώματα καὶ τὴν ὕλην οὐ μόνιμον αὐτῶν, τὰς δὲ ψυχὰς ἀθανάτους αἰεὶ διαμένειν. **Diogenes of Oenoanda fr.** 39 iii.6–8 Smith [π]ῶς οὖν, | ὦ Πλά[τ]ων, [γε]νῆσεται | [σ]οι ἀ[φ]θαρσί[α]; **Alcinous Did.** c. 5, p. 157.27–36 H. ζῳῶν εἰ ἀθάνατός ἐστιν ἡ ψυχὴ, ὑποθέμενος αὐτὸ τοῦτο ζῳῶ εἰ ἀεικίνητος, καὶ τοῦτο ἀποδείξας ζῳῶ εἰ τὸ ἀεικίνητον αὐτοκίνητον, καὶ πάλιν τοῦτο ἀποδείξας σκοπῶ εἰ τὸ αὐτοκίνητον ἀρχὴ κινήσεως, εἴτα εἰ ἡ ἀρχὴ ἀγέννητος, ὅπερ τίθενται ὡς ὁμολογούμενον, τοῦ ἀγενήτου καὶ ἀφθάρτου ὄντος· ἀφ' οὗ ἀρξάμενος ἐναργοὺς ὄντος συνθήσω τοιαύτην ἀπόδειξιν· ἡ ἀρχὴ ἀγέννητον καὶ ἀφθαρτον, ἀρχὴ κινήσεως τὸ αὐτοκίνητον, τὸ αὐτοκίνητον δὲ ψυχὴ, ἀφθαρτος ἄρα καὶ ἀγέννητος καὶ ἀθάνατος ἡ ψυχὴ. **Atticus fr.** 7.1 Des Places at Eus. *PE* 15.9.1 (verbatim) ὑπὲρ δὲ τῆς ψυχῆς τί καὶ λέγοιμεν ἄν; δῆλα γάρ ταῦτα οὐ μόνον τοῖς φιλοσοφοῦσιν, ἀλλ' ἡδὴ σχεδὸν καὶ τοῖς ἰδιώταις ἄπασιν, ὅτι Πλάτων μὲν ἀθάνατον τὴν ψυχὴν ἀπολείπει καὶ πολλοὺς ὑπὲρ τούτου λόγους πεποίηται, ποικίλως καὶ παντοίως ἀποδεικνύς ὅτι ἐστὶν ἀθάνατος ἡ ψυχὴ (cf. Theodoret CAG 5.47). **Apuleius Plat. lib.** 3(?) sive **Anon. Compendiosa expositio** 8.10 Stover *ab his de immortalitate animae loquitur*. **Diogenes Laertius VP.** 3.67 (on Plato) ἀθάνατον ἔλεγε τὴν ψυχὴν καὶ πολλὰ μεταμφιεννυμένην σώματα. **Porphyrus VP** 19 (Pythagoras 14.8a DK) μάλιστα μέντοι γνῶριμα παρὰ πᾶσιν ἐγένετο πρῶτον μὲν ὡς ἀθάνατον εἶναι φησὶ τὴν ψυχὴν. **Macrobius in Somn.** 2.13.9–14.1 *his praemissis iam quibus syllogismis de immortalitate animae diversi sectatores Platonis ratiocinati sint oportet aperiri. sunt enim qui per gradus syllogismorum ad unum finem probationis evadunt, certam sibi propositionem sequentis ex antecedentis conclusione facientes.* (10) *apud quos hic prior est: 'anima ex se movetur, quicquid autem ex se movetur semper movetur, igitur anima semper movetur'. secundus ita, qui nascitur ex prioris fine: 'anima semper movetur, quod autem semper movetur immortale est, igitur anima immortalis est'. et ita in duobus syllogismis duae res probantur, id est et semper moveri animam, ut in priore, et esse immortalem ut colligitur de secundo. alii vero usque ad tertium gradum ita argumentando procedunt: 'anima ex se movetur, quod autem ex se movetur principium motus est, igitur anima principium motus est'. rursus ex hac conclusione nascitur propositio: 'anima principium motus est, quod autem principium motus est natum non est, igitur anima nata non est'. tertio loco: 'anima nata non est, quod autem natum non est, immortale est; igitur anima immortalis est'. (11) alii vero omnem ratiocinationem suam in unius syllogismi compendium redeherent: ... 'anima ex se movetur; quod ex se movetur principium motus est; quod principium motus est natum non est; quod natum non est immortale est; igitur anima immortalis est'. (14.1) sed harum omnium ratiocinationum apud eum potest postrema conclusio de animae immortalitate constare, qui primam pro-*

positionem, id est ex se moveri animam, non refellit; hac enim in fide non recepta, debilia fiunt omnia quae sequuntur. **Hermias in Phdr.** p. 104.4–11 Lucarini–Moreschini πρότερον δὲ αὐτὰς ψυχὰς ἐκθώμεθα τῶν συλλογισμῶν τὰς προτάσεις ἐν τάξει, ἐπειδὴ σποράδην αὐτὰς ὁ Πλάτων ἐξέθετο. ὁ μὲν οὖν πρότερος τοιοῦτός ἐστιν· ἡ ψυχὴ αὐτοκίνητος· τὸ αὐτοκίνητον ἀεικίνητον· τὸ ἀεικίνητον ἀθάνατον· ἡ ψυχὴ ἄρα ἀθάνατος. οὗτος οὖν ἡμῖν δείξει ὁ λόγος ὅτι ἐξ αὐτῆς οὐ φθείρεται. (ὁ δὲ δεῦτερος τοιοῦτος·) ἡ ψυχὴ αὐτοκίνητος· τὸ αὐτοκίνητον ἀρχὴ κινήσεως· ἡ ἀρχὴ τῆς κινήσεως ἀγένητος· τὸ ἀγένητον ἄφθαρτον· τὸ ἄφθαρτον ἀθάνατον· ἡ ψυχὴ ἄρα ἀθάνατος. **Ammonius Hermeiou in Isag.** 35.19–22 ὥσπερ ὁ Πλάτων τὸν περὶ τῆς ἀθανασίας τῆς ψυχῆς λόγον ἀποδείξει βουλόμενος τῷ λόγῳ τῆς οὐσίας αὐτῆς ἐχρήσατο, λέγων ὅτι ἡ ψυχὴ αὐτοκίνητος, τὸ αὐτοκίνητον ἀεικίνητον, τὸ ἀεικίνητον ἀθάνατον, ἡ ψυχὴ ἄρα ἀθάνατος. **Simplicius in Cat.** 14.31–33 ὁ γὰρ δεικνύς ὅτι ἡ ψυχὴ ἀθάνατος διὰ μέσου τοῦ αὐτοκινήτου λέγει οὕτως· ἡ ψυχὴ αὐτοκίνητος, τὸ αὐτοκίνητον ἀθάνατον· καὶ οὕτως ἐπάγει τὸ συμπέρασμα, ὅτι ἡ ψυχὴ ἀθάνατος. **John Philoponus in Apr.** 11.32–35. **Olympiodorus Prol.** 17.35–36. *in Phaed.* 3.3.9–10 οὕτω γὰρ ἐν μὲν τῷ Φαίδρῳ (245c–246a) ἔδειξε τὴν ψυχὴν ἀθάνατον ὀρισάμενος τὸν κατηγορούμενον ὅρον μέσον ὄντα τὸ αὐτοκίνητον. **David Prol.** 47.12–15.

§§2–3 **Heraclitus Stoics: Clement of Alexandria Strom.** 5.14.105.1 (cited Eus. *PE* 13.13.32) παραπλήσια τούτῳ (Heraclitus T 642 Mouraviev) καὶ οἱ ἄλλοι γιμῶτατοι τῶν Στωϊκῶν (*SVF* 2.590) δογματίζουσι περὶ τε ... καὶ τῆς τῶν ἡμετέρων ψυχῶν ἐπιδιαμονῆς. **Calcidius in Tim.** c. 251 *Heraclitus* (T 778 Mouraviev) *vero consentientibus Stoicis* (*SVF* 2.1198) *rationem nostram cum divina ratione connectit regente ac moderante mundana.* **Olympiodorus in Phd.** 10.2.11–14, p. 139 Westerink (not in *SVF*) τρίτη (sc. ψευδὴς περὶ ψυχῆς) δόξα ἡ λέγουσα τὴν μὲν ἀπαιδεύτον ψυχὴν ἐξιούσαν τοῦ σώματος εὐθὺς φθεῖρεσθαι, τὴν δὲ πεπαιδευμένην στομωθεῖσαν ταῖς ἀρεταῖς ἐπιμένειν τὴν ἐκπύρωσιν τοῦ παντὸς κόσμου, ἥς δόξης ἦν καὶ ὁ Ἡράκλειτος (T 1001 Mouraviev).

§2 **Seneca Nat.** 7.25.2 *alius vim divinam et dei partem* (sc. *dicet animum esse*). **Manilius** 4.884–893 ... *nostrumque parentem / pars sua perspicimus genitique accedimus astris. / an dubium est habitare deum sub pectore nostro / in caelumque redire animas caeloque venire, / utque sit ex omni constructus corpore mundus / aëris atque ignis summi terraeque marisque / hospitium menti totum quae infusa gubernet, / sic esse in nobis terrenae corpora sortis / sanguineasque animas animo, qui cuncta gubernat / dispensatque hominem?* **Seneca Dial.** 8.5.5 *an illud verum sit quo maxime probatur homines divini esse spiritus, partem ac veluti scintillas quasdam astrorum in terram desiluisse atque alieno loco haesisse.* **Arius Didymus** fr. 39.5 Diels, *DG* p. 471.13–16 at Eus. *PE* 15.20.5 (*SVF* 2.821) ἔνιοι δὲ τὴν μὲν τοῦ ὅλου (sc. ψυχὴν) αἰῶνα, τὰς δὲ λοιπὰς συμμίγνυσθαι ἐπὶ τελευτῇ εἰς ἐκείνην. **Hippolytus Ref.** 6.25.4 λέγει δὲ Πυθαγόρας ... καὶ τὰς ψυχὰς τῶν ζώων ἀπὸ τῶν ἄστρων φέ(ρ)εσθαι. **ps.Galen An.Ut.** 19.172.1 K. ἡ ψυχὴ δὲ ἀπόρροια μὲν τῆς πάσης ψυχῆς (οὐσα). **Apuleius Plat.** 1.9 *illam fontem animarum omnium, caelestam animam.* **Macrobius in Somn.** 1.6.20 *mundi anima quae animarum omnium fons est.*

§3 **Stoics: Seneca** *Dial.* 26.6–7 *et cum tempus advenerit, quo se mundus renovaturus extinguat, viribus ista se suis caedent et sidera sideribus incurrent et omni flagrante materia uno igni quicquid nunc ex disposito lucet ardebit.* (7) *nos quoque felices animae et aeterna sortitae, cum deo visum erit iterum ista moliri, labentibus cunctis et ipsae parva ruinae ingentis accessio in antiqua elementa vertemur.* **Ptolemy** *Iudic.* c. 7, pp. 11.24–12.9 ὅτι δὲ καὶ τὰς τε αἰσθητικὰς καὶ τὰς ἄλλας πάσας κινήσεις τῇ ψυχῇ καὶ οὐ τῷ σώματι ποιοῦμεθα, κατανοήσαιμεν ἂν εἰ καὶ κατὰ τὸ ποσὸν ἐπιβάλοιμεν αὐτῶν τῇ διαλύσει, καθ' ἣν ἡ μὲν ψυχὴ διὰ τὴν ὑπερβολὴν τῆς λεπτομερείας καθάπερ ὕδωρ ἢ πνεῦμα τοῦ συνέχοντος ἀνεθὲν εὐθὺς εἰς τὰ οἰκεία στοιχεῖα πέφυκε χωρεῖν, ὡς εὐλόγως ἂν μηκέτι τὰς ἀνθρωπικὰς ποιήσασθαι κινήσεις, τὸ δὲ σῶμα διὰ τὸ τῆς ὕλης παχυμερές ἐπιδιαμένον συγχὸν χρόνον ἐν ταῖς αὐταῖς καταστάσεσιν, ὅμως οὐδεμίαν φαίνεται ποιοῦμενον οὔτε αἰσθῆσιν οὔτε ὅλως κίνησιν τινα τῶν προτέρων. **Atticus** fr. 7 *Des Places* at *Eus. PE* 15.9.6 (verbatim) τῶν μὲν γὰρ ἄλλων οἱ μὲν ἐπιδιαμένειν συνεχώρησαν. **Marcus Aurelius** 4.21. **Calcidius** in *Tim.* c. 220 (*SVF* 2.879). *SVF* 2.809–822. **Themistius** in *de An.* 17.3–5 ἄλλ' ὅμως Ζήνωνι (*SVF* 1.145) μὲν ὑπολείπεται τις ἀπολογία κεκράσθαι ὄλην δι' ὅλου τοῦ σώματος φάσκοντι τὴν ψυχὴν καὶ τὴν ἔξοδον αὐτῆς ἀνευ φθορᾶς τοῦ συγκρίματος μὴ ποιοῦντι.

§§4–5 **Epicurus Democritus Aristotle Plato Pythagoras: Alexander of Aphrodisias** *de An.* 90.13–15 ὁ νοῦς ἄρα ὁ τοῦτο νοήσας ἀφθαρτός ἐστιν, οὐχ ὁ ὑποκείμενός τε καὶ ὕλικός· ἐκεῖνος μὲν γὰρ σὺν τῇ ψυχῇ, ἥς ἐστὶ δύναμις, φθειρομένη φθίρεται.

§4 **Epicurus Democritus Aristotle: Plato** *Phd.* 80d ἡ δὲ ψυχὴ ἄρα ... ἀπαλλαττομένη τοῦ σώματος εὐθὺς διαπεφύσσηται καὶ ἀπόλῳλεν, ὡς φασιν οἱ πολλοὶ ἀνθρώποι; **Aristotle** *de An.* 2.2 413b24–27 περὶ δὲ τοῦ νοῦ καὶ τῆς θεωρητικῆς δυνάμεως οὐδὲν πω φανερόν, ἀλλ' ἔοικε ψυχῆς γένος ἕτερον εἶναι, καὶ τοῦτο μόνον ἐνδέχασθαι χωρίζεσθαι, καθάπερ τὸ αἶθρον τοῦ φθαρτοῦ. **Epicurus** *Ep.Hdt.* at D.L. 10.65 λυομένου τοῦ ὅλου ἀθροίσματος ἡ ψυχὴ διασπείρεται. **Lucretius** *DRN* 3.437–444 *crede animam quoque diffundi multoque perire / ocius et citius dissolvi in corpora prima, / cum semel ex hominis membris ablata recessit; / quippe etenim corpus, quod vas quasi constitit eius, / cum cohibere nequit conquassatum ex aliqua re / ac rarefactum detracto sanguine venis, / aëre qui credas posse hanc cohiberier ullo, / corpore qui nostro rarus magis incohibens sit?* **Pythagorica Hypomnemata** at *Alex. Polyh.* fr. 9 *Giannatasio Andria* (Pythagorei 58Bia DK) at D.L. 8.30 καὶ τὸ μὲν φρόνιμον ἀθάνατον, τὰ δὲ λοιπὰ θνητά. **Alexander of Aphrodisias** *de An.* 21.22–24 οὐσα δὲ ἡ ψυχὴ εἶδος τοῦ σώματος, ὅποιον προεῖρηται, τῷ ἀχώριστον εἶναι τοῦ σώματος τὸ τοιοῦτον εἶδος καὶ συμφθίρειτο ἂν τῷ σώματι, ὅση γε αὐτῆς φθαρτοῦ σώματος εἰδός ἐστιν. **Olympiodorus** in *Phd.* 10.2.2–6, p. 139 Westerink μία μὲν (sc. ψευδὴς δόξα περὶ ψυχῆς) ἡ λέγουσα ἅμα φθεῖρεσθαι τῷ σώματι τὴν ψυχὴν, ὡς ἡ λέγουσα τὴν ψυχὴν ἀρμονίαν, ἥς δόξης ἦν ὁ Σιμμίας (*Phd.* 85e3–86d4) καὶ τινες τῶν Πυθαγορείων. δευτέρα δὲ ἡ λέγουσα τὴν ψυχὴν ὅλον σῶμα οὐσαν λεπτομερές καὶ καπνῷ ἐοικυῖαν μετὰ τὴν ἔξοδον τὴν ἀπὸ τοῦ σώματος σκεδάννυσθαι καὶ φθεῖρεσθαι, ἥς δόξης ἦν καὶ ὁ ποιητής κτλ. **John Philoponus** in *de An.* 10.1–3 οἱ δὲ πᾶσαν ἀχώριστον καὶ διὰ τοῦτο θνητὴν, ὧν ἐστὶν Ἀλέξανδρος ὁ Ἀφροδισιεύς, ὃς καὶ τὸν Ἀριστοτέλην πειράται εἰς τὴν ἑαυτοῦ δόξαν συγκατασπᾶν.

§5 Plato Pythagoras: Plato Tim. 30b διὰ δὴ τὸν λογισμὸν τόνδε νοῦν μὲν ἐν ψυχῇ, ψυχὴν δ' ἐν σώματι συνιστάς τὸ πᾶν συνετεκταίνεται, ὅπως ὅτι κάλλιστον εἶη κατὰ φύσιν ἄριστόν τε ἔργον ἀπειργασμένος. *Tim.* 72d τὰ μὲν οὖν περὶ ψυχῆς, ὅσον θνητὸν ἔχει καὶ ὅσον θεῖον. *Tim.* 90a τὸ δὲ δὴ περὶ τοῦ κυριωτάτου παρ' ἡμῖν ψυχῆς εἶδους διανοεῖσθαι δεῖ τῇδε, ὥς ἄρα αὐτὸ δαίμονα θεὸς ἐκάστω δέδωκεν. *Tim.* 69c–e οἱ δὲ μιμούμενοι, παραλαβόντες ἀρχὴν ψυχῆς ἀθάνατον, τὸ μετὰ τοῦτο θνητὸν σῶμα αὐτῇ περιετόρνενυσαν ὄχημά τε πᾶν τὸ σῶμα ἔδωσαν ἄλλο τε εἶδος ἐν αὐτῷ ψυχῆς προσωκοδόμουν τὸ θνητόν, δεινὰ καὶ ἀναγκαῖα ἐν ἑαυτῷ (d) παθήματα ἔχον, πρῶτον μὲν ἡδονήν, ... ἔτι δ' αὖ θάρρος καὶ φόβον, ἄφρονε συμβούλῳ, θυμὸν δὲ δυσ-παραμύθητον, ἐλπίδα δ' εὐπαράγωγον· αἰσθήσει δὲ ἀλόγῳ καὶ ἐπιχειρητῇ παντὸς ἔρωτι συγκερασάμενοι ταῦτα, ἀναγκαίως τὸ θνητὸν γένος συνέθεσαν. καὶ διὰ ταῦτα δὴ σεβόμενοι μιαίνειν τὸ θεῖον, ὅτι μὴ πάσα ἦν ἀνάγκη, χωρὶς ἐκείνου κατοικίζουσιν εἰς ἄλλην τοῦ σώματος οἴκησιν τὸ θνητόν. ... (e) ... ἐν δὴ τοῖς στήθεσιν καὶ τῷ καλουμένῳ θώρακι τὸ τῆς ψυχῆς θνητὸν γένος ἐνέδουν. (cf. *Galen PHP* 9.9.8 ἐν τοῖς πρώτοις ἕξ ὑπομνήμασι τῆσδε τῆς πραγματείας οὔτε περὶ τῆς οὐσίας εἰπών τι τῶν τριῶν εἰδῶν τῆς ψυχῆς οὔτε περὶ τῆς ἀθανασίας οὔθ' ὅλως ζητήσας πότερα κυρίως ὀνομάζων εἴρηκεν ἐν Τιμαίῳ θνητὰ τὰ δύο μέρη τῆς ψυχῆς ἢ ταύτην αὐτοῖς ἐπήνεγκε τὴν προσηγορίαν ἀθανάτοις οὖσιν ὥς χεῖροσι τοῦ λογιστικοῦ καὶ ὥς κατὰ τὰ θνητὰ τῶν ζῶων ἐνεργοῦσι μόνον.) **Euripides** fr. 1018 Snell/Kannicht = **Menander Mon.** 588 Jäkel ὁ νοῦς γὰρ ἡμῶν ἐστὶν ἐν ἐκάστω θεός. **Xenophon Mem.** 4.3.14 ἀλλὰ μὴν καὶ ἀνθρώπου γε ψυχῇ, ἢ, εἴπερ τι καὶ ἄλλο τῶν ἀνθρωπίνων, τοῦ θεοῦ μετέχει, ὅτι μὲν βασιλεύει ἐν ἡμῖν, φανερόν. **Cicero Resp.** 6.26 (= *Somn.Scip.*) *mens cuiusque is est quisque, non ea figura, quae digito demonstrari potest. deum te igitur scito esse, siquidem est deus, qui viget, qui sentit, qui meminit, qui providet, qui tam regit et moderatur et movet id corpus, cui praepositus est, quam hunc mundum ille princeps deus; et ut mundum ex quadam parte mortalem ipse deus aeternus, sic fragile corpus animus sempiternus movet.* **Varr.** 1.29 *quam vim animus esse dicunt mundi, eandemque esse mentem sapientiamque perfectam, quem deum appellant.* **Tusc.** 1.65 *divina mallet ad nos (sc. transferebat Homerus). quae autem divina? vigere, sapere, invenire, meminisse. ergo animus qui *** ut ego dico, divinus est, ut Euripides (fr. 1018 Snell/Kannicht) dicere audet, deus. et quidem, si deus aut anima aut ignis est, idem est animus hominis.* **ND** 1.28 *quo modo porro deus iste, si nihil esset nisi animus, aut infixus aut infusus esset in mundo?* **Seneca Ep.** 31.11 *quid aliud voces hunc (sc. animus bonum) quam deum in corpore humano hospitantem?* **Alcinous** c. 25, pp. 177.16–178.26 H. τὴν δὲ ψυχὴν ἀθάνατον ἀποφαίνει τοῦτον ἐπιὼν τὸν τρόπον ...· εἰ δὲ ἀθάνατον ἡ ψυχὴ, καὶ ἀνώλεθρον ἂν εἴη· ἀσώματος γὰρ ἐστὶν οὐσία. ... καὶ μὴν ἡγεμονεύει ἡ ψυχὴ φύσει· τὸ δὲ τῇ φύσει ἡγεμονικὸν τῷ θείῳ ἔοικεν· ὥστε ψυχὴ τῷ θείῳ εἰκοῦα ἀνώλεθρος ἂν εἴη καὶ ἀφθαρτος. ... ὅτι μὲν οὖν αἱ λογικαὶ ψυχαὶ ἀθάνατοι ὑπάρχουσι κατὰ τὸν ἄνδρα τοῦτον, βεβαιώσαιτ' ἂν τις· εἰ δὲ καὶ αἱ ἄλλοι, τοῦτο τῶν ἀμφισβητουμένων ὑπάρχει. **Atticus** fr. 7.13 Des Places at Eus. *PE* 15.9.6 καὶ γὰρ εἰ μὴ πᾶσαν βούλεται (sc. Aristotle) τὴν ψυχὴν ἀθάνατον εἶναι, τὸν γε νοῦν ὁμολογεῖ (with Plato) θεῖόν τε καὶ ἀφθαρτόν εἶναι. **Boethius at Porphyry** 243F Smith at Eus. *PE* 11.28.7–11 εἰ μὲν ἀθάνατός ἐστιν ἡ ψυχὴ καὶ παντὸς ὀλέθρου κρείττων τις φύσις, πολλοὺς

ἀναμείναντα χρή και περιηγησάμενον λόγους ἀποφήνασθαι. (8) τὸ μέντοι τῶν περὶ ἡμᾶς ὁμοίωτερον μὴδὲν γενέσθαι θεῷ ψυχῆς, οὐ πολλῆς ἂν τις δεηθεῖς πραγματείας πιστεύσειεν, οὐ μόνον διὰ τὸ συνεχὲς και ἄπαυστον τῆς κινήσεως, ἣν ἐν ἡμῖν ἐνδίδωσιν, ἀλλὰ τοῦ καθ' ἑαυτὴν νοῦ. (9) εἰς ὅπερ ἀπιδὼν και ὁ Κροτωνιάτης φυσικὸς (see ch. 4.2.2 above) εἶπεν ἀθάνατον αὐτὴν οὔσαν και πᾶσαν ἡρεμίαν φύσει φεύγειν, ὥσπερ τὰ θεῖα τῶν σωμάτων. ... (11) εἰ γὰρ ὡς ὁμοιώτατον τῷ θεῷ πάντων χρημάτων ἡ ψυχὴ δείκνυται, τίς ἔτι χρεῖα τῶν ἄλλων δεῖσθαι λόγων εἰς ἀπόδειξιν τῆς ἀθανασίας αὐτῆς κτλ. **John Philoponus** *in de An.* 12.15–22 δείξομεν οὖν ἕκαστον τῶν εἰρημένων, ὅτι τε πᾶσα ψυχὴ ἀσώματος και ὅτι μόνη ἡ λογικὴ χωριστὴ παντὸς σώματος και διὰ τοῦτο ἀθάνατος, και ὅτι ἡ μὲν ἄλογος τοῦ μὲν παχέος τούτου χωριστὴ, ἀχώριστος δὲ τοῦ πνεύματος, και ἔτι εἰ ὅλως ἐστὶν αὐτὸ τοῦτο τὸ πνευματικὸν σῶμα, και ὅτι ἐπιδιαμένει μετὰ τὴν ἔξοδον τὴν ἐκ τούτου τοῦ σώματος ἐπὶ τινὰ χρόνον, και ὅτι ἡ φυτικὴ ἐν τῷ παχεῖ τούτῳ τῷ σώματι τὸ εἶναι ἔχει και συμφθίρεται αὐτῷ.

Plutarch *An.Procr.* 1027A μὴ πᾶν ἔργον εἶναι θεοῦ τὴν ψυχὴν ἀλλὰ σύμφυτον ἔχουσιν ἐν ἑαυτῇ τὴν τοῦ κακοῦ μοῖραν. *Plat.Quaest.* 1001C ἡ δὲ ψυχὴ ... οὐκ ἔργον ἐστὶ τοῦ θεοῦ μόνον ἀλλὰ και μέρος. **Celsus** at **Orig.** *CC* 4.52, p. 269.12 Marcovich και ψυχὴ μὲν θεοῦ ἔργον, σώματος δὲ ἄλλη φύσις. **Seneca** *Ep.* 66.12 *ratio autem nihil aliud est quam in corpus humanum pars divini spiritus mersa.* **Aristotle** *Met.* Δ.7 1072b28–29 φαμέν δὴ τὸν θεὸν εἶναι ζῶον αἰδῖον ἄριστον. **Alcinous** *Did.* 10 p. 164.34 H. ὁ πρῶτος θεὸς αἰδῖός ἐστιν. **ps.Athanasius** *Disp.Ar.* *MPG* 28.452.32–33 ὅτι αἰδίου Θεοῦ τυγχάνει ἔργον ὁ κόσμος.

Liber 4 Caput 7a

S: Stobaeus *Ecl.* 1.48.7, p. 317.15–19 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b29 Henry (titulus solus)—cf. P^{Sy} *CRN* 4.83, p. 78.15 Delatte (titulus solus)
T: Theodoretus *CAG* 5.28, p. 130.9–10 Raeder
Cf. Hermias *Irr.* 2.2 Hanson; ps.Iustinus *Coh.* 7.2.20 Marcovich; Nem: Nemesius *NH* c. 1, p. 1.14–15 Morani

Titulus ε⁺. Περὶ νοῦ (S)

- §1 Πυθαγόρας Ἀναξαγόρας Πλάτων Ξενοκράτης Κλεάνθης θύραθεν εἰσ-
κρίνεσθαι τὸν νοῦν. (S1,T1)
§2 Παρμενίδης καὶ Ἐμπεδοκλῆς καὶ Δημόκριτος ταῦτὸν νοῦν καὶ ψυχὴν,
καθ' οὗς οὐδὲν ἄν εἴη ζῶον ἄλογον κυρίως. (S2)

5

§1 Pythagoras—; Anaxagoras 59A93 DK; Plato—; Xenocrates fr. 69 Heinze, F 125 Isnardi Parente²; Cleanthes *SVF* 1.523 (abiud. ab Arnim); §2 Parmenides 28A45 DK; Empedocles 31A96 DK, cf. 31B10.10 DK; Democritus—

lemmata non hab. P^{BQG} **titulum** addidimus ex tit. Stob. 1.48 ap. Phot. §1 [2] Πυθαγόρας ... Κλεάνθης S : καὶ οἱ περὶ Πλάτωνα δὲ καὶ Πυθαγόραν T || [2–3] θύραθεν ... νοῦν S : θύραθεν τοῦτον εἰσκρίνεσθαι T || ad fin. λέγουσιν add. T §2 non hab. T || [4] ταῦτὸν S^P : αὐτὸν S^F || νοῦν καὶ ψυχὴν : νοῦς καὶ ψυχὴ S, corr. Diels

Testes primi:

Theodoretus 5.28

28.1 (~ §1) καὶ οἱ περὶ Πλάτωνα δὲ καὶ Πυθαγόραν θύραθεν τοῦτον εἰσκρίνεσθαι
λέγουσιν.

Traditio ps.Plutarchi:

Symeon Seth *CRN* 4.83 (~ tit.) Περὶ νοῦ

Testes secundi:

Hermias *Irr.* 2.2 οἱ δὲ τὸν νοῦν (sc. ψυχὴν εἶναι) (~ §2).

ps.Iustinus *Coh.* 7.2.20 οἱ δὲ τὸν νοῦν (sc. εἶναι τὴν ψυχὴν) (~ §2).

Nemesius *NH* c. 1, p. 1.14–15 τινὲς δὲ οὐ διεστέλλαντο ἀπὸ τῆς ψυχῆς τὸν νοῦν (~ §2).

Loci Aetiani:

quaestio A 4.7.4 Πυθαγόρας Πλάτων τὸ μὲν λογικὸν ἄφθαρτον· καὶ γὰρ τὴν ψυχὴν
οὐ θεὸν ἀλλ' ἔργον τοῦ αἰδίου θεοῦ ὑπάρχειν· τὸ δ' ἄλογον φθαρτόν.

titulus A 1.25.4 Λεύκιππος ... ἐν τῷ Περὶ νοῦ.

§1 A 4.7.1 Πυθαγόρας Ἀναξαγόρας Διογένης Πλάτων Ἐμπεδοκλῆς Ξενοκράτης ἄφθαρτον εἶναι τὴν ψυχὴν.

§2 A 4.7.2 Δημόκριτος Ἐπίκουρος Ἀριστοτέλης φθαρτὴν τῷ σώματι συνδιαφθειρομένην. A 4.4.8 ὁ δὲ Δημόκριτος πάντα μετέχειν φησὶ ψυχῆς ποιᾶς, καὶ τὰ νεκρὰ τῶν σωμάτων, διότι αἰεὶ διαφανῶς τινος θερμοῦ καὶ αἰσθητικοῦ μετέχει, τοῦ πλείονος διαπνεομένου.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) This material, inserted by Diels as §§11–12 at the end of ch. 4.5, is absent from P and his tradition. Both lemmata are found in S, and a shorter version of the first lemma is cited in T, which was missed by Diels but not by Raeder (cf. M–R 1.274). It is rejected by Frede (1999b) 145, who believes that this lemma does not derive from A but from a much later source, like its immediate environment in T. Frede is followed by Gourinat (2018) at M–R 4.30–32. Mansfeld (2018a) at M–R 4.183 with n. 29 argues against this view. Scholten's footnote (2015) 369–370 n. 45 is unclear.

Diels, though expressing doubt in the apparatus, as we just saw decided to append S's lemmata at the end of P's ch. 4.5, the chapter on the regent part that is absent from S (and from E). Gourinat (2011) 146 n. 21 protests strongly: this combination 'constitue sans doute le pire exemple des faiblesses de sa [sc. Diels'] méthode de reconstruction'. In his view Diels failed to acknowledge that S replaced P's Hellenistic material with Neoplatonist evidence he believed to be equivalent, and which he preferred. 'Diels fausse ainsi notre vision des pratiques de composition de Stobée, de ses orientations philosophiques et de celles de sa source'. But like Frede, Gourinat has refused the parallel for §1 in T.

(2) The presence of §1 in T, paralleled in S but absent in P, is important, for it provides further incontrovertible proof that T used not P but A as a source. See Mansfeld (2016d) at M–R 4.180–187 on the T,S source, and esp. 4.183–184 with n. 29 for ch. 4.7.1 = Diels 4.5.11; further above, General Introduction, section 2.5. This consolidates the argument in favour of the derivation of the diaphonically opposed §2 (now in S alone) from A. The terse style of both these lemmata with their series of name-labels is entirely in tune with that of the *Placita*. The evidence of Symeon Seth is interesting because as it seems it is independent of S, but also of P. The evidence of the *testes secundi* is not very helpful.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The issue is mentioned in the doxographical overview of Philo *Somn.* 1.30, ὁ ἡγεμὼν νοῦς [...] ἢ ἔξωθεν εἰσκρίνεται; cf. *Opif.* 67, cited section E(a) General texts, on which see Runia (2001) 219–220, and *Cher.* 114, cited at Book 4 titulus et index above; also above, ch. 2.11, Commentary B and ch. 4.2, Commentary A. It is also found in Sextus Empiricus *P.* 2.26. The parallels in Tertullian are located in a separate chapter, where he argues against the notion that intellect should be radically distinguished from soul.

(2) *Sources.* Theophrastus' *Physics* as cited by Diogenes Laertius attributes to Parmenides the view that soul and intellect—*psyche* and *nous*—are the same (*Phys. Op.* fr. 6a Diels, 227D FHS&G at Diogenes Laertius *V.P.* 9.22), which is not paralleled verbatim in the Parmenides paragraphs of the *De sensibus*. What we have at *Sens.* 4, quoted Diels *DG* 222 as 'Theophrasti vestigia' (cf. *ibid.* 142) in relation to our ch. 4.7a.2 (= A 4.5.12 Diels), is slightly different: τὸ γὰρ αἰσθάνεσθαι καὶ τὸ φρονεῖν ὡς τὰ αὐτὸ λέγει—a comment on Parmenides 28B16 DK. Aristotle *de An.* 3.3 427a19–27 attributes this view to 'all the ancients'; cf. *Met.* Γ.5 1009b11–31, where among other evidence he also cites the Parmenides fragment. That *psyche* and *nous* are the same Aristotle attributes to Democritus (*de An.* 1.2 404a26–32) and (reluctantly) to Anaxagoras (*de An.* 1.2 404b1–3). Diogenes Laertius *V.P.* 9.44 attributes this identification to Democritus too. So Aristotle uses both formulations, while Theophrastus in the *De sensibus* only uses one.

The phrase 'as Theophrastus records in the *Physics*, citing the tenets of about all' (καθὰ μέμνηται καὶ Θεόφραστος ἐν τοῖς Φυσικοῖς, πάντων σχεδὸν ἐκτιθέμενος τὰ δόγματα), in this passage of Diogenes Laertius *V.P.* 9.22, has been interpreted by Diels (*DG* 103, 166), followed by many and now also by Zhmud (2013a) 164, as proving that Theophrastus in the *Physikṓn Doxai* (as Usener and Diels influentially called the work, followed by Zhmud though *Physikai Doxai* makes better sense) systematically discussed the tenets of the natural philosophers on the entire range of subjects later treated by Aëtius. But apart from the question of how reliable Diogenes' reference is, the phrase itself need not imply more than that Theophrastus in the passage referred to discussed the views *on the identity of soul and intellect*, or of sense perception and thought, of virtually all concerned. According to Themistius *in de An.* 108.11 (Thphr. fr. i Barbotin; frs. 137 no. 1a, 307A FHS&G), Book 2 of Theophrastus' *De anima* is Book 5 of his *Physics* (ἐν τῷ πέμπτῳ τῶν Φυσικῶν, δευτέρῳ δὲ τῶν Περὶ ψυχῆς). The simplest solution is that Theophrastus discussed these earlier views in his *De anima*, just as Aristotle had done in Book 1 of his *De anima*. This does not entail that the *De sensibus* is part of the *De anima*, for Aristotle too wrote a *De sensu* next to a *De anima*. This would make sense of Diogenes' reference.

If Diogenes Laertius *V.P.* 9.22 on Parmenides is attributed to Theophrastus, *V.P.* 9.44 on Democritus should be attributed to Theophrastus as well. Diels did not do this, possibly because the phrase about the identity of soul and mind is attested not for Theophrastus but for Aristotle. But the theoretical backdrop of the identity of perceiving and thinking is attested for both Peripatetics, and this could be paraphrased as the sameness of soul and mind.

C Chapter Heading

The heading, of the umbrella type (περὶ τοῦ δεῖναι) that dominates in the *Placita* (see above, ch. 1.3 Commentary C), is that of S ch. 1.48, not in the mss. but from the index of Photius, and may have been abridged in the usual way by S. According to §1 it pertains to the subsidiary question *unde*, according to §2 it comprises an equivalence of *nous* with *psyche*. The wording in A is not certain; it could have been e.g. Πόθεν ἐστὶν ὁ νοῦς.

D Analysis

a Context

In S's chapter the two lemmata are sandwiched between a fragment of ps.Archytas and an abstract from Iamblichus' treatise *On Soul* (which begins with πάλιν τοῖνυν περὶ τοῦ νοῦ) in *Ecl.* 1.48 with the heading 'On Intellect', on which see Festugière (1953) 11. In S this separate chapter comes *before* ch. 49 with heading 'On Soul', in which abstracts from Aëtian chapters 4.2–6 are preserved. Soul follows *nous* in the Neoplatonist hierarchy: S's order of treatment is often according to his own (Neoplatonist) priorities, think of his positioning of the theology of ch. 1.7 in ch. 1 of his Book 1 before the principles of ch. 1.3 in his own ch. 1.10. A separate Aëtian chapter on the possible provenance of intellect from outside and the question of whether it is identical with soul is quite well placed after the block of chapters on the soul and before the chapters on sense perception. Diels' decision (as he was aware himself, for he wrote in the apparatus ad *DG* 392b 'dubium an hoc capitulum ad c. 5 referendum') to append the lemmata in the right-hand column of ch. 4.5 on the location of the regent part as 4.5.11–12 is arbitrary. T's (shorter) lemma is interpolated four paragraphs down from his account of soul at *CAG* 5.28 in an account of views on the relation of intellect to soul and the status of intellect. The reason will have been that in the source used by him, i.e. A, the evidence on *nous* was distinguished from and followed after that on the soul *per se*. Accordingly, we have preferred to give this chapter the number 4.7a, instead of 4.5a.

Diels remarkably enough failed to print the lemma from T 5.28 at *DG* 392. In T it is part of a series of views on the relation of intellect to soul and the status of intellect. This follows upon contrasting views concerned with what the Stoics

believed about the mortality or relative immortality of the soul, *CAG* 5.26–27, and as we noted is located at some distance from T's Aëtian material on the soul *per se*, which at *CAG* 5.24 ends with three lemmata Diels printed at the bottom of *DG* 393 as the final part of the Aëtian chapter 4.7 'On the indestructibility of soul', although they are not about this theme at all, but on the issue of whether and in what sense a soul may be attributed to plants, and whether they may be called 'living beings' (ζῶα). See below, section D(b), above, ch. 4.7, Commentary D(c), and Mansfeld (1990a) 3187–3190.

b Number–Order of Lemmata

T has one lemma, S two. As already noted, Diels placed them at the end of ch. 4.5, that is, after the account of the location of the regent part. His motive, presumably, is that 'intellect' may indeed be equivalent with 'regent part'. The fact, however, that (1) the main source is a chapter (with its own specific title) in S *different* from that in which the (other) lemmata of ch. 4.5 are preserved, that (2) the lemma in T is found at some distance from the material for ch. 4.5, and (3) that in Tertullian and Nemesius, too, the issues of the relation between soul and intellect and of intellect's origin are discussed in chapters that are not found near their accounts of the regent part, further justifies our decision not to accept Diels' reconstruction of ch. 4.5 *ad finem*, and to allocate the two lemmata to a chapter of their own instead. This entails that P eliminated an entire chapter. See also M–R 2.1.142–143, 2.2.470, and for the splitting up of Dielsian chapters M–R 2.2, chs. 2a, 5a, 17a.

A reversal of the lemmata order in this (new) chapter is defensible, but we have preferred not to interfere with S's order. Perhaps our two lemmata are the remains of an *uberius caput*. Even so the multiple name-labels give pretty good coverage. S may very well have left out one or two lemmata because he preferred the fragment from Iamblichus' *On the Soul* (cited below at section E(b) General texts), which he copies out immediately after the two Aëtian lemmata.

c Rationale–Structure of Chapter

§1 is concerned with the subsidiary question type *unde*, πόθεν (cf. e.g. the headings of chs. 2.5 and 2.17 and see Mansfeld (1990a) 3092 n. 138, 3125–3126, 3133, 3138–3139, 3150, 3194), and posits a separate status for intellect. It seems a bit odd that Aristotle himself is not included, in contrast to other name-labels whose connection with such a status for intellect is, at best, a matter of interpretation. Perhaps the name-label has dropped out.

§2 is about the question type and category of substance. The assumption is that there is no distinction between intellect and soul. In the *De anima* the latter position is attributed by Aristotle to Anaxagoras and Democritus, see sec-

tion B above and section E(b)§2 below. The two lemmata suffice to set out a complete diaphonia, just as e.g. in ch. 4.6: §1 is about a separate status for intellect, while §2 denies that intellect and soul may be distinguished from each other, so that there can be no separate status for intellect. This further supports the separate status of the little blemmatic chapter.

d Further Comments

General Points

The evidence has been streamlined. The diaphonia between §1 and §2 is to some extent false or at any rate incomplete, since soul too, according to a part of the evidence not reflected in our chapter, was believed by some to enter from outside. But the somewhat strange contrast between intellect entering from outside on the one hand and the lack of difference between soul and intellect on the other is precisely paralleled in the fragment from Iamblichus' *De anima* quoted below section E(a) General texts. Finamore and Dillon (2002) 118–119, commenting on the Iamblichus passage, find this difficult to explain, but should have taken the Aëtian lemmata into account, copied out by S immediately before the Iamblichus passage.

The diaphonia was used by the Pyrrhonists, see Sextus Empiricus *P.* 2.26, and note the parallel clause οὐδέν ἐστι ζῶον ἄλογον, ἀλλὰ καὶ νοῦ καὶ ἐπιστήμης δεκτικὰ ἐστὶ πάντα κτλ.

Note that Themistius (*in de An.* 108.12–13), after a substantial verbatim quotation of Theophrastus on the potential and actual intellect, actually says that in what follows in Book 5 of *Physics*, or Book 2 of *De anima*, 'concerning the potential intellect as well they (namely Aristotle and Theophrastus) find almost the same difficulties, whether it is from the outside or connate' etc. (περὶ τοῦ δυνάμει νοῦ σχεδὸν τὰ αὐτὰ διαποροῦσιν, εἴτε ἑξωθεν ἐστὶν εἴτε συμφυῆς), as cited at greater length ad fr. i Barbotin and FHS&G fr. 307A.

Individual Points

§1 Because it is the purpose of the chapter to achieve a diaphonia, one should not be surprised by, or shocked (as Von Arnim apparently was) at the array of name-labels: the status of intellect as a separate component is in need of supporters. Similar views are attributed by Aristotle to the Pythagoreans (*de An.* 1.2 404a16–18) and 'the Orphic poem' (*de An.* 1.5 410b27–30, the soul arriving with the winds). Also cf. Varro at Lactantius *Op.D.* 17.5, on the 'soul inhaled by the mouth'. Attribution to Plato may have been achieved by combining the doctrine of *metempsychosis* with the idea that of the three parts of the soul only the highest part is immortal. See also Alcinous *Did.* 25, p. 178.34 H., and cf. Tertullian *de An.* 3.2, *hi statum eius aliunde (de)ducunt*. The attribution to Anaxagoras may

be connected with the special status of *Nous* (and *nous*) in his system. That to Cleanthes may be an echo of the Stoic view that the embryo becomes ensouled at its first breath (*SVF* 2.804–808).

§2 The second clause of the doxa gives the grounds for the first. Because there is no living being (animal) that does not possess some reason—the tacit other premise being that all animals are ensouled—there is no ground for distinguishing between humans and other animals as if only humans had reason, so no grounds for distinguishing between reason and non-reason, or between intellect and soul. See also Mansfeld (1990a) 3192. The combination of the name-labels Parmenides and Empedocles and Democritus plus doxa echoes Aristotle *Met.* Γ.5 1009b12–31 (quoted section E(b)§2), where the present identification of soul and mind (explicitly paralleled for Democritus and Anaxagoras elsewhere in Aristotle, see again section E(b)§2) is expressed as a lack of distinction between sense perception and thought. See further Mansfeld (1996) and (2018b). See also M–R 2.1.142–143.

e Further Evidence

One is struck by the absence of the name-label Democritus in the first doxa, since Aristotle tells us that soul-atoms (and soul does not differ from intellect for Democritus, Aristotle says, see next lemma with section E(b)§2) ‘enter from outside’, θύραθεν ἐπεισιόντων, in the act of breathing, *de An.* 1.2 404a13. In this context he even attributes a θύραθεν νοῦς to him, *Resp.* 4 472a22. The presence of this name-label would presumably have weakened the diaphonia (Democritus’ presence is at any rate restricted to the next lemma because of the identification of soul and intellect Aristotle attributed to him).

Ch. 4.3 section E(b)§14, with Commentary D(d)§14, presents some evidence of antecedents in Aristotle for the attribution of a sort of exterior soul or *nous* to certain Presocratics. So the Aëtian lemma 4.7a.1 seems to derive from Aristotle no less than from Theophrastus. See also above, section D(d)§1, and M–R 2.1.143.

As is well known, Aristotle’s text *GA* 2.3 736b27–28, λείπεται δὲ τὸν νοῦν μόνον θύραθεν ἐπεισιέναι καὶ θεῖον εἶναι μόνον, probably in combination with *de An.* 3.5 430a17–22 (cf. Moraux 1973, 231), in both Middle Platonist and Aristotelian circles gave rise to the attribution to Aristotle himself of the view that the intellect enters from outside. It is attributed to Cratippus by Cicero, see section E(b)§1, who even ventures to amplify this attribution into one of a World Soul. For an argument contra of this external origin in relation to Aristotle see Berti (2008) 295–328; also cf. Moraux (1984) 2.406–425.

The bald statement of §1 fails to tell us whether or not the intellect entering from outside exists separately or derives from a divine Intellect. Our chapter in

no way anticipates the history of the views concerned with this intellect from, say, Alexander of Aphrodisias onwards. For Alexander see e.g. Moraux (2001) 343–353, 373–382, 386–394, and for this subsequent development the still useful overview of Kurfess (1911). The fragment of Iamblichus *De anima* quoted below, section E(a) General texts, may give some impression of the later debate.

E Further Related Texts

a Proximate Tradition

General texts: **Philo of Alexandria** *Somn.* 1.30–31 ἄρ' οὖν ... ὁ ἡγεμών νοῦς ... τί γὰρ αὐτὸν οἰόμεθα ..., γεννώμενον δ' εὐθὺς ἢ ἔξωθεν εἰσκρίνεται ... ; *Cher.* 114 πόθεν δὲ ἦλθεν ἢ ψυχῇ; **Tertullian** *de An.* 12.1 *proinde et animu(s) sive mens est* νοῦς *apud Graecos*. **Sextus Empiricus** *M.* 7.349 οἱ μὲν ἐκτὸς τοῦ σώματος (sc. εἶναι τὴν διάνοιαν), ὡς Αἰνῆσιδημος (fr. B24A Polito) κατὰ Ἡράκλειτον (T 689 Mouraviev). **Arnobius** *Adv.Nat.* 1.38, p. 33.15–16 Marchesi (*qui ... monstravit*) *advolaritne ad nos* (sc. anima) *sponte an cum ipsis sata sit et procreata visceribus*. **Iamblichus** *de An.* fr. 15 Finamore–Dillon at Stob. 1.48.8, pp. 317.20–318.15 Ἰαμβλίου ἐκ τοῦ Περί ψυχῆς. πάλιν τοῖνυν περὶ τοῦ νοῦ καὶ πασῶν τῶν κρειττόνων δυνάμεων τῆς ψυχῆς οἱ μὲν Στωικοὶ (*SVF* 1.149, 2.835) λέγουσι μὴ εὐθὺς ἐμφύεσθαι τὸν λόγον, ὕστερον δὲ συναθροίζεσθαι ἀπὸ τῶν αἰσθήσεων καὶ φαντασιῶν περὶ δεκατέσσαρα ἔτη. οἱ δ' ἀπὸ Πλάτωνος (*Tim.* 43d–44a) καὶ Πυθαγόρου παρεῖναι μὲν καὶ ἐν τοῖς ἀρτιγενέσι τὸν λόγον φασίν, ἐπισκοτεῖσθαι γέ μὴν {ἐν} τοῖς ἔξωθεν καὶ μὴ ἐνεργεῖν τὴν οἰκείαν ἐνέργειαν, ἀλλ' ἡσυχάζειν. ἤδη τοῖνυν περὶ τοῦ νοῦ πολλοὶ μὲν Περιπατητικοὶ τὸν ἐκ σπέρματος καὶ {τὸν} ἀπὸ τῆς φύσεως ἄλλον νοῦν ὑποθέμενοι, ὡς αὐτίκα μάλα ἀποβλαστάνοντα ἀπὸ τῆς πρώτης γενέσεως, καὶ χωριστὸν καὶ θύραθεν ἐπικαλούμενον ἕτερον παραγίγνεσθαι λέγουσιν ὀψιαιτάτα, ἐπειδὴν τελειωθῇ μὲν ὁ κατὰ δύναμιν νοῦς, ἐπιτηδείως δὲ μετέχῃ τῆς κατ' ἐνέργειαν νοήσεως. πολλοὶ δὲ αὐτῶν τῶν Πλατωνικῶν καὶ τὸν νοῦν τῇ ψυχῇ ἅμα τῇ πρώτῃ εἰσόδῳ αὐτῆς εἰς τὸ σῶμα συνεισάγουσιν, οὐδὲ εἶναι ὅλως ἑτέραν μὲν αὐτὴν, ἕτερον δὲ αὐτῆς τὸν νοῦν.

§2 **Parmenides Empedocles Democritus:** **Tertullian** *de An.* 12.2 (Soranus *de An.* fr. 8 Podolak) *tamen eundem* (sc. mentem) *alibi animam edicit* (sc. Anaxagoras). *de An.* 12.6 (Soranus *de An.* fr. 9 Podolak) *unum erunt utrumque* (sc. mens et anima) *et Democritus* (fr. 68 Luria) *obtinebit differentiam tollens*. **Diogenes Laertius** *V.P.* 9.22 (on Parmenides, 28A1 DK) καὶ τὴν ψυχὴν καὶ τὸν νοῦν ταῦτόν εἶναι, καθὰ μένεται καὶ Θεόφραστος (*Phys.Op.* fr. 6a Diels, fr. 227D FHS&G) ἐν τοῖς Φυσικοῖς, πάντων σχεδὸν ἐκτιθέμενος τὰ δόγματα. *V.P.* 9.44 (on Democritus, 68A1 DK) τὴν ψυχὴν ... καὶ νοῦν ταῦτόν εἶναι. **Lactantius** *Op.D.* 18.2 Perrin *qui unum esse dicunt* (sc. animam et animum) *hanc rationem secuntur, quod neque vivi sine sensu possit neque sentiri sine vita ... idcirco animum et animam indifferenter appellant duo Epicurei poetae* (sc. Empedocles(?) and Lucretius).

b Sources and Other Parallel Texts

General texts: Aristotle *de An.* 2.2 413b24–27 περί δὲ τοῦ νοῦ καὶ τῆς θεωρητικῆς δυνάμεως οὐδέν πω φανερόν, ἀλλ' ἔοικε ψυχῆς γένος ἕτερον εἶναι, καὶ τοῦτο μόνον ἐνδέχασθαι χωρίζεσθαι, καθάπερ τὸ αἶδιον τοῦ φθαρτοῦ. **ps.Philoponus** *in de An.* 518.8–18 ἰστέον γάρ ὅτι ὁ νοῦς τρία τινὰ σημαίνει παρὰ Ἀριστοτέλει. ταῦτα δὲ τὰ τρία ἄλλως μὲν λέγει Ἀλέξανδρος ὁ Ἀφροδισιεύς (fr. 1 Moraux), ἄλλως δὲ ὁ Πλούταρχος· ἀλλ' ὁ μὲν Ἀλέξανδρος πρῶτον σημαίνονμενον λέγει τοῦ νοῦ τὸν δυνάμει νοῦν, ὥσπερ ἐστὶν ὁ ἐπὶ τῶν παίδων· ἐν γὰρ τοῖς παισὶν ὁ δυνάμει νοῦς ἐστὶ. δευτέρον σημαίνονμενον τοῦ δυνάμει ὁ καθ' ἑξιν νοῦς, ὥσπερ ὁ ἐπὶ τῶν τελείων ἀνθρώπων· οἱ γὰρ τέλειοι ἄνθρωποι εἶδησιν λοιπὸν ἔχοντες τῶν πραγμάτων τὸν καθ' ἑξιν νοῦν ἔχειν λέγονται. τρίτον σημαίνονμενόν ἐστι τοῦ νοῦ ὁ ἐνεργεῖα νοῦς, ὃ ἐστὶν ὁ θύραθεν, ὁ παντέλειος, ὁ μὴ ὢν καθ' ἑξιν ἢ κατὰ τὸ δυνάμει, ἵνα καὶ ἀπλοῦς ἦ αἰεὶ ἐνεργεῖα ὢν, ὁ κυβερνῶν τὸ πᾶν. ταῦτα τὰ τρία σημαίνονμενα τοῦ νοῦ κατὰ τὸν Ἀλέξανδρον. **Lactantius** *Op.D.* 18.1 Perrin *sequitur alia et ipsa inextricabilis quaestio, idemne sit anima et animus an vero aliud sit illud quo vivimus, aliud autem quo sentimus et sapimus.*

Chapter heading: Diogenes Laertius *V.P.* 5.87 (Heraclides of Pontus fr. 22 Wehrli, 1 Schütrumpf) Περί νοῦ. *V.P.* 9.46 (Democritus 68B5e–f DK) Tetralogia IV 3 Περί νοῦ. 4 Περί αἰσθησίων (ταῦτά τινες ὁμοῦ γράφοντες Περί ψυχῆς ἐπιγράφουσι). **ps.Archytas** 47B9.5 DK at Iambl. *CMSc* 35.27–36.1 Περί νοῦ καὶ αἰσθάσιος ('unecht'). **ps.Brotinus** p. 55.21 Thesleff at Iambl. *CMSc* 34.20 Βροτίνος ἐν τῷ Περί νοῦ καὶ διανοίας. **ps.Alexander of Aphrodisias** *An.Mant.* 106.18 tit. Περί νοῦ. **Porphyry** *Plot.* 4 Περί νοῦ καὶ τῶν ἰδεῶν καὶ τοῦ ὄντος. *Plot.* 5 Περί νοῦ καὶ ὅτι οὐκ ἔξω τοῦ νοῦ τὰ νοητὰ καὶ περὶ τάγαθοῦ. **Sallustius** *de Deis* 1ε'. Περί νοῦ καὶ ψυχῆς.

§1 **Pythagoras Anaxagoras Plato Xenocrates Cleanthes:** cf. Aristotle *GA* 2.3 736b28–29 λέγεται δὴ τὸν νοῦν μόνον θύραθεν ἐπεισιέναι, καὶ τοῦτο εἶναι θεῖον μόνον. *de An.* 3.5 430a17–23 καὶ οὗτος ὁ νοῦς χωριστός καὶ ἀπαθής καὶ ἀμυγής ... χωρισθεὶς δ' ἐστὶ μόνον τοῦθ' ὅπερ ἐστί, καὶ τοῦτο μόνον ἀθάνατον καὶ αἶδιον. *de An.* 1.2 403b31–404a15 (on Democritus and Leucippus). *Resp.* 4 472a20–22 (Democritus, 68A106 DK) οὐ λέγει δὲ οὐδὲ περὶ τῆς ἀρχῆς τοῦ ἀναπνεῖν τί τὸ αἴτιον, πότερον ἔσωθεν ἢ ἔξωθεν· οὐ γὰρ δὴ ὁ θύραθεν νοῦς τηρεῖ τὴν βοήθειαν. **Theophrastus** fr. 1^a Barbotin, 307A FHS&G at Themist. *in de An.* 107.30–33 (verbatim) ἄμεινον δὲ καὶ τὰ Θεοφράστου παραθέσθαι περὶ τε τοῦ δυνάμει νοῦ καὶ τοῦ ἐνεργεῖα. περὶ μὲν οὖν τοῦ δυνάμει τάδε φησίν· 'ὁ δὲ νοῦς πῶς ποτε ἔξωθεν ὢν καὶ ὥσπερ ἐπίθετος ὅμως συμφυής'. **Philo of Alexandria** *Opif.* 67 τὴν γὰρ τοῦ λογισμοῦ τὰ νῦν ὑπερθετόν διὰ τοὺς φάσκοντας θύραθεν αὐτὸν ἐπεισιέναι θεῖον καὶ αἶδιον ὄντα. **Cicero** *Div.* 1.70 ... *ratio est, qua Cratippus noster uti solet, animos hominum quadam ex parte extrinsecus esse tractos et haustos (ex quo intellegitur esse extra divinum animum, humanus unde ducatur).* **Alexander of Aphrodisias** *de An.* 90.23–91.4 ὁ οὖν νοούμενος ἄφθαρτος ἐν ἡμῖν νοῦς (οὗτός ἐστιν ὁ τ(ε)) [ἔτι mss., corr. Accatino–Donini (1994) 375] χωριστός τ(οῦ) [τε mss., corr. Accatino–Donini (1994) 375] ἐν ἡμῖν καὶ ἄφθαρτος νοῦς, ὃν καὶ θύραθεν Ἀριστοτέλης λέγει, νοῦς ὁ ἔξωθεν γινόμενος ἐν ἡμῖν, ἀλλ' οὐχ ἢ δύναιμι

τῆς ἐν ἡμῖν ψυχῆς, οὐδὲ ἡ ἔξις, καθ' ἣν ἔξιν ὁ δυνάμει νοῦς τὰ τε ἄλλα καὶ τοῦτον νοεῖ. **Atticus** fr. 7.13 Des Places at Eus. *PE* 15.9.13 (verbatim) τίς μὲν οὖν τὴν οὐσίαν καὶ τὴν φύσιν ὁ νοῦς, ὅθεν ὦν, καὶ πόθεν ἐπεισκρινόμενος τοῖς ἀνθρώποις αὐτὸς (sc. Aristotle) ἂν εἰδείη, εἴ γέ τι συνήσιν ὦν λέγει περὶ τοῦ νοῦ καὶ μὴ τὸ ἄπορον τοῦ πράγματος τῷ ἀσαφεὶ τοῦ λόγου περιστέλλων ἐξίσταται τὸν ἔλεγχον, ὥσπερ αἱ σηπίαί τὸ δυσθῆρευτον ἐκ τοῦ σκοτεινοῦ ποριζόμενος. **Clement of Alexandria** *Strom.* 6.16.135.1 ἐπεισκρίνεται δὲ ἡ ψυχὴ καὶ προσεισκρίνεται τὸ ἡγεμονικόν, ᾧ διαλογιζόμεθα, οὐ κατὰ τὴν τοῦ σπέρματος καταβολὴν γεννώμενον. **Iamblichus de An.** fr. 15 Finamore–Dillon at Stob. 1.48.8, p. 318.5–11 ἥδη τοίνυν ... πολλοὶ μὲν Περιπατητικοὶ ... χωριστὸν καὶ θύραθεν ἐπικαλούμενον ἕτερον (sc. νοῦν) παραγίγνεσθαι λέγουσιν ὀψαίτατα, ἐπειδὴν τελειωθῇ μὲν ὁ κατὰ δυνάμιν νοῦς, ἐπιτηδείως δὲ μετέχῃ τῆς κατ' ἐνέργειαν νοήσεως. **Themistius in de An.** 108.12–13 περὶ τοῦ δυνάμει νοῦ σχεδὸν τὰ αὐτὰ διαποροῦσιν (sc. Aristotle and Theophrastus), εἴτε ἔξωθεν ἔστιν εἴτε συμφυῆς. **ps.Alexander of Aphrodisias** *An.Mant.* 108.22–23 θύραθεν ἔστι λεγόμενος νοῦς ὁ ποιητικός, οὐκ ὦν μόριον καὶ δυνάμεις τις τῆς ἡμετέρας ψυχῆς, ἀλλ' ἔξωθεν γινόμενος ἐν ἡμῖν. *An.Mant.* 108.29–109.1 διὸ καὶ ποιητικός νοῦς, ὁ κατ' ἐνέργειαν θύραθεν ὦν τὸ τοιοῦτον εἶδος, εἰκότως ἀθάνατος ὑπ' Ἀριστοτέλους καλεῖται νοῦς. **Hermias in Phdr.** 1.51, p. 52.10–11 Lucarini–Moreschini τὴν λογικὴν ψυχὴν ἐπικτητὸν εἶναι ἔφατο (sc. Plato), τουτέστιν ἔξωθεν εἰσκρίνεσθαι (ταύτην γὰρ καὶ Ἀριστοτέλης ἔφατο εἶναι τὸν θύραθεν νοῦν). **Simplicius in Phys.** 964.29–965.4 ταῦτα δὲ καὶ τὸν κορυφαῖον ἀρέσκει τῶν Ἀριστοτέλους ἐταίρων τὸν Θεόφραστον (fr. xiii Barbotin, 271 FHS&G) ἐν τῷ πρώτῳ τῶν Περὶ κινήσεως αὐτοῦ λέγοντα, ὅτι '... εἰ δὲ δὴ καὶ ὁ νοῦς κρεῖττόν τι καὶ θεϊότερον, ἅτε δὴ ἔξωθεν ἐπεισιῶν καὶ παντέλειος'.

§2 Parmenides Empedocles Democritus: Empedocles 31B10.10 DK. πάντα γὰρ ἴσθι φρόνησιν ἔχειν καὶ νόματος αἴσαν. **Aristotle de An.** 1.2 404a25–b3 ὁμοίως δὲ καὶ Ἀναξαγόρας ψυχὴν εἶναι λέγει τὴν κινουσαν, καὶ εἰ τις ἄλλος εἴρηκεν ὡς τὸ πᾶν ἐκίνησε νοῦς· οὐ μὴν παντελῶς γ' ὥσπερ Δημόκριτος (68A101 DK). ἐκεῖνος μὲν γὰρ ἀπλῶς ταῦτὸν ψυχὴν καὶ νοῦν (τὸ γὰρ ἀληθές εἶναι τὸ φαινόμενον, διὸ καλῶς ποιῆσαι τὸν Ὅμηρον (—) ὡς ὁ Ἑκτωρ 'κεῖτ' ἄλλοφρονέων'· οὐ δὴ χρῆται τῷ νῷ ὡς δυνάμει τινὶ περὶ τὴν ἀλήθειαν, ἀλλὰ ταῦτ' ὁ λέγει ψυχὴν καὶ νοῦν) (404b) Ἀναξαγόρας (59A100 DK) δ' ἦρτον διασαφεῖ περὶ αὐτῶν· πολλαχοῦ μὲν γὰρ τὸ αἴτιον τοῦ καλῶς καὶ ὀρθῶς τὸν νοῦν λέγει, ἐτέρωθι δὲ τὸν νοῦν εἶναι ταῦτὸν τῇ ψυχῇ. *de An.* 1.2 405a8–9 Δημόκριτος (68A101 DK) δὲ καὶ γλαφυρωτέρως εἴρηκεν ἀποφαινόμενος διὰ τί τούτων ἐκάτερον· ψυχὴν μὲν γὰρ εἶναι ταῦτ' καὶ νοῦν. *Resp.* 4 472a3–14 (Democritus, 68A106 DK) λέγει δ' ὡς ἡ ψυχὴ καὶ τὸ θερμὸν ταῦτόν, τὰ πρῶτα σχήματα τῶν σφαιροειδῶν. ἐκκρινόμενων οὖν αὐτῶν ὑπὸ τοῦ περιέχοντος ἐκθλίβοντος, βοήθειαν γίνεσθαι τὴν ἀναπνοὴν φησιν. ἐν γὰρ τῷ ἀέρι πολλὸν ἀριθμὸν εἶναι τῶν τοιούτων ἃ καλεῖ ἐκεῖνος νοῦν καὶ ψυχὴν· ἀναπνέοντος οὖν καὶ εἰσιόντος τοῦ ἀέρος συνεισιόντα ταῦτα καὶ ἀνείργοντα τὴν θλίψιν κωλύειν τὴν ἐνοῦσαν ἐν τοῖς ζῷοις εἶναι ψυχὴν, καὶ διὰ τοῦτο ἐν τῷ ἀναπνεῖν καὶ ἐκπνεῖν εἶναι τὸ ζῆν καὶ ἀποθνήσκειν· ὅταν γὰρ κρατῇ τὸ περιέχον συνθλίβον, καὶ μηκέτι (τὸ) θύραθεν εἰσιὸν δύνῃται ἀνείργειν, μὴ δυναμένου ἀναπνεῖν, τότε συμβαίνει τὸν θάνατον τοῖς ζῷοις. *Met.* Γ.5 1009b12–31 ὅλως δὲ διὰ τὸ ὑπολαμβάνειν φρόνησιν μὲν τὴν αἴσθησιν, ταύτην δ' εἶναι

ἀλλοίωσιν, τὸ φαινόμενον κατὰ τὴν αἴσθησιν ἐξ ἀνάγκης ἀληθὲς εἶναι φασιν· ἐκ τούτων γὰρ καὶ Ἐμπεδοκλῆς καὶ Δημόκριτος καὶ τῶν ἄλλων ὡς ἔπος εἰπεῖν ἕκαστος τοιαύταις δόξαις γεγένηται ἔνοχοι. καὶ γὰρ Ἐμπεδοκλῆς μεταβάλλοντας τὴν ἕξιν μεταβάλλειν φησὶ τὴν φρόνησιν (31B106 DK)· ‘πρὸς παρεόν γὰρ μῆτις ἐναύξεται ἀνθρώποισιν.’ καὶ ἐν ἐτέροις δὲ λέγει (31B108 DK) ὅτι ‘ὅσσον <γ>’ ἀλλοιοί μετέφυν, τόσον ἄρ σφισιν αἰεὶ / καὶ τὸ φρονεῖν ἀλλοῖα παρίστατο’. καὶ Παρμενίδης δὲ ἀποφαίνεται τὸν αὐτὸν τρόπον (28B16 DK)· ‘ὡς γὰρ ἐκάστοτ’ ἔχει κρᾶσιν μελέων πολυκάμπτων, / τὼς νόος ἀνθρώποισι παρίσταται· τὸ γὰρ αὐτὸ / ἔστιν ὅπερ φρονέει, μελέων φύσις ἀνθρώποισιν / καὶ πᾶσιν καὶ παντί· τὸ γὰρ πλέον ἐστὶ νόημα’. Ἀναξαγόρου (59A28 DK) δὲ καὶ ἀπόφθεγμα μνημονεύεται πρὸς τῶν ἐταίρων τινάς, ὅτι τοιαύτ’ αὐτοῖς ἔσται τὰ ὄντα ὅα ἂν ὑπολάβωσιν. φασὶ δὲ (cf. above Democritus 68A101 DK) καὶ τὸν Ὅμηρον (—) ταύτην ἔχοντα φαίνεσθαι τὴν δόξαν, ὅτι ἐποίησε τὸν Ἔκτορα, ὡς ἐξέστη ὑπὸ τῆς πληγῆς, ‘κεῖσθαι ἄλλοφρονέοντα’, ὡς φρονούντας μὲν καὶ τοὺς παραφρονούντας ἄλλ’ οὐ ταῦτά. **Theophrastus Sens.** 25 (Alcmaeon 24A5 DK) ὡς ἕτερον ὃν τὸ φρονεῖν καὶ αἰσθάνεσθαι, καὶ οὐ, καθάπερ Ἐμπεδοκλῆς, ταυτόν. **Theophrastus Sens.** 3–4 (on Parmenides, 28A46 DK) δυοῖν ὄντοι στοιχείοι κατὰ τὸ ὑπερβάλλον ἐστὶν ἡ γνῶσις. ἂν γὰρ ὑπεραίρη τὸ θερμὸν ἢ τὸ ψυχρόν, ἄλλην γίνεσθαι τὴν διάνοιαν, βελτίω δὲ καὶ καθαρωτέραν τὴν διὰ τὸ θερμὸν· μὴν ἄλλα καὶ ταύτην δεῖσθαι τινος συμμετρίας· ... (4) τὸ γὰρ αἰσθάνεσθαι καὶ τὸ φρονεῖν ὡς ταυτὸ λέγει ... καὶ ὅλως δὲ πᾶν τὸ ὃν ἔχειν τινὰ γνῶσιν. **Lucretius DRN** 3.422–424 *atque animam verbi causa cum dicere pergam, / mortalem esse docens, animum quoque dicere credas, / quatenus est unum inter se coniunctaque res est.* **Sex-tus Empiricus P.** 2.26 δέικνυται ἐν τῷ πρώτῳ τῆς ἐποχῆς τρόπῳ (i.e. P. 1.40–78), ὅτι οὐδὲν ἐστὶ ζῶον ἄλογον, ἀλλὰ καὶ νοῦ καὶ ἐπιστήμης δεκτικὰ ἐστὶ πάντα ὅσον ἐπὶ τοῖς ὑπ’ αὐτῶν (sc. τῶν δογματικῶν) λεγομένοις. **ps.Philoponus in de An.** 71.18–33 ταυτὸν γὰρ ὑπελάμβανον εἶναι ψυχὴν καὶ νοῦν, ὥσπερ καὶ Δημόκριτος· ἔχομεν οὖν τοῦτο ἐναργῶς παρ’ αὐτῶν εἰρημένον ὅτι ταυτὸν νοῦς καὶ ψυχὴ οὐδαμῶς, ἀλλ’ ἐκ συλλογισμοῦ τοῦτο κατασκευάζει. ὁ μὲν γὰρ Δημόκριτος (31B133 DK), φησὶ, καὶ πρόδηλός ἐστὶ τοῦτο βουλόμενος· ἀντικρυς γὰρ εἶπεν ὅτι τὸ ἀληθὲς καὶ τὸ φαινόμενον ταυτόν ἐστι, καὶ οὐδὲν διαφέρει τὴν ἀλήθειαν καὶ τὸ τῇ αἰσθήσει φαινόμενον, ἀλλὰ τὸ φαινόμενον ἐκάστῳ καὶ τὸ δοκοῦν τοῦτο καὶ εἶναι ἀληθές, ὥσπερ καὶ Πρωταγόρας (—) ἔλεγε, κατὰ γε τὸν ὀρθὸν λόγον διαφερόντων, καὶ τῆς μὲν αἰσθήσεως καὶ τῆς φαντασίας περὶ τὸ φαινόμενον ἐχούσης, τοῦ δὲ νοῦ περὶ τὴν ἀλήθειαν. εἰ τοίνυν νοῦς μὲν περὶ τὴν ἀλήθειαν, ψυχὴ δὲ ἔχει περὶ τὸ φαινόμενον, τὸ ἀληθὲς δὲ ταυτόν ἐστι τῷ φαινομένῳ, ὡς Δημοκρίτῳ δοκεῖ, καὶ ὁ νοῦς ἄρα ταυτὸν τῇ ψυχῇ. ὡς γὰρ ἔχει ὁ νοῦς πρὸς τὴν ἀλήθειαν, οὕτως ἡ ψυχὴ πρὸς τὸ φαινόμενον· οὐκοῦν καὶ ἐναλλάξ ὡς τὸ φαινόμενον πρὸς τὴν ἀλήθειαν, οὕτως ὁ νοῦς πρὸς τὴν ψυχὴν. εἰ τοίνυν ταυτὸν τὸ φαινόμενον καὶ τὸ ἀληθές, καὶ ὁ νοῦς ἄρα καὶ ἡ ψυχὴ ταυτόν. *diff-ferently Pythagorica Hypomnemata* in Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58B1a DK) at D.L. 8.30 νοῦν μὲν οὖν καὶ θυμὸν εἶναι καὶ ἐν τοῖς ἄλλοις ζῴοις, φρένας δὲ μόνον ἐν ἀνθρώπῳ.

Liber 4 Caput 8

PP: *Papyrus Antinoopolis* 85 fr. 4 verso (1960) p. 78, (1967) p. 182 Barns–Ziliacus—**PB:** ps.Plutarchus 899D–E; pp. 393^a14–395^a5 Diels—**PG:** ps.Galenus *HPh* c. 90; p. 635.4–12 Diels—**PQ:** Qustā ibn Lūqā pp. 196–197 Daiber
S: Stobaeus *Ecl.* IV p. 232.7–15 Meineke = A 4.1, *DG* pp. 393b1–394b9 + 1.50.1–2a, p. 472.6–15 + 1.51.3–6, p. 473.1–19 + 1.50.10–16, p. 474.6–23 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b29–30 Henry (titulus solus)
Cf. Nem: Nemesius *NH* c. 6 p. 55.13–19; c. 6, pp. 56.24–57.5; c. 7 p. 59.13 Morani

Titulus η'. Περὶ αἰσθήσεως καὶ αἰσθητῶν (P,S)

§1 οἱ Στωικοὶ ὀρίζονται οὕτως τὴν αἴσθησιν· αἴσθησίς ἐστιν ἀντίληψις δι' αἰσθητηρίου ἢ κατὰληψις· πολλαχῶς δὲ λέγεται ἢ αἴσθησις, ἢ τε γὰρ ἕξις καὶ ἢ δύναμις καὶ ἢ ἐνέργεια· καὶ ἡ φαντασία ἢ καταληπτική δι' αἰσθητηρίου γίνεται κατὰ τὸ ἡγεμονικόν· {ἄφ' οὗ συνίσταται} πάλιν δ' αἰσθητήρια λέγεται πνεύματα νοερά, ἀπὸ τοῦ ἡγεμονικοῦ {ἄφ' οὗ συνίσταται} ἐπὶ τὰ ὄργανα τεταμένα. (P1,S1)

5

§1 Stoici *SVF* 2.850

titulus Περὶ αἰσθήσεως (sive -ων) ... αἰσθητῶν (sive -οῦ) P : Περὶ αἰσθήσεως καὶ αἰσθητῶν καὶ εἰ ἀληθεῖς αἱ αἰσθήσεις (~ tit. c. 4.9) ^{SL-indPhot} || αἰσθήσεως ^{PB(I,II,III:α)G} : αἰσθήσεων ^{PB(II:AE)Q} || αἰσθητῶν ^{PBQS} : αἰσθητοῦ ^{PG} §1 lemma Stobaei hab. Diels *DG*, sed ut contam. ex P abiud. Diels (1881) 349, quem secutus Wachsmuth || [2] οἱ Στωικοὶ ... αἴσθησιν ^{PBQ} : al. ^{PG} κατὰ τοὺς Στωικοὺς || τὴν αἴσθησιν || *die Sinnesempfindungen* Q || post ἀντίληψις hab. ^{SL} αἰσθητοῦ, del. Meineke, om. Diels || δι' ^{SL} : om. ^{PBQ} || [3] αἰσθητηρίου ^{PBS} : *der Sinnesobjekte* Q (cf. τῶν αἰσθητῶν Nem p. 56.24–57.1) : αἰσθητοῦ ^{PG} || ἢ ^{PBQ} : om. ^{SL} || πολλαχῶς ... αἴσθησις ^{PB(I,II)SL} : πολλαχῶς δὲ γίνεται ἢ αἴσθησις ^{PB(II)} : om. ^{PQ} : ἀντίληψις δὲ πολλαχῶς λέγεται ^{PG} || [4] ἡ⁴ ^{PB} : om. ^{SLPGQ(ut vid.)} || καταληπτική ^{PB} : καταληπτικὰ ^{SL} : *ein Erfassen* Q || [5] γίνεται ... ἡγεμονικόν ab Arnim prob. Mau Lachenaud : γίνονται καὶ τὸ ὄγδοον ἡγεμονικόν ^{PB} (ὄγδοον ex η dittographia sec. Mau, verisimiliter glossema byzant. ex 4.4.4 ὄγδόου δ' αὐτοῦ τοῦ ἡγεμονικοῦ, ὄγδοον non hab. ^{PGQ}) : *durch das leitende Organ selbst* Q || [4–5] δι' αἰσθητηρίου γίνεται || καὶ αἰσθητική ^{PG} || [5] κατὰ τὸ ἡγεμονικόν || καὶ αὐτὸ τὸ ἡγεμονικόν ^{PG} prob. Diels || {ἄφ' οὗ συνίσταται} uncis inclusimus vid. ad ll. 6–7 : om. ^{PQ}, textus graecus antiquitus corruptus sec. Diels, qui συνίσταται ut emblemata byzant. in app. relegavit : {συνίσταται} secl. Mau Lachenaud || [5–6] πάλιν δ' αἰσθητήρια || πᾶσα αἰσθητὴ βία (sic pro αἰσθητήρια) γίνεσθαι ^{PG} || δ' ^{PB} : om. ^{PG} : in app. relegavit Diels, om. ab Arnim, uncis incl. Mau Lachenaud || [6] αἰσθητήρια P : αἴσθησις maluit Diels *DG* p. 55 prob. Torraca || λέγεται ^{PBQ} : λέγονται ^{SL} || πνεύματα ^{PB} : τὰ πνεύματα ^{SL} : πάλιν τὰ πνεύματα ^{PG} : *unter diesem Aspekt ... das Vernunftpneuma* Q || [6–7] {ἄφ' οὗ συνίσταται} ex l. 5 hic transponimus legem Brinkmanni secuti || [7] ἐπὶ τὰ ὄργανα ^{PBQ} : ἐπὶ τὰ τοιαῦτα ^{PG} || τεταμένα ^{PB(II)} : ἀνατεταμένα ^{PG} : τεταγμένα ^{PB(I,II)} : *bis zu den ... gehende* Q

- §2 Ἐπίκουρος· ‘τὸ μόριόν ἐστιν ἡ αἴσθησις, ἣτις ἐστὶν ἡ δύναμις, καὶ τὸ ἐπαίσθημα, ὅπερ ἐστὶ τὸ ἐνέργημα’· ὥστε διχῶς παρ’ αὐτῷ λέγεσθαι αἴσθησιν μὲν τὴν δύναμιν, αἰσθητὸν δὲ τὸ ἐνέργημα. (P2,S2) 10
- §3 Πλάτων τὴν αἴσθησιν ἀποφαίνεται ψυχῆς καὶ σώματος κοινωνίαν πρὸς τὰ ἐκτός· ἡ μὲν γὰρ δύναμις ψυχῆς, τὸ δ’ ὄργανον σώματος· ἄμφω δὲ διὰ φαντασίας ἀντιληπτικὰ τῶν ἔξωθεν. (P3,S3)
- §4 κατὰ τοὺς Περιπατητικοὺς τετραχῶς· ἐξ οὗ τὸ ἡγεμονικόν, δι’ οὗ τὸ ὄργανον καὶ αἰσθητήριον, καθ’ ὃ ἡ ἐνέργεια, καὶ (οὗ) ἕνεκα τὸ αἰσθητὸν. 15 (S4)
- §5 Λεύκιππος Δημόκριτος τὰς αἰσθήσεις καὶ τὰς νοήσεις ἑτεροιώσεις εἶναι τοῦ σώματος. (S5)
- §6 Ἀριστοτέλης τὴν αἴσθησιν ἑτεροίωσιν αἰσθητ(ικ)οῦ καὶ μεσότητα (αἰσθητοῦ)· κοινὴν δὲ αἴσθησιν τὴν τῶν συνθέτων εἰδῶν κριτικὴν, εἰς ἣν 20 πᾶσαι συμβάλλουσιν αἱ ἀπλαῖ τὰς ἰδίας ἐκάστη (φαντασίας), ἐν ἣ τὸ μεταβατικὸν ἀφ’ ἑτέρου εἰς ἕτερον οἶον σχήματος (καί) κινήσεως σώματος, ἐν μεθορίῳ τοῦ λογικοῦ καὶ τοῦ ἀλόγου, μνήμης καὶ νοῦ μετέχουσα, διατείνουσα καὶ ἐπὶ τὰ ἄλογα τῶν ζώων, καθὼ ποσὴν διανοίαν ἀνα- 25 λογίαν ἔχει· κοινὰ δ’ ἐστὶν ὅπως μὲν καὶ ἀφῆς σχήμα, ὅπως δὲ καὶ ἀκοῆς διάστημα, πασῶν δὲ κινήσεις καὶ μέγεθος καὶ ἀριθμός. (S6)
- §7 (οἱ) Στωικοὶ τήνδε τὴν κοινὴν αἴσθησιν ἐντὸς ἀφῆν προσαγορεύουσι, καθ’ ἣν καὶ ἡμῶν αὐτῶν ἀντιλαμβάνομεθα. (S7)
- §8 οἱ Στωικοὶ σωματῶν τὰς αἰσθήσεις. (S11)
- §9 οἱ ἀπὸ τῶν ἀρχαίων τῶν περὶ τὰ σώματα ἀσωμάτων λόγων, ἅπερ ἤδη σχή- 30 ματα προσαγορεύουσι. (S12)

§2 Epicurus fr. 249 Usener; §3 Plato cf. *Phlb.* 34a, *Tim.* 43c, 46c, *Def.* 414c; §4 Peripatetici—; §5 Leucippus 67A30 DK; Democritus frs. 68 et 436 Luria; §6 Aristoteles cf. *de An.* 2.4 415b24, 2.11 424a4–5, 3.1 425a13–15; §7 Stoici *SVF* 2.852; §8 Stoici *SVF* 2.851; §9 anonymi—

§2 [8] Ἐπίκουρος P^{BSL}: *Die Anhänger des Epikouros* Q || τὸ μόριον : τό (τε) μόριον Usener, Wachsmuth, fort. P^Q || [9–10] ἐνέργημα bis P^B : ἐνάρχημα bis conii. Steckel ex D.L. 10.72, 10.91, 10.93, 10.96 fort. recte || [9] ὅπερ S^L : ὅθεν P^{B(1)}S^L : *wodurch* Q || ὥστε ... ἐνέργημα²] om. P^{B(1)} || [10] post αἴσθησιν add. (αἰσθητικὴν) Diels (1917a) 71 n. 1 §3 [12] τὸ δ’ ὄργανον] τὰ δὲ ὄργανα P^G || [13] διὰ φαντασίας ἀντιληπτικὰ] al. P^G συνελθόντα ἀντιλαμβάνεσθαι || [φαν]τασίας P^P : φαντασίας conii. Reiske prob. Diels : φαντασίαν P^{SL} Mau Lachenaud || post ἔξωθεν add. γίνεται P^B : non hab. P^{P(ut vid.)GSL} §§4–9 lemmata om. P^{PBG} || §4 [15] (οὗ) add. Meineke prob. edd. §6 [19] αἰσθητ(ικ)οῦ scripsimus : αἰσθητοῦ S || [20–23] κοινήν ... κινήσεως iterantur infra c. 4.10.2 || [20] (αἰσθητοῦ) addidimus : lac. post μεσότητα ind. Meineke, negant Diels Wachsmuth || συνθέτων Diels ex c. 4.10.2 prob. Wachsmuth : συνθέντων S^L : om. S^P || [21] πᾶσαι Diels ex c. 4.10.2 : πάλαι S^{PL} || τὰς ἰδίας S^P cf. c. 4.10.2 : τοῖς ἰδίοις S^L || (φαντασίας) et [22] (καί) add. Diels ex c. 4.10.2 || [23] λογικοῦ S^P : λόγου S^L §7 [27] (οἱ) add. Sarti prob. Diels Wachsmuth §9 [30] ἀπὸ ... ἀρχαίων S^L prob. Wachsmuth : ἀπὸ τῶν μαθημάτων maluit Diels (qui μαθηματικῶν intendebat sec. Wachsmuth)

- §10 Λεύκιππος Δημόκριτος Ἐπίκουρος τὴν αἴσθησιν καὶ τὴν νόησιν
γίνεσθαι εἰδῶλων ἔξωθεν προσιόντων· μηδενὶ γὰρ ἐπιβάλλειν μηδετέ-
ραν χωρὶς τοῦ προσπίπτοντος εἰδώλου. (P4,S13)
- §11 οἱ ἄλλοι εἰδῶν ἢ σχημάτων ἑτεροιώσει (ἢ) ἐν ψυχῇ τυπώσει, ἀπορροαίς 35
πάντως μάλλον ἢ εἰδώλοις. (S14)
- §12 οἱ Στωικοὶ πᾶσαν αἴσθησιν εἶναι συγκατάθεσιν καὶ κατάληψιν. (S15)
- §13 <οἱ> Ἀκαδημαικοὶ μὴ εἶναι τὰς αἰσθήσεις μήτε καταλήψεις μήτε συγ-
καταθέσεις. (S16)
- §14 οἱ Περιπατητικοὶ οὐκ ἄνεν μὲν συγκαταθέσεως τὰς αἰσθήσεις, οὐ μέντοι 40
συγκαταθέσεις. (S17)

§10 Leucippus 67A30 DK; Democritus frs. 68 et 436 Luria; Epicurus—; §11 anonymi—; §12
Stoici SVF 2.72; §13 Academici—; §14 Peripatetici—

§10 [32] Ἐπίκουρος S : om. P^{BQ} || [32–33] καὶ ... γίνεσθαι om. P^G || γίνεσθαι P^P ||
[33–34] μηδενὶ ... εἰδώλου om. P^G || [34] εἰδώλου P^{BQ} : om. S §§11–14 om. P^{BG} §11 [35]
ἑτεροιώσει (ἢ) ἐν ψυχῇ : ἑτεροιώσιν ἐν πάσῃ S : ἑτεροιώσει susp. Diels, prob. Wachsmuth : (ἢ)
add. Wachsmuth : ψυχῇ susp. Diels || [36] πάντως Wachsmuth : πάντα S Diels §13 [38] οἱ
add. Sarti

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis fr. 4 verso (~ P §3.2–3, §10.1–2 or P §3[12–13], §10[32–
33] see on ch. 4.22)

[ψυχῇ]ς τοῦ ὁργ[αν]οῦ [σώματος ἀμφω δε δια]
[φαν]τασίας ἀντιλη[μ]πτικά των ἐξωθεν]
[Λευκ]ίππος Δημο[κρί]τος τὴν αἴσθησιν καὶ
[τὴν] νόησιν γεν[ε]σθαι, κτλ.

ps.Galenus *HPh* c. 90 Περὶ αἰσθήσεως καὶ αἰσθητοῦ (~ tit.) (text Diels)

90.1 (~P1) κατὰ τοὺς Στωικοὺς αἴσθησίς ἐστιν ἀντίληψις αἰσθητοῦ· ἀντίληψις δὲ
πολλαχῶς λέγεται. ἢ τε γὰρ ἕξις καὶ ἡ δύναμις καὶ ἡ ἐνέργεια καὶ ἡ φαντασία
καταληπτική καὶ αἰσθητική καὶ αὐτὸ τὸ ἡγεμονικόν, ἀφ' οὗ πᾶσα αἰσθητὴ βία
[sic] γίγνεται. πάλιν τὰ πνεύματα νοερά ἀπὸ τοῦ ἡγεμονικοῦ ἐπὶ τὰ τοιαῦτα ἀνα-
τεταμένα.

90.2 (~P3) Πλάτων τὴν αἴσθησιν ἀποφαίνεται ψυχῆς καὶ σώματος κοινωνίαν πρὸς
τὰ ἐκτός· ἢ μὲν γὰρ δύναμις ψυχῆς, τὰ δὲ ὄργανα σώματος. ἀμφω δὲ συνελθόντα
ἀντιλαμβάνεσθαι τῶν ἔξωθεν.

90.3 (~P4) Λεύκιππος καὶ Δημόκριτος τὴν αἴσθησιν εἰδῶλων πρόσθεν προσιόν-
των.

Testes secundi:

Nemesius *NH* c. 6 p. 55.13–19 οἱ δὲ Στωϊκοὶ ... φαντασίαν μὲν λέγοντες τὸ πάθος
τῆς ψυχῆς τὸ ἐνδεικνύμενον ἐν ἑαυτῷ {καὶ τὸ πεποιηκὸς φανταστόν} (ὅταν γὰρ

λευκὸν ἴδωμεν, ἐγγίνεται τι πάθος τῇ ψυχῇ ἐκ τῆς λήψεως αὐτοῦ. ὥς γὰρ ἐν τοῖς αἰσθητηρίοις ἐγγίνεται πάθος, ὅταν αἰσθάνηται, οὕτως καὶ ἐν τῇ ψυχῇ, ὅταν ἐννοήσῃ· εἰκόνα γὰρ ἐν ἑαυτῇ δέχεται τοῦ νοητοῦ) (~§1). *NH* c. 6 pp. 56.24–57.5 καλεῖται δὲ πολλαχῶς [*scripsimus*, πολλάκις *mss. prob. Morani, Sharples–Van der Eijk*] αἰσθησις καὶ τὰ αἰσθητήρια. ἔστι δὲ αἰσθησις ἀντίληψις τῶν αἰσθητῶν. δοκεῖ δὲ οὗτος ὁ ὅρος οὐκ αὐτῆς εἶναι τῆς αἰσθήσεως ἀλλὰ τῶν ἔργων αὐτῆς. διὸ καὶ οὕτως ὀρίζονται τὴν αἰσθησιν· πνεῦμα νοερὸν ἀπὸ τοῦ ἡγεμονικοῦ ἐπὶ τὰ ὄργανα τεταμένον. ἔστι δὲ καὶ οὕτως· δύναμιν ψυχῆς ἀντιληπτικὴν τῶν αἰσθητῶν, αἰσθητήριον δὲ ὄργανον τῆς ἀντιλήψεως τῶν αἰσθητῶν (~§1). Πλάτων (*cf. Phlb.* 34a, *Tim.* 43c, 46c, *Def.* 414c) δὲ τὴν αἰσθησιν λέγει ψυχῆς καὶ σώματος κοινωνίαν πρὸς τὰ ἐκτός. ἡ γὰρ δύναμις ψυχῆς, τὸ δὲ ὄργανον σώματος· ἄμφω δὲ διὰ φαντασίας ἀντιληπτικὰ τῶν ἔξωθεν (~ §3).

Loci Aetiani:

- §1 A 4.4.4 οἱ Στωικοὶ ἐξ ὁκτῶ μερῶν φασὶ συνεστάναι ... ὁγδόου δ' αὐτοῦ τοῦ ἡγεμονικοῦ, ἅφ' οὗ ταῦτα πάντα ἐπιτέταται διὰ τῶν οἰκείων ὀργάνων. A 4.9.4 οἱ Στωικοὶ τὰς μὲν αἰσθήσεις ἀληθεῖς, τῶν δὲ φαντασιῶν τὰς μὲν ἀληθεῖς τὰς δὲ ψευδεῖς ... καὶ γὰρ αἰσθητῶν ἔστι φαντασία καὶ νοητῶν. A 4.11 *titulus* Πῶς γίνεται ἡ αἰσθησις κτλ. A 4.12.1 Χρύσιππος ... φαντασία μὲν οὖν ἔστι πάθος ἐν τῇ ψυχῇ γινόμενον, ἐνδεικνύμενον ἐν αὐτῷ καὶ τὸ πεποιηκός· οἷον ἐπειδὴν δι' ὅψεως θεωρώμεν τι λευκόν, ἔστι πάθος τὸ ἐγγεγεννημένον διὰ τῆς ὁράσεως ἐν τῇ ψυχῇ. A 4.13.5 "Ἰππαρχος ἅφ' ἑκατέρου φησὶ τῶν ὀφθαλμῶν ἀποτεινομένης ἀκτίνας τοῖς πέρασιν αὐτῶν, οἷοναί χειρῶν ἐπαφαῖς, περικαθαπτούσας τοῖς ἐκτός σώμασι τὴν ἀντίληψιν αὐτῶν πρὸς τὸ ὁρατικὸν ἀναδιδόναι. A 4.13.8 Ἀλκμαίων κατὰ τὴν τοῦ διαφανοῦς ἀντίληψιν. A 4.15.3 τοῦ ὁρατικοῦ πνεύματος, ὅπερ ἀπὸ τοῦ ἡγεμονικοῦ μέχρι τῆς κόρης διήκει. A 4.21.1 οἱ Στωικοὶ φασὶν εἶναι τῆς ψυχῆς ἀνώτατον μέρος τὸ ἡγεμονικὸν τὸ ποιοῦν τὰς φαντασίας καὶ συγκαταθέσεις καὶ αἰσθήσεις καὶ ὁρμάς. A 4.21.2 ἀπὸ δὲ τοῦ ἡγεμονικοῦ ἑπτὰ μέρη ἔστι τῆς ψυχῆς ἐκπεφυκότα καὶ ἐκτεινόμενα εἰς τὸ σῶμα ... τῶν δ' ἑπτὰ μερῶν τῆς ψυχῆς πέντε μὲν εἰσι τὰ αἰσθητήρια. A 4.23.1 οἱ Στωικοὶ τὰ μὲν πάθη ἐν τοῖς πεπονθόσι τόποις, τὰς δ' αἰσθήσεις ἐν τῷ ἡγεμονικῷ.
- §2 A 4.3.11 ... τὸ δ' ἀκατονόμαστον τὴν ἐν ἡμῖν ἐμποιεῖν αἰσθησιν, ἐν οὐδενὶ γὰρ τῶν ὀνομαζομένων στοιχείων εἶναι αἰσθησιν. A 4.9.6 τῶν αἰσθητῶν ἑκάστου ἑκάστη ἐναρμόττοντος. A 4.23.2 Ἐπίκουρος καὶ τὰ πάθη καὶ τὰς αἰσθήσεις ἐν τοῖς πεπονθόσι τόποις· τὸ γὰρ ἡγεμονικὸν ἀπαθές.
- §4 A 1.11.1 Πλάτων τριχῶς τὸ αἴτιον· φησὶ γὰρ ὅφ' οὗ ἐξ οὗ πρὸς ὃ· κυριώτερον δ' ἡγεῖται τὸ ὅφ' οὗ. A 1.11.4 Ἀριστοτέλης δηλοῦν ἕκαστον χρώμενον σχήμασι τῆς ἐρμηνείας τοιούτοις, τὸ τε ἐξ οὗ λέγοντα τὴν ὕλην, καὶ τὸ ὅφ' οὗ τὸ ποιοῦν, τὸ δὲ καθ' ὃ τὸ εἶδος, τὸ δὲ δι' ὃ τὸ τέλος. A 5.30.2 Ἡρόφιλος τὰς νόσους συμπίπτειν ὥς μὲν ὅφ' οὗ ὑπερβολὴ θερμότητος ἢ ψυχρότητος· ὥς δ' ἐξ οὗ διὰ πλήθος τροφῆς ἢ ἔνδειαν· ὥς δ' ἐν οἷς, ἢ αἵμα ἢ μυελὸν ἢ ἐγκέφαλον.
- §6 A 4.4.3 Ἀριστοτέλης πέντε ἐνεργείας, ... τὴν αἰσθητικὴν. A 4.9.3 Ἀριστοτέλης τὴν αἰσθησιν μὴ πλανᾶσθαι περὶ τὸ ἴδιον, περὶ δὲ τὸ συμβεβηκός. A 4.10.2 Ἀριστοτέλης ... κοινὴν δ' αἰσθησιν τὴν τῶν συνθέτων εἰδῶν κριτικὴν, εἰς ἣν πάσαι

συμβάλλουσιν αἱ ἀπλᾶί τὰς ἰδίας ἐκάστη φαντασίας· ἐν ἣ τὸ μεταβατικὸν ἀφ' ἐτέρου πρὸς ἕτερον, οἶονεὶ σχήματος καὶ κινήσεως. A 4.2.8 συγγυμνασίαν τῶν αἰσθήσεων.

§8 A 4.9.8 Χρύσιππος τὸ μὲν γενικὸν ἡδὺ νοητόν, τὸ δὲ εἰδικὸν καὶ προσπίπτον ἥδη αἰσθητόν. A 4.9.18 οἱ Στωικοὶ τὸν σοφὸν αἰσθήσει καταληπτὸν ἀπὸ τοῦ εἶδους τεκμηριωδῶς.

§9 A 1.14.1 σχῆμά ἐστιν ἐπιφάνεια καὶ περιγραφὴ καὶ πέρας σώματος. A 4.13.4 Ἀρίσταρχος σχήματα συνδιατυπουντά πως αὐτοῖς τὸν ἀέρα (sc. ἀπὸ τῶν σωμάτων φέρεσθαι).

§10 A 4.5a.2 ... Δημόκριτος ταῦτόν νοῦν καὶ ψυχὴν A 4.9.5 Εὔκλιος πᾶσαν αἴσθησιν καὶ πᾶσαν φαντασίαν ἀληθῆ κτλ. A 4.13.1 Λεύκιππος Δημόκριτος Ἐπίκουρος κατὰ εἰδώλων εἴσκρισιν οἶονται τὸ ὁρατικὸν συμβαίνειν πάθος. A 4.14.2 Λεύκιππος Δημόκριτος Ἐπίκουρος τὰς κατοπτρικὰς ἐμφάσεις γίνεσθαι κατ' εἰδώλων ὑποστάσεις, ἅτινα φέρεσθαι μὲν ἀφ' ἡμῶν συνίστασθαι δὲ ἐπὶ τοῦ κατόπτρου κατ' ἀντιπεριστροφὴν.

§11 A 4.13.2 Τιμαγόρας, εἰς τῶν παραχαραξάντων ἐν συχνοῖς τὴν Ἐπικούρειον αἵρεσιν, ἀντὶ τῶν εἰδώλων ταῖς ἀπορροαῖς χρήται. A 4.13.3 Στράτων χρώματά φησιν ἀπὸ τῶν σωμάτων φέρεσθαι συγχρῶζοντ' αὐτοῖς τὸν μεταξὺ ἀέρα. A 4.13.4 Ἀρίσταρχος σχήματα συνδιατυπουντά πως αὐτοῖς τὸν ἀέρα. A 4.20.1 τὸ σχῆμα τὸ περὶ τὸν ἀέρα καὶ τὴν ἐπιφάνειαν κατὰ ποιὰν πληξίν γίνεσθαι φωνήν· πᾶσα δ' ἐπιφάνεια ἀσώματος. συγκινεῖται μὲν γὰρ τοῖς σώμασιν, αὕτῃ δ' ἀσώματος πάντως καθέστηκεν.

§12 A 4.9.4 οἱ Στωικοὶ τὰς μὲν αἰσθήσεις ἀληθεῖς, τῶν δὲ φαντασιῶν τὰς μὲν ἀληθεῖς τὰς δὲ ψευδεῖς. A 4.21.1 οἱ Στωικοὶ φασιν εἶναι τῆς ψυχῆς ἀνώτατον μέρος τὸ ἡγεμονικὸν τὸ ποιοῦν τὰς φαντασίας καὶ συγκαταθέσεις καὶ αἰσθήσεις καὶ ὁρμάς· καὶ τοῦτο λογισμὸν καλοῦσιν.

§13 A 4.9.2 οἱ ἀπὸ τῆς Ἀκαδημίας ὑγιεῖς μὲν (sc. τὰς αἰσθήσεις), ὅτι δι' αὐτῶν οἶόν (τε) λαβεῖν ἀληθινὰς φαντασίας, οὐ μὴν ἀκριβεῖς.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The witnesses are P and S. P has four lemmata, three of which are paralleled in G. For Book 4, beginning with the present chapter, complete chapters of S have only been preserved in L, the Florentine florilegium. Diels includes this evidence in the right-hand columns of the *DG*. In the manuscripts of the main tradition only lemmata with the name-labels Plato and Aristotle are extant, and sometimes not even those. Thus for the present chapter S has no less than thirteen lemmata, all except §3 (Plato) and (in ms. P only) §6 (Aristotle) extant only in S^L. T, as we have seen, stopped excerpting A after ch. 4.7a, the last

chapter to be paralleled in the *CAG*. Diels included the first lemma transmitted in S^L (the same as P's first) in his edition in *DG*. But in his article in response to Elter's dissertation, (1880) 349, he argued that it had been interpolated by John of Damascus from P^B . Wachsmuth followed Diels in his edition of *S*, noting in his apparatus on p. 472: 'prima tantum illius ecl. ... non Stobaei est sed ex [ps.]Plutarcho a gnomologio Laurentiano adscitum, ut nunc ipse Dielesius probavit'. Daiber (1980) 481 fails to mention that interpolation has been suggested and has not seen that Wachsmuth does not include this text. It was not yet excluded by Meineke as noted in the list of witnesses above the text. At *M-R* 1.267–268 and 1.295 we argued against Diels and continue to accept the lemma as genuinely present in *S*.

(2) The situation in *S* (*S* as restored in Wachsmuth's edition by the inclusion of the evidence of S^L) is complicated. In *Ecl.* 1.50 *S* has combined blocks of lemmata from at least chs. 4.8, 4.9, and 4.10 (also ch. 5.28, see below, ch. 4.9 Commentary A(2) and A(4) and ch. 5.28 Commentary A and D(c)). The blocks of ch. 4.8 have been distributed over three different places, viz. ch. 4.8.2–3 at *Ecl.* 1.50.1.2–2a, p. 472.6–15, ch. 4.8.4–7 at *Ecl.* 1.50.3–6, p. 473.1–19, and ch. 4.8.8–14 at *Ecl.* 1.50.10–16, p. 474.6–23 Wachsmuth. In between blocks one and two we find at *Ecl.* 1.50.2b, p. 472.16–21 a verbatim excerpt from Plato's *Philebus* in the usual Stobaeian way illustrating ch. 4.8.3, the Plato lemma. More interestingly, in between blocks two and three *S* inserted three lemmata from ch. 4.10, viz. 4.10.3 + 4.10.5–6 at *Ecl.* 1.50.7–9, pp. 473.20–474.5 (4.10.1–2 + 4.10.4 are found in the next Stobaeian chapter, *Ecl.* 1.51.2–4, pp. 481.17–482.8); see Commentary A at ch. 4.10 below. Thus these excerpts from ch. 4.10 interrupt the lemmata sequence of ch. 4.8. They are then followed by the remaining seven belonging to ch. 4.8, before S^L moves on to the contents of ch. 4.9. Wachsmuth simply copied out the sequence of lemmata belonging to ch. 4.8 (minus §1) in *L*. It is surely most likely that *L* just copied out the sequence in *S*, so his decision is unobjectionable. *S*'s chapter ends after the last excerpt from *A* with six excerpts from Plato, namely one from the *Phaedo*, four from the *Theaetetus* in succession, and one from the *Timaeus*, which in various ways deal with the reliability of the senses (the theme of the next chapter, 4.9).

(3) Eleven of *S*'s fourteen lemmata are not paralleled in *P* (but conversely none of *P*'s four lemmata are missing in *S*). *G*'s three lemmata too are paralleled in both *P* and *S*. Important parallels for §1 and §3 are found in *Nem*. We accept Diels' view that *Ecl.* 1.50.7–9, both (as we have seen) preceded and followed by lemmata from ch. 4.8, belong in another chapter, viz. ch. 4.10. *S* must have moved them here rather than just S^L . Wachsmuth in the apparatus *ad c.* 50.7 disagrees: 'sed quamquam forma ad sensuum numerum, de quo illo capite agitur, spectare videtur, ex a r g u m e n t o potius ad hoc referendum est'.

But *Ecl.* 1.50.7–9 are in the first place (and 50.7 and 50.9 exclusively) concerned with the number of the senses, not with sensation, and 1.50.8 (= ch. 4.10.5) is about the αἰσθήσεις as organs, not as sensations, and about their number (more than five), though also mentioning the sense objects.

(4) The order of S's fourteen lemmata and of the surviving four lemmata of P is the same. It appears that S copied out the whole chapter without disturbing the lemmata order, as becomes clear when we subtract the interpolated Plato quotation at S 50.2b and the interpolated lemmata from ch. 4.10 at S 50.7.

B Proximate Tradition and Sources

(1) *Proximate tradition.* AD provides parallels for the Aristotle lemma. Fr. 15 Diels (cited below, section E(a)§6) describes the αἰσθητικόν, shared by all living beings, as fivefold, i.e. consisting of the five senses, and adds the compound sense, comprising the functions of imagination, memory, and opining which is not devoid of intellect. We have sensation when a sense is affected in some way.

(2) *Sources.* Aristotle and Theophrastus: In *de An.* 1.2 Aristotle points out that the predecessors (Presocratics, Plato, even Xenocrates) made the soul the principle of movement (cf. A ch. 4.6, but also 4.2.1–5 and 4.3.11, see above, ch. 4.2, Commentary D(a)), or of sensation and knowledge, or of movement as well as of sensation and knowledge. Sensation and its objects are the theme of Theophrastus *De sensu et sensibilibus*, but the approach and contents there differ from what we find in A. Aristotle in his *De sensu* discussed the senses (singling out the theories of vision of Empedocles and Democritus) and the objects of sight, taste (mentioning Empedocles) and smell (mentioning Democritus). As to thematic issues the chapter also echoes themes from Aristotle *De anima* Books 2 and 3, e.g. *de An.* 3.4 about knowledge (*nous*).

Note that Aristotle at *de An.* 2.5 first discusses sensation in general, then, at 2.6, begins his account with the objects of sense: 2.6 418a7–8, λεκτέον δὲ καθ' ἑκάστην αἴσθησιν περὶ τῶν αἰσθητῶν πρώτων, 'in discussing the particular senses we must speak first of the objects of sense', and in the chapters that follow discusses the senses one after the other together with their objects, starting with sight and the visible. Theophrastus in the *De sensu* systematically discusses a number of Presocratics as well as Plato for two to five senses, and then Democritus and Plato for the sense objects. In our present chapter the main roles are reserved for the Hellenistic philosophers. Of the Presocratics now only Democritus and Leucippus are left (we do not know who or what 'the followers or successors of the ancients' are supposed to be; for suggestions see below), while Plato, too, is included; this is perhaps an echo of the restrictions of the second part of Theophrastus' treatise. The summaries based on the works of Plato and

Aristotle are quite competently done. About the sources for the Hellenistic theories nothing much can be said, though such parallels as are available inspire some confidence.

At *DG* 215 Diels includes ch. 4.8.6 among his sparse examples of a close reading—according to him by A—of the text of Aristotle's *pragmateiai* ('[i]psius Aristotelis doctrina ... ex accurata eius lectione hausta'; cf. chs. 1.9.1, 1.23.2, 1.29.2, 4.9.3, and 5.3.1, each at Commentary B). The definition at the beginning of §6, Ἀριστοτέλης τὴν αἴσθησιν ἑτεροίωσιν αἰσθητ(ικ)οῦ καὶ μεσότητα (αἰσθητοῦ), is close to *de An.* 2.11 424a4–5 ὡς τῆς αἰσθήσεως οἶον μεσότητός τινος οὔσης τῆς ἐν τοῖς αἰσθητοῖς ἐναντιώσεως ('which means that the sense is a sort of mean between the relevant sensible extremes', tr. Hett LCL), but *ad sententiam* rather than *ad verbum*. So it is less close than Diels claimed.

C Chapter Heading

Another example of the umbrella type (περὶ τοῦ δεῖνα) that dominates in the *Placita* (cf. ch. 1.1, Commentary C). In S it is not included in the text of the mss., but is only found in the indices of L and Photius, both of which add the first part of the heading of the next chapter, Εἰ ἀληθεῖς αἱ αἰσθήσεις ('Whether the sensations are true'), to the Περὶ αἰσθήσεως καὶ αἰσθητῶν of the present chapter, connecting them with καὶ. The Aristotelian title Περὶ αἰσθήσεως καὶ αἰσθητῶν ('On sensation and sense-objects'), nr. 44 on the list of titles in the Aristotelian catalogue of Ptolemy (Hein 1985. 527), which is the same as the heading of our chapter, is cited by Aristotle himself, e.g. *PA* 2.7 653a19–20, *GA* 5.2 781a21, and by Galen and Alexander of Aphrodisias (texts below section E(b) Chapter heading).

αἴσθησις may mean both 'sense' qua 'organ' or 'sensor', 'seat of sensation', and qua 'sense of', i.e., 'sensation', 'perception', or more generally 'awareness'. On the basis of the various traditions of P alone a decision between Περὶ αἰσθήσεως and Περὶ αἰσθήσεων as first part of the heading for A is not easy. Diels follows G, who has Περὶ αἰσθήσεως καὶ αἰσθητοῦ (the difference between αἰσθητοῦ and αἰσθητῶν is insignificant), and S, who as we saw combines the titles of chs. 4.8 and 4.9, and who has περὶ αἰσθήσεως. Mau and Lachenaud approve of Diels' heading, and we follow suit, as sensation in general is the main theme in ch. 4.8.

As an embedded phrase ('eorum fit mentio quae proxime vel antecedunt vel sequuntur' writes Bonitz 95b33) a formula such as περὶ αἰσθήσεων or –ως is the predecessor or equivalent of the heading, or title, see M–R 2.1.48, 159–161, 162–163, 170, 202–204. One should compare the title of Theophrastus' treatise (inap-positely translated as 'On sensations' at FGS&G fr. 265.4). The treatise begins with the phrase περὶ δ' αἰσθήσεως [note the singular—with περὶ it is repeated throughout the treatise] αἱ μὲν πολλαὶ καὶ καθόλου δόξαι δὲ εἰσιν ('the many doxai

on sensation' etc.). White (2002) 20–22 argues that with one exception the titles of Theophrastus' opuscula correspond to the first noun of the opusculum concerned: the correct form of the title should be *Περὶ αἰσθήσεως*. But at Diogenes Laertius *V.P.* 5.42 and in some mss. Theophrastus' title is given as *Περὶ αἰσθήσεων*, just as the title of Aristotle's treatise begins with *Περὶ αἰσθήσεων* in some mss. of the *Parva Naturalia*. The second part of Theophrastus' treatise begins with the formula (c. 59) *περὶ δὲ τῶν αἰσθητῶν* ('and on the sense-objects'), thus echoing the second half of Aristotle's title. In view of the fluctuating nature of titles in antiquity it is hard, perhaps even impossible to decide what is the correct form for Theophrastus. Also note another reference of Aristotle to 'On the senses' at *Mete.* 3.4 372b9–10, *ἔστω δὲ περὶ τούτων ἡμῖν τεθεωρημένον ἐν τοῖς Περὶ τὰς αἰσθήσεις δεικνυμένοις*. Galen *De instrumento odoratus* 5.3 (cited below, section E(b) Chapter heading) too adverts to variant titles.

D Analysis

a Context

Following upon the eight chapters dealing with the soul *per se*, this is the first of five dealing with cognitive issues in a more general way; thereafter, in chs. 4.13–19 (or 20), the individual senses are treated. By and large, true to A's stated purpose of presenting the *physikos logos* (ch. 1.1.1), the emphasis falls on the physical and mechanistic aspects of cognition, though with exceptions, namely ch. 4.9 about truth and falsity and ch. 4.12 about the distinction between trustworthy and untrustworthy presentations. But these topics too may be included in the treatment of cognition in physics, see above, Introduction to Book 4 section 6.

The issues treated in this series of chapters are roughly the same as those in Aristotle *de An.* 1.2 (overview of the predecessors' views on the soul as the principle of sensation and cognition), 2.5–10 (sensation), and 3.4–8 (cognition), and in Lucretius *DRN* Books 3–4, cf. M–R 2.1.145–146. The echoes of Theophrastus' *De sensibus* listed by Diels *DG* 222–225 are not sufficient to support his thesis of a large-scale influence of this treatise (as part of what he called the *Physikôn Doxai*) on the *Placita*. See below, ch. 4.10 Commentary D(e), and Ax (1986) 77–86 on A chs. 4.16 + 4.19–20, and Baltussen (1993) 203–205 and (2000b). We note that an account of touch is lacking in both A and Lucretius (only a brief mention together with sight at *DRN* 4.233); this shared lacuna may indeed point to common ancestry, see M–R 2.1.151. The absence of touch is more surprising in what purports to be a standard overview like the present one, for though not counting as a separate sense in the *Timaeus* it is of primary importance in Aristotle's account of sense perception and generally present in literature on the senses.

The first issue in the present group is the nature of sensation(s) and sense objects in general (category/question-type of substance), and where (category of place) and how (question-type of cause) they occur or are found, the next that of their truthfulness (category/question-type of quality). A chapter dealing with the number of the senses (category of quantity) follows. We note once again the importance of a treatment according to categories and question types. The section is concluded by two often-discussed and important chapters, 4.11–12, dealing respectively with the Stoic analysis of the cognitive process from sensation to concept-formation, and with Chrysippus' distinctions between various forms of real and imagined impressions.

b Number–Order of Lemmata

P has four lemmata of which G omits one, S has twelve (for the first one see above, section A). The sequence in P still corresponds with that of S even when Diels' excision of *Ecl.* 1.50.7–9 from this chapter is not accepted, as it is by us. That G's order corresponds with that of P is not surprising, as it does so most of the time. The first lemma of A's chapter, §1 on the Stoics, comes first because it explicitly provides a proper definition (οἱ Στωικοὶ ὀρίζονται οὕτως τὴν αἴσθησιν). Compare the same formula in the same relative position at ch. 1.6.1, ὀρίζονται δὲ τὴν τοῦ θεοῦ οὐσίαν οἱ Στωικοὶ οὕτως, the formula Πλάτων τὴν φωνὴν ὀρίζεται at ch. 4.19.1, to be distinguished from the nominal definitions at the beginning of chs. 1.9, 1.10, 1.11, 1.12, 1.14, and 1.15. Also ch. 2.1 begins with a proper definition, of 'cosmos', in this case a discovery attributed to Pythagoras. The lemmata at ch. 4.8.2–3 have the same relative position in both P and S, while G omits §2, so in G the Plato lemma follows immediately upon the Stoics lemma. §§4–9 are not paralleled in either P or G, but there is no reason to interfere with S's order. If, reasonably, we assume that §§4–9 were simply abridged away by P, the position of P4 (Leucippus Democritus) after these omitted lemmata perfectly corresponds with the relative position of the same lemma in S (where there is one name-label more: Epicurus). Finally, there is no reason to interfere with S's positioning of §§12–14 at the end. Quite the contrary; this is where they belong, because to some extent they anticipate the details of the theories of cognition set out in the next chapters. Unless, of course, one wishes to place them in a brief chapter of their own—but unlike for ch. 4.7a there is no evidence for the heading of such a chapter.

c Rationale–Structure of Chapter

Though it comprises several themes, the overall unity of this rich chapter is certain because of the precedent not only of Aristotle's account in *De anima* Books 2 and 3, but also of his monobiblos with the same title, *Περὶ αἰσθήσεως*

καὶ αἰσθητῶν, and of Theophrastus' monobiblos *Περὶ αἰσθήσεων*, the second part of which deals with the objects of sense (though these are not mentioned in its title). Alexander of Aphrodisias in the introduction to his Commentary on Aristotle's *De sensu* mentions as one of the topics of the *De anima* περὶ τῶν αἰσθητῶν, τί τὸ ἐκάστη αἰσθήσει αἰσθητὸν καὶ τίνι ὄντι αὐτῷ κατὰ τὴν οἰκείαν φύσιν τὸ αἰσθητὸ εἶναι ὑπάρχει (*in Sens.* 1.14–17). These several themes, moreover, are connected by terminology and association: the Stoic and other definitions of sensation and sense object(s) include those of the sense organ(s) already largely treated by Aristotle (μὴ οἶόν τε ἦν ἄνευ αἰσθητηρίου αἰσθάνεσθαι τίνος, *in Sens.* 1.12–13), and involve various explanations of the sensory process, even diaphonically opposed ones. Related issues treated are questions such as to what extent soul, or body, or both are concerned; whether sensations are of bodies or incorporeals; and the extent to which according to various schools sensation amounts to cognition.

The fourteen lemmata naturally fall into four blocks, the first of which, §§1–6, has an appendix (§7). We note that three lemmata explicitly mention the number of meanings of the term αἰσθησις (see below, section D(d) General points), namely §1, Stoics: many meanings (in fact three); §2, Epicurus: two meanings; §4, Peripatetics: four meanings. §3, Plato, seems to be about a single meaning. The sequence according to the category of quantity, i.e., many (viz., 3)–2–1(?)–4 begins as a descending order (if, that is, we may take §3 as representing the number 1), but then turns into an ascending one in the last lemma. The converse of such a rather irregular order can be paralleled, cf. ch. 4.3.1–13: 1, 1, 1, 1, 1, 1, 1, 1, 1, 4, 4, 2: first ascending then descending, and ch. 4.4.1–7: 2 or 3, 5, 8, 9, 5, 2: first ascending then descending, too.

§§5–6 are linked by the concept of 'alteration' (ἐτεροίωσις), though in the case of the Atomists this is an alteration of the body, and in that of Aristotle one of the sensing part/function of the soul. This opposition recalls the diaphonic contrast, stretching over two chapters, between Aristotle's concept of soul as incorporeal at ch. 4.2.6 and Democritus' and Leucippus' concept of the soul as corporeal at ch. 4.3.5 and 4.3.7.

§§6–7 are linked by the authentically Aristotelian concept of *sensus communis*, for §7 is a sort of appendix to §6 citing the quite different Stoic application of this concept.

§§8–9 belong together as the two sides of a diaphonia: §8 says sensation is of bodies, the puzzling §9 that it is of incorporeals.

§§10–11 also belong together as the two sides of a diaphonia: §10 says sensation comes about through images, §11 that it comes about through emanations. This opposition between incoming images and emanations is one of the main themes in chs. 4.13 and 4.14.

§§12–14 belong together because they list three different views, viz. those of the Stoics, the Academic Sceptics, and the Peripatetics on the all-important issue, in Hellenistic theories of knowledge, of the relation between sensation (αἴσθησις), assent (συγκατάθεσις), and, especially, cognition (κατάληψις). The first two tenets constitute an obvious diaphonia, as the Stoics (§12) are said to hold that every sensation is an assent and a cognition, and the Academics (§13) that no sensations are either cognitions or assents. The affirmation that the Stoics hold every sensation to be, or rather to imply, assent and cognition, fails to represent the true state of affairs. So their tenet has been modified, *more doxographico*, the better to express the diaphonia. The view attributed to the Peripatetics (§14) that sensations do not occur without assent but are not (themselves) assents, clearly is a compromise position. The term cognition (κατάληψις) in §§12 (Stoics)–13 (Academics) provides a backwards link with §1, where one of two denotations of sensation according to the Stoics is κατάληψις through a sense organ: a modest variety of ring composition.

d Further Comments

General Points

We note the absence of the Cyrenaics, who held that only the affections (πάθη) are perceptible.

§§1–6 give the definitions and explanations, linked to various name-labels and arranged on a gliding scale, or diaeresis—in the sense of a listing in an ordered sequence—, of the words ‘sensation’ (αἴσθησις), ‘sense object’ (αἰσθητόν), ‘impression’ (φαντασία), ‘sense-organ’ or ‘sensor’ (αἰσθητήριον, μόριον), and ‘cognition’ (κατάληψις). Note terms such as §1 λέγεται and §2 λεγέσθαι, which point at verbatim quotation. In §§1–4 the definitions concerned are of the nominal or conceptual variety, the Stoic definition at the beginning of §1 being an exception; see further above, ch. 1.9 Commentary D(d), general points.

Individual Points

Chapter heading Our decision in favour of Περὶ αἰσθήσεως in the singular is based on the fact that αἴσθησις (‘sensation’, ‘sense-perception’ in general) is not only defined in the first lemma, but is also the main subject in the others. The individual senses are dealt with in later chapters. Note moreover that the alternative heading, Περὶ αἰσθήσεων, may mean not only ‘On senses’, but also ‘On sensations’. See further section C above.

§1 The practice of commencing a chapter with a definition in which its subject is the first word followed by ἐστὶ occurs several times elsewhere in order to

introduce an introductory definition (chs. 1.9–12, 1.14–15, 1.23, 2.30, 3.1, cf. 1.25.1, 5.3). The present lemma, with the name-label as its first word, states explicitly that it is a definition: *ὀρίζονται*, and in chs. 1.6.1, 1.23.1, 4.19.1, 5.3.1 and 5.29.1 we find name-labels too.

ἀντίληψις is a weaker form of *αἴσθησις* than *κατάληψις*.

Part of the text as transmitted is corrupt. Diels despaired of healing it; see references in the apparatus criticus. The word *ᾧδοον* does not make much sense; Mau ingeniously suggested a mechanical corruption, viz. the interpretation of the first letter of *ἡγεμονικοῦ* as a number symbol. It is simpler to assume that a gloss deriving from ch. 4.4.4, where the regent part is counted as the eighth part, strayed into the text in the Byzantine tradition. The emendation of lines 5–6 printed by Mau (followed, as usual, by Lachenaud), viz. *ἀφ' οὗ {συνίσταται} πάλιν {δ'}* is difficult to accept, because the postulated corruption is hard, if not impossible to explain. It is in fact a combination of suggestions of earlier editors, some of whom bracketed *συνίσταται* or, like Diels, banished the word to the apparatus, and Von Arnim (whose apparatus is defective, as it usually is), who just omitted the *δ'*. Diels had likewise banished this connecting particle to the apparatus. Torraca in his translation (with comment p. 456 n. 128) follows Diels' wilder suggestions. It is not only better but also simpler to assume that the words *ἀφ' οὗ συνίσταται* were inadvertently left out, then added in the tympanon, from where they were put back in the wrong place, a not unusual phenomenon (Brinkmann's law, see Brinkmann 1902). In the present case, this is entirely understandable: they were inserted after *ἡγεμονικόν* in line 5 instead of after *ἡγεμονικοῦ* in line 6.

The 'sensors', or percipient currents of *pneuma*, are produced by the regent part, or 'grow out of it', as ch. 4.21.2 has it: *ἀπὸ δὲ τοῦ ἡγεμονικοῦ ἑπτὰ μέρη ἐστὶ τῆς ψυχῆς ἐκπεφυκότα καὶ ἐκτεινόμενα εἰς τὸ σῶμα ... τῶν δ' ἑπτὰ μερῶν τῆς ψυχῆς πέντε μὲν εἰσὶ τὰ αἰσθητήρια*. Perception (*αἴσθησις*) and 'grasping' or cognition (*κατάληψις*) are not only receptive but also active, as the word *κατάληψις* itself and the simile of the tentacles of the octopus (ch. 4.4.4) make clear. As parallels for our translation of *ἀφ' οὗ συνίσταται* we are able to cite Ptolemy *Geog.* 4.3.17 *καὶ τὸ καλούμενον Κίρνα ὅρος ... ἀφ' οὗ αἱ λίμναι συνίστανται συνάπτουσαι ἀλλήλαις* 'der sogenannte Kirna-(Kinna)Berg—von ihm gehen Seen aus, die mit einander verbunden sind' (tr. Stückelberger–Graßhoff). Also cf. Paulus Alexandrinus *Elementa apotelesmatica* p. 13.1–3 Boer.

§1[3–5] The well-known Aristotelian formula *πολλὰχῶς λέγεται* is also used e.g. by Philo *Fug.* 177 and Strabo 8.3.30. Just as the concepts *ἡ δύναμις καὶ ἡ ἐνέργεια* it is not part of the original Stoic phraseology. One may compare the Aristotelizing presentation at ch. 4.11.2–3, where see Commentary D(e)§§2–3 ad fin.

§2 The Epicurus lemma exploits an ambiguity of the term αἴσθησις, which can mean both the organ or seat of sensation, and the sensation itself. Thus on the one hand αἴσθησις means ‘sense’, i.e., the organ or seat of sensation: the ‘bodily part’ or region (μόριον), which is the sensory ‘faculty’, or ‘power’, and on the other the ‘activity’ of this organ, or seat: the actually accomplished sensation which is the ‘sense object’ (αἰσθητόν). Steckel’s conjecture ἐνάργημα (a term used by Epicurus) for ἐνέργημα is very tempting but unnecessary, though a parallel for the pair δύναμις: ἐνέργημα is not found in Epicurus’ remains.

In the *Placita* a doxa as a rule is in *oratio obliqua* depending on a verb of declaration. In the present lemma we have one of the rare examples of *oratio recta* (cf. chs. 2.5.1, 4.11, 4.12). This implies, or so we believe, that part of the lemma is an (abridged) verbatim quotation of Epicurus or at least derives from an actual Epicurean text. The formulas ἥτις ἐστὶν ἡ δύναμις and ὅπερ ἐστὶ τὸ ἐνέργημα are not part of the quotation but explicative glosses anticipating the final phrase of the lemma (where the specific Epicurean term ἐπαίσθημα—cf. the fragment of, perhaps, the *Canon* at Diogenes Laertius *VP*. 10.32 = Epic. fr. 36 Usener—has been replaced by the neutral αἰσθητόν).

§5, §6, & §10 The present chapter is the only one in the *Placita* to contain the word ἑτεροίωσις, and does so three times. This suggests a shared origin of these lemmata, or a shared influence.

§5 That the sensations and thoughts according to Leucippus and Democritus are alterations of the body is the only echo in our chapter of the view of Aristotle, partly but importantly shared by Theophrastus, that according to the ancients sensation and thought are the same and a matter of bodily alteration. That some philosophers fail to distinguish between sensation and thought, and others not, is one of the diaeretic criteria in the *De sensibus*. The modest echo in the present chapter of Theophrastus’ treatise signifies a diluted influence, *pace* Diels’ general hypothesis. See further the passages cited below, section E(b)§5, and Mansfeld (1996).

§6 The lines [20] κοινὴν ... [22] κινήσεως are also found below in ch. 4.10 on the question of how many senses there are, where they are combined with a first phrase, namely Ἀριστοτέλης ἔκτην μὲν οὐ λέγει, to form the lemma 4.10.2 of S as preserved in L. In ch. 4.10 this κοινὴν ... κινήσεως part of S’s lemma is paralleled in P, together with both the lemma before and the lemma after it, which occupy the same position in S as preserved in L as they do in P. This proves the authenticity of [20] κοινὴν ... [22] κινήσεως and corroborates its placement in ch. 4.10. In the present chapter we do not have P for ch. 4.8.6 but only S as preserved in L, whose text here is a little bit different from his own text for ch. 4.10.2 in *Ecl.* 1.51.3 W. and from that of P at 4.10.2. Heeren and Meineke needlessly complicated matters further, see the apparatus of Diels *DG* 395b and

399b, and Wachsmuth pp. 473 and 482. Diels used the text of ch. 4.10.2 to correct 4.8.6. (There is no reason in principle why A could not have largely repeated a lemma elsewhere if the subject-matter encouraged it. This happens in Book 2, see ch. 2.5.3 Philolaus.)

Aristotle never said that sensation changes the object of sensation, so if we do not wish to impute a gross mistake to A, S's transmitted αἰσθητοῦ ('object of sensation') has to be emended. The simplest change is into αἰσθητ(ικ)οῦ, 'organ of sensation' (the term is paralleled in AD fr. 13 Diels quoted below section E(a)§6). We may compare P 4.21.4, where φωνήν has to be changed into φωνη(τικό)ν, though Diels forgot to do so and Von Arnim at *SVF* 2.836 just quoted the text of the *DG*. Also see ch. 2.4.10, where παθητικόν, preserved in S, is corrupted into παθητόν in P; the word παθητός is not part of Aristotle's vocabulary, and a change from παθητικόν into παθητόν is easier to understand than one the other way round. The simple error in §6 occurred through a misreading of a ligature or through haplography. Once the defective reading was there, the necessary αἰσθητοῦ after μεσότητα was omitted in a next stage because it seemed superfluous (as it seemed superfluous to Diels and others).

This lemma, neglected by scholars, presents a later, though by and large correct systematisation and more precise formulation of Aristotle's doctrine. The exact attribution, for instance, of particular common sensibles to two senses and of others to all the senses cannot be paralleled exactly in the *pragmateiai*. For phrases in Alexander and Themistius that come close see section E(b)§6.

§7 For self-awareness, ἡμῶν αὐτῶν ἀντιλαμβανόμεθα, see Cicero *Fin.* 3.16–17 on Stoic *sensus sui* in the context of *oikeiosis*, partly cited at section E(b)§7; discussion of this passage at Engberg-Pedersen (1990) 66–72. Also the citation of Chrysippus at Diogenes Laertius *V.P.* 7.85 (*SVF* 3.178), and esp. the three passages from Hierocles' *Stoicheiosis Ethike* likewise quoted at section E(b)§7. Excellent discussion at Bastianini–Long (1992) 379–396, to some extent summarized at Ramelli–Konstan (2009) 39–41; see further below at ch. 4.11, Commentary D(d)§§2–3. A Cyrenaic parallel is at Cicero *Luc.* 20. For Epicureanism cf. Lucretius *DRN* 2.433–439, who distinguishes between two kinds of touch, one reacting to things impinging from outside, the other registering what happens in our body, and Sedley (1989).

§8 κριτικήν: cf. A 4.10.2 below. The term κριτήριον, perhaps surprisingly, does not occur in the *Placita*, and the verb κρινεῖν is not used either. κριτήριον is used in a cognitive sense AD fr. 16 Diels at S 58.1 (on Aristotle) κριτήρια δ' εἶναι τῆς τούτων (sc. τὰς αἰσθήσεις καὶ τὰς διανοητικὰς κινήσεις) γνώσεως τὸν τε νοῦν καὶ τὴν αἴσθησιν, τὸν μὲν τῶν νοητῶν, τὴν δὲ τῶν αἰσθητῶν.

§9 The objects of sense are unexpectedly said to be incorporeals. Possibly the lemma has been formulated to allow for a perfect but purely doxograph-

ical diaphonia with the corporealism of the Stoics of the preceding lemma, cf. above section D(c)§§8–9. The formula οἱ ἀπὸ τῶν ἀρχαίων is also puzzling. Diels wanted to read ἀπὸ τῶν μαθημάτων, almost certainly intending μαθηματικῶν (as Wachsmuth suggests), ‘the followers of the mathematicians’. This formula can be paralleled—significantly enough only in the *Placita*, viz. at ch. 2.31.2, οἱ ἀπὸ τῶν μαθηματικῶν, and S 1.52.16 at ch. 4.14.3, οἱ ἀπὸ Πυθαγόρου καὶ τῶν μαθηματικῶν. In view of the parallel at ch. 4.13.4 (Ἀρίσταρχος σχήματα συνδιατυπῶντά πως αὐτοῖς τὸν ἄερα (sc. ἀπὸ τῶν σωματῶν φέρεσθαι)) a possible correction would be οἱ ἀπὸ τῶν ἀρχαίων μαθηματικῶν. Wachsmuth ad loc. argues for the transmitted ‘ancients’: ‘significantur enim ei qui philosophiam τῶν ἀρχαίων i. e. Platonis Aristotelisve profitentur’, which in view of the contrast with the corporeal Stoics seems plausible, provided it is restricted to Peripatetics, and Platonists friendly towards Aristotle’s views. οἱ ἀρχαῖοι may pertain to people from long ago, but also to people from not so long ago.

For the unclear name-label οἱ ἀρχαῖοι in P for A 1.17.1 (G substitutes οἱ παλαιότεροι) S has Θαλῆς καὶ οἱ ἀπ’ αὐτοῦ. At ch. 4.2.1 Thales is included among the incorporealists, and Simplicius (perhaps Priscianus) in *de An.* 31.20–26 even argues explicitly that according to him the soul is incorporeal, see at ch. 4.2 Commentary D(b). Even so, it seems doubtful whether we may go as far as include to him among those who hold that sense data are ‘incorporeal *logoi* about bodies they also call ‘shapes’. So it seems best to preserve the ambiguous ἀπὸ τῶν ἀρχαίων.

e Other Evidence

Parallels are found in the first place in Nem (just as in the case of ch. 4.12), who however abridges and paraphrases and has preserved much less material, viz. only passages dealing with the Stoics and Plato. If Nem does not depend on A and his tradition, he must depend on a closely related tradition. Some further parallels are found in Philo, Sextus Empiricus and Arius Didymus. The lemma on *aisthesis* in ps.Galen’s *Medical Definitions* is very complete. Though it lacks name-labels, it provides a good overview of the various options, just like the Aëtian chapter. See at section E(a)§5 below. For Aristotle and Theophrastus see above at section B.

E Further Related Texts

a Proximate Tradition

General texts: Photius *Bibl.* cod. 212, p. 170b9–12 (Aenesidemus fr. 8B Polito) καὶ ὁ γ’ δὲ αὐτῷ λόγος περὶ ... καὶ αἰσθήσεως καὶ τῶν κατ’ αὐτὰς ιδιωμάτων, τὰς ὁμοίας περιεργαζόμενος ἐναντιολογίας, εἰς τὸ ἀνέφικτον καὶ ἀκατάληπτον ὑποφέρει καὶ αὐτά. Arnobius *Adv.Nat.* 1.38, p. 33.15 Marchesi (*qui ... monstravit ... quid sit sensus.*

Chapter heading: *Capitula Lucretiana at DRN 3.350 de sensu corporis et animi. ad DRN 3.624 de sensibus animi et animae.*

§1 Stoics: Philo of Alexandria *Fug.* 182 (*SVF* 2.861) ποτίζεται οὖν, ὥσπερ ἀπὸ πηγῆς τοῦ κατὰ ψυχὴν ἡγεμονικοῦ τὸ σώματος ἡγεμονικὸν πρόσωπον, τὸ μὲν ὀρατικὸν πνεῦμα τείνοντος εἰς ὅμματα, τὸ δ' ἀκουστικὸν εἰς οὖς, εἰς δὲ μυκτῆρας τὸ ὀσφρήσεως, τὸ δ' αὖ γέυσεως εἰς στόμα, καὶ τὸ ἀφῆς εἰς σύμπασαν τὴν ἐπιφάνειαν. **ps.Galen** *Def.Med.* 19.378.12–379.5 K. ριέ'. αἰσθησίς ἐστι πάθος ψυχῆς διὰ σώματος ἀγγελικὸν τοῦ κινητικοῦ. τί διαφέρει αἰσθησις καὶ αἰσθητήριον καὶ αἰσθητὸν καὶ αἰσθητικόν; διαφέρει. αἰσθησις μὲν γάρ ἐστιν ἡ ἐνεργούσα δύναμις, αἰσθητήριον δὲ τὸ αἰσθησὶν τινα ἐμπεπιστευμένον ὄργανον, αἰσθητὸν δὲ τὸ τῇ αἰσθήσει ὑποπίπτον, αἰσθητικὸν δὲ αὐτὸ τὸ αἰσθανόμενον, οἷον αἰσθησις μὲν, ὄρασις, γεύσις, ὀσφρησις καὶ αἱ λοιπαὶ αἰσθησεὶς ἀκοή καὶ ἀφή. αἰσθητήριον ἦτοι ὀφθαλμὸς ἢ ῥίς ἢ γλῶττα, ἃ καὶ ὄργανα αἰσθητικὰ προσαγορεύεται. αἰσθητὸν δὲ τὸ ξύλον ἢ ὁ λίθος ἢ κίων καὶ πάντα τὰ ὑποπίπτοντα ταῖς αἰσθήσεσιν. αἰσθητικὸν δὲ ὁ Θέων καὶ ὁ Δίων καὶ τᾶλλα ὅσα αἰσθάνεται ζῶα. **Alcinous** *Did.* c. 4, p. 154.34–36 H. ἡ μὲν οὖν αἰσθησίς ἐστι πάθος ψυχῆς διὰ σώματος ἀπαγγελτικὸν προηγουμένως τῆς πεπονθυίας δυνάμεως. **Arius Didymus** fr. 39.3 Diels, *DG* p. 471.5–9 at Eus. *PE* 15.20.3 (*SVF* 1.519) ἀναθυμίασιν μὲν οὖν ὁμοίως τῷ Ἡρακλείτῳ (T 257 Mouraviev) τὴν ψυχὴν ἀποφαίνει Ζήνων (*SVF* 1.141), αἰσθητικὴν δὲ αὐτὴν εἶναι διὰ τοῦτο λέγει ὅτι τυποῦσθαι τε δύναται τὸ μέρος τὸ ἡγούμενον αὐτῆς ἀπὸ τῶν ὄντων καὶ ὑπαρχόντων διὰ τῶν αἰσθητηρίων καὶ παραδέχεσθαι τὰς τυπώσεις. ταῦτα γὰρ ἴδια ψυχῆς ἐστὶ. fr. 39.5 Diels *DG* p. 471.15–16 at Eus. *PE* 15.20.5 (*SVF* 2.821) ἔχειν δὲ πάσαν ψυχὴν ἡγεμονικὸν τι ἐν αὐτῇ, ὃ δὴ ζωὴ καὶ αἰσθησίς ἐστι καὶ ὁρμή. **Sextus Empiricus** *M.* 7.350 καὶ οἱ μὲν διαφέρειν αὐτὴν (sc. τὴν διάνοια) τῶν αἰσθήσεων, ὡς οἱ πλείους, οἱ δὲ αὐτὴν εἶναι τὰς αἰσθήσεις, καθάπερ διὰ τινων ὁπῶν τῶν αἰσθητηρίων προκύπτουσιν, ἥς στάσεως ἤρξε Στράτων τε ὁ φυσικὸς (fr. 109 Wehrli, 61 Sharples) καὶ Αἰνῆσιδημος (fr. B24A Polito). **Iamblichus** *de An.* fr. 11 Finamore–Dillon at Stob. *Ecl.* 1.49.33, p. 368.14–16 (*SVF* 2.826) πνεύματα γὰρ ἀπὸ τοῦ ἡγεμονικοῦ φασιν οὗτοι διατείνειν ἄλλα κατ' ἄλλα, τὰ μὲν εἰς ὀφθαλμούς, τὰ δὲ εἰς ὤτα, τὰ δὲ εἰς ἄλλα αἰσθητήρια.

§6 Aristotle: Arius Didymus fr. 15 Diels at Stob. *Ecl.* 1.51.5, p. 482.11–19 Ἀριστοτέλους. τὸ δὲ αἰσθητικόν, ὃ δὴ κοινῶς ἀπάντων τῶν ζῶων ἴδιον (αἰσθήσει γὰρ διαφέρειν τὸ ζῶον τοῦ φυτοῦ) πενταπλοῦν ἐοικέναι. τοῦτο γὰρ τὸ μὲν ὄρασιν τὸ δ' ἀκοήν τὸ δ' ὀσφρησιν τὸ δὲ γεύσιν τὸ δ' ἀφήν. ὑπάρχειν δὲ τινα καὶ σύνθετον αἰσθησιν, ἐν ᾗ τὸ τε φανταστικὸν πᾶν γίνεσθαι καὶ (τὸ) μνημονευτικὸν καὶ τὸ δοξαστικόν, ὅπερ οὖν οὐδ' ἄμοιρον τοῦ νοῦ τυγχάνει. αἰσθάνεσθαι δ' ἡμᾶς παθούσης τι τῆς αἰσθήσεως. fr. 16 Diels at Stob. *Ecl.* 1.58, p. 497.15–19 Ἀριστοτέλους. φαντασίαν δ' εἶναι πάθος τι καὶ κίνησιν τῆς κατ' ἐνέργειαν αἰσθήσεως, ὠνομάσθαι δ' ἀπὸ μῆδ' τῶν αἰσθήσεων, τῆς ὀράσεως· τὸ (γὰρ) φαίνεσθαι παρὰ τὸ φάος ἔχειν τὴν ἐπίρρησιν τοῦτο δ' οἰκεῖον εἶναι τῆς ὀψεως. **Tertullian** *de An.* 12.4 *nam et sensus passiones facit Aristoteles. quidni? et sentire enim pati est, quia pati sentire est.*

§11 Anonymi: Aquilius *Def.* 4 Rashed φαντασία ἐστὶ τύπωσις ἡγεμονικοῦ.

b Sources and Other Parallel Texts

General text pertaining to the whole: (relating to whole of chs. 4.8–10, 12–20, and 22–23, plus 5.24–25, and 29–30) **Aristotle** *Sens.* 1 436a6–b7 φαίνεται δὲ τὰ μέγιστα, καὶ τὰ κοινὰ καὶ τὰ ἴδια τῶν ζώων, κοινὰ τῆς τε ψυχῆς ὄντα καὶ τοῦ σώματος, οἷον αἰσθησις καὶ μνήμη καὶ θυμὸς καὶ ἐπιθυμία καὶ ὅλως ὄρεξις, καὶ πρὸς τούτοις ἡδονὴ καὶ λύπη· καὶ γὰρ ταῦτα σχεδὸν ὑπάρχει πᾶσι τοῖς ζώοις. πρὸς δὲ τούτοις τὰ μὲν πάντων ἐστὶ τῶν μετεχόντων ζωῆς κοινὰ, τὰ δὲ τῶν ζώων ἐνίοις. τυγχάνουσι δὲ τούτων τὰ μέγιστα τέτταρες οὖσαι συζυγίαι τὸν ἀριθμὸν, οἷον ἐγρήγορις καὶ ὕπνος, καὶ νεότης καὶ γῆρας, καὶ ἀναπνοὴ καὶ ἐκπνοή, καὶ ζωὴ καὶ θάνατος· περὶ ὧν θεωρητέον, τί τε ἕκαστον αὐτῶν, καὶ διὰ τίνας αἰτίας συμβαίνει. φυσικοῦ δὲ καὶ περὶ ὑγείας καὶ νόσου τὰς πρώτας ἰδεῖν ἀρχάς· οὔτε γὰρ ὑγίαιαν οὔτε νόσον οἶδόν τε γίγνεσθαι τοῖς ἐστερημένοις ζωῆς. διὸ σχεδὸν τῶν περὶ φύσεως οἱ πλείστοι καὶ τῶν ἱατρῶν οἱ φιλοσοφωτέρως τὴν τέχνην μετιόντες, οἱ μὲν τελευτῶσιν εἰς τὰ περὶ ἱατρικῆς, οἱ δ' ἐκ τῶν περὶ φύσεως ἄρχονται. (436b) ὅτι δὲ πάντα τὰ λεχθέντα κοινὰ τῆς τε ψυχῆς ἐστὶ καὶ τοῦ σώματος, οὐκ ἄδηλον. πάντα γὰρ τὰ μὲν μετ' αἰσθήσεως συμβαίνει, τὰ δὲ δι' αἰσθήσεως, ἐνία δὲ τὰ μὲν πάθη ταύτης ὄντα τυγχάνει, τὰ δ' ἔξεις, τὰ δὲ φυλακαὶ καὶ σωτηρίαι, τὰ δὲ φθοραὶ καὶ στερήσεις· ἢ δ' αἰσθησις ὅτι διὰ σώματος γίγνεται τῇ ψυχῇ, δῆλον.

General texts: **Aristotle** *de An.* 1.2 403b25–28 τὸ ἔμψυχον δὴ τοῦ ἀψύχου δυσὶ μάλιστα διαφέρειν δοκεῖ, κινήσει τε καὶ τῷ αἰσθάνεσθαι. παρελῆψαμεν δὲ καὶ παρὰ τῶν προγενεστέρων σχεδὸν δύο ταῦτα περὶ ψυχῆς. *de An.* 1.2 404b8–11 ὅσοι δ' ἐπὶ τὸ γινώσκειν καὶ τὸ αἰσθάνεσθαι τῶν ὄντων, οὗτοι δὲ λέγουσι τὴν ψυχὴν τὰς ἀρχάς, οἱ μὲν πλείους ποιοῦντες, ταύτας, οἱ δὲ μίαν, ταύτην. **Theophrastus** *Sens.* 1 περὶ δ' αἰσθήσεως αἱ μὲν πολλαὶ καὶ καθόλου δόξαι δύο εἰσιν· οἱ μὲν γὰρ τῷ ὁμοίῳ ποιοῦσιν, οἱ δὲ τῷ ἐναντίῳ. Παρμενίδης (28A46 DK) μὲν καὶ Ἐμπεδοκλῆς (31A86 DK) καὶ Πλάτων τῷ ὁμοίῳ, οἱ δὲ περὶ Ἀναξαγόραν (—) καὶ Ἡράκλειτον (T 205 Mouraviev) τῷ ἐναντίῳ. *Sens.* 58 μὲν οὖν περὶ αἰσθήσεως καὶ τοῦ φρονεῖν δόξαι σχεδὸν αὐταὶ καὶ τοσαῦται τυγχάνουσιν οὖσαι παρὰ τῶν πρότερον. *Sens.* 59–60 περὶ δὲ τῶν αἰσθητῶν, τίς ἡ φύσις καὶ ποῖον ἕκαστόν ἐστιν, οἱ μὲν ἄλλοι παραλείπουσιν. ... (60) Δημόκριτος (68A135 DK) δὲ καὶ Πλάτων ἐπὶ πλείστον εἰσιν ἡμμένοι, καθ' ἕκαστον γὰρ ἀφορίζουσι.

Chapter heading: **Aristotle** *de An.* 2.6 418a7–8 λεκτέον δὲ καθ' ἑκάστην αἰσθησιν περὶ τῶν αἰσθητῶν πρώτων. *Sens.* 3 439a6–8 περὶ δὲ τῶν αἰσθητῶν τῶν καθ' ἕκαστον αἰσθητήριον ... καθόλου μὲν εἴρηται ἐν τοῖς Περὶ ψυχῆς. *GA* 5.2 781a21 ὥσπερ εἴρηται ἐν τοῖς Περὶ αἰσθήσεως. *PA* 1.1 641b2–4 ἡ αὕτη θεωρία τῶν πρὸς ἄλληλα πάντων, καθάπερ καὶ περὶ αἰσθήσεως καὶ τῶν αἰσθητῶν. **Theophrastus** *Sens.* 1 περὶ δ' αἰσθήσεως. *Sens.* 59 περὶ δὲ τῶν αἰσθητῶν, τίς ἡ φύσις καὶ ποῖον ἕκαστόν ἐστιν. **Galen** *Instr.Od.* 5.3 ἔοικε δὲ τι τοιοῦτον καὶ Ἀριστοτέλης λέγειν ... κὰν τῷ Περὶ αἰσθήσεως καὶ αἰσθητῶν (ἐπιγράφεται δὲ τοῦτο καὶ καθ' ἑτερον τρόπον ὧδε Περὶ αἰσθήσεως καὶ αἰσθητηρίων, ἐπειδὴ τὰ τῶν αἰσθήσεων ὄργανα καλεῖν οὕτως ἔθος ἐστὶν Ἀριστοτέλει). **Alexander of Aphrodisias** *de An.* 38.19–20 ὁ περὶ αἰσθήσεως λόγος. **Diogenes Laertius** *V.P.* 5.59 (Strato fr. 18 Wehrli, 1 Sharples) Περὶ αἰσθήσεως. *V.P.* 7.174 (Cleanthes, *SVF* 1.481) Περὶ αἰσθήσεως. 7.178 (Sphaerus *SVF* 1.620) Περὶ αἰσθητηρίων. **Porphyrus** *Plot.* 5 Περὶ αἰσθήσεως καὶ μνήμης. **Plotinus** *Enn.* 4.6.[41] Περὶ αἰσθήσεως καὶ μνήμης.

§1 Stoics: Philo of Alexandria *Leg.* 2.36–37 διὰ γὰρ ταύτης (sc. τῆς αἰσθήσεως κατ' ἐνέργειαν) ποιούμεθα τὰς τῶν αἰσθητῶν ἀντιλήψεις. **Plutarch** *SR* 1038C (*SVF* 2.724) ἡ γὰρ οἰκείωσις αἰσθησις ἔοικε τοῦ οἰκείου καὶ ἀντιλήψις εἶναι. **Anonymus in Theaetetus** col. 66.39–43 Bastianini–Sedley πᾶσαν γὰρ ἀντιλημψιν εἴτε δι' αἰσθητηρίου εἴτε δι' [ἄλ.]λου τι|νὸς ἐκάλουν [αἰ']σθη|σιν. **Pythagorica Hypomnemata** at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58Bia DK) at D.L. 8.30 φρένας δὲ καὶ νοῦν τὰ ἐν τῷ ἐγκεφάλῳ· σταγόνας δ' εἶναι ἀπὸ τούτων τὰς αἰσθήσεις. ... τοὺς δὲ λόγους ψυχῆς ἀνέμους εἶναι. at D.L. 8.29 τὴν τ' αἴσθησιν κοινῶς καὶ κατ' εἶδος τὴν ὄρασιν ἀτμόν τιν' ἄγαν εἶναι θερμόν. **Sextus Empiricus** *M.* 7.201 (Antiochus fr. 66 Luck, verbatim) ἄλλος δὲ τις (sc. Asclepiades (—)), ἐν ἱατρικῇ μὲν οὐδενὸς δεῦτερος, ἀπτόμενος δὲ καὶ φιλοσοφίας, ἐπείθετο τὰς μὲν αἰσθήσεις ὄντως καὶ ἀληθῶς ἀντιλήψεις εἶναι. **Diogenes Laertius** *V.P.* 7.45–46 (*SVF* 2.53) τὴν δὲ φαντασίαν εἶναι τύπωσιν ἐν ψυχῇ, τοῦ ὀνόματος οἰκείως μετενηνεγμένου ἀπὸ τῶν τύπων τῶν ἐν τῷ κηρῷ ὑπὸ τοῦ δακτυλίου γινομένων. (46) τῆς δὲ φαντασίας τὴν μὲν καταληπτικὴν, τὴν δὲ ἀκατάληπτον. *V.P.* 7.51 (*SVF* 2.61) τῶν δὲ φαντασιῶν κατ' αὐτοὺς αἱ μὲν εἰσιν αἰσθητικά, αἱ δ' οὐ· αἰσθητικά μὲν αἱ δι' αἰσθητηρίου ἢ αἰσθητηρίων λαμβανόμεναι. *V.P.* 7.52 (*SVF* 2.71) αἰσθησις δὲ λέγεται κατὰ τοὺς Στωικοὺς τό τ' ἄφ' ἡγεμονικοῦ πνεῦμα ἐπὶ τὰς αἰσθήσεις διήκον καὶ ἢ δι' αὐτῶν κατάληψις καὶ ἢ περὶ τὰ αἰσθητήρια κατασκευή, καθ' ἣν τινες πηροὶ γίνονται. καὶ ἡ ἐνέργεια δὲ αἰσθησις καλεῖται. *V.P.* 7.159 (*SVF* 2.837) ἡγεμονικὸν δ' εἶναι τὸ κυριώτατον τῆς ψυχῆς, ἐν ᾧ αἱ φαντασίαι καὶ αἱ ὁρμαὶ γίνονται καὶ ὅθεν ὁ λόγος ἀναπέμπεται· ὅπερ εἶναι ἐν καρδίᾳ. *SVF* 1.55–59, 1.484, 2.52–81, 2.850–862.

§2 Epicurus: Epicurus *Ep. Hdt.* at D.L. 10.48 οὐθέν γὰρ τούτων ἀντιμαρτυρεῖται ταῖς αἰσθήσεσιν, ἀν βλέπη τις τίνα τρόπον τὰς ἐναργείας. **Diogenes Laertius** *V.P.* 10.32 (Epicurus fr. 36 Usener) τὸ τὰ ἐπαίσθηματα δ' ὕφεσθάναι πιστοῦται τὴν τῶν αἰσθήσεων ἀλήθειαν. *V.P.* 10.33 (Epicurus fr. 255 Usener + p. 181 adn. 7) ἐναργεῖς οὖν εἰσιν αἱ προλήψεις. καὶ τὸ δοξαστὸν ἀπὸ προτέρου τινὸς ἐναργεῖς ἡρτηται.

§3 Plato: Plato *Phlb.* 34a (quoted Stob. *Ecl.* 1.50.2b, p. 472.16–21 λέγει δὲ ἐν τῷ Φιλήβῳ ὧδε·) τὸ δ' ἐν ἐνὶ πάθει τὴν ψυχὴν καὶ τὸ σῶμα κοινῇ γιγνόμενον κοινῇ καὶ κινεῖσθαι, ταύτην δ' αὖ τὴν κίνησιν ὀνομάζων αἰσθησιν οὐκ ἀπὸ τρόπου φθέγγοι' ἄν. *Tim.* 43c διὰ τοῦ σώματος αἱ κινήσεις ἐπὶ τὴν ψυχὴν φερόμεναι προσπίπτουσιν· αἱ δὲ καὶ ἔπειτα διὰ ταῦτα ἐκλήθησάν τε καὶ νῦν ἔτι αἰσθήσεις συνάπασαι κέλκηνται. **ps.Plato** *Def.* 414c αἰσθησις ψυχῆς φορὰ· νοῦ κινήσις· ψυχῆς διὰ σώματος εἰσάγγελσις εἰς ὥρας ἀνθρώπων, ἄφ' ἧς γίγνεται ψυχῆς ἄλογος δύναμις γνωριστικὴ διὰ σώματος. **Diogenes Laertius** *V.P.* 3.12 ἔτι φησὶν ὁ Ἀλκιμος (*Ad Amynt. FGrH* 560 F7) καὶ ταυτί· 'φασὶν οἱ σοφοὶ τὴν ψυχὴν τὰ μὲν διὰ τοῦ σώματος αἰσθάνεσθαι οἷον ἀκούουσιν, βλέπουσιν, τὰ δ' αὐτὴν καθ' αὐτὴν ἐνθυμείσθαι μὴδὲν τῷ σώματι χρωμένην.' **Porphyrus** *Sent.* 41.14–16 δῆλον ὡς αἱ μὲν αἰσθητικαὶ δυνάμεις διὰ σώματος κέκτηνται τὸ ἐνεργεῖν.

§4 Peripatetics: Diogenes Laertius *V.P.* 1.21 (on Potamo) ἀρέσκει δ' αὐτῷ, καθὰ φησιν ἐν τῇ Στοιχειώσει, κριτήρια τῆς ἀληθείας εἶναι τὸ μὲν ὡς ὕφ' οὗ γίνεται ἡ κρίσις, τουτέστι τὸ ἡγεμονικόν· τὸ δὲ ὡς δι' οὗ, οἷον τὴν ἀκριβεστάτην φαντασίαν.

§5 Leucippus Democritus: Aristotle *de An.* 1.2 427a19–27 δοκεῖ δὲ καὶ τὸ νοεῖν καὶ τὸ φρονεῖν ὥσπερ αἰσθάνεσθαι τι εἶναι ἀμφοτέροις γὰρ τούτοις κρίνει τι

ἡ ψυχὴ καὶ γνωρίζει τῶν ὄντων καὶ οἱ γε ἀρχαῖοι τὸ φρονεῖν καὶ τὸ αἰσθάνεσθαι ταυτὸν εἶναι φασιν. ... πάντες γὰρ οὗτοι τὸ νοεῖν σωματικὸν ὥσπερ τὸ αἰσθάνεσθαι ὑπολαμβάνουσιν. *de An.* 1.2 427b6–13 ὅτι μὲν οὖν οὐ ταυτὸν ἐστὶ τὸ αἰσθάνεσθαι καὶ τὸ φρονεῖν, φανερόν· τοῦ μὲν γὰρ πᾶσι μέτεστι, τοῦ δὲ ὀλίγοις τῶν ζώων. ἀλλ' οὐδὲ τὸ νοεῖν, ἐν ᾧ ἐστὶ τὸ ὀρθῶς καὶ τὸ μὴ ὀρθῶς, τὸ μὲν ὀρθῶς φρόνησις καὶ ἐπιστήμη καὶ δόξα ἀληθής, τὸ δὲ μὴ ὀρθῶς τάναντία τούτων—οὐδὲ τοῦτό ἐστι ταυτὸ τῷ αἰσθάνεσθαι· ἢ μὲν γὰρ αἴσθησις τῶν ἰδίων ἀεὶ ἀληθής, καὶ πᾶσιν ὑπάρχει τοῖς ζώοις, διανοεῖσθαι δ' ἐνδέχεται καὶ ψευδῶς, καὶ οὐδενὶ ὑπάρχει ᾧ μὴ καὶ λόγος. *Met.* Γ.5 1009b12–15 ὅλως δὲ διὰ τὸ ὑπολαμβάνειν φρόνησιν μὲν τὴν αἴσθησιν, ταύτην δ' εἶναι ἀλλοιώσιν, τὸ φαινόμενον κατὰ τὴν αἴσθησιν ἐξ ἀνάγκης ἀληθές εἶναι φασιν (sc. the Presocratics in general). **Theophrastus** *Sens.* 3–4 Παρμενίδης (28A46 DK) μὲν γὰρ ὅλως οὐδὲν ἀφώρικεν ἀλλὰ μόνον ὅτι δυοῖν ὄντων στοιχείοι κατὰ τὸ ὑπερβάλλον ἐστὶν ἡ γνώσις. ... (4) τὸ γὰρ αἰσθάνεσθαι καὶ τὸ φρονεῖν ὡς ταυτὸ λέγει. *Sens.* 23 (Empedocles 31A86 DK) καὶ συμβαίνει ταυτὸ εἶναι τὸ φρονεῖν καὶ αἰσθάνεσθαι. *Sens.* 25 (Alcmaeon 24B5 DK) ὡς ἕτερον ὃν τὸ φρονεῖν καὶ αἰσθάνεσθαι, καὶ οὐ, καθάπερ Ἐμπεδοκλῆς, ταυτὸν.

§6 Aristotle: *Aristotle Cat.* 8 9b5–8 τῷ δὲ κατὰ τὰς αἰσθήσεις ἐκάστην τῶν εἰρημένων ποιότητων πάθος εἶναι ποιητικὴν παθητικὰ ποιότητες λέγονται· ἢ τε γὰρ γλυκύτης πάθος τι κατὰ τὴν γεύσιν ἐμποιεῖ κτλ. *Phys.* 7.3 247a6–7 γίγνεσθαι δ' αὐτάς (sc. ἀρεταὶ καὶ κακίαι) ἀναγκαῖον ἀλλοιούμενου τοῦ αἰσθητικοῦ μέρους, ἀλλοιωθήσεται δ' ὑπὸ τῶν αἰσθητῶν. *de An.* 2.4 415b24 ἡ μὲν γὰρ αἴσθησις ἀλλοιωσίς τις εἶναι δοκεῖ. *de An.* 2.5 416b33–35 ἡ δ' αἴσθησις ἐν τῷ κινεῖσθαι τε καὶ πάσχειν συμβαίνει, καθάπερ εἴρηται· δοκεῖ γὰρ ἀλλοιωσίς τις εἶναι. *de An.* 2.11 424a1 τοὺς γὰρ αἰσθάνεσθαι πάσχειν τι ἐστίν. *de An.* 2.11 424a4–5 ὡς τῆς αἰσθήσεως οἷον μεσότητός τινος οὕσης τῆς ἐν τοῖς αἰσθητοῖς ἐναντιώσεως. *Somn.* 2 459a24–25 τὰ γὰρ αἰσθητὰ καθ' ἕκαστον αἰσθητήριον ἡμῖν ἐμποιοῦσιν αἴσθησιν. *de An.* 3.1 425a13–15 ἀλλὰ μὴν οὐδὲ τῶν κοινῶν οἷον τ' εἶναι αἰσθητήριόν τι ἴδιον, ὧν ἐκάστη αἰσθήσει αἰσθανόμεθα κατὰ συμβεβηκός, οἷον κινήσεως, στάσεως, σχήματος, μεγέθους, ἀριθμοῦ, ἐνός. *de An.* 3.9 432a30–31 τὸ αἰσθητικόν, ὃ οὔτε ὡς ἄλογον οὔτε ὡς λόγον ἔχον θεῖται ἂν τις ῥαδίως. *Sens.* 1 437a8–9 λέγω δὲ κοινὰ μέγεθος, σχῆμα, κίνησιν, ἀριθμόν. *de An.* 2.6 418a17–18 κοινὰ δὲ κινήσις, ἡρεμία, ἀριθμός, σχῆμα, μέγεθος. *Insomn.* 1 458b4–6 κοινὰ δ' ἐστὶ τῶν αἰσθήσεων οἷον σχῆμα καὶ μέγεθος καὶ κινήσις καὶ τὰλλα τὰ τοιαῦτα. *Mem.* 1 450a12–13 ἡ δὲ μνήμη, καὶ ἡ τῶν νοητῶν, οὐκ ἄνευ φαντάσματος ἐστίν, (καὶ τὸ φάντασμα τῆς κοινῆς αἰσθήσεως πάθος ἐστίν)· ὥστε τοῦ νοῦ μὲν κατὰ συμβεβηκός ἂν εἴη, καθ' αὐτὸ δὲ τοῦ πρώτου αἰσθητικοῦ. **Alexander of Aphrodisias** *de An.* 59.8–9 διὸ καὶ εὐλόγως ἂν τις μεσότητα τὴν αἴσθησιν λέγοι τῆς ἐν τοῖς αἰσθητοῖς ἐναντιώσεως. *de An.* 41.1–5 ἐστὶ δὲ τοιαῦτα (sc. κοινὰ), ὅσα τὸ μὲν γνωρίζεσθαι δι' αἰσθήσεως ἔχει, πλείους μέντοι εἰσὶν αὐτῶν αἰσθήσεις διάκονοι. μεθ' ὧν γὰρ τὸ ἐκάστη αἰσθήσει ἴδιον αἰσθητὸν ὑποπίπτει, μετὰ τούτων καὶ τὰ αἰσθητήρια τὴν ἐπὶ τὴν αἴσθησιν αὐτῶν ποιεῖται διάδοσιν. τοιαῦτα δὲ ἐστὶ κινήσις, ἡρεμία, ἀριθμός, σχῆμα, μέγεθος. *de An.* 50.24–25 ὁμοίως δὲ τῇ ἀκοῇ καὶ τὴν ὄψιν ὑποληπτέον τοῦ διαστήματος ἀντιλαμβάνεσθαι. **Ptolemy** *Iudic.* c. 11, pp. 16.13–17.5 καθ' αὐτὴν μὲν οὖν ἐκάστη τῶν δυνάμεων ὅταν τὸ ἴδιον καὶ οἰκεῖον μόνον ἐπισκοπῇ κατὰ τὸ τῶν συμπεπλεγμένων ἀπερίσπαστον ἀληθεύειν

πέφυκεν· ὡς ὅταν ὀψις μὲν χρώματα· φωνάς δ' ἀκοή· γεύσις δὲ χυμούς· ἀτμούς δ' ὀσφρησίς· ἀφή δὲ ἡ ποιότητάς τ' [perhaps τῶν ἀπτῶν or ἀπτάς ποιότητας]· ... ἄλλαι δ' ἄλλαι συμπλακείσαι καὶ κοινωνήσασαι τῆς τῶν ὑποκειμένων κρίσεως—τοῦτ' ἔστιν ὅταν ἦτοι τῶν αὐτῶν πλείους ὦσιν ἀντιλήψεις, ὡς ἐν μὲν τοῖς αἰσθητοῖς ὄγκου, μεγέθους, πλήθους, σχήματος, θέσεως, τάξεως, κινήσεως. *Opt.* 2.2–3, p. 12.3–13 Lejeune *dicimus ergo quod visus cognoscit corpus magnitudinem colorem figuram situm motum et quietem. ... prius autem incipiamus ab eo* (sc. modo) *qui est secundum dispositionem rerum videndarum: quarum alie videntur vere, alie prime et alie sequenter.* *Opt.* 2.7, pp. 13.17–14.1 Lejeune *colores quidem splendidos cognoscit visus simpliciter; cetera vero per istos, non secundum quod colores, sed secundum quod terminos habent tantum. figures enim et magnitudines cognoscit per terminos rei colorate, situm autem per locum eius. cognoscit etiam ipsorum colorum motum et quietum per mutationes eorum et privationem mutationis.* **Sextus Empiricus** *M.* 9.146 καὶ μὴν ἡ αἴσθησις ἑτεροίως τις ἐστὶν· ἀμήχανον γὰρ τὸ δι' αἴσθησέως τινος ἀντιλαμβάνομενον μὴ ἑτεροιοῦσθαι, ἀλλὰ οὕτω διακρίσθαι, ὡς πρὸ τῆς ἀντιλήψεως διέκειτο. **Themistius** *in de An.* 57.37–38 κοινὰ δὲ πλείων κίνησις ἡρεμία ἀριθμὸς σχῆμα μέγεθος. ἀλλὰ κίνησις μὲν ἀπασῶν κοινόν τι τῶν αἰσθήσεων. *in de An.* 82.36–37 κοινὸν γὰρ τὸ σχῆμα ὕψους καὶ ἀφῆς.

§7 **Stoics:** **Cicero** *Fin.* 3.16 *fieri autem non posset ut appeterent aliquid* (sc. parvi), *nisi sensum haberent sui eoque se diligerent.* **Luc.** 20 *quid de tactu et eo quidem quem philosophi interiorem vocant aut doloris aut voluptatis, in quo Cyrenaici* (fr. IV A 209 Giannantoni) *solo putant veri esse iudicium, quia sentitur.* **Luc.** 76 *quid Cyrenaei* (fr. IV A 209 Giannantoni) *videntur, minime contempti philosophi, qui negant esse quicquam quod percipi possit extrinsecus, ea se sola percipere quae tactu intumo sentiant, ut dolorem ut voluptatem.* **Luc.** 142 *Cyrenaeorum* (fr. IV A 209 Giannantoni), *qui praeter peremotiones intumas nihil putant esse iudicii.* **Lucretius** *DRN* 4.433–439 (on the Epicureans) ... *tactus uterque. / tactus enim, tactus, pro divum numina sancta, / corporis est sensus, vel cum res externa sese / insinuat, vel cum laedit quae in corpore natast / aut iuvat egrediens genitalis per Veneris res, / aut ex offensu cum turbant corpore in ipso, / semina confundunt inter se concita sensum.* **Seneca** *Ep.* 121.5 *quaerebamus, an esset omnibus animalibus constitutionis suae sensus.* *Ep.* 121.11 *infans ... animal esse se sentit.* *Ep.* 121.12 *qualis ad nos ... animi nostri sensus, quamvis naturam eius ignoremus ac sedem, talis ad omnia animalia constitutionis suae sensus est. necesse enim est id sentient, per quod alia quoque sentiunt.* **Plutarch** *SR* 1038C ἡ γὰρ οἰκείωσις αἴσθησις ἔοικε τοῦ οἰκείου καὶ ἀντίληψις εἶναι. **Hierocles** *EL.Eth.* capitulatio 1a Bastianini–Long εἰ αἰσθάν[ε]ται τὸ ζῶον ἑαυτοῦ. *EL.Eth.* col. 1.37–39 Bastianini–Long οὐκ ἀγνοητέον [δ]τι | τὸ ζῷον εὐθὺς ἅμα [τῷ] γεν[έ]σθαι αἰσθάνεται [έ]αυ[τοῦ]. *EL.Eth.* col. 4.38–44 Bastianini–Long ἐπεὶ | τοῖ[νυν] γένος οὐδὲν] ἔτερ[όν] ἐστὶ τ[ὸ] ζῶον ἢ [τὸ] σύνθετον ἐκ σώμα[τος] καὶ ψυχῆς, ἄμφω δ' ἐστὶ θι[κ]τὰ καὶ πρόσβλητα καὶ τῇ [π]ροσ[ε]ρεί[σει] δὴ ὑπόπτωτα, ἔτ[ι] δὲ δι' ὅλων κέκραται, καὶ [θά]τερον μὲν ἐστὶν αὐτῶν δύναμι[ς] αἰσθητικῇ, τὸ δ' αὐτ[ὸ] | τοῦτο καὶ τρόπον, ὃν [ὕ]πεδεῖξ[αμεν], κινεῖται, δῆλον ὅτι δ[ι]ανεκῶς αἰσθάνο[ι]τ' ἂν τ[ὸ] ζῶον] ἑαυτοῦ. *EL.Eth.* col. 6.1–6 Bastianini–Long καθόλου

γὰρ ο[ὐ] σ[υν]υτ[ε]λε[ί]ται τῶν ἐκτός τινος [ἀντ]ίληψις δίχα τῆς ἐ[αυτῶν] αἰσθήσεως. μετὰ γὰρ τ[ῆς] τοῦ λευκοῦ φέρε εἰπεῖν | [αἰσθ]ήσεως καὶ ἑαυτῶν αἰσθανόμεθα λευκαίνοντων καὶ μετὰ | (τῆς) τοῦ γλυκέως γλυκαζομένων καὶ μετὰ τῆς τοῦ θερμοῦ | θερμαινόμενων ἀπὶ τῶν ἄλλων τἀνάλογον. **Ptolemy Iudic.** c. 12.1–2, p. 17.17–18.1 τὰ μὲν οὖν ἀπολελυμένα καὶ πρῶτα κριτήρια χωρὶς λόγου τινὸς αὐτόθεν ἐστὶ καταληπτικά καὶ μὴ δεόμενα κατὰ γε τὴν ἐνάργειαν αὐτὴν ἐτέρας ἀρχῆς· ἀντιλαμβάνεται γὰρ πρῶτον μὲν αὐτῶν καὶ τῶν ἰδίων κινήσεων κατὰ τὴν ἐντὸς συναίσθησιν· ἔπειτα ἤδη τῶν πρῶτων αἰσθητηρίων, καὶ τῶν ὅσα τῶν ἔξωθεν στερέμνια καὶ μετέχοντα τῶν εἰδῶν κτλ. **Galen PHP** 3.1.23–2532 ὁ Χρῦσιππος (*SVF* 2.886, verbatim) ... ὡδέ πως γράφει κατὰ λέξιν· 'κοινῇ δέ μοι δοκοῦσιν οἱ πολλοὶ φέρεσθαι ἐπὶ τοῦτο ὥσανεῖ συναισθανόμενοι περὶ τὸν θώρακα αὐτοῖς τῶν κατὰ τὴν διάνοιαν παθῶν γιγνομένων καὶ μάλιστα καθ' ὃν ἡ καρδία τέτακται τόπον, οἷον μάλιστα ἐπὶ τῶν λυπῶν καὶ τῶν φόβων καὶ ἐπὶ τῆς ὀργῆς καὶ μάλιστα τοῦ θυμοῦ· (ὥσανεῖ γὰρ) ἐκ τῆς καρδίας ἀναθυμιαζόμενον καὶ ὠθυμένον ἐκτός ἐπὶ τινα καὶ ἐμφυσῶντος τὸ πρόσωπον καὶ τὰς χεῖρας γίνεσθαι ἡμῖν ἐμφάσεις'. *Dig.Puls.* 8.792.16–793.11 K. ὅτι δ' οὐ προσίοντος, ἢ ἀπίοντος, ἢ θλίβοντος, ἢ ἀπτομένου, ἢ ἀπωθουμένου πρῶτην αἴσθησιν ἔχομεν, ἄνευ τῶν κατὰ τὸ ἡμέτερον σῶμα παθημάτων, οὐδ' αὐτὸ οἶομαι λαμβάνειν. ... (*SVF* 2.79) πρῶτα γὰρ ἐστὶν αἰσθητὰ ἐν τοῖς ἡμετέροις σώμασι τὰ παθήματα, δεύτερα δὲ τὰ τοῦτων ποιητικά, ἐκτὸς ὑποκείμενα. **Oenomaus of Gadara at Eus. PE** 6.7.10 ἀρὰ γέ τί ἐσμεν ἐγὼ τε καὶ σύ; φαίης ἄν· τοῦτο δὲ ὁπόθεν ἴσμεν; τῷ ποτ' ἄρα τοῦτο εἰδέναι ἐκρίναμεν; ἢ οὐκ ἄλλο ἱκανὸν οὕτως, ὥς ἡ συναίσθησις τε καὶ ἀντίληψις ἡμῶν αὐτῶν; **Diogenes Laertius V.P.** 7.85 καθά φησιν ὁ Χρῦσιππος (*SVF* 3.178) ἐν τῷ πρώτῳ Περὶ τελῶν, πρῶτον οἰκεῖον λέγων εἶναι παντὶ ζῷω τὴν αὐτοῦ σύστασιν καὶ τὴν ταύτης συνείδησιν [συναίσθησιν Dyroff, συντήρησιν Giusta fort. recte sec. Dorandi]. **Plotinus Enn.** 3.4.[15]4.9–10 (on the World Soul) τί οὖν; συναίσθησιν (sc. ἔχει), ὥσπερ ἡμεῖς τῶν ἐντὸς ἡμῶν; *Enn.* 4.4.[28]21–23 ἀλλὰ συναίσθησιν μὲν αὐτοῦ, ὥσπερ καὶ ἡμεῖς ἡμῶν συναισθανόμεθα, δοτέον, αἴσθησιν δὲ αἰεὶ ἐτέρου οὖσαν οὐ δοτέον; **Doxography A** at Stob. 2.7.3c, p. 47.12–20 ὑποτελὶς δ' ἐστὶ τὸ πρῶτον οἰκεῖον τοῦ ζῶου πάθος, ἀφ' οὗ κατήρξατο συναισθάνεσθαι τὸ ζῶον τῆς συστάσεως αὐτοῦ, οὕτω λογικὸν (ὄν) ἀλλ' ἄλογον, κατὰ τοὺς φυσικοὺς καὶ σπερματικοὺς λόγους, ὥσπερ τὸ θρεπτικὸν καὶ τὸ αἰσθητικόν, καὶ τῶν τοιούτων ἕκαστον ῥίζης τόπον ἐπέχει, οὐδὲ πω φυτοῦ· γενόμενον γὰρ τὸ ζῶον ὠκειώθη τινὶ πάντως εὐθὺς ἐξ ἀρχῆς, ὅπερ ἐστὶν ὑποτελὶς, κεῖται δ' ἐν τινι τῶν τριῶν· ἢ γὰρ ἐν ἡδονῇ [sc. according to Epicurus] ἢ ἐν ἀσχηλσίᾳ (according to the Megarians?) ἢ ἐν τοῖς πρῶτοις κατὰ φύσιν (sc. according to the Stoics).

§9 The followers of the ancients: Sextus Empiricus M. 10.259 (cf. Xenocrates F 43 Isnardi Parente²) καὶ τὰ στερεὰ σχήματα προεπινοεῖται τῶν σωμάτων, ἀσώματον ἔχοντα τὴν φύσιν κτλ. **Corpus Hermeticum** fr. 8.4 Nock–Festugière at Stob. *Ecl.* 1.4.8, p. 73.14–16 τρίτον δὲ ἐστὶν εἶδος ἀσώματων ὃ περὶ τὰ σώματα ἐστὶ συμβεβηκός, τόπος, χρόνος, κίνησις, σχῆμα, ἐπιφάνεια, μέγεθος, εἶδος.

§10 Leucippus Democritus Epicurus: Cicero Fin. 1.21 *quae sequitur sunt tota Democriti* (frs. 182, 470 Luria), *atomi, inane, imagines, quae εἰδῶλα nominant, quorum incursione non solum videamus, sed etiam cogitemus.* *ND* 1.108 *vos autem non modo oculis imagines sed etiam animis inculcatis.* **Lucretius**

DRN 4.752–756 nunc igitur docui quoniam me forte leonum / cernere per simulacra, oculos quaecumque lacessunt, / scire licet mentem simili ratione moveri / per simulacra leonum (et) cetera quae videt aequae / nec minus atque oculi, nisi quod mage tenuia cernit. **Clement of Alexandria** *Strom.* 5.13.87.3 Δημόκριτος (69A79 DK) ... τὰ γὰρ αὐτὰ πεποίηκεν εἰδῶλα τοῖς ἀνθρώποις προσπίπτοντα καὶ τοῖς ἀλόγοις ζῴοις ἀπὸ τῆς θείας οὐσίας.

§11 Anonymi: Diogenes Laertius *V.P.* 7.45 (*SVF* 2.53) τὴν δὲ φαντασίαν εἶναι τύπωσιν ἐν ψυχῇ, τοῦ ὀνόματος οἰκείως μετενηνεγμένου ἀπὸ τῶν τύπων τῶν ἐν τῷ κηρῷ ὑπὸ τοῦ δακτυλίου γινομένων.

§12 Stoics: Cicero *Luc.* 108 (*SVF* 2.73) *dicunt enim Stoici sensus ipsos ad sensus esse.* **Porphyry** *Περὶ τῶν τῆς ψυχῆς δυνάμεων* 253F Smith at Stob. *Ecl.* 1.49.25a, p. 349.23–27 τῶν ἀπὸ τῆς Στοᾶς (*SVF* 2.74) τὴν αἴσθησιν οὐκ ἐν τῇ φαντασίᾳ ἰστάντων μόνον, ἀλλὰ τὴν οὐσίαν ἀναρτῶντων ἀπὸ τῆς συγκαταθέσεως. αἰσθητική γὰρ φαντασία συγκατάθεσις ἐστὶν ἢ αἴσθησις τῆς συγκαταθέσεως καθ' ὁρμὴν οὔσης.

§13 Academics: Porphyry *Περὶ τῶν τῆς ψυχῆς δυνάμεων* 253F Smith at Stob. *Ecl.* 1.49.25a, pp. 349.28–350.7 κατὰ μέντοι τοὺς πρεσβυτέρους καὶ τοὺς ἀπὸ τῆς Ἀκαδημίας ἢ αἴσθησις ἐπὶ τῆς δι' αἰσθητηρίου φαντασίας ψιλὴ τίθεται καὶ διὰ τοῦτο οὐδὲ κατ' ἀρχὰς μέτοχος ἰδιώματος, ὅτι μὴδὲ συγκαταθέσεως μέτοχος. καὶ ἢ δὲ μετὰ συγκαταθέσεως συγκατακειμένη φαντασία δι' αἰσθητηρίου ἢ αἴσθησις, οὐ πάντως καὶ ἀρετῆς μέτοχος ἢ αἴσθησις ἔσται, εἰ μὴ συγκατάθεσις εἴη τῶν ἐφ' ἡμῖν.

Liber 4 Caput 9

P^B: ps.Plutarchus *Plac.* 899F; pp. 396^a1–397^a4 Diels—**P^G**: ps.Galenus *HPh* c. 90; p. 635.13–16 Diels—**P^Q**: Qustā ibn Lūqā pp. 196–199 Daiber
S: Stobaeus *Ecl.* 1.50.17–35, p. 475.1–477.17 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b30 Henry (titulus solus)

Titulus θ'. Εἰ ἀληθεῖς αἰ αἰσθήσεις καὶ φαντασίαι (P,S)

- §1 Πυθαγόρας Ἐμπεδοκλῆς Ξενοφάνης Παρμενίδης Ζήνων Μέλισσος Ἀναξαγόρας Δημόκριτος Μητροδωρος Πρωταγόρας Πλάτων ψευδεῖς εἶναι τὰς αἰσθήσεις. (S1)
- §2 οἱ ἀπὸ τῆς Ἀκαδημίας ὑγίεις μὲν, ὅτι δι' αὐτῶν οἴονται λαβεῖν ἀληθινὰς φαντασίας, οὐ μὴν ἀκριβεῖς. (S2) 5
- §3 Ἀριστοτέλης τὴν αἴσθησιν μὴ πλανᾶσθαι περὶ τὸ ἴδιον, περὶ δὲ τὸ συμβεβηκός. (S3)
- §4 οἱ Στωικοὶ τὰς μὲν αἰσθήσεις ἀληθεῖς, τῶν δὲ φαντασιῶν τὰς μὲν ἀληθεῖς τὰς δὲ ψευδεῖς. (P1,S4) 10
- §5 Ἐπίκουρος πᾶσαν αἴσθησιν καὶ πᾶσαν φαντασίαν ἀληθῆ, τῶν δὲ δοξῶν τὰς μὲν ἀληθεῖς τὰς δὲ ψευδεῖς. καὶ ἡ μὲν αἴσθησις μοναχῶς ψευδοποιεῖται τὰ κατὰ τὰ νοητά, ἡ δὲ φαντασία διχῶς· καὶ γὰρ αἰσθητῶν ἔστι φαντασία καὶ νοητῶν. (P2,S5)

§1 Pythagoras—; Empedocles—; Xenophanes 21A49 DK; Parmenides 28A49 DK; cf. Zeno 29A23 DK; cf. Melissus 30A14 DK; Anaxagoras 59A96 DK; Democritus fr. 54 Luria; Metrodorus 70A22 DK; Protagoras—; Plato—; §2 Academici—; §3 Aristoteles cf. *de An.* 2.6 418a11–12; §4 Stoici *SVF* 2.78; §5 Epicurus fr. 248 Usener qui secl. καὶ ἡ [...] νοητῶν quia 'pertinent ad Stoicos l.s. §4'

titulus Εἰ ... φαντασίαι **P^{BQ}**: Εἰ ἀληθῆς ἡ αἴσθησις καὶ ἡ φαντασία **P^G**: Περὶ αἰσθήσεως καὶ αἰσθητῶν (~ tit. c. 4.8) καὶ εἰ ἀληθεῖς αἰ αἰσθήσεις **S^{LPhot}** §§1–3 om. P §2 [5] οἴονται **S^L** Diels, cf. A 4.13.1: οἶον τε Usener Wachsmuth §4 [9] μὲν αἰσθήσεις **P^B**, inv. ord. **P^G** §5 [11–12] Ἐπικούρος ... ψευδεῖς **P^{BQS}**: om. **P^G** || [12–14] καὶ ... νοητῶν Epicuro abiud. et Stoicis attrib. Usener, ut implicate **P^G** omittendo Ἐπίκουρος ... ψευδεῖς: dub. Wachsmuth: non prob. ab Arnim || [12–13] ψευδοποιεῖται **P^{BQ}**: ψευδοποιεῖ τα **S^L** || [τὰ¹] secl. Diels prob. Mau Lachenaud || [13] κατὰ νοητά **P^{BQ}**: καὶ τὰ νοήματα **P^G**: κατανοητά **S^L**, corr. Meineke Wachsmuth || post διχῶς add. νοεῖται **S^L**: non hab. P: secl. vel om. edd. || αἰσθητῶν P: αἰσθητον **S^L**, corr. edd. || [14] νοητῶν P: νοητόν **S^L**, corr. edd.

- §6 Παρμενίδης Ἐμπεδοκλῆς Ἀναξαγόρας Δημόκριτος Ἐπίκουρος Ἡρα- 15
κλείδης παρὰ τὰς συμμετρίας τῶν πόρων τὰς κατὰ μέρος αἰσθήσεις
γίνεσθαι τοῦ οἰκείου, τῶν αἰσθητῶν ἐκάστου ἐκάστη ἐναρμόττοντος.
(P3,S6)
- §7 οἱ Περιπατητικοὶ παρὰ τὰς δυνάμεις τῶν αἰσθητηρίων. (S7)
- §8 οἱ μὲν ἄλλοι φύσει τὰ αἰσθητά, (S8) 20
- §9 Λεύκιππος δὲ Δημόκριτος Διογένης νόμῳ, τοῦτο δ' ἐστὶ δόξη καὶ πάθει
τοῖς ἡμετέροις· μηδὲν δ' εἶναι ἀληθές μηδὲ καταληπτὸν ἐκτὸς τῶν
πρώτων στοιχείων, ἀτόμων καὶ κενοῦ· ταῦτα γὰρ εἶναι μόνα φύσει, τὰ δ'
ἐκ τούτων, θέσει καὶ τάξει καὶ σχήματι διαφέροντα ἀλλήλων, συμβεβη-
κότα. (S9) 25
- §10 οἱ τὰ ἄτομα καὶ οἱ τὰ ὁμοιομερῆ καὶ οἱ τὰ ἀμερῆ καὶ τὰ ἐλάχιστα πάντ'
ἐν πᾶσι τὰ αἰσθητὰ ἀναμεμῖχθαι καὶ μηδὲν αὐτῶν εἰλικρινές ὑπάρχειν,
παρὰ δὲ τὰς ἐπικρατείας ὀνομάζεσθαι τοῖον ἢ τοῖον καὶ παρὰ τὴν
πολυαύγειαν. (S10)
- §11 Πυθαγόρας Πλάτων καθαρὸν ἕκαστον εἶναι τῶν αἰσθητῶν ἐξ ἐκάστου 30
στοιχείου προσερχόμενον. πρὸς μὲν οὖν τὴν ὄρασιν τὸ αἰθερώδες
πεφυκέναι, πρὸς δὲ τὴν ἀκοήν τὸ πνευματικόν, πρὸς δὲ τὴν ὄσφρησιν τὸ
πυρῶδες, πρὸς δὲ τὴν γεῦσιν τὸ ὑγρόν, πρὸς δὲ τὴν ἀφήν τὸ γεῶδες.
(S11)
- §12 Ἐπίκουρος τῶν αἰσθητῶν (τὰς) ἡδονὰς ἤδη καὶ τὰς λύπας. (S12) 35
- §13 οἱ Περιπατητικοὶ τῶν νοητῶν· οὐ γὰρ πᾶσι φαίνεται τὰ αὐτὰ ἡδέα τε
καὶ λυπηρὰ καθάπερ λευκά τε καὶ μέλανα. (S13)

§6 Parmenides 28A47 DK; Empedocles 31A90 DK; Anaxagoras—; Democritus fr. 437 Luria; Epicurus cf. *Ep.Hdt.* ap. D.L. 10.49; Heraclides Ponticus fr. 122a,b Wehrli, 63A,B Schütrumpf; §7 Peripatetici—; §8 anonymi—; §9 Leucippus 67A32 DK; Democritus frs. 95 et 243 Luria; Diogenes 64A23 DK, S3 Laks; §10 Atomistae—; Homoeomeristae—; Ameristae—; Elachistae—; §11 Pythagoras—; Plato cf. *Tim.* 45b–c, 65c–d, 66d, 67b; §12 Epicurus fr. 261 Usener; §13 Peripatetici—

§6 [15] Παρμενίδης ... Ἐπίκουρος S : Παρμενίδης et Ἀναξαγόρας ... Ἐπίκουρος om. P^B || [16] παρὰ P^B : περι S^L || [17] ἐκάστη P^{B(11)} : ἐκάστης P^{B(1,11)}, ἐκάστην S^L || ἐναρμόττοντος corr. Diels ex 1.15.3 et Thphr. *Sens.* 9 prob. Laks–Most : ἀναρμόττοντος S^L : ἀρμόζοντος P^B, infolge der Einpassung Q §§7–20 om. P §7 [19] παρὰ corr. Meineke : περι S^L §9 [21] post Δημόκριτος hab. S^L καὶ, quod deleuimus || [23] φύσει corr. Meineke : φύσει S^L §10 [26] ‘post ἐλάχιστα audiendum λέγοντες, sed non addendum’ cf. Diels ad *DG* 315a1, Wachsmuth §11 [30] (πυθαγόρας πλάτων marg. S^F : Πυθαγόρου καὶ Πλάτωνος lemma add. S^F : καὶ om. etiam S^L Diels, ret. Wachsmuth || καθαρὸν S^F : καθόλου coni. Roethke || [31] προσερχόμενον S : προσερχόμενον Diels Wachsmuth §12 [35] (τὰς¹) : add. Wachsmuth

- §14 Χρύσιππος τὸ μὲν γενικὸν ἢ δὲ νοητὸν, τὸ δὲ εἰδικὸν καὶ προσπίπτον
ἤδη αἰσθητὸν. (S14)
- §15 Ἐμπεδοκλῆς τὰς ἡδονὰς γίνεσθαι τοῖς μὲν ὁμοίοις (ἐκ) τῶν ὁμοίων 40
κατὰ δὲ τὸ ἐλλείπον πρὸς τὴν ἀναπλήρωσιν, ὥστε τῷ ἐλλείποντι ἢ
ὄρεξις τοῦ ὁμοίου· τὰς δ' ἀληθῶνας τοῖς ἐναντίοις, ἡλλοτριῶσθαι γὰρ
πρὸς ἄλληλα ὅσα διαφέρει κατὰ τε τὴν σύγκρισιν καὶ τὴν τῶν
στοιχείων κρᾶσιν. (S15)
- §16 Ἀναξαγόρας πᾶσαν αἴσθησιν μετὰ πόνου. (S16) 45
- §17 (οἱ) ἄλλοι ἐπιγίγνεσθαι ἤτοι ἡδονὴν ἢ πόνον οὐδὲ συμπεφυκέναι. (S17)
- §18 οἱ Στωικοὶ τὸν σοφὸν αἰσθήσει καταληπτὸν ἀπὸ τοῦ εἵδους τεκμηρι-
ωδῶς· (S18)
- §19 οἱ Ἀκαδημαικοὶ λόγῳ γνῶριμον· (S19)
- §20 Ἐπίκουρος σοφῷ μόνῳ τὸν σοφόν. (S20) 50

§14 Chrysippus SVF 2.81; §15 Empedocles 31A95 DK; §16 Anaxagoras 59A94 DK; §17
anonymi—; §18 Stoici SVF 1.204, 3.568; §19 Academici—; §20 Epicurus—

§14 [38–39] post αἰσθητὸν hab. lemma Παρμενίδης Ἐμπεδοκλῆς ἐλλείψει τροφῆς τὴν ὄρεξιν
S (= A 4.9.14 Diels, 28A50 DK), quod cap. 5.28 attribuendum §15 [40] (ἐκ) τῶν ὁμοίων
Meineke prob. Diels : τῶν ὁμοίων S : secl. Karsten prob. Wachsmuth Laks–Most || [41] πρὸς
S, prob. Wachsmuth : παρὰ Usener || [42] ἡλλοτριῶσθαι corr. Meineke : ἢ ἀλλοτριῶσθαι S^L (ἢ
secl. Karsten) || [43] ἄλληλα corr. Karsten prob. Diels Wachsmuth Laks–Most : ἄλλα S^L §17
[46] (οἱ) add. Wachsmuth : om. vulg. || πόνον(ν οὐδὲ) conl. Wachsmuth : πόνους S^L : lac. post
πόνους ind. et (οὐ μέντοι) add. Meineke §18 [47] καταληπτὸν S^L Wachsmuth : καταληπτί-
κον Diels §19 [49] λόγῳ corr. Diels : λόγων S^L §20 [50] post σοφόν lac. ind. Diels, γνῶριμον
audiendum maluit Wachsmuth

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 91 (~ tit.) Εἰ ἀληθὴς ἡ αἴσθησις καὶ ἡ φαντασία (text Diels)

91.1 (~ P1) οἱ Στωικοὶ τὰς αἰσθήσεις μὲν ἀληθεῖς, τῶν δὲ φαντασιῶν τὰς μὲν ἀληθεῖς,
τὰς δὲ ψευδεῖς.

91.2 (~ P2) καὶ αἱ μὲν αἰσθήσεις μοναχῶς ψευδοποιοῦνται καὶ τὰ νοήματα διττῶς.
καὶ γὰρ αἰσθητῶν ἐστὶ φαντασία καὶ νοητῶν.

Loci Aetiani:

§2 A 4.8.13 οἱ Ἀκαδημαικοὶ μὴ εἶναι τὰς αἰσθήσεις μήτε καταλήψεις μήτε συγκατα-
θέσεις.

§4 A 4.15.1 Σφαῖρος ὁ Στωικὸς ὁρατὸν εἶναι τὸ σκότος ... καὶ οὐ ψεύδεται ἢ ὄρασις,
βλέπεται γὰρ ταῖς ἀληθείαις, ὅτι ἔστι σκότος.

§6 A 1.15.3 Ἐμπεδοκλῆς τὸ τοῖς πόροις τῆς ὄψεως ἐναρμόττον. A 4.13.1 Λεύκιππος
Δημόκριτος Ἐπίκουρος κατὰ εἰδώλων εἴσκρισιν οἴονται τὸ ὁρατικὸν συμβαίνειν
πάθος.

§7 A 1.11.8 οἱ Περιπατητικοὶ τῶν αἰτίων εἶναι τὰ μὲν αἰσθητὰ, τὰ δὲ νοητὰ. A 4.14.2
Λεύκιππος Δημόκριτος Ἐπίκουρος τὰς κατοπτρικὰς ἐμφάσεις γίνεσθαι κατ’

εἰδῶλων παραστάσεις, ἅτινα φέρεσθαι μὲν ἀφ' ἡμῶν συνίστασθαι δὲ ἐπὶ τοῦ κατόπτρου κατ' ἀντιπεριστροφὴν.

§9 A 1.15.8 Δημόκριτος φύσει μὲν μηδὲν εἶναι χρῶμα, τὰ μὲν γὰρ στοιχεῖα ἅποια, τὰ τε ναστά καὶ τὸ κενόν· τὰ δὲ ἐξ αὐτῶν συγκρίματα κεχρῶσθαι διαταγὴ τε καὶ ῥυθμῷ καὶ προτροπῇ, ὧν ἡ μὲν ἐστὶ τάξις, ὃ δὲ σχῆμα, ἡ δὲ θέσις· παρὰ ταῦτα γὰρ αἱ φαντασίαι. τούτων δὲ τῶν πρὸς τὴν φαντασίαν χρωμάτων τέτταρες αἱ διαφοραί, λευκοῦ, μέλανος, ἐρυθροῦ, ὠχροῦ.

§10 A 1.3.28 Διόδωρος ἐπὶ κλην Κρόνος τὰ ἀμερῇ σώματα ἅπειρα, τὰ δ' αὐτὰ λεγόμενα καὶ ἐλάχιστα. A 1.9.7 οἱ δὲ τὰ ἀμερῇ καὶ τὰς ἀτόμους ἄμορφον. A 1.13.3 Ξενοκράτης καὶ Διόδωρος ἀμερῇ τὰ ἐλάχιστα ὠρίζοντο. A 1.15.11 οἱ δὲ τὰ ὁμοιομερῇ ποιότητος μετέχουν τὰ πρῶτα, οἱ δὲ τὰ ἄτομα πάντα συλλήβδην ἄχροα, ἐξ ἀποίων δὲ τῶν λόγῳ θεωρητῶν τὰς αἰσθητὰς ὑποφαίνουσι γίνεσθαι ποιότητος. A 1.16.2 οἱ τὰς ἀτόμους (εἰσάγοντες) περὶ τὰ ἀμερῇ ἵστασθαι καὶ μὴ εἰς ἅπειρον εἶναι τὴν τομὴν.

§11 A 4.4.6 οἱ δὲ γε Πυθαγόρου διάδοχοι ἐκ πέντε στοιχείων τὸ σῶμα κραθῆναι φάντες—τοῖς γὰρ τέτταρσι ξυνέταξαν τὸ αἰθέριον—ἰσαριθμούς εἶναι ἔφασαν ταύτῃ καὶ τῆς ψυχῆς τὰς δυνάμεις. A 4.6.11 Πυθαγόρας Πλάτων καθαρὸν ἕκαστον εἶναι τῶν αἰσθητῶν ἐξ ἐκάστου στοιχείου προσερχόμενον. A 4.10.5 Δημόκριτος πλείους μὲν εἶναι τὰς αἰσθήσεις τῶν αἰσθητῶν, τῷ δὲ μὴ ἀναλογίζειν τὰ αἰσθητὰ τῷ πλήθει λανθάνειν.

§14 A 4.9.7 <οἱ> Στωικοὶ τήνδε τὴν κοινὴν αἴσθησιν ἐντὸς ἀφῆν προσαγορεύουσι, καθ' ἣν καὶ ἡμῶν αὐτῶν ἀντιλαμβάνόμεθα. A 4.10.1 οἱ Στωικοὶ πέντε τὰς εἰδικὰς αἰσθήσεις.

§15 A 5.28.1 Ἐμπεδοκλῆς τὰς μὲν ὁρέξεις γίνεσθαι τοῖς ζώοις κατὰ τὰς ἐλλείψεις τῶν ἀποτελούντων ἕκαστα στοιχείων, τὰς δ' ἡδονὰς ἐξ ἡ ὑγροῦ καὶ τὰς τῶν κινδύνων καὶ ὁμοίων κινήσεις † (*infolge der in der Art sich gleichenden Wachstumsbewegungen* PQ), τὰς δ' ὀχλήσεις καὶ τὰς ... *entsteht infolge der im Berühren und Zusammentreffen im Widerspruch stehenden Dinge* PQ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The witnesses are P as represented by P^B, P^G, and P^Q, as well as S. P^{BQ} have a mere three lemmata, two of which are more or less paralleled in P^G. S on the other hand has no less than twenty lemmata, all of which except §3 (Aristotle) and §11 (Pythagoras Plato) are extant only in S^L, the Florentine florilegium, cf. ch. 4.8 above at Commentary A(1). T as we have seen stopped excerpting A after ch. 4.7a, the last chapter to be paralleled in the CAG.

(2) It should be noted that S in *Ecl.* 1.50 has combined blocks of lemmata from at least three chapters, viz. 4.8, 4.9, and 4.10, see ch. 4.8 at Commentary

A (2), and below, ch. 4.10 at Commentary A(3). The lemma on desire and food at *Ecl.* 1.50.25 p. 476.8–10 Wachsmuth, namely ‘Parmenides and Empedocles declare that desire arises from a deficiency of food’ (Παρμενίδης Ἐμπεδοκλῆς ἐλλείπει τροφῆς τὴν ὀρεξιν), which Diels incorporated in his ch. 4.9.14 because it occurs in the midst of lemmata belonging with ch. 4.9, in fact belongs in ch. 5.28 Πόθεν αἱ ὀρέξεις γίνονται τοῖς ζώοις καὶ αἱ ἡδοναί (‘From where do desires arise in living beings and also pleasures’), see ch. 5.28.2 (and ch. 5.28 Commentary A and D(c)), while the Democritus lemma at *Ecl.* 1.50.35, p. 477.18–19 Wachsmuth ‘Democritus (says) that dead bodies have sensation’ (Δημόκριτος τὰ νεκρὰ τῶν σωμάτων αἰσθάνεσθαι), which became ch. 4.9.20 Diels, is an abstract from ch. 4.8, so has been cited by us at the above location.

B Proximate Tradition and Sources

(1) *Proximate tradition.* Parallel doxographical evidence is found in the other ps.Plutarch, *Stromateis* ch. 4, who however has only excerpted material dealing with Xenophanes, Parmenides, and Zeno. For the proximate tradition we have also adduced several fragments of Aristocles, which are rather similar to what is in Cicero. For Cicero cf. below, section D(e).

(2) *Sources.* Diels *DG* 222, in his too optimistic presentation of the (in our view meagre) evidence for the descent of sections and lemmata of the *Placita* from Theophrastus’ *De sensibus*, cites §15 Empedocles and *Sens.* 16 as ‘similia’, adding that the words κατὰ δὲ τὸ ἐλλείπον πρὸς τὴν ἀναπλήρωσιν ‘certa a Theophrasto tacta non sunt. sed optima est memoria et cum Empedoclea doctrina egregie consentiens’, just as is the case in chs. 4.14.1 and 4.17.2. ‘Ergo nisi alibi Theophrastus illa repetierat, ipsius philosophi verba nescio quo pacto innotuisse videntur.’ Several lemmata of the present chapter are related to what is found in Theophrastus’ treatise, e.g. the pithy §16 Anaxagoras is remarkably close to the first clause at *Sens.* 29. The information about Presocratic philosophers is also in a more general way indebted to Aristotle. About the sources for the Hellenistic theories nothing much can be said, though such parallels as are available inspire some confidence.

C Chapter Heading

A very precise heading, and one of the eleven headings beginning with εἰ; for the other ten see chs. 1.5, 2.3, 2.4, 4.3, 4.9, 4.15, 4.20, 5.4, 5.5, and 5.15. S in the heading of *Ecl.* 1.50 (a combination of the headings of A 4.8 and 4.9) omits καὶ φαντασίαι. The wording of the full heading is to some extent paralleled in an introductory formula at Diogenes Laertius *VP.* 7.49 (*SVF* 2.52) ‘the Stoics are wont to start with the account of impression and sensation’ (ἀρέσκει τοῖς Στωικοῖς τὸν περὶ φαντασίας καὶ αἰσθήσεως προτάττειν λόγον), though the terms are

listed the other way round. Aristotle in the *De anima* announced his treatment of *phantasia* at 3.3 427b29, ‘determining the nature of impression/imagination’ (περὶ φαντασίας διορίσαντας), and at the end of what has become a chapter in our modern editions neatly concluded it with 429a8–9 ‘let this suffice as to the nature and cause of impression/imagination’; he refers to this section at *Mem.* 1 449b30–31. This type of embedded formula is the predecessor of the heading, or title, see M–R 2.1.48, 159–161, 162–163, 170, 202–204. Epicurus wrote a book entitled *On impression*. For these texts see below, section E(b) Chapter heading. The title of S *Ecl.* 1.58 (alternative to that of P 4.12) is Περὶ φαντασίας καὶ κριτηρίου, the second ingredient of which is remarkably enough not paralleled in A.

D Analysis

a Context

Chapter 4.9 is the second of a series of five substantial chapters concerned with cognitive issues in a more general way. It deals with the reliability of sensations and impressions (truth or falsity: category/question-type of quality), and follows upon the chapter dealing with the nature of sensation(s) and sense objects in general (category/question-type of substance), and with where (category of place) and how (question-type of cause) they occur or are found. It is itself then followed by a chapter concerned with the number of the senses (category of quantity). We note again the importance of treatment according to categories and question-types.

In Aristotle (as in A) the account of the senses’ reliability is also found before that of the individual senses (*de An.* 2.6). In Lucretius (*DRN* 4.478–521) it has been wedged in between the treatment of vision and that of hearing etc.

b Number–Order of Lemmata

As noted T has not excerpted the chapter. The relative order of P^{BQ}’s three lemmata is exactly the same as that of the three lemmata in S^L that as to contents are parallel to those in P^{BQ}, so we may assume that it is correct to follow the order of S^L, as we have done. The large amount of material in S suggests that he excerpted A’s complete chapter. Our order of lemmata is the same as Diels’ in the *DG*, though we have omitted ch. 4.9.14 and 4.9.20 Diels (see at section A above), and split up 4.9.8 and 4.9.16 Diels into two lemmata each.

c Rationale–Structure of Chapter

The structure of this rich chapter is comparable to that of ch. 4.8, for here, too, a variety of interrelated themes are included. Six blocks of lemmata consisting of related tenets in more or less diaphonic opposition may be dis-

tinguished. As a matter of fact the contents of ch. 4.9 could have been distributed over several separate chapters. There are a quite unusual number of name-labels occurring more than once, namely Pythagoras (twice), Parmenides (twice), Anaxagoras (three times), Empedocles (three times), Democritus (three times), Plato (twice), Academics (twice), Stoics (twice), and Epicurus (four times). This may suggest that S, our only source for §§1–3 and the long series of §§7–20, coalesced several chapters. Because it is not clear where the caesurae would have to be (there are several options), we have not ventured to interfere with the single chapter.

The first block, §§1–5, comprises variously opposed views concerned with the truth-value of sensation(s), from the thesis of Pythagoras & *alii* in §1 that the sensations are false (the impressions are not mentioned), to the diaphonically opposed and famous thesis of Epicurus in §5 that every sensation and every impression is true, and that falsity is a matter of the opinion. In between we have three tenets that gradually grow more distant from the negative view of Pythagoras & *alii* and closer to the positive view of Epicurus. This gliding scale is systematic rather than chronological: the Academics of §2 are not Plato's immediate pupils but representatives of the Sceptical Academy, just as those mentioned at chs. 4.8.13 above and 4.9.19 below.

The second block, §§6–7, opposes those who argue that each sense organ perceives its proper object in a mechanical way because of the matching sizes of the pores, to those who hold that the proper sense objects are perceived depending on the (actual) capacities of the sense organs.

The third block, §§8–9, opposes the majority who hold that sense objects are natural, i.e. exist in reality, to (a simplified version of the views of) Leucippus, Democritus and Diogenes, who argue that they are a matter of convention, or habit, and that only the atoms and space are natural, i.e. real, and true.

The fourth block, §§10–11, opposes the Atomists and those representing similar theories, who defend the sophisticated view that all sense objects are blended and none exist in a pure state, so that things get their name from the dominating ingredient, to Pythagoras and Plato who, on the contrary, are said to argue that sense objects do exist in a pure state, and that each of the five elemental substances is adapted to a specific sense organ, or conversely.

The first four blocks together deal with perception of sense data by the sense organs.

The fifth block, §§12–17, deals with a different kind of sense objects, namely the pleasant and the painful. Thus awareness of internal sense data appears to be included (cf. above ch. 4.8, Commentary D(d)§7, and below, ch. 4.11, Commentary D(d)3).

The block begins with a group of three doxai, §§12–14, comprising two diaphonically opposed tenets and one compromise view. Epicurus (§12) holds that pleasures and pains belong with the sense objects, but the Peripatetics (§13) are made to disagree: visual objects like black and white appear the same to everyone, but pleasant and painful things do not, so they must be counted among the objects of thought. The reasonable compromise tenet (§14) is adorned with the name-label Chrysippus: the pleasant in general is an object of thought, but the individual pleasant thing one encounters is a sense object. From these factual statements we then switch to a tenet concerned with a materialist and mechanical explanation of the origin of pleasant or painful sensations (the question-type of cause): Empedocles (§15) argues that pleasures come about when what is lacking is compensated for by something similar, and pains when something dissimilar intrudes. The block ends with two opposed views (§§16–17): according to Anaxagoras every sensation is painful, but according to the others pleasure or pain do not inhere to the sense objects, but are supervenient upon them. We should make a distinction between perceptions of pleasure and pain per se on the one hand (§§12–14), and of pleasure or pain (§15), or pain (stress) alone (§16), as unavoidable ingredients of perception, or as after-effects (§17), on the other.

The sixth and final block, §§18–20, returns to the issue of the contrast between sensation and thought of §§12–14, but in a particular way, viz. by dealing with the question, all-important in Hellenistic philosophy, of how you are supposed to know that someone is a Wise Man. The Stoics hold that the Wise Man can be grasped by sensation if one uses his individual appearance as a sign (which is the beginning of an argument). The Academics, on the other hand, hold that he becomes known by reason (or argument). The view attributed to Epicurus does not fit either one of the horns of this diaphonia, for he idiosyncratically applies the doctrine of like knows like, and posits that the Wise Man can only be identified by another Wise Man—thus dodging the epistemological issue.

d Further Comments

Individual Points

§1 The name-labels constitute a checklist of predecessors claimed by Pyrrhonists and Academics alike. See below, section E(a) & (b), both times at §1.

Note that Sextus too argues that Parmenides rejects sense perception (after citing 28B7.3–5 DK immediately following on after 28B1), although the ‘tongue’ in these lines is not the organ of taste but the instrument of speech, see Barnes (1979) 296–297, Coxon (1986) 182, and Mansfeld (2018b). This quotation and interpretation are also found in D.L. 9.22, see Rocca-Serra (1987) 261–264, who

proves that they go back to a shared source (or tradition). See now Mansfeld (2018c). Pythagoras may have been included as the predecessor of Plato, i.e. is the Platonizing Pythagoras usually encountered in the *Placita*.

§2 For a possible connection between the contents of this lemma and the anonymous Commentary on Plato's *Theaetetus* and Potamo's epistemology as described by Diogenes Laertius (cited at section E(b)§2) see Hatzimichali (2011) 88–89.

§3 The account of Aristotle's evaluation of sensation is far from complete, but not false. The phrase Ἀριστοτέλης τὴν αἴσθησιν μὴ πλανᾶσθαι περὶ τὸ ἴδιον, περὶ δὲ τὸ συμβεβηκός has been abstracted from *de An.* 2.6 418a11–12 λέγω δ' ἴδιον μὲν ὁ μὴ ἐνδέχεται ἐτέρῳ αἰσθῆσαι αἰσθάνεσθαι, καὶ περὶ ὁ μὴ ἐνδέχεται ἀπατηθῆναι. His concept of *phantasia* is wider than 'impression', for it also includes imagination; but in the present chapter this does not matter.

§§4–5 Usener reallocated §5 καὶ ἡ ... νοητῶν from the Epicurus lemma to the Stoics lemma, §4. But perhaps the phrase ψευδοποιεῖται τὰ κατὰ νοητά pertains to the Epicurean idea of the connection of thoughts with sensations as a possible source of error. Yet one understands Usener's problem, for the second sentence of the lemma remains difficult to explain.

§6 Parmenides, Empedocles, Anaxagoras and Democritus are discussed in Theophrastus *De sensibus*, who credits Empedocles, Anaxagoras and Democritus with (matching) pores and perceptibles, and this doctrine is now also attributed retroactively to Parmenides, who according to *Sens.* 1 shares the 'by likeness doctrine' of sense perception with Empedocles. Laks (1990) 16 argues that the phrase ἀλλὰ καὶ ταύτην δεῖσθαι τινος συμμετρίας at *Sens.* 3 means that the hot element according to Theophrastus has to match what it perceives. It is certainly plausible that the phrase was interpreted in this way and so helps to understand our lemma, but far from certain that it is correct. We believe that Theophrastus means that the mixture should not become too hot, cf. on Democritus on the mind that becomes unhinged at *Sens.* 58. One cannot, at any rate, introduce pores at *Sens.* 3.

§9 The Diogenes coupled with Leucippus and Democritus can hardly be anyone else than Diogenes of Smyrna (or Cyrene), a pupil of Metrodorus of Chius. Diels *DG* 676, referring to the present lemma, says 'Placitorum fortasse hoc [sc. §9] ad eum referendum'. See Laks (2008) 239–240, who points out that there are other name-labels too that occur in the *Placita* only once. Whether or not the doxographer believed that the Smyrnaean is the same person as the Apollonian or did not care, is another matter. The ethnonym Ἀπολλωνιάτης of ch. 1.3.10 is also found at ch. 4.3.8. Repetition elsewhere of the ethnonym or affiliation after the first introduction is rare, and suggests that in such cases the doxographer wanted to preclude confusion. But the name-

label Diogenes occurs several times without *ethnicon*, and it is (for us) sometimes difficult to know who is meant. At 1.7.7, Διογένης καὶ Κλεάνθης καὶ Οἰνοπίδης τὴν τοῦ κόσμου ψυχὴν, sc. τὸν θεόν, one should probably think of Diogenes the Stoic. But Diogenes of Apollonia cannot be excluded, see Aristotle's view of him at *de An.* 1.2 405a21–24 in context, and Theophrastus' at *Sens.* 42: ὁ ἐντὸς ἀὴρ αἰσθάνεται μικρὸν ὢν μόνιον τοῦ θεοῦ. Also cf. Commentary D(d) at ch. 4.3.2.

For the *doxa* cf. above, ch. 1.15.8 'Democritus (says that) no colour exists by nature, for the elements are without quality, being the solids (i.e. atoms) and the void. But the compounds formed from these are coloured by 'turning', by 'rhythm' and by 'inter-contact', of which the first means order, the next shape and the last position. For it is on the basis of these that the impressions (on the senses arise)'. See further above, ch. 1.15 Commentary B, sources. The present paragraph gives us a more Skeptical Democritus.

§11 The first application in the present chapter of the well-known maxim 'like to like' or 'like knows like'. Aristotle first interprets and quotes Empedocles ('by earth we see earth' etc., see below, §15), and then refers to Plato's construction 'of the soul out of the elements in the *Timaeus*', explaining that according to Plato 'like can only be known by like' and 'things are derived from the principles' (*de An.* 1.2 404b11–18). Aristotle does not tell us that the elements out of which Plato constructs the soul at *Tim.* 35a are derived from the Forms of the Same, the Different, and Being. A reader coming upon this passage in the *De anima* immediately after the quotation of Empedocles could perhaps believe that Plato's soul is constructed out of earth etc. For the relation between the senses and the four elements fire, air, water, and earth later interpreters were in a position to refer to *Tim.* 45b–c (fire: sight—where note 45c4 ὁμοιον πρὸς ὁμοιον), 67b (hearing: air), 65c–d (taste: water and earth), and 66d (smell: a *Zwischenelement*, viz., the intermediate between water and air). See Baltes (1999) 40–42, who *ibid.* 35–36 lists thirteen passages where the senses are related to the elements. As a fourteenth we must add ch. 4.4.6. Baltes convincingly argues, *ibid.* 42–46, that the minority view according to which the five senses are connected with five elements, i.e., the standard four plus the aether, goes back to the Early Academy. Ps.Plato *Epinomis* 981b–c mentions five elements, with aether as fifth; the five regular bodies of *Tim.* 53c–56b were interpreted as representing elements; and Speusippus in Athenaeus *Deipn.* 2 61c (fr. 5 Lang, F 123 Isnardi Parente, 6 Tarán) speaks of what he calls a Pythagorean theory, according to which there are five elements corresponding to the five regular bodies. Only Plutarch *De E* 390B and A 4.9.11 (= 4.9.10 Diels) mention the aether when speaking of a correspondence between sight and one of the elements, see Baltes *ibid.* 35, 37 (but A 4.4.6 should be included as well, where

a Pythagorean doctrine is cited with aether as one of five elements). See also Dörrie-Baltes (1998) 190, 192–193, with commentary 564, 567–570, where it is concluded that the five-elements-doctrine is a ‘Randerscheinung’ in ancient Platonism.

A related issue occurs in long-distance diaphonic opposition at A 4.9.5, name-label Democritus: there are more senses than kinds of sense-objects.

At A 2.7.4 four or rather five elements are attributed to Plato: Πλάτων πῦρ πρῶτον εἶτ’ αἰθέρα μεθ’ ὃν ἄερα ἐφ’ ᾧ ὕδωρ, τελευταίαν δὲ γῆν· ἐνίοτε δὲ τὸν αἰθέρα τῷ πυρὶ συνάπτει, ‘sometimes he links up aether with fire’. See Dörrie-Baltes (1998) 190 with commentary 564; *ibid.* 190–194 with commentary 558–570, parallel passages.

§13 This is second application of the maxim ‘like to like’ (we note the presence of the word ὁμοίου).

§15 Diels *DG* 222 argues in favour of a clear link with *Sens.* 18, rightly endorsed by Baltussen (1993) 215.

§16 Not mentioned by Diels or Baltussen, but the *placitum* is clearly dependent on a phrase in *Sens.* 16. According to this information Anaxagoras made no distinction between outer and inner sensation.

§18 For the argument from signs see Chrysippus’ *ipsissima verba* at Galen *PHP* 2.7.6 (~ *SVF* 2.887) οὕτω φαίνεται διαφεύγειν ὁ τόπος ἡμᾶς οὔτε αἰσθήσεως ἐκφανοῦς γιγνομένης, ὅπερ ἐπὶ τῶν λοιπῶν συντέτευχεν, οὔτε τῶν τεκμηρίων δι’ ὧν ἄν τις συλλογίσαιτο τοῦτο.

§20 This view is also attributed to Xenophanes in an anecdote which has him chatting with Empedocles, see below, section E(b)§20.

e Other Evidence

Of particular importance is the agreement on a large scale between our present chapter and Cicero’s critical reportage of earlier views on sensation in the *Lucullus*, for which see at section E(a) General texts. This connection does not appear to have been noticed before. We have already observed a similar relationship between the chapters on the soul’s substance, regent part, and indestructibility (A 4.2–3 and 4.7) and Cicero’s treatment of these matters in the *Tusculanae disputationes*. See also below, Introduction to Book 5, section 5, on Ciceronian parallels for chs. 5.1–2 and 5.24–25. The relationship again proves dependence on a shared anterior tradition. Cicero’s stance in the *Lucullus* is that of an Academic. This lends some support to the suggestion of Mansfeld (1990a) 3063–3064, who argues for Academic influence on the *Placita*.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *Luc.* 19 *ordiamur igitur a sensibus. quorum ita clara iudicia et certa sunt, ut, si optio naturae nostrae detur et ab ea deus aliqui requirat contentane sit suis integris incorruptisque sensibus an postulet melius aliquid, non videam quid quaerat amplius. nec vero hoc loco expectandum est dum de remo inflexo aut de collo columbae respondeam; non enim is sum qui quidquid videtur tale dicam esse quale videatur; Epicurus (fr. 252 Usener) hoc viderit et alia multa. meo autem iudicio ita est maxima in sensibus veritas, si et sani sunt ac valentes et omnia removentur quae obstant et impediunt. Luc. 142–143 venio enim iam ad tertiam partem philosophiae. aliud iudicium Protagorae (—) est qui putet id cuique verum esse quod cuique videatur, aliud Cyrenaicorum (fr. IV A 209 Giannantoni), qui praeter permotiones intumas nihil putant esse iudicii, aliud Epicuri (fr. 245 Usener), qui omne iudicium in sensibus et in rerum notitiis et in voluptate constituit; Plato autem omne iudicium veritatis veritatemque ipsam abductam ab opinionibus et a sensibus cogitationis ipsius et mentis esse voluit. (143) num quid horum probat noster Antiochus (fr. 5 Luck)? Ac.Po. 44 (Arcesilaus F 9 Mette) earum rerum obscuritate, quae ad confessionem ignorantiae adduxerant Socratem et {vel ut} iam ante Socratem Democritum (frs. ii, 58 Luria) Anaxagoram (59A95 DK) Empedoclem (—) omnes paene veteres, qui nihil cognosci, nihil percipi, nihil sciri posse dixerunt, angustos sensus imbecillos animos brevia curricula vitae, et, ut Democritus, in profundo veritatem (cf. 68B117 DK) esse demersam, opinionibus et institutis omnia teneri, nihil veritati relinqui, deinceps omnia tenebris circumfusa esse dixerunt. **Sextus Empiricus** *M.* 7.89 πρώτοι δ' ἔδοξαν οἱ ἀπὸ Θάλεω (fr. 142 Wöhrle) φυσικοὶ τὴν περὶ κριτηρίου σκέψιν εἰσηγήσασθαι. καταγνόντες γάρ τῆς αἰσθήσεως ἐν πολλοῖς ὡς ἀπίστου. *M.* 7.369 πῶς δὲ οὐχὶ καὶ ἡ περὶ τῶν ἀνωτάτω πραγμάτων διάστασις παρὰ τοῖς φιλοσόφοις ἀφαιρεῖται τὴν τῆς ἀληθείας γνῶσιν; εἰ γὰρ τῶν φυσικῶν οἱ μὲν πάντα ἀνερῆκασιν τὰ φαινόμενα, ὡς οἱ περὶ Δημόκριτον (68A110 DK), οἱ δὲ πάντα ἔθεσαν, ὡς οἱ περὶ τὸν Ἐπίκουρον (fr. 247 Usener) καὶ Πρωταγόραν (—), οἱ δὲ τινὰ μὲν ἀνείλον τινὰ δὲ ἔθεσαν, ὡς οἱ ἀπὸ τῆς Στοᾶς (—) καὶ τοῦ Περιπάτου; *M.* 7.388 εἰ γὰρ κριτήριον ἀπολειπτέον τὴν φαντασίαν, ἥτοι πᾶσαν ἀληθῆ φαντασίαν λεκτέον εἶναι, καθὼς ἔλεγεν ὁ Πρωταγόρας (—), ἢ πᾶσαν ψευδῆ, ὡς ἔφασκε Ξενιάδης ὁ Κορίνθιος (81 DK, cf. *M.* 7.53), ἢ τινὰ μὲν ἀληθῆ τινὰ δὲ ψευδῆ, ὡς οἱ ἀπὸ τῆς Στοᾶς (—) καὶ τῆς Ἀκαδημίας, ἔτι δὲ τοῦ Περιπάτου. *M.* 8.184–186 οὐποτε πεπαύσσονται περὶ αὐτῆς οἱ φυσικοὶ πρὸς ἀλλήλους πολεμοῦντες, ἐπεὶ περὶ ὁ μὲν Δημόκριτος (—) μηδὲν ὑποκείσθαι φησι τῶν αἰσθητῶν, ἀλλὰ κενοπαθείας τινὰς αἰσθήσεων εἶναι τὰς ἀντιλήψεις αὐτῶν, καὶ οὔτε γλυκύ τι περὶ τοῖς ἐκτὸς ὑπάρχειν, οὐ πικρὸν ἢ θερμὸν ἢ ψυχρὸν ἢ λευκὸν ἢ μέλαν, οὐκ ἄλλο τι τῶν πᾶσι φαινομένων· παθῶν γὰρ ἡμετέρων ἦν ὀνόματα ταῦτα. ὁ δὲ Ἐπίκουρος (fr. 247 Usener, p. 182.30–33) πάντα ἔλεγε τὰ αἰσθητὰ τοιαῦτα ὑποκείσθαι ὅποια φαίνεται καὶ κατ' αἴσθησιν προσπίπτει, μηδέποτε ψευδομένης τῆς αἰσθήσεως, ἀλλ' ἡμῶν ψεύδεσθαι ταύτην δοκούντων. οἱ δὲ ἀπὸ τῆς Στοᾶς (*SVF* 2.76) καὶ τοῦ Περιπάτου μέσσην ὁδὸν τεμόντες ἔνια μὲν ὑποκείσθαι τῶν αἰσθητῶν ἔλεξαν ὡς ἀληθῆ, ἔνια δὲ μὴ ὑπάρχειν, ψευδομένης περὶ αὐτῶν τῆς*

αἰσθήσεως. *Tertullian de An.* 17 (*Soranus* fr. 14 Podolak) see below §§1, 2, 3, 5. *Eusebius PE* 14.20.1 + 14.16.13–17.1 (*Aristocles* frs. 6–7 Chiesara) γεγόνασαι δέ τινες οἱ ἀξιούντες τῇ αἰσθήσει καὶ ταῖς φαντασίαις μοναῖς δεῖν πιστεύειν. ἔνιοι μέντοι φασὶ καὶ τὸν Ὅμηρον αἰνίττεσθαι τὸ τοιοῦτο πάντων ἀποφαίνοντα τὸν Ὀκεανὸν ἀρχὴν (*Il.* 14.246), ὡς ἐν ῥύσει τῶν πραγμάτων ὄντων (cf. *Pl. Th.* 152d). ὦν δ' ἴσμεν ἔοικε μὲν καὶ Μητροδωρος ὁ Χίος (70A24 DK) τὸ αὐτὸ τοῦτο λέγειν, οὐ μὴν ἀλλ' ἀντικρὺς γε Πρωταγόρας ὁ Ἀβδηρίτης (—) εἶπεν. ... (*Eusebius* himself: ἐπειδὴ τῶν φυσικῶν φιλοσόφων οἱ μὲν πάντα κατέβαλλον ἐπὶ τὰς αἰσθήσεις, οἱ δ' αὖ πάλιν τούτοις ἀνθεῖλχον, ὡς οἱ περὶ Ξενοφάνη τὸν Κολοφώνιον (21A49 DK) καὶ Παρμενίδην τὸν Ἑλεάτην (—), οἱ δὲ τὰς αἰσθήσεις ἀνῆρουν κτλ.) ... (17.1) ἄλλοι δ' ἐγένοντο τούτοις τὴν ἐναντίαν φωνὴν ἀφιέντες. οἴονται γὰρ δεῖν τὰς μὲν αἰσθήσεις καὶ τὰς φαντασίας καταβάλλειν, αὐτῷ δὲ μόνον τῷ λόγῳ πιστεύειν. τοιαῦτα γάρ τινα πρότερον μὲν Ξενοφάνης (—) καὶ Παρμενίδης (test. 132 Coxon) καὶ Ζήνων (—) καὶ Μέλισσος (—) ἔλεγον κτλ.

Chapter heading: *Capitula Lucretiana* at DRN 4.476 *de vero sensu quare cognoscatur.* at DRN 4.513 *de falso sensu.*

§1 *Pythagoras Empedocles Xenophanes Parmenides Zeno Melissus Anaxagoras Democritus Metrodorus Protagoras Plato: Cicero Varr.* 30–31 *tertia deinde philosophiae pars, quae erat in ratione et in disserendo, sic tractabatur ab utrisque* (sc. Academics, Peripatetics). *quamquam oriretur a sensibus, tamen non esse iudicium veritatis in sensibus: mentem volebant rerum esse iudicem; solam censebant idoneam cui crederetur.* ... (31) *sensus autem omnis hebetes et tardos esse arbitrabantur nec percipere ullo modo res eas quae subiectae sensibus viderentur, quod aut essent ita parvae ut sub sensum cadere non possent, aut ita mobiles et concitatae ut nihil unquam unum esset (et) constans, ne idem quidem, quia continenter laberentur et fluerent omnia.* *Varr.* 44–45 *cum Zenone* (—) ... *ut accepimus, Arcesilas* (F 9 Mette) *sibi omne certamen instituit, non pertinacia aut studio vincendi* ... (for what follows see above, General texts). *Luc.* 14 *similiter vos* (sc. Academics), *cum ... philosophiam bene iam constitutam velitis, Empedoclen* (—), *Anaxagoran* (—), *Democritum* (—), *Parmeniden* (test. 100 Coxon) *Xenophanen* (—), *Platonem etiam et Socratem profertis.* *Luc.* 73–74 *ille* (sc. Democritus, cf. 68B165 DK) *esse verum plane negat {esse}; sensus quidem non obscuros dicit sed tenebricosos (sic enim appellat eos)* (cf. 68B11 DK). ... *Chius Metrodorus* (70B1 DK) *initio libri qui est De natura 'nego' inquit 'scire nos sciamusne aliquid an nihil sciamus, ne id ipsum quidem nescire aut scire nos, nec omnino sitne aliquid an nihil sit'.* (74) *furere tibi Empedocles* (—) *videtur: at mihi dignissimum rebus is de quibus loquitur sonum fundere. num ergo is excaecat nos aut orbat sensibus, si parum magnam vim censet in is esse ad ea quae sub eos subiecta sunt iudicanda? Parmenides* (test. 101 Coxon), *Xenophanes* (21A25 DK), *minus bonis quamquam versibus sed tamen illi versibus increpant eorum adrogantiam quasi irati, qui cum sciri nihil possit audeant se scire dicere. et ab iis aiebat removendum Socratem et Platonem. cur, an de ullis certius possum dicere? ... multi sermones perscripti sunt e quibus dubitari non possit quin Socrati nihil sit visum sciri posse. quid*

dicam de Platone, qui certe tam multis libris haec persecutus non esset nisi probavisset. Luc. 142 aliud iudicium Protagorae (—) est qui putet id cuique verum esse quod cuique videatur ... Plato autem omne iudicium veritatis veritatemque ipsam abductam ab opinionibus et a sensibus cogitationis ipsius et mentis esse voluit. **ps.Plutarch Strom.** 4 at Eus. *PE* 1.8.4 (fr. 179 Sandbach) ἀποφαίνεται (on Xenophanes, 21A32 DK) δὲ καὶ τὰς αἰσθήσεις ψευδεῖς, καὶ καθόλου σὺν αὐταῖς καὶ αὐτὸν τὸν λόγον διαβάλλει. *Strom.* 5 at Eus. *PE* 1.8.5 Παρμενίδης (28A22 DK) ... τὰς αἰσθήσεις ἐκβάλλει ἐκ τῆς ἀληθείας. *Strom.* 6 at Eus. *PE* 1.8.6 Ζήνων δ' ὁ Ἐλεάτης (29A23 DK) ἴδιον μὲν οὐδὲν ἐξέθετο, διηπόρησε δὲ περὶ τούτων ἐπὶ πλείον. **Aristocles** fr. 7 Chiesara at Eus. *PE* 14.17.1 ἄλλοι δ' ... οἴονται γὰρ δεῖν τὰς μὲν αἰσθήσεις καὶ τὰς φαντασίας καταβάλλειν, αὐτῶ δὲ μόνον τῷ λόγῳ πιστεύειν. τοιαῦτα γὰρ τινα πρότερον μὲν Ξενοφάνης (21A49 DK) καὶ Παρμενίδης (—) καὶ Ζήνων (—) καὶ Μέλισσος (—) ἔλεγον κτλ. at Eus. *PE* 14.17.7 ὁ γέ τοι Μέλισσος (30A14 DK) ἐθέλων ἐπιδεικνύειν, διότι τῶν φαινομένων καὶ ἐν ὄψει τούτων οὐδὲν εἴη τῷ ὄντι, διὰ τῶν φαινομένων ἀποδεῖκνυσιν αὐτῶν· φησὶ γοῦν (30B8.2–3 DK follows). **Sextus Empiricus** *M.* 7.90 ὁ μὲν φυσικώτατος Ἀναξαγόρας (59B21 DK) ὡς ἀσθενεῖς διαβάλλων τὰς αἰσθήσεις 'ὑπὸ ἀφανρότητος αὐτῶν' φησὶν 'οὐ δυνατοὶ ἐσμεν κρίνειν τάληθές'. *M.* 7.122 ἄλλοι δὲ ἦσαν οἱ λέγοντες κατὰ τὸν Ἐμπεδοκλέα (on 31B2 DK) κριτήριον εἶναι τῆς ἀληθείας οὐ τὰς αἰσθήσεις, ἀλλὰ τὸν ὀρθὸν λόγον. **Hippolytus** *Ref.* 1.14.1 Ξενοφάνης ... ἔφη πρῶτος ἀκαταληψίαν εἶναι πάντων, εἰπὼν οὕτως· (21B34.3–4 DK follows). **Tertullian** *de An.* 17.2 (**Soranus** *de An.* fr. 14 Podolak) *fidem* (sc. sensuum) ... *damnant, secundum quosdam et Heraclitus* (T 654 Mouraviev) *et Diocles* (fr. 38 dub. Van der Eijk) *et Empedocles* (—), *certe Plato in Timaeo* (28c, 51aff.) *inrationalem pronuntians sensualitatem et opinioni coimplicitam.* **Theodoret** *CAG* 2.10, p. 38.17–20 Παρμενίδης ... ὁ Ἐλεάτης (—) ὡσαύτως ... ψεῦδος δὲ ἀπέφηνε τῶν αἰσθήσεων τὸ κριτήριον, ἥκιστα λέγων ἐφικνεῖσθαι τοῦτο τῆς ἀληθείας. **Epiphanius** *Haer.* 3.506.15–17 Μητρόδωρος ὁ Χίος (70A23 DK) ἔφη μηδὲνα μηδὲν ἐπίστασθαι, ἀλλὰ ταῦτα ἃ δοκοῦμεν γινώσκειν ἀκριβῶς οὐκ ἐπίσταμεθα, οὐδὲ ταῖς αἰσθήσεσι δεῖ προσέχειν· δοκῇσι γὰρ ἐστὶ τὰ πάντα. **Sextus Empiricus** *M.* 8.56 οἱ δὲ περὶ τὸν Δημόκριτον (fr. 61 Luria) καὶ Πλάτωνα ἀθετοῦντες μὲν τὰς αἰσθήσεις, ἀναιροῦντες δὲ τὰ αἰσθητά, μόνοις δ' ἐπόμενοι τοῖς νοητοῖς, συγχέουσι τὰ πράγματα. *M.* 7.137–139 καὶ δὴ ἐν μὲν τούτοις πᾶσαν σχεδὸν κινεῖ κατὰληψιν, (εἰ) (138) καὶ μόνον ἐξαιρέτως καθάπτεται τῶν αἰσθήσεων· ἐν δὲ τοῖς Κανόσι δύο φησὶν εἶναι γνώσεις, τὴν μὲν διὰ τῶν αἰσθήσεων τὴν δὲ διὰ τῆς διανοίας, ὣν τὴν μὲν διὰ τῆς διανοίας γνησίην καλεῖ, προσμαρτυρῶν αὐτῇ τὸ πιστὸν εἰς ἀληθείας κρίσιν, τὴν δὲ διὰ τῶν αἰσθήσεων σκοτίην ὀνομάζει, ἀφαιρούμενος αὐτῆς τὸ πρὸς διάγνωσιν τοῦ ἀληθοῦς (139) ἀπλανές. λέγει δὲ κατὰ λέξιν (**Democritus** 68B11 DK)· γνῶμης δὲ δύο εἰσὶν ἰδέαι, ἡ μὲν γνησίη, ἡ δὲ σκοτίη· καὶ σκοτίης μὲν τάδε σύμπαντα, ὅψις ἀκοή ὁδμή γεύσις ψαύσις· ἡ δὲ γνησίη, ἀποκεκριμένη δὲ ταύτης·.

§2 *Academics*: **Cicero** *Luc.* 103 ait (sc. Clitomachus) *vehementer errare eos qui dicant ab Academia sensus eripi, a quibus numquam dictum sit aut colorem aut saporem aut sonum nullum esse, illud sit disputatum, non inesse in iis pro-*

priam quae nusquam alibi esset veri et certi notam. Tertullian de An. 17.2 (Soranus de An. fr. 14 Podolak) horum (sc. sensuum) fidem Academici durius damnant.

§4 Stoics: Cicero *Luc. 75 sed quid eos* (sc. Stilbo Diodoraus Alexinus) *colligam, cum habeam Chrysippum* (SVF 2.109), *qui fulcire putatur porticum Stoicorum: quam multa ille contra sensus, quam multa contra omnia quae in consuetudine probantur. 'at dissolvit idem.' mihi quidem non videtur, sed dissolverit sane: certe tam multa non collegisset quae nos fallerent probabilitate magna, nisi videret is resisti non facile posse. ND 1.70 Zenon* (SVF 1.63) *autem nonnulla visa esse falsa, non omnia. Tertullian de An. 17.4 (Soranus de An. fr. 14 Podolak) moderantius Stoici (—) non omnem sensum, nec semper, de mendacio onerant.*

§5 Epicurus: Cicero *Luc. 79 veracis suos esse sensus dicit Epicurus* (fr. 251 Usener). *igitur semper auctorem habes, et eum qui magno suo periculo causam agat; eo enim rem demittit Epicurus, si unus sensus semel in vita mentitus sit, nulli umquam esse credendum. Luc. 82 sed ab hoc credulo, qui numquam sensus mentiri putat, discedamus. ND 1.70 timuit Epicurus* (fr. 251 Usener) *ne, si unum visum esset falsum, nullum esset verum: omnes sensus veri nuntios dixit esse. Aristocles fr. 6 Chiesara at Eus. PE 14.20.9 ἐπεὶ δ' ἔτι νῦν εἰσὶ τινες οἱ πάσαν αἴσθησιν καὶ πάσαν φαντασίαν ἀληθῆ λέγοντες εἶναι, μικρὰ καὶ περὶ τούτων εἴπωμεν. ... καὶ μὴν εἴ γε πάσα αἴσθησις ἀληθὴς ᾗν, οὐκ ἔδει τοσοῦτον διαφέρειν αὐτάς. Tertullian de An. 17.4 (Soranus de An. fr. 14 Podolak) Epicurei* (at fr. 247, p. 183.5–8 Usener) *constantius parem omnibus atque perpetuam defendunt veritatem, sed alia via. non enim sensum mentiri, sed opinionem. sensum enim pati, non opinari; animam enim opinari.*

§9 Leucippus Democritus Diogenes: Diogenes of Oenoanda fr. 7 col. 2.2–8 Smith ἐσφά|λῃ δ' ἀναξίως ἑαυτοῦ | καὶ Δημόκριτος (fr. 61 Luria), τὰς | ἀτόμους μόνας κατ' ἀ|λγήθειαν εἰπὼν ὑπάρχειν | ἐν τοῖς οὖσι, τὰ δὲ λοιπὰ | νομιστεῖ ἅπαντα. Diogenes Laertius *V.P. 9.44* (on Democritus, 68A1 DK) ἀρχὰς εἶναι τῶν ὄλων ἀτόμους καὶ κενόν, τὰ δ' ἄλλα πάντα νενομίσθαι.

§10 Other views about smallest parts: Sextus Empiricus *P. 3.32* Δημόκριτος (—) δὲ καὶ Ἐπίκουρος (—) ἀτόμους, Ἀναξαγόρας δὲ ὁ Κλαζομένιος (—) ὁμοιομερείας, Διόδωρος δὲ ὁ ἐπικληθεὶς Κρόνος (fr. 117C Döring, II F 8 Giannantoni) ἐλάχιστα καὶ ἀμερῆ σώματα, Ἡρακλείδης δὲ ὁ Ποντικὸς (fr. 119b Wehrli, 60B Schütrumpf) καὶ Ἀσκληπιάδης ὁ Βιθυνὸς (cf. Vallance *ANRW* 2.37.1.726) ἀνδρ-μους ὄγκους (sc. τὰς ὑλικὰς ἀρχὰς εἶναι).

b Sources and Other Parallel Texts

Chapter heading: Aristotle *de An. 3.3 427b29* περὶ φαντασίας διορίσαντας. *de An. 3.3 429a8–9* περὶ μὲν οὖν φαντασίας, τί ἐστὶ καὶ διὰ τί ἐστίν, εἰρήσθω ἐπὶ τοσοῦτον. *Mem. 1 449b30–31*, ἐπεὶ δὲ περὶ φαντασίας εἰρηται πρότερον ἐν τοῖς Περὶ ψυχῆς. Epicurus at *D.L. 10.28* Περὶ φαντασίας. Diocles Magnes at *D.L. 7.49* ἀρέσκει τοῖς Στωικοῖς (SVF 2.52) τὸν περὶ φαντασίας καὶ αἰσθήσεως προτάττειν λόγον.

§1 Pythagoras Empedocles Xenophanes Parmenides Zeno Melissus Anaxagoras Democritus Metrodorus Protagoras Plato: Parmenides 28B7.3–6 DK ‘μηδὲ σ’ ἔθος πολὺ πειρον ὁδὸν κατὰ τήνδε βιάσθω / νωμᾶν ἄσκοπον ὄμμα καὶ ἡχῆσσαν ἀκουήν / καὶ γλῶσσαν, κρῖναι δὲ λόγῳ πολὺ δῆριν ἔλεγχον / ἐξ ἐμέθεν ῥηθέντα’. **Sextus Empiricus**, after citing these lines, comments *M.* 7.114 (cf. at Parmenides 28B1 DK) καὶ ἐπὶ τέλει προσδιασαφεῖ τὸ μὴ δεῖν αἰσθῆσαι προσέχειν ἄλλὰ τῷ λόγῳ. ... οὗτος ... τὸν ἐπιστημονικὸν λόγον κανόνα τῆς ἐν τοῖς οὖσιν ἀληθείας ἀναγορεύσας ἀπέστη τῆς τῶν αἰσθήσεων ἐπιστάσεως. cf. **Diogenes Laertius** *V.P.* 9.22 who states κριτήριον δὲ τὸν λόγον εἶπε· τὰς τε αἰσθήσεις μὴ ἀκριβεῖς ὑπάρχει, and then cites B735 in support. **Aristotle** *GC* 1.8 325a13–15 (Parmenides 28A25 DK) ὑπερβάντες τὴν αἴσθησιν καὶ παριδόντες αὐτὴν ὡς τῷ λόγῳ δεόν ἀκολουθεῖν, ἐν καὶ ἀκίνητον τὸ πᾶν εἶναι φασὶ καὶ ἄπειρον ἔνιοι (sc. Melissus). differently *Met.* A.3 984b1–4 (Parmenides 28A24 DK) τῶν μὲν οὖν ἐν φασκόντων εἶναι τὸ πᾶν οὐθενὶ συνέβη τὴν τοιαύτην συνιδεῖν αἰτίαν πλὴν εἰ ἄρα Παρμενίδῃ, καὶ τούτῳ κατὰ τοσοῦτον ὅσον οὐ μόνον ἐν ἀλλὰ καὶ δύο πως τίθησιν αἰτίας εἶναι. differently also *Met.* A.5 986b27–35 Παρμενίδης (28A24 DK) δὲ ... ἀναγκαζόμενος δ’ ἀκολουθεῖν τοῖς φαινόμενοις, καὶ τὸ ἐν μὲν κατὰ τὸν λόγον πλείω δὲ κατὰ τὴν αἴσθησιν ὑπολαμβάνων εἶναι, δύο τὰς αἰτίας καὶ δύο τὰς ἀρχὰς πάλιν τίθησι κτλ. **Timon of Phlius** fr. 4 Wachsmuth, 818 *SH* at D.L. 9.22–23 (Parmenides 28A1 DK) τὰς τε αἰσθήσεις μὴ ἀκριβεῖς ὑπάρχειν. ... (23) διὸ καὶ περὶ αὐτοῦ φησὶν ὁ Τίμων· ‘Παρμενίδου τε βίην μεγαλόφρονος οὐ πολὺ δοξον, / ὅς ῥ’ ἀπὸ φαντασίας ἀπάτης ἀνενείκατο νόσεις’. fr. 5 Wachsmuth, 819 *SH* at D.L. 9.25 Ζήνων ‘Ελεάτης (29A1 DK). ... περὶ τούτου καὶ Μελίσσου (—) Τίμων φησὶ ταῦτα· ‘ἀμφοτερογλώσσου τε μέγα σθένος οὐκ ἀλαπαδὸν / Ζήνωνος πάντων ἐπιλήπτορος, ἡ δὲ Μέλισσον, / πολλῶν φαντασμάτων ἐπάνω, παύρων γε μὲν ἦσσω’. **Philodemus** *Rhet.* fr. incert. iii.6–11, p. 2.169 Sudhaus οὐδὲ κατὰ Παρμενίδην (28A49 DK) καὶ Μέλισσον (30A14 DK) ἐν τὸ πᾶν λέγοντας εἶναι καὶ διὰ τὸ τὰς αἰσθήσεις ψευδεῖς εἶναι. **Anon. Photii** (on the Pythagoreans) cod. 249, p. 240.35 Thesleff ἔστι δὲ αἰσθήσεις μὲν γνώσις ψευδὴς διὰ σώματος. **Melissus** 30B8.(2)–(5) DK. **Sextus Empiricus** *M.* 7.89–90 πρῶτοι δ’ ἔδοξαν οἱ ἀπὸ Θάλεω φυσικοὶ τὴν περὶ κριτηρίου σκέψιν εἰσηγγέσασθαι. καταγνόντες γὰρ τῆς αἰσθήσεως ἐν πολλοῖς ὡς ἀπίστου, τὸν λόγον κριτὴν τῆς ἐν τοῖς οὖσιν ἀληθείας ἐπέστησαν· ... (90) ἐνθεν ὁ μὲν φυσικώτατος Ἀναξαγόρας (59B21 DK) ὡς ἀσθενεῖς διαβάλλων τὰς αἰσθήσεις ‘ὑπὸ ἀφαιρότητος αὐτῶν’ φησὶν ‘οὐ δυνατοὶ ἐσμεν κρίνειν τάληθές’. *M.* 7.122 κατὰ τὸν Ἐμπεδοκλέα (on 31B2 DK) κριτήριον εἶναι τῆς ἀληθείας οὐ τὰς αἰσθήσεις, ἀλλὰ τὸν ὀρθὸν λόγον (differently 31B3.9–13 DK). *M.* 7.126 ὁ δὲ Ἡράκλειτος (cf. 22B107 DK), ἐπεὶ πάλιν ἐδόκει δυσὶν ὥργανώσθαι ὁ ἄνθρωπος πρὸς τὴν τῆς ἀληθείας γνώσιν, αἰσθῆσαι τε καὶ λόγῳ, τούτων τὴν (μὲν) αἴσθησιν παραπλησίως τοῖς προειρημένοις φυσικοῖς ἀπιστον εἶναι νενόμικεν, τὸν δὲ λόγον ὑποτίθεται κριτήριον (but see on Protagoras (e.g.) D.L. 9.51 (80A1 DK) ἔλεγέ τε μὴδὲν εἶναι ψυχὴν [ἐπιστήμην prop. Zeller] παρὰ τὰς αἰσθήσεις, καθὰ καὶ Πλάτων φησὶν ἐν Θεαιτήτῳ (cf. 152a), καὶ πάντα εἶναι ἀληθῆ.) *M.* 8.56 οἱ δὲ περὶ τὸν Δημόκριτον (—) καὶ Πλάτωνα ἀθετοῦντες μὲν τὰς αἰσθήσεις, ἀναιροῦντες δὲ τὰ αἰσθητά, μόνους δ’ ἐπόμενοι τοῖς νοητοῖς, συγχέουσι τὰ πράγματα. **Seneca** *Ep.* 58.26 *omnia ista quae sensibus serviunt, quae nos accendunt et inrit-*

ant, negat Plato ex iis esse quae vere sint. **Plutarch** *Adv.Col.* 1121F–1122A ὁ δ' Ἀρκεσίλαος (fr. 7 Mette) τοσοῦτον ἀπέδει τοῦ καινοτομίας τινὰ δόξαν ἀγαπᾶν καὶ ὑποποιεῖσθαι τι τῶν παλαιῶν ὥστε ἐγκαλεῖν τοὺς τότε σοφιστάς ὅτι προστρίβεται Σωκράτει καὶ Πλάτῳ καὶ Παρμενίδῃ (—) καὶ Ἡρακλείτῳ (—) τὰ περὶ τῆς ἐποχῆς δόγματα καὶ τῆς ἀκαταληψίας οὐδὲν θεομένους, ἀλλ' ὅσον ἀναγωγὴν καὶ βεβαίωσιν αὐτῶν εἰς ἄνδρας ἐνδόξους ποιοῦμενος. **Galen** *SMT* 11.461.14–462.2 K. καὶ τινες ἐξ αὐτῶν καὶ τὸν Ἀναξαγόραν (—) ἐπικαλοῦνται μάρτυρα, περὶ τῆς χιόνος ἀποφηνάμενον, ὡς οὐκ εἴη λευκή. οὗτος ἄρα, φασί, φυσικὸς ἀνὴρ ὑπὲρ τὴν αἴσθησιν ἐστίν καὶ καταφρονεῖ μὲν τῶν ταύτης φαντασμάτων, ἐπὶ δὲ τὸν λόγον ἀνέρχεται, καὶ τοῦτω τὴν τῶν ὄντων θηράται φύσιν. **Clement of Alexandria** *Strom.* 5.11.67.3 τοῦτο ἄρα βούλεται καὶ τῷ Πυθαγόρῃ ἡ τῆς πενταετίας σιωπὴ, ἣν τοῖς γνωρίμοις παρεγγυᾷ, ὡς δὴ ἀποστραφέντες τῶν αἰσθητῶν ψιλῶ τῷ νῷ τὸ θεῖον ἐποπτεύουσιν. **ps.Plutarch** *Mus.* 1144F Πυθαγόρας δ' ὁ σεμνὸς ἀπεδοκίμαζε τὴν κρίσιν τῆς μουσικῆς τὴν διὰ τῆς αἰσθήσεως· νῷ γὰρ ληπτὴν τὴν ταύτης ἀρετὴν ἔφασκεν εἶναι. **Diogenes Laertius** *V.P.* 9.95 αἱ δ' αἰσθήσεις ψεύδονται. **Olympiodorus in Phaed. 4.7 αἱ ψεύδεσθαι λέγει τὴν αἴσθησιν ὁ Πλάτων διότι οὐ κυρίως γινώσκει. συμπεφυρμένον γὰρ ἔχει τὸ πάθος τῇ γνώσει διὰ πάθους γινώσκουσα· καὶ τὰ πόρρω οἶδεν (ἐπεὶ τὸν πυρῆνα τῆς μήλης τὸν ἐν τῷ ὀφθαλμῷ οὐχ ὁρᾷ, καὶ ἡ ἀφῆ δὲ διὰ μέσου ἀέρος ἀντιλαμβάνεται), ὅπερ αἴτιον μὴ ἀκριβοῦς γνῶσεως. διὰ γὰρ τοῦτο τὸν νοῦν φαμεν ἀκριβῶς γινώσκειν κτλ.**

§2 Academics: Anonymus in Theaetetus col. ii.23–32 Bastianini–Sedley λέγω δὲ | νῦν κριτήριον τὸ [δ]ι' | οὐ κρίνομεν ὡς ὁρ[γ]ά|ν[ο]ν. [δ]εῖ γὰρ ἔχειν ὦι | κρινόμεν τὰ πρᾶ|γμα|τα. εἶτα ὅταν ἀκριβεῖς ᾖ τὸ τοῦτο, ἡ τῶν καλῶς κριθέντων μόνιμος παραδοχὴ γ[ι]ν[ε]τ[α]ι ἐπιστήμη. **Plutarch** *Adv.Col.* 1118B ὁ δὲ τὰς αἰσθήσεις λόγος ἐπαγόμενος ὡς οὐκ ἀκριβεῖς οὐδ' ἀσφαλεῖς πρὸς πίστιν οὔσας οὐκ ἀναιρεῖ τὸ φαίνεσθαι τῶν πραγμάτων ἡμῖν ἕκαστον, ἀλλὰ χρωμένους κατὰ τὸ φαινόμενον ἐπὶ τὰς πράξεις ταῖς αἰσθήσεσι τὸ πιστεύειν ὡς ἀληθεῖς πάντῃ καὶ ἀδιὰπτῶτος οὐ δίδωσιν αὐταῖς. **Sextus Empiricus** *P.* 1.235 οἱ δὲ περὶ Φίλωνά (F 1 Mette) φασιν ὅσον μὲν ἐπὶ τῷ Στωικῷ (—) κριτηρίῳ, τουτέστι τῇ καταληπτικῇ φαντασίᾳ, ἀκατάληπτα εἶναι τὰ πράγματα, ὅσον δὲ ἐπὶ τῇ φύσει τῶν πραγμάτων αὐτῶν, καταληπτά. **Diogenes Laertius** *V.P.* 1.21 (on Potamo) ἀρέσκει δ' αὐτῷ, καθὰ φησιν ἐν τῇ Στοικειώσει, κριτήρια τῆς ἀληθείας εἶναι τὸ μὲν ὡς ὕφ' οὗ γίνεται ἡ κρίσις, τουτέστι τὸ ἡγεμονικόν· τὸ δὲ ὡς δι' οὗ, ὅσον τὴν ἀκριβεστάτην φαντασίαν.

§3 Aristotle: Aristotle de An. 2.6 418a11–12 λέγω δ' ἴδιον μὲν ὃ μὴ ἐνδέχεται ἑτέρᾳ αἰσθῆσαι αἰσθάνεσθαι, καὶ περὶ ὃ μὴ ἐνδέχεται ἀπατηθῆναι. **Sens.** 4 442b5–9 μέγεθος γὰρ καὶ σχῆμα καὶ τὸ τραχὺ καὶ τὸ λεῖον, ἔτι δὲ τὸ ὀξύ καὶ τὸ ἀμβλύ τὸ ἐν τοῖς ὄγκοις, κοινὰ τῶν αἰσθήσεών ἐστιν, εἰ δὲ μὴ πασῶν, ἀλλ' ὁπῶς γε καὶ ἀφῆς. διὸ καὶ περὶ μὲν τούτων ἀπατῶνται, περὶ δὲ τῶν ἰδίων οὐκ ἀπατῶνται, ὅσον ἡ ὄψις περὶ χρώματος καὶ ἡ ἀκοή περὶ ψόφων. **Ptolemy** *Iudic.* c. 11, pp. 16.13–17.5 καθ' αὐτὴν μὲν οὖν ἑκάστη τῶν δυνάμεων ὅταν τὸ ἴδιον καὶ οἰκείον μόνον ἐπισκοπῇ κατὰ τὸ τῶν συμπεπλεγμένων ἀπερίσπαστον ἀληθεύειν πέφυκεν· ὡς ὅταν ὄψις μὲν χρώματα· φωνὰς δ' ἀκοή· γεύσεις δὲ χυμούς· ἀτμούς δ' ὁσφρησις· ἀφῆ δὲ τῇ ποιότητι [perhaps read τῶν ἀπτῶν or ἀπτάς ποιότητας]· ... ἄλλαι δ' ἄλλαι συμπλακεῖσαι

καὶ κοινωνήσασαι τῆς τῶν ὑποκειμένων κρίσεως—τοῦτ' ἔστιν ὅταν ᾗτοι τῶν αὐτῶν πλείους ὦσιν ἀντιλήψεις, ὡς ἐν μὲν τοῖς αἰσθητοῖς ὄγκου, μεγέθους, πλήθους, σχήματος, θέσεως, τάξεως, κινήσεως.

§4 Stoics: Sextus Empiricus *M.* 8.63 (Epicurus fr. 253 Usener) πλανᾶσθαι δὲ τοὺς τινὰς μὲν τῶν φαντασιῶν λέγοντας ἀληθεῖς, τινὰς δὲ ψευδεῖς κτλ. *M.* 7.388 τινὰ (sc. τῶν φαντασιῶν) μὲν ἀληθῆ τινὰ δὲ ψευδῆ, ὡς οἱ ἀπὸ τῆς Στοᾶς (—) καὶ τῆς Ἀκαδημίας, ἔτι δὲ τοῦ Περιπάτου. *M.* 8.185 οἱ δὲ ἀπὸ τῆς Στοᾶς (*SVF* 2.76) καὶ τοῦ Περιπάτου μέσσην ὁδὸν τεμόντες ἔνια μὲν ὑποκείσθαι τῶν αἰσθητῶν ἔλεξαν ὡς ἀληθῆ, ἔνια δὲ μὴ ὑπάρχειν, ψευδομένης περὶ αὐτῶν τῆς αἰσθήσεως. **Diocles Magnes** at D.L. 7.49 ἀρέσκει τοῖς Στωικοῖς (*SVF* 2.52) τὸν περὶ φαντασίας καὶ αἰσθήσεως προτάττειν λόγον, καθότι τὸ κριτήριον, ᾧ ἡ ἀλήθεια τῶν πραγμάτων γινώσκεται, κατὰ γένος φαντασία ἐστὶ. **Plutarch** *SR* 1036C τοὺς πάντων ὁμοῦ τῶν Ἀκαδημαϊκῶν λόγους εἰς ταῦτὸ συμφορηθέντας οὐκ ἀξίους εἶναι παραβαλεῖν οἷς Χρύσιππος (*SVF* 2.109) ἔγραψεν εἰς διαβολὴν τῶν αἰσθήσεων. ... βουλῆθεις αὐθις συνειπεῖν τῇ συνηθείᾳ καὶ ταῖς αἰσθήσεσιν ἐνδεέστερος γέγονεν αὐτοῦ.

§5 Epicurus: Epicurus *RS* 24 εἰ τιν' ἐκβαλεῖς ἀπλῶς αἴσθησιν καὶ μὴ διαιρήσεις τὸ δοξαζόμενον καὶ τὸ προσμένον καὶ τὸ παρὸν ᾗδη κατὰ τὴν αἴσθησιν καὶ τὰ πάθη καὶ πᾶσαν φανταστικὴν ἐπιβολὴν τῆς διανοίας, συνταράξεις καὶ τὰς λοιπὰς αἰσθήσεις τῇ ματαιῇ δόξῃ, ὥστε τὸ κριτήριον ἅπαν ἐκβαλεῖς. **Demetrius Laco** *Ap. Test.* (*PHerc.* 1012) col. 72.2–7 Puglia ζητούμενου | γὰρ τοῦ πῶς τὰς αἰσθήσεις | λέγομεν ἀληθεῖς κατ' ἀναφορὰν τὴν ἐπὶ τὰ αἰσθητὰ, 'καθόσον γὰρ ταῦτα ἀληθῆ', 'δυσσοδία γὰρ ἐντροχάζειν δοκεῖ'. **Philodemus** *Piet.* 1.673–674 Obbink τὰς φαντασ[ί]ας ἀλ[η]θεῖς εἶναι. **Lucretius** *DRN* 4.379 *nec tamen hic oculos falli concedimus hilum.* *DRN* 4.478–479 *invenies primis ab sensibus esse creatam / notitiam veri neque sensus posse refelli.* *DRN* 4.482–483 *quid maiore fide porro quam sensus haberi / debet?* *DRN* 4.462–468 *cetera de genere hoc mirande multa videmus, / quae violare fidem quasi sensibus omnia quaerunt, / ne quiquam, quoniam pars horum maxima fallit / propter opinatus animi, quos addimus ipsi, / pro visis ut sint quae non sunt sensibus visa; / nam nihil aegrius est quam res discernere apertas / ab dubiis, animus quas ab se protinus addit.* **Plutarch** *Adv. Col.* 1109A–B Ἐπικουρεῖω (fr. 250 Usener) δόγματι κέχρηται τῷ 'πᾶσας εἶναι τὰς δι' αἰσθήσεως φαντασίας ἀληθεῖς'. **Sextus Empiricus** *M.* 8.63 ὁ δὲ Ἐπικουρος (fr. 253 Usener) ἔλεγε μὲν πάντα τὰ αἰσθητὰ εἶναι ἀληθῆ, καὶ πᾶσαν φαντασίαν ἀπὸ ὑπάρχοντος εἶναι, καὶ τοιαύτην ὁποῖόν ἐστι τὸ κινεῖν τὴν αἴσθησιν, πλανᾶσθαι δὲ τοὺς τινὰς μὲν τῶν φαντασιῶν λέγοντας ἀληθεῖς, τινὰς δὲ ψευδεῖς παρὰ τὸ μὴ δύνασθαι χωρίζειν δόξαν ἀπὸ ἐναργείας. **Diogenes Laertius** *V.P.* 10.31 ἐν τοίνυν τῷ Κανόνι λέγων ἐστὶν ὁ Ἐπικουρος (p. 70, fr. 35 Usener) κριτήρια τῆς ἀληθείας εἶναι τὰς αἰσθήσεις καὶ προλήψεις καὶ τὰ πάθη, οἱ δ' Ἐπικουρείοι καὶ τὰς φανταστικὰς ἐπιβολὰς τῆς διανοίας.

§6 Parmenides Empedocles Anaxagoras Democritus Epicurus Heraclides: Theophrastus *Sens.* 7 Ἐμπεδοκλῆς (31A86 DK) δὲ περὶ ἀπασῶν ὁμοίως λέγει καὶ φησι τῷ ἐναρμόττειν εἰς τοὺς πόρους τοὺς ἐκάστης αἰσθάνεσθαι· διὸ καὶ οὐ δύνασθαι τὰ ἀλλήλων κρίνειν, ὅτι τῶν μὲν εὐρύτεροί πως, τῶν δὲ στενωτέροι τυγχάνουσιν οἱ πόροι πρὸς τὸ αἰσθητόν. *Sens.* 9 (31A86 DK) περὶ δὲ γεύσεως καὶ ἀφῆς οὐ διορίζε-

ται καθ' ἑκατέραν οὔτε πῶς οὔτε δι' ἃ γίνονται, πλὴν τὸ κοινὸν ὅτι τῷ ἐναρμόττειν τοῖς πόροις αἰσθησίς ἐστιν. *Sens.* 35 (Anaxagoras 59A92 DK) τὸ δὲ πρὸς τὰ μεγέθη τὴν συμμετρίαν ἀποδιδόναι τῶν αἰσθητῶν ἔοικεν ὁμοίως λέγειν 'Ἐμπεδοκλεῖ· τῷ γὰρ ἐναρμόττειν τοῖς πόροις ποιεῖ τὴν αἰσθησιν. *Sens.* 80 ὁρᾶν δέ φησι (Democritus 68A135 DK) διὰ τὴν ἀπορροὴν καὶ τὴν ἔμφασιν τὴν εἰς τὴν ὄψιν. **Epicurus** (on *eidola*) *Ep.Hdt.* at D.L. 10.49 τύπων τινῶν ἐπεισιόντων ἡμῖν ἀπὸ τῶν πραγμάτων ὁμοχρῶν τε καὶ ὁμοιομόρφων κατὰ τὸ ἐναρμόττον μέγεθος εἰς τὴν ὄψιν ἢ τὴν διάνοιαν. **Plutarch** *Quaest.Conv.* 735A φησιν Δημόκριτος (68A77 DK) 'ἐγκαταβυσσοῦσθαι' τὰ εἰδῶλα διὰ τῶν πόρων εἰς τὰ σώματα καὶ ποιεῖν τὰς κατὰ τὸν ὕπνον ὄψεις ἐπαναφερόμενα· φοιτᾶν δὲ ταῦτα πανταχόθεν ἀπιδόντα καὶ σκευῶν καὶ ἱματίων καὶ φυτῶν, μάλιστα δὲ ζῶων ὑπὸ σάλου πολλοῦ καὶ θερμότητος οὐ μόνον ἔχοντα μορφοειδεῖς τοῦ σώματος ἐκμεμαγμένους ὁμοιότητος (ὡς Ἐπίκουρος (fr. 326 Usener) οἶεται μέχρι τούτου Δημοκρίτῳ συνεπόμενος, ἐνταῦθα δὲ προλιπὼν τὸν λόγον).

§7 Peripatetics: Aristotle *de An.* 2.12 424a17–25 καθόλου δὲ περὶ πάσης αἰσθήσεως δεῖ λαβεῖν ὅτι ἡ μὲν αἰσθησίς ἐστι τὸ δεκτικὸν τῶν αἰσθητῶν εἰδῶν ἄνευ τῆς ὕλης, αἰσθητήριον δὲ πρῶτον ἐν ᾧ ἡ τοιαύτη δύναμις.

§9 Leucippus Democritus Diogenes: Aristotle *Met.* A.4 985b13–19 (Leucippus 67A6 DK) ταύτας μέντοι τρεῖς εἶναι λέγουσι, σχήμα τε καὶ τάξιν καὶ θέσιν· διαφέρειν γὰρ φασὶ τὸ ὄν 'ῥυσμῷ' καὶ 'διαθιγῇ' καὶ 'τροπῇ' μόνον· τούτων δὲ ὁ μὲν 'ῥυσμός' σχημά ἐστιν ἡ δὲ 'διαθιγῇ' τάξις ἡ δὲ 'τροπῇ' θέσις. **Theophrastus** *Sens.* 63 (Democritus 68A135 DK) σημείον δ' ὡς οὐκ εἰσι φύσει (sc. τὰ αἰσθητά) τὸ μὴ ταῦτά πασι φαίνεσθαι τοῖς ζώοις. **Plutarch** *Colot.* 110E τὸ γὰρ 'νόμῳ χροίῃ' εἶναι καὶ 'νόμῳ γλυκύ' καὶ νόμῳ σύγκρισιν (ἀπασαν *perperam* add. Westman) ('ἐτεῇ δὲ τὸ κενὸν καὶ add. Wytttenbach alii) τὰς ἀτόμους' εἰρημένον φησὶν (sc. Colotes) ὑπὸ Δημοκρίτου (fr. 61 Luria) (μάχεσθαι add. Reiske alii) ταῖς αἰσθήσεσι. **Galen** *Hipp.Elem.* c. 2.12–13, 1.417.9–14 K. 'νόμῳ' γὰρ 'χροίῃ νόμῳ γλυκύ νόμῳ πικρόν, ἐτεῇ δ' ἄτομα καὶ κενόν' ὁ Δημόκριτός (68A49 DK, B125 DK) φησιν, ἐκ τῆς συνόδου τῶν ἀτόμων γίνεσθαι νομίζων ἀπάσας τὰς αἰσθητάς ποιότητας ὡς πρὸς ἡμᾶς τοὺς αἰσθανομένους αὐτῶν, φύσει δ' οὐδὲν εἶναι λευκὸν ἢ μέλαν ἢ ξανθὸν ἢ ἐρυθρὸν ἢ γλυκὺ ἢ πικρόν. *Med.Exp.* 15.7.6–11 Walzer ὅς γὰρ οὐδ' ἄρξασθαι δύναται τῆς ἐναργείας χωρὶς, πῶς ἂν οὗτος πιστὸς εἴη, παρ' ἧς ἔλαβε τὰς ἀρχάς, κατὰ ταύτης θρασυνόμενος· τοῦτο καὶ Δημόκριτος (68B125 DK) εἰδὼς ὅποτε τὰ φαινόμενα διέβρισε 'νόμῳ χροίῃ, νόμῳ γλυκύ, νόμῳ πικρόν' εἰπὼν 'ἐτεῇ δ' ἄτομα καὶ κενόν' ἐποίησε τὰς αἰσθήσεις λεγούσας πρὸς τὴν διάνοιαν οὕτως· 'τάλαινα φρήν, παρ' ἡμέων λαβοῦσα τὰς πίστεις ἡμέας καταβάλλεις· πτώμα τοι τὸ κατάβλημα'. **Alexander of Aphrodisias** *Mixt.* 213.18–23 οἱ μὲν ἄτομα σώματα ἅπειρα τῷ πλήθει, κατὰ σχῆμα καὶ μέγεθος μόνον τὴν πρὸς ἄλληλα διαφορὰν ἔχοντα, τὰς ἀρχάς καὶ τὰ στοιχεῖα φασιν εἶναι, καὶ τῇ τούτων συνθέσει τε καὶ ποιᾷ περιπλοκῇ ἔτι τε τάξει καὶ θέσει ἄλλα γίνεσθαι· ἐφ' ἧς δόξης πρῶτοι μὲν Λεύκιππος τε καὶ Δημόκριτος (fr. 124 Luria) γενέσθαι δοκοῦσιν, ὕστεροι δὲ Ἐπίκουρός (—) τε καὶ οἱ τὴν αὐτὴν τούτῳ τραπέντες. **Sextus Empiricus** 7.135–136 Δημόκριτος (68B9 DK) δὲ ὅτε μὲν ἀναιρεῖ τὰ φαινόμενα ταῖς αἰσθήσεσι καὶ τούτων λέγει μηδὲν φαίνεσθαι κατ' ἀλήθειαν, ἀλλὰ μόνον κατὰ δόξαν, ἀλήθες δὲ ἐν τοῖς οὖσιν ὑπάρχειν τὸ ἀτόμους εἶναι καὶ κενόν· 'νόμῳ' γὰρ φησι 'γλυκύ' καὶ 'νόμῳ πικρόν, νόμῳ θερμόν, νόμῳ ψυχρόν, νόμῳ χροίῃ, ἐτεῇ δὲ

ἄτομα καὶ κενόν'. (ὅπερ (ἔστι)· νομίζεται μὲν εἶναι καὶ δοξάζεται τὰ αἰσθητά, οὐκ ἔστι δὲ κατ' ἀλήθειαν ταῦτα, ἀλλὰ τὰ ἄτομα μόνον καὶ τὸ κενόν). ἐν δὲ τοῖς Κρατυνηρίοις, καίπερ ὑπεσχημένος ταῖς αἰσθήσεσι τὸ κράτος τῆς πίστεως ἀναθεῖναι, οὐδὲν ἦττον εὐρίσκεται τούτων καταδικάζων. φησὶ γάρ· 'ἡμεῖς δὲ τῷ μὲν ἐόντι οὐδὲν ἀτρεκές συνίμεν, μεταπίπτον δὲ κατὰ τε σώματος διαθήκην καὶ τῶν ἐπεισιόντων καὶ τῶν ἀντιστηριζόντων.' *M.* 8.6 Δημόκριτος (fr. 92 Luria) ... μὴδὲν ὑποκείσθαι φύσει αἰσθητόν, τῶν τὰ πάντα συγκρινουσῶν ἀτόμων πάσης αἰσθητῆς ποιότητος ἔρημον ἐχουσῶν φύσιν. See also above ch. 1.15, section E(b)§8.

§10 Other views about smallest parts: Papyrus Derveni col. xix.1–2 ἐκ [τοῦ δ] ἐ [τ]ῷ ἐόντι, ἐν [ἐκ]αστον κέκ[λητ]αι ἀπὸ τοῦ | ἐπικρατοῦντος. **Aristotle** *Phys.* 1.4 187b1–7 (on Anaxagoras, not in DK) διό φασι πᾶν ἐν παντὶ μεμῖχθαι, διότι πᾶν ἐκ παντὸς ἐώρων γιγνόμενον· φαίνεσθαι δὲ διαφέροντα καὶ προσαγορεύεσθαι ἕτερα ἀλλήλων ἐκ τοῦ μάλισθ' ὑπερέχοντος διὰ πλήθος ἐν τῇ μίξει τῶν ἀπείρων· εἰλικρινῶς μὲν γὰρ ὅλον λευκόν ἢ μέλαν ἢ γλυκὺ ἢ σάρκα ἢ ὅσπου οὐκ εἶναι, ὅτου δὲ πλείστον ἕκαστον ἔχει, τοῦτο δοκεῖν εἶναι τὴν φύσιν τοῦ πράγματος. **Theophrastus** *Sens.* 67 (Democritus 68A135 DK) οὐ δ' ἂν ἐνῇ πλείστον, τοῦτο μάλιστα ἐνισχύειν πρὸς τε τὴν αἴσθησιν καὶ τὴν δύναμιν. criticized by **Galen** *Hipp. Elem.* c. 6.32, 1.467.4–8 K. ἀλλ' οὐ ταῦτα φησιν ὁ Ἀθηναῖος, ἀλλὰ τὰ τούτων συνθετικά ὄντως εἶναι στοιχεῖα. δῆλον οὖν, ὡς ὑπερβαίνει τὴν αἴσθησιν ἐπὶ τὰ πρῶτα καὶ ὄντως ἀπλὰ τῷ λογισμῷ προῖων, ἃ μῆκέτ' ἐγχωρεῖ λέγειν ἐπικρατεῖα τοῖα ἢ τοῖα γίνεσθαι. **Simplicius in Phys. 27.7–11 (**Theophrastus** *Phys. Op.* fr. 4 Diels, 228A FHS&G) πάντων (sc. τῶν ὁμοιομερῶν) μὲν ἐν πάσιν ὄντων, ἐκάστου δὲ κατὰ τὸ ἐπικρατοῦν ἐν αὐτῷ χαρακτηριζόμενου. χρυσὸς γὰρ φαίνεται ἐκείνο, ἐν ᾧ πολὺ χρυσιόν ἐστὶ καίτοι πάντων ἐνόντων. λέγει γοῦν Ἀναξαγόρας (59A41, B12 DK) ὅτι 'ἐν παντὶ παντὸς μοῖρα ἔνεστι καὶ ὅτω πλείστα ἐν, ταῦτα ἐνδηλότατα ἐν ἕκαστῶν ἐστί καὶ ἦν'. *in Phys.* 155.23–26 ὅτι δὲ Ἀναξαγόρας (on 59B1 DK) ἐξ ἐνὸς μίγματος ἀπειρα τῷ πλήθει ὁμοιομερῇ ἀποκρίνεσθαι φησιν πάντων μὲν ἐν παντὶ ἐνόντων, ἐκάστου δὲ κατὰ τὸ ἐπικρατοῦν χαρακτηριζόμενου, δηλοῖ διὰ τοῦ πρώτου τῶν Φυσικῶν λέγων κτλ.**

§11 Pythagoras Plato: Empedocles 31B109 DK γαίη μὲν γὰρ γαίαν ὁπώπαμεν, ὕδατι δ' ὕδωρ, / αἰθέρι δ' αἰθέρα διὰ, ἀτὰρ πυρὶ πῦρ αἶδηλον. **Plato** *Resp.* 508a–b τίνα οὖν ἔχεις αἰτίασασθαι τῶν ἐν οὐρανῷ θεῶν τούτου κύριον, οὐ ἡμῖν τὸ φῶς ὅψιν τε ποιεῖ ὁρᾶν ὅτι κάλλιστα καὶ τὰ ὀρώμενα ὀράσθαι;—ὅνπερ καὶ σύ, ἔφη, καὶ οἱ ἄλλοι· τὸν ἥλιον γὰρ δῆλον ὅτι ἐρωτᾷς.—ἄρ' οὖν ὧδε πέφυκεν ὅψις πρὸς τοῦτον τὸν θεόν;—πῶς;—οὐκ ἔστιν ἥλιος ἢ ὅψις οὔτε αὐτὴ οὔτ' ἐν ᾧ ἐγγίγνεται, ὁ (δ) ἢ καλούμεν ὄμμα.—οὐ γὰρ οὖν.—ἀλλ' ἡλιοειδέστατόν γε οἶμαι τῶν περὶ τὰς αἰσθήσεις ὀργάνων. *Tim.* 45b τοῦ πυρός ὅσον τὸ μὲν κᾶεν οὐκ ἔσχε, τὸ δὲ παρέχειν φῶς ἡμερον, οἰκείον ἐκάστης ἡμέρας, σῶμα ἐμνηχανήσαντο γίνεσθαι. τὸ γὰρ ἐντὸς ἡμῶν ἀδελφὸν ὃν τούτου πῦρ εἰλικρινές ἐποίησαν διὰ τῶν ὀμμάτων ρεῖν λείον. *Tim.* 67b ὅλως μὲν οὖν φωνὴν θῶμεν τὴν δι' ὧτων ὑπ' ἀέρος ἐγκεφάλου τε καὶ αἵματος μέχρι ψυχῆς πληγὴν διαδιδόμενην, τὴν δὲ ὑπ' αὐτῆς κίνησιν, ἀπὸ τῆς κεφαλῆς μὲν ἀρχομένην, τελευτώσαν δὲ περὶ τὴν τοῦ ἥπατος ἔδραν, ἀκοήν. **Aristotle** *Sens.* 2 437a20–b12 ἐνιοὶ μὲν ζητοῦσι κατὰ τὰ στοιχεῖα τῶν σωμάτων οὐκ εὐποροῦντες δὲ πρὸς τέτταρα πέντ' οὐσας συνάγειν, γλίσχονται περὶ τῆς πέμ-

πτης. ποιοῦσι δὲ πάντες τὴν ὄψιν πυρὸς ... εἴ γε πῦρ ἦν, καθάπερ Ἐμπεδοκλῆς (31A91 DK) φησὶ καὶ ἐν τῷ Τιμαίῳ (*Tim.* 68a) γέγραπται κτλ. *Sens.* 2 438b17–439a1 φανερόν ὡς εἰ δεῖ τοῦτον τὸν τρόπον ἀποδιδόναι καὶ προσάπτειν ἕκαστον τῶν αἰσθητηρίων ἐνὶ τῶν στοιχείων, τοῦ μὲν ὅμματος τὸ ὁρατικὸν ὕδατος ὑποληπτέον, ἀέρος δὲ τὸ τῶν ψόφων αἰσθητικόν, πυρὸς δὲ τὴν ὄσφρησιν ... τὸ δ' ἀπτικὸν γῆς, τὸ δὲ γευστικὸν εἰδὸς τι ἀφῆς ἐστὶν κτλ. *de An.* 1.2 404b21–24 (Test. Plat. 25A Gaiser, A22 Isnardi Parente) ἔτι δὲ καὶ ἄλλως, νοῦν μὲν τὸ ἔν, ἐπιστήμην δὲ τὰ δύο (μοναχῶς γὰρ ἐφ' ἑν), τὸν δὲ τοῦ ἐπιπέδου ἀριθμὸν δόξαν, αἴσθησιν δὲ τὸν τοῦ στερεοῦ. **Plutarch** *De E* 390B εἰσὶ δ' οἱ καὶ τὰς τῶν αἰσθήσεων δυνάμεις ἰσαριθμούς οὕσας τοῖς πρῶτοις ἐκείνοις συνοικειοῦσι, τὴν μὲν ἀφὴν ὁρῶντες ἀντίτυπον οὕσαν καὶ γεῶδη, τὴν δὲ γεῦσιν ὑγρότητι τῶν γευστῶν τὰς ποιότητας προσιεμένην. ἀλλ' ὅταν πληγῆς ἐν ἀκοῇ γίγνεται φωνὴ καὶ ψόφος. διὲν δὲ τῶν λοιπῶν ὁσμὴ μὲν, ἦν ἡ ὄσφρησις εἰληχεν, ἀναθυμιάσις οὕσα καὶ γεννωμένη θερμότητι πυρῶδες ἐστίν, αἰθέρι δὲ καὶ φωτὶ διὰ συγγένειαν διαλαμπύσεως τῆς ὀψεως γίγνεται κράσις ἐξ ἀμφοῖν ὁμοιοπαθῆς καὶ σύμπηξις. *De E* 390F, *Sil.Or.* 429E (on the parts of soul). **Sextus Empiricus** *M.* 7.93 καὶ ὡς τὸ μὲν φῶς, φησὶν ὁ Ποσειδώνιος (F 85 E.-K., 395a Theiler) τὸν Πλάτωνος Τίμαιον ἐξηγουόμενος, ὑπὸ τῆς φωτεινοῦς ὀψεως καταλαμβάνεται, ἡ δὲ φωνὴ ὑπὸ τῆς ἀεροειδοῦς ἀκοῆς κτλ. **Alexander of Aphrodisias** *in Sens.* 14.18–23 λέγει δὲ τινὰς τῶν περὶ αἰσθήσεων εἰρηκώτων ζητεῖν ἐκάστην αἴσθησιν ἐξ ἐκάστου τῶν σωματικῶν στοιχείων ποιεῖν, καὶ {πέντε τῶν αἰσθήσεων οὐσῶν} οὐκ εὐποροῦντας συνάγειν εἰς τέσσαρα στοιχεῖα πέντε οὕσας αὐτὰς ζητεῖν περὶ τῆς πέμπτης, ἐκ τίνος αὐτὴν χρὴ λέγειν εἶναι σώματος. λέγοιτο δ' ἂν τοῦτο περὶ τῆς ἐν τῷ Τιμαίῳ δόξης, ἥτις ἀναφέρεται μὲν εἰς τοὺς Πυθαγορείους, εἴρηται δ' ἐν τῷ Τιμαίῳ (*Tim.* 45b–c, 65c–d, 66d, 67b). **Galen** *PHP* 7.5.42–6.1 δεόντως οὖν ἐροῦμεν αὐγοειδῆς μὲν εἶναι τὸ τῆς ὀψεως ὄργανον, ἀεροειδῆς δὲ τὸ τῆς ἀκοῆς, ἀτμοειδῆς δὲ τὸ τῆς ὁσμῆς καὶ τὸ μὲν τῆς γεύσεως ὑγρόν, τὸ δὲ τῆς ἀφῆς γεῶδες. (43) οὐδὲ γὰρ οἶόν τ' ἦν ἐτέρως ἔχειν αὐτὰ τῆς ἐκ τῶν ὁμοίων ἀλλοιωσεως χρῆζοντα καὶ τοῦτ', ἄρ' ἦν ὁ βούλεται δηλοῦν ὅτι Ἐμπεδοκλῆς ἐν οἷς φησι ... (quotation of 31B109 DK). (44) αἰσθανόμεθα γὰρ ὄντως τῷ μὲν γεωδεδεστέρῳ τῶν αἰσθητηρίων, ὅπερ ἐστὶν ἡ ἀφή, τῆς γεώδους φύσεως ἐν τοῖς αἰσθητοῖς, τῷ δ' αὐγοειδεστάτῳ, (τῷ) τῆς ὀψεως, τῆς αὐγοειδοῦς, καθάπερ γε καὶ τῷ κατὰ τὴν ἀκοὴν ἀεροειδεῖ γιγνομένῳ τῶν ἰδίων ἀέρος παθημάτων ἢ διάγνωσις ἀποτελεῖται. καὶ μὲν δὴ καὶ τῷ κατὰ τὴν γεῦσιν ὑγρῷ καὶ σπογγοειδεῖ τὴν φύσιν ὄντι τῶν χυμῶν ἡμῖν αἴσθησις γίγνεται. (45) λοιπὸν δ' ἐστὶ τὸ τῆς ὄσφρησεως ὄργανον, οὐκ ἐν τοῖς κατὰ τὴν ῥίνα πόροις, ὡς οἱ πολλοὶ νομίζουσιν, ἀλλ' ἐν τοῖς πέρασι τῶν προσθίων ἐγκεφάλου κοιλιῶν, εἰς ἅπερ ἀνήκουσιν οἱ κατὰ τὴν ῥίνα πόροι· κατὰ τοῦτο γὰρ τοι τὸ μόριον ἀτμοειδεστάτας εἶναι συμβέβηκε τὰς κοιλίας αὐτοῦ. ... (6.1) πέμπτον γὰρ δὴ τοῦτ' ἔστιν αἰσθητήριον, οὐκ ὄντων πέντε στοιχείων, ἐπειδὴ τὸ τῶν ὁσμῶν γένος ἐν τῷ μεταξύ τὴν φύσιν ἐστὶν ἀέρος τε καὶ ὕδατος, ὡς καὶ Πλάτων εἶπεν ἐν Τιμαίῳ (*Tim.* 66d–e). followed by **Nemesius** *NH* 6, p. 56.6–20 καὶ τῷ μὲν γεωδεδεστάτῳ καὶ σωματικωτάτῳ τῶν αἰσθητηρίων, ὅπερ ἐστὶν ἡ ἀφή, τῆς γεώδους φύσεως αἰσθάνεται, τῷ δὲ αὐγοειδεστάτῳ, ὅπερ ἐστὶν ἡ ὄψις, τῶν αὐγοειδῶν, ὡς καὶ τῷ (κατὰ τὴν ἀκοὴν) ἀερώδει τῶν τοῦ ἀέρος παθημάτων (ἀλλ' ὅταν γὰρ ἐστὶν ἡ τῆς φωνῆς οὐσία ἢ ἀέρος πληγὴ), καὶ τῷ σπογγοειδεῖ δὲ καὶ ὕδατοειδεῖ

τῷ κατὰ τὴν γεύσιν τῶν χυμῶν ἀντιλαμβάνεται· ἕκαστον γὰρ τῶν αἰσθητῶν διὰ τοῦ οἰκείου γνωρίζεσθαι πέφυκεν. ἔδει τοίνυν κατὰ τοῦτον τὸν λόγον, ἐπειδὴ τέσσαρα στοιχεῖα, τέσσαρας εἶναι καὶ τὰς αἰσθήσεις· ἀλλ' ἐπειδὴ περὶ ὁ ἀτμός καὶ τὸ τῶν ὁσμῶν γένος μεταξὺ τὴν φύσιν ἐστὶν ἀέρος καὶ ὕδατος ... τοῦτου χάριν πέμπτον αἰσθητήριον ἢ ὄσφρησις ὑπὸ τῆς φύσεως ἐξεύρηται. **Corpus Hippocraticum Ep.Ptol.** p. 287.1–7 Ermerins αἰσθητήρια δέ ἐστιν ἐν τῷ ἀνθρώπῳ πέντε· ὄρασις ὄσφρησις ἀκοὴ γεύσις καὶ ἀφή· ἡ μὲν ὄρασις ἐκ τοῦ αἰθέρος, ἡ δὲ ὄσφρησις ἐκ τοῦ ἀέρος, ἡ δὲ ἀκοὴ ἐκ τοῦ πυρός, ἡ δὲ γεύσις ἐκ τοῦ ὑγροῦ, ἡ δὲ ἀφή ἐκ τῆς γῆς. δυνάμεις εἰσὶ τῆς ψυχῆς πέντε· νοῦς διάνοια δόξα φαντασία καὶ αἴσθησις.

§14 Chrysippus: Philo of Alexandria Leg. 1.24 πρὸ τοῦ ἀνατεῖλαι τὰ κατὰ μέρος αἰσθητὰ ἦν τὸ γενικὸν αἰσθητὸν προμηθεΐα τοῦ πεποιηκότος. **Seneca Ep.** 58.16 *quod generalis est, tamquam homo generalis, sub oculos non venit; sed specialis venit, ut Cicero et Cato. animal non videtur; cogitatur. videtur autem species eius, equus et canis.* **Diogenes Laertius V.P.** 7.61 (SVF 3 Diog. 25) εἶδος δέ ἐστι τὸ ὑπὸ γένους περιεχόμενον ...· εἰδικώτατον δέ ἐστιν ὃν εἶδος οὐκ ἔχει, ὥσπερ ὁ Σωκράτης.

§15 Empedocles: Theophrastus Sens. 1 Παρμενίδης (28A46 DK) μὲν καὶ Ἐμπεδοκλῆς (—) καὶ Πλάτων τῷ ὁμοίῳ (sc. ποιοῦσιν τὴν αἴσθησιν). **Sens.** 9 (Empedocles 31A86 DK) ἡδεσθαι δὲ τοῖς ὁμοίοις κατὰ τε (τὰ) μόρια καὶ τὴν κράσιν, λυπεῖσθαι δὲ τοῖς ἐναντίοις. **Sens.** 16 (Empedocles 31A86 DK) ἀλλὰ μὴν οὐδὲ τὴν ἡδονὴν καὶ λύπην ὁμολογουμένως ἀποδίδωσιν ἡδεσθαι μὲν ποιῶν τοῖς ὁμοίοις, λυπεῖσθαι δὲ τοῖς ἐναντίοις.

§16 Anaxagoras: Aristotle EN 7.15 1154b7–8 αἰεὶ γὰρ πονεῖ τὸ ζῶον, ὥσπερ καὶ οἱ φυσιολόγοι (59A94 DK) μαρτυροῦσι, τὸ ὄραν, τὸ ἀκοῦειν φάσκοντες εἶναι λυπηρόν. **Theophrastus Sens.** 29 (59A92 DK) ἅπασαν δ' αἴσθησιν μετὰ λύπης. **Aspasius in EN (ad loc.)** p. 156.13–20 αἰεὶ γὰρ πονεῖν τὸ ζῶον, ὥσπερ καὶ οἱ φυσιολόγοι λέγουσιν. ὁ γὰρ Ἀναξαγόρας (59A94 DK) ἔλεγεν αἰεὶ πονεῖν τὸ ζῶον διὰ τῶν αἰσθήσεων. ταῦτα δὲ οὐχ ὥς συγκατατιθέμενος λέγει ἀλλ' ἱστορῶν· ἐπεὶ οὐκ ἐδόκει γε αὐτοῖς αἰεὶ ἐν πόνῳ εἶναι τὸ ζῶον. καὶ τὸν Ἀναξαγόραν αἰτιάται Θεόφραστος (fr. 555 FHS&G) ἐν Ἠθικοῖς λέγων ὅτι *** 'ἐξελαύνει ἡδονὴ λύπην ἢ γε ἐναντία', οἷον ἢ ἀπὸ τοῦ πίνειν τὴν ἀπὸ τοῦ διψῆν, 'καὶ ἢ τυχοῦσα', τουτέστιν ἥτις οὖν ἂν εἴη 'ἰσχυρά', ὥστε ἐνίοτε πείναν ἐξελαύνει καὶ ἀκοῆς ἡδονή, ὅταν ἄσματος ἢ ἄλλοις τισὶν ἀκούσμασι διαφερόντως χαίρωμεν. **Theophrastus Sens.** 17 καίτοι πολλάκις αἰσθανόμενοι λυπούμεθα κατ' αὐτὴν τὴν αἴσθησιν, ὡς (δ') Ἀναξαγόρας (59A92 DK) φησὶν, αἰεὶ· πᾶσαν γὰρ αἴσθησιν εἶναι μετὰ λύπης.

§17 Others: Doxography C (Peripatetic, ascribed to AD) at Stob. *Ecl.* 2.7.10, p. 88.16–21 (SVF 3.378) ἐπιθυμίαν μὲν οὖν καὶ φόβον προηγείσθαι, τὴν μὲν πρὸς τὸ φαινόμενον ἀγαθόν, τὸν δὲ πρὸς τὸ φαινόμενον κακόν. ἐπιγίγνεσθαι δὲ τούτοις ἡδονὴν καὶ λύπην, ἡδονὴν μὲν ὅταν τυγχάνωμεν ὧν ἐπεθυμοῦμεν ἢ ἐκφύγωμεν ἃ ἐφοβούμεθα· λύπην δέ, ὅταν ἀποτυγχάνωμεν ὧν ἐπεθυμοῦμεν ἢ περιπέσωμεν οἷς ἐφοβούμεθα. **Dio Chrysostomus Or.** 8.23 ὁ μὲν οὖν πόνος διὰ τῆς ἀφῆς ἐπιγίγνεται ὡς τὸ πολὺ καὶ ταύτῃ πρόσσειν, ἡ δὲ ἡδονὴ κατὰ πᾶσαν αἴσθησιν ὁπόσας ἀνθρώπος αἰσθῆσεις ἔχει.

§20 *Epicurus: Bacchylides Pae. fr. 2.1–2* Irigoin at Clem.Alex. *Strom.* 5.68.5
 ἕτερος ἐξ ἑτέρου σοφὸς / τό τε πάλαι τό τε νῦν. Diogenes Laertius *V.P.* 9.20
 Ἐμπεδοκλέους δὲ εἰπόντος αὐτῷ (sc. Ξενοφάνει, 21A1 & A20 DK) ὅτι ἀνεύρετός
 ἐστὶν ὁ σοφός, ‘εἰκότως,’ ἔφη· ‘σοφὸν γὰρ εἶναι δεῖ τὸν ἐπιγινωσόμενον τὸν σοφόν.’ Cf.
Gnomologium Parisinum 6.54 Searby.

Liber 4 Caput 10

P^B: ps.Plutarchus *Plac.* 900A; p. 399^a1–14 Diels—P^Q: Qustā ibn Lūqā pp. 198–199 Daiber

S: Stobaeus *Ecl.* 1.51.2–4, pp. 481.16–482.8 + 1.50.7–9, pp. 473.20–474.5 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b30–31 Henry (titulus solus)

Cf. Nem: Nemesius *NH* 15, p. 72.7–9 Morani

Titulus ἰ'. Πόσαι εἰσὶν αἱ αἰσθήσεις (P,S)

- §1 οἱ Στωικοὶ πέντε τὰς εἰδικὰς αἰσθήσεις, ὅρασιν ἀκοήν ὄσφρησιν γεύσιν ἀφῆν. (P1,S4)
- §2 Ἀριστοτέλης ἔκτην μὲν οὐ λέγει, κοινὴν δ' αἰσθησιν τὴν τῶν συνθέτων εἰδῶν κριτικὴν, εἰς ἣν πᾶσαι συμβάλλουσιν αἱ ἀπλαῖ τὰς ἰδίας ἐκάστη φαντασίας· ἐν ἣ τὸ μεταβατικὸν ἀφ' ἐτέρου πρὸς ἕτερον, οἶον εἰ σχήματος καὶ κινήσεως. (P2,S5) 5
- §3 † Πελλῆς πλείους αἰσθήσεις εἶναι περὶ τὰ ἄλογα ζῶα †. (S1)
- §4 Δημόκριτος πλείους εἶναι αἰσθήσεις, περὶ τὰ ἄλογα ζῶα καὶ περὶ τοὺς σοφοὺς καὶ περὶ τοὺς θεοὺς. (P3,S6) 10
- §5 Δημόκριτος πλείους μὲν εἶναι τὰς αἰσθήσεις τῶν αἰσθητῶν, τῷ δὲ μὴ ἀναλογίζειν τὰ αἰσθητὰ τῷ πλήθει λανθάνειν. (S2)
- §6 οἱ δ' ἄλλοι παρῖσους. (S6)

§1 Stoici *SVF* 2.853; §2 Aristoteles cf. *de An.* 3.1 424b22–23, 425a14–16; §3—; §4 Democritus 68A16 DK; §5 Democritus 68A15 DK; §6 anonymi—

caput non hab. P^{EGT} **titulus** Πόσαι ... αἰσθήσεις P^{BQ}: καὶ ποίας οὐσίας καὶ ἐνεργείας ἐκάστη add. S^LPhot: αἱ om. P^{B(11)}: εἰσὶν post αἰσθήσεις P^{B(1)} §1 [2] εἰδικὰς P^{B(111)}: ἰδικὰς P^{B(1,11)}S^L §2 [4] ἔκτην: ἔκτον S corr. Meineke || [4–7] κοινὴν ... κινήσεως P^B: cf. supra c. 4.8.6[20–22] || τὴν P^B: om. S^L || συνθέτων συνθέντων S^L || [6–7] ἐν ... κινήσεως P^BS^L: ἀφ' om. P^Q (?) non vertit Daiber (*dabei bewegt sich der eine (Sinn) zum anderen (in gleicher Weise) wie die Fortbewegung verläuft, welche bei den Gestalten und Bewegungen stattfindet* Q) || [7] δέικνεται add. P^B post κινήσεως non hab. P^QS^L secl. Diels prob. Mau Gigon, sed ret. Lachenaud §3 [8] lemma abundans crucifiximus: Ἀπελλῆς ind. Phot.: πελλῆς S^L: 'vereor ne ... nihil sit nisi Ἀριστοτέλης lemma errore praefixum insequentis paragraphi' Diels *DG* et crucif. †Ἀπελλῆς† ('prima [sc. littera] rubricatori relicta'), †πελλῆς† Wachsmuth, qui add. 'fort. Ἐμπεδοκλής' || verba πλείους ... ζῶα S^L: iterata ex c. 4.4[9] sec. Diels || πλείους S^L: ὁμοίους Usener: 'crediderim tamen Aetium ἀλλοίους [...] ἄ. ζ. scripsisse, ut haec opposita sint verbis' (sc. 4.4[9]) 'καὶ ἐπὶ τὰ ἄλογα τῶν ζώων' Wachsmuth || §4 [9–10] περὶ¹ ... θεοὺς P^{B(1,11)}: καὶ περὶ τοὺς θεοὺς καὶ σοφοὺς P^{B(111)}: *in den unvernünftigen* [sic!] *und weisen Lebewesen* Q §5 [11] τῷ δὲ S^L: τὸ δὲ Usener || [12] ἀναλογίζειν S^L prob. Wachsmuth: crucif. Diels qui prop. ἀναλογεῖν

Testes secundi:

Nemesius *NH* 15 p. 72.7–9 (~ §1) Ζήνων δὲ ὁ Στωϊκὸς (*SVF* 1.143) ὀκταμερῇ φησιν εἶναι τὴν ψυχὴν, διαιρῶν αὐτὴν εἰς τε τὸ ἡγεμονικόν, καὶ εἰς τὰς πέντε αἰσθήσεις κτλ.

Loci Aetiani:

§1 A 4.4.4 οἱ Στωικοὶ ... πέντε (sc. μερῶν) μὲν τῶν αἰσθητικῶν, ὁρατικοῦ ἀκουστικοῦ ὀσφρητικοῦ γευστικοῦ ἀπτικοῦ. A 4.9.14 Χρύσιππος τὸ μὲν γενικὸν ἡδὺ νοητόν, τὸ δὲ εἰδικόν καὶ προσπίπτον ἤδη αἰσθητόν. A 4.21.1–2 οἱ Στωικοὶ ... πέντε μὲν εἰσι τὰ αἰσθητήρια, ὄρασις ὀσφρησις ἀκοή γεῦσις καὶ ἀφή.

§2 = A 4.8.6 Ἀριστοτέλης ... κοινὴν δὲ αἴσθησιν τὴν τῶν συνθέτων εἰδῶν κριτικὴν, εἰς ἣν πᾶσαι συμβάλλουσιν αἱ ἀπλᾶί τὰς ἰδίας ἐκάστη (φαντασίας), ἐν ἣ τὸ μεταβατικὸν ἀφ' ἑτέρου εἰς ἕτερον οἶον σχήματος (καὶ) κινήσεως σώματος.

§5 A 4.4.6 οἱ δὲ γε Πυθαγόρου διάδοχοι ἐκ πέντε στοιχείων τὸ σῶμα κραθῆναι φάντες—τοῖς γὰρ τέτταρσι ξυνέταξαν τὸ αἰθέριον—ἰσαριθμούς εἶναι ἔφασαν ταύτῃ καὶ τῆς ψυχῆς τὰς δυνάμεις. A 4.9.11 Πυθαγόρας Πλάτων καθαρὸν ἔκαστον εἶναι τῶν αἰσθητῶν ἐξ ἐκάστου στοιχείου προσερχόμενον. πρὸς μὲν οὖν τὴν ὄρασιν τὸ αἰθηριὸν πεφυκέναι, πρὸς δὲ τὴν ἀκοὴν τὸ πνευματικόν, πρὸς δὲ τὴν ὀσφρησιν τὸ πυρῶδες, πρὸς δὲ τὴν γεῦσιν τὸ ὑγρόν, πρὸς δὲ τὴν ἀφήν τὸ γεώδες.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

(1) The witnesses for P are only P^B and P^Q. G has not excerpted the chapter. Ps prefers a chapter entitled *Περὶ τῶν πέντε αἰσθήσεων* that brings together a series of brief descriptions or definitions of the senses equivalent to A 4.13 & 16–19 (but using P as his model).

(2) T, as we have noticed, is no longer excerpting A.

(3) S has six lemmata, which are divided over two different chapters, viz. *Ecl.* 1.50 and 1.51: three of them, i.e. ch. 4.10.3 + 4.10.5–6, are at *Ecl.* 1.50.7–9, pp. 473.20–474.5. These excerpts according to Diels interrupt the sequence of lemmata S abstracted from ch. 4.8, while Wachsmuth ad loc. prefers to locate them in that chapter (see above, ch. 4.8, Commentary A(2) and ch. 4.9, Commentary A(2) and A(4)). Three more lemmata, i.e. ch. 4.10.1–2 + 4.10.4, are found in the next Stobaeon chapter, *Ecl.* 1.51.2–4, pp. 481.17–482.8. All the lemmata of S except ch. 4.10.2 (Aristotle) are extant only in ms L, the Florentine florilegium, cf. above, ch. 4.8 Commentary A(1).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition is poor. Unfortunately other evidence for views pertaining to more than the five canonical senses, and in particular to the views of Democritus, is virtually non-existent.

(2) *Sources.* Aristotle several times discusses the issue of the number of the senses and resolutely defends the number five, e.g. *de An.* 3.1 425a13–b11. So does Alexander of Aphrodisias, e.g. *de An.* 66.1–9. The Stoics too limit the number of the senses to five. We do not know how this reliable information reached the *Placita*.

C *Chapter Heading*

A precise heading, in P, concerned with the category of quantity, and confirmed by the first part of the heading of S 1.51, a short chapter which has the long and detailed heading ‘How many senses are there, and what is the substance and performance of each?’ (Πόσαι εἰσὶν αἱ αἰσθήσεις καὶ ποίας οὐσίας καὶ ἐνεργείας ἕκαστη). For the dialectical aspect of the question word see above, ch. 1.1, Commentary C. This long version, added by Wachsmuth from Photius and the index of S^L, looks ahead to the chapters treating the individual senses. Alexander of Aphrodisias in the introduction to his Commentary on Aristotle’s *De sensu* mentions as one of the topics of the *De anima* ‘on the function of sensation ... and saying what it is and in how many senses it is divided’ (περὶ τῆς αἰσθητικῆς δυνάμεως ..., καὶ τίς τέ ἐστιν εἰπὼν καὶ εἰς πόσας αἰσθήσεις διαιρεῖται, in *Sens.* 1.5–7).

D *Analysis*

a Context

Chapter 4.10 is the third of a series of five chapters concerned with cognitive issues in a more general way. It deals with the number of the senses (category of quantity), and follows upon the chapter dealing with the reliability of sensations and impressions (truth or falsity: category/question-type of quality). It is followed by two chapters (4.11–12) specially devoted to Stoic views on these issues, dealing respectively with the cognitive process from sensation to concept-formation, and with distinctions between various forms of real or imaginary impressions.

b Number–Order of Lemmata

P has only three lemmata, S more. As indicated above there is a difference of opinion between Diels and Wachsmuth. According to Diels S provides six lemmata for the present chapter divided between *Ecl.* 1.50 and 1.51, according to Wachsmuth only three, in *Ecl.* 1.51 (see above, section A). Diels argued

that §§3 and 5–6 of ch. 4.10 had been wrongly coalesced by S in 1.50 with the lemmata from ch. 4.8, while Wachsmuth believed that they really belong in ch. 4.8. For the first of these L, the Florentine florilegium, which is the only source for S here, has the enigmatic name-label πελλῆς in §3. Diels *DG* 399b13 prints †Ἀπελλῆς, Wachsmuth *Ecl.* 1.473.21 †πελλῆς (see below, section D(d)§3). But Wachsmuth needed to change the text of §3 from πλείους into ἄλλοιους (and even to suggest that πελλῆς is a corruption of the regular name-label Ἐμπεδοκλῆς) in order to create a diaphonic connection between the Aristotle lemma ch. 4.8.6, according to which the *sensus communis* is shared to some extent by the animals, whereas ch. 4.10.3 (with this conjecture!) appears to deny this commonality. It is clear that this reconstruction needs too many extra hypotheses, and that Diels, who fished out lemmata dealing with the category of quantity, must be right. The fact that the text of §3 in *Ecl.* 1.50 anticipates that of §4 in *Ecl.* 1.51 is a further argument in favour of Diels' rearrangement, as he already pointed out himself. The fact that the two Democritus lemmata §4 and §5 have virtually the same beginnings (§4 Δημόκριτος πλείους εἶναι αἰσθήσεις, §5 Δημόκριτος πλείους μὲν εἶναι τὰς αἰσθήσεις) may have contributed to the creation of the false lemma §3 in S, as Diels ad loc. already suggested. The strange name-label πελλῆς is combined with a duplication of the first part of §4. It could have been relegated to the critical apparatus, but we have left it in the text, as an illustration of what may happen with doxai.

The lemmata order. The sequence of lemmata from §1 to §4 is not the same in P and S if we take the order of the chapters into account. For §§5–6 we follow the order of S, and their final position is warranted by the fact that in S they come after §3, itself a misguided anticipation of §4, so they follow after §4. Our reconstruction of the chapter and the order of its lemmata thus turns out to be the same as that of Diels in the *DG*.

c Rationale–Structure of Chapter

The rationale of the chapter is quite straightforward. The lemmata are arranged according to number (category of quantity), starting with the standard quintet in §1. In §2 Aristotle too sticks to five senses, though he adds the *sensus communis* (as in ch. 4.8.6). The other side of the diaeresis is provided by two Democritus lemmata. The first, §4, claims that there are more senses (than five, of course)—interestingly enough claiming this not only and perhaps with some justification for gods and animals, but also for Wise Men. The second, §5, takes up the theme of chs. 4.4.6 and 4.9.11, namely the issue of the relation between the number of the senses and the number of the kinds of elemental sense objects. Democritus is credited with the view that there are more senses than kinds of sense objects, but it is not clear how this should work out in rela-

tion to human beings, Wise Men, gods, and animals. The anonymous §6 (one wonders who these ‘others’ may be) provides a compromise tenet; or rather one which fails to fit the diaeresis, because ‘equally balanced’ may perhaps be both less and more than five.

d Further Comments

Individual Points

§2 For the passage [4] κοινήν ... [7] κινήσεως repeated from ch. 4.8.2 see at this chapter, Commentary D(d)§6.

§3 The doxa is duplicated from the next lemma, as Diels noted. The first letter of the name-label is lacking in the Laurentianus ms., but present in Photius’ index (cod. 167, p. 114a27 Henry), as noted by Elter (1880) 41. An Ἀπελλῆς is on the list of pupils of Chrysippus at Philodemus *Index Stoicorum* col. 47.3, who may or may not be identical with the Ἀπολλᾶν in Chrysippus’ catalogue at Diogenes Laertius *V.P.* 7.193 (where the *recentiores* read ἀπελλᾶν) and *V.P.* 7.197. The proper name Πελλῆς does exist but is quite rare (Apollonius Rhodius *Arg.* 1.177, Diodorus Siculus 4.3.23); no intellectual of this name is known. It seems safest to follow Diels and obelize the lemma.

§5 A related issue occurs in long-distance diaphonic opposition at ch. 4.4.6 and ch. 4.6.11, name-labels respectively ‘Pythagoras’ followers’ and ‘Pythagoras Plato’, where the number of the kinds of sense-objects equals that of the senses.

e Other Evidence

The number of the senses is not only discussed by Aristotle in the *De anima*, but is also one of three main criteria for distinguishing and classifying doctrines in Theophrastus’ *De sensibus*, see Mansfeld (1996). He discusses views also according to the number of senses involved (category of quantity): a first group (who believe perception occurs ‘by similarity’) beginning with Parmenides who failed to determine the number, then Plato with two (!) senses, sight and hearing—numbered, as we know, by Plato himself as ‘third’ (*Tim.* 67a τρίτον) and ‘fourth’ (67c τέταρτον) ‘perceiving part’ (αἰσθητικὸν ἐν ἡμῖν μέρος)—, and finally Empedocles with five. Then a second group (who believe perception occurs ‘by contrast’), comprising *inter alios* Alcmaeon with four senses (as it would appear) and Anaxagoras with five. See section E(b) General texts. More than five is only a side issue in *de Sens.* 6 (Plato did not say whether there are other senses than the canonical five), while in the present chapter the main diaeresis according to quantity is between five senses or more (more than five are attributed to Democritus), and less than five is not mentioned. The relation to the *De sensibus* is even more faint than in ch. 4.8; cf. above, 4.8, Commentary D(a).

The first author to mention the five canonical senses is Empedocles (31B3.10–13 DK); one cannot say that Parmenides is concerned with sense perception in a specific way because for him eyes, ears, and tongue (as the organ of speech, 28B7.4–5 DK) are means of judgement and communication rather than sense organs, just as eyes and ears are for Heraclitus (22B55, B101a DK), see Mansfeld (1999d) and (2018b). The Hippocratic author cited at section E(b)§3–5 puts (what we would call) mental and sensorial faculties on a par.

The parallels for a discussion of the number of the senses reveal that the issue, though not spectacular, was often related to that of the number of elemental sense-objects, see Baltes (1978).

We now know that animals have more or other senses than we do, think of electric sense, magnetic sense, echolocation, and infrared and ultraviolet vision (e.g. von Frisch proved that bees do not see red but see ultraviolet). For Montaigne and Leibniz speculating on animal senses unknown to us see Strickland (2016) 78–79.

E Further Related Texts

a Proximate Tradition

General texts: ps.Galen *Def.Med.* 19.379.6–9 K. ριστ'. αἰσθήσεις εἰσὶ πέντε, ὄρασις, ἀκοή, γεῦσις, ὄσφρησις, ἀφή. διακονοῦνται δὲ αὐταὶ καὶ ὑπηρετοῦνται τῇ ψυχῇ, ὥσπερ Ἀσκληπιάδης ὁ Βιθυνός (cf. Vallance *ANRW* 2.37.1, p. 721) φησιν καὶ τὴν (συγ)γυμνασίαν τῶν πέντε αἰσθήσεων ψυχὴν εἶναι.

§2 **Aristotle:** Arius Didymus fr. 15 Diels at Stob. *Ecl.* 1.51.5, p. 482.9–19 Ἀριστοτέλους· τὸ δὲ αἰσθητικόν, ... πενταπλοῦν εἰκέναι. τοῦτο γὰρ τὸ μὲν ὄρασιν τὸ δ' ἀκοήν τὸ δ' ὄσφρησιν τὸ δὲ γεῦσιν τὸ δ' ἀφήν. ὑπάρχειν δέ τινα καὶ σύνθετον αἴσθησιν ...

b Sources and Other Parallel Texts

General texts: Theophrastus *Sens.* 5 Πλάτων δὲ ἐπὶ πλεόν μὲν ἦπται τῶν κατὰ μέρος, οὐ μὴν εἴρηκε γέ περὶ ἀπασῶν, ἀλλὰ μόνον περὶ ἀκοῆς καὶ ὄψεως. *Sens.* 6 (also on Plato) περὶ δὲ ὄσφρῆσεως καὶ γεύσεως καὶ ἀφῆς ὅλως οὐδὲν εἴρηκεν [sic], οὐδὲ εἰ παρὰ ταύτας ἄλλαι τινές εἰσιν, ἀλλὰ μᾶλλον ἀκριβολογεῖται περὶ τῶν αἰσθητῶν. *Sens.* 7 Ἐμπεδοκλῆς (31A86 DK) δὲ περὶ ἀπασῶν ὁμοίως λέγει. *Sens.* 26 (Alcmaeon 24A5 DK) περὶ δὲ ἀφῆς οὐκ εἴρηκεν οὔτε πῶς οὔτε τίνι γίνεται. *Sens.* 27 Ἀναξαγόρας (59A92 DK) ... καθ' ἐκάστην δ' ἰδίᾳ πειράται διαριθμεῖν. **Themistius** *in de An.* 80.4–10 οὐδεμία ἄρα αἴσθησις τοῖς ζώοις ἐλλείπει, λέγω δὲ οὐ πᾶσιν, ἀλλὰ τοῖς τελείοις καὶ μὴ κολοβοῖς μηδὲ οἷον πεπηρωμένοις· τὰ γὰρ καλούμενα ζώφута μίαν ἔχει τὴν ἀφήν, τὰ δὲ ἴσως καὶ τὴν γεῦσιν, τὰ δὲ ἴσως καὶ τὴν ὄσφρησιν, ὅσα δὲ πορευτικά καὶ τέλεια, ταῦτα ἔχει τὰς πέντε πάσας· φαίνεται γὰρ καὶ ἡ ἀσπάλαξ ὑπὸ τὸ δέρμα ἔχουσα ὀφθαλμούς, ἀλλ' ἐπειδὴ περὶ πρὸς τὸν βίον οὐκ ἦν αὐτῇ ἀναγκαῖα ἡ ὄψις, ἐξεπλήρωσε μὲν καὶ ἐπὶ ταύτης ἡ φύσις τὸν ἀριθμὸν τῶν αἰσθήσεων. **John Philoponus** *in de An.* 450.35–451.5 ὅτι μὲν οὖν οὐκ ἔστιν αἴσθη-

σις ἑτέρα παρὰ τὰς πέντε' (*de An.* 3.1 424b22)—ἐπειδὴ ἐν τῷ πέρατι τοῦ δευτέρου λόγου ἐζήτει, εἰ μία ἐστὶν ἢ ἀφή ἢ πολλαί, νῦν δείκνυσιν ὅτι πέντε εἰσὶ καὶ μόνον αἰσθήσεις, ἵνα τούτου δεικνυμένου δῆλον ᾖ ὅτι μία ἐστὶν ἢ ἀφή. δικαίως δὲ τοῦτο ποιεῖ, ἐπειδὴ τῶν ζώων τὰ μὲν δύο ἔχει αἰσθήσεις, τινὰ δὲ τρεῖς, καὶ διὰ τοῦτο ζητεῖ πόσαι εἰσὶν αἱ αἰσθήσεις· εἰ γὰρ πάντα τὰ ζῶα εἶχον τὰς πέντε αἰσθήσεις, περιττὴ ἦν ἡ περὶ τούτου ζήτησις. **Ioannes Lydus** *Mens.* 2.10, p. 31.12–14 συγγενὴς γὰρ ἡ πεντὰς τῇ αἰσθήσει, ἥτις πενταχῶς τέμενται, εἰς ὄρασιν ἀκοὴν γεῦσιν ὄσφρησιν καὶ ἀφήν.

§1 Stoics: Philo of Alexandria *Mos.* 2.81 ἡ πεντὰς αἰσθήσεων ἀριθμὸς ἐστίν. *Plant.* 133. *QE* 2.97. *Abr.* 147 συμβολικῶς ἡ πεντάπολις αἱ ἐν ἡμῖν πέντε αἰσθήσεις εἰσὶ, τὰ τῶν ἡδονῶν ὄργανα. **Aulus Gellius** 19.2.1 *quinque sunt hominum sensus, quos Graeci αἰσθήσεις appellant, per quos voluptas animo aut corpori quaeri videtur: gustus, tactus, odoratus, visus, auditus.* **Diogenes Laertius** *V.P.* 7.110 (*SVF* 2.828) φασὶ δὲ τὴν ψυχὴν εἶναι ὀκταμερῇ· μέρη γὰρ αὐτῆς τὰ τε πέντε αἰσθητήρια κτλ. **Galen** *Adv.Lyc.* c. 4.10, 18A.222.4–6 K. παρὰ ταύτας γὰρ οὐκ ἔχομεν ἄλλην αἴσθησιν, ἀλλ' εἰσὶν αἱ πᾶσαι πέντε, γεῦσις καὶ ἀκοή καὶ ὄψις καὶ ὄσφρησις τε καὶ ἀφή. **Tertullian** *de An.* 17.1 *contingit nos illorum etiam quinque sensuum quaestio, quos in primis litteris discimus, quoniam et hinc aliquid haereticis procuratur: visus est et auditus et odoratus et gustus et tactus.* **Porphyrus** *Περὶ τῶν τῆς ψυχῆς δυνάμεων* 253F Smith at Stob. *Ecl.* 1.49.25a, p. 350.13–14 (*SVF* 2.830) οἱ μὲν ἀπὸ τῆς Στοᾶς ὀκταμερῇ τὴν ψυχὴν θέντες καὶ πέντε μὲν μέρη τὰ αἰσθητικὰ λαβόντες κτλ. **Plutarch** *Def.Or.* 429E ἐνεῖμε γὰρ ἡμῖν αὐτοῖς αἰσθήσεις πέντε.

§2 Aristotle: Aristotle *de An.* 3.1 424b22–23 ὅτι δ' οὐκ ἔστιν αἴσθησις ἑτέρα παρὰ τὰς πέντε (λέγω δὲ ταύτας ὄψιν, ἀκοήν, ὄσφρησιν, γεῦσιν, ἀφήν), ἐκ τῶνδε πιστεύσειεν ἂν τις κτλ. *de An.* 3.1 425a14–18 ἀλλὰ μὴν οὐδὲ τῶν κοινῶν οἶόν τ' εἶναι αἰσθητήριόν τι ἴδιον, ὦν ἐκάστη αἰσθήσει αἰσθανόμεθα κατὰ συμβεβηκός, οἷον κινήσεως, στάσεως, σχήματος, μεγέθους, ἀριθμοῦ· ταῦτα γὰρ πάντα κινήσει αἰσθανόμεθα, οἷον μέγεθος κινήσει (ὥστε καὶ σχήμα· μέγεθος γὰρ τὸ σχήμα). *Sens.* 5 444b19–21. **ps.Alexander** *Probl.* 2.61.1–3 Ideler διὰ τί πέντε μόναι αἰσθήσεις καὶ μὴ πλείους ἢ ἑλάττους; ὅτι πρὸς τὴν φύσιν καὶ τὸν ἀριθμὸν τῶν αἰσθητῶν καὶ τὰ αἰσθητήρια. **Simplicius** (? perhaps Priscianus Lydus) *in de An.* 173.7–17 πόθεν οὖν ὅτι οὐκ ἔστιν ἄλλη αἴσθησις παρὰ τὰς πέντε; οὐκ ἐκ τῆς ἐπαγωγῆς ἢ πίστεως· πλείω γὰρ τῶν ἡμῖν φανερῶν ζώων τὰ ἀφανῆ, τὰ μὲν καὶ θνητὰ, τὰ δὲ ὅσα δαιμόνια. οὐδὲ μὴν ἐκ τῶν στοιχείων, ὡς ἰδίως ἐκάστου οἰκεῖα ὑποπίπτοντος αἰσθήσει τεσσάρων ὄντων καὶ τῆς ἀναθυμιάσεως, ἥς λέγεται εἶναι ἢ ὄσφρησις, ὡς τοῦ πυρὸς μὲν ἡ ὄψις, ἀέρος δὲ ἡ ἀκοή καὶ τῶν λοιπῶν αἱ λοιπαί, ὕδατος ἢ γεῦσις καὶ γῆς ἢ ἀφή. οὐ γὰρ τῇ ὄψει μόνῃ, ἀλλὰ καὶ τῇ ἀφῇ ὡς θερμὸν γνωρίζεται τὸ πῦρ. ἄδηλον οὖν, μὴ καὶ ἄλλη τίς ἐστὶν αὐτῷ ποιότης, ἣν ἀγνοοῦμεν ἡμεῖς διὰ τὸ ἀντιληπτικὴν αὐτῆς ἐλλείπειν ἡμῖν αἴσθησιν. πόθεν οὖν, ὅτι πέντε μόναι αἱ αἰσθήσεις, πιστοῦται ὁ Ἀριστοτέλης; ἔκ τε τῆς ζωτικῆς ἐν ἡμῖν τελειότητος καὶ ἐκ τῶν αἰσθητηρίων μὴ ἐλλειπόντων.

§§3–5 Democritus: Corpus Hippocraticum *Diaet.* 23.5–8 δι' ἑπτὰ σχημάτων καὶ ἡ αἴσθησις ἡ ἀνθρώπων, ἀκοή ψόφων, ὄψις φανερῶν, ῥῖν ὀσμῆς, γλῶσσα ἡδονῆς καὶ ἀηδίας, στόμα διαλέκτου, σῶμα ψαύσιος θερμοῦ ἢ ψυχροῦ, πνεύματος διέξοδοι ἔσω καὶ ἔξω· διὰ τούτων γινώσις ἀνθρώποισιν.

§4 Democritus: Theophrastus Sens. 6 (on Plato) περί δὲ ὁσφρήσεως καὶ γεύσεως καὶ ἀφῆς ὅλως οὐδὲν εἴρηκεν [*sic*], οὐδὲ εἰ παρὰ ταύτας ἄλλαι τινές εἰσιν. **Sextus Empiricus** 9.140 περιττοτέρας γὰρ αἰσθήσεις ἔχων ὁ ἄνθρωπος ἀμείνων αὐτοῦ (sc. τοῦ θεοῦ) γενήσεται, δέον μᾶλλον, ὡς ἔλεγεν ὁ Καρνεάδης (F3 Mette), σὺν ταῖς πᾶσιν ὑπαρχούσαις πέντε ταύταις αἰσθήσεσι καὶ ἄλλας αὐτῷ περισσοτέρας προσμαρτυρεῖν, ἵν' ἔχη πλείονων ἀντιλαμβάνεσθαι πραγμάτων, ἀλλὰ μὴ τῶν πέντε ἀφαιρεῖν. **P.** 1.96–98 (Aenesidemean trope) πλείονας δὲ τῶν φαινομένων ἡμῖν ποιότητων ἔχειν τὸ μῆλον ποιότητος δύνασθαι οὕτως ἐπιλογιζόμεθα. ἐννοήσωμέν τινα ἐκ γενετῆς ἀφῆν μὲν ἔχοντα καὶ ὁσφρησιν καὶ γεῦσιν, μήτε δὲ ἀκούοντα μήτε ὁρῶντα. οὗτος τοίνυν ὑπολήπεται μήτε ὁρατόν τι εἶναι τὴν ἀρχὴν μήτε ἀκουστόν, ἀλλὰ μόνον ἐκεῖνα τὰ τρία γένη τῶν ποιο(97)τήτων ὑπάρχειν ὧν ἀντιλαμβάνεσθαι δύναται. καὶ ἡμᾶς οὖν ἐνδέχεται τὰς πέντε μόνους αἰσθήσεις ἔχοντας μόνον ἀντιλαμβάνεσθαι, ἐκ τῶν περὶ τὸ μῆλον ποιότητων, ὧν ἔσμεν ἀντιληπτικοί· ὑποκεῖσθαι δὲ ἄλλας οἷον τέ ἐστι ποιότητος, ὑποπιπτούσας ἐτέροις αἰσθητηρίοις, ὧν ἡμεῖς οὐ μετεσχέκαμεν, διὸ οὐδὲ ἀντιλαμβανόμεθα τῶν κατ' αὐτὰς αἰσθητῶν. (98) ἀλλ' ἡ φύσις συνεμετρήσατο, φήσει τις, τὰς αἰσθήσεις πρὸς τὰ αἰσθητά. ποῖα φύσις, διαφωνίας τοσαύτης ἀνεπικρίτου παρὰ τοῖς δογματικοῖς οὔσης περὶ τῆς ὑπάρξεως τῆς κατ' αὐτήν; **Montaigne Essais** Livre 2 Chap. 12 (*Apologie de Raimond de Sebonde*) p. 625 Balsamo & alii La premiere consideration que j'ay sur le subject des sens, c'est que je mets en doute que l'homme soit pourveu de tous sens naturels. Je voy plusieurs animaux, qui vivent une vie entiere et parfaite, les uns sans la veue, autres sans l'ouye: qui sçait si a nous aussi il ne manque pas encore un, deux, trois, et plusieurs autres sens? Car s'il en manque quelqu'un, nostre discours n'en peut decouvrir le defaut. C'est le privilege des sens d'estre l'extreme borne de nostre apercevanee : Il n'y a rien au delà d'eux, qui nous puisse servir à les descouvrir. **Leibniz Monadologie** 25 Aussi voions nous que la Nature a donné des perceptions relevées aux animaux, par les soins qu'elle a pris de leur fournir des organes qui ramassent plusieurs raïons de lumière ou plusieurs ondulations de l'air, pour les faire avoir plus d'efficace par leur union. Il y a quelque chose d'approchant dans l'odeur, dans le goût et dans l'attouchement, et peut-être dans quantité d'autres sens, qui nous sont inconnûs.

Liber 4 Caput 11

PP : *Papyrus Antinoopolis* 85 fr. 4 recto (1960) p. 78, (1967) p. 182 Barns—Zilliacus—PB: ps.Plutarchus *Plac.* 900B–D; pp. 400^a1–401^a10 Diels—PG: ps.Galenus *HPh* c. 92; pp. 635.17–636.6 Diels—PQ: Qustā ibn Lūqā pp. 198–201 Daiber

Titulus 1α'. Πὼς γίνεται ἡ αἰσθησις καὶ ἡ ἔννοια καὶ ὁ κατὰ (ἐν)διάθεσιν λόγος (P)

§1 οἱ Στωικοὶ φασιν· ὅταν γεννηθῇ ὁ ἄνθρωπος, ἔχει τὸ ἡγεμονικὸν μέρος τῆς ψυχῆς ὥσπερ χαρτίον εὐεργὸν εἰς ἀπογραφὴν· εἰς τοῦτο μίαν ἐκάστην τῶν ἐννοιῶν ἐναπογράφεται.

5

πρῶτος δὲ ὁ τῆς ἀναγραφῆς τρόπος ὁ διὰ τῶν αἰσθήσεων· αἰσθάνομενοι γάρ τινος οἷον λευκοῦ ἀπελθόντος αὐτοῦ μνήμην ἔχουσιν·

ὅταν δ' ὁμοειδεῖς πολλὰ μνήμῃ γένωνται, τότε φαμὲν ἔχειν ἐμπειρίαν· ἐμπειρία γάρ ἐστὶ τὸ τῶν ὁμοειδῶν φαντασιῶν πλήθος.

τῶν δ' ἐννοιῶν αἱ μὲν φυσικῶς γίνονται κατὰ τοὺς εἰρημένους τρόπους καὶ ἀνεπιτεχνήτως, αἱ δ' ἤδη δι' ἡμετέρας διδασκαλίας καὶ ἐπιμελείας· αὗται μὲν οὖν ἔννοιαι καλοῦνται μόνον, ἐκεῖναι δὲ καὶ προλήψεις.

10

§1[1–24] SVF 2.83; §1[12–14] SVF 1.149

caput non hab. ST *titulus* [1] ἔννοια PB : νόησις PG : *Gedanke* Q || (ἐν)διάθεσιν Wytténbach edd. : διάθεσιν PB^G || [2] λόγος PB : λογισμός PG : *Logik des Denkens* Q §1 [3] γεννηθῇ ὁ ἄνθρωπος PB : ἄνθρωπος γένεται PG || [4] post ψυχῆς add. αὐτοῦ PG || χαρτίον PB Mau Lachenaud : χάρτην PG prob. Diels || εὐεργὸν PG : ἐνεργὸν sive -γών PB : *das gut gearbeitete und vorbereitete Blatt Papier, in welchem eine Bereitschaft ... ist* Q || [4–5] μίαν ... ἐννοιῶν PB : οὖν μία ἐκάστη τῶν διανοιῶν αἰσθήσεις PG || [5] ἐναπογράφεται PB^(I,II) : ἐναπογράφει τῆς αὐτοῦ φαντασίας PG : ἀπογράφει PB^(II) : *aufgeschrieben* Q || [6–7] πρῶτος ... ἔχουσιν om PG || αἰσθάνομενοι PB Mau Lachenaud : αἰσθόμενοι Diels prob. Long–Sedley || [7] τινος PB^(I,II) : τινες PB^(II) || λευκοῦ PB : *schwarzen* [sic] *Menschen* Q || [8] post μνήμῃ add. φαντασιῶν PG, fort. recte || φαμὲν PB^(I,II) : φασιν PB^(I) : *wird zuteil* Q || [8–9] ἐμπειρίαν· ἐμπειρία PB^Q : ἐμπειρίαν om. PG suppl. Diels || [9] τὸ τῶν ὁμοειδῶν PB : τὸ τῶν om. PG : *in der Art einander ähnlichen und gleichen Dingen* Q || φαντασιῶν PG edd. : om. PB^Q : (ἐννοιῶν) conl. Reiske || πλήθος PB^G : *Schulung durch den häufigen Umgang* Q (i.e. om. φαντασιῶν et add. διδασκαλίᾳ ut ap. [13]?) || [10] ante τῶν lac. stat. Sandbach || φυσικαῖς PG^Q : φυσικαὶ PB || [11] ἀνεπιτεχνήτως PB : οὐ τεχνικαῖς PG || [11–12] διδασκαλίας καὶ ἐπιμελείας PB : ἐπιμελείας καὶ διδασκαλίας PG || [12] μὲν οὖν PB : δὲ καὶ PG || μόνον edd., cf. *nur* Q : μόναι PB^G || ἐκεῖναι δὲ PB : om. PG || [12–13] καὶ προλήψεις PB^G : *Auffassungen und Deutungen* Q

ὁ δὲ λόγος, καθ' ὃν προσαγορευόμεθα λογικοί, ἐκ τῶν προλήψεων
 συμπληροῦσθαι λέγεται κατὰ τὴν πρώτην ἐβδομάδα. 15

ἔστι δ' ἐννόημα φάντασμα διανοίας λογικοῦ ζῴου· τὸ γὰρ φάντασμα,
 ἐπειδὴν λογικῇ προσπίπτει ψυχῇ, τότε ἐννόημα καλεῖται, εἰληφὸς
 τοῦνομα παρὰ τοῦ νοῦ.

διόπερ τοῖς ἀλόγοις ζῴοις ὅσα προσπίπτει φαντάσματα,
 {φαντάσματα μόνον ἐστίν}· ὅσα δὲ καὶ τοῖς θεοῖς καὶ ἡμῖν γε, ταῦτα 20
 {φαντάσματα μόνον ἐστίν· ὅσα δὲ ἡμῖν, ταῦτα} καὶ φαντάσματα κατὰ
 γένος καὶ ἐννόηματα κατ' εἶδος· ὥσπερ τὰ θηνάρια καὶ οἱ στατήρες
 αὐτὰ μὲν καθ' αὐτὰ ὑπάρχει θηνάρια {καὶ} στατήρες, ἐὰν δ' εἰς πλοίων
 δοθῇ μίσθωσιν, τηνικαῦτα πρὸς τῷ θηνάρια εἶναι καὶ ναῦλα λέγεται.
 (P₁) 25

[14] προλήψεων P^{BG} : *Deutungen* Q || [15] post συμπληροῦσθαι add. μὲν P^G || πρώτην P^{BGQ}
 edd. : δευτέραν perperam coni. Ritter–Preller || [16] ἔστι δ' ἐννόημα Diels prob. Mau Lache-
 naud : ἔστι δὲ νόημα P^{BQ} : τοῦτο γάρ ἐστι νόημα P^G || φάντασμα P^B cf. P^P : φαντασίας P^G ||
 διανοίας P^B : διάνοια P^G || [17] τότε P^B : om. P^G || [18] τοῦ νοῦ P^{GQ} edd. : τὸν νοῦν P^B || *in*
der Sprache der Griechen add. Q || [19] ἀλόγοις P^{B(II)GQ} : ἀλλοίοις P^{B(1)}, ἄλλοις P^{B(III)} || [20]
 ὅσα ex P^G (qui post διόπερ pos.) Diels prob. Mau Lachenaud : οὐ P^{BQ} || [20] φαντάσματα
 μόνον ἐστίν P^G, ex P^G et ex P^B [21] ubi antiquitus falso repetita (et ubi non hab. P^G) in [20]
 add. Diels Mau Lachenaud : φαντάσματα, non hab. Long–Sedley || [20] ὅσα ... γε Mau prob.
 Lachenaud : ὅσα δὲ ἡμῖν καὶ τοῖς θεοῖς P^G prob. Diels : *den Leuten und der Gottheit* Q || ἡμῖν
 P^{BG} : *den Leuten* Q || καὶ τοῖς θεοῖς om. P^{B(1,111)} || [21] φαντάσματα ... ταῦτα om. P^{B(1)} del.
 Diels Mau Lachenaud || καὶ φαντάσματα P^{BQ} : om. P^G || [22] κατὰ ... εἶδος P^B : κατὰ γένος
 καὶ κατ' εἶδος νόηματα P^G || [22–24] ὥσπερ ... λέγεται om. P^G || [22] στατήρες P^B : *Drachmen*
 Q || [23] ὑπάρχει P^{B(1,11)} : ὑπάρχειν P^{B(111)} || {καὶ} add. Diels prob. Mau Lachenaud || στατήρες
 P^B : *Drachmen* Q || πλοίων P^{B(1,11)} Diels prob. Mau Lachenaud : πλοίου P^{B(111)Q}(ut vid.), *Schiff-*
smiete an einen Seemann Q || *und Drachmen* post θηνάρια add. Q || [24] λέγεται P^{B(1,111)} :
 λέγονται P^{B(11)}

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis fr. 4 verso (~ P §1.16–17)

ἐννο]ημ[α] φαν[τασμα]
 [διανοιαις λογικου ζ]ωου το γαρ φ[αν]
 [τασμα ἐπειδαν λογικ]η προσπιπτ[η ψυ]
 [χη τοτε ἐννοημα καλ]εῖται εἰλη[φος]

ps.Galenus HPh c. 92 (~ tit.) Πῶς γίνεται ἡ αἴσθησις καὶ ἡ νόησις καὶ ὁ κατὰ διά-
 θεσιν λογισμός (text Diels).

92.1 (~ P1[3–5]) οἱ Στωικοί φασιν· ὅταν ἄνθρωπος γένηται, ἔχει τὸ ἡγεμονικὸν μέρος
 τῆς ψυχῆς αὐτοῦ ὥσπερ χάρτην εὐεργον εἰς ἀπογραφὴν· εἰς τοῦτο οὖν μία ἐκάστη
 τῶν διανοιῶν αἰσθησεις ἐναπογράφει τῆς αὐτοῦ φαντασίας.

92.2 (~ P3[8–9]) 4 ὅταν δὲ ὁμοειδεῖς πολλὰ μνημαὶ φαντασιῶν γένωνται, τότε
 φαμὲν ἔχειν (ἐμπειρίαν). ἐμπειρία γὰρ ἐστὶν ὁμοειδῶν φαντασιῶν πληθός.

- 92.3 (~ P4[10–12]) τῶν δ' ἐννοιῶν (αἱ) μὲν φυσικῶς γίνονται κατὰ τοὺς εἰρημένους τρόπους καὶ οὐ τεχνικῶς, αἱ δὲ δι' ἡμετέρας ἐπιμελείας καὶ διδασκαλίας. αὐταὶ δὲ καὶ ἔννοιαι καλοῦνται μόναι καὶ προλήψεις·
- 92.4 (~ P5[14–15]) ὁ δὲ λόγος, καθ' ὃν προσαγορευόμεθα λογικοί, ἐκ τῶν προλήψεων συμπληροῦσθαι μὲν λέγεται κατὰ τὴν πρώτην ἐβδομάδα.
- 92.5 (~ P6[16–18]) τοῦτο γάρ ἐστι νόημα φαντασίας, διάνοια λογικοῦ ζώου. τὸ γὰρ φάντασμα ἐπειδὴν λογικῇ προσπίπτῃ ψυχῇ, ἐννόημα καλεῖται εἰληφὸς τοῦνομα παρὰ τοῦ νοῦ·
- 92.6 (~ P7[19–22]) διόπερ ὅσα τοῖς ἀλόγοις ζώοις προσπίπτει, φαντάσματα μόνον ἐστίν, ὅσα δὲ ἡμῖν καὶ τοῖς θεοῖς, ταῦτα *** κατὰ γένος καὶ κατ' εἶδος νοήματα.

Loci Aetiani:

- §1[1–12] A 1.6 [5–19] ἔσχον δ' ἔννοιαν τούτου (sc. τοῦ θεοῦ) πρῶτον μὲν ἀπὸ τοῦ κάλλους τῶν ἐμφαινομένων προσλαμβάνοντες· ... καλὸς δ' ὁ κόσμος· δῆλον δ' ἐκ τοῦ σχήματος καὶ τοῦ χρώματος καὶ τοῦ μεγέθους καὶ τῆς περὶ τὸν κόσμον τῶν ἀστέρων ποικιλίας. ... καὶ τὸ χρῶμα δὲ καλόν· κυανῶσει γὰρ κέχρωσται, ὃ πορφύρας μὲν ἐστὶ μελάντερον στίλβουσιν δ' ἔχει τὴν ποιότητα· καὶ διὰ ταύτην τὴν αἰτίαν τῷ τῆς χροῖας συντόνῳ διακόπτον τηλικαύτην ἀέρος σύστασιν ἐκ τοσούτων διαστημάτων θεωρεῖται.
- §1[6–7] A 4.8.7 (οἱ) Στωικοὶ τήνδε τὴν κοινὴν αἴσθησιν ἐντὸς ἀφῆν προσαγορεύουσι, καθ' ἣν καὶ ἡμῶν αὐτῶν ἀντιλαμβανόμεθα. A 4.12[3–6] ἐπειδὴν δι' ὅψεως θεωρῶμεν τι λευκόν, ἐστὶ πάθος τὸ ἐγγεγεννημένον διὰ τῆς ὁράσεως ἐν τῇ ψυχῇ· καὶ (κατὰ) τοῦτο τὸ πάθος εἰπεῖν ἔχομεν, ὅτι ὑπόκειται λευκὸν κινεῖν ἡμᾶς.
- §1[10–13] A 1.10.5 οἱ (δὲ) ἀπὸ Ζήνωνος Στωικοὶ ἐννόηματα ἡμέτερα τὰς ιδέας ἔφασαν.
- §1[14–18] A 5.20.3 Ἀναξαγόρας πάντα τὰ ζῶα λόγον ἔχειν τὸν ἐνεργητικόν, τὸν δ' οἰοεὶ νοῦν μὴ ἔχειν τὸν προφορικόν, τὸν λεγόμενον τοῦ νοῦ ἐρμηνέα. al. A 4.12[18–19] φάντασμα δ' ἐστίν, ἐφ' ὃ ἐλκόμεθα κατὰ τὸν φανταστικὸν διάκενον ἐλκυσμόν.
- §1[14–15] A 5.23.1 Ἡράκλειτος καὶ οἱ Στωικοὶ ἄρχεσθαι τοὺς ἀνθρώπους τῆς τελειότητος περὶ τὴν δευτέραν ἐβδομάδα, περὶ ἣν ὁ σπερματικὸς κινεῖται ὁρρός· τὰ γὰρ δένδρα ἄρχεται τότε τελειότητος, ὅταν ἄρχῃται γενεῶν τὰ σπέρματα, ἀτελῇ δ' ἐστὶ καὶ ἄωρα καὶ ἄκαρπα ὄντα. A 5.23.2 Ἀριστοτέλης δὲ κατὰ τὴν πρώτην ἐβδομάδα, καθ' ἣν ἔννοια γίνετα καλῶν τε καὶ αἰσchrῶν καὶ τῆς διδασκαλίας ἀρχή.
- §1[16–18] A 1.10.6 οἱ (δὲ) ἀπὸ Ζήνωνος Στωικοὶ ἐννόηματα ἡμέτερα τὰς ιδέας ἔφασαν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The only witnesses for chs. 4.11 and 4.12 are P^B and P^Q, supported by P^P with consecutive snippets for §1[16–17], and partly confirmed by P^G. For this chapter G has included all but §1[6–7] and the final part from [22] ὥσπερ in his *Epitome*. Heading and text of S are lost, but since part of the heading of its companion chapter, 4.12, is preserved in the index of Photius, it is quite certain that originally it was also present in S. T as we have seen had no use for chapters after 4.7a. For its presence in A (Diels believed it had been added by P) see also above, Introduction to Book 4, section 5.

There is no multiplicity of *Placita* lemmata in the usual sense of the word in our witnesses. The chapter is thus in fact monolemmatic, cf. below, section D(b).

B *Proximate Tradition and Sources*

(1) *Proximate tradition*. In the proximate tradition parallel accounts of concept formation according to the Stoics are provided by Sextus Empiricus and Diogenes Laertius, cited below at section E(a) General texts, to which we may add the Epicurean account in Diogenes Laertius discussed below, section D(e), and cited at section E(b) General texts. Something is also found in the cousin writing of Nem, but the passage from *NH* c. 14, cited below (*par acquit de conscience*) at section E(a)§1[16–18], is rather distant from our chapter. On the other hand *NH* c. 12 contains a parallel to ch. 4.21.1 and begins with a backward glance at *NH* c. 6, which is parallel to ch. 4.12, which in its turn is a sort of continuation of the present chapter. The parallels with Ptolemy's *On the Criterion and Hegemonikon* §12, an account conforming to mainstream opinion (Long 1998), show that Stoic view of concept formation is also widely taken into account by others.

(2) *Sources*. Direct provenance from a Stoic source, as Diels *DG* 61 already surmised, is virtually certain because ch. 4.11 is entirely in *oratio recta* ('The Stoics say'), and with the exception of the introductory phrase ('Chrysippus says that these four are different from one another') the companion piece ch. 4.12 is in *oratio recta* too. *Oratio recta* is comparatively rare in the *Placita*. As intermediary source we may suppose a Stoic handbook, or one containing Stoic doctrine, just as is the case for chs. 4.12, 4.15 and 4.21. In this context the verbal first persons plural §1[8] 'we say' (φαμέν) and §1[14] 'we are called' (προσαγορευόμεθα) and the personal pronoun §1[21] '(to) us' (ἡμῖν), contrast significantly with the descriptive verbal third persons §1[3] 'he has' ἔχει, §1[5] 'he transcribes' (ἐναπογράφεται) and §1[7] 'they have' (ἔχουσιν). Interesting is also the difference

between ‘we say’, that is, we teachers, philosophers, Stoics on the one hand, and ‘we are called’, that is: ‘we humans’ on the other, the possession of *logos* being a defining trait of being human as well as divine according to Stoic doctrine, as is also expressed by the phrase §1[20] ‘to the gods and to us’ (τοῖς θεοῖς καὶ ἡμῖν). The parallels show that this terminology and these notions had become ingredients of a philosophical *koine*. See also further below ch. 4.12, at Commentary B.

C Chapter Heading

A long, detailed and precise heading, focused on the question type of cause. For the dialectical aspect of the question word see above, ch. 1.1, Commentary C, and for headings containing the formula πῶς γίνεταί (or γίνονται): (‘how do/does *x* come to be’) see above, ch. 1.4 at Commentary C. The heading also adverts us to ingredients lacking in the text of P’s excerpt. This is the only case of the formula in Book 4, but there are a further nine instances in Book 5, indicating a strong interest in causal explanation. P^B’s text is confirmed by P^G and P^Q. This time there is not even (part of) a heading in S, though he has a partial one for the heading of ch. 4.12.

D Analysis

a Context

Chapter 4.11 is the first of two paired chapters dealing with aspects of exclusively *Stoic* views on concept formation, sensation, and thought, so not set off against those of other philosophers. That they belong together, though A in his usual scholastic manner has distributed the contents over different chapters, is also clear from parallel accounts of concept formation for which see below, at section D(e). The lack of references to views ascribed to others is unusual, though there are other cases of chapters devoted to a single doctrine only, e.g. Atomist doctrine in ch. 1.4, or Stoic in chs. 4.15 and 4.21. Our two chapters follow on after chs. 4.9–10, which deal in the standard Aëtian way with multiple views concerning the issues of what sensation and sense-objects are, and of how many senses there are. They are followed by chs. 4.13–20, devoted to varieties of views concerned with the individual senses, and to views on issues connected with these individual senses, namely the nature of mirror images (4.14), of darkness (4.15), and of voice (4.19–20). The two chapters 4.11 and 4.12 are in part different from each other, because the meaning of the crucial word φάντασμα in ch. 4.11 is different from that in ch. 4.12. In this way we are perhaps made aware of a difference of views among Stoics whom we cannot identify further here. Compare e.g. ch. 1.14.5–6, where Cleanthes is ‘the only one among the Stoics’ to hold that the shape of fire is conical. The contrast may have pleased the com-

piller of the *Placita*, since it agrees with the genre's penchant for diaphonia, and thus may have favoured the inclusion of the chapters in the collection in this format.

Diels *DG* 61 rejected chs. 4.11–12 out of hand as foreign to the original polylemmatic doxographical tradition and methodology, and solved what he saw as the problem of their presence by arguing their provenience from a Stoic source. We, however, see the presence of these items as a conscious effort to improve and upgrade the account by including in the *texte vivant* a substantial (and for us today indispensable) account of Stoic views after the general chapters on sense perception and before those on the individual senses, all of which provide less information on the Stoics. So here too we are faced with the insertion of other material in an exposition that by and large follows an originally Aristotelian pattern, just as is the case of ch. 4.5 on the regent part (see M–R 2.1.37, 39, 147–148). For parallels with and differences from the Stoic doxography in Diogenes Laertius *V.P.* Book 7 see above, Introduction to Book 4, section 5.

b Number–Order of Lemmata

There is no need to divide this chapter into numbered lemmata, though Diels did so (as with §1 of ch. 1.7). We are dealing with a single name-label and a single doctrine. We have divided this over eight unnumbered sections to help follow the complicated argument.

c Rationale–Structure of Chapter

In the absence of a plurality of views there is no diaeretic and/or diaphonic structure. The account describes and causally explains ontogenetic processes and their outcome, and cites the definitions of several important terms: §1[9] ἐμπειρία, [12–13] ἔννοια and προλήψις as distinguished from each other, and [16–22] ἐννοήμα and φαντάσμα as both different from each other and to some extent convergent. These definitions are perfect and sectarian ((as opposed to nominal or conceptual definitions, see above, ch. 1.9, at Commentary D(d)), and describe the individuality of these general concepts by means of individual examples. By way of a conclusion this peculiar situation is illustrated by a typically Stoic simile.

d Further Comments

General Points

(1) This account of cognitive ontogenesis seems to mirror that of cognitive phylogenesis. Little is known of a Stoic *Kulturentstehungslehre*, but something is about their view of the origin of language from ‘primary sounds’, or ‘words’

(πρωταὶ φωναί, Origen *C.C.* 1.24; *cunabula verborum*, Augustine *De dial.* c. 6.10.9) and the development of further vocabulary from these through e.g. ‘proximity’ (*vicinitas*), or ‘resemblance’ (*similitudo*), or ‘transfer’ (*abusio*), i.e. varieties of analogy, or through ‘contrast’ (*contrarium*, all in Aug. *De dial.* c. 6). The relation between these ‘words from the cradle’ and those in such ways derived from them is analogous to that of the relation between ‘natural’ concepts and those produced by our ‘teaching and instruction’. For well-founded suggestions in this direction see Allan (2005) 15–17, 23–30, for the texts below section E(b)§1[6–15]. A parallel for the distinction between the two kinds of concepts is found in the two kinds of perception admitted by Diogenes of Babylon, namely ‘natural’ (αὐτοφύης) and ‘scientific’ (ἐπιστημονικός) perception; see section E(b)§1[10–13].

(2) As to sensation the emphasis is on the receptive side of the process, unlike in ch. 4.21.

(3) The chapter heading promises more than the text of the chapter delivers, for we are not told how a sensation comes about, or what is the *logos* we acquire. In our text no *other* ‘manner’ follows after the ‘first (or: primary) manner of registration’ of §1[6], which is of a particular type of sense object and so instantiates physical preconceptions. Scholars have debated whether the ‘memories’ of §1[8] represent a further such manner. *Pace* Long–Sedley (1987) 2.241 we believe that this is not the case. §1[10–11] speaks of ‘aforesaid ways’ (plural), but only one way has so far been mentioned and described, so a second way of primary concept formation has been the victim of epitomization. §1[14–15] fails to tell us that the reason, or speech, mentioned there is not just reason in general but the *logos endiathetos* announced in the heading: further proof of abridgement. For what follows see also Mansfeld (2013b).

As is clear from the examples provided at §1[6–7], this first, or primary, manner is actualized through each of the individual senses, and pertains to *external* objects and their sense data: colours, sounds, smells and so on (cf. also ch. 4.12.1[5–8]). This leaves room for a manner of registration that does not occur via the individual senses but through the *oikeiosis* (‘appropriation’) of the psycho-corporeal person as a whole: the ‘inner touch, according to which we are also aware of ourselves’, to cite ch. 4.8.7 (at this earlier chapter see also Commentary D(d) §7, and the texts there cited at section E(b)§7). The parallel passage on (Stoic) concept-formation from Ptolemy cited below section E(b) General texts, includes a reference to inner perception. Also see the passage on self-awareness and *oikeiosis* in Stobaeus’ *Ethical Doxography A*, cited *ibid.* Note that the Stoic Hierocles, *El.Eth.* col. 1.44–46 Bastianini–Long, argues against ‘slow-witted opponents who believe that sensation has only been given by nature to the living being for awareness in relation to external objects, and

not also in relation to that of itself' (δοκοῦσι γὰρ τὴν αἴσ[θη]σιν ὑπὸ τῆς φύσεως αὐτῷ δι[(ε)]δύσθαι πρὸς τὴν τῶν ἐκτὸς [ἀ]ντίλη[ψιν], οὐκέ[τι δὲ καί] πρὸς τ[ῇ]ν ἑαυτοῦ). This is incontrovertible evidence for a standard second manner of registration and concept formation. Compare the distinction between the perception of external data such as hot and white, and the clarity of internal data of a moral nature at Plu. *CN*1070C, 'and this too in matters concerning good things and evil and objects of choice and avoidance and things congenial and repugnant, the clarity of which ought to be more manifest than that of things hot and cold and white and black, since the impressions are incidental to sensations entering from without whereas the former are generated intrinsically from the starting-points within us' (tr. Cherniss LCL, modified). See Pohlenz (1940) 92–93, and Babut at Casevitz–Babut (2002) 216–219. *Oikeiosis* takes place from the moment of birth through 'awareness' (αἴσθησις) of the self and then of what is pleasant or painful in the sense of what needs to be accepted or rejected: i.e. proto-ethical notions. See the passages cited above at ch. 4.8, section E(b)§7, from Cicero *Fin.* 3.16 (who mentions the *parvi*), Sen. *Ep.* 121 (who 121.8 mentions the *infans*), Diogenes Laertius *VP.* 7.85, and above all Hierocles' *Ethike Stoiceiosis*; cf. Inwood (1999), Long (1999), and esp. Bastianini–Long (1992) 379–396, Long (1996c); see further above at ch. 4.8, Commentary D(e)§9. Relevant is also the passage on the *hypotelis* (a term attested for Herillus at Diogenes Laertius *VP.* 7.165 = *SVF* 1.411), or sub-*telos*, at *Doxography A* at Stob. *Ecl.* 2.7.3c, p. 47.12–20: 'the *hypotelis* is the first proper condition (*pathos*) of the living being, from the moment that the living being began to be aware of its own condition (ἀφ' οὗ κατήρξατο συναισθάνεσθαι τὸ ζῶον τῆς συστάσεως αὐτοῦ), when it is not yet rational but irrational, according to the natural and spermatic *logoi* in the same way as the vegetative and sentient faculties, and of such faculties it occupies the place of a root, not yet of a plant; for when the living being is born it accommodates itself to something right from the start; this is the *hypotelis*.' Strangely, Solmsen (1961) 622 argues that the Stoic concept of αἴσθησις was 'probably stripped clear of the irrational accretions of pleasure and pain'.

The notion of self-awareness or inner sensation is at home in the world of the *Placita*. At ch. 4.8.7, however, it has not been preserved in P's epitome, but only in S's more generous abstract of the chapter! And as we argue it is also lost in P's abridgement of ch. 4.11, while in the present case no comfort is forthcoming from the parallel abstract of S, irretrievably lost. We therefore believe that one of the consequences of P's abridgment of A's chapter is the loss, or rather the elimination, of a reference to the acquisition of ethical preconceptions, understandable in an epitomized doxography concerned with physics. The argument contra of Dyson (2013) is neither here nor there. It is perfectly possible to make sense of the evidence concerning Stoic concept formation

inclusive of our actual ch. 4.11 without assuming that something is missing in it, which is what Dyson does or attempts to do, but this does not entail that the picture provided by the text of P's abstract alone is complete.

Secondary concepts do not have a natural origin (§1[10] φυσικῶς), but a cultural one (§1[11–12] δι' ἡμετέρας διδασκαλίας καὶ ἐπιμελείας), so need not be treated in detail in a physical treatise. For the acquisition of certain ethical conceptions—not preconceptions—by teaching according to 'Aristotle'. See further below, section D(d) General texts (3). A passage in Sextus Empiricus, on which see Reesor (1989) 57, reveals the relation between inner reason and ethical issues (*P.* 1.65, quoted at section E(b)§1[14–15]).

(4) For concept formation both natural and cultural see also above, ch. 1.6, 'From where did human beings obtain a conception of gods', with Commentary D(c) and D(e).

Individual Points

§1[3–5] The regent part of the soul of the newborn human is compared with a sheet of papyrus in a certain condition. The formula χαρτὴν εὐεργόν εἰς ἀπογραφὴν should not be translated as 'a sheet of paper ready for writing upon'. On such a *tabula rasa* one may write anything, which can hardly be the point of a passage that illustrates the *reliability* of what is 'written', that is, of the preconceptions. Engberg-Pedersen (1990) 252 n. 1 rejects the notion of a *tabula rasa* and translates 'well adapted for writing upon' (his italics). The word εὐεργόν (cf. Diogenes Laertius *V.P.* 7.136 ~ *SVF* 1.102, 2.580) entails that the χάρτης, the papyrus, is of the kind that has been specially prepared to warrant the legibility of the written text and the survival of the document (for information on the various qualities of papyrus available and the purposes for which they were used see Pliny the Elder, *Nat.* 13.24). The word ἀπογραφὴ does not just mean 'writing', but stands for 'transcript', or 'copy'; the quality and condition of the papyrus enable one to produce a good and durable copy of an original. Note that in spite of the announcement in the heading we are not told *how* the sensations come about, only *that* this happens: P clearly has abridged something out of the text. The papyrus simile (only one case in Rolke 1975, 38) may well be an alternative to that of the writing tablet, the literal impression (*typosis*) upon which by the *phantasia* was rejected as being too crude by Chrysippus (at Diogenes Laertius *V.P.* 7.50 ~ *SVF* 2.55 etc.). The papyrus sheet reminds one of Aristotle's 'tablet which bears no actual writing' (γραμματεῖω ᾧ μὴθὲν ἐνυπάρχει ἐντελεχεῖα γεγραμμένον) at *de An.* 3.4 430b30–a2, and of Plato's tablet representing memory at *Thet.* 191c–d.

§1[8–9] Formation of the class of concepts called 'preconceptions' (see at §1[10–13] below) through the accumulation and unification of memories of

impressions impressively recalls well-known passages from Aristotle's *Metaphysics* and *Posterior Analytics*, cited and discussed by scholars in this context and cited at section E(b)§1[3–9]. This ingredient is consistent with the Peripatetic background of the *Placita*, cf. M–R 2.1.71, 147–148, 152. For a comparable presence of Aristotelian phraseology see above, ch. 4.8.1, Commentary D(e). So the present chapter shows the extent to which Stoic epistemology is indebted to Aristotle's pioneering efforts. In Aristotle the part of epistemological theory that deals with concept formation in some detail is much less clear and exhaustive than the Stoic doctrine, and therefore less interesting from a didactic point of view as well. It is found dispersed over various places, esp. *APo.* 1.18 81b1–9, *APo.* 2.19 99b36–100a6, and *Met.* A.1 980a28–981a1 (see below at section E(b)§1[3–9]). Cf. also *de An.* 3.4–6, on *nous* and thought, which is about the means and instruments of acquiring knowledge, so psychological rather than epistemological. The interpretation of these passages is not easy, and they are not fully, or at least not easily, compatible with each other. What is more, in the *De partibus animalium* 1.1 641a33–b10 the study of *nous* insofar as it is related to the objects of thought, which perhaps amounts to the study of the objects of thought themselves, is excluded from physics. This appears to be in conflict with what happens in the *De anima* (on this controversial passage see Kullmann 2007, 309–311, with references to the discussion). And Aristotle's doctrine lacks an account of the formation of (secondary) concepts from other concepts, or 'by teaching and instruction', and the useful distinction between secondary 'concepts' and 'preconceptions'.

§1[10–13] *προλήψεις*, 'preconceptions': this is not the place for an account of the discussion concerned with the complicated history and interpretation of the Epicurean and Stoic notion of *prolepsis*. On the formation of preconceptions in childhood see Frede (1999a) 315, 319–320, who translates the word as 'anticipations' and helpfully emphasizes that they come to us naturally and unavoidably and 'just capture the common content of cognitive impressions'. At Diogenes Laertius *VP.* 7.54, 'the preconception is a natural conception of the universals' (ἔστι δ' ἡ πρόληψις ἔννοια φυσικὴ τῶν καθόλου), with emphasis on *natural*.

§1[15] *κατὰ τὴν πρώτην ἑβδομάδα*: this process reaches its completion 'at the age of seven years', see above on Cicero *Fin.* 3.16 (*parvi*), Seneca *Ep.* 121.6 (*infans*). The *logos prophorikos*, not mentioned here (presumably another sign of epitomization), is completed at age fourteen, when sexual maturity is reached—so is not merely a matter of *logos* in the sense of speech or reason in the cognitive sense consisting of the preconceptions, but also of *logos* in the productive sense: a part of the divine *Logos* that at age fourteen becomes generative and so comparable to the divine *Logos*, who is generative all the time.

The ages of man are the theme of ch. 5.23, where P's coalesced monolemmatic text is rather different from G's triad of lemmata which we prefer, see ad loc.; but even so matters are far from clear. It deals not only with the first seven years, the only hebdomad of the present chapter, but also with the second and third seven years period. The first and second are attributed to Heraclitus and the Stoics (standard Stoic doctrine), but only mention physical not mental development, while the present chapter only mentions the latter. But the second view, of Aristotle, is quite close to the present Stoic view, attributing a beginning of ethical consciousness and instruction to the first hebdomad. An anonymous third doxa puts mental and physical development as late as the third hebdomad.

§1[15] The meaning of 'apparition' (φάντασμα) here is close to the neutral, or even positive, usage of Aristotle (e.g. *Mem.* 1 449b31–450a1) and Epicurus (e.g. *Ep.Hdt.* at Diogenes Laertius *V.P.* 10.75, *Ep.Pyth.* at *V.P.* 10.88), and different from that in the next chapter, where it means 'figment' (as also occurs in Arist. *Protr.* fr. 101). For these texts see below at section E(b)§1[15–17]. It is not certain that this usage is really Stoic. See Long–Sedley (1987) 2.185, who argue that 'this text is completely out of step with all the other Stoic evidence on ἐννοήματα'.

§1[17] For Q's addition *Sprache der Griechen* (app. crit.) cf. chs. 1.8 (heading), 2.1.1[2], 3.7.2[6], 4.12.1[9], and 4.19.3[7]. He points out the derivation of *Einsicht* (ἐννόημα) from *Verstand* (νοῦς) which is not obvious in Arabic.

§1[22–24] *Denarii* and staters, when used to pay for a trip on board a boat, are not only called *denarii* and staters but also 'boat trip fare', ναῦλα. A comparable name change is found in a passage of Clement about the different names of the one virtue as depending on the circumstances, the gift of which has plausibly been attributed to Zeno's pupil Aristo (Clement *Strom.* 1.20.98 ~ *SVF* 1.376): 'one and the same drachma is called boat trip fare when given to the shipowner, tax when to the tax collector, rent when to the landlord, pay when to the teacher, and deposit when to the seller'. It has not been seen that what is in A is an update of what is in Clement: in P the drachma has been replaced by other coinage. Q has even preserved the drachma three times, which may well be right. The stater is a Greek coin, already cited in early texts and here present, apparently, to represent the Greek side of the purse (just as drachma in Q, who has this coin name instead of stater and appears to have preserved the original coinage). The *denarius*, Greek δηνάριον, is a Roman coin, which does not seem to have become a common currency in the Greek East before the first century CE. The word turns up for the first time in literary (or semi-literary) texts in the first century CE, for the earliest such attestations are several passages in the *New Testament*, and, surprisingly, the present Aëtian lemma. Diels *DG* 101 noticed the presence of the two coin types, but said he failed to see why

both were needed; the unknown Stoic author of the original simile in his view should have been content with the stater alone. So A had a Roman public in mind, unless (Diels says) it was P who interpolated the denarius. But one may phrase this insight in a more positive way, and argue that apart from illustrating an interesting detail of Stoic epistemology the simile not only confirms the probable date for the Aëtian *Placita*, but also (just as chs. 4.11–12 themselves) testifies to the process of updating such functional and therefore open texts were subjected to; see M–R 1.xix–xx, M–R 2.1.99, 139, 148.

e Other Evidence

See above, and also section E(a)&(b), in each case General texts.

The account of the Stoic doctrine of concept formation at Diogenes Laertius *VP*. 7.52–53 (*SVF* 2.87) is not entirely clear, so we slightly reorder the list. The acquisition of concepts ‘by confrontation’ (κατὰ περίπτωσιν, sc. of sense objects, αἰσθητά) or ‘naturally’ (φυσικῶς, e.g. of moral notions like δίκαιόν τι καὶ ἀγαθόν) on the one hand is combined with nine ways of deriving concepts from other concepts on the other, namely by means of ‘similarity’ (καθ’ ὁμοιότητα), ‘transposition’ (κατὰ μετάθεσιν), ‘analogy’ (κατ’ ἀναλογίαν, both ‘by magnification’, αὐξητικῶς, and ‘by diminution’, μειωτικῶς), ‘combination’ (σύνθεσιν), ‘opposition’ (κατ’ ἐναντίωσιν), ‘transition’ (κατὰ μετάβασιν), or ‘privation’ (κατὰ στέρησιν). These nine ways need not be discussed in a physical treatise.

The various versions of this doctrine in Sextus Empiricus, too, make a proper and explicit distinction between what is acquired ‘by confrontation’ on the one hand and in various ways derived from other concepts on the other. Ptolemy too makes this distinction, and moreover includes the inner perception, or awareness (τὴν ἐντὸς συναίσθησιν), lacking in these other accounts; his version begins with it. Interestingly, he states that we become aware of our sense organs before we perceive exterior sense data. And he includes the φαντάσματα (‘figments of the imagination’) which are among the subjects of A’s next chapter, 4.12. Sextus Empiricus *M*. 7.241 (*SVF* 2.64) briefly states that ‘the impression (φαντασία) is produced either by what is outside or by our inner experiences’. Lammert (1917) ad loc. in his edition of Ptolemy’s *On the Criterion* pp. 17–18 excellently lists the parallels in the *Placita*, Sextus Empiricus, and Diogenes Laertius.

The doxographical Epicurean account at Diogenes Laertius *VP*. 10.32–33, cited section E(b) General texts, is remarkably parallel to the Stoic doctrine. It begins with what is a quasi-quotation of Epicurus, for it refers to the *Letter to Herodotus* and *Kuriat Doxai* together without corresponding to anything in either of these works verbatim. It deals with the origin of concepts from the senses/sensations, including the secondary concepts generated by means of combination etc. only mentioned but not described in our chapter, but

described in detail in the Stoic doxography at Diogenes Laertius *V.P.* 7.53 (cited above, and below at section E(a) General texts), followed by a description of the preconception as deriving from the memory of what has repeatedly shown itself in the outside world.

According to the Stoics the process of combination is a matter not of nature but of culture, while according to Lucretius *DRN* 4.728–743 the perception and notion of a centaur derive from the combination out there of a part of the image of a human being coalesced with one of a horse, so is natural, and this also holds for *cetera de genere hoc*, although Centaurs etc. do not exist as living beings (cf. also *DRN* 5.886–898). Asmis (1984) 21–24 and 61–66 argues that what we have at Diogenes Laertius *V.P.* 10.31–33 is the attempt of later Epicureans to explain the doctrine of the master (cf. 10.33 λέγουσιν). It is clear that some of the wording (καταλήψεις, περιπτώσεις) of this doxographical account, and so to some degree its contents, has been influenced by the Stoic doctrine, as argued e.g. by Manuwald (1972) 9–10 and Glidden (1985) 181–186. Aristotelian ideas about this process (see above, section D(d)§1[8–9]) colour both the Stoic and the Epicurean account. The terse reference in the Epicurean text to the perceptions of the mad (plus the dreaming, true according to Epicurus) parallels the long final section of the next chapter, ch. 4.12[18–28], so that the Epicurean account combines ingredients from, or is to some extent parallel to, both our *Placita* chapters. This is also true of Sextus Empiricus *M.* 8.56–60, cited below section E(a) General texts. See also further below at ch. 4.12, Commentary D(e).

E Further Related Texts

a Proximate Tradition

General texts: Aquilius *Def.* 8 Rashed ἔννοιά ἐστι νόησις ἑναποκειμένη τῇ ψυχῇ. *Def.* 10 μνήμη ἐστὶ σωτηρία νοήσεως. Sextus Empiricus *M.* 3.40–42 καθόλου τε πᾶν τὸ νοούμενον κατὰ δύο τοὺς πρώτους ἐπινοεῖται τρόπους· ἢ γὰρ κατὰ περίπτωσιν ἑναργῇ ἢ κατὰ τὴν ἀπὸ τῶν ἑναργῶν μετέβασιν, καὶ ταύτην τρισσὴν· ἢ γὰρ ὁμοιωτικῶς ἢ ἐπισυνθετικῶς ἢ ἀναλογιστικῶς κτλ. *M.* 8.56–60 (*SVF* 2.88) πᾶσα γὰρ νόησις ἀπὸ αἰσθήσεως γίνεται ἢ οὐ χωρὶς αἰσθήσεως, καὶ ἢ ἀπὸ περιπτώσεως ἢ οὐκ ἄνευ περιπτώσεως. ὅθεν οὐδὲ τὰς λεγομένας ψευδεῖς φαντασίας, οἷον τὰς καθ’ ὕπνου ἢ τὰς κατὰ μανίαν, εὐρήσομεν ἀπηρτημένας τῶν διὰ τῆς αἰσθήσεως κατὰ περίπτωσιν ἡμῖν ἐγνωσμένων. καὶ γὰρ ὁ κατὰ μανίαν Ἑρινύας αὐτῷ ἀναπλάσσων ‘τὰς αἱματωποὺς καὶ δρακοντώδεις κόρας’ (*Eur. Or.* 256) ἐκ τῶν πεφηγνόντων αὐτῷ σύνθετον μορφήν νοεῖ (for ὅθεν ... νοεῖ see below, ch. 4.12 section E(b)§1[20–28]). ... (58) καὶ καθόλου οὐδὲν ἔστιν εὐρεῖν κατ’ ἐπίνοιαν ὃ μὴ ἔχει τις αὐτῷ κατὰ περίπτωσιν ἐγνωσμένον. τοῦτο γὰρ ἢ κατὰ ὁμοιότητα τῶν ἐν περιπτώσει πεφηγνόντων ληφθήσεται ἢ κατὰ παραύξησιν ἢ κατὰ μείωσιν ἢ κατ’ ἐπισύνθεσιν. ... (60) πάσης οὖν ἐπινοίας προηγείσθαι δεῖ τὴν διὰ τῆς αἰσθήσεως περίπτωσιν. *M.* 9.393–394 καθόλου τε τὸ ἐπινοούμενον πᾶν ἦτοι κατ’ ἐμπέλασιν τῶν ἑναργῶν νοεῖται ἢ

κατὰ τὴν ἀπὸ τῶν ἐναργῶν μετάβασιν, ... (394) κατ' ἐμπέλασιν μὲν οὖν τῶν ἐναργῶν νοεῖται ὡς λευκὸν καὶ μέλαν καὶ γλυκὺ καὶ πικρὸν· ταῦτα γὰρ καὶ εἰ αἰσθητὰ ἐστίν, ἀλλ' οὐδὲν ἦττον νοεῖται. **Diogenes Laertius V.P.** 7.52–54 ἡ δὲ κατάληψις γίνεται κατ' αὐτοὺς (*SVF* 2.84) αἰσθήσει μὲν λευκῶν καὶ μελάνων καὶ τραχέων καὶ λείων ... (*SVF* 2.87) τῶν γὰρ νοουμένων τὰ μὲν κατὰ περίπτωσιν ἐνοήθη, τὰ δὲ καθ' ὁμοιότητα, τὰ δὲ κατ' ἀναλογίαν, τὰ δὲ κατὰ μετάθεσιν, τὰ δὲ κατὰ σύνθεσιν, τὰ δὲ κατ' ἐναντίωσιν. (53) κατὰ περίπτωσιν μὲν οὖν ἐνοήθη τὰ αἰσθητὰ ... νοεῖται δὲ καὶ κατὰ μετάβασιν τινα, ... φυσικῶς δὲ νοεῖται δίκαιόν τι καὶ ἀγαθόν. ... (54) ... ἔστι δ' ἡ πρόληψις ἔννοια φυσικὴ τῶν καθόλου (*Posid. F* 42 E.-K., 460 Theiler, but the definition of πρόληψις will be Chrysippean).

§1[3–13] **Stoics: Nemesius NH** c. 13, pp. 68.15–69.4 τὸ δὲ μνημονευτικὸν ἐστὶ μνήμης καὶ ἀναμνήσεως αἰτίον τε καὶ ταμειῖον. ἔστι δὲ μνήμη, ὡς μὲν Ὀριγένης [*Ἀριστοτέλης Morani alii*] φησὶν, φαντασία ἐγκαταλελειμμένη ἀπὸ τίνος αἰσθήσεως τῆς κατ' ἐνέργειαν φαινομένης, ὡς δὲ Πλάτων (*Phlb.* 34a), σωτηρία αἰσθήσεως τε καὶ νοήσεως· ἡ γὰρ ψυχὴ τῶν μὲν αἰσθητῶν διὰ τῶν αἰσθητηρίων ἀντιλαμβάνεται καὶ γίνεται δόξα (e.g. *Tht.* 179c), τῶν δὲ νοητῶν διὰ τοῦ νοῦ καὶ γίνεται νόησις· ὅταν οὖν τοὺς τύπους (*Tht.* 192a) ὧν τε ἐδόξασεν ὧν τε ἐνόησε διασῶζη, μνημονεύειν λέγεται. ἔοικε δὲ νόησιν λέγειν ὁ Πλάτων ἐν τούτοις οὐ τὴν κυρίως νόησιν, ἀλλὰ τὴν διανόησιν· τὰ μὲν γὰρ αἰσθητὰ μνημονεύεται καθ' ἑαυτά, τὰ δὲ νοητὰ κατὰ συμβεβηκός, ἐπειδὴ καὶ τῶν διανοητῶν ἡ μνήμη ἐκ προλαβούσης φαντασίας περιγίνεται· τὰ δὲ κυρίως νοητὰ, ὅτι μὲν ἐμάθομεν ἢ ἠκούσαμεν, μεμνήμεθα, τῆς δὲ οὐσίας αὐτῶν μνήμην οὐκ ἔχομεν· οὐ γὰρ ἐκ προηγησαμένης φαντασίας ἢ τῶν νοητῶν ἀνάληψις, ἀλλ' ἐκ μαθήσεως ἢ φυσικῆς ἔννοιας.

§1[8–9] **Stoics: David Prol.** 44.5–6 (version of the *technē*-definition differs from those at *SVF* 1.73, where ἐμπειρία is lacking) ἡ πάλιν τέχνη ἐστὶ σύστημα ἐκ καταλήψεων ἐμπειρία συγγεγυμνασμένη πρὸς τι τέλος εὐχρηστον τῶν ἐν τῷ βίῳ. [Cf. Aristotle *Met.* A.1 980a28–981a16, cited below section E(b)§1[3–9]]

§1[10–13] **Stoics: Diogenes Laertius V.P.** 7.54 (—) ἔστι δ' ἡ πρόληψις ἔννοια φυσικὴ τῶν καθόλου.

§1[14–15] **Stoics: Sextus Empiricus M.** 8.275 (*SVF* 2.223) φασιν, ὅτι ἄνθρωπος οὐχὶ τῷ προφορικῷ λόγῳ διαφέρει τῶν ἀλόγων ζώων (καὶ γὰρ κόρακες καὶ ψιττακοὶ καὶ κίτται ἐνάρθρους προφέρονται φωνάς), ἀλλὰ τῷ ἐνδιαθέτῳ.

§1[16–18] **Stoics: Nemesius NH** c. 14, p. 71.9–13 ἔστι δὲ ἐνδιάθετος μὲν λόγος τὸ κίνημα τῆς ψυχῆς τὸ ἐν τῷ διαλογιστικῷ γινόμενον ἄνευ τινὸς ἐκφωνήσεως, ὅθεν πολλάκις καὶ σιωπῶντες λόγον ὅλον παρ' ἑαυτοῖς διεξερχόμεθα καὶ ἐν τοῖς ὄνειροις διαλεγόμεθα. κατὰ τοῦτο δὲ μάλιστα λογικοὶ πάντες ἐσμέν· οὐ γὰρ οὕτω κατὰ τὸν προφορικὸν λόγον ὡς κατὰ τοῦτον. καὶ γὰρ οἱ ἐκ γενετῆς κωφοὶ καὶ οἱ διὰ πάθος ἢ νόσημα τὴν φωνὴν ἀποβαλόντες οὐδὲν ἦττον λογικοὶ εἰσιν.

b Sources and Other Parallel Texts

General texts: Plato *Men.* 86c ἔγωγε ἐκείνο ἂν ἤδιστα, ὅπερ ἡρόμην τὸ πρῶτον, καὶ σκεψαίμην καὶ ἀκούσασαι, πότερον ὡς διδασκῶ ὄντι αὐτῷ δεῖ ἐπιχειρεῖν, ἢ ὡς φύσει ἢ ὡς τίνι ποτὲ τρόπῳ παραγιγνομένης τοῖς ἀνθρώποις τῆς ἀρετῆς (etc. etc.). **Diogenes Laertius V.P.** 10.31–33 (*Epicurus frs.* 457 & 255 Usener) λέγει

δὲ καὶ ἐν τῇ Πρὸς Ἡρόδοτον ἐπιτομῇ καὶ ἐν ταῖς Κυρίαις δόξαις ... (32) ... ὕφεστηκε δὲ τό τε ὁρᾶν ἡμᾶς καὶ ἀκούειν ὥσπερ τὸ ἀλγεῖν· ὅθεν καὶ περὶ τῶν ἀδῆλων ἀπὸ τῶν φαινομένων χρῆσθαι σημειοῦσθαι. καὶ γὰρ καὶ αἱ ἐπίνοιαι πάσαι ἀπὸ τῶν αἰσθήσεων γεγόνασιν κατὰ τε περίπτωσιν καὶ ἀναλογίαν καὶ ὁμοιότητα καὶ σύνθεσιν, συμβαλλομένου τι καὶ τοῦ λογισμοῦ. τὰ τε τῶν μαινομένων φαντάσματα καὶ (τὰ) κατ' ὄναρ ἀληθῆ, κινεῖ γάρ· τὸ δὲ μὴ ὄν οὐ κινεῖ. (33) τὴν δὲ πρόληψιν λέγουσιν οἰοῦναι κατὰληψιν ἢ δόξαν ὀρθὴν ἢ ἔννοιαν ἢ καθολικὴν νόησιν ἐναποκειμένην, τουτέστι μνήμην τοῦ πολλάκις ἔξωθεν φανέντος, οἷον τὸ 'τοιοῦτόν ἐστιν ἄνθρωπος'. ἅμα γὰρ τῷ ῥηθῆναι 'ἄνθρωπος' εὐθὺς κατὰ πρόληψιν καὶ ὁ τύπος αὐτοῦ νοεῖται προηγουμένων τῶν αἰσθήσεων. cf. *Epicurus Ep.Hdt.* at D.L. 10.37–38. **Chrysippus** Περὶ παθῶν θεραπευτικὸς and Περὶ τοῦ λόγου ap. Gal. *PHP* 5.3.1–2 (*SVF* 2.841) 'ἔστι δὲ γε τῆς ψυχῆς μέρη δι' ὧν ὁ ἐν αὐτῇ λόγος συνέστηκεν'· ἀναμνησκῶν ἴσως ἡμᾶς τῶν ἐν τοῖς Περὶ τοῦ λόγου γεγραμμένων ὧν σὺ διήλθες, ὥς ἐστιν ἐννοιῶν τέ τινων καὶ προλήψεων ἄθροισμα. (2) ἀλλ' εἴπερ ἐκάστην τῶν ἐννοιῶν καὶ προλήψεων εἶναι μόνιον νομίζεις τῆς ψυχῆς, ἁμαρτάνεις διττά. Περὶ τοῦ λόγου Book 1 at D.L. *V.P.* 7.54 ὁ δὲ Χρύσιππος (*SVF* 2.105) διαφερόμενος πρὸς αὐτόν ἐν τῷ πρώτῳ Περὶ λόγου κριτήριά φησιν εἶναι αἴσθησιν καὶ πρόληψιν. **Philo of Alexandria** *Deus* 42–43 (*SVF* 2.458) see below, ch. 4.12 section E(a)§1. **Plutarch** *Soll.An.* 962C λόγος μὲν γὰρ ἐγγίγνεται φύσει, σπουδαῖος δὲ λόγος καὶ τέλειος ἐξ ἐπιμελείας καὶ διδασκαλίας (quoted *Porphyry Abst.* 3.23). **Sextus Empiricus** *M.* 7.373 (*SVF* 1.64, 2.56) μνήμη θησαυρισμὸς οὐσα φαντασιῶν. *M.* 8.203 ἔτι πᾶν αἰσθητὸν ὥς αἰσθητὸν ἀδιδάκτον ἐστίν. οὕτε γὰρ τὸ λευκὸν χρῶμα διδάσκεται τις ὁρᾶν οὕτε τοῦ γλυκέος μανθάνει γεύεσθαι, οὐ θερμὸν ἀντιλαμβάνεσθαι, οὐκ ἄλλου τινὸς τοιούτου· ἀλλ' ἐκ φύσεως καὶ ἀδιδάκτως πάντων αὐτῶν ἀρεστίη ἡμῖν ἢ γνώσις. τὸ δὲ σημεῖον ὥς σημεῖον μετὰ πολλῶν, ὥς φασι, μόχθων διδάσκεται. **Cicero** *Luc.* 30 *mens enim ipsa, quae sensuum fons est atque etiam ipsa sensus est, naturalem vim habet, quam intendit ad ea quibus movetur. itaque alia visa sic arripit ut iis statim utatur, alia quasi recondit, e quibus memoria oritur; cetera autem similitudinibus construit, ex quibus efficiuntur notitiae rerum, quas Graeci tum ἐννοίας tum προλήμψεις vocant.* *Fin.* 3.33 (*SVF* 3.72) *cumque rerum notiones in animis fiant, si aut usu aliquid cognitum sit aut coniunctione aut similitudine aut collatione rationis ND 1.44 cum enim non instituto aliquo aut more aut lege sit opinio constituta maneatque ad unum omnium firma consensus, intellegi necesse est esse deos, quoniam insitas eorum vel potius innatas cognitiones habemus; de quo autem omnium natura consentit, id verum esse necesse est; esse igitur deos confitendum est. quod quoniam fere constat inter omnis non philosophos solum sed etiam indoctos, fatemur constare illud etiam, hanc nos habere sive anticipationem, ut ante dixi, sive praenotionem deorum (sunt enim rebus novis nova ponenda nomina, ut Epicurus ipse (fr. 255 Usener) πρόληψιν appellavit, quam antea nemo eo verbo nominarat).* **ps.Plato** *Def.* 414c αἴσθησις ... ψυχῆς διὰ σώματος εἰσαγγέλσις εἰς ὥρας ἀνθρώπων, ἀφ' ἧς γίνεται ψυχῆς ἄλογος δύναμις γνωριστικὴ διὰ σώματος. **Alcinous** *Did.* c. 4, p. 154.34–40 H. ἡ μὲν οὖν αἴσθησις ἐστὶ πάθος ψυχῆς διὰ σώματος ἀπαγγελτικὸν προηγουμένως τῆς πεπονθῆαις δυνάμεως· ὁπότεν δὲ ἐν τῇ ψυχῇ διὰ τῶν αἰσθητηρίων κατὰ

τὴν αἴσθησιν τύπος ἐγγένηται, ὅπερ ἐστὶν αἴσθησις, ἔπειτα οὗτος μὴ διὰ χρόνου πλήθος ἐξίτηλος γένηται, ἀλλ' ἔμμονος καὶ σωζόμενος, ἡ τοῦτου σωτηρία μνήμη καλεῖται. **Alexander of Aphrodisias** *de An.* 68.4–12 δεῖ νοεῖν γίνεσθαι ἐν ἡμῖν ἀπὸ τῶν ἐνεργειῶν τῶν περὶ τὰ αἰσθητὰ οἶον τύπον τινὰ καὶ ἀναζωγράφημα ἐν τῷ πρώτῳ αἰσθητηρίῳ (τοῦτο δ' ἐστὶ τὸ σῶμα, ἐν ᾧ ἡ αἰσθητικὴ τῆς ψυχῆς δυνάμις ἐστὶ), ἐγκατάλειμμά τι ὃν τῆς ὑπὸ τοῦ αἰσθητοῦ γινομένης κινήσεως, ὃ καὶ μηκέτι τοῦ αἰσθητοῦ παρόντος ὑπομένει τε καὶ σώζεται, ὃν ὥσπερ εἰκῶν τις αὐτοῦ, ὃ καὶ τῆς μνήμης ἡμῖν σωζόμενον αἴτιον γίνεται. τὸ τοιοῦτον ἐγκατάλειμμα καὶ τὸν τοιοῦτον ὥσπερ τύπον φαντασίαν καλοῦσιν. (from here = *SVF* 2.59) διὸ καὶ ὀρίζονται τὴν φαντασίαν τύπωσιν ἐν ψυχῇ καὶ τύπωσιν ἐν ἡγεμονικῷ. **Sextus Empiricus** *M.* 7.241 (*SVF* 2.64) ἡ φαντασία γίνεται ἥτοι τῶν ἐκτὸς ἢ τῶν ἐν ἡμῖν παθῶν. **Ptolemy** *Iudic.* c. 12, pp. 17.17–18.12 τὰ μὲν οὖν ἀπολελυμένα καὶ πρῶτα κριτήρια χωρὶς λόγου τινὸς αὐτόθεν ἐστὶ καταληπτικά καὶ μὴ δεόμενα κατὰ γε τὴν ἐνάργειαν αὐτὴν ἐτέρας ἀρχῆς· ἀντιλαμβάνεται γὰρ πρῶτον μὲν αὐτῶν καὶ τῶν ἰδίων κινήσεων κατὰ τὴν ἐντὸς συναίσθησιν· ἔπειτα ἤδη τῶν πρώτων αἰσθητηρίων, καὶ τῶν ὅσα τῶν ἔξωθεν στερέμνια καὶ μετέχοντα τῶν εἰδῶν, καὶ κατὰ τὴν διατεινομένην ἀπὸ τῶν αἰσθητῶν μνήμην ἤδη τῶν εἰδῶν αὐτῶν ὡς κεχωρισμένων τινῶν καὶ ἀπηλλαγμένων τῆς τῶν καθ' ἑκάστον ὑποστάσεως· ἀφ' ὧν αἱ παραποιήσεις καὶ μεταβάσεις ἐπὶ τὰ τῶν μηδ' ὅλως δι' αἰσθήσεων νεονημένων εἰδῶλα καὶ φαντάσματα διατείνονται μεθ' ἡμέραν τε καὶ νύκτωρ· αἱ μὲν ἀπὸ τινος ὁμοιότητος καὶ ἀναλογίας, ὡς αἱ τῶν δαιμονίων μορφῶν (for παραποιήσεις ... μορφῶν see below, ch. 4.12, section E(b)§1[20–28]), αἱ δὲ ἀπὸ συνθέσεως, ὡς αἱ τῶν γιγάντων ἢ τῶν καλουμένων νάνων καὶ εἴ τι παραπλήσιον τούτοις δὲ τοῖς ἀπλοῖς καὶ ἀσυλλογίστοις κριτηρίοις ἐπισυναφθεῖς ὁ τῆς διανοίας ἐνδιάθετος λόγος κατὰ μὲν τὴν ἀπολελυμένην ἐπιβολὴν καὶ αὐτὸς ἔτι δοξάζει μόνον κτλ.

Chapter heading: Sextus Empiricus *P.* 1.65 ἴδωμεν οὖν πρότερον περὶ τοῦ ἐνδιαθέτου.

§1[3–9] **Stoics: Plato** *Phlb.* 34a σωτηρίαν τοίνυν αἰσθήσεως τὴν μνήμην λέγων ὀρθῶς ἂν τις λέγοι κατὰ γε τὴν ἐμὴν δόξαν. **Alexander of Aphrodisias** *de An.* 83.2–11 γεννᾶται γὰρ ὁ ἄνθρωπος αἰσθήσεις ἔχων, καθ' ἃς ἐνεργῶν φαντασίας λαμβάνει. ὁρῶν οὖν ἐκάστοτε καὶ ἀκούων καὶ κατὰ τὰς ἄλλας αἰσθήσεις αἰσθανόμενος καὶ τυπούμενος ὑπ' αὐτῶν πρῶτον μὲν ἐν τῇ τῶν τύπων τούτων τηρήσει μνημονεύειν ἐθίζεται, ἔπειτα δὲ ἔκ τε μνήμης καὶ τῆς συνεχοῦς κατὰ τὰς αἰσθήσεις ἐνεργείας περὶ τὰ αἰσθητὰ γίνεται τις αὐτῷ ἀπὸ τοῦ 'τόδε τε καὶ κατέκαστον' ἐπὶ τὸ 'τοιόνδε καὶ καθόλου' μετάβασις δι' ἐμπειρίας. τοῦδε γὰρ τοῦ λευκοῦ καὶ τοῦδε τῆς αἰσθήσεως ἀντιλαμβανομένης ἐκ τῶν τοιούτων ἀντιλήψεων ἔλαβεν τὸ εἶναι τὸ τοιόνδε χρῶμα λευκόν. ὁμοίως δὲ καὶ ἐπὶ τῶν ἄλλων αἰσθητῶν ἐκάστου. **Ptolemy** *Iudic.* c. 3, p. 6.18–19 ἡ δ' ἔννοια (sc.ἔοικε) τῇ μνήμῃ καὶ ἀναγραφῇ τῶν ῥηθέντων. *Iudic.* c. 2, p. 5.18–22 τῆς τε γὰρ αἰσθητικῆς δυνάμεως αἰσθητήρια μὲν ἐστὶ τὰ τοῦ σώματος ὅργανα δι' ὧν ἅπτεται τῶν αἰσθητῶν· φαντασία δ' ἡ τύπωσις καὶ διάδοσις ἡ ἐπὶ τὸν νοῦν, οὗ τὴν κατοχὴν καὶ μνήμην τῶν διαδοθέντων καλοῦμεν ἔννοιαν. **Galen** *Inst.Log.* c. 3, p. 7.22–8.3 ἐπεὶ δὲ τῶν αἰσθητῶν πραγμάτων ἔχομεν μνήμας, ὅταν μὲν (κατὰ) κινήσεις ταύτας ποιησώμεθα καθάπερ εἰ τύχοι Ἀθηναίων, ὀνομαζέσθω τοῦτο ἡμῖν νόησις, ὅταν δὲ ἡσυχάζουσαι τύχωσιν, ἔννοιαι.

§1[4] **Stoics: Plato** *Tht.* 191c–d (Σω.) θές δή μοι λόγου ἔνεκα ἐν ταῖς ψυχαῖς ἡμῶν ἐνὸν κήρινον ἐκμαγεῖον, τῷ μὲν μείζον, τῷ δ' ἔλαττον, καὶ τῷ μὲν καθαρωτέρου κηροῦ, τῷ δὲ κοπρωδεστέρου, καὶ σκλη(d)ροτέρου, ἐνίοις δὲ ὑγροτέρου, ἔστι δ' οἷς μετρίως ἔχοντος. (Θεαι.) Τίθημι. (Σω.) δῶρον τοῖνυν αὐτὸ φῶμεν εἶναι τῆς τῶν Μουσῶν μητρὸς Μνημοσύνης, καὶ εἰς τοῦτο ὅτι ἂν βουλευθῶμεν μνημονεῦσαι ὧν ἂν ἴδωμεν ἢ ἀκούσωμεν ἢ αὐτοὶ ἐννοήσωμεν, ὑπέχοντας αὐτὸ ταῖς αἰσθήσεσι καὶ ἐννοίαις, ἀποτυποῦσθαι, ὥσπερ δακτυλίων σημεῖα ἐνσημαινομένους. **Aristotle** *de An.* 3.4 430b30–a2 δυνάμει πῶς ἐστὶ τὰ νοητὰ ὁ νοῦς, ἀλλ' ἐντελεχεῖα οὐδέν, πρὶν ἂν νοῇ· δυνάμει δ' οὕτως ὥσπερ ἐν γραμματεῖῳ ᾧ μηθὲν ἐνυπάρχει ἐντελεχεῖα γεγραμμένον· ὅπερ συμβαίνει ἐπὶ τοῦ νοῦ. **Alexander of Aphrodisias** *de An.* 84.24–27 ἐπιτηδεϊότης τις ἄρα μόνον ἐστὶν ὁ ὑλικὸς νοῦς πρὸς τὴν τῶν εἰδῶν ὑποδοχὴν εἰκῶς πινακίδι ἀγράφῳ, μᾶλλον δὲ τῷ τῆς πινακίδος ἀγράφῳ, ἀλλ' οὐ τῇ πινακίδι αὐτῇ. αὐτὸ γὰρ τὸ γραμματεῖον ἦδη τι τῶν ὄντων ἐστίν. **Diogenes Laertius** *V.P.* 6.3 (on Antisthenes, F 171 Prince) πρὸς τε τὸ Ποντικὸν μεῖράκιον μέλλον φοιτᾶν αὐτῷ καὶ πυθόμενον τίνων αὐτῷ δεῖ, φησί, 'βιβλαρίου καινοῦ καὶ γραφείου καινοῦ καὶ πινακίδου καινοῦ', τὸν νοῦν παρεμφαίνων.

§1[6–15] **Stoics: Augustine** *C.D.* 8.7 Dombart–Kalb *ipsi Stoici* (SVF 2.106), *qui cum vehementer amaverint sollertiam disputandi, quam dialecticam nominant, a corporis sensibus eam ducendam putarunt, hinc asseverantes animum concipere notiones, quas appellant ἐννοίας, earum rerum scilicet quas definiendo explicant; hinc propagari atque conecti totam discendi docendique rationem.* Cf. on language **Origen** *CC* 1.24 ὡς νομίζουσιν οἱ ἀπὸ τῆς Στοᾶς (SVF 2.146), φύσει (sc. εἰσι τὰ ὀνόματα), μιμουμένων τῶν πρώτων φωνῶν τὰ πράγματα, καθ' ὧν τὰ ὀνόματα, and **Augustine** *de Dial.* c. 6.10.9–16 *haec quasi cunabula verborum esse crediderunt* (sc. Stoici, *FDS* 644), *ubi sensus rerum cum sonorum sensu concordarent, hinc ad ipsarum inter se rerum similitudinem processisse licentiam nominandi; ut cum verbi causa crux propterea dicta sit, quod ipsius verbi asperitas cum doloris quem crux efficit asperitate concordat, crura tamen non propter asperitatem doloris sed, quod longitudine atque durtie inter membra cetera sint ligno (crucis) similia, sic appellata sint* (etc.).

§1[6–9] **Stoics: Plato** *Phd.* 96b ἡ τούτων μὲν οὐδέν, ὁ δ' ἐγκέφαλός ἐστιν ὁ τὰς αἰσθήσεις παρέχων τοῦ ἀκούειν καὶ ὁρᾶν καὶ ὁσφραίνεσθαι (Alcmaeon 24A1 DK), ἐκ τούτων δὲ γίγνεται μνήμη καὶ δόξα, ἐκ δὲ μνήμης καὶ δόξης λαβούσης τὸ ἡρεμεῖν, κατὰ ταῦτα γίνεσθαι ἐπιστήμην; **Aristotle** *Int.* 1 16a3–4 ἔστι μὲν οὖν τὰ ἐν τῇ φωνῇ τῶν ἐν τῇ ψυχῇ παθημάτων (i.e. images, thoughts?) σύμβολα. *APo.* 2.19 99b36–100a8 ἐνούσης δ' αἰσθήσεως τοῖς μὲν τῶν ζώων ἐγγίγνεται μονὴ τοῦ αἰσθητάτος, τοῖς δ' οὐκ ἐγγίγνεται. ὅσοις μὲν οὖν μὴ ἐγγίγνεται, ἢ ὅλως ἢ περὶ ἃ μὴ ἐγγίγνεται, οὐκ ἔστι τούτοις γνώσις ἔξω τοῦ αἰσθάνεσθαι· ἐν οἷς δ' ἔνεστιν αἰσθητένοις ἔχειν ἔτι ἐν τῇ ψυχῇ. πολλῶν δὲ τοιούτων γινομένων ἡδὴ διαφορὰ τις γίνεται, ὥστε τοῖς μὲν γίνεσθαι λόγον ἐκ τῆς τῶν τοιούτων μονῆς, τοῖς δὲ μή. ἐκ μὲν οὖν αἰσθήσεως γίνεται μνήμη, ὥσπερ λέγομεν, ἐκ δὲ μνήμης πολλὰκις τοῦ αὐτοῦ γινομένης ἐμπειρία· αἱ γὰρ πολλὰ μνήμαι τῷ ἀριθμῷ ἐμπειρία μία ἐστίν. ἐκ δ' ἐμπειρίας ἢ ἐκ παντὸς ἡρεμήσαντος τοῦ καθόλου ἐν τῇ ψυχῇ, τοῦ ἐνὸς παρὰ τὰ πολλὰ, ὁ ἂν ἐν ἅπασιν ἐν ἐνῇ ἐκείνοις τὸ αὐτό, τέχνης ἀρχὴ καὶ ἐπιστήμη. *Mem.* 1 449b24–

24 ἔστι μὲν οὖν ἡ μνήμη οὔτε αἰσθησις οὔτε ὑπόληψις, ἀλλὰ τούτων τινὸς ἕξις ἢ πάθος, ὅταν γένηται χρόνος. *Met.* A.1 980a28–981a16 γίγνεται δ' ἐκ τῆς μνήμης ἐμπειρία τοῖς ἀνθρώποις· αἱ γὰρ πολλαὶ μνήμαι τοῦ αὐτοῦ πράγματος μιάς ἐμπειρίας δύναμιν ἀποτελοῦσιν. ... (a15) ἡ μὲν ἐμπειρία τῶν καθ' ἕκαστόν ἐστι γνώσις, ἡ δὲ τέχνη τῶν καθόλου. (cf. *David Prol.* 44.5–6, cited above, section E(a)§1[8–9]) **Plutarch** *CN* 1085A–B (*SVF* 2.847) ἀλλ' οὕτως παρακούουσιν ἑαυτῶν, ὥστε τὰς ἐννοίας (ἐν)ἀποκειμένας τινὰς ὀριζόμενοι νοήσεις μνήμας δὲ μονίμους καὶ σχετικὰς τυπώσεις. **Sextus Empiricus** *M.* 7.373 (*SVF* 1.64, 2.56) μνήμη, θησαυρισμὸς οὕσα φαντασιῶν.

§1[10–13] **Stoics: Philodemus de Mus.** 4 col. 34.2–8 Delattre συ[γχεχω-ρ]ηκέαι (sc. Diogenes of Babylon, *SVF* 3 Diog 61) δ' αὐτῶι (sc. with Speusippus—or: αὐτῶι, i.e. 'accepting the idea') τὰ μὲν [αὐτο]φουὺς αἰσ[θ]ήσεως δε[ῖ]σθαι, τὰ δ' ἐπιστημονικῆς, τὰ τε θερμὰ μὲν | καὶ τὰ ψυχρὰ τῆ[ς] αὐ[το]φουὺς, τὸ | δ' ἡρμοσμέν[ον] καὶ ἀνάρμο|στον τῆς ἐπ[ιστη]μονικῆς. *de Mus.* 4 col. 115.26–41. Delattre. cf. **Speusippus** fr. 34 Isnardi Parente, 75 Tarán ap. S.E. *M.* 7.145–146.

§1[14–15] **Stoics: Aristotle HA** 9.1 581a12–18 φέρειν δὲ σπέρμα πρῶτον ἄρχεται τὸ ἄρρεν ὡς ἐπὶ τὸ πολὺ ἐν τοῖς ἔτεσι τοῖς δις ἐπτά τετελεσμένοις· ἅμα δὲ καὶ ἡ τρίχωσις τῆς ἥβης ἄρχεται, καθάπερ καὶ τὰ φυτὰ μέλλοντα σπέρμα φέρειν ἀνθεῖν πρῶτον Ἀλκμαίων φησὶν ὁ Κροτωνιάτης (24A15 DK). περὶ δὲ τὸν αὐτὸν χρόνον τοῦτον ἢ τε φωνὴ μεταβάλλειν ἄρχεται ἐπὶ τὸ τραχύτερον καὶ ἀνωμαλότερον κτλ. **Philo of Alexandria Leg.** 1.10 λογικὸν τέ φασιν ἀνθρώπον κατὰ τὴν πρώτην ἐπταετίαν γίνεσθαι, ὅτε ἤδη ἱκανὸς ἐστὶν ἐρμηνεῦς εἶναι τῶν συνήθων ὀνομάτων καὶ ῥημάτων τὴν λογικὴν ἕξιν περιπεποιημένος, κατὰ δὲ τὴν δευτέραν ἐπταετίαν ἄκρως τελειοῦσθαι· τελείωσις δὲ ἐστὶ δύναμις τῆς τοῦ ὁμοίου σποράς. **Sextus Empiricus M.** 11.8 (*SVF* 2.224) εἴ τί ἐστιν ἀνθρώπος, ἐκεῖνο ζῶν ἐστὶ λογικὸν θνητόν. *P.* 1.65 (—) ἴδωμεν οὖν πρότερον περὶ τοῦ ἐνδιαθέτου. οὗτος τοίνυν κατὰ τοὺς μάλιστα ἡμῖν ἀντιδοξούντας νῦν δογματικούς, τοὺς ἀπὸ τῆς Στοᾶς (—), ἐν τούτοις ὅμοιος σαλεύειν, τῇ αἰρέσει τῶν οἰκείων καὶ φυγῇ τῶν ἀλλοτρίων, τῇ γνώσει τῶν εἰς τοῦτο συντεινουσῶν τεχνῶν, τῇ ἀντιλήψει τῶν κατὰ τὴν οἰκείαν φύσιν ἀρετῶν (καὶ) τῶν περὶ τὰ πάθη. **Ptolemy Iudic.** 2, p. 6.2–5 τοῦ δὲ λογικοῦ, καθὼ τὸ τῶν ἀνθρώπων ἴδιον ὠρίσται, διάνοια μὲν ἐστὶν ὁ λόγος ὁ ἐνδιάθετος διέξοδος τις οὕσα καὶ ἀναπόλησις καὶ διάκρισις τῶν μνημονευθέντων. **Iamblichus de An.** fr. 15 Finamore–Dillon at Stob. 1.48.8, p. 317.21–24 πάλιν τοίνυν περὶ τοῦ νοῦ καὶ πασῶν τῶν κριττόνων δυνάμεων τῆς ψυχῆς οἱ μὲν Στωικοὶ (*SVF* 1.149, 2.835) λέγουσι μὴ εὐθὺς ἐμφύεσθαι τὸν λόγον, ὕστερον δὲ συναθροίζεσθαι ἀπὸ τῶν αἰσθήσεων καὶ φαντασιῶν περὶ δεκατέσσαρα ἔτη. **Scholía Platonica Alc.** 121e, p. 99 Greene = pp. 152–153 Cufalo δις ἐπτά· τότε γὰρ ὁ τέλειος ἐν ἡμῖν ἀποφαίνεται λόγος, ὡς Ἀριστοτέλης (cf. *Pol.* 7.17 1336b37–1337a3) καὶ Ζήνων (*SVF* 1.149) καὶ Ἀλκμαίων ὁ Πυθαγόριος (cf. *Arist. HA* 9.1 581a12–18 above, and on Alcmaeon 24A15 DK) φασίν.

§1[16–18] **Stoics: Aristotle de An.** 3.7 431a16–17 οὐδέποτε νοεῖ ἄνευ φαντάσματος ἢ ψυχῆ. *Mem.* 1 450a12–14 ἡ δὲ μνήμη, καὶ ἡ τῶν νοητῶν, οὐκ ἄνευ φαντάσματος ἐστίν, (καὶ τὸ φάντασμα τῆς κοινῆς αἰσθήσεως πάθος ἐστίν)· ὥστε τοῦ νοῦ μὲν κατὰ συμβεβηκὸς ἂν εἴη, καθ' αὐτὸ δὲ τοῦ πρώτου αἰσθητικοῦ. *Protr.* fr. 101 Düring ap. Iambl. *Protr.* p. 46.27–28 Pistelli τὰ μὲν καθ' ὕπνον φαντάσματα

ψευδῆ, τὰ δ' ἐγρηγορόσιν ἀληθῆ. cf. *Epicurus Ep.Hdt.* at D.L. 10.75 τὰς φύσεις τῶν ἀνθρώπων καθ' ἑκάστα ἔθνη ἴδια πασχούσας πάθη καὶ ἴδια λαμβανούσας φαντάσματα. *Chrysippus de An.* at Gal. *PHP* 5.2.26 (*SVF* 3.471, verbatim) ἐν ψυχῇ λογικῇ. *Diogenes Laertius V.P.* 7.61 (*SVF* 3 Diog. 25) εἶδος δέ ἐστι τὸ ὑπὸ γένους περιεχόμενον, ὡς ὑπὸ τοῦ ζώου ὁ ἄνθρωπος περιέχεται. γενικώτατον δέ ἐστιν ὃ γένος ὃν γένος οὐκ ἔχει, οἶον τὸ ὄν· εἰδικώτατον δέ ἐστιν ὃ εἶδος ὃν εἶδος οὐκ ἔχει, ὥσπερ ὁ Σωκράτης.

§1[19–20] *Stoics: Sextus Empiricus M.* 9.131 τί οὖν φασιν οἱ Στωικοὶ (*SVF* 3.370) δικαιοσύνην τινὰ καὶ ἐπιπλοκὴν ἔχειν τοὺς ἀνθρώπους πρὸς ἀλλήλους καὶ τοὺς θεοὺς; οὐ καθόσον ἔστι τὸ ἐληλακὸς διὰ πάντων πνεῦμα, ἐπεὶ ἂν καὶ πρὸς τὰ ἄλογα τῶν ζώων ἐσφύζετό τι δίκαιον ἡμῖν, ἀλλ' ἐπεὶ λόγον ἔχομεν τὸν ἐπ' ἀλλήλους τε καὶ θεοὺς διατείνοντα, οὐ τὰ ἄλογα τῶν ζώων μὴ μετέχοντα οὐκ ἂν ἔχοι τι πρὸς ἡμᾶς δίκαιον.

§1[22–24] *Stoics: Clement of Alexandria Strom.* 1.20.98.1 (*SVF* 1.376) μιᾶς καὶ τῆς αὐτῆς δραχμῆς τῷ μὲν ναυκλήρῳ δοθείσης λέγεσθαι ναῦλον, τῷ δὲ τελώνῃ τέλος καὶ ἐνοίκιον μὲν τῷ σταθμούχῳ, μισθὸν δὲ τῷ διδασκάλῳ καὶ τῷ πιπράσκοντι ἀρραβῶνα.

Liber 4 Caput 12

P^B: ps.Plutarchus *Plac.* 900D–901A; pp. 401^a11–402^a32 Diels—**P^G**: ps.Galenus *HPh* c. 93; p. 636.7–18 Diels—**P^Q**: Qustā ibn Lūqā pp. 200–203 Daiber
S: Stobaeus *Ecl.* 1.58, p. 1.497.13 Wachsmuth, titulus solus ex Phot. *Bibl.* 167, p. 112b35 Henry
 Cf. Nem: Nemesius *NH* c. 6, p. 55.8–56.2; c. 12, p. 68.4–6 Morani

Titulus ιβ'. Τίτι διαφέρει φαντασία φανταστὸν φανταστικὸν φάντασμα (P,cf.S)

§1 Χρύσιππος διαφέρειν ἀλλήλων φησὶ τέτταρα ταῦτα. φαντασία μὲν οὖν ἐστὶ πάθος ἐν τῇ ψυχῇ γινόμενον, ἐνδεικνύμενον ἐν αὐτῷ καὶ τὸ πεποιηκός· οἷον ἐπειδὴν δι' ὅψεως θεωρῶμέν τι λευκόν, ἔστι πάθος τὸ ἐγγεγεννημένον διὰ τῆς ὁράσεως ἐν τῇ ψυχῇ· καὶ (κατὰ) τοῦτο τὸ πάθος εἰπεῖν ἔχομεν, ὅτι ὑπόκειται λευκὸν κινεῖν ἡμᾶς· ὁμοίως καὶ διὰ τῆς ἀφῆς καὶ τῆς ὁσφρήσεως.

εἴρηται δ' ἡ φαντασία ἀπὸ τοῦ φωτός· καθάπερ γὰρ τὸ φῶς αὐτὸ δεικνυσι καὶ τὰ ἄλλα τὰ ἐν αὐτῷ περιεχόμενα, καὶ ἡ φαντασία δεικνυσιν ἐαυτὴν καὶ τὸ πεποιηκός αὐτήν.

φανταστὸν δὲ τὸ ποιοῦν τὴν φαντασίαν· οἷον τὸ λευκὸν καὶ τὸ ψυχρὸν καὶ πᾶν ὃ τὶ ἀν δύνηται κινεῖν τὴν ψυχὴν, τοῦτ' ἔστι φανταστὸν.

§1[1–28] *SVF* 2.83

caput non hab. **ST** **titulus** Τίτι ... φάντασμα ^{P^B(I,II)} : φανταστὸν **om.** ^{P^B(II)} : *Was ist der Unterschied zwischen der Einbildung und dem Eingebildeten?* Q : **al.** Περί φαντασίας ^{P^G}, Περί φαντασίας καὶ κριτηρίου ^{S^{Phot}} §1 [3] φησὶ ante διαφέρειν ^{P^G} || ἀλλήλων + τέτταρα ταῦτα ^{P^B} : *zwischen der Einbildung, dem Eingebildeten und dem Phantasiebild* Q || post ταῦτα **add.** **ex tit.** φαντασία φανταστὸν φανταστικὸν φάντασμα ^{P^G} || [4] post γινόμενον **add.** καὶ ^{P^G} || ἐν αὐτῷ Diels **ex Nem. prob.** Mau Lachenaud, cf. *in sich selbst* Q : ἐν αὐτῷ ^{P^B(I,II,12)} : ἐαυτῷ ^{P^B(III:AE)} : αὐτὸ τε ^{P^G} || [5] δι' ὅψεως ^{P^BQ} : **om.** ^{P^G} || τι λευκὸν **coni.** Reiske cf. c. 4.11.2 : τὸ λευκὸν ^P || ante ἔστι **add.** δ ^{P^G} || [5–8] τὸ ἐγγεγεννημένον ... ὁσφρήσεως ^{P^B} : **al.** ^{P^G} ἐγένετο τῇ ψυχῇ ἐναλλακτικὸν τοῦ πεπονηθότος || [6] (κατὰ) **add.** Wytttenbach **prob.** Diels Mau Lachenaud || τοῦτο τὸ ^{P^B} : τὸ deletum malebat Reiske, non hab. ^{P^Q} ut vid. || [7] εἰπεῖν ... ἡμᾶς ^{P^B} : *diese Einwirkung hat eine Grundlage, welche uns bewegt* Q (**om.** εἰπεῖν ἔχομεν ^{P^Q}) || [7] ὁμοίως post ἀφῆς **et om.** καὶ ^{P^B(II)} || [9–11] ἀπὸ τοῦ ... αὐτήν ^{P^B} : **al.** ^{P^G} ἐκ τοῦ φαίνεσθαι αὐτήν τε καὶ τὸ πεποιηκός || εἴρηται ... φωτός ^{P^B} : *in der Sprache der Griechen 'Einbildung' nach dem Licht genannt. Denn sie ist in ihr von ihm abgeleitet* Q || [9] ἡ ^{P^B(I,II)Q} : **om.** ^{P^B(II)G} || μὲν **add.** post φαντασία ^{P^B(II)} || αὐτὸ Diels **prob.** Mau Lachenaud : αὐτὸ ^{P^B} : αὐτήν ^{P^G} : **om.** ^{P^Q} || [12] φανταστὸν ... φαντασίαν ^{P^BQ} : ὅπερ ἐστὶ φανταστὸν ^{P^G} || [12–13] τὸ ψυχρὸν ... ψυχὴν ^{P^B} : **al.** ^{P^G} εἴ τι ἄλλο διὰ τῶν αἰσθήσεων δύναται κινεῖν τὴν ψυχὴν || [13] δύνηται ^{P^B(III:E)} : δύναται ^{P^B(I,II)} || τοῦτ' ... φανταστὸν ^{P^B} : **om.** ^{P^Q} : φανταστὸν ἐστὶ ^{P^G}

φανταστικὸν δ' ἐστὶ διάκενος ἑλκυσμός, πάθος ἐν τῇ ψυχῇ ἅπ' οὐδενὸς
φανταστοῦ γινόμενον, καθάπερ ἐπὶ τοῦ σκιαμαχοῦντος καὶ κενοῖς ἐπι- 15
φέροντος τὰς χεῖρας· τῇ γὰρ φαντασίᾳ ὑπόκειται τι φανταστόν, τῷ δὲ
φανταστικῷ οὐδέν.

φάντασμα δ' ἐστίν, ἐφ' ὃ ἐλκόμεθα κατὰ τὸν φανταστικὸν διάκενον
ἑλκυσμόν· ταῦτα δὲ γίνεται ἐπὶ τῶν μελαγχολῶντων καὶ μεμνηνόντων·
ὁ γοῦν τραγικὸς Ὀρέστης ὅταν λέγῃ· 20

ὦ μήτερ, ἴκετεύω σε, μὴ 'πίσειέ μοι
τὰς αἱματωποὺς καὶ δρακοντῶδεις κόρας·
αὗται γάρ, αὗται πλησίον θρώσκουσί μου.
λέγει μὲν αὐτὰ ὡς μεμνηνὼς ὁρᾷ δ' οὐδέν, ἀλλὰ δοκεῖ μόνον· διὸ καὶ
φησιν αὐτῷ Ἡλέκτρα· 25

μὲν', ὦ ταλαίπωρ', ἀτρέμα σοῖς ἐν δεμνίοις·
ὁρᾷ γάρ οὐδέν ὦν δοκεῖς σάφ' εἰδέναι,
ὡς καὶ παρ' Ὀμήρῳ Θεοκλύμενος. (P1)

§1[21–27] Euripides *Or.* 255–257, 258–259; §1[28] Homer *Od.* 20.350–358

[14] ἐστὶ P^B : om. P^G || πάθος P^{BG} : om. P^Q || [15] γινόμενον, ... τοῦ P^B : om. P^G || [15–17] καὶ ...
οὐδέν P^B : om. P^G || [15] κενοῖς con. Reiske : κενὰς P^B : om. P^Q || [15–16] ἐπιφέροντος ... χεῖρας
P^{B(III)} : τὰς om. P^{B(II)} : *eifrig wünscht, sie [sc. die Schatten] mit der Hand zu ergreifen* Q ||
[16–17] τῷ δὲ φανταστικῷ P^{B(II,III)} Q : τὸ δὲ φανταστικὸν P^{B(II)} || [19] καὶ μεμνηνόντων P^B : om.
P^G || [20–27] ὁ γοῦν ... εἰδέναι P^B : al. P^G ὥσπερ ἐπὶ Ὀρέστου || [20] post λέγει in seiner *Dich-*
tung add. Q || [21] ὦ μήτερ P^{B(II,III)} Q : om. P^(II) || [23] θρώσκουσί P^B : *zu verschlingen* Q || [24]
μεμνηνὼς P^B : *gesund war und keine Krankheit hatte* Q || [26] σοῖς ἐν δεμνίοις P^B : *in Deinem*
Wahnsinn Q || [28] ὡς καὶ P^B : καὶ τοῦ P^G

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 93 Περὶ φαντασιῶν (~ tit) (text Diels).

93.1 (~ P1[3–8]) Χρῆσιππὸς φησὶ διαφέρειν ἀλλήλων τέτταρα ταῦτα φαντασίαν
φανταστόν φανταστικὸν φάντασμα. φαντασία μὲν οὖν ἐστὶ πάθος ἐν τῇ ψυχῇ
γινόμενον καὶ ἐνδείκνυμενον αὐτό τε καὶ τὸ πεπονηκός· οἷον ἐπειδὴν ἴδωμεν τὸ
λευκόν, ὃ ἐστὶ πάθος, ἐγένετο τῇ ψυχῇ ἐναλλακτικὸν τοῦ πεπονθότος·

93.2 (~ P1[9–11]) εἴρηται δὲ φαντασία ἐκ τοῦ φαίνεσθαι αὐτὴν τε καὶ τὸ πεπονηκός,

93.3 (~ P1[12–13]) ὅπερ ἐστὶ φανταστόν· οἷον τὸ λευκόν καὶ εἴ τι ἄλλο διὰ τῶν αἰσθη-
σεων δύναται κινεῖν τὴν ψυχὴν φανταστόν ἐστι,

93.4 (~ P1[14–17]) φανταστικὸν δὲ διάκενος ἑλκυσμός, πάθος ἐν ψυχῇ ἅπ' οὐδενὸς
φανταστοῦ σκιαμαχοῦντος.

93.5 (~ P1[18–19]) φάντασμα δὲ ἐστίν, ἐφ' ὃ ἐλκόμεθα κατὰ τὸν φανταστικὸν διά-
κενον ἑλκυσμόν· ταῦτα δὲ γίνεται ἐπὶ τῶν μελαγχολῶντων

93.6 (~ P1[20–27]) ὥσπερ ἐπὶ Ὀρέστου

93.7 (~ P1[28]) καὶ τοῦ παρ' Ὀμήρῳ Θεοκλύμενου.

Testes secundi:

Nemesius *NH* c. 6, p. 55.8–56.2 (~ tit.) Περὶ τοῦ φανταστικοῦ. (~ §1[9–19]) φανταστικὸν μὲν οὖν ἐστὶ δύναμις τῆς ἀλόγου ψυχῆς διὰ τῶν αἰσθητηρίων ἐνεργούσα· φανταστον δὲ τὸ τῇ φαντασίᾳ ὑποπίπτον, ὡς αἰσθήσει αἰσθητόν· φαντασία δὲ ἐστὶ πάθος τῆς ἀλόγου ψυχῆς ὑπὸ φανταστοῦ τινος γινόμενον· φάντασμα δὲ πάθος διάκενον ἐν τοῖς ἀλόγοις τῆς ψυχῆς ἀπ’ οὐδενὸς φανταστοῦ γινόμενον.

(~ §1[1–18]) οἱ δὲ Στωϊκοὶ τέσσαρα ταυτά φασι, φαντασίαν, φανταστον, φανταστικόν, φάντασμα, φαντασίαν μὲν λέγοντες τὸ πάθος τῆς ψυχῆς τὸ ἐνδεικνύμενον ἐν ἑαυτῷ {καὶ τὸ πεπονηκὸς φανταστον}. ὅταν γὰρ λευκὸν ἴδωμεν ἐγγίνεται τὸ πάθος τῇ ψυχῇ ἐκ τῆς λήψεως αὐτοῦ· ὡς γὰρ ἐν τοῖς αἰσθητηρίοις ἐγγίνεται πάθος, ὅταν αἰσθάνηται, οὕτω καὶ ἐν τῇ ψυχῇ, ὅταν ἐννοήσῃ. εἰκόνα γὰρ ἐν ἑαυτῇ δέχεται τοῦ νοητοῦ, φανταστον δὲ τὸ πεπονηκὸς τὴν φαντασίαν αἰσθητόν, οἷον τὸ λευκὸν καὶ πᾶν ὃ τὴν δύναται κινεῖν τὴν ψυχὴν, φανταστικὸν δὲ τὸν διάκενον διεκλυσμὸν ἄνευ φανταστοῦ, φάντασμα δὲ ὃ ἐφέλκομεν κατὰ τὸν φανταστικὸν διάκενον ἐκλυσμόν, ὡς ἐπὶ τῶν μεμνημένων καὶ μελαγχολώντων. ἢ δὲ διαφωνία τούτοις περὶ τὴν ἐναλλαγὴν μόνην γέγονε τῶν ὀνομάτων. cf. *NH* c. 12, p. 68.4–6 τοῦ μὲν οὖν φανταστικοῦ ἢ τε δύναμις καὶ τὰ ὄργανα καὶ τὰ μόρια καὶ τῶν μορίων ἢ κοινωνία τε καὶ διαφορὰ τὸν ἐνδεχόμενον τρόπον ὡς ἐν βραχέσιν ἱκανῶς εἴρηται (~ §1).

Loci Aetiani:

titulus A 1.2.tit. Τίνι διαφέρει ἀρχὴ καὶ στοιχεῖα.

§1[3–8] A 4.9.4 οἱ Στωϊκοὶ τὰς μὲν αἰσθήσεις ἀληθεῖς, τῶν δὲ φαντασιῶν τὰς μὲν ἀληθεῖς τὰς δὲ ψευδεῖς. A 4.10.1 οἱ Στωϊκοὶ πέντε τὰς εἰδικὰς αἰσθήσεις, ὅρασιν ἀκοὴν ὄσφρησιν γεύσιν ἀφήν. A 4.11 (de Stoicis) titulus Πῶς γίνεται ἡ αἴσθησις κτλ. A 4.11[6–7] πρῶτος δὲ ὁ τῆς ἀναγραφῆς τρόπος ὁ διὰ τῶν αἰσθήσεων· αἰσθανόμενοι γὰρ τινος οἷον λευκοῦ ἀπελθόντος αὐτοῦ μνήμην ἔχουσιν. A 4.21.1 οἱ Στωϊκοὶ φασιν εἶναι τῆς ψυχῆς ἀνώτατον μέρος τὸ ἡγεμονικόν τὸ ποιοῦν τὰς φαντασίας καὶ συγκαταθέσεις καὶ αἰσθήσεις καὶ ὁρμάς. A 4.21[2–14] τῶν δ’ ἐπτά μερῶν τῆς ψυχῆς πέντε μὲν εἰσι τὰ αἰσθητήρια, ὅρασις ὄσφρησις ἀκοὴ γεύσις καὶ ἀφή· ὧν ἡ μὲν ὄρασις ἐστὶ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις ὀφθαλμῶν, ἀκοὴ δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις των, ὄσφρησις δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις μυστήρων {λεπτύνων}, γεύσις δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις γλώττης, ἀφή δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις ἐπιφανείας εἰς θίξιν εὐαίσθητον τῶν προσπιπτόντων. A 4.23.1 οἱ Στωϊκοὶ τὰ μὲν πάθη ἐν τοῖς πεπονθόσι τόποις, τὰς δ’ αἰσθήσεις ἐν τῷ ἡγεμονικῷ.

§§1[18–19] al. A 4.11[16–22] ἔστι δ’ ἐννόημα φάντασμα διανοίας λογικοῦ ζώου· τὸ γὰρ φάντασμα, ἐπειδὴν λογικὴ προσπίπτῃ ψυχῇ, τότε ἐννόημα καλεῖται, εἰληφὸς τοῦνομα παρὰ τοῦ νοῦ. διόπερ τοῖς ἀλόγοις ζώοις ὅσα προσπίπτει φαντάσματα, {φαντάσματα μόνον ἐστίν}· ὅσα δὲ καὶ θεοῖς καὶ ἡμῖν γε, ταῦτα {φαντάσματα μόνον ἐστίν}· ὅσα δὲ ἡμῖν, ταῦτα} καὶ φαντάσματα κατὰ γένος καὶ ἐννόηματα κατ’ εἶδος.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The only witnesses are P^B and P^Q, largely confirmed by G who has edited out the poetical quotations near the end. For 4.12 (in contrast to ch. 4.11) it is also witnessed by Nem, who will have derived it from a parallel doxographical tradition (see above, chs. 4.2–3, Commentary A). Only part of the heading is preserved for S in the index of Photius, but this is sufficient to demonstrate that his anthology must originally have contained the chapter. T again did not excerpt it. There is no need to divide this chapter into lemmata, as we are dealing with a single name-label, and a single doctrine just as in the previous chapter.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* A rather free but not inaccurate version of what is in A 4.12 is found at Nem NH c. 6 p. 55.14–56.2, cited above at *testes secundi* (the second parallel in the apparatus of *DG*); see e.g. Jaeger (1914) 7–12. This is preceded by a brief paragraph, p. 55.9–13, also cited above at *testes secundi*, which Diels *DG ad loc.* also derives from A, but this is not entirely certain. At *DG* 61 he argues that the Nemesian parallels are excerpts from A and so prove that what is in P also derives from A. But in the case of Nem p. 55.9–13 there are interesting differences. This briefly deals with the four terms at issue in a different order, viz. φανταστικόν φανταστόν φαντασία φάντασμα: ‘fancy’ and its object occur, respectively, before and after impression and its object. Here the φανταστικόν is a faculty of the *irrational* soul, the φανταστόν the object of the φαντασία, the φαντασία an affection of the *irrational* soul brought about by a φανταστόν, and the φάντασμα a groundless movement in the *irrational* parts of the soul that in no way derives from a φανταστόν. This looks like a dualist rewriting of Stoic psychical monism. Also note that Nem has the bland name-label ‘the Stoics’ (p. 55.13), whereas ch. 4.12 has ‘Chrysippus’; but this is not decisive, since such differences in designation also exist between P and S, see e.g. P at A 1.6[1] ‘the Stoics’ and S at A 1.7.10[73] ‘Posidonius’ for the same doxa, or P at 1.18.5 ‘the Stoics’, while S here reads ‘Zeno and his followers’. We note that Nem tones down the difference between these two accounts by stating that the ‘diaphonia’ (his term) is not more than a ‘terminological variation’, ἐναλλαγήν ... τῶν ὀνομάτων.

(2) *Sources.* Provenance from a Stoic source, as Diels *DG* 61 already surmised, is virtually certain because, with the exception of the introductory phrase (‘Chrysippus says that these four are different from one another’), ch. 4.12, just as ch. 4.11, is in *oratio recta*. See also at ch. 4.11 above, Commentary D(a). The first persons plural §1[5] ‘we observe’ (θεωρῶμέν), §1[7] ‘we are able’ (ἔχομεν)

and §1[18] ‘we are attracted’ (ἐλκόμεθα), and the personal pronoun §1[7] ‘us’ (ἡμᾶς) are significant, just as the verb forms and pronoun in ch. 4.11 (where see Commentary B): ‘we’ and ‘us’, that is, ‘we humans’, as in staunch Stoic theory. The quotations from Euripidean tragedy and the reference to the seer in Homer point to quotation-happy Chrysippus as well. As intermediary source we may posit a Stoic handbook, or one providing Stoic doctrine, just as in the case of chs. 4.11, 4.15 and 4.21. Nem *NH* c. 12 contains a parallel to A 4.21.1, and begins with a backward glance at *NH* c. 6.

C Chapter Heading

The long and precise heading is only found in P^B, but as to content (though as we have seen the four items are listed in a different order the first time) also in the cousin writing of Nem. For the dialectical aspect of the question word see above, ch. 1.1, Commentary C, and for the parallel phrase τίνι διαφέρει ch. 1.2: the difference is between distinct species. P^Q only has the first two items. P^G has a very short heading, Περὶ φαντασιῶν, of the umbrella type περὶ τοῦ δεῖναι that dominates in the *Placita*; ‘fortasse rectius’ according to Diels *DG* 401 ad loc., who fails to take into account that P^G lists the four items immediately after the phrase ‘those four’ (τέτταρα ταῦτα) he has taken from P^B. S^{Phot} has combined an umbrella part of a heading, viz. Περὶ φαντασίας with another part, namely καὶ κριτηρίου (Περὶ κριτηρίου is first attested as a book title for Epicurus at Diogenes Laertius *V.P.* 10.27 and Posidonius at *V.P.* 7.54, as a chapter heading Sextus Empiricus *M.* 7.29). For this latter part there is no parallel in P. The combined evidence in P^B, in P^Q, in the text not the heading of P^G, and in the text of Nem is in favour attributing the long heading to A. Decisive is the fact that the first phrase of the first lemma in P (also cited in Nem, who as heading only has Περὶ τοῦ φανταστικοῦ) refers to the *four* concepts in the title.

D Analysis

a Context

Ch. 4.12 is the second of two chapters dealing with aspects of exclusively *Stoic* views on concept formation, sensation, and thought, so not with those of other philosophers or schools. These chapters have been inserted in the original *Placita* to upgrade the epistemological section.

b Number–Order of Lemmata

There is no multiplicity of *Placita* lemmata in the usual sense of the word. It is in fact a monolemmatic chapter, just as the previous one. The division in paragraphs introduced by us merely mirrors the progress of the argument.

c Rationale–Structure of Chapter

In the absence of a plurality of views the chapter, like ch. 4.11, has no diaeretic and/or diaphonic structure. The account distinguishes and defines four etymologically and semantically related terms pertaining to sensation, imagination, and concept formation. The definitions concerned are complete and sectarian definitions (as opposed to nominal or conceptual definitions, see above, ch. 1.9, at Commentary D(d), General points), here paradoxically concerned with the specific individuality of general concepts.

d Further Comments

General Points

Most of the notions as defined here are consistent with those of ch. 4.11.

Individual Points

§1[7] ‘enables us to say’: we, as adults, are able to formulate a meaningful sentence, a proposition, corresponding to precisely this *phantasia*. As Diogenes Laertius *V.P.* 7.49 (*SVF* 2.52) tells us: ‘the impression (*φαντασία*) comes first, and then the mind, unable to keep silent, brings out in speech what it experiences by the agency of the *phantasia*’.

§1[7–8] ‘And similarly when we are affected through touch and smell’; that is, the presentations of touch and smell reveal both themselves and their contents. Hearing and taste are not mentioned, though without doubt they could have been; they may have been abridged away by P. For their presence compare the largely parallel passage Sextus Empiricus *M.* 7.162 (*SVF* 2.63) cited section E(b)§1[9–11], on the modification in the soul caused by the impression: ‘we become aware of two things, one being the alteration itself, i.e. (aware) of the impression, the second of what brings this modification about internally, i.e. the visible object; *and with regard to the other senses (this happens) in virtually the same way*. Just as light reveals itself and all the things it contains, so also the impression, being the originator of the knowledge present in the living being, is bound (both) to reveal itself in the manner of light and to become indicative of the evident object that produced it’ (tr. Bury LCL, modified).

P’s account is worthwhile also from another point of view. It is generally accepted that according to a standard Stoic view only bodies are capable of *ποιεῖν* as well as *πάσχειν*, and that the effect of a(n active) body qua cause upon and in another body (a passive one) is an ‘incorporeal’; see AD fr. 18 Diels (*SVF* 1.89, 2.336, Posid. F 95 E.–K) and the other texts cited above at ch. 1.11 section E(a)§5. But according to Chrysippus as cited in the present chapter, an object that is perceived produces, that is, *causes*, an impression (*phantasia*): an ‘affection (*πάθος*—think of *πάσχειν* as the opposite of *ποιεῖν*) that has come about

in the soul through seeing', 'and it is (in correspondence with) this affection that we are able to *say* (εἰπεῖν) that there exists a white object that moves us'. A body, say a white knife, causes the impression of a white knife in the soul. This impression is not an incorporeal effect, for it is an 'imprinting, τύπωσις, in the soul' (see the texts cited below, section E(b) §1[3–6] and the echo at ch. 4.8.11 above). Thus it would seem, *pace* the generally accepted view, that the Stoic theory of causation also allows for corporeal changes as effects of other bodies operating as causes. But this is a matter we cannot go into further here.

§1[9–11] The derivation of φαντασία from φῶς/φῶς is already found in Aristotle, then in AD and Alexander of Aphrodisias; see section E(a)&(b) §1[9–11], and immediately above for a translation of the passage in Sextus Empiricus. For Q's explanation with reference to the *Sprache der Griechen* (app. crit.) cf. chs. 1.8 (heading), 2.1.1[2], 3.7.2[6], 4.11.1[17], and 4.19.3[7]. There is no etymological link in Arabic, so his public needs an explanation.

§1[15–16] καθάπερ ἐπὶ τοῦ σκιαμαχοῦντος καὶ κενοῖς ἐπιφέροντος τὰς χεῖρας: cf. Seneca *Nat.* 7.14.1, *solvere ista quid aliud est quam manum exercere et in ventum iactare brac(c)hia?* Vottero (1989) and Parroni (2002) ad loc. refer to similar expressions in Greek and Latin at Otto (1890) nr. 28. 'Seneca si riferisce all'allenamento dei pugili' (Vottero, loc. cit., who also cites the apostle Paul 1 Cor. 9:26, ἐγὼ ... οὕτως πυκτεύω ὥς οὐκ ἄερα δέρων). Cf. John Chrysostom, *Ad pop. Antioch.*, MPG 49 p. 47.18–20, καὶ καθάπερ ὁ σκιᾶ πυκτεύων καὶ τὸν ἄερα δέρων οὐδένα πληῆσαι δυνήσεται, οὕτως ὁ τῷ δικαίῳ πολεμῶν σκιαμαχεῖ μόνον.

§1[18–19] The definition and meaning here of 'phantasm', φάντασμα, are squarely opposed to the meaning of this term in A 4.11[16]: 'apparition', 'mental image' in the earlier chapter over against 'figment', the usual meaning in Stoic language, in the present one. This contrast, which may be due to the doxographer rather than to his source, may have favoured the inclusion of this material in the doxography, since it chimes in with the familiar Aëtian predilection for diaeresis and diaphonia, this time not found in a single chapter but stretched to encompass two. See also Commentary D(a) at ch. 4.11 above.

§1[20–28] Such quotations of Euripides and Homer are typically Chrysippean, e.g. Diogenes Laertius *V.P.* 7.180 (*SVF* 2.1), the bon mot on Chrysippus' *Medea*; in general Galen *PHP* 2.2.5 (*SVF* 2.883), *PHP* 3.5.21–22 (*SVF* 2.884); see Tieleman (1996) 220–248. The quoted lines of the *Orestes* are also found in passages in Sextus Empiricus (see *testes II*) where the various kinds of *phantasia* are discussed, thus confirming the solid Stoic background of our present chapter. For the misguided attempt of Prof. Schubert to claim Plutarch of Chaeronea as author see Mansfeld (2018a) at M–R 4.195.

e Other Evidence

A full parallel for the distinction between the four concepts of the heading is found in Nem, see at *testes secundi* and our discussion above in section B. The brief parallel for delusions in Ptolemy *Iudic.* c. 12.3, p. 18.3–8 is interesting also for its position in a general account that for the most part is paralleled in ch. 4.11. This also holds for the Epicurean account at Diogenes Laertius *V.P.* 10.32–33 for which see above, ch. 4.11 Commentary D(e), and for Sextus Empiricus, who, in one of his accounts of (Stoic) concept formation (*M.* 8.56–60) cites a line from Euripides' *Orestes* also found among A's more generous quotations.

E Further Related Texts

a Proximate Tradition

General texts: Arius Didymus fr. 16 Diels at Stob. *Ecl.* 1.58, p. 497.15–25 Ἀριστοτέλης φαντασίαν δ' εἶναι πάθος τι καὶ κίνησιν τῆς κατ' ἐνέργειαν αἰσθήσεως. ὠνομάσθαι δ' ἀπὸ μιᾶς τῶν αἰσθήσεων τῆς ὁράσεως τὸ (γὰρ) φαίνεσθαι παρὰ τὸ φάος ἔχειν τὴν ἐπίρρησιν. τοῦτο δ' οἰκεῖον εἶναι τῆς ὄψεως, διατείνειν δὲ (εἰς) πάσας τὰς αἰσθήσεις καὶ τὰς διανοητικὰς κινήσεις· καὶ γὰρ ταύτας ὁμωμύως λέγεσθαι φαντασίας. κριτήρια δ' εἶναι τῆς τούτων γνώσεως τὸν τε νοῦν καὶ τὴν αἴσθησιν, τὸν μὲν τῶν νοητῶν, τὴν δὲ τῶν αἰσθητῶν. οὔτε γὰρ τὸ καθόλου δύναιτ' ἂν αἰσθήσεις ἐπικρίνειν οὔτε τὸ καθ' ἕκαστον νοῦς. πάντα δ' ἐκ τούτων συνεστάναι καὶ διὰ τούτων. **Diogenes Laertius** *V.P.* 7.51 τῶν δὲ φαντασιῶν κατ' αὐτοὺς (*SVF* 2.61) αἱ μὲν εἰσιν αἰσθητικαί, αἱ δ' οὐ· αἰσθητικαὶ μὲν αἱ δι' αἰσθητηρίου ἢ αἰσθητηρίων λαμβανόμεναι, οὐκ αἰσθητικαὶ δ' αἱ διὰ τῆς διανοίας, καθάπερ τῶν ἀσωμάτων καὶ τῶν ἄλλων τῶν λόγῳ λαμβανομένων. τῶν δ' αἰσθητικῶν (αἱ μὲν) ἀπὸ ὑπαρχόντων μετ' εἴξεως καὶ συγκαταθέσεως γίνονται. εἰσὶ δὲ τῶν φαντασιῶν καὶ ἐμφάσεις αἱ ὡσάν ἀπὸ ὑπαρχόντων γινόμεναι. ἔτι τῶν φαντασιῶν αἱ μὲν εἰσι λογικαί, αἱ δὲ ἄλογοι· λογικαὶ μὲν αἱ τῶν λογικῶν ζώων, ἄλογοι δὲ αἱ τῶν ἀλόγων. αἱ μὲν οὖν λογικαὶ νοήσεις εἰσίν, αἱ δ' ἄλογοι οὐ τετυχήκασιν ὀνόματος. καὶ αἱ μὲν εἰσι τεχνικαί, αἱ δὲ ἄτεχνοι· ἄλλως γοῦν θεωρεῖται ὑπὸ τεχνίτου εἰκῶν καὶ ἄλλως ὑπὸ ἀτέχνου.

Chapter heading: cf. **Diogenes Laertius** *V.P.* 7.49 ἀρέσκει τοῖς Στωικοῖς τὸν περὶ φαντασίας καὶ αἰσθήσεως προτάττειν λόγον, καθότι τὸ κριτήριον (cf. heading in Stobaeus), ᾧ ἡ ἀλήθεια τῶν πραγμάτων γινώσκεται ... *V.P.* 7.53 (on the Stoics) τοιάδε τινὰ καὶ περὶ φαντασίας καὶ αἰσθήσεως καὶ νοήσεως δογματίζουσι.

§[5–8] **Stoics:** **Diogenes Laertius** *V.P.* 7.49 (Diocles of Magnesia) (*SVF* 2.52) προηγείται γὰρ ἡ φαντασία, εἴθ' ἡ διάνοια ἐκλαλητικὴ ὑπάρχουσα, ὃ πάσχει ὑπὸ τῆς φαντασίας, τοῦτο ἐκφέρει λόγῳ. *V.P.* 7.52 (*SVF* 2.84) ἡ δὲ κατάληψις γίνεται κατ' αὐτοὺς αἰσθήσει μὲν λευκῶν καὶ μελάνων καὶ τραχέων καὶ λείων.

§[9–19] **Stoics:** **Diogenes Laertius** *V.P.* 7.50 (*SVF* 2.55) διαφέρει δὲ φαντασία καὶ φάντασμα· φάντασμα μὲν γὰρ ἐστὶ δόκησις διανοίας, οἷα γίνεται κατὰ τοὺς ὕπνους, φαντασία δὲ ἐστὶ τύπωσις ἐν ψυχῇ.

§[9–11] **Stoics:** Arius Didymus fr. 16 Diels at Stob. *Ecl.* 1.58, p. 497.15–19 Ἀριστοτέλους· φαντασίαν δ' εἶναι πάθος τι καὶ κίνησιν τῆς κατ' ἐνέργειαν αἰσθή-

σεως, ὠνομάσθαι δ' ἀπὸ μιᾶς τῶν αἰσθήσεων, τῆς ὁράσεως· τὸ (γὰρ) φαίνεσθαι παρὰ τὸ φάος ἔχειν τὴν ἐπίρρησιν· τοῦτο δ' οἰκεῖον εἶναι τῆς ὕψεως.

§1[18–19] Stoics: differently Diogenes Laertius V.P. 7.61 (SVF 1.65, 3 Diog. 25) ἐννόημα δέ ἐστι φάντασμα διανοίας, οὔτε τι ὄν οὔτε ποιόν, ὥσανει δέ τι ὄν καὶ ὥσανει ποιόν, οἷον γίνεται ἀνατύπωμα ἵππου καὶ μὴ παρόντος.

b Sources and Other Parallel Texts

Chapter heading: cf. Aristotle *de An.* 3.3 427b29 περὶ φαντασίας διορίσαντας. *Insomn.* 1 459a15 ἐπεὶ δὲ περὶ φαντασίας ἐν τοῖς Περί ψυχῆς εἴρηται (also *Mem.* 1 449b30). Epicurus at D.L. 10.29 (list of writings) περὶ φαντασίας.

§1[3–6] Stoics: Epicurus Ep.Hdt. at D.L. 10.49–50 on τοῦ ἐνὸς καὶ συνεχοῦς τὴν φαντασίαν. Cicero *Fat.* 43 (SVF 2.974) *visum obiectum imprimet illud quidem et quasi signabit* [i.e. τυπώσει] *in animo suam speciem*. Philo of Alexandria *Leg.* 1.61 (SVF 2.843) τὸ ἡγεμονικὸν ἡμῶν πανδεχές ἐστι καὶ εἰοικε κηρῷ πάντας τύπους καλοῦς τε καὶ αἰσχροῦς δεχομένῳ. *Deus* 42–44 (SVF 2.458) αἰσθησις μὲν οὖν, ὡς αὐτὸ που δηλοῖ τοῦνομα, εἴσθεσις τις οὖσα τὰ φανέντα ἐπεισφέρει τῷ νῷ· τούτῳ γάρ, ἐπειδὴ μέγιστόν ἐστι ταμεῖον καὶ πανδεχές, πᾶνθ' ὅσα δι' ὁράσεως καὶ ἀκοῆς καὶ τῶν ἄλλων αἰσθητικῶν ὀργάνων ἐντίθεται καὶ ἐναποθησαυρίζεται. (43) φαντασία δέ ἐστι τύπωσις ἐν ψυχῇ· ὣν γὰρ εἰσῆγαγεν ἐκάστη τῶν αἰσθήσεων, ὥσπερ δακτυλῖός τις ἡ σφραγὶς ἐναπεμάξατο τὸν οἰκεῖον χαρακτήρα· κηρῷ δὲ εἰοικώς ὁ νοῦς τὸ ἐκμαγεῖον δεξάμενος ἄκρως παρ' ἐαυτῷ φυλάττει, μέχρις ἂν ἡ ἀντίπαλος μνήμη τὸν τύπον λεάνασα λήθῃ ἀμυδρὸν ἐργάσῃται ἢ παντελῶς ἀφανίσῃ. (44) τὸ δὲ φανέν καὶ τυπώσαν τοτὲ μὲν οἰκεῖως τοτὲ δὲ ὡς ἐτέρως διέθηκε τὴν ψυχὴν. *Sacr.* 137 (SVF 2.842) τὸ ἡγεμονικὸν κατὰ ἀμερὴ χρόνων διαστήματα πολλὰς πρὸς ἐκάτερον τὸ τε εὖ καὶ χεῖρον τροπὰς λαμβάνον καὶ διαλλάττοντας αἰεὶ τύπους δέχεται τοτὲ μὲν καθαροῦ καὶ δοκίμου τοτὲ δὲ παρακεκομμένου καὶ κιβδύλου νομίσματος. Aquilius *Def.* 4 Rashed φαντασία ἐστὶ τύπωσις ἡγεμονικοῦ. Sextus Empiricus *M.* 7.228–230 (on the Stoics) φαντασία οὖν ἐστὶ κατ' αὐτοὺς τύπωσις ἐν ψυχῇ. περὶ ἧς εὐθὺς καὶ διέστησαν· Κλεάνθης (SVF 1.484) μὲν γὰρ ἤκουσε τὴν τύπωσιν κατὰ εἰσοχὴν τε καὶ ἐξοχὴν, ὥσπερ καὶ (τὴν) διὰ τῶν δακτυλίων γινομένην τοῦ κηροῦ τύπωσιν, (229) Χρύσιππος (SVF 2.56) δὲ ἄτοπον ἡγεῖτο τὸ τοιοῦτον ... (230) αὐτὸς οὖν τὴν τύπωσιν εἰρῆσθαι ὑπὸ τοῦ Ζήνωνος (SVF 1.58) ὑπενόει ἀντὶ τῆς ἐτεροιώσεως, ὥστ' εἶναι τοιοῦτον τὸν λόγον· φαντασία ἐστὶν ἐτεροίωσις ψυχῆς.

§1[7–8] Stoics: Sextus Empiricus M. 8.70 (SVF 2.187) λεκτὸν δὲ ὑπάρχειν φασὶ τὸ κατὰ λογικὴν φαντασίαν ὑφιστάμενον, λογικὴν δὲ εἶναι φαντασίαν καθ' ἣν τὸ φαντασθὲν ἐστὶ λόγῳ παραστήσαι.

§1[12–13] Stoics: Aristotle de An. 3.3 429a1–4 ἡ φαντασία ἂν εἴη κίνησις ὑπὸ τῆς αἰσθήσεως τῆς κατ' ἐνέργειαν γιγνομένη. ἐπεὶ δ' ἡ ὕψις μάλιστα αἰσθησίς ἐστι, καὶ τὸ ὄνομα ἀπὸ τοῦ φάους εἰληφεν, ὅτι ἄνευ φωτὸς οὐκ ἔστιν ἰδεῖν. Sextus Empiricus *M.* 7.161–163 (SVF 2.63) ἐν ἄρα τῷ ἀπὸ τῆς ἐναργείας πάθει τῆς ψυχῆς ζητητέον ἐστὶ τὸ κριτήριον. τοῦτο δὲ τὸ πάθος αὐτοῦ (τε) ἐνδεικτικὸν ὀφείλει τυγχάνειν καὶ τοῦ ἐμποιήσαντος αὐτὸ φαινομένου, ὅπερ πάθος ἐστὶν οὐχ ἕτερον τῆς φαντασίας. (162) ὅθεν καὶ φαντασίαν ῥητέον εἶναι πάθος τι περὶ τὸ ζῶον ἑαυτοῦ τε καὶ τοῦ ἐτέρου παραστατικόν. οἷον προσβλέψαντές τι, φησὶν ὁ Ἀντίοχος (fr. 56

Luck), διατιθέμεθ' ὡς τὴν ὄψιν, καὶ οὐχ οὕτως αὐτὴν διακειμένην ἴσχομεν ὡς πρὶν τοῦ βλέπειν διακειμένην εἶχομεν· κατὰ μέντοι τὴν τοιαύτην ἀλλοίωσιν δεῖν ἀντιλαμβάνομεθα, ἐνὸς μὲν αὐτῆς τῆς ἀλλοιώσεως, τοὔτεστι τῆς φαντασίας, δευτέρου δὲ τοῦ τὴν ἀλλοίωσιν ἐμποιήσαντος, τοὔτεστι τοῦ ὁρατοῦ. καὶ ἐπὶ τῶν ἄλλων αἰσθήσεων τὸ παραπλήσιον. ὥσπερ οὖν τὸ φῶς ἑαυτὸ τε δείκνυσι καὶ πάντα τὰ ἐν αὐτῷ, οὕτω καὶ ἡ φαντασία, ἀρχηγὸς οὖσα τῆς περὶ τὸ ζῶον εἰδήσεως, φωτὸς δίκην ἑαυτὴν τε ἐμφανίζειν ὀφείλει καὶ τοῦ ποιήσαντος αὐτὴν ἐναργεῖς ἐνδεικτικὴ καθεστάναι. **Alexander of Aphrodisias** *de An.* 73.3–7 ἐπεὶ γὰρ κυριωτάτῃ τῶν αἰσθήσεων ἡ ὄψις εἶναι δοκεῖ, ταύτης δὲ ἡ ἐνέργεια διὰ φωτὸς (ἄνευ γὰρ φωτὸς ἀδύνατον τὴν κατ' ἐνέργειαν ὄψιν γενέσθαι), ἀπὸ τοῦ τῇ κυριωτάτῃ τῶν αἰσθήσεων αἰτίου τῆς ἐνεργείας, ὅπερ ἐστὶ τὸ φῶς, ἀπὸ τούτου τῇ φαντασίᾳ τούνομα.

§1[14–15] Stoics: Plato *Sph.* 266d–e τῆς τοίνυν εἰδωλουργικῆς ἀναμνησθῶμεν ὅτι τὸ μὲν εἰκαστικόν, τὸ δὲ φανταστικὸν ἔμελλεν εἶναι γένος, εἰ τὸ ψεῦδος ὄντως ὄν ψεῦδος καὶ τῶν ὄντων ἐν τι φανερῇ πεφυκός.

§1[19–28] Stoics: Diogenes Laertius *V.P.* 10.32 (part of Epicurus fr. 257 Usener) τὰ τε τῶν μαινομένων φαντάσματα καὶ (τὰ) κατ' ὄναρ ἀληθῆ, κινεῖ γάρ· τὸ δὲ μὴ ὄν οὐ κινεῖ.

§1[19] Stoics: Plato *Sph.* 266b τὰ τε ἐν τοῖς ὕπνοις καὶ ὅσα μεθ' ἡμέραν φαντάσματα αὐτοφυῆ λέγεται κτλ.

§1[20–28] Stoics: Cornutus *Comp.* c. 10, p. 9.1–11 Torres αἱ λεγόμεναι Ἑρινύες ... ἐρευνήτριαι τῶν ἀμαρτανόντων οὖσαι σεμναὶ δ' ὄντως αὐταὶ αἱ θεαὶ καὶ Εὐμενίδες εἰσὶ· κατὰ γὰρ τὴν εἰς τοὺς ἀνθρώπους εὐμένειαν τῆς φύσεως διατέτακται καὶ τὸ τὴν πονηρίαν κολάζεσθαι. φρικώδεις δὲ τὰς ὄψεις ἔχουσι, πυρὶ καὶ μάστιγι τοὺς ἀσεβεῖς διώκουσαι καὶ ὀφιοπλόκαμοι λεγόμεναι, τῷ τοιαύτῃ τοῖς κακοῖς φαντασίαν ποιεῖν, ἃς ἂν ἀποτίνωσι ποινὰς ἀντὶ τῶν πλημμελημάτων. **Quintilian** *Decl.* 314.17 *nec tamen illa mihi vana quorundam videtur esse persuasio, qui credunt non extrinsecus has furias venire nec ullius deorum impulsu hanc mortalibus incidisse dementia, sed nasci intus: conscientiam esse quae torqueat, animum esse qui urat.* **Ptolemy** *Iudic.* c. 12.3, p. 18.3–8 (cf. above ch. 4.11 section B(b) General texts) ἀφ' ὧν αἱ παραποιήσεις καὶ μεταβάσεις ἐπὶ τὰ τῶν μηδ' ὅλως δι' αἰσθήσεων νενοημένων εἰδωλα καὶ φαντάσματα διατείνονται μεθ' ἡμέραν τε καὶ νύκτωρ· αἱ μὲν ἀπὸ τινος ὁμοιότητος καὶ ἀναλογίας, ὡς αἱ τῶν δαιμονίων μορφῶν κτλ. **Sextus Empiricus** *M.* 8.67 διακένους γὰρ εἶναι τινὰς φαντασίας ὡμολογήκασιν (sc. οἱ Στωικοί, cf. at *SVF* 2.65), ὅποιαι προσέπιπτον τῷ Ὁρέστῃ ἀπὸ τῶν Ἑρινύων. *M.* 7.241 (*SVF* 2.64) ἡ φαντασία γίνεται ἥτοι τῶν ἐκτὸς ἢ τῶν ἐν ἡμῖν παθῶν (δὲ δὴ κυριώτερον διάκενος ἐλκυσμός παρ' αὐτοῖς καλεῖται). *M.* 8.56–57 (*SVF* 2.88) πᾶσα γὰρ νόησις ἀπὸ αἰσθήσεως γίνεται ἢ οὐ χωρὶς αἰσθήσεως, καὶ ἢ ἀπὸ περιπτώσεως ἢ οὐκ ἄνευ περιπτώσεως. (57) ὅθεν οὐδὲ τὰς λεγομένας ψευδεῖς φαντασίας, οἷον τὰς καθ' ὕπνου ἢ τὰς κατὰ μανίαν, εὐρήσομεν ἀπηρημέναις τῶν διὰ τῆς αἰσθήσεως κατὰ περίπτωσιν ἡμῖν ἐγνωσμένων. καὶ γὰρ ὁ κατὰ μανίαν Ἑρινύας αὐτῷ ἀναπλάσσειν 'τὰς αἱματωποὺς καὶ δρακοντώδεις κόρας' (*Eur. Or.* 256) ἐκ τῶν πεφηνότων αὐτῷ σύνθετον μορφήν νοεῖ. *M.* 7.170 τούτων δὲ τῶν φαντασιῶν ἢ μὲν φανερώς ψευδῆς καὶ μὴ φαινομένη ἀληθῆς παραγράφιμος ἐστὶ καὶ οὐ κριτήριον, ἐάν τε (...) ἀπὸ ὑπάρχοντος μὲν, διαφώνως δὲ τῷ ὑπάρχοντι καὶ μὴ κατ'

αὐτὸ τὸ ὑπάρχον, ὅποια ἦν ἡ ἀπὸ Ἡλέκτρας προσπεσοῦσα τῷ Ὀρέστῃ, μίαν τῶν Ἑρινύων αὐτὴν δοξάζοντι καὶ κεκραγότει (Eur. *Or.* 264) 'μέθες· μί' οὖσα τῶν ἐμῶν Ἑρινύων'. *M.* 7.244–245 (*SVF* 2.65) ἀληθεῖς δὲ καὶ ψευδεῖς (sc. εἰσὶ φαντασίαι), ὅποια προσέπιπτεν Ὀρέστῃ κατὰ μανίαν ἀπὸ τῆς Ἡλέκτρας (καθὸ μὲν γὰρ ὡς ἀπὸ ὑπάρχοντός τινος προσέπιπτεν, ἦν ἀληθής, ὑπῆρχε γὰρ Ἡλέκτρα, (245) καθὸ δ' ὡς ἀπὸ Ἑρινύος, ψευδής, οὐκ ἦν γὰρ Ἑρινύς), καὶ πάλιν εἴ τις ἀπὸ Δίωνος ζώντος κατὰ τοὺς ὕπνους ὡς ἀπὸ παρεστῶτος ὀνειροπολεῖται ψευδῇ καὶ διάκενον ἔλκυσμόν. *M.* 8.63–64 ὁ δὲ Ἐπίκουρος (fr. 253 Usener) ἔλεγε μὲν πάντα τὰ αἰσθητὰ εἶναι ἀληθῆ, καὶ πᾶσαν φαντασίαν ἀπὸ ὑπάρχοντος εἶναι, καὶ τοιαύτην ὁποῖόν ἐστι τὸ κινεῖν τὴν αἴσθησιν, πλανᾶσθαι δὲ τοὺς τινὰς μὲν τῶν φαντασιῶν λέγοντας ἀληθεῖς, τινὰς δὲ ψευδεῖς παρὰ τὸ μὴ δύνασθαι χωρίζειν δόξαν ἀπὸ ἐναργείας. ἐπὶ γοῦν τοῦ Ὀρέστου, ὅτε ἐδόκει βλέπειν τὰς Ἑρινύας, ἡ μὲν αἴσθησις ὑπ' εἰδῶλων κινουμένη ἀληθής ἦν (ὑπέκειτο γὰρ τὰ εἰδῶλα), ὁ δὲ νοὺς οἰόμενος, ὅτι στερέμνιοί εἰσιν Ἑρινύες ἐψευδοδόξει. **Tertullian** *de An.* 17.9 *qui insaniunt, alios in aliis vident, ut Orestes matrem in sorore et Ajax Ulixen in armento, ut Athamas et Agave in filiis bestias.* **ps.Longinus** *Subl.* 8–9 ὁ λέγων Ὀρέστης (Eur. *Or.* 264–265) 'μέθες· μί' οὖσα τῶν ἐμῶν Ἑρινύων / μέσον μ' ὀχμάζεις, ὡς βάλλης ἐς τάρταρον' (9) φαντάζεται ταῦθ' ὅτι μαίνεται. *Subl.* 15.2 ὡς δ' ἕτερόν τι ἡ ῥητορικὴ φαντασία βούλεται καὶ ἕτερον ἢ παρὰ ποιηταῖς οὐκ ἂν λάθοι σε, ..., ἀμφοτέραι δ' ὅμως τό τε παθητικὸν ἐπιζητοῦσι καὶ τὸ συγκεκινημένον (Eur. *Or.* 255–257)· 'ὦ μήτερ, ἵκετεύω σε, μὴ 'πίσειέ μοι / τὰς αἵματωπούς καὶ δρακοντώδεις κόρας· / αὐταὶ γάρ, αὐταὶ πλησίον θρώσκουσίν μου.' ... ἐνταῦθ' ὁ ποιητὴς αὐτὸς εἶδεν Ἑρινύας· ὁ δ' ἐφαντάσθη, μικροῦ δεῖν θεάσασθαι καὶ τοὺς ἀκούοντας ἠνάγκασεν. **Scholia in Euripidem** *Or.* 257.4 τὰς Ἑρινύας ἐνθουσιαστικῶς φαντάζεται ὁρᾶν. **Appendix proverbiorum** *Cent.* 3.31 Schneidewin–Von Leutsch Vol. 1, and **Suda** s.v. T 899, p. 4.582.9–11 Adler (Aristoph. *Plut.* 423) ἴσως Ἑριν(ν)υς ἐστίν ἐκ τραγωδίας· τὰ γὰρ ἀποτροπᾶια τῶν φαντασμάτων τραγωδοῖς μάλλον ἀρμόττει.

Liber 4 Caput 13

P^B: ps.Plutarchus *Plac.* 901A–901C; pp. 403^a1–404^a15 Diels—**P^G**: ps.Galenus *HPh* c. 94; p. 636.8–18 Diels; pp. 297–305 Jas—**P^Q**: Qustā ibn Lūqā pp. 202–203 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 108.2–3, p. 60 Westerink—**P^{Sy}**: Symeon Seth *CRN* 4.71, p. 71.4–11 Delatte
S: Stobaeus *Ecl.* 1.52.1–8, pp. 483.5–484.13 + 1.52.10–13, pp. 484.23–485.9 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b31–32 Henry (titulus solus)
Cf. Nem: Nemesius *NH* c. 7, pp. 57.16–58.15 Morani

Titulus γγ'. Περί ὁράσεως, πῶς ὁρώμεν (P,S)

- §1 Λεύκιππος Δημόκριτος Ἐπικούρος κατὰ εἰδώλων εἴσκρισιν οἶνται τὸ ὁρατικὸν συμβαίνειν πάθος. {καὶ κατὰ τινων ἀκτίνων εἴσκρισιν μετὰ τὴν πρὸς τὸ ὑποκείμενον ἔνστασιν πάλιν ὑποστρεφουσὼν πρὸς τὴν ὄψιν}. (P1,S1) 5
- §2 Τιμαγόρας, εἰς τῶν παραχαραζάντων ἐν συχνοῖς τὴν Ἐπικούρειον αἴρεσιν, ἀντὶ τῶν εἰδώλων ταῖς ἀπορροαῖς χρῆται. (S2)
- §3 Στράτων χρώματ' ἀφ' ὧν τῶν σωμάτων φέρεσθαι συγχρῶζοντ' αὐτοῖς τὸν μεταξὺ ἀέρα. (S3)
- §4 Ἀρίσταρχος σχήματα συνδιατυπῶντά πως αὐτοῖς τὸν ἀέρα. (S4) 10
- §5 Ἰππάρχος ἀφ' ἑκατέρου φησὶ τῶν ὀφθαλμῶν ἀποτεινομένης ἀκτίνας τοῖς πέρασιν αὐτῶν, οἷονεὶ χειρῶν ἐπαφαῖς, περικαθαπτούσας τοῖς

§1 Leucippus Democritus 67A29 DK; Epicurus fr. 318 Usener; §2 Timagoras—; §3 Strato fr. 113 Wehrli, 64 Sharples; §4 Aristarchus—; §§5–6 Archytas fr. A25 text B Huffman; §5 Hipparchus—

caput non hab. **P^{ET}** **titulus** Περί ὁράσεως (καὶ add. **P^{B(III)Q}**) πῶς ὁρώμεν **P^{BQ}**: Περί τοῦ πῶς ὁρώμεν **P^G**: Περί ὁράσεως καὶ κατοπτρικῶν ἐμφάσεων (~ tit. c. 4.14) **S^{Phot}** (non hab. **S^{FPL}**), cf. Περί ὄψεως **Nem** §1 [2] Λεύκιππος ... Ἐπικούρος **S^L**: Δημόκριτος (καὶ add **P^G**, cf. **Q**) Ἐπικούρος **P** || εἰδώλων **P^{BGS^L}**: *Einbildungen* **P^Q** || οἶνται **P^{GS^L}**: ὦντο **P^{BQ}** || [3] πάθος **S^L**: om. **P** || ὁρατικὸν ... πάθος] ὁρᾶν ante συμβαίνειν **P^G** || [3–4] verba καὶ κατὰ ... ὄψιν seclusimus Wachsmuth secuti: hab. **P^{BS^L}**, cf. (*Einbildungen*), welche sich in den Sehstrahlen bilden und zum Gesichts(sinn) zurückkehren **Q** qui verba εἴσκρισιν ... ἔνστασιν non vertit: non hab. **P^G**: ret. Mau Lachenaud || [3] εἴσκρισιν **P^{GS^L}**: εἰσκρίσεις **P^B**: *eintritt* **Q**: crucif. Mau: ἔγκρισιν **S^L**: ἔγκρισιν coni. Diels prob. Lachenaud: ἔχουσιν ex **P^G** §2 laudant in app. Mau Lachenaud sed ad §9[1] pertinet §2 [6] Τιμαγόρας edd.: (δ)ιμαγόρας **S^L** §3 [8] Στράτων corr. Meineke: Ἀτράτων **S^L** || συγχρῶζοντ' corr. Meineke: συγχροῖζοντ' **S^L**: post συγχρῶζοντ' add. αὐτοῖς Meineke §4 [10] Ἀρίσταρχος corr. Diels: Ἀρισταγόρας **S^L** §5 [11] ἀκτίνας **P^{BQ}**: om. **S^L** || [12–13] τοῖς ... αὐτῶν **P^{BS^L}**: so daß sie durch ihre Enden auf die gesehene Dinge stoßen **Q** || [12] περικαθαπτούσας **S^L**: welche berühren **Q**: -σαις **P^B** || [12–13] τοῖς ... σώμασι **P^{BS^L}**: was außerhalb des Körpers ist **Q**

- ἐκτὸς σώμασι τὴν ἀντίληψιν αὐτῶν πρὸς τὸ ὁρατικὸν ἀναδιδόναι.
(P₃,S₅)
- §6 ἔνιοι καὶ Πυθαγόραν τῇ δόξῃ ταύτῃ συνεπιγράφουσιν, ἅτε δὴ 15
βεβαιωτὴν τῶν μαθημάτων· καὶ πρὸς τούτῳ Παρμενίδην ἐμφαίνοντα
τοῦτο διὰ τῶν ποιημάτων. (S₆)
- §7 Πλάτων συναύγειαν τοῦ μὲν ἐκ τῶν ὀφθαλμῶν φωτὸς ἐπὶ ποσὸν
ἀπορρέοντος εἰς τὸν ὁμογενῆ ἀέρα, τοῦ δὲ ἀπὸ τῶν σωμάτων
ἀντιφερομένου, τοῦ δὲ περὶ τὸν μεταξὺ ἀέρα, εὐδιάχυτον ὄντα καὶ 20
εὐτρεπτον, συντεινομένου τῷ πυρώδει τῆς ὄψεως. αὕτη λέγεται
Πλατωνικὴ συναύγεια. (P₄,S₇)
- §8 Ἀλκμαίων κατὰ τὴν τοῦ διαφανοῦς ἀντίληψιν. (S₈)
- §9 Ἀριστοτέλης κατὰ κίνησιν τοῦ κατ' ἐνέργειαν διαφανοῦς. (S₉)
- §10 τῶν Ἀκαδημαϊκῶν τινες κατὰ τι(νων ἀκτί)νων ἔχουσιν μετὰ τὴν πρὸς 25
τὸ ὑποκείμενον ἔνστασιν πάλιν ὑποστρεφουσῶν πρὸς τὴν ὕψιν. (S₁₀)
- §11 Ποσειδώνιος (αὐ)γῶν αὐτὴν σύμφυσιν ὀνομάζει. (S₁₁)
- §12 Ἐμπεδοκλῆς καὶ πρὸς τὸ διὰ τῶν ἀκτίνων καὶ πρὸς τὸ διὰ τῶν εἰδῶλων
ἐκδοχὰς παρέχεται· πλείους δὲ πρὸς (τὸ) δεῦτερον· τὰς γὰρ ἀπορροίας
ἀποδέχεται. (P_{2a},S₁₂) 30
- §13 Ἑστιάιος ὁ Περίνθιος τοῖς εἰδώλοις τὰς ἀκτίνας ἀνέμιξε, προσαγορεύ-
σας τὸ γιγνόμενον ἀκτινεῖδωλον συνθέτως. (P_{2b},S₁₃)

§6 Pythagoras—, Parmenides 28A48 DK; §7 Plato cf. *Tim.* 45b–46a; §8 Alcmaeon 24A10 DK; §9 Aristoteles cf. *de An.* 2.7 418a31–b10, *Sens.* 2 438b2–5; §10 Academici—; §11 Posidonius F 194 E.-K., 395c Theiler; §12 Empedocles 31A90 DK; §13 Hestiaeus fr. 4 Lasserre

§6 [17] τοῦτο S^L: ταὐτὸ maluit Meineke §7 [18–19] συναύγειαν ... ἀέρα P^{BS}: συναυγασμὸν P^G || [18] ante συναύγειαν add. κατὰ P^B, cf. P^G || [19] ὁμογενῇ P^{BQSL}: ὅμοιον P^G || ἀέρα P^{BSL}: om. P^Q || [19–22] τοῦ δὲ ... συναύγεια om. P^G || [19–21] τοῦ δὲ ... ὄψεως P^{BSL} om. P^G || [19–20] τοῦ δὲ ... ἀέρα om. P^{B(II)} || [19] post ἀπὸ add. μὲν P secl. Diels Mau Lachenaud || [20] ἀντιφερομένου S cf. Nem: φερομένου P || post φερομένου add. ἀπορρεῖν P secl. Diels ut 'ex [19] ἀπορρέοντος' Mau 'ut schol.' Lachenaud || τοῦ δὲ περὶ τὸν S cf. Nem: τὸν δὲ P || [21] εὐτρεπτον P^{BQSF}: εὐτρεπον S^{PL} || [21–22] αὕτη ... συναύγεια P^{BQSL}: secl. Heeren || [22] Πλατωνικῇ P^{BQSL} Diels Mau Lachenaud: Πλάτωνι ἢ coni. Usener prob. Wachsmuth §8 [23] ἀντίληψιν S^L Wachsmuth: ἀντίλαμψιν 'non necessario' corr. Diels *DG* 223 et DK ad 24A10 cf. Thphr. *Sens.* 26 ἀντιφάνη §9 [24] post nomen ὁρᾶν ἡμᾶς add. S ex titulo §10 [25] τῶν Ἀκαδημαϊκῶν τινες S^L: ἕτεροι P^G || τι(νων ἀκτί)νων scripsimus: τινων S^L: post τινων add. ἀκτίνων Sarti ex §1, prob. Diels Wachsmuth §11 [27] (αὐ)γῶν coni. Wachsmuth: γοῦν S^L, post γοῦν add. αὐγῶν Diels *DG* 853b §12 [28] de P nomen Ἐμπεδοκλῆς falso in §12 transferente vid. Diels *DG* 64 || [29] (τὸ) add. Diels prob. Laks–Most §13 [31] Ἑστιάιος ὁ Περίνθιος S^L: Ἐμπεδοκλῆς P^{BQ}: lemma ut Empedocleum genuinum accep. Mau Lachenaud alii || ἀνέμιξε P^B prob. Diels Wachsmuth: προσέμιξε S^L: 'ex insequ. vocabulo transvectum' Diels || [32] ἀκτινεῖδωλον corr. Meineke prob. edd.: ἀκτίνας εἰδῶλου P^B: *bilderhaltige Strahlen* Q: ἀκτίν' εἰδῶλων S^L: ἀκτίνας ἐξ εἰδῶλων coni. Reiske: εἰδωλακτίνας coni. Karsten || συνθέτως P^{B(II,III)}: συνθέους P^{B(II)}, cf. *das davon Zusammengesetzte* Q: om. S^L

*Testes primi:**Traditio ps.Plutarchi:*

ps.Galenus HPh c. 94 (~ tit.) Περὶ τοῦ πῶς ὁρῶμεν (text Jas)

94.1 (~ P1a) Δημόκριτος καὶ Ἐπίκουρος κατ' εἰδῶλων εἰσκρισιν οἶονται τὸ ὁρᾶν συμβαίνειν.

94.2 (~ P1b) ἕτεροι κατ' ἀκτίνων ἔκχυσιν, μετὰ (τὴν πρὸς) τὸ προκείμενον ἔνστασιν πάλιν ὑποστραφεισῶν πρὸς τὴν ὄψιν.

94.3 (~ P2-3) Ἐμπεδοκλῆς τοῖς εἰδῶλοις τὰς ἀκτίνας [...] φησιν ἐφ' ἑκατέρου τῶν ὀφθαλμῶν ἀποτετινομένας τοῖς πέρασιν αὐτῶν οἷον χειρῶν ἐπαφαῖς περικαθαπτούσας τοῖς ἐκτὸς σώμασι τὴν αἴσθησιν πρὸς τὸ ὁρᾶν προσάγειν.

94.4 (~ P4) Πλάτων κατὰ συναυγασμὸν τοῦ ἐκ τῶν ὀφθαλμῶν φωτὸς ἐπὶ ποσὸν ἀπορρέοντος εἰς τὸν ὁμοιον ἀέρα.

Psellus Omn.Doctr. c. 108.2-4 (~ P7) ἡ ὄρασις γίνεται ὅταν τὸ ἀπὸ τῶν ὀφθαλμῶν φῶς ἐκφερόμενον συναντήσῃ τῷ ἀπὸ τῶν σωμάτων ἀπορρέοντι, ὅπερ ὁ Πλάτων ὀνομάζει συναύγειαν. cf. c. 89 supra cit. A 1.15

Symeon Seth CRN 4.71 (~ tit.) Περὶ ὁράσεως, περὶ τοῦ πῶς ὁρῶμεν

4.71 περὶ τοῦ πῶς ὁρῶμεν πολλὰς ἔσχον οἱ παλαιοὶ ἀμφιβολίας καὶ ἄμφω τὰ μέρη τοσοῦτον ἕκαστον τὴν ἰδίαν δόξαν ἐκράτουνεν ὥς καὶ τὸν πρῶτον φιλόσοφον ἐπαπορήσαι τίνι τούτων τὴν νικῶσαν ἐπιψηφίσοιτο. οἱ μὲν οὖν Ἀριστοτελικοὶ ἐδόξασαν ὥς τὰ τῶν ὁρῶμενων ἰνδάλματα διαπορθμεύει ὁ ἀήρ ἐπὶ τὸ κρυσταλλοειδές τὸ ἐν τῷ ὀφθαλμῷ καὶ τοῦτο διαφανές ὃν δέχεται τὸν τύπον τῶν ὁρατῶν. οἱ δὲ γεωμέτραι καὶ πολλοὶ τῶν φιλοσόφων ἀπεφήναντο ὥς ἀκτίνες τινες ἐξέρχονται ἐκ τῶν ὀφθαλμῶν καὶ καταλαμβάνουσι τὸ ὁρατόν, παρεικάσαντες ταύτας ταῖς τοῦ ἡλίου ἀκτίσιν (~ quaestio).

Testes secundi:

Nemesius NH c. 7, pp. 57.17-58.15 Περὶ ὄψεως (~ tit.). ἡ ὄψις ὁμωνύμως λέγεται· καὶ γὰρ καὶ τὸ αἰσθητήριον καὶ ἡ δύναμις ἡ αἰσθητική. (~ §5) Ἴππαρχος δὲ φησιν ἀκτίνας ἀπὸ τῶν ὀφθαλμῶν ἀποτετινομένας τοῖς πέρασιν αὐτῶν, καθάπερ χειρῶν ἐπαφαῖς καθαπτούσας τοῖς ἐκτὸς σώμασι, τὴν ἀντίληψιν αὐτῶν πρὸς τὸ ὁρατικὸν ἀναδιδόναι. οἱ δὲ γεωμέτραι (—) (~ §1) οἱ δὲ Ἐπικούρειοι (Epicurus add. ad fr. 318 p. 353 Usener) εἰδῶλα τῶν φαινομένων προσπίπτειν τοῖς ὀφθαλμοῖς. (~ §9) Ἀριστοτέλης δὲ οὐκ εἰδῶλον σωματικόν, ἀλλὰ ποιότητα δι' ἀλλοιώσεως τοῦ περὶξ ἀέρος ἀπὸ τῶν ὁρατῶν ἄχρι τῆς ὄψεως παραγίνεσθαι. (~ §7) Πλάτων (cf. *Tim.* 45b-46a) δὲ κατὰ συναύγειαν τοῦ μὲν ἐκ τῶν ὀφθαλμῶν φωτὸς ἐπὶ ποσὸν ἀπορρέοντος εἰς τὸν ὁμογενῆ ἀέρα, τοῦ δὲ ἀπὸ τῶν σωμάτων ἀντιφερομένου, τοῦ δὲ περὶ τὸν μεταξὺ ἀέρα εὐδιάχυτον ὄντα καὶ εὐτρεπτον συνεκτεινομένου τῷ πυροειδεῖ τῆς ὄψεως. Γαληνὸς δὲ συμφώνως Πλάτωνι περὶ τῆς ὄψεως ἐν τῷ ἐβδόμῳ τῆς συμφωνίας (*PHP* 7.7) λέγει κτλ. [excerptum ap. Psell. *Philos.Min.* vol. 2, p. 26.22-27.2 O'Meara]

Loci Aetiani:

quaestio al. A 3.5.3 ὁρώμεν δὴ κατὰ γραμμάς ἢ κατ' εὐθείας ἢ κατὰ καμπύλας ἢ κατ' ἀνακλωμένας, γραμμάς ἀδήλους λόγῳ θεωρητάς καὶ ἀσωμάτους. κατὰ μὲν οὖν εὐθείας ὁρώμεν τὰ ἐν ἀέρι καὶ τὰ διὰ τῶν λίθων τῶν διαυγῶν καὶ κεράτων· λεπτομερὴ γὰρ ταῦτα πάντα. καμπύλας δὲ γραμμάς καθ' ὕδατος βλέπομεν γινομένας· κάμπτεται γὰρ ἡ ὄψις βίᾳ διὰ τὴν πυκνοτέραν τοῦ ὕδατος ὕλην· διὸ καὶ τὴν κώπην ἐν τῇ θαλάσῃ μακρόθεν καμπτομένην ὁρώμεν. τρίτος τρόπος τοῦ βλέπειν τὰ ἀνακλωμένα ὡς τὰ κατοπτρικά. A 4.14.4 δύναται τις πᾶσι τούτοις τοῖς κεφαλαίοις χρῆσθαι ἐπὶ τοῦ πῶς ὁρώμεν. A 5.12.3b (c. 5.12, Πῶς ἄλλοις γίνονται ὅμοιοι οἱ γεννώμενοι καὶ οὐ τοῖς γονεῦσιν) κατὰ ρευμάτων εἰσκρίσεις καὶ ἀκτίνων οὐκ εἰδῶλων γίνεσθαι τὰς ἄλλων ὁμοιότητας.

§1 A 4.8.10 Λεύκιππος Δημόκριτος Ἐπίκουρος τὴν αἴσθησιν καὶ τὴν νόησιν γίνεσθαι εἰδῶλων ἐξῶθεν προσιόντων· μηδενὶ γὰρ ἐπιβάλλειν μηδετέραν χωρὶς τοῦ προσπίπτοντος εἰδῶλου. A 4.14.2 Λεύκιππος Δημόκριτος Ἐπίκουρος τὰς κατοπτρικάς ἐμφάσεις γίνεσθαι κατ' εἰδῶλων παραστάσεις, ἅτινα φέρεσθαι μὲν ἀφ' ἡμῶν συνίστασθαι δὲ ἐπὶ τοῦ κατόπτρου κατ' ἀντιπεριστροφὴν. A 5.2.1 Δημόκριτος τοὺς ὀνείρους γίνεσθαι κατὰ τὰς τῶν εἰδῶλων παραστάσεις.

§2–4 A 4.8.11 οἱ ἄλλοι εἰδῶν ἢ σχημάτων ἑτεριώσει (ἢ) ἐν ψυχῇ τυπώσει, ἀπορροιαὶ πάντως μᾶλλον ἢ εἰδῶλοις.

§4 A 1.15.5 Ἀρίσταρχος Σάμιος μαθηματικός, ἀκουστής Στράτωνος, φῶς εἶναι τὸ χρῶμα τοῖς ὑποκειμένοις ἐπιπίπτον. A 4.8.9 οἱ ἀπὸ τῶν ἀρχαίων *** τῶν περὶ τὰ σώματα ἀσωμάτων λόγων, ἅπερ ἤδη σχήματα προσαγορεύουσι. A 4.20.1 τὸ σχῆμα τὸ περὶ τὸν ἀέρα καὶ τὴν ἐπιφάνειαν κατὰ ποιὰν πληξίν γίνεσθαι φωνήν· πᾶσα δ' ἐπιφάνεια ἀσώματος. συγκινεῖται μὲν γὰρ τοῖς σώμασιν, αὐτὴ δ' ἀσώματος πάντως καθέστηκεν.

§5–6 A 4.14.3 οἱ ἀπὸ Πυθαγόρου καὶ τῶν μαθηματικῶν κατ' ἀνάκλασιν τῆς ὀψews· φέρεσθαι μὲν γὰρ τὴν ὄψιν τεταμένην ὡς ἐπὶ τὸν χαλκόν, ἐντυχοῦσαν δὲ πυκνῷ καὶ λείφῃ πληχθεῖσαν ὑποστρέφειν αὐτὴν ἐφ' ἑαυτήν, ὁμοίον τι πάσχουσαν τῇ ἐκτάσει τῆς χειρὸς καὶ τῇ ἐπὶ τὸν ὦμον ἀντεπιστροφῇ.

§7 A 1.15.4 Πλάτων (sc. χρῶμα εἶναι) φλόγα ἀπὸ τῶν σωμάτων σύμμετρα μέρη εἶχουσαν πρὸς τὴν ὄψιν.

§11 differently A 4.15.2 Χρῦσιππος κατὰ τὴν συνέντασιν τοῦ μεταξὺ ἀέρος ὁρᾶν ἡμᾶς, νυγέντος μὲν ὑπὸ τοῦ ὁρατικοῦ πνεύματος, ὅπερ ἀπὸ τοῦ ἡγεμονικοῦ μέχρι τῆς κόρης διήκει, κατὰ δὲ τὴν πρὸς τὸν περικείμενον ἀέρα ἐπιβολὴν ἐντείνοντος αὐτὸν κωνοειδῶς, ὅταν ἢ ὁμογενὴς ὁ ἀήρ. προχέονται δ' ἐκ τῆς ὀψews ἀκτίνες πύρινοι. A 4.21.2 (de Stoicis) ἡ μὲν ὁρασίς ἐστι πνεῦμα διατείνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις ὀφθαλμῶν.

§12 A 1.15.3 Ἐμπεδοκλῆς (sc. χρῶμα εἶναι) τὸ τοῖς πόροις τῆς ὀψews ἐναρμόττον. A 1.15.3 ap. Q *Empedokles war der Meinung, daß die Farbe etwas ist, worauf die Sehstrahlen fallen.* A 4.14.1 Ἐμπεδοκλῆς κατ' ἀπορροίας τὰς συνισταμένας μὲν ἐπὶ τῆς ἐπιφανείας τοῦ κατόπτρου, πιλουμένας δ' ὑπὸ τοῦ ἐκκρινόμενου ἐκ τοῦ κατόπτρου πυρώδους καὶ τὸν προκείμενον ἀέρα, εἰς ὃν φέρεται τὰ ρεύματα, συµμεταφέροντος.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

(1) There are two witnesses, P, represented in various ways by P^B, P^G and P^Q, and S, i.e. as preserved in S^L, the Florentine florilegium (for the contribution of S^L see ch. 4.8 above at Commentary A(1)). P has five lemmata, S thirteen. The tradition is less good than one would wish. P has not only abridged the chapter rather drastically, but also coalesced two different lemmata to create a new Empedocles lemma that has fooled some scholars, but not Diels *DG* 64. And G added further reductions of his own (although the mistaken coalescence of P₂ & P₃ involving the disappearance of the name-label Hipparchus may have occurred in the textual transmission rather than been perpetrated by the epitomator). Furthermore an accident occurred in the transmission of P between the periods of P^G and P^Q. In G's copy of P the second lemma of A (name-label Academics in S, §10) had not yet lost this label and therefore not yet become amalgamated with the first lemma. This is proved because G does in fact have a name-label replacing 'some Academics' for this lemma, viz. 'others'. The resulting amalgamation of the two parts of the first lemma was achieved by restoring the text of pre-Byzantine P in an abusive way through the interpolation of a καί, 'and'. This was compounded by the replacement of ἐκχυσιν with εἰσκρισιν. (The result is still awkward as ὑποστρεφουσῶν, 'turning back', entails that the rays first travelled in the opposite direction). Diels did realize this (cf. his comments in the *Prolegomena* p. 55), but did not realize that their origin in S^L occurred through contamination from P^B (see his later comments in 1881, 349). In his text in *DG* he still retained the additional lines in both columns of his text, but they were rightly bracketed by Wachsmuth; cf. also Haas (1907) 362–363 n. 55. Mau and Lachenaud, who edit P, of course retain the lines in their text of P^B. Psellus refers to the Plato lemma (§7) though not correctly. Symeon Seth characterizes the discussion on the issue in general terms.

(2) Of A ch. 4.13 as found in S's ch. 1.52, the direct tradition has only preserved the paragraphs concerned with Aristotle (§9) and Plato (§7); see M–R 1.202–203 and also the analysis at 1.228–231. What appears to be the complete ch. 4.13 is extant, together with its companion ch. 4.14, in S^L. Apart from this material S 1.52 as reconstructed contains AD fr. 17 Diels (the first sentence of which (our §9), however, should be attributed to A, see at section D(b) below), two rather long passages from the *Timaeus*, and a passage from the pseudo-Pythagorean Aristombrotos. Via the florilegium rather more lemmata have been preserved

in S than in P, but unfortunately contamination has occurred, since as noted above the first lemma in S^L has been amplified with the additional material from P^B.

B Proximate Tradition and Sources

(1) *Proximate tradition.* Parallel accounts are found in Galen, Calcidius, Numenius, and esp. Alexander of Aphrodisias(?)'s *De anima mantissa*, but in these more or even a good deal more attention is given to the theories of Aristotle and the Stoics. For the series of parallels in the *Mantissa* see Sharples (1998a) 394–397. Galen *PHP* 7.7.22.4–23.2, πολὺ γε τούτου (sc. Epicurus) κρείττων Ἀριστοτέλης, οὐκ εἶδωλον σωματικὸν ἀλλὰ ποιότητα δι' ἀλλοιώσεως τοῦ πέριξ ἀέρος ἀπὸ τῶν ὁρατῶν ἄγων ἄχρι τῆς ὀψεως (p. 474.15–17 De Lacy) refers to Aristotle's view in his account of vision, viz. after his references to the Stoics and Epicurus, the latter *ad sententiam* corresponding to ch. 4.13.1. The 'cousin writing' of Nem *NH* c. 7, p. 58.9–11, copying Galen for the Epicureans and Aristotle almost verbatim but also indebted to the doxographical lemmata of which he modifies the sequence, lists Aristotle's doctrine between that of the Epicureans and (Galen plus) Plato (the latter virtually identical with ch. 4.13.7, then followed by abstracts from Galen's discussion of Plato's theory of vision at *PHP* 7.5 and 7.7).

The connection between a treatment of vision and one of mirror images (as between the present chapter and the next) is mentioned at Alcinous *Did.* c. 18 p. 173.32–34 H. It is also a feature of the lists of issues shared with the mathematicians that constitute a subpart of the Stoic *physikos logos* at Diogenes Laertius *VP.* 7.133. Lucretius' extensive account of vision at *DRN* 4.26–468 includes one of mirrors and mirror images at 4.269–323. So does Galen's account of vision at *PHP* 7.7. The first of the ten Skeptical Modes in Sextus Empiricus discusses the oddities of visual perception in general first and those of mirrors next, *P.* 1.44–49. Calcidius in *Tim.* cc. 236–248, chapter *de visu*, and cc. 257–259, in the chapter *de imaginibus*, discusses in succession as well as together various views on vision and reflection in mirrors, some among which are parallel to tenets found in chs. 4.13–14. Geminus' account of mathematics cited by Proclus in *Eucl.* p. 40.9–22, and Heron *Def.* c. 125.12, list optics, catoptrics and 'scenography' as related sub-disciplines, quoted on ch. 3.5 section E(b)§4 (for 'scenography' see also Geminus(?), *Fr.Opt.* p. 28.10–30.11 Schöne = Heron *Def.* 135.13, τί τὸ σκηνογραφικόν κτλ., and Clement of Alexandria *Strom.* 656.1, cited below, ch. 4.14, section E(a) General texts). Ptolemy's and the great Arabic scientist ibn al-Haytham's (Alhacen's) *Optics* deal with in succession optics (direct vision), catoptrics (reflection, ἀνάκλασις, vision via mirrors) and dioptrics (refracted vision, as of a coin in water), cf. above, ch. 3.5, Commentary D(d)§3,

and below, section D(a). For the *Optics* ascribed to Ptolemy, the Greek original of which most probably is to be dated to the sixth cent. CE or even later, see the detailed exposition of Siebert (2014a). For further details on chs. 4.13–14 see M–R 2.1.146, 2.2.182–191.

(2) *Sources*. The connection between a treatment of vision and one of mirror images is traditional and at least as early as Plato, see *Tim.* 45b–46c. There is an incidental reference to reflection near the end of Aristotle's *De anima*, at 3.12 435a5–10, where however he does not mention mirror images but contrasts two views of the visual process (cf. below, ch. 4.14, Commentary D(c)). The main diaphonia (as almost explicitly expressed in §12) is formulated in Aristotle *Sens.* 2 437b23–438a5. Several individual lemmata go back to Aristotle, and we also discern the influence of Theophrastus' *De sensibus*; both had access to original Presocratic sources. Baltussen (1993) 219 points out that Theophrastus' treatment of Alcmaeon is far more elaborate than that of Aristotle and Aëtius. Agreeing with Diels he also states that all occurrences of Alcmaeon in Aëtius (sc. in Book 4) have their counterpart in the *De sensibus*. This is mostly correct for Book 4 (for A 4.2.2 as from Aristotle see above, ch. 4.2 at Commentary D(d)§2). In their Alcmaeon chapter Laks–Most (2016e), frs. D11–D19, conveniently couple the evidence on the senses from Theophrastus with the Aëtian lemmata.

We also note the presence of Hellenistic data, and more especially of name-labels from the domain of the sciences: Aristarchus and Hipparchus (compare other 'scientific' chapters, e.g. chs. 3.17 and 4.1). Interesting are also the presence of Plato's pupil Hestiaeus of Perinthus (cited only once elsewhere in the *Placita* at ch. 1.22.4 on the οὐσία of time) and of the renegade Epicurean Tima(sa)goras (found only here in the *Placita*). That the chapter has been updated is also clear from the presence of Posidonius at §11.

C Chapter Heading

The long heading of P^B and P^Q, Περὶ ὁράσεως, πῶς ὁρώμεν, should probably be attributed to A. It combines the umbrella type with a further specification referring to the question type of cause. For the umbrella type and the dialectical implication of the question word πῶς see above, ch. 1.3, commentary C. P^G abridges to Περὶ τοῦ πῶς ὁρώμεν, while the heading of S, extant only in the index of Photius, in the usual way of this source combines two headings, viz. here the abridged heading of the present chapter with the heading of the next. The formula περὶ ὁράσεως may be a successor of the often-found formula περὶ ὀψεως (also περὶ ὀψιως), which serves both as embedded heading, or indication of the theme treated, and as a book-title. For Περὶ ὁράσεως in a title see Plotinus *Enn.* 2.8[35], Περὶ ὁράσεως ἢ πῶς τὰ πόρρω ὁρώμενα μικρὰ φαίνεται (the

first part of the title is not found at Porph. *Plot.* 5 and 24, where the first word is Πῶς). For the embedded heading περί ὄψεως cf. Aristotle *GA* 5.2 781b28–29 καὶ περὶ μὲν ὄψεως καὶ ἀκοῆς καὶ ὁσφρήσεως εἴρηται, Theophrastus *Sens.* 5 Πλάτων ... οὐ μὴν εἰρηκὲ γέ περὶ ἀπασῶν, ἀλλὰ μόνον περὶ ἀκοῆς καὶ ὄψεως, *Sens.* 8, 38, 55, 57, and 86. For its use as a book title cf. Diogenes Laertius *V.P.* 5.49 Theophrastus' treatise Περὶ ὄψεως α' β' γ' δ', *V.P.* 5.59 Strato's Περὶ ὄψεως, and *V.P.* 7.4 Zeno's Περὶ ὄψεως. The extant Hippocratic treatise Περὶ ὄψις, Latin title *De visu*, is a fragment dealing with diseases of the eye ('eye' being one of the meanings of ὄψις), not with vision. S 1.52.21 cites a fragment of the Περὶ ὄψις of the Pseudopythagorean Aristombrotus (the same version is found in the mss. of a late Hippocratic tract, meaning 'On the eyes' rather than 'On vision'). Book 8 of Alexander's teacher Sosigenes' Περὶ ὄψεως is cited at *in Mete.* 143.13–14. Epicurus wrote a Περὶ τοῦ ὁράν (Diogenes Laertius *V.P.* 10.28). This plethora of titles and headings shows how important this topic was believed to be.

The second component of A's heading, πῶς ὁρώμεν, is attested as embedded heading or book-title at Alexander *de An.* 43.16 ὡς δέδεικται ἐν τοῖς Περὶ τοῦ πῶς ὁρώμεν ἐζητημένοις, *in Sens.* 25.25–26 ἔλεγεν (sc. Aristotle) ἐν τοῖς Περὶ ψυχῆς περὶ τοῦ πῶς ὁρώμεν, *in Mete.* 141.11–12 ἐδείχθη ἐν τοῖς Περὶ τοῦ πῶς ὁρώμεν, ὦν καὶ αὐτὸς ἐν τοῖς Περὶ ψυχῆς ἐμνημόνευσε, and Porphyry *Plot.* 5 (chronological catalogue of Plotinus, title of the early treatise *Enn.* 4.7[2]), Περὶ ψυχῆς τρίτον ἢ Περὶ τοῦ πῶς ὁρώμεν. But in the systematic catalogue *Plot.* 25 Porphyry has Περὶ ψυχῆς τρίτον ἢ Περὶ ὄψεως, which illustrates that the formulas Περὶ τοῦ πῶς ὁρώμεν and Περὶ ὄψεως are equivalent. Πῶς ὁρώμεν occurs as the title of an issue in the Stoic list of problems in physics found at Diogenes Laertius *V.P.* 7.133. Clearly A's chapter heading stands in a long and continuing tradition of reflection on this subject; see also below, section D(e).

D Analysis

a Context

The chapter is the first of a cluster of three dealing with vision and two related issues, namely the question of mirror images, ch. 4.14, and the paradoxical issue of the visibility of darkness, ch. 4.15. The connection between a treatment of vision and one of mirror images is traditional and is found at least as early as Plato, see *Tim.* 45b–46c (cf. above, section B(2)). To quote Simon (1988) 18 on the theory of vision in antiquity: 'On ne peut pas ... retracer la théorie de la vision indépendamment de celle des miroirs, bien que très tôt (en langage du temps) l'optique et la catoptrique aient été étudiées dans des traités ou du moins des chapitres indépendants. Le statut qu'on confère à l'image réfléchie ou réfractée dépend de l'idée qu'on se fait de la vision, et réciproquement cette

dernière ne progresse qu'à mesure que s'éclaire la formation de l'image'. See also below, ch. 4.14 Commentary D(a).

In terms of its theme our chapter is also connected with ch. 1.15 'On colours'. The cluster on vision comes after that dealing with sensation and sense objects in general at chs. 4.8–12, and begins the treatment of the individual senses: ch. 4.16 hearing, 4.17 smell, and 4.18 taste (in the same order as Aristotle's in *de An.* 2.7–10). Note that a separate treatment (chapter) concerned with touch is absent, although ch. 4.10.1–2 stipulates that there are five senses according to Stoics and Aristotle and touch is also mentioned elsewhere (ch. 4.8.6, 4.8.7, 4.9.11), and though a chapter *Περὶ ἀφῆς* is found in Nem, and of course an account *περὶ ... τοῦ ἀπτοῦ καὶ περὶ ἀφῆς* was present in Arist. *de An.* 2.11. Vision by means of extramission and optics are also treated in ch. 3.5.3 (cited above, *loci Aetiani*), together with mirror images.

b Number–Order of Lemmata

This chapter is more than usually complicated and our presentation deviates markedly from that of Diels. P has four lemmata in Mau's edition, S thirteen in that of Wachsmuth (if we give back to A an Aristotelian phrase which Diels attributed to AD). Starting with P, we see that two of his four lemmata are combinations of two originally Aëtian lemmata, viz. (1) P1 of A 4.13.1 + 4.13.9, and (2) P2 of A 4.13.12 + 4.13.13. For the history of P1 see also above, at section A.

(1) The present single ps.Plutarchean §1 is a conflation of two lemmata with different name-labels: Atomists vs. Academics, representing the main diaphonia: images vs. rays. The Academics lemma, in A much further down in the chapter, must have been promoted to second position by P in order to present this diaphonia right from the start. But because the name-label of the second lemma had fallen by the wayside at some time between the dates of PG's epitome and PQ's translation they were amalgamated, thus obliterating the diaphonia.

(2) In the case of the doxai of chs. 4.13.12 and 4.13.13, because they are very similar, P in his usual way abridged his predecessor so as to produce a single lemma, in the process weeding out the second name-label, Hestiaeus, and omitting the more complicated Empedoclean doxa, thus saddling the Hestiaeus doxa with the name-label Empedocles; see Diels *DG* 64, and for similar mishaps cf. ch. 1.20 (with Commentary D(b)) as well as ch. 4.7.1–2 (with Commentary A). P then promoted this new lemma to a position immediately after the first two in order to present a compromise embracing the two alternatives (cf. M–R 2.1.9–10, 2.1.46, 2.1.57, 2.1.59, 2.1.141, 2.1.187, 2.1.190; below, section D(c)).

Diels mechanically followed the order of lemmata in P^B, which entailed rejecting that of S. But it is clear that the order of S^L is to be preferred. After

all, it is more than likely, as we noted above in section A, that the chapter in S is complete, i.e. that he simply wrote it out. S₂, listing the dissident Epicurean Timagoras, harmoniously follows upon S₁/P₁ as soon as the interpolated tenet (already shorn of its name-label in P's tradition subsequent to P^G) of S₁₀ is deleted. In the text of the *DG* Diels did not yet bracket this phrase, thus providing an obstacle to the restoration of the original order. Later he argued for deletion in the paper cited below, section D(d)§1; this was accepted by Wachsmuth. Mau (followed by Lachenaud) edited a text of P^B, not of A, so naturally stuck to P's order and reading.

Furthermore, P₂ (name-label Empedocles combined with tenet of Hestiaeus) comes before P₃ (Hipparchus), while on the contrary S₅ (Hipparchus) comes before S₁₂ (Empedocles) plus S₁₃ (Hestiaeus). But as we saw, P's lemma P₂ provides a rewarding contrast to what comes before, which explains why it was reallocated to a position before P₃, the Hipparchus lemma. Thus the tenet of §10 was moved upwards by P to a position immediately after the original first lemma of A, and the new lemma P₂ followed suit. The combination of the name-label Empedocles with the tenet of Hestiaeus in P₂ confirms the order of S₁₂ (Empedocles)—S₁₃ (Hestiaeus) for A, while the relative order of P₃ (Hipparchus) and P₄ (Plato) is the same as that of S₅ and S₇, so also derives from A.

Diels implicitly assumed that an Aëtian lemma with name-label Aristotle had been lost. But S at 1.52.9, p. 484.15–21, i.e. between A 4.13.8 (Alcmaeon) and 4.13.10 (Academics), has a passage describing Aristotle's theory of vision (and hearing). Diels attributed it as fr. 17 to AD: see *DG ad loc.*, and pp. 73–74, but none of his criteria for attribution to AD are valid for this first phrase. In this text vision is concerned with τοῦ διαφανοῦς, just as is the case for Alcmaeon in §8. Of course the replacement of Aëtian lemmata with name-label Plato, or Aristotle, or Stoics, with fragments of Arius Didymus (or quotations from Plato) is a not infrequent occurrence in S, cf. M–R 1.234–235, 1.265–266, 2.1.140, 2.2.369, 3.311 n. 60, 3.378 and Jeremiah (2018) at M–R 4.286, 353. But there are also cases where Aëtian lemmata have been coalesced with excerpts from AD: Diels *DG* 75 n. 2 already thought of the passages printed at chs. 1.7.31, 1.18.6, 1.23.2, 3.1.7, 3.2.3, and 3.7.4. For more such coalesced passages see M–R 1.322–327. We take it that this is also what happened here, and that the first phrase of the passage Diels attributed to AD is to be given back to A. P, then, who so drastically reduced the number of lemmata in this chapter, must have omitted this Aristotle lemma as well.

Lemmata with other Stoic views (i.e. other than Posidonius' at §11), among which that regarding the standard visual cone one would have expected to find here, are only found in ch. 4.15 below.

c Rationale–Structure of Chapter

The main diaphonia is between the penetration of images (or effluences, or forms, or shapes, or qualities) from the external objects into the visual faculty on the one side, and the effluence of visual rays from the eyes towards the objects on the other: intromission (or ingestion) versus extramission. This basic opposition between intentionality and passivity, or receptivity, is reflected in the vocabulary of numerous languages, see e.g. Vendryes (1932) and Christol (2005). For examples in Greek starting from the early poets see Mugler (1964) s.v. ἀκτίς 22–24, ὄψις 290–295, εἶδωλον 117–118, etc. That the sun ‘sees [i.e. illuminates] with its rays’ is found e.g. in Homer, Hesiod and Aeschylus(?) (*Od.* 11.16 Ἡέλιος φάεθων καταδέρκεται ἀκτίνεσσιν, cf. *Theog.* 758–761 with West 1966 ad loc., *h. Cer.* 70, Aeschylus *Pr.* 793–797). The eye is, so to speak, a little sun, the sun an enormous eye, note the abundant material cited by Verdenius (1948) 163–164. See also Aristophanes *Thesm.* 16–17 ‘(Aether) first constructed what we must see with: the eye, closely imitating the sun’s disk’ (ὦ μὲν βλέπειν χρὴ πρῶτ’ ἐμυχανήσατο / ὀφθαλμὸν ἀντίμιμον ἡλίου τροχῷ), also cited Verdenius loc. cit., and by Rashed (2005) 27–28. The Pythagoreans and ‘others’ are said to have called the eyes ‘gates of the sun’, see the *Pythagorean Hypomnemata* of Alexander Polyhistor at Diogenes Laertius *V.P.* 8.29 (ἡλίου πύλας καλεῖ τοὺς ὀφθαλμούς) and Hesychius *Lex.* s.v. H 175 Latte ἡελίοιο πύλας (οἱ δὲ ἀλληγορικῶς τοὺς ὀφθαλμούς).

The view according to which both visual rays and effluences etc. from objects are needed may be seen as avoiding, or outreaching, the diaphonia by having it both ways, as is intimated *disertis verbis* by Theophrastus *Sens.* 5, on Plato’s compromise theory of vision, and Sophonias *in de An.* 75.2–5. This solution may be further refined by introducing a helpful modification of the air (qua unavoidable medium) by means of external fire (i.e. a source of light) between objects and eyes that combines with the fire issuing from the eyes, as in Plato (see below on συναύγεια). Instead of air as the in-between we also encounter a transparent medium that is suddenly filled with light and conveys the visual data, first in Aristotle. The views of Plato and Aristotle have the advantage of explaining why we cannot see in the dark, which both the bare intromission theory and the bare extramission theory fail to do (for the latter see Aristotle’s criticism, *Sens.* 2 437b11–14, in part cited below section E(b)§12, fuller text translated ch. 4.15 Commentary D(d)§1, Greek text *ibid.* section E(b)§2). It should however be noted that the present chapter fails to provide an adequate presentation of the doxai of Plato and Aristotle, a not uncommon deficiency in the *Placita*.

The basic oppositions are presented in terms of blocks. The first block consists of §§1–4, and deals with visual data travelling from the objects to the

visual faculty. The first subdivision of this block, §§1–2, is about images (Leucippus Democritus Epicurus) or effluences (Timagoras) penetrating from outside. §2 is a sort of appendix to §1, providing a revised version of its doctrine (the contrast is exaggerated by A, who emphasizes Timagoras' unorthodoxy because doxography is interested in examples of dissent). The second subdivision, §§3–4, introduces the intermediate air and is about its acquiring the colours travelling from coloured objects (§3, Strato), or the shapes of these objects (§4, Aristarchus). The second block consists of §§5–6 and deals with the visual rays issuing from the eyes that reach out to the objects and send back their grasp of them to the visual faculty. §5 gives the name-label of the astronomer and mathematician Hipparchus, §6 adds Pythagoras qua important mathematician (because of his status!), cf. below, section D(d)§§5–6, and adds Parmenides because of a purported passage in his Poem. Blocks one and two are thus opposed diaphonically.

The third block consists of §§7–11: the doctrine of Plato, encompassing the alternatives of the first two blocks (but note that this Plato implicitly rejects the images), and some variations of this doctrine concerned with an intermediate substance or agent. The co-illumination (συνάυγεια, not a term of Plato) is the product of the cooperation between the light issuing from the eyes, the light travelling from the objects that comes to meet it, and the light of the intermediate air exerting itself in unison with the fiery element of the visual organ (§7). The (too) terse Alcmaeon lemma (§8) can only be properly understood by consulting its antecedent in Theophrastus quoted at section E(b)§8. As formulated here it is made to anticipate Aristotle's doctrine of the transparent in actuality. The view of the Academics of §10, mentioning an effusion of visual rays that return to the organ of vision after their contact with the objects, is less complicated than that of §7. That attributed to Posidonius (§11) is formulated in an even simpler manner, viz. as a combination of light beams, presumably of beams issuing from the eyes with beams travelling from the objects: again a variety of the Platonic doctrine.

The fourth and final block, consisting of §§12–13, comprises two compromise positions. Empedocles (§12) can be read as accepting both visual rays and images, though perhaps his preference is for images. No such preference in the case of Histiaeus (§13), who blends images and visual rays and calls this compound by the name of 'ray-image'.

Within each block there is a clear gradation, a diaeresis of successive tenets that gradually diverge from each other on a gliding scale.

For a preliminary analysis see M–R 2.1.186–188; also cf. Gourinat (2011) 185–186. For the rather different rationale of P's revised chapter see immediately below, section D(d)§1 ad fin.

d Further Comments

General Points

Greek theoretical optics and the concomitant theory of vision are deficient because the study of lenses is not included. Lenses only became objects of scientific inquiry in the Middle Ages. In Antiquity lense-shaped objects were used as burning glasses, possibly also for magnifying purposes, but this did not lead to theorizing about their properties. Passages from ancient authors on lenses used for burning are cited Rau (1982) App. ii, 23–25, e.g. Aristotle *APo.* 1.31 88a14–17, Theophrastus *Ign.* 73, Pliny *Nat.* 37.28.

For Goethe's translation of 4.13.1 + 4.14.1 'Democritus und Epicurus nach Plutarch' see below, ch. 4.14, Commentary D(d) ad init.

Individual Points

§1 The doctrine of Leucippus and Democritus has here been reduced to that of Epicurus. We may note that according to the *Etymologicum magnum* Democritus ascribed night vision to the owl because of 'the fire in its eyes' (text cited below section E(b)§1). If this is historically correct, his doctrine of vision is similar to the dual theory of Empedocles (see §12), and the information on his theory of vision found elsewhere incomplete.

P1: 'Offenbar ist hier an das atomistische Placitum ein fremdes, Platonisches angeflickt', says Diels (1881) 849; cf. M–R 1.267. He argues (*ibid.* 849–850) that P has coalesced two lemmata, viz. §1 and §10, and correctly pointed out that in the Florentine manuscript L the augmented but false ps.Plutarchean lemma replaced the original Aëtian lemma as the first of its series of abstracts from S. What happened however is even a bit more complicated, see at section A above. Diels' conjecture ἐκκρίσιν (presumably inspired by G's ἐκχυσιν) for P's εἴσκρισιν and S's equivalent ἔγκρισιν are moreover both *Verschlimmbesserungen*. We note however that the first part of the attached Platonic *placitum* entered the Arabic tradition via Q, see Koetschet (2017) 172 with n. 11, who points out that al-Razī tells us that he had read and excerpted Q's translation.

P2–4: After P1 as reflected in P^G, i.e. before the corruption attested by P^B and P^Q, the newly forged Empedocles lemma P2 did provide a compromise: not an opposition between images or rays but rather a blend of these, though we do not hear in which direction the combined product is supposed to travel. After the occurrence of the corruption and the subsequent modifications of the text of the now unified first lemma P2 becomes an appended variation: not penetrating images as well as rays but a blend of images and rays. P's chapter in its final shape has its own doxographical logic, rather different from A's original intentions and even more remote from historical correctness, but apparently still useful for the purposes of discussion and teaching.

§2 Timagoras (or Timasagoras, as he is called in the papyri) follows after the Atomists because he is an Epicurean, however dissident. The difference between images and effluences is real, though at a first glance perhaps less important in the context of the main diaphonia of the present chapter: Timagoras is still on the same side of the divide as Epicurus. Also note that the real Epicurus, speaking of images, mentions effluences too (*Ep.Hdt.* 46). However also in the next chapter (4.14.1) an effluences doctrine is contrasted with an images doctrine (4.14.2), in a sequence that is the converse of the first two lemmata of ch. 4.13. The doxography is interested in instances of dissent within a school, so of course has some interest in insisting on the difference here. Interestingly enough Cicero calls Timagoras a true-blue Epicurean, *maiorum similis* (*Luc.* 80). On Timagoras see further Verde (2010), who however suggests that a biased tradition may be postulated.

§3 Treatises Περί ὀψέως and Περί χρωμάτων are attested for Strato at Diogenes Laertius *V.P.* 5.59. On Strato's view that colour mixes with air see Ganson (2004) 359–360.

§4 Aristarchus follows after Strato because he is the latter's pupil, see ch. 1.15.5. *Mutandis mutatis* his position is comparable to that of Timagoras vis-à-vis Epicurus, or Xenocrates vis-à-vis Pythagoras at ch. 4.2.3. For σχήματα cf. Plato *Men.* 76c–d on Empedocles, quoted at section E(b) (and also Epicurus' μορφάι, *Ep.Hdt.* at D.L. 10.49, or Lucretius' *formae rerum*, *DRN* 4.104).

§5 Lejeune (1948) 22 n. 2 believes that the view is too 'simpliste' to be attributed to the astronomer Hipparchus, though perhaps, he adds, it is 'fort incomplètement exprimée'. But Hipparchus may have seen and referred to Egyptian pictures of the sun disk (the god Aten or Aton) with rays ending in hands (see www.images Aten). In the next lemma, §6, the name-labels of *ur*-mathematician Pythagoras and of Parmenides are added to the tenet of Hipparchus on the authority of certain authorities (cf. M–R 2.1.191–192), thus providing it with mathematical and physicist *titres de noblesse*. For the metaphor of touching with the hands compare also that of bending the outstretched hand back to the shoulder at ch. 4.14.3 below, now attributed to 'the followers of Pythagoras and the mathematicians' (cf. ch. 4.13 Commentary D(d)§3). The basic idea is the same as that of the standard Stoic doctrine at Diogenes Laertius *V.P.* 7.157 cited below at ch. 4.15, E(b)§2, where contact between the base of visual cone (for which see e.g. Euclid) with the object seen is compared with that by means of a stick (βακτηρία). Vision is seen as a kind of touch. For Posidonius' etymology of ὀψίς ('sight') from ἄπτω, ἄψω ('I touch, will touch') see below, section D(d)§11. In general see also below, ch. 4.15 Commentary D(d)§1 and section E(b)§2.

Cherniss (1951) 154 n. 6, commenting on Plutarch *Fac.* 921D (also see his Loeb ed. ad loc.), argues that the name-label Hipparchus at §5 is a standard mistake (for Hippasus or Archippus); Thesleff (1965) 92 suggests ‘possibly’ Hippasus. But Hipparchus is not only an astronomer but also a mathematician. *Pace* Lejeune, Cherniss, and Thesleff, he may represent the view of the mathematicians in general (e.g. that of Euclid’s *Optics*, or of Heron), which otherwise is absent from our *Placita* chapter (but see chs. 3.5.3–6 and 4.14.3, cited at *Loci Aetiani* above). The optical cone of Euclid’s first definition is not mentioned (we have to wait till ch. 4.15.2).

Jones (1994) 49–56 argues that the body of the text (accordingly apart from the introduction) of the so-called *recensio Theonis* of the Euclidean *Optics* is the original version of the work. The designation *recensio Theonis* has been maintained by us as a matter of convenience. See now Siebert (2014a), who argues that, although more research of esp. the manuscript tradition of the various versions is needed, the Euclidean *Optics* (like those of Ptolemy) were updated in late antiquity.

§6 Theophrastus *Sens.* 3–4 (28A46) finds no evidence enabling him to attribute to Parmenides a theory of perception through the individual senses, see Mansfeld (2018c). This shows that the attribution of the theory of Hipparchus to him, though hard to explain, is as farfetched as that to Pythagoras, the reference to the Poem notwithstanding.

§7 The lemma has been assembled from *Tim.* 45b–c and 67c, and focuses on the central part of Plato’s exposition, namely the fusion of the various types of light. The mention of the congenerate air looks like a misunderstanding: in Plato it is the external light that is akin to that issuing from the eyes. συναύγεια presumably is short for συμπαγές γενόμενον ἐν σώμα οἰκειωθὲν συνέσται (*Tim.* 45c4). For all this see Baltussen (2000a) 232–233.

§8 The anatomy of the visual apparatus as based on dissection described by Calcidius in *Tim.* c. 246 (cited section E(a)§8) is that of Herophilus rather than Alcmaeon; see Mansfeld (1975) 28–30, *pace* Perilli (2001) 59–62.

§9 ὁρᾶν ἡμᾶς echoes the ὁρῶμεν of the chapter heading and is paralleled at ch. 4.15.2[9] ὁρᾶν ἡμᾶς below, so the formula is acceptable for A. Also cf. the parallel beginning of ch. 4.16.2[5] Ἀλκμαίων ἀκούειν ἡμᾶς. In the physical fragments concerned with the Peripatetics Diels attributes to AD the only parallel of an infinitive plus ἡμᾶς is in fr. 15, αἰσθάνεσθαι δ’ ἡμᾶς παθούσης τι τῆς αἰσθήσεως; this is not, however, at the beginning but at the end of the excerpt.

For the problems pertaining to Aristotle’s theory (or rather theories) of vision see above, ch. 3.5, Commentary D(d)§§4–6.

§11 The Posidonian ἀγῶν σύμφυσις is synonymous with the Platonic συναύγεια of §9; see Diels’ note ad loc., *DG* 853: ‘Posidonius etiam hic πλατωνίζει’,

and Kidd on F 194 E.-K.: ‘another clear interpretation of Plato, *Tim.* 45cf’. Compare Posidonius’ etymologizing F 193 E.-K. cited section E(b)§11, ‘the etymology of ‘sight’ (ὁψίς) derives from ‘I touch, will touch’ (ἄπτω, ἄψω), being a kind of touching (ἄψίς) that introduces and illuminates each of the underlying objects, like fire’. For vision as touch see above, section D(d)§4. Kidd’s comment on F 193 E.-K. is confused. He replaces ἐμποιοῦσα by ἐλλαμποῦσα, not realizing that ἐμποιοῦσα pertains to the production of the image in the eye, and that according to this witness too Posidonius follows what Theophrastus calls Plato’s compromise position.

§§12–13 For the coalescence of these two paragraphs see above, section A.

§12 The point about the two views of Empedocles (and so the main opposition of the whole chapter) derives from the passage in Aristotle quoted below, section E(b)§12; see M–R. 2.1.190–191. Theophrastus too argues that Empedocles speaks both of the fire in the eye, and of colours traveling to it as effluences (*Sens.* 7). O’Brien (1969) argues that Aristotle’s attribution of a visual ray to Empedocles is mistaken and says (p. 140) that ‘Theophrastus says nothing about fire leaving the eye as a factor in the act of vision’. But what he says at *Sens.* 7 is that ‘the fire in the eye (τὸ ... ἐντὸς αὐτῆς ... πῦρ) passes through (δι-έναι) the water and earth that surround it because it is fine-textured, just as the light in lanterns’. So he appears to agree with Aristotle after all. (We cannot enter here into the *constitutio* and interpretation of the difficult fragment 31B84 DK as a whole, for which see e.g. Rashed 2005 and Primavesi 2011, 510 and 2013, 701–702).

In ch. 1.15.3 ‘On colours’, the Greek tradition consisting of P and S, representing one side of the opposition, has Ἐμπεδοκλῆς χρώμα τὸ τοῖς πόροις τῆς ὀφθαλμοῦ ἐναρμόττον (‘Empedocles (says) that colour is what fits the pores of the eyes’), while Q, representing the other side, has *Empedokles war der Meinung, daß die Farbe etwas ist, worauf die Sehstrahlen fallen*. This difference cannot be due to a mistranslation on Q’s part, so represents a genuine reading, or rather tradition; see above, ch. 1.15, Commentary D(d)§3. When taken together these witnesses for ch. 1.15.3 are in agreement with the contents of the present paragraph.

At M–R. 2.1.190–191 we argue that the note at §12 on Empedocles’ preference for the effluences theory is a reference to (a part of) the anterior doxographical tradition (but we now no longer believe that πλείους refers to interpreters rather than possibilities of interpretation). Ch. 4.14.3 apparently describes the combination of a fiery beam issuing from the eyes and effluences that come to be on the surface of a mirror. The word ἀκτίς is attested for Empedocles in the verbatim fragment 31B84.6 DK, while the term ἀπορροαί is attested at 31B89 DK. Primavesi (2013) 701–702 argues against the assumption of visual rays by Empedocles and rejects Aristotle’s interpretation of 31B84 DK. But the

fact that—just, as we may recall, the sun shines with rays—‘the fire shines out with rays’ (31B84.5–6 DK πῦρ δ’ ἔξω ... / λάμπεσκειν ... ἀκτίνεσσιν, cf. B84.11 πῦρ δ’ ἔξω δίλεσκειν, ‘the fire jumped out’) at the very least makes Aristotle’s reading understandable, and even plausible.

e Other Evidence

The Pyrrhonist view (cited below, section E(b)§ο) is that we do not know ‘how we see’, a clear reference to the multiplicity of views resulting in diaphonia.

For their overviews of contrasting and compromise doxai Apuleius and Calcidius and numerous others consulted sources that are close to the *Placita*. The author of the fragmentary optical treatise ascribed to Geminus argued that from the point of view of mathematical optics the alternatives intromission and extramission as well as the compromise view are equally unimportant, while Euclid had argued in favour of the extramission theory. The alternatives are mentioned—to give some examples—as late as in the *Optics* of the Arabic scientist ibn al-Haytham in the eleventh, by the Byzantine commentator Sophonias’ *in de Anima* in the thirteenth, by the Italian humanist and polymath Leon Battista Alberti’s *De pictura* in the fifteenth (who says they are out of date), and by the learned Italian physician Mercuriale’s *De morbis oculorum* in the late sixteenth century (see section E(b) General texts ad fin.). For the tradition in the Islamic world and its Greek precedents see Adamson (2016) 77–83, for al-Razī’s criticism of the extramission theory Koetschet (2017).

Goethe, *Farbenlehre* (Didaktischer Teil, Einleitung) writes: ‘Hierbei erinnern wir uns der alten ionischen Schule, welche mit so großer Bedeutsamkeit immer wiederholte: nur von Gleichem werde Gleiches erkannt; wie auch der Worte eines alten Mystikers [sc. Plotinus, see section E(a)§11], die wir in deutschen Reimen folgendermaßen ausdrücken möchten: *Wär’ nicht das Auge sonnenhaft, / Wie könnten wir das Licht erblicken? / Lebt’ nicht in uns des Gottes eigne Kraft, / Wie könnt’ uns Göttliches entzücken?* Jene unmittelbare Verwandtschaft des Lichts und des Auges wird niemand läugnen, aber sich beide zugleich als eins und dasselbe zu denken, hat mehr Schwierigkeit. Indessen wird es faßlicher, wenn man behauptet, im Auge wohne ein ruhendes Licht, das bei der mindesten Veranlassung von innen oder von außen erregt werde.’

E Further Related Texts

a Proximate Tradition

General texts: Geminus(?) *Fr.Opt.* p. 24.7–15 Schöne at Her. *Def.* c. 135.11 ὅτι οὔτε φυσιολογεῖ ἢ ὀπτική οὔτε ζητεῖ, εἴτε ἀπόρροιαι τινες ἐπὶ τὰ πέρατα τῶν σωμάτων φέρονται ἀπὸ τῶν ὀψων ἀκτίνων ἐκχεομένων, εἴτε ἀπορρέοντα εἰδῶλα ἀπὸ τῶν αἰσθητῶν εἶσω τῶν ὀψων εἰσδύεται κατὰ στάθμην ἐνεχθέντα, εἴτε συνεκτείνεται

ἢ συμφέρεται ὁ μεταξύ ἄλλῃ τῷ τῆς ὄψεως αὐγοειδεῖ πνεύματι, μόνον δὲ σκοπεῖ, εἰ σώζεται καθ' ἑκάστην ὑπόθεσιν ἢ ἰθυτένεια τῆς φορᾶς ἢ τάσεως καὶ τὸ κατὰ τὴν συναγωγὴν εἰς γωνίαν τὴν σύννευσιν γίνεσθαι, ἐπειδὴν μειζόνων ἢ ἐλαττόνων ὄψεως ἢ θεωρία. **Vitruvius** 7 proæm 11 *Democritus* (cf. 68B15b DK) *et Anaxagoras* (59A39 DK) *de eadem re scripserunt, quemadmodum oporteat ad aciem oculorum radiorumque extentionem certo loco centro constituto lineas ratione naturali respondere, uti de certa re certae imagines aedificiorum in scaenarum picturis redderent speciem et, quae in directis planisque frontibus sint figurata, alia abscedentia, alia prominentia esse videantur.* 6.2.3 *hoc autem sive simulacrorum impulsu seu radiorum ex oculis effusionibus, uti physicis placet, videmus.* **Philo of Alexandria** *Ebr.* 190 αὐτίκα τῶν χρωμάτων ἀντιλαμβάνομεθα πῶς; ἀρ' οὐ σὺν ἀέρι καὶ φωτί, τοῖς ἐκτός, καὶ τῷ κατ' αὐτὴν τὴν δῖψιν ὕγρῳ; **ps.Galen** *Def.Med.* 19.379.10–15 K. ριζ'. ὄρασις ἐστὶν ἡ γινομένη διὰ τῶν ὀφθαλμῶν τῷ συγκεκραμένῳ ἐν αὐτοῖς πνεύματι λεπτῷ μάλιστα κατὰ τὸν τῆς κόρης τόπον τυγχάνοντι, δι' οὗ αἱ ὀρατικαὶ ἀντιλήψεις γίνονται. τί ἐστὶν ὄψις; ὄψις ἐστὶ δύναμις οὐσίας ἀερῶδους φανώδης, ὄρασις δ' ἐνεργητική. **ps.Galen** *Introd. C.* 10.4, 14.702.4–8 K. γεγόνασι (sc. αἱ βλεφαρίδες) δὲ πρὸς τὸ ἀπευθύνειν τὸ ὀρατικὸν πνεῦμα ἡ, ὡς τινες λέγουσι, τὰς ἔνδοθεν ἐκχεομένας ἀκτῖνας εἰς τὸ διορᾶν. ἀμέλει τούτων ἐκπεσουσῶν ἡ καὶ κατακλωμένων, οὐκέτι ὁμοίως ἐπ' εὐθὺ, οὐδὲ ἐπὶ μακρὸν δύναται βλέπειν τὸ ζῶον. **Aulus Gellius** *NA* 5.16.2 *de videndi ratione deque cernendi natura diversas esse opiniones philosophorum animadvertimus.* **Aquilius** *Def.* 6a Rashed ὄψις ἐστὶν αἰσθησις κριτικὴ τῶν ὀρατῶν. **Lactantius** *Op.D.* Perrin 8.10–11 *ne forte existimes aut imaginum incursione nos cernere, ut philosophi disserunt, quoniam videndi officium in eo debet esse quod videt, non in eo quo videtur, aut intentione aëris, cum acie aut effusione radiorum, quoniam, si ita esset, tardius quam oculos advertimus videremus, donec intentus aer cum acie aut effusi radii ad id quod videndum esset pervenirent.* (11) *cum autem videamus eodem momento temporis, plerumque vero aliud agentes nihilominus tamen universa quae contra sunt posita tueamur, verius et manifestius est mentem esse quae per oculos ea quae sunt opposita transpiciat quasi per fenestras perlucante vitro aut speculari lapide* (sc. beryllus/ βήρυλλος) *obductas.* **Arnobius** *Adv.Nat.* 2.7 p. 73.3 Marchesi *cum videre nos dicimus, radiorum et luminis intentione videamus an rerum imagines advolent et nostris in pupulis sidant?* **Calcidius** in *Tim.* c. 236 incipit (sc. Plato) *ab optimo praeclarissimoque sensuum omnium visu sed quoniam de hoc plerique alii post ipsum opiniones varias libris suis conditis sunt executi, eae quae sunt in honore perstringam, quo perfectior propositae rei tractatus habeatur.* in *Tim.* 236–248 see below.

Chapter heading: Diogenes Laertius *V.P.* 7.132–133 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. the Stoics) ... (133) τοῦ δ' ἑτέρου (sc. μέρους) καὶ τοὺς ἀπὸ τῶν μαθημάτων ἀντιποιεῖσθαι, οἷον πῶς ὁρώμεν, τίς ἡ αἰτία τῆς κατοπτρικῆς φαντασίας (cf. tit. ch. 4.14), excerpted *Suda* s.v. Φ 862 pp. 4.775.28–776.2 Adler φυσικὸς λόγος παρὰ φιλοσόφους. ... πῶς ὁρώμεν τίς ἡ αἰτία τῆς κατοπτρικῆς φαντασίας. **Capitula Lucretiana** at *DRN* 4.387 *de visu.* **Calcidius** in *Tim.* c. 7, p. 60.16 Waszink *de visu.*

§1 Leucippus Democritus Epicurus: Aulus Gellius NA 5.16.3 *Epicurus* (fr. 319 Usener) *affluere semper ex omnibus corporibus simulacra quaedam corporum ipsorum eaque sese in oculos inferre atque ita fieri sensum videndi putat. Apuleius* *Apol.* 15 (pertains also to ch. 4.14) *num, ut ait Epicurus* (cf. fr. 320 Usener), *profectae a nobis imagines velut quaedam exuviae iugi fluore a corporibus manantes, cum leve aliquid et solidum offenderunt, illisae reflectantur et retro expressae contraversim respondeant, an, ut alii philosophi disputant, radii nostri seu mediis oculis proliquati et lumini extrario mixti atque ita uniti, ut Plato arbitratur, seu tantum oculis profecti sine ullo foris amminiculo, ut Archytas* (47A25 DK, fr. 25 Huffman) *putat, seu intentu aëris {f}acti, ut Stoici* (—) *rentur, cum alicui corpori inciderunt spisso et splendido et levi, paribus angulis quibus inciderant resultent ad faciem suam reduces atque ita, quod extra tangant ac visant, id intra speculum imaginentur. Sextus Empiricus* *P.* 3.51 αἱ μὲν αἰσθήσεις κατὰ ἐπέρευσιν καὶ νύξιν ἀντιλαμβάνεσθαι δοκοῦσι τῶν αἰσθητῶν, οἷον ἡ ὄρασις, ... ἐάν τε κατὰ εἰδῶλων ἀποκρίσεις τε καὶ ἐπικρίσεις, ἐάν τε (κατ') ἀκτίνων ἢ χρωμάτων ἀποχύσεις. **Diogenes Laertius** *V.P.* 9.44 (Democritus 68A1 DK) ὅρᾱν δ' ἡμᾶς κατ' εἰδῶλων ἐμπτώσεις. 9.47–48 (Democritus 68A33, B15b DK) μαθηματικά δὲ τὰδε: ... (48) Ἀκτινογραφίη. **Capitula Lucretiana** at DRN 4.29 de simulacris. at DRN 4.98 de imaginibus. **Calcidius** in *Tim.* c. 236 *omnes qui rerum initia corpora censuerunt vel coetu innumerabilium minutorum congesto inani vel perpetuorum continuata proceritate, dicunt videre nos simulacrorum incurSIONIBUS; fluidam quippe materiem formatas iuxta sui similitudinem exudare subtiles corporum fusiones, quae sunt visibilium simulacra rerum, eaque cum visus noster incurrerit, hausta et recepta meatibus transmittat ad eum per quem sentimus spiritum.*

§2 Timagoras: differently Cicero *Luc.* 80 itaque Timagoras Epicureus negat sibi unquam cum oculum torsisset duas ex lucerna flammulas esse visas; opinionis enim esse mendacium non oculorum: sic hic quidem, maiorum similis.

§5 Hipparchus: Calcidius in *Tim.* c. 238 *geometrae cum Peripatetici continentes radii effusione visum operari putant, cum per fulgidam lucidamque pupulae stolam in directum emicans radius serenam porrigit lineam, quae gyris oculorum circumvecta motibus dispergat undique lucem contemplationis.*

§7 Plato: Aulus Gellius NA 5.16.4 *Plato existimat genus quoddam ignis lucisque de oculis exire idque coniunctum continuatumque vel cum luce solis vel cum alterius ignis lumine sua vi et externa nixum efficere, ut, quaecumque offenderit inlustraveritque, cernamus. Galen* *Plat. Tim.* c. 7.15–24 trans. Kraus–Walzer *oculos ad videndum* (sc. dicit creatos esse). *quod fieri dicit propter substantiam splendidam et lucidam quae (emissa) ex pupilla* [‘from the membranes’ trans. Koetschet 2017, 174] *egreditur atque cum aëre qui nos circumdat coniungitur, et dum ei similis est cum illo permiscetur et sicut et ille permutatur permutatur, ita ut res percipiamus quae extrinsecus (appareant). hanc autem orationem iam in septimo tractatu libri mei De placitis Hippocratis et Platonis exposui, ubi etiam plura (invenies). et argumenta genuinis demonstrationibus fulta in tertio decimo tractatu libri mei De demonstratione affero. Calcidius in*

Tim. cc. 244–245 censet enim Plato lumen ex oculis profundi purum et liquatum, quod sit velut flos quidam ignis intimi nostri habens cum solstitiali lumine cognitionem, solis porro lumen instrumentum animae fore ad visibilibus specierum contemplationem, siquidem ad oculos feratur, quorum levigata soliditas et tersa rotunditas, utpote munita tunicis textis tenui nervorum subtemine, fert facile obviam lucem. ... (245) tribus ergo his concurrentibus visus existit trinaque est ratio videndi: lumen caloris intimi per oculos means, quae principalis est causa, lumen extra positum, consanguineum lumini nostro, ..., lumen quoque quod ex corporibus visibilibus specierum fluit.

§8 **Alcmaeon:** differently **Calcidius** in *Tim.* c. 246 demonstranda igitur oculi natura est, de qua cum plerique alii tum Alcmaeo Crotoniensis (24A10 DK), in physicis exercitatus quique primus exsectionem aggredi est ausus, et Callisthenes, Aristotelis auditor, et Herophilus (fr. 86 Von Staden) multa et praeclara in lucem protulerunt. duas esse angustas semitas quae a cerebri sede, in qua est sita potestas animae summa et principalis, ad oculorum cavernas meent naturalem spiritum continentes; quae cum ex uno initio eademque radice progressae aliquantisper coniunctae sint in frontis intimis, separatae bivii specie perveniant ad oculorum concavas sedes, qua superciliorum obliqui tramites porriguntur, sinuataeque illic tunicarum gremio naturalem humorem recipiente globos complent munitos tegmine palpebrarum, ex quo appellantur orbes. porro quod ex una sede progrediantur luciferae semitae, docet quidem sectio principaliter, nihilo minus tamen intellegitur ex eo quoque, quod uterque oculus moveatur una nec alter sine altero moveri queat. oculi porro ipsius continentiam in quattuor membranis seu tunicis notaverunt disparili soliditate; quarum differentiam proprietatemque si quis persequi velit, maiorem proposita materia suscipiet laborem.

§9 **Aristotle:** **Arius Didymus** fr. 17 Diels at Stob. *Ecl.* 1.52.9.1b, p. 484.16–19 (on Aristotle) διαφανές δὲ οὐ μόνον εἶναι τὸν ἀέρα, ἀλλὰ καὶ τὸ ὕδωρ καὶ τινὰ τῶν συνισταμένων ποθέν, οἷον ὕαλον καὶ κρύσταλλον καὶ τινὰς τῶν λαμπρῶν λίθων.

§11 **Posidonius:** differently **Aulus Gellius** NA 5.16.2 *Stoici* (SVF 2.871) causas esse videndi dicunt radiorum ex oculis in ea, quae videri queunt, emissionem aërisque simul intentionem.

b Sources and Other Parallel Texts

General texts: **Antiphon** *de Ver.* at POxy 1364, F44(b)6–9 Pendrick τῇ αὐγῇ | μετὰ τῆς ὀφειῶς ('visual ray') ὁρώμεν. **Aristotle** *Cael.* 2.8 290a17–21 ἡ γὰρ ὀψις ἀποτετινομένη μακρὰν ἐλίσσεται διὰ τὴν ἀσθένειαν. ὅπερ αἴτιον ἴσως καὶ τοῦ στίλβειν φαίνεσθαι τοὺς ἀστέρας τοὺς ἐνδεδεμένους, τοὺς δὲ πλάνητας μὴ στίλβειν· οἱ μὲν γὰρ πλάνητες ἐγγύς εἰσιν, ὥστ' ἐγκρατὴς οὖσα πρὸς αὐτοὺς ἀφικνεῖται ἡ ὀψις. *GA* 5.1 781a2–7 οὐθὲν γὰρ διαφέρει τὸ λέγειν ὁρᾶν, ὥσπερ τινές (sc. *Pl. Tim.* 45b–c) φασί, τῷ τὴν ὀψιν ἐξιέναι (ἂν γὰρ μὴ ᾗ τι πρὸ τῶν ὁμμάτων, διασκεδαννυμένην ἀνάγκη ἐλάττω προσπίπτειν τοῖς ὁρωμένοις καὶ ᾗ ττον τὰ πόρρωθεν ὁρᾶν), ᾗ τὸ τῇ ἀπὸ τῶν ὁρωμένων κινήσει ὁρᾶν. ὁμοίως γὰρ ἀνάγκη καὶ τὴν ὀψιν τῇ κινήσει ὁρᾶν. *Po.* 4 1449a18–19 σκηνογραφίαν Σοφοκλῆς (sc. introduced). *Mete.* 3.2 372a29–32 ὅτι

μέν οὖν ἡ ὄψις ἀνακλᾶται, ὥσπερ καὶ ἀφ' ὕδατος, οὕτω καὶ ἀπὸ ἀέρος καὶ πάντων
 τῶν ἐχόντων τὴν ἐπιφάνειαν λεῖαν, ἐκ τῶν περὶ τὴν ὄψιν δεικνυμένων δεῖ λαμβά-
 νειν τὴν πίστιν (cf. below, Alex.Aphr. in Mete. 141.3–20). *de An.* 3.12 435a5–8
 (on perception εἰ διὰ τοῦ μεταξὺ αἰσθητικὸν εἴη τῷ ἐκείνῳ μὲν ὑπὸ τοῦ αἰσθητοῦ
 πάσχειν καὶ κινεῖσθαι, 434b28–29) διὸ καὶ περὶ ἀνακλάσεως βέλτιον ἢ τὴν ὄψιν ἐξι-
 οῦσαν ἀνακλᾶσθαι τὸν ἀέρα πάσχειν ὑπὸ τοῦ σχήματος καὶ χρώματος, μέχρι περ
 οὐ ἂν ἦ εἰς. ἐπὶ δὲ τοῦ λεῖου ἐστὶν εἰς. *Sens.* 2 438a5–10 Δημόκριτος (68A121 DK)
 δ' ὅτι μὲν ὕδωρ εἶναι φησι, λέγει καλῶς, ὅτι δ' οἶεται τὸ ὄραν εἶναι τὴν ἔμφασιν,
 οὐ καλῶς· τοῦτο μὲν γὰρ συμβαίνει ὅτι τὸ ὄμμα λεῖον, καὶ ἔστιν οὐκ ἐν ἐκείνῳ ἀλλ'
 ἐν τῷ ὀρώντι· ἀνάκλασις γὰρ τὸ πάθος, ἀλλὰ καθόλου περὶ τῶν ἐμφαινόμενων καὶ
 ἀνακλάσεως οὐδὲν πω δῆλον ἦν, ὡς ἔοικεν. *Sens.* 2 438a25–29 ἄλογον δὲ ὅλως τὸ
 ἐξίοντι τινὶ τὴν ὄψιν ὄραν, καὶ ἀποτείνεσθαι μέχρι τῶν ἀστρῶν, ἢ μέχρι τινὸς ἐξιούσαν
 συμφύεσθαι, καθάπερ λέγουσί τινες. τοῦτο μὲν γὰρ βέλτιον τὸ ἐν (τῇ) ἀρχῇ συμ-
 φύεσθαι τοῦ ὄμματος, ἀλλὰ καὶ τοῦτο εὐηθες. *Sens.* 2 437b23–438a4 Ἐμπεδοκλῆς
 (on 31B84 DK) δ' ἔοικε νομίζοντι ὅτε μὲν ἐξίοντος τοῦ φωτός, ὥσπερ εἴρηται πρό-
 τερον, βλέπειν· λέγει γοῦν οὕτως· (31B84 DK follows) ... ὅτε μὲν οὖν οὕτως ὄραν
 φησὶν, ὅτε δὲ ταῖς ἀπορροαῖς ταῖς ἀπὸ τῶν ὀρωμένων. *Sens.* 3 440a15–17 τὸ μὲν
 οὖν, ὥσπερ οἱ ἀρχαῖοι, λέγειν ἀπόρροϊαν εἶναι τὴν χροάν καὶ ὀράσθαι διὰ τοιαύτην
 αἰτίαν ἄτοπον. **Theophrastus** *Sens.* 5 Πλάτων ... τὴν μὲν ὄψιν ποιεῖ πυρός (διὸ
 καὶ τὸ χρῶμα φλόγα τιν' ἀπὸ τῶν σωμάτων σύμμετρα μόρια τῇ ὄψει ἔχουσιν), ὡς
 ἀπορροῆς τε γινομένης καὶ δέον συναρμόττειν ἀλλήλοις ἐξιούσαν μέχρι τινὸς συμ-
 φύεσθαι τῇ ἀπορροῇ καὶ οὕτως ὄραν ἡμᾶς· ὥσπερ ἂν εἰς τὸ μέσον τιθεῖς τὴν ἑαυτοῦ
 δόξαν τῶν τε φασκόντων προσπίπτειν τὴν ὄψιν καὶ τῶν φέρεσθαι πρὸς αὐτὴν ἀπὸ
 τῶν ὀρατῶν. **ps.Plato** *Def.* 411c ὄψις ἕξις διακριτικὴ σωμάτων. **Euclid** *Opt.* (rec.
 Theonis) 148.22–26 πρὸς δὲ τὸ τῇ ὄψει μὴ προσπίπτειν τι εἰδῶλον ἀπὸ τοῦ ὀρωμέ-
 νου εἰς τὸ κινῆσαι αὐτὴν πρὸς τὸ καταλαβεῖν τὸ ὀρώμενον ἔφερον αἰτίας τοιαύτας
 κτλ. ... εἰ ἦν κατ' εἰδῶλων ἔμπτωσιν τὸ ὀρατικὸν πάθος, καὶ ἀπὸ παντὸς σώματος
 διηνεκὸς εἰδῶλα ἀπέρρεεν, ἃ κινεῖ ἡμῶν τὴν αἴσθησιν κτλ. *Opt.* (rec. Theonis)
 152.1–3 πρὸς οὖν τὸ πιστὸν εἶναι κατὰ τὸ παρὸν τὸ ἀκτίνας εἶναι τὰς ἐκχεομένας καὶ
 κινούσας τὸ ὀρατικὸν πάθος ἀρκούντως ἐδόκει εἰρησθαι. **Epicurus** *Ep.Hdt.* at D.L.
 10.49 δεῖ δὲ καὶ νομίζειν ἐπεισιόντος τινὸς ἀπὸ τῶν ἔξωθεν τὰς μορφὰς ὄραν ἡμᾶς καὶ
 διανοεῖσθαι· οὐ γὰρ ἂν ἐναποσφραγίσαιτο τὰ ἔξω τὴν ἑαυτῶν φύσιν τοῦ τε χρώματος
 καὶ τῆς μορφῆς διὰ τοῦ ἀέρος τοῦ μεταξὺ ἡμῶν τε καὶ ἐκείνων, οὐδὲ διὰ τῶν ἀκτί-
 νων ἢ ὧν δῆποτε ρευμάτων ἀφ' ἡμῶν πρὸς ἐκεῖνα παραγινομένων, οὕτως ὡς τύπων
 τινῶν ἐπεισιόντων ἡμῖν ἀπὸ τῶν πραγμάτων ὁμοχρόων τε καὶ ὁμοιομόρφων κατὰ τὸ
 ἐναρμόττον μέγεθος εἰς τὴν ὄψιν ἢ τὴν διάνοιαν. **Cicero** *Att.* 2.3.2 *Cyrus aiebat*
viridarium [corr. Lambinus, v(i)ridiorum ms.] διαφάσεις *latis luminibus non*
tam esse suavis; etenim ἔστω ὄψις μὲν ἡ Α, τὸ δὲ ὀρώμενον ΒΓ, ἀκτῖνες δὲ ΑΒΓ
 ΑΒΓ [Keyser (1993) 68, †ΑΙΤΑ† mss.]. *vides autem cetera. nam si* κατ' εἰδῶ-
 λων ἔμπτῶσεις *videremus, valde laborarent* εἰδῶλα *in angustiis; nunc fit* *lepide*
illa ἔκχυσις *radiatorum*. *Fam.* 15.16.1–2 *fit enim* *nescio qui ut quasi coram adesse*
videare cum scribo aliquid ad te, neque id κατ' εἰδ(ῶ)λων φαντασίας, *ut dicunt*
tui amici novi, qui putant etiam διανοητικὰς φαντασίας *spectris Catianis excitari.*
nam, ne te fugiat, Cati *Insuber* Ἐπικούρειος, *qui nuper est mortuus, quae ille*

Gargettius et iam ante Democritus εἶδωλα, hic spectra nominat. his autem spectris etiam si oculi possent feriri, quod (pup)ulis ipsa incurrun, animus qui possit ego non video. ... neque solum de te, qui mihi haeres in medullis, sed si insulam Britanniam coepero cogitare, eius εἶδωλον mihi advolabit ad pectus? **Alexander of Aphrodisias** in *Mete.* 141.3–20 (on *Mete.* 3.2 372a29–30, see above) οὐκ ἀρέσκεται μὲν τῇ δόξῃ τῇ δι' ἀκτίνων ἐκχύσεως ὁρᾶν ἡμᾶς λεγούσῃ, καθά φασι οἱ ἀπὸ τῶν μαθημάτων, ἥ δόξῃ ἀκόλουθός ἐστι καὶ ἡ δι' ἀνακλάσεως τῶν αὐτῶν τούτων ἀκτίνων ὁρᾶν ἡμᾶς πάντα τὰ δι' ἐμφάσεως ὁρώμενα λέγουσα· οὔτε γὰρ ἀπὸ τῆς ὀψεως ἀκτίνας τινὰς ἐκχεομένας καὶ προσπιπτούσας τῷ ὁρατῷ τοῦ ὁρᾶν αἰτίας ἡμῖν οἶόν τε γίνεσθαι οὔτε τὰς αὐτὰς ταύτας ἀνακλωμένας ἀπὸ τῶν κατόπτρων καὶ πάντων τῶν διὰ τοιούτων ὁρώμενων ἐπὶ τὸ ὁρώμενον τὴν αἰτίαν πάλιν ἡμῖν παρέχειν τοῦ ταῦτα ὁρᾶν, τῆς τῶν ἀκτίνων ἀνακλάσεως πρὸς ἴσας γινομένης γωνίας. ὅτι γὰρ ἀδύνατα ταῦτα, ἐδείχθη ἐν τοῖς Περὶ τοῦ πῶς ὁρώμεν, ὧν καὶ αὐτὸς ἐν τοῖς Περὶ ψυχῆς ἐμνημόνευσε. δοκεῖ γὰρ αὐτῷ τὰ μὲν ἐπ' εὐθείας ὁρώμενα ὁρᾶσθαι οὐ δι' ἀκτίνων, ἀλλὰ τῷ τὸ μεταξὺ τοῦ τε ὁρώμενου καὶ τῆς ὀψεως διαφανὲς ὑπὸ τοῦ ὁρωμένου χρώματος πάσχειν καὶ μεταδιδόναι τούτου τοῦ πάθους τῇ ὀψει, οὕσῃ καὶ αὐτῇ διαφανεῖ· τοῦτο γὰρ εἶναι τοῖς εἶναι διαφανεῖ· τὰ δὲ κατὰ ἀνάκλασιν ὁρᾶσθαι δοκοῦντα ὁρᾶσθαι τῷ πρῶτον ἐν τοῖς ἐνόπτροις τε καὶ ἐνοπτρικοῖς πᾶσι τὴν τοῦ ὁρωμένου ἔμφασιν γινομένην διὰ τοῦ μεταξὺ διαφανοῦς εἶτα ἀπὸ τούτου πάλιν ἡκείν ἐπὶ τὴν ὀψιν διὰ τοῦ διαφανοῦς πάλιν τοῦ μεταξὺ τοῦ τε ἐνόπτρου καὶ τῆς ὀψεως. **Galen** *Cons.* c. 1, p. 9.9–13 Müller εἶθ' ὅτι ἂν εἴπωμεν ἀνατρέποντες λόγῳ νομίζουσιν ἅμα τούτῳ καὶ τὴν τοῦ πράγματος ὑπαρξίν ἀνηρηκέναι, καθάπερ εἰ τις ἀπάσαις ἀντιπῶν ταῖς περὶ τοῦ πῶς ὁρώμεν δόξαις οὐδ' ὁρᾶν ἡμᾶς συγχωροίη. *de Demonstr. at Rhazes Kitab Muhammad ibn Zakariya ar-Razi As-sukuk 'ala Galinus* 9.13 f. + 9.22 f. + 10.2 f. (trans. Strohmaier 1998, 272–273) 'Bei allen Leuten ist es klar, daß das Sehen nicht dadurch geschieht, daß zu ihm Bilder von einem jeden der gesehenen Dinge fließen ... Die Rede dessen, der behauptet, daß vom Auge Strahlen ausgehen, bis sie zu dem Gesehenen gelangen, ist eine Unmöglichkeit, weil sich die Strahlen nicht bis zu den Sternen ausdehnen können. Vielmehr wäre es besser zu sagen, daß die Gestalt der Sterne und der gesehenen Objekte mit dem Gesichtssinn durch die Vermittlung des Leuchtenden verbunden ist. (Aber) [addidimus] diese Ansicht ist ein Geschwätz, denn sie würde zur Folge haben, daß die Bilder der großen Berge in das Sehorgan fallen.' *PHP* 7.5.1–5 τὸ βλεπόμενον σῶμα δυοῖν θάτερον· ἢ πέμπον τι πρὸς ἡμᾶς ἀφ' ἑαυτοῦ σὺν ἐκείνῳ καὶ τὴν ἰδίαν ἐνδείκνυται διάγνωσιν, ἢ εἴπερ αὐτὸ μηδὲν πέμπει, περιμένει τινὰ παρ' ἡμῶν ἀφικέσθαι δύναμιν αἰσθητικὴν ἐφ' ἑαυτό. (2) πότερον οὖν αὐτῶν ἐστὶν ἀληθέστερον ὧδ' ἂν μάλιστα κριθεῖν· διὰ τοῦ κατὰ τὴν κόρην τρήματος ὁρώμεν, ὅπερ εἰ περιέμενε πρὸς ἑαυτὸ παραγενέσθαι τινὰ μοῖραν ἢ δύναμιν ἢ εἶδωλον ἢ ποιότητα τῶν ἐκτὸς ὑποκειμένων σωμάτων, οὐκ ἂν τοῦ βλεπομένου τὸ μέγεθος ἐγνώκειμεν, οἷον ὄρους εἰ τύχοι μεγίστου. ... (4) τὸ δὲ ὀπτικὸν οὐχ οἶόν τε τοσαύτην ῥύσιν ἐκτείνόμενον λαμβάνειν ὥς περιχεῖσθαι παντὶ τῷ βλεπομένῳ σώματι· τοῦτο γὰρ ὁμοῖόν ἐστι τῷ τῶν Στωϊκῶν σταλαγμῷ (cf. *SVF* 2.480) κεραυνυμένῳ τῇ πάσῃ θαλάττῃ. (5) λείπεται οὖν ἔτι τὸν περίξ ἀέρα τοιοῦτον ὄργανον ἡμῖν γίγνεσθαι καθ' ὃν ὁρώμεν χρόνον, ὅποιον ἐν τῷ σώματι τὸ νεῦρον ὑπάρχει διὰ παντός. *PHP* 7.7.20–26 μὴ

τοίνυν ὡς διὰ βακτηρίας τοῦ περίξ ἀέρος ὁρᾶν ἡμᾶς οἱ Στωϊκοί (SVF 2.865) λεγέ-
 τωσαν ... (21) πολὺ τοίνυν ἄμεινον ὡς ἐν ἐσφαλμένοις Ἐπίκουρος (fr. 319 Usener)
 ἀπεφήνατο τῶν Στωϊκῶν (22) ἐκείνοι μὲν γὰρ τῶν ὁρατῶν οὐδὲν ἄγουσιν ἄχρι
 τῆς ὀπτικής δυνάμεως, ὁ δ' Ἐπίκουρος ἀπεφήνατο ἄγειν· καὶ πολὺ γε τοῦτου κρείτ-
 των Ἀριστοτέλης (*de An.* 2.7 419a13–21), οὐκ εἰδῶλον σωματικὸν ἀλλὰ ποιότητα
 δι' ἀλλοιώσεως τοῦ περίξ ἀέρος ἀπὸ τῶν ὁρατῶν ἄγων ἄχρι τῆς ὕψεως. CP c. 26,
 p. 148.5–11 Hankinson *puta mox in iis quae manifeste apparent, aut veniente
 aliquo ab hiis quae videntur ad oculos nostros aut aliquo a nobis ad singulum
 illorum aut omnino eo quod a nobis existit id quod ab eis fertur contangente
 videmus, aut neque ex illis ad nos neque a nobis ad illa lato aliquo sed per inter-
 medium sicut per baculum sensatio nostra de eis fit.* **Alexander of Aphrodis-
 ias(?)** *de An.Mant.* 127.27 tit. Πρὸς τοὺς δι' ἀκτίνων λέγοντας γίνεσθαι τὸ ὁρᾶν.
de An.Mant. 130.13 tit. Πρὸς τοὺς διὰ τῆς τοῦ ἀέρος συνεντάσεως τὸ ὁρᾶν ποιούν-
 τας. *de An.Mant.* 134.28–29 tit. Πρὸς τοὺς διὰ τῆς τῶν εἰδῶλων ἐμπτώσεως τὸ ὁρᾶν
 λέγοντας γίνεσθαι. *de An.Mant.* 136.29 tit. Πρὸς τοὺς διὰ τῆς ἀπορροίας τῆς ἀπ'
 ἀμφοῖν τὸ ὁρᾶν (γίνεσθαι) λέγοντας. **ps.Alexander Probl.** 2.53.3–9 Ideler τινὲς ἐκ
 πολλῆς κακίας ψυχῆς, φύσιν ἔχοντες ἐπὶ τοῖς καλοῖς δάκνεσθαι, τῷ ἀμέτρῳ φθόνῳ
 τῆς κακίας αὐτοῖς διεγειρομένης, ὥσπερ ἰώδης τις καὶ φθοροποιὸς ἀκτὺς ἔξεισιν ἀπὸ
 τῆς κόρης αὐτῶν· καὶ αὐτὴ εἰσιούσα διὰ τῶν ὀφθαλμῶν τοῦ φθονομένου τρέψει τὴν
 ψυχὴν καὶ τὴν φύσιν εἰς δυσκρασίαν καὶ τοὺς χυμοὺς ἐπὶ σῆψιν καὶ εἰς νόσον ἄγει τὰ
 σώματα τούτων. **Diogenes Laertius VP.** 1.7 (on the Magi, Arist. fr. 36 R³) ἀλλὰ
 καὶ εἰδῶλων πλήρη εἶναι τὸν ἀέρα, κατ' ἀπόρροϊαν ὑπ' ἀναθυμιάσεως εἰσκρινομέ-
 νων ταῖς ὕψει τῶν ὀξυδερκῶν. 9.103 (according to the Sceptics) τὸ μὲν γὰρ ὅτι
 ὁρώμεν ὁμολογοῦμεν καὶ τὸ ὅτι τόδε νοοῦμεν γινώσκουμεν, πῶς δ' ὁρώμεν ἢ πῶς νοοῦ-
 μεν ἀγνοοῦμεν. **Plotinus Enn.** 4.5[29]2.8–13 καὶ οἱ ἐκχέοντες δὲ τὰς ὀψεις οὐκ ἂν
 ἔχουσιν ἀκολουθοῦν τὸ πάντως μεταξὺ τι εἶναι, εἰ μὴ φοβοῖντο μὴ πέσῃ ἡ ἀκτίς· ἀλλὰ
 φωτὸς ἐστί, καὶ τὸ φῶς εὐθυποροῦν. οἱ δὲ τὴν ἔνστασιν αἰτιώμενοι δέοιντο ἂν πάν-
 τως τοῦ μεταξὺ. οἱ δὲ τῶν εἰδῶλων προστάται διὰ τοῦ κενοῦ λέγοντες διένειν χώραν
 ζητοῦσιν, ἵνα μὴ κωλυθῇ. **ps.Galen (i.e. Porphyry) ad Gaur.** 11.2 οὕτω γὰρ καὶ
 ὀφθαλμὸς ὁρᾷ οὐ κῶνον μέχρ' οὐρανοῦ διαταθέντος ἀπὸ τῆς κόρης οὐδὲ ἀκτίνων
 περιχύσεως εἰς τὸ ὁρατὸν γωνίας κλάσει ἀπεργασαμένης οὐδ' εἰδῶλων ἐκρυσθέντων
 ἀπὸ τῶν ὁρωμένων εἰς τὸ ὁρᾶν, τῷ δ' ἐπιτηδείως ἡρμόσθαι τὸ μὲν ὁρᾶν τὸ δ' ὁρᾶ-
 σθαι. **Porphyry at Nem. NH** 7, p. 59.13–18 Πορφύριος (264F Smith) δὲ ἐν τῷ
 Περὶ αἰσθήσεως οὔτε κῶνον οὔτε εἰδῶλον οὔτε ἄλλο τί φησιν αἵτιον εἶναι τοῦ ὁρᾶν
 ἀλλὰ τὴν ψυχὴν αὐτὴν ἐντυγχάνουσαν τοῖς ὁρατοῖς ἐπιγινώσκειν ἑαυτὴν οὖσαν τὰ
 ὁρατὰ τῷ τὴν ψυχὴν συνέχειν πάντα τὰ ὄντα καὶ εἶναι τὰ πάντα ψυχὴν συνέχουσιν
 σώματα διάφορα. μίαν γὰρ βουλόμενος εἶναι πάντων ψυχὴν τὴν λογικὴν εἰκότως
 φησὶ γνωρίζειν ἑαυτὴν ἐν πᾶσι τοῖς οὖσιν. **Arnobius Adv.Nat.** 2.7.8 *cum videre nos
 dicimus, radiorum et luminis intentione videamus an rerum imagines advolent
 et nostris in pupulis sidant?* **Iamblichus CMSc** c. 25.43–48 (Archytas fr. 25 text
 C. Huffman—after Aristotle's *de Pythagoreis*?) οἱ δὲ Πυθαγόρειοι διατρίψαντες
 ἐν τοῖς μαθήμασι καὶ τό τε ἀκριβὲς τῶν λόγων ἀγαπήσαντες, ὅτι μόνον εἶχεν ἀπο-
 δεῖξεις ὧν μετεχειρίζοντο ἄνθρωποι, καὶ ὁμολογούμενα ὁρῶντες ἔνισσον τὰ περὶ τὴν
 ἁρμονίαν ὅτι δι' ἀριθμῶν καὶ τὰ περὶ τὴν ὕψιν μαθήματα (ἔτι) διὰ (δια)γραμμάτων,

ὅλως αἷτια τῶν ὄντων ταῦτα ᾤθησαν εἶναι καὶ τὰς τούτων ἀρχάς. **Macrobius** *Sat.* 7.14.3–5 + 13–14 *ipsam vero videndi naturam non insubide introspexit Epicurus* (cf. fr. 319 Usener), *cuius in hoc non est ut aestimo improbanda sententia, adstipulante praecipue Democrito* (fr. 471 Luria), *qui sicut in ceteris ita et in hoc paria senserunt. ergo censet Epicurus ab omnibus corporibus iugi fluore quaeipiam simulacra manare, nec umquam tantulam moram intervenire quin ultro ferantur inani figura cohaerentes corporum exuviae, quarum receptacula in nostris oculis sunt et ideo ad deputatam sibi a natura sedem proprii sensus recurrunt. ... (13–14) in propatulo est ... quod decepit Epicurum. ... constat autem visum nobis hac provenire ratione. genuinem lumen e pupula, quaecumque eam verteris, directa linea emicat. id oculorum domesticum profluvium, si repperit in circumfuso nobis aëre lucem, per eam directim pergit quam diu corpus offendat. ... ergo tria ista necessaria nobis sunt: lumen quod de nobis emittimus, et ut aër qui interiacet lucidus sit, et corpus quo offenso desinat intentio. **Hunain ibn Ishaq** *The Book of the Ten Treatises of the Eye* III, pp. 31.20–33.31 Meyerhof. **Ibn Sina** (Avicenna) *al Sifa* p. 734 Horten–Wiedemann (pertains also to ch. 4.14) ‘Für die optische Wahrnehmung dieser Bilder gibt es drei Theorien. 1. Die Lehre von den Sehstrahlen; nach ihr tritt aus dem Auge ein Strahl aus, der sich von sich selbst aus bis zu dem glatten Gegenstande, den Spiegel, erstreckt. Dabei verwandelt er die in der Welt vorhandenen Strahlen, die sich ihm beimischen. ... 2. Nach der Lehre der reinen (*muḥassalin*) Naturphilosophen treten aus dem Auge absolut keine Strahlen aus. Es liegt vielmehr im Objekt selbst begründet, daß es sich im Auge abzeichnet, wenn es sich diesem gegenüber befindet; dabei muß das zwischen beiden liegende Medium durchsichtig und das Objekt ein Selbstleuchter sein. ... 3. Die dritte Theorie behauptet: Das Bild des Objekts wird so, wie letzteres in Wirklichkeit ist, im Spiegel abgebildet.’ *de An.* (trans. lat.) 3.5.32–47 Van Riet *dicimus ergo quod famosae sententiae de hoc* (sc. de visu) *tres sunt, quamvis unaquaeque earum habeat subdivisiones. una enim earum est sententia eorum qui tenent quod radii lineares exeunt de pupilla ad modum pyramidis, cuius caput est versus oculum et eius basis ad partem rei visae. ... alia vero sententia est eius qui tenet quod radius exit de pupilla, sed de toto eo non tantum pervenit quod tangat haemisphaerium caeli nisi per disgregationem ex qua provenit dilatio visus, sed, cum egreditur et coniungitur aeri lucido, fit ei aer instrumentum et apprehendet per illum. tertia autem sententia est eius qui tenet quod, sicut alia sensibilia non apprehenduntur ex hoc quod aliquid sensum pertingat ad illa vel offendant in illa vel coniungatur eis aut transmittat nuntium ad illa, sic visio non fit ideo quod radius exeat aliquo modo et occurrat viso, sed quia forma visi pervenit ad visum, translucente reddente ipsam.* (Engl. trans. from the Arabic of Avicenna’s own abridgement of this passage in his *Masriqiyyun* at Hasse 2000, 119–120). **Ibn al-Haytham** (**Alhacen**) *Kitab al-Manazir* (i.e. *Optics*) 1.1.[3] Sabra ‘Natural scientists (i.e. philosophers of nature) have inquired into the nature of this subject according to their art The learned among them settled upon the opinion that vision is effected by a form which comes from the visible object to the eye*

and through which sight perceives the form of the object. Mathematicians ... have continued through the ages to disagree about the principles of this subject. But for all ... the divergence of their views, in general they agree that vision is effected by a ray which issues from the eye to the visible object and by means of which sight perceives the object' etc. **Eustratius** in *EN* 271.3–5 ὥς γὰρ περὶ τὸ λευκὸν ἢ ὄρασις ἐνεργεῖ εἴτε εἰσδεχομένη εἴτε ἐκπέμπουσα κατὰ τὰς διαφόρους δόξας τῶν περὶ τῆς ὀπτικῆς φιλοσοφησάντων, καὶ περὶ τὸ μέλαν ὡσαύτως. **Barhebraeus** *Butyrum Sapientiae* V.II.i.1–3, p. 151 Takahashi 'Concerning how vision works there have been three opinions. One is that which says that a ray goes out from the visual organ and meets the object seen and conveys its image to the visual organ. ... The second opinion asserts that the image of the object seen is imprinted as it is in the eye and is seen. ... The third opinion is that of the natural philosophers who are correct in (their) inquiry, who say: When the object seen is (placed) opposite the visual organ and there is a transparent body between them, a likeness of the object seen is formed in the eye.' **Sophonias** in *de An.* 75.2–5 πῶς ποτε καὶ τὸ ὄρᾶν γίνεται, πότερον κατὰ τινων ἀκτίνων σωματικῶν ἐκπομπὴν ἀπὸ τῶν ὀμμάτων, ὥσπερ οἱ μαθηματικοὶ λέγουσιν, ἢ τῇ εἰσδοχῇ τῆς τῶν ὀρωμένων ποιότητος, ὥσπερ οἱ φυσικοὶ; ἢ ἕτερόν τι μᾶλλον καὶ τρίτον, καὶ τοῦτ' ἔσται δῆπου κατὰ συνάγειαν; **Leon Battista Alberti** *De pictura* 1.5, pp. 103–104 Sinisgalli *exordiamurque a Philosophorum sententia, qui metiri superficies affirmant radijs quibusdam quasi visendi ministris, quos idcirco visivos nuncupant, quod per eos rerum simulacra sensui imprimantur. ... verum non minima fuit, apud priscos, disceptatio a superficie, an ab oculo ipsi radij erumpant. quae disceptatio sane difficilis, atque apud nos admodum inutilis pretereatur.* **Hieronymus Mercurialis** *De morbis oculorum* fol. 2A (cf. Vanagt 2011, 119) *cum visio sit potius passio, quam actio; nam clarum est, visionem fieri patiente humore crystallino pro cuius resolutione dicendum est, fuisse peculiare Peripateticorum dogma, quod visio fiat per solam specierum receptionem, & ideo non est mirum, si Princeps dixerit, magis passione, quam actione perfici. medici alia via incedentes existimarunt (sc. visionem) fieri per receptionem specierum, & radiorum emissionem; unde cum receptio speciei passio quaedam sit, emissio autem, potius actio, iure dictum est, esse haec symptomata in genere actionis loesae (i.e. laesae).*

Chapter heading: **Aristotle** *Mete.* 3.2 372a31–32 ἐκ τῶν περὶ τὴν ὄψιν δεικνυμένων. *GA* 5.2 781b28–29 καὶ περὶ μὲν ὀψεως ... εἴρηται. **Theophrastus** *Sens.* 8 περὶ μὲν ὀψεως σχεδὸν ταῦτα λέγει. **ps.Aristotle** *Probl.* 16.1 913a26–27 δεικνυταὶ ἐν τοῖς Ὀπτικοῖς. *Probl.* 31 tit. Ὅσα περὶ ὀφθαλμούς. **Corpus Hippocraticum** Περὶ ὄψιος. **Aristombrotos** *Vis.* p. 54.24 Thesleff Ἀριστομβρότου Περὶ ὄψιος. **Galen** *PHP* 7.5.1 μάλιστα δ' ἂν πεισθῇ τις τοῦτο γίνεσθαι μαθὼν ὅπως εὐλογὸν ἐστὶν ὄρᾶν ἡμᾶς. **Alexander of Aphrodisias** *de An.* 43.16 ὥς δέδεικται ἐν τοῖς Περὶ τοῦ πῶς ὀρώμεν ἐζητημένοις. in *Sens.* 25.25–26 ἔλεγεν (sc. Aristotle) ἐν τοῖς Περὶ ψυχῆς περὶ τοῦ πῶς ὀρώμεν. in *Mete.* 141.11–12 ἐδείχθη ἐν τοῖς Περὶ τοῦ πῶς ὀρώμεν, ὦν καὶ αὐτὸς ἐν τοῖς Περὶ ψυχῆς ἐμνημόνευσε. **Fihrist** 7.1, p. 609 Dodge (title in catalogue of Alexander's books) 'That Visual Perceptions do not Exist

Except by Rays Traced from the Eye and a Refutation of Whoever Speaks of Diffusion of the Rays.' **Diogenes Laertius** *V.P.* 5.26 (on Aristotle) no. 114. Ὅπτικόν α'. *V.P.* 5.49 (Theophrastus fr. 265.5 FHS&G) Περὶ ὄψεως α' β' γ' δ'. *V.P.* 5.59 (Strato fr. 18 Wehrli, 1 Sharples) no. 19. Περὶ ὄψεως. *V.P.* 7.4 (*SVF* 1.41, Zeno) Περὶ ὄψεως. **Porphyry** *Plot.* 5 (tit. *Enn.* 4.5[29]) Περὶ ψυχῆς τρίτον ἢ Περὶ τοῦ πῶς ὁρώμεν. **Plotinus** *Enn.* 2.8[35] Περὶ ὁράσεως ἢ πῶς τὰ πόρρω ὁρώμενα μικρὰ φαίνεται. *Enn.* 4.5[29] same title **Porphy.** *Plot.* 25 Περὶ ψυχῆς τρίτον ἢ Περὶ ὄψεως. *Enn.* 4.5[29].1.15–16 περὶ δὲ τῆς ὁράσεως—εἰ δὲ καὶ περὶ τῆς ἀκοῆς, ὕστερον—ἀλλὰ περὶ τοῦ ὁρᾶν κτλ. **Vita Aristotelis Marciana** 4, Düring 97 Ὅπτικά προβλήματα. **Suda** s.v. Φ 418 φιλόσοφος (i.e. Philip of Opus fr. i Tarán, F31, F 32–33 Lasserre), p. 4.733.34 Adler Ὅπτικῶν β', Ἐνοπτικῶν β'.

§0 *Whether it exists:* **Diogenes Laertius** *V.P.* 9.103–104 (**Aenesidemus** fr. 5 Polito) τὸ μὲν γὰρ ὅτι ὁρώμεν ὁμολογοῦμεν καὶ {τὸ} ὅτι τὸδε νοοῦμεν γινώσκουμεν, πῶς δ' ὁρώμεν ἢ πῶς νοοῦμεν ἀγνοοῦμεν. ... (104) οὐ γὰρ τὸ ὁρᾶν ἀναιρεῖν, ἀλλὰ τὸ πῶς ὁρᾶν ἀγνοεῖν.

§1 **Leucippus Democritus Epicurus:** **Aristotle** *Div.* 2 464a5–6 ὥσπερ λέγει Δημόκριτος (fr. 472 Luria) εἶδωλα καὶ ἀπορροίας αἰτιώμενος. *Sens.* 2 438a5–12 Δημόκριτος (68A121 DK) ... ὅτι δ' οἶεται τὸ ὁρᾶν εἶναι τὴν ἔμφασιν, οὐ καλῶς ... ἄτοπον δὲ καὶ τὸ μὴ ἐπελθεῖν αὐτῷ ἀπορήσαι διὰ τί ὁ ὀφθαλμὸς ὁρᾷ μόνον, τῶν δ' ἄλλων οὐδὲν ἐν οἷς ἐμφαίνεται τὰ εἶδωλα. *Sens.* 2 438a25–27 ἄλογον δὲ ὅλως τὸ ἐξιώντι τινὶ τὴν ὄψιν ὁρᾶν, καὶ ἀποτείνεσθαι μέχρι τῶν ἄστρον, ἢ μέχρι τινὸς ἐξιοῦσαν συμφύεσθαι, καθάπερ λέγουσί τινες. **Theophrastus** *Sens.* 50 (on Democritus, 68A135 DK) ὁρᾶν μὲν οὖν ποιεῖ τῇ ἐμφάσει· ταύτην δὲ ἰδίως λέγει· τὴν γὰρ ἔμφασιν οὐκ εὐθὺς ἐν τῇ κόρῃ γίνεσθαι, ἀλλὰ τὸν ἀέρα τὸν μεταξὺ τῆς ὄψεως καὶ τοῦ ὁρωμένου τυποῦσθαι συσσελλόμενον ὑπὸ τοῦ ὁρωμένου καὶ τοῦ ὁρώντος· ἅπαντος γὰρ αἰεὶ γίνεσθαι τινὰ ἀπορροήν· ἔπειτα τοῦτον στερεὸν ὄντα καὶ ἀλλόχρων ἐμφαίνεσθαι τοῖς ὀμμασιν ὑγροῖς. καὶ τὸ μὲν πυκνὸν οὐ δέχεσθαι, τὸ δὲ ὑγρὸν διέναι. *Sens.* 80 (Democritus 68A135 DK) ὁρᾶν δὲ φησι διὰ τὴν ἀπορροήν καὶ τὴν ἔμφασιν τὴν εἰς τὴν ὄψιν. **Epicurus** *Ep.Hdt.* at D.L. 10.46 καὶ μὴν καὶ τύποι ὁμοιοσχήμενες τοῖς στερεμνίοις εἰσὶ ... τούτους δὲ τοὺς τύπους εἶδωλα προσαγορεύομεν κτλ. **Cicero** *ND* 1.108 *vos autem non modo oculis imagines sed etiam animis inculcatis.* *Fin.* 1.21 *quae sequitur sunt tota Democriti* (fr. 182 Luria), *atomi, inane, imagines, quae εἶδωλα nominant, quorum incursione non solum videamus, sed etiam cogitemus.* **Lucretius** *DRN* 4.256–258 *illud in his rebus minime mirabile habendumst, / cur, ea quae feriant oculos simulacra videri / singula cum nequeant, res ipsae perspiciantur.* *DRN* 6.921–923 *principio omnibus ab rebus, quascumque videmus, / perpetuo fluere ac mitti spargique necessest / corpora quae feriant oculos visumque lacessant.* **Galen** *PHP* 7.7.21–22 πολὺ τοῖνυν ἄμεινον ὥς ἐν ἐσφαλμένοις Ἐπίκουρος (fr. 319 Usener) ἀπεφάνητο τῶν Στωϊκῶν. (22) ἐκεῖνοι μὲν γὰρ τῶν ὁρατῶν οὐδὲν ἄγουσιν ἄχρι τῆς ὀπτικής δυνάμεως, ὁ δ' Ἐπίκουρος ἀπεφάνητο ἄγειν. **Diogenes of Oenoanda** fr. 9.ii.9–14 Smith τὰ οὖν ἀπὸ τῶν πραγμάτων ῥέοντα εἶδωλα, ἐνπερίπτοντα ἡμῶν | ταῖς ὄψεσιν, τοῦ τε ὁρᾶν | ἡμᾶς τὰ ὑποκείμενα | αἴτια γέινεται. **Alexander of Aphrodisias** in *Sens.* 24.18–21 ἡγεῖται δὲ αὐτός (sc. Democritus, fr. 477 Luria) τε καὶ πρὸ αὐτοῦ Λεὺκιππος καὶ ὕστε-

ρον δὲ οἱ περὶ τὸν Ἐπίκουρον (fr. 319 Usener) εἶδωλά τινα ἀπορρέοντα ὁμοίμορφα τοῖς ἀφ' ὧν ἀπορρεῖ (ταῦτα δὲ ἐστὶ τὰ ὁρατά) ἐμπίπτειν τοῖς τῶν ὁρώντων ὀφθαλμοῖς καὶ οὕτως τὸ ὁρᾶν γίνεσθαι. *in Sens.* 56.10–16 ἢ ἣν δόξα προκαταβεβλημένη περὶ τοῦ ὁρᾶν ὑπὸ τῶν ἀρχαίων, ὡς ἄρα τοῦ ὁρᾶν κατὰ τὴν ἀπὸ τῶν ὁρωμένων ἀπόρροϊαν γινομένου· εἶδωλα γάρ τινα ὁμοίμορφα ἀπὸ τῶν ὁρωμένων συνεχῶς ἀπορρέοντα καὶ ἐμπίπτοντα τῇ ὄψει τοῦ ὁρᾶν ἡτιῶντο. τοιοῦτοι δὲ ἦσαν οἱ τε περὶ Λεύκιππον (67A29 DK) καὶ Δημόκριτον. **Diogenes Laertius** *V.P.* 9.44 (on Democritus, 68A1 DK) ὁρᾶν δ' ἡμᾶς κατ' εἰδῶλων ἐμπτώσεις. **Etymologicum magnum** s.v. p. 260.40–41 Kallierges δείκελον· παρὰ δὲ Δημοκρίτῳ (68B123 DK) κατ' εἶδος ὁμοία τοῖς πράγμασιν ἀπόρροια. **Etymologicum magnum** p. 333.12–18 Kallierges s.v. γλαυῦ· ἔστι γὰρ ὀξυωπέστατον τὸ ζῶον, ἐν νυκτὶ ὁρᾶν θυνάμενον. Δημόκριτος (68A157 DK) δὲ ἵστορεῖ, ὅτι μόνον τῶν γαμψωνύχων καὶ σαρκοφάγων μὴ τυφλὰ τίκτει, ὅτι πολὺ πυρῶδες καὶ θερμὸν περὶ τοὺς ὀφθαλμοὺς ἔχει· ὁ σφοδρῶς ὀξὺ καὶ τμητικὸν ὑπάρχον, διαιρεῖ καὶ ἀναμίνγνυσι τὴν θρᾶσιν· διὸ καὶ ἐν ταῖς σκοτομήνησιν ὀρᾷ, διὰ τὸ πυρῶδες τῶν ὄψεων. **Gregory of Nyssa** *in Cant.* 105.11–13 Langerbeck φασὶ γὰρ οἱ τὰ τοιαῦτα φυσιολογεῖν ἐπιστήμονες ὅτι τὰς τῶν εἰδῶλων ἐμπτώσεις δεχόμενος, αἱ τῶν ὁρατῶν ἀπορρέουσιν, οὕτως ἐνεργεῖ τὴν ὄψιν ὁ ὀφθαλμός.

§3 Strato: Plutarch *Quaest. Conv.* 626A (Hieronymus of Rhodes fr. 53 Wehrli) ὅτι τοῖς προσπίπτουσιν ἀπὸ τῶν ὁρατῶν εἶδεσιν πρὸς τὴν ὄψιν κτλ. **Plotinus** *Enn.* 4.5[29]2.4–6 εἰ δὲ τροπὴν ἐργάζεται τὸ ὑποκείμενον σῶμα κεχρωσμένον, τί καλύει τὴν τροπὴν εὐθὺς πρὸς τὸ ὄμμα ἰέναι μηδενὸς ὄντος μεταξύ;

§5 Hipparchus: ps.Aristotle *Probl.* 31.16 959a2–6 διὰ τί οἱ μύωπες συνάγοντες τὰ βλέφαρα ὁρῶσιν; ἢ δι' ἀσθένειαν τῆς ὄψεως, ὥσπερ καὶ οἱ πρὸς τὰ πόρρω τὴν χεῖρα προσάγοντες, οὕτω καὶ τὰ βλέφαρα πρὸς τὰ ἐγγὺς προστίθενται ὥσπερ χεῖρα; **Arrian** *Reb. Phys.* fr. 3, p. 2.187.17–18 Roos–Wirth at Stob. *Ecl.* 1.29.2 (Posidonius fr. 338b Theiler) ὄψις δὲ ἐπὶ τὸ ὁρώμενον αὐτὸ ἐκπέμπεται. **Plotinus** *Enn.* 4.5[29]2.12–13 καὶ οἱ ἐχέοντες δὲ τὰς ὄψεις οὐκ ἂν ἔχοιεν ἀκολουθοῦν τὸ πάντως μεταξύ τι εἶναι, εἰ μὴ φοβοῖντο μὴ πέση ἡ ἀκτίς· ἀλλὰ φωτὸς ἐστὶ, καὶ τὸ φῶς εὐθυποροῦν. **Porphyry** *in Harm.* p. 32.7–8 & 17–20 ἡ ὄρασις ἐκπέμπουσα ἐπὶ τὸ ὑποκείμενον τὴν ὄψιν κατὰ διάδοσιν, ὥς φασιν οἱ μαθηματικοί, τὴν ἀντίληψιν ποιεῖται τοῦ ὑποκειμένου. ... ἢ μὲν γὰρ ὄψις τὰ ἐκτὸς ὀρᾷ ἐπιβάλλουσα αὐτοῖς, ὧν τὴν ἀντίληψιν ποιεῖται, λέγω δ' ἐπὶ τε μείζονος καὶ ἐλάττονος διαστήματος, καὶ διὰ τοῦτο δόξαν οὐκ ἀπίθανον ἡμῖν τοῦ αὐτὴν θεωρεῖν τὰ ἐν σχέσει παρέχει.

§6 Pythagoras: Pythagorica Hypomnemata at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58B1a DK) at D.L. 8.29 τὴν τ' αἴσθησιν κοινῶς καὶ κατ' εἶδος τὴν θρᾶσιν ἀτμόν τιν' ἄγαν εἶναι θερμόν. καὶ διὰ τοῦτον λέγεται δι' ἄερος ὁρᾶν καὶ δι' ὕδατος· ἀντερείδεσθαι γὰρ τὸ θερμόν ἐπὶ τοῦ ψυχροῦ. ἐπεὶ τοι εἰ ψυχρὸς ἦν ὁ ἐν τοῖς ὅμμασιν ἀτμός, διειστήκει ἂν πρὸς τὸν ὅμοιον ἀέρα· νῦν δὲ ἔστιν ἐν οἷς ἡλίου πύλας καλεῖ τοὺς ὀφθαλμούς.

§7 Plato: Plato *Thet.* 156d–e ἐπειδὴν οὖν ὄμμα καὶ ἄλλο τι τῶν τούτῳ συμμετρῶν πλησίανσαν γεννήσῃ τὴν λευκότητά τε καὶ αἴσθησιν αὐτῇ σύμφυτον, ἃ οὐκ ἂν ποτε ἐγένετο ἐκατέρου ἐκείνων πρὸς ἄλλο ἐλθόντος, τότε δὴ μεταξύ φερομένων τῆς μὲν ὄψεως πρὸς τῶν ὀφθαλμῶν, τῆς δὲ λευκότητος πρὸς τοῦ συναποτίκτοντος τὸ χρῶμα, ὁ μὲν ὀφθαλμός ἄρα ὄψεως ἔμπλεως ἐγένετο καὶ ὀρᾷ δὴ τότε καὶ ἐγένετο

οὐ τι ὄψις ἀλλ' ὀφθαλμός ὁρῶν, τὸ δὲ συγγενήσαν τὸ χρώμα λευκότητος περιεπλήσθη καὶ ἐγένετο οὐ λευκότης αὖ ἀλλὰ λευκόν. *Resp.* 507d–508b ἐνούσης που ἐν ὀμμασιν ὀψεως καὶ ἐπιχειροῦντος τοῦ ἔχοντος χρῆσθαι αὐτῇ, παρούσης δὲ χρώας ἐν αὐτοῖς, ἐὰν μὴ (ε) παραγένηται γένος τρίτον ἰδίᾳ ἐπ' αὐτὸ τοῦτο πεφυκός, οἶσθα ὅτι ἡ τε ὄψις οὐδὲν ὄψεται, τὰ τε χρώματα ἔσται ἀόρατα. κτλ. *Tim.* 45b–d (cited Galen *PHP* 7.6.5–9) τὸ γὰρ ἐντὸς ἡμῶν ἀδελφὸν ὃν τούτου πῦρ εἰλικρινές ἐποίησαν διὰ τῶν ὀμμάτων ρεῖν λείον καὶ πυκνὸν ὅλον μὲν, μάλιστα δὲ τὸ μέσον συμπίλησαντες (c) τῶν ὀμμάτων, ὥστε τὸ μὲν ἄλλο ὅσον παχύτερον στέγειν πᾶν, τὸ τοιοῦτον δὲ μόνον αὐτὸ καθαρὸν διηθεῖν. ὅταν οὖν μεθημερινὸν ἢ φῶς περὶ τὸ τῆς ὀψεως ρεῖμα, τότε ἐκπίπτουν ὅμοιον πρὸς ὅμοιον, συμπαγές γενόμενον, ἐν σώμα οἰκειωθὲν συνέστη κατὰ τὴν τῶν ὀμμάτων εὐθυωρίαν, ὅπηπερ ἂν ἀντρεῖδι τὸ προσπίπτον ἐνδοθεν πρὸς ὃ τῶν ἔξω συνέπεσεν. ὁμοιοπαθὲς δὴ δι' ὁμοιότητα πᾶν γενόμενον, ὅτου τε ἂν αὐτὸ (d) ποτε ἐφάπτηται καὶ ὃ ἂν ἄλλο ἐκείνου, τούτων τὰς κινήσεις διαδιδὼν εἰς ἅπαν τὸ σῶμα μέχρι τῆς ψυχῆς αἰσθησιν παρέσχετο ταύτην ἢ δὴ ὁρᾶν φαμεν. *Tim.* 67c τέταρτον δὴ λοιπὸν ἔτι γένος ἡμῖν αἰσθητικόν, ὃ διελέσθαι δεῖ συχνὰ ἐν ἑαυτῷ ποικίλματα κεκτημένον, ἃ σύμπαντα μὲν χρώας ἐκαλέσαμεν, φλόγα τῶν σωμάτων ἐκάστων ἀπορρέουσιν, ὅψει σύμμετρα μόρια ἔχουσιν πρὸς αἰσθησιν· ὀψεως δ' ἐν τοῖς πρόσθεν αὐτὸ περὶ τῶν αἰτίων τῆς γενέσεως ἐρρήθη. **Theophrastus** *Sens.* 5 τὴν μὲν ὄψιν ποιεῖ (sc. Plato) πυρὸς (διὸ καὶ τὸ χρώμα φλόγα τιν' ἀπὸ τῶν σωμάτων σύμμετρα μόρια τῇ ὀψει ἔχουσιν), ὡς ἀπορροῆς τε γινομένης καὶ δέον συναρμόττειν ἀλλήλοις ἐξιῶσαν μέχρι τινὸς συμφύεσθαι τῇ ἀπορροῇ καὶ οὕτως ὁρᾶν ἡμᾶς· ὥσπερ ἂν εἰς τὸ μέσον τιθεῖς τὴν ἑαυτοῦ δόξαν τῶν τε φασκόντων προσπίπτειν τὴν ὄψιν καὶ τῶν φέρεσθαι πρὸς αὐτὴν ἀπὸ τῶν ὁρατῶν. **Plutarch** *Quaest. Conv.* 626C ἡμεῖς δὲ τὴν Πλατωνικὴν φυλάττοντες ἀρχὴν ἐλέγομεν ὅτι πνεῦμα τῶν ὀμμάτων αὐγροειδὲς ἐκπίπτει ἀνακίρναται τῷ περὶ τὰ σώματα φωτὶ καὶ λαμβάνει σύμπληξιν, ὥσθ' ἐν ἑξ ἁμφοῖν σῶμα δι' ὅλου συμπαθὲς γενέσθαι κτλ. **Alcinous** *Did.* 18 p. 173.16–23 H. ἰδρῦσαντες δὲ περὶ τὸ πρόσωπον τὰ φωσφόρα ὀμματα καθεῖρξαν ἐν αὐτοῖς τοῦ πυρὸς τὸ φωτοειδές, ὅπερ λείον ὑπάρχον καὶ πυκνὸν ἀδελφὸν ὥοντο εἶναι τοῦ μεθημερινοῦ φωτός. τοῦτο δὴ ῥᾶστα δι' ὅλων μὲν τῶν ὀφθαλμῶν, μάλιστα δὲ κατὰ τὸ μέσον αὐτῶν διεκθεῖ, τὸ καθαρώτατόν τε καὶ εἰλικρινέστατον· ὃ γινόμενον συμπαγές τῷ ἔξωθεν, ὅμοιον ὁμοίῳ, ὁρατικὴν αἰσθησιν παρέχεται· ὅθεν καὶ τοῦ φωτός νύκτωρ ἀπίοντος ἡ σκοτωθέντος οὐκέτι προσφύεται τὸ ἀφ' ἡμῶν ρεῖμα τῷ πλησίον ἀέρι, συνεχόμενον δὲ ἐντὸς ὁμαλύνει τε καὶ διαχεῖ τὰς ἐν ἡμῖν κινήσεις, ἐπαγωγὸν ὕπνου γινόμενον, παρ' ὃ καὶ μῦει τὰ βλέφαρα. **Pollux** *Onom.* 2.63 ὃ δὲ Πλάτων (*Tim.* 45b) εἶρηκε φωσφόρα ὀμματα· λέγοντο δ' ἂν ὀφθαλμοὶ λάμποντες, στίλβοντες, θυμοειδεῖς, πυρώδεις· μαρμαρυγὰς ἀφιέντες, αἰγλήν, αὐγλήν. **Alexander of Aphrodisias** in *Sens.* 33.1–2 ὃ γὰρ Πλάτων σύμφυσιν εἶπε γίνεσθαι τοῦ τ' ἐξίοντος ἐκ τῆς ὀψεως φωτός καὶ τοῦ ἐκτός. **Plotinus** *Enn.* 4.5[29].2.1–4 εἰ μὲν οὖν τοιοῦτόν ἐστι τὸ ὁρᾶν, οἶον τὸ τῆς ὀψεως φῶς συνάπτειν πρὸς τὸ μεταξὺ [φῶς del. edd.] μέχρι τοῦ αἰσθητοῦ, δεῖ μεταξὺ τοῦτο εἶναι τὸ φῶς, καὶ ἡ ὑπόθεσις αὕτη τὸ μεταξὺ τοῦτο ζητεῖ. *Enn.* 4.5[29].4.1–4 ἀλλὰ τὸ συναφές τῆς ὀψεως φῶς πρὸς τὸ περὶ τὴν ὄψιν καὶ μέχρι τοῦ αἰσθητοῦ πῶς; ἡ πρῶτον μὲν τοῦ μεταξὺ ἀέρος οὐ δεῖται, εἰ μὴ ἄρα τὸ φῶς οὐκ ἂν ἀέρος ἄνεν λέγοιτο. *Enn.* 6.7[38].1.1–2 ὁ θεὸς ἢ θεὸς τις τὰς ψυχὰς φωσφόρα περὶ τὸ πρόσωπον ἔθηκεν ὀμματα. **Augustine** *Gen. ad litt.* 1.16, p. 23.9–19

Zycha iactus enim radiorum ex oculis nostris cuiusdam quidem lucis est iactus et contrahi potest, cum aërem, qui est oculis nostris proximus, intuemur, et emitti, cum ad eandem rectitudinem quae sunt longe posita adtendimus. nec sane, cum contrahitur, omnino cernere, quae longe sunt, desinit, sed certe obscurius, quam cum in ea obtutus emittitur. sed tamen ea lux, quae in sensu videntis est, tam exigua docetur, ut, nisi adiuvetur extraria luce, nihil videre possimus; et quia discerni ab ea non potest, quo exemplo demonstrari possit emissio in diem et contractio lucis in noctem, sicut dixi, reperire difficile est. **Damianus Opt.** 6.1 γινώσκειν δὲ δεῖ ὅτι τὸ κωνικὸν τοῦτο καὶ φωτοειδὲς τῆς ὕψεως σχῆμα διὰ τῶν ἀδῆλων πόρων τῆς κόρης φερόμενον σχίζεται ἐξ ἀνάγκης εἰς κεχωρισμένας μὲν ἀλλήλων ἀκτίνας, συναυγαζούσας δὲ πάντα τὸν μεταξὺ αὐτῶν τόπον, τουτέστιν ὅλου τοῦ κώνου τὸ βάθος.

§8 Alcmaeon: Theophrastus Sens. 26 (Alcmaeon 24A5 DK) ὁφθαλμοὺς δὲ ὁρᾶν διὰ τοῦ περὶ ὕδατος· ὅτι δ' ἔχει πῦρ δῆλον εἶναι, πληγέντος γὰρ ἐκλάμπειν. ὁρᾶν δὲ τῷ στίλβοντι καὶ τῷ διαφανεῖ, ὅταν ἀντιφαίνῃ, καὶ ὅσω ἂν καθαρώτερον ᾖ, μᾶλλον.

§9 Aristotle: Aristotle Top. 1.14 105b6–10 ὅτι ὁρώμεν εἰσδεχόμενοι τι, οὐκ ἐκπέμποντες· καὶ γὰρ ἐπὶ τῶν ἄλλων αἰσθήσεων οὕτως· ἀκούομεν τε γὰρ εἰσδεχόμενοι τι, οὐκ ἐκπέμποντες, καὶ γευόμεθα ὡσαύτως· ὁμοίως δὲ καὶ ἐπὶ τῶν ἄλλων. *de An.* 2.6 418a31–b10 πᾶν δὲ χρῶμα κινητικόν ἐστι τοῦ κατ' ἐνέργειαν διαφανοῦς, καὶ τοῦτ' ἐστὶν αὐτοῦ ἡ φύσις· διόπερ οὐχ ὁρατὸν ἄνευ φωτός, ἀλλὰ πᾶν τὸ ἐκάστου χρῶμα ἐν φωτὶ ὁράται. διὸ περὶ φωτὸς πρῶτον λεκτέον τί ἐστίν. ἔστι δὴ τι διαφανές· διαφανές δὲ λέγω ὃ ἔστι μὲν ὁρατόν, οὐ καθ' αὐτὸ δὲ ὁρατόν ὡς ἀπλῶς εἰπεῖν, ἀλλὰ δι' ἄλλοτριον χρῶμα. τοιοῦτον δὲ ἐστὶν ἀήρ καὶ ὕδωρ καὶ πολλὰ τῶν στερεῶν· οὐ γὰρ ἢ ὕδωρ οὐδ' ἢ ἀήρ, διαφανές, ἀλλ' ὅτι ἔστι τις φύσις ἐνυπάρχουσα ἡ αὕτη ἐν τοῦτοις ἀμφοτέροις καὶ ἐν τῷ αἰδίῳ τῷ ἄνω σώματι. φῶς δὲ ἐστὶν ἡ τοῦτου ἐνέργεια, τοῦ διαφανοῦς ἢ διαφανές. *Sens.* 2 438b2–5 περὶ μὲν οὖν τοῦ ἄνευ φωτὸς μὴ ὁρᾶν εἴρηται ἐν ἄλλοις· ἀλλ' εἴτε φῶς εἴτ' ἀήρ ἐστὶ τὸ μεταξὺ τοῦ ὁρωμένου καὶ τοῦ ὁμματος, ἡ διὰ τοῦτου κίνησις ἐστὶν ἡ ποιοῦσα τὸ ὁρᾶν. *differently Mete.* 3.2 372a29–32 ὅτι μὲν οὖν ἡ ὕψις ἀνακλᾶται, ὥσπερ καὶ ἀφ' ὕδατος, οὕτω καὶ ἀπὸ ἀέρος καὶ πάντων τῶν ἐχόντων τὴν ἐπιφάνειαν λεῖαν, ἐκ τῶν περὶ τὴν ὅψιν δεικνυμένων δεῖ λαμβάνειν τὴν πίστιν. *Mete.* 3.4.373b2–9 διὰ δὲ τὴν τῆς ὕψεως ἀσθένειαν πολλὰκις καὶ ἄνευ συστάσεως ποιεῖ ἀνάκλασιν, οἷον ποτε συνέβαινέ τινα πάθος ἡρέμα καὶ οὐκ ὁξὺ βλέποντι· αἰεὶ γὰρ εἰδῶλον ἐδόκει προηγείσθαι βαδίζοντι αὐτῷ, ἐξ ἐναντίας βλέπον πρὸς αὐτόν. τοῦτο δ' ἔπασχε διὰ τὸ τὴν ὅψιν ἀνακλᾶσθαι πρὸς αὐτόν· οὕτω γὰρ ἀσθενὴς ἦν καὶ λεπτή πάμπαν ὑπὸ τῆς ἀρρωστίας, ὥστ' ἔνοπτρον ἐγίγνετο καὶ ὁ πλησίον ἀήρ. cf. *Seneca Nat.* 1.3.7 *Aristoteles idem iudicat: 'ab omni' inquit 'levitate acies radios suos replicat; nihil autem est levius aqua et aëre; ergo etiam ab aëre spisso visus noster in nos redit. ubi vero acies hebes et infirma est, qualislibet aëris ictu deficiet. quidam itaque hoc genere valetudinis laborant ut ipsi sibi videantur occurrere, ut ubique imaginem suam cernant. quare? quia infirma vis oculorum non potest percurrere ne sibi quidem proximum aëra, sed resistit'.*

§10 Academics: Alexander of Aphrodisias(?) de An.Mant. 127.28–29 εἰ κατὰ ἀκτίνων ἔχρυσιν καὶ πρόπτωσιν τὸ ὁρᾶν, δῆλον ὅτι σώματα αὐταί. **Plotinus**

Enn. 4.5[29]2.8–12 καὶ οἱ ἐκχέοντες δὲ τὰς ὀψεις οὐκ ἂν ἔχοιεν ἀκολουθοῦν τὸ πάντως μεταξὺ τι εἶναι, εἰ μὴ φοβοῖντο μὴ πέση ἢ ἀκτίς· οἱ δὲ τὴν ἔνστασιν αἰτιώμενοι δέοιντο ἂν πάντως τοῦ μεταξὺ.

§11 *Posidonius: Etymologicum magnum* p. 645.52–54 Kallierges ὀψίς· ὡς μὲν Ποσειδώνιος (F 193 E.-K., 394 Theiler), παρὰ τὸ ἄπτω ἄψω, ἀψίς τις οὖσα, ἡ φῶς ἐμποιοῦσα καὶ καταυγάζουσα τῶν ὑποκειμένων ἕκαστα, ὡς πῦρ. **Sextus Empiricus** *M.* 7.93 καὶ ὡς τὸ μὲν φῶς, φησὶν ὁ Ποσειδώνιος (F 85 E.-K., 395a Theiler) τὸν Πλάτωνος Τίμαιον ἐξηγούμενος, ὑπὸ τῆς φωτοειδοῦς ὀψεως καταλαμβάνεται ἡ δὲ φωνὴ ὑπὸ τῆς ἀεροειδοῦς ἀκοῆς, οὕτω καὶ ἡ τῶν ὄλων φύσις ὑπὸ συγγενοῦς ὀφείλει καταλαμβάνεσθαι τοῦ λόγου. *M.* 7.119 Πλάτων δὲ ἐν τῷ Τιμαίῳ (*Tim.* 45b) πρὸς παράστασιν τοῦ ἀσώματου εἶναι τὴν ψυχὴν τῷ αὐτῷ γένει τῆς ἀποδείξεως κέχρηται. εἰ γὰρ ἡ μὲν ὄρασις, φησί, φωτὸς ἀντιλαμβανομένη εὐθύς ἐστὶ φωτοειδής, ἡ δὲ ἀκοὴ ἀέρα πεπληγμένον κρίνουσα, ὅπερ ἐστὶ τὴν φωνήν, εὐθύς ἀεροειδὴς θεωρεῖται, ἡ δὲ ὁσφρησις ἀτμοὺς γνωρίζουσα πάντως ἐστὶν ἀτμοειδής καὶ ἡ γεῦσις χυλοὺς χυλοειδής, κατ' ἀνάγκην καὶ ἡ ψυχὴ τὰς ἀσωμάτων ιδέας λαμβάνουσα κτλ. **Plotinus** *Enn.* 1.6[1].9 οὐ γὰρ ἂν πώποτε εἶδεν ὀφθαλμὸς ἥλιον ἡλιοειδὴς μὴ γεγεννημένος κτλ. (Ficino's translation read by Goethe runs *neque vero oculus unquam videret solem, nisi factus solaris esset*).

§12 *Empedocles: Empedocles* 31B84.5–11 DK πῦρ δ' ἔξω διαθρῶσκον, ὅσον ταναώτερον ἦεν, / λάμπεσκεν κατὰ βηλὸν ἀτειρέσιν ἀκτίνεσσιν· [...] / (11) πῦρ δ' ἔξω διέσκεν, ὅσον ταναώτερον ἦεν. 31B89 DK γνούς, ὅτι πάντων εἰσὶν ἀπορροαί, ὅσσ' ἐγένοντο. **Plato** *Men.* 76c–d οὐκοῦν λέγετε ἀπορροάς τινας τῶν ὄντων κατὰ Ἐμπεδοκλέα (31A92 DK);—σφόδρα γε.—καὶ πόρους εἰς οὓς καὶ δι' ὧν αἱ ἀπορροαὶ πορεύονται;—πάνυ γε.—καὶ τῶν ἀπορροῶν τὰς μὲν ἀρμόττειν ἐνίοις τῶν (d) πόρων, τὰς δὲ ἐλάττους ἢ μείζους εἶναι;—ἐστὶ ταῦτα.—οὐκοῦν καὶ ὄψιν καλεῖς τι;—ἔγωγε.—ἐκ τούτων δὴ 'σύνες ὅ τοι λέγω', ἔφη Πίνδαρος (fr. 105a Maehler). ἔστιν γὰρ χροὰ ἀπορροὴ σχημάτων ὅψει σύμμετρος καὶ αἰσθητός. **Aristotle** *Sens.* 2 437b10–15 ἐπεὶ εἴ γε πῦρ ἦν (sc. ὁ ὀφθαλμός), καθάπερ Ἐμπεδοκλῆς (cf. 31B84 DK) φησὶ καὶ ἐν τῷ Τιμαίῳ (*Tim.* 45b–46a) γέγραπται, καὶ συνέβαινε τὸ ὁρᾶν ἐξίόντος ὥσπερ ἐκ λαμπτήρος τοῦ φωτός (κτλ.). *Sens.* 2 437b23–438a4 Ἐμπεδοκλῆς (on 31B84 DK) δ' ἔοικε νομίζοντι ὅτε μὲν ἐξιόντος τοῦ φωτός, ὥσπερ εἴρηται πρότερον, βλέπειν· λέγει γοῦν οὕτως· (31B84 DK follows) ... ὅτε μὲν οὖν οὕτως ὁρᾶν φησὶν, ὅτε δὲ ταῖς ἀπορροαῖς ταῖς ἀπὸ τῶν ὁρωμένων. *GC* 1.8 324b26–29 τοῖς μὲν οὖν δοκεῖ πάσχειν ἕκαστον διὰ τινων πόρων εἰσιόντος τοῦ ποιούντος ἐσχάτου καὶ κυριωτάτου, καὶ τοῦτον τὸν τρόπον καὶ ὁρᾶν καὶ ἀκούειν ἡμᾶς φασὶ καὶ τὰς ἄλλας αἰσθήσεις αἰσθάνεσθαι πάσας. ... οἱ μὲν οὖν ἐπὶ τινων οὕτω διώρισαν, ὥσπερ καὶ Ἐμπεδοκλῆς (31A87 DK). **Theophrastus** *Sens.* 7 φησὶ (Empedocles 31A86 DK) τὸ μὲν ἐντὸς αὐτῆς (sc. τῆς ὀψεως) εἶναι πῦρ, τὸ δὲ περὶ αὐτὸ γῆν καὶ ἀέρα, δι' ὧν διέναι λεπτὸν ὃν καθάπερ τὸ ἐν τοῖς λαμπτήρσι φῶς. ... φέρεσθαι δὲ τὰ χρώματα πρὸς τὴν ὄψιν διὰ τὴν ἀπορροήν. **Alexander of Aphrodisias** in *Sens.* 23.6–24.9 λέγει δὲ αὐτὸν ποτὲ μὲν τὸ ἀπὸ τῆς ὀψεως ἐκπεμπόμενον φῶς αἰτιάσθαι τοῦ ὁρᾶν, ποτὲ δὲ ἀπορροίας τινὰς ἀπὸ τῶν ὁρωμένων. καὶ πρῶτόν γε παρατίθεται αὐτοῦ τὰ ἔπη (sc. 31B84 DK) δι' ὧν ἡγείται καὶ αὐτὸς πῦρ εἶναι τὸ φῶς καὶ τοῦτο ἐκ τῶν ὀφθαλμῶν προχεῖσθαι τε καὶ ἐκπέμπεσθαι καὶ τούτῳ τὸ ὁρᾶν γίνεσθαι. ... δεῖξας δὲ αὐτὸν διὰ

τούτων τῶν ἐπῶν ταῦτα λέγοντα, προστίθῃσι τὸ ὅτ' ἐμὲν οὕτως ὁρᾶν φησίν, ὅτ' ἐδὲ ταῖς ἀπορροαῖς ταῖς ἀπὸ τῶν ὁρωμένων ἀπορρεῖν τινά, ἃ προσπίπτοντα τῇ ὄψει, ὅταν ἐναρμόσῃ τοῖς ἐν αὐτῇ πόροις τῷ εἶναι σύμμετρα, εἴσω τε χωρεῖν καὶ οὕτως τὸ ὁρᾶν γίνεσθαι. ταύτης τῆς δόξης καὶ Πλάτων μνημονεύει ὡς οὕσης Ἐμπεδοκλέους ἐν Μένωνι (76c–d), καὶ ὀρίζεται κατὰ τὴν δόξαν τὴν ἐκείνου τὸ χρῶμα ἀπορροὴν σωμάτων ὄψει σύμμετρον καὶ αἰσθητήν. *in Sens.* 56.15–16 ἀλλὰ καὶ Ἐμπεδοκλῆς οὕτω (sc. εἶδωλα γὰρ τινὰ ὁμοιόμορφα ἀπὸ τῶν ὁρωμένων συνεχῶς ἀπορρέοντα καὶ ἐμπίπτοντα τῇ ὄψει) τὸ ὁρᾶν γίνεσθαι λέγει, ὡς πρὸ ὀλίγου ἐμνημόνευσεν.

Liber 4 Caput 14

P^B: ps.Plutarchus *Plac.* 901C–D; p. 405^a1–25 Diels—**P^G**: ps.Galenus *HPh* c. 95; pp. 636.27–637.4 Diels—**P^Q**: Qustā ibn Lūqā pp. 203–205 Daiber
S: Stobaeus *Ecl.* 1.52.14–16, pp. 485.11–486.2 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b32 Henry (titulus solus)

Titulus ιδ'. Περὶ κατοπτρικῶν ἐμφάσεων (P,S)

- §1 Ἐμπεδοκλῆς κατ' ἀπορροίας τὰς συνισταμένας μὲν ἐπὶ τῆς ἐπιφανείας τοῦ κατόπτρου, πλουμένας δ' ὑπὸ τοῦ ἐκκρινόμενου ἐκ τοῦ κατόπτρου πυρώδους καὶ τὸν προκείμενον ἄερα, εἰς ὃν φέρεται τὰ ρεύματα, συμ-
 μεταφέροντος. (P1,S1) 5
- §2 Λεύκιππος Δημόκριτος Ἐπίκουρος τὰς κατοπτρικὰς ἐμφάσεις γίνεσθαι κατ' εἰδῶλων παραστάσεις, ἅτινα φέρεσθαι μὲν ἄφ' ἡμῶν, συνίστασθαι δὲ ἐπὶ τοῦ κατόπτρου, κατ' ἀντιπεριστροφὴν. (P2,S2)
- §3 οἱ ἀπὸ Πυθαγόρου καὶ τῶν μαθηματικῶν κατ' ἀντανακλάσεις τῆς ὀψεως φέρεσθαι μὲν γὰρ τὴν ὄψιν τεταμένην ὡς ἐπὶ τὸν χαλκόν, ἐντυχοῦσαν δὲ πυκνῷ καὶ λείῳ πληχθεῖσαν ὑποστρέφειν αὐτὴν ἐφ' ἑαυτήν, ὅμοιον τι πάσχουσιν τῇ ἐκτάσει τῆς χειρὸς καὶ τῇ ἐπὶ τὸν ὦμον ἀντεπιστροφῇ. (P3,S3) 10

§1 Empedocles 31A88 DK; §2 Leucippus, Democritus 67A31 DK; Epicurus fr. 320 Usener; §3 Pythagorei et mathematici Archytas fr. A25 text A Huffman

titulus κατοπτρικῶν ἐμφάσεων **P^B**S : κατόπτρων **P^G** : Bilder, welche in den Spiegeln gesehen werden Q §1 [2] κατ' ἀπορροίας **P^BS^L** : das Fließen von Strahlen aus dem Gesichtssinn Q || ἐπιφανείας **P^{B(1,11)Q}S^L** : ἐμφανείας **P^{B(11)}** || [3] πλουμένας **S^L** prob. Diels Lachenaud : τελειο-
 ουμένας **P^B** crucif. Mau : sie werden sichtbar Q || [4] πυρώδους **P^BS^L** : Strahlen Q || [4–5] συμ-
 μεταφέροντος **P^B** : durch ihre Rückkehr zu dem Gesichtssinn Q : συντρεφόντος **S^L**, corr. Diels Wachsmuth §2 [6] Λεύκιππος ... Ἐπίκουρος **S^L** : Λεύκιππος om. **P^BG** : Λεύκιππος
 Δημόκριτος om. **P^Q** || [7] παραστάσεις scripsimus cf. c. 5.2.1 τὰς τῶν εἰδῶλων παραστάσεις :
 ὑποστάσεις **P^B** crucif. Lachenaud prob. Koenen (1995) 48–49 : ἐπιστάσεις **P^G**, dub. an rec-
 tius Mau : Einprägen, die sich in ihnen ausdrücken Q : ἐμφάσεις **S^L** Diels **DG** : ἐνστάσεις coni.
 Meineke (cf. c. 4.13.10[2]) prob. Diels VS Laks–Most : ἀποστάσεις coni. Usener cf. Epicur.
 fr. 320 || ἅτινα ... ἡμῶν om. **P^Q** || [8] κατ' ἀντιπεριστροφὴν **P^B** : κατὰ ἀντιστροφὴν **P^G** : auf dem
 Wege der Rückkehr zu ihnen (den Dingen) Q : κατ' ἀντεπιστροφὴν **S^L** §3 [9] οἱ **P^BG^Q** : om.
S^L, corr. edd., οἱ πλείστοι τῶν coni. Usener || καὶ τῶν μαθηματικῶν **S^L** : om **P^BG^Q** || ἀντανακλά-
 σεις **P^BG** : ἀνάκλασιν **S^L** || [10] τεταμένην **P^BG^Q** : τεταγμένην **S^L**, corr. edd. || [11] ἐντυχοῦσαν **P^G**
 editores : στειχοῦσαν **P^B** : om. **P^Q** || [11–13] αὐτὴν ... ἀντεπιστροφῇ om. **P^G** || [11] πληχθεῖσαν
P^BS : πληγθεῖσαν **P^G** : om. Q || [12] χειρὸς ... ὦμον **P^BS^L** : der Vorderarm zum Oberarm Q || τῇ
P^BQ : τῆς **S^L** corr. edd. || [13] ἀντεπιστροφῇ **P^BQ** : -φῆς **S^L** corr. edd.

§4 δύναται τις πάσι τούτοις τοῖς κεφαλαίοις χρήσασθαι ἐπὶ τοῦ πῶς ὁρώμεν. (P4,S4)

15

§4—

§4 [14–15] δύναται ... ὁρώμεν P^B S^L : ut ex glossemate exorta perperam secl. Wachsmuth || [14] κεφαλαίοις P^B S^L : *Berichte* Q || χρήσασθαι S^L : χρήσθαι P^B : *auf die Frage von jemandem* add. Q

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 95 Περὶ κατόπτρων (~ tit.) (text Diels)

95.1 (~ P2) Δημόκριτος καὶ Ἐπίκουρος τὰς κατοπτρικὰς ἐμφάσεις γίνεσθαι κατ' εἰδῶλων ἐπιστάσεις, ἅτινα φέρεσθαι μὲν ἄφ' ἡμῶν, συνίστασθαι δὲ ἐπὶ τοῦ κατόπτρου κατὰ ἀντιστροφὴν.

95.2 (~ P3) οἱ ἀπὸ Πυθαγόρου κατὰ τὰς ἀντανεκλάσεις τῆς ὄψεως. φέρεσθαι μὲν γὰρ τὴν ὄψιν τεταμένην ὡς ἐπὶ τὸν χαλκόν, ἐντυχοῦσαν δὲ πυκνῷ καὶ λείῳ πληγεῖσαν ὑποστρέφειν.

Loci Aetiani:

quaestio A 2.20.12 Φιλόλαος ὁ Πυθαγόρειος ὕαλοειδῆ (sc. τὸν ἥλιον), δεχόμενον μὲν τοῦ ἐν τῷ κόσμῳ πυρὸς τὴν ἀνταύγειαν, διηθοῦντα δὲ πρὸς ἡμᾶς τὸ τε φῶς καὶ τὴν ἀλέαν, ὥστε τρόπον τινὰ διττοὺς ἡλίους γίνεσθαι, τὸ τε ἐν τῷ οὐρανῷ πυρῶδες καὶ τὸ ἀπ' αὐτοῦ πυροειδὲς κατὰ τὸ ἐσοπτροειδὲς, εἰ μὴ τις καὶ τρίτον λέξει, τὴν ἀπὸ τοῦ ἐνόπτρου κατ' ἀνάκλασιν διασπειρομένην πρὸς ἡμᾶς αὐγὴν. A 2.20.13 Ἐμπεδοκλῆς δύο ἡλίους, τὸν μὲν ἀρχέτυπον, πῦρ ἐν τῷ ἐτέρῳ ἡμισφαίριῳ τοῦ κόσμου πεπληρωκὸς τὸ ἡμισφαίριον, αἶε κατ' ἀντικρὺ τῇ ἀνταύγειᾳ ἑαυτοῦ τεταγμένον· τὸν δὲ φαινόμενον ἀνταύγειαν ἐν τῷ ἐτέρῳ ἡμισφαίριῳ τῷ τοῦ ἀέρος τοῦ θερμομιγροῦς πεπληρωμένῳ, ἀπὸ κυκλοτεροῦς τῆς γῆς κατ' ἀνάκλασιν ἐγγιγνομένην εἰς τὸν Ὀλυμπον τὸν κρυσταλλοειδῆ. A 3.1.4 τινὲς δὲ κατοπτρικὴν εἶναι φαντασίαν τοῦ ἡλίου τὰς αὐγὰς πρὸς τὸν οὐρανὸν ἀνακλῶντος, ὅπερ καὶ ἐπὶ τῆς Ἰριδος καὶ ἐπὶ τῶν νεφῶν συμβαίνει. A 3.2.2 ἄλλοι δ' ἀνάκλασιν τῆς ἡμετέρας ὄψεως πρὸς τὸν ἥλιον, παραπλησίαν ταῖς κατοπτρικαῖς ἐμφάσεσιν.

§1 A 1.15.3 Ἐμπεδοκλῆς (sc. χρῶμα εἶναι) τὸ τοῖς πόροις τῆς ὄψεως ἐναρμόττον. A 4.13.7 τοῦ δὲ ἀπὸ τῶν σωμάτων ἀντιφερομένου, τοῦ δὲ περὶ τὸν μεταξὺ ἀέρα, εὐδιάχυτον ὄντα καὶ εὐτρεπτον, συντεινομένου τῷ πυρῶδεϊ τῆς ὄψεως. A 4.13.12 Ἐμπεδοκλῆς καὶ πρὸς τὸ διὰ τῶν ἀκτίνων καὶ πρὸς τὸ διὰ τῶν εἰδῶλων ἐκδοχὰς παρέχεται· πλείους δὲ πρὸς (τὸ) δεύτερον· τὰς γὰρ ἀπορροίας ἀποδέχεται.

§2 A 4.8.10 Λεύκιππος Δημόκριτος Ἐπίκουρος τὴν αἴσθησιν καὶ τὴν νόησιν γίνεσθαι εἰδῶλων ἔξωθεν προσιόντων· μηδενὶ γὰρ ἐπιβάλλειν μηδετέραν χωρὶς τοῦ προσπίπτοντος εἰδῶλου. A 4.13.1 Λεύκιππος Δημόκριτος Ἐπίκουρος κατὰ εἰδῶλων εἰσκρισιν οἶοντα τὸ ὁρατικὸν συμβαίνειν πάθος.

§3 A 2.24.1 Θαλῆς πρῶτος ἔφη ἐκλείπειν τὸν ἥλιον τῆς σελήνης αὐτὸν ὑποτρεχοῦσης κατὰ κάθετον ...· βλέπεσθαι δὲ τοῦτο κατοπτρικῶς ὑποτιθεμένου τῷ δίσκῳ.

A 3.2.1 ... ἄλλοι δ' ἀνάκλασιν τῆς ἡμετέρας ὄψεως πρὸς τὸν ἥλιον, παραπλησίαν ταῖς κατοπτρικαῖς ἐμφάσεσιν. A 3.5.6 τρίτος τρόπος τοῦ βλέπειν τὰ ἀνακλώμενα ὡς τὰ κατοπτρικά· ἔστιν οὖν τὸ τῆς ἱριδος πάθος τοιοῦτον. δεῖ γὰρ ἐπινοῆσαι τὴν ὑγρὰν ἀναθυμίασιν εἰς νέφος μεταβάλλουσαν, εἴτ' ἐκ τοῦ(του) κατὰ βραχὺ εἰς μικρὰς ῥανίδας νοτιζούσας· ὅταν οὖν ὁ ἥλιος γένηται εἰς δυσμὰς, ἀνάγκη πᾶσα ἱρὶν ἀντικρυς ἡλίου φαίνεσθαι, ὅτε ἡ ὄψις προσπεσοῦσα ταῖς ῥανίσιν ἀνακλᾶται, ὥστε γίνεσθαι τὴν ἱρὶν. A 4.13.5 "Ἰππαρχος ἀφ' ἐκατέρου φησὶ τῶν ὀφθαλμῶν ἀποτεινομένης (ἀκτίνας) τοῖς πέρασιν αὐτῶν, οἷον εἰ χειρῶν ἐπαφαῖς + A 4.13.6 ἔνιοι καὶ Πυθαγόραν τῇ δόξει ταύτῃ συνεπιγράφουσιν.

§4 A 4.13.tit. Περί ὁράσεως, πῶς ὁρώμεν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

There are two witnesses for this rather brief chapter, P, represented in various ways by P^B, P^G and P^Q, and S. As we pointed out above at ch. 4.8 Commentary A(1), for chs. 4.8 and following in Book 4 the direct tradition of S has incidentally only preserved lemmata concerned with Aristotle and Plato, but ch. 4.14 has no such lemmata. The whole chapter (assuming no lemmata are lost) is extant only in the Florentine florilegium. The contents and order of the four lemmata are the same in both witnesses, and there is no interpolation in S. It would seem that S copied out the chapter. Wachsmuth's bracketing of §4 ('videntur tamen antiquitus ex glossemate exorta'), even though he admits that it is also found in P, is strange. S will have copied it out although in his context such authorial comments are far from immediately relevant. See below, section D(d)§4.

B Proximate Tradition and Sources

(1) *Proximate tradition.* Of the few parallel *laudationes* of various views about the issue, the reference to Empedocles Democritus Epicurus in the fragment of a commentary on *Alcibiades*, extant in two papyrus fragments may derive from an earlier cousin of A. See *POxy 1609* at Adorno & alii, *CPF* (1992) 8–9, 148, esp. (2005) 55 (cited below at E(a)§§1–2), also to be consulted for further discussion of the tradition concerned with Plato's view of reflection. The rich literature on optics is only reflected in §3, and no names of real mathematicians are given (that of the honorary *ur*-mathematician Pythagoras has to suffice). No excerpts are given from Plato or Aristotle or Stoic literature (unless one wishes to include

these philosophers among the followers of Pythagoras, which will hardly do). The focus is upon Empedocles and the Atomists as opponents of the followers of Pythagoras and the mathematicians.

(2) *Sources*. Ultimately these will be the authors mentioned, via, presumably, literature pertaining to the conflict between images (§§1–2) and reflection of visual rays (§3). For the relation to ch. 4.13 see below, section D(a).

C Chapter Heading

The heading of P^B, of the umbrella type that dominates in the *Placita* (see above, ch. 1.3 Commentary C), is confirmed by that of P^Q, and by the second half of S's combined heading, extant in the index of Photius. P^G has abridged to Περὶ κατόπτρων.

As parallels in book titles we may mention Euclid's extant Κατοπτρικά (cf. *Opt.* §19.14 ὡς ἐν τοῖς Κατοπτρικοῖς λέγεται, *Opt.* rec. Theonis 176.18–19 τοῦτο γὰρ δέικνυται ἐν τοῖς Κατοπτρικοῖς) and Archimedes' lost Περὶ κατοπτρικῶν (fr. 17.5 Heiberg, καθὰ καὶ Ἀρχιμήδης ἐν τοῖς Περὶ κατοπτρικῶν ἀπέδειξεν). A book titled Κατοπτρικά is also attributed to Heron mechanicus (Damianus *Opt.* 14.5–6 ἀπέδειξε γὰρ ὁ μηχανικός Ἡρώων ἐν τοῖς αὐτοῦ Κατοπτρικοῖς), but this attribution is not accepted by Jones (2001) 149–151 for the extant Latin *De speculis* (ps.Ptolemy).

D Analysis

a Context

The chapter is the second of a cluster of three dealing with vision and two related issues, namely the production of mirror images and the visibility of darkness. For the connection between the treatment of vision and that of mirror images see above, ch. 4.13 at Commentary D(a). The link between vision and mirror images also appears on the lists of issues shared by philosophers with mathematicians that constitute a subpart of the Stoic *physikos logos* at Diogenes Laertius *VP.* 7.133; text below section E(a), General texts. It is explicitly emphasized in the final lemma of the present chapter.

b Number–Order of Lemmata

P and S have the same four lemmata, and both have them in the same order, accepted by Diels and us. Of these four lemmata the first three are concerned in the usual way with different positions concerned with the issue at hand, while the fourth is a rare example of an authorial remark. This lemma appositely concludes the chapter. The differences between the versions of P and S are minimal. P unsurprisingly leaves out a few name-labels: 'Leucippus' in §2, and 'mathematicians' in §3. The complicated technical nature of the catoptrics

involved in §§1–3 apparently precluded abridgement of content. The fact that this time S does not have more lemmata than P suggests that A's chapter survives complete, although the parallel account of Apuleius (cited below section E(b)§§1–2) contains more and in part different doxai. Seneca's account (cited *ibid.*) limits itself to the main diaphonia without citing name-labels, while Apuleius' provides more named lemmata than A, namely four to A's three. In part these are different: Stoics and Archytas instead of Empedocles. There can be no doubt that Apuleius' information too derives from a doxographical overview.

c Rationale–Structure of Chapter

There is an interesting difference between §2 on the one hand and §1 plus §3 on the other, as §2 is explicitly about seeing oneself in a mirror (a question of interest already e.g. at Plato *Alc.* I 162d–163c), while §1 and §3 are compatible with (also) seeing reflections of something else. The strong diaeresis is between effluences (ἀπόρροιαι, §1) or streams (ρεύματα, §1: sc. of effluences, see Diels *DG* index verborum s.v. ρεύμα) or images (εἰδῶλα, §2) on the one hand and optical reflection (ἀνάκλασις, §3) on the other. The ἀπόρροιαι and εἰδῶλα also occur in ch. 4.13, 'On vision, how we see'. Apart from ἀντανακλάσεις (P^B) or ἀνάκλασιν (S^L) in the present chapter the only other instances in Book 4 are at chs. 4.16.4 and 4.20.2, where ἀνακλάσθαι and ἀντανακλάται are not used of light but of sound. The substantive ἀνάκλασις and the verb ἀνακλᾶν are found somewhat more often in A Books 2 (chs. 2.20.12, 2.20.13, 2.30.2) and 3 (chs. 3.1.4, 3.2.2; no less than three times in the chapter on the rainbow, where refraction and reflection play an important part: chs. 3.5.3, 3.5.4, 3.5.5).

At ch. 4.13 Commentary D(a) above we have seen that reflection in mirrors or on similar smooth surfaces does not play a significant part in Aristotle's *De anima*. It is, however, an important feature in the *Meteorology* where both verb and noun are found quite often. See below, section D(d)§3. All three lemmata of our chapter are concerned with the process as a whole, namely with what leaves (indirectly) the seen object or the eye, with the contact with the mirror, and with the trajectory from the mirror to the visual organ. The differences are limited to the physical nature of the reflections (these, after all, are what the chapter is about). Thus, we have a diaeretic listing of, in succession, (§1): reflections in mirrors as effluences that come together (συνισταμένας) at the mirror's surface and are compressed by the fiery beam issuing from the mirror, which also takes along the air before it into which the streams (i.e. these effluences) are flowing; §2, the same as really subsisting images, which start from ourselves, come together (συνίστασθαι) at the mirror, turn back and make them-

selves manifest to us; and §3, the reflection of the visual beam, which stretches towards and strikes the smooth and hard bronze object, and is thrown back upon itself.

The final lemma comments on a further use to which one can put these lemmata, for each of them is also involved with 'how we see'. It is important further because it informs us that the term for lemma or paragraph is κεφάλαιον. See below, section D(d)§4.

d Further Comments

General Points

For mirrors see Mugler (1964), s.v. ἔνοπτρον, 146–147. Lejeune (1957) 4 writes: 'La catoptrique suppose expressément la théorie de la perception visuelle élaborée par l'optique. Elle est visiblement l'application, grace à une hypothèse supplémentaire féconde, des principes et des méthodes de l'optique proprement dite au cas des miroirs.'

Individual Points

§1 Diels *DG* 222, in his presentation of the (thin) evidence for the dependence of sections and lemmata of the *Placita* on Theophrastus' *De sensibus*, refers to this lemma as 'cum Empedoclea doctrina egregie consentiens'. But there is no precise Theophrastean parallel, only the already mentioned (above, section B(1)) *POxy* 1609 + *PPrinc inv. AM* 11224C, fr. A (which became available to scholars only later). Perhaps Diels had *Sens.* 7 in mind, 'colours are brought to our eyes by means of effluence' (ἀπορροήν). There is, of course, sufficient evidence for the theory of ἀπόρροιαι, e.g. Empedocles 31A89, 31A92 DK (Plato, *Men.* 76), Aristotle *Sens.* 2 438a4 after his quotation of 31B84 DK, and above ch. 4.13.12 (with section E(b) ad loc.).

Choosing between P's τελειούμενας and S's πιλούμενας is not easy, but πιλούμενας may perhaps be preferred because of a partial parallel in Theophrastus' account of Democritus' (not Empedocles') theory of vision, where it is the air between the eye and the object (not effluences or images) that is compressed by them (τὸν ἀέρα τὸν μεταξὺ τῆς ὀψεως καὶ τοῦ ὁρωμένου τυποῦσθαι συστελλόμενον ὑπὸ τοῦ ὁρωμένου καὶ τοῦ ὁρώντος, *Sens.* 50; cf. Burkert 1977, 100, rather than Avotins 1980, 434–444, who believes that *Ep.Hdt.* 49 κατὰ τὸ ἐναρμόττον μέγεθος εἰς τὴν ὄψιν ἢ τὴν διάνοιαν pertains to texture not size). According to Epicurus images are compressed by συνίησις so as to fit into the eye, *Nat.* fr. 23.43.11–13 Arrighetti; see also Alexander of Aphrodisias *de An.Mant.* 135.9–10, *pace* Sharples (2008) 189. For compression in this context cf. also Plato *Tim.* 45b συμπιλήσαντες. The fiery substance separated off from the mirror presumably is the returning fiery beam that originally came from the eye.

Q's very free paraphrase brings the lemma more in line with the two other lemmata.

§2 This compressed account, esp. the terse formula κατ' ἀντιπεριστροφὴν *ad finem*, can be supplemented by the passage from Lucretius quoted at section E(b)§2, which shows that the images 'by being flung back by incessant and unremitting repulsion give back a vision from the surface of mirrors'. Mugler (1964) 224 translates συνίστασθαι δὲ ἐπὶ τοῦ κατόπτρου κατ' ἀντιπεριστροφὴν as 'qui prennent de la consistance sur la surface du miroir par l'effet du flux opposé qui vient à leur rencontre et les enveloppe', which supplies too much. Torracca's 'da cui sono rimandati indietro' is better.

Faced with a multiplicity of textual variants (ὑποστάσεις, ἐπιστάσεις, ἐμφάσεις) and proposed emendations (ἐνστάσεις, ἀποστάσεις) we have opted for the παραστάσεις of ch. 5.2.1, where τῶν εἰδώλων παραστάσεις provides a good parallel and an uncontested idiom. But note that Koenen (1995) 49–52 argues in favour of ὑποστάσεις qua 'material *eidola*'.

§3 Pythagoras and his followers are mentioned *honoris causa* (cf. ch. 4.13.6, where the theory of the *mathematikos* i.e. astronomer Hipparchus is anticipated 'according to some' by Pythagoras and Parmenides): the theory involved is that of 'the mathematicians'. This connection with the preceding chapter has been missed by Webster (2018) 483, who seems to believe that a genuine early Pythagorean view is cited. For Hipparchus and mathematics see above, ch. 4.13 Commentary D(d)§5. The metaphor of bending the outstretched hand back to the shoulder recalls that of touching with the hands according to Hipparchus (and so of his purported predecessors) at A 4.13.5–6, and may be compared with the contact of the base of the visual cone with the object seen and that through the sense of touch by means of a stick according *SVF* 2.864–865 (cited below ch. 4.15 section E(b)§2). See above, ch. 4.13 Commentary D(d)§4.

The standard tenet of 'the mathematicians' concerned with the reflection of the optical rays does not play a part in Aristotle's *De anima*, but is frequently used in the *Meteorology*, as Alexander points out at *in Mete.* 141.3–142.20 (cf. ch. 3.5 'On the rainbow' above, Commentary D(d)§§4–6). The doxa may also be read as a much-reduced version of Plato's doctrine.

§4 This authorial remark is a sort of meta-lemma, specifying the use to which the various lemmata of this chapter may be put; cf. M–R 2.1.183–184. Thus it confirms and echoes the traditional relation between the treatment of vision and of mirror images, see above, ch. 4.13, Commentary B. Unfortunately Wachsmuth athetized it, perhaps because of the use of the same term in the title *Kephalaia gnostica* of the Byzantine authors Euagrius of Pontus and Maximus Confessor and in other similar titles. But the fact that the lemma occurs in both P and S is against this. The formula κεφαλαίους χρῆσασθαι (as

in S) is used in handbooks of rhetoric for the proper use of topics or issues or specific arguments, Aphthonius *Progymnasmata* 5.2.3 Patillon. Also κεφάλαιος χρήσθαι (as in P), ps.Dionysius of Halicarnassus *Ars rhetorica* 10.6.9–11 Radermacher–Usener, Sopater *Scholia ad Hermogenis status seu artem rhetoricam* 5.49.20 Walz, and in Hermias' comments on Plato's discussion of rhetoric, in *Phaedrum* 237.17–18. Philo uses the term κεφάλαια to refer to the Ten Commandments. Porphyry added κεφάλαια τῶν πάντων πλὴν τοῦ Περὶ τοῦ καλοῦ to his edition of the *Enneads*, thus elucidating the main points of the exposition (see D'Ancona 2012, 50–69). We have cited another Philo passage at section E(b)§4 for the meaning 'philosophical tenet'. A wonderfully apposite parallel is found in Geminus' abstract from Posidonius' *Meteorology* cited by Alexander who in his turn is cited by Simplicius (cited section E(b)§4). For such parallels see Méhat (1966) 121; cf. also Goulet-Cazé (1982) 315–321, where further literature is cited p. 319 n. 1. Four examples in *Ethical Doxography B* in S (attributed to AD) and two in the *Didascalicus* are listed at DG 76; see now *Ecl.* 2.7.5, p. 57.16; 5b5, p. 63.11, 63.12, 63.16; 7.12, p. 116.16; also *Ethical Doxography C*, *Ecl.* 2.7.26, pp. 148.1, 149.18, 150.1, 152.24.

e Other Evidence

Among the texts cited in the 'Materialien zur Geschichte der Farbenlehre, Historischer Teil, Erste Abteilung: Griechen', Goethe translated several lemmata of chs. 4.13–15, namely ch. 4.14.3 'Pythagoreer nach Plutarch' (adding 1.14.2 + 1.14.7), 4.14.1 'Empedokles—nach Plutarch' (preceded by A 1.14.3 'Empedokles nach Stobäus'), 4.13.1 + 4.14.1 'Democritus und Epicurus nach Plutarch', and 4.15.3 'Chrysippus nach Plutarch'.

E Further Related Texts

a Proximate Tradition

General texts: Diogenes Laertius *V.P.* 7.132–133 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. the Stoics) ... (133) τοῦ δ' ἑτέρου (sc. μέρους) καὶ τοὺς ἀπὸ τῶν μαθημάτων ἀντιποιεῖσθαι, οἷον πῶς ὁρώμεν, τίς ἡ αἰτία τῆς κατοπτρικῆς φαντασίας, excerpted in *Suda* s.v. Φ 862, pp. 4.775.27–776.3 Adler φυσικὸς λόγος παρὰ φιλοσόφοις ... πῶς ὁρώμεν· τίς ἡ αἰτία τῆς κατοπτρικῆς φαντασίας.

Chapter heading: *Capitula Lucretiana* at DRN 4.269 *ultra speculum cur videatur*. Calcidius in *Tim.* c. 7, p. 60.17 Waszink *De imaginibus*.

§§1–2 *Empedocles Leucippus Democritus Epicurus: POxy 1609* col. ii & *PPrinc inv. AM 1224C*, Comm. in *Alc.* col. ii at Adorno & *alii* eds. *CPF* III p. 57 + fr. A Democritus 4T + Empedocles 3T at Adorno & *alii* eds. *CPF* I.1** δοκῇ δὲ ἐκεῖ φα[ίν]εσθαι· οὐ | γὰρ ἐπ' ἐκείνου τοῦ κατόπτρου | ὁράται, ἀλλ' ἡ ἀνάγκη ἐπὶ | τὸν ὁρῶντα. περὶ μὲν οὖν | τούτων ἐν τοῖς εἰς Τί[μαιον] (sc. on *Tim.* 46a–c) εἴ[ρη]ται· οὐ δεῖ δὲ 'εἴ[δωλον]' τοιοῦτον ἀκούειν οἴ[ον] τὸ κατὰ Δημόκριτον (—) ἢ 'Επ[ικουρον]

(—) ἢ ὡς Ἑμπεδοκλῆς (31B109a DK, cf. below §3) | 'ἀπορροὰς' φαίη ἂν ἀπινέαι | ἀπὸ ἐκάστου τῶν κ[ατ]οπτριζομένων καὶ τ[+ 9] | περιεούσας. **Seneca** *Nat.* 1.5.1 *de speculis duae opinioniones sunt. alii enim in illis simulacra cerni putant, id est corporum nostrorum figuras a nostris corporibus emissas ac separatas; alii non imagines in speculo sed ipsa aspici corpora retorta oculorum acie et in se rursus reflexa.* **Apuleius** *Apol.* 15 num, ut ait **Epicurus** (cf. fr. 320 Usener), *projectae a nobis imagines velut quaedam exuviae iugi fluore a corporibus manantes, cum leve aliquid et solidum offenderunt, illisae reflectantur et retro expressae contraversim respondeant, an, ut alii philosophi disputant, radii nostri seu mediis oculis proliquati et lumini extrario mixti atque ita uniti, ut Plato arbitratur, seu tantum oculis perfecti sine ullo foris amminiculo, ut Archytas (47A25 DK) putat, seu intentu aëris {f}acti, ut Stoici (—) rentur, cum alicui corpori inciderunt spisso et splendido et levi, paribus angulis quibus inciderant resultent ad faciem suam reduces atque ita, quod extra tangant ac visant, id intra speculum imaginentur.* **Calcidius** in *Tim.* c. 239 *idem* (sc. the geometers) *aiunt videre nos vel tuitione, quam phasin vocant, vel intuitione, quam emphasin appellant, vel detuitione, quam paraphasin nominant. ... intuitione vero ut quae fragmento radii recurrente ad oculorum aciem videntur, qualia sunt quae in speculis et aqua considerantur, ceteris item quorum tersa est quidem superficies, sed ob nimiam densitatem idoneus vigor ad repellendum quod offenderit.* **ps.Ptolemy** *Spec.* 3.1–2 + 5.2, p. 154 *Jones* *dubitatum est itaque fere ab omnibus qui de dioptrico et optico scripserunt negotio propter quam causam in speculis radii a nobis incidentes refringuntur et refractiones in angulis aequalibus faciunt. quod autem secundum effusiones rectarum a visu videamus, sic consideretur. ... quod autem radii incidentes speculis, adhuc autem et aquis et omnibus planis corporibus refringuntur, nunc ostendemus.*

§4 *kephalaia*: **Scholia Platonica** *POxy* 1609 & *PPrinc inv.* *AM* 11224C, *Comm. in Alc.* col. ii at *CPF* III p. 57 (**Empedocles** 31B109a DK) δοκῇ δὲ ἐκεῖ φα[ίν]εσθαι· οὐ | γὰρ ἐπ' ἐκείνου τοῦ κατόπτρου | ὁράται, ἀλλ' ἡ ἀνακλάσις ἐπὶ | τὸν ὁρώντα. περὶ μὲν οὖν | τούτων ἐν τοῖς εἰς Τίμαιον (*Tim.* 46a–c) εἴ[ρ]ηται.

b Sources and Other Parallel Texts

General texts: **Aristotle** *APo.* 2.15 98a24–29 τὰ δ' αὐτὰ προβλήματ' ἐστὶ τὰ μὲν τῷ τὸ αὐτὸ μέσον ἔχειν, οἷον ὅτι πάντα ἀντιπερίστασις. τούτων δ' ἓν αὐτῷ γένει ταῦτά, ὅσα ἔχει διαφορὰς τῷ ἄλλων ἢ ἄλλως εἶναι, οἷον διὰ τί ἡχεί, ἢ διὰ τί ἐμφαίνεται, καὶ διὰ τί ἱρις· ἅπαντα γὰρ ταῦτα τὸ αὐτὸ πρόβλημά ἐστι γένει (πάντα γὰρ ἀνάκλασις), ἀλλ' εἶδει ἕτερα. **Vitruvius** 7 prooem. 11 *primum Agatharchus Athenis Aeschlylo docente tragoediam scaenam fecit et de ea commentarium reliquit. ex eo moniti Democritus* (cf. 68B15b DK) *et Anaxagoras* (59A39 DK) *de eadem re scripserunt, quemadmodum oporteat ad aciem oculorum radiorumque extentionem certo loco centro constituto lineas ratione naturali respondere, uti de certa re certae imagines aedificiorum in scaenarum picturis redderent speciem et, quae in directis planisque frontibus sint figurata, alia abscedentia, alia prominentia esse videantur.* **Geminus**(?) *Fr.Opt.* p. 28.10–30.11 *Schöne* at

Her.Math. Def. 135.13 τί τὸ σκηνογραφικόν. τὸ σκηνογραφικόν τῆς ὀπτικῆς μέρος ζητεῖ πῶς προσήκει γράφειν τὰς εἰκόνας τῶν οἰκοδομημάτων. ἐπειδὴ γὰρ οὐχ οἷα {τε} ἔστι τὰ ὄντα, τοιαῦτα καὶ φαίνεται, σκοποῦσιν πῶς μὴ τοὺς ὑποκειμένους ῥυθμοὺς ἐπιδείξονται, ἀλλ' ὅποιοι φανήσονται ἐξεργάσσονται κτλ. **Plutarch Fac. Lun.** 921D–E 'τουτί μὲν οὖν', ἔφην, 'σὸν ἔργον ἐπισκοπεῖν, τὴν δὲ πρὸς τὴν σελήνην ἢ (καθόλου) τῆς ὄψεως κλάσιν οὐκέτι σὸν οὐδ' Ἰπάρχου (—)· καίτοι γ' ἐφιλέργει ἀν(ήρ) ἀλλὰ πολλοῖς οὐκ ἀρέσκει φυσιολογῶν περὶ τῆς ὄψεως αὐτῆς, (ῆν) (E) ὁμοιοπαθῆ κράσιν ἴσχειν καὶ σύμπηξιν εἰκός ἐστι μᾶλλον ἢ πληγὰς τινὰς καὶ ἀποπηδήσεις, οἷας ἔπλαττε τῶν ἀτόμων Ἐπίκουρος (—)'. **Clement of Alexandria Strom.** 6.56.1 καὶ μὴν ὡς ἡ γεωμετρία περὶ μέτρα καὶ μεγέθη καὶ σχήματα πραγματευομένη διὰ τῆς ἐν τοῖς ἐπιπέδοις καταγραφῆς ἢ τε ζωγραφία τὸν ὀπτικόν ὅλον τόπον ἐπὶ τῶν σκηνογραφουμένων φαίνεται παραλαμβάνουσα, ταύτῃ δὲ ψευδογραφεῖ τὴν ὕψιν, τοῖς κατὰ προσβολὴν τῶν ὀπτικῶν γραμμῶν σημείοις χρωμένῃ κατὰ τὸ τεχνικόν (ἐντεῦθεν ἐπιφάσεις καὶ ὑποφάσεις καὶ φάσεις σφύζονται, καὶ τὰ μὲν δοκεῖ προὔχειν, τὰ δὲ εἰσέχειν, τὰ δ' ἄλλως πῶς φαντάζεσθαι ἐν τῷ ὁμαλῷ καὶ λείῳ), οὕτω δὲ καὶ οἱ φιλόσοφοι ζωγραφίας δίκην ἀπομιμῶνται τὴν ἀλήθειαν. **ps.Alexander Probl.** 2.53.10–13 Ἰδeler οἱ πολλοὶ καθαρεισόμενοι παραφυλάττονται καὶ παραιτοῦνται βλέπειν νεκροῦς· αἱ γὰρ ὀπτικαὶ ἀκτῖνες, ἀπιοῦσαι πρὸς τὰ νεκρὰ σώματα κατ' ἀντανάκλασιν ἀναφέρουσι μολυσμὸν τινὰ διὰ τῶν ὀφθαλμῶν τῇ ψυχῇ. **Tertullian de An.** 17.6 *teneritas autem substantiae illius, qua speculum ex lumine efficitur, prout icta seu mota est, ita et imaginem vibrans evertit lineam recti.* **Olympiodorus in Mete.** 211.23–212.4 ζητήσωμεν δὲ καὶ τὴν διαφορὰν ἀνακλάσεως τε καὶ διακλάσεως. διαφέρουσι πρῶτον μὲν, ὅτι ἐπὶ μὲν τῆς ἀνακλάσεως τὸ ὀρῶν καὶ τὸ ὀρώμενον ἐν ἐνὶ ὑπάρχουσιν ἐπιπέδῳ, τὸ δὲ κάτοπτρον κατὰ τὸν ἀντικείμενον τόπον, ἐπὶ δὲ τῆς διακλάσεως μεταξὺ τοῦ τε ὀρώντος καὶ τοῦ ὀρώμενου κεῖται τὸ κάτοπτρον. αὕτη μὲν φέρε πρώτη φυσικὴ διαφορά. φέρε δὲ καὶ μαθηματικὴν αὐτῶν ἐπιστήμην παραδῶσομεν· ἡ μὲν γὰρ ἀνάκλασις κατὰ ἴσας γίνεται γωνίας, ἡ διάκλασις δὲ κατὰ ἀμβλείας. καὶ ὅτι ἡ ἀνάκλασις κατὰ ἴσας γωνίας, δηλον, ὅτι ἐπειδὴ τριῶν σημείων ὄντων, ἐνὸς μὲν ἔνθα ἔστι τὸ ὀρώμενον, ἐτέρου δὲ ἔνθα τὸ ὀρῶν, καὶ ἄλλου πάλιν ἔνθα τὸ κάτοπτρον, εἰ ἀμείψουσι τὸ ὀρώμενον ἐκείσε ἔνθα ἦν τὸ ὀρῶν, ἡ αὐτὴ πάλιν γενήσεται γωνία ἥτις καὶ πρότερον ἦν, ὅτε ἦσαν ἐν τοῖς οἰκείοις τόποις, καὶ οὕτε μείζων οὕτε ἐλάττω, δηλον δ' ὅτι τοῦ κατόπτρου κατὰ τὸν ἀντικείμενον τόπον φυλάττομένου {δέ}. φέρε δὲ καὶ διὰ γραμμικῆς ἀποδείξεως τοῦτο δεῖξωμεν, ὅτι πρὸς ἴσας γωνίας γίνεται ἡ ἀνάκλασις.

Chapter heading: Suda s.v. Φ 418, p. 4.733.32 Adler (Philip of Opus fr. i Tarán, F 31, F 32–33 Lasserre) Ὀπτικῶν β', Ἐνοπτ(ρ)ικῶν β'.

§2 Leucippus Democritus Epicurus: Lucretius DRN 4.98–107 *postremo speculis in aqua splendoreque in omni / quaecumque apparent nobis simulacra, necessest, / quandoquidem simili specie sunt praedita rerum, / ex(in) imaginibus missis consistere eorum.* {102–103, damn. edd.} / *sunt igitur tenues forma(e) rerum similesque / effigiae, singillatim quas cernere nemo / cum possit, tamen adsiduo crebroque repulsi / reiectae reddunt speculorum ex aequore visum.* **DRN 4.269–323. Diogenes of Oenoanda fr. 9.i.4–iii.6 Smith καὶ] | πολ[λ]άκις, ὅ[τ]ι εἰκόνας] | καὶ φάσματα [φύσεις ἀλη]θεῖς ὑπάρχουσιν, καὶ τὰ |**

κάτοπτρα μαρτυρήσει | μοι· οὐ δὴ γὰρ ἀπερεῖ τι | ἅ φημι τ[ὸ] εἶδωλον ὁ προσ|ομεῖται
 ἐν τοῖς κατό|πτροις. οὐκ ἂν ἐν ἐκεῖ|νοις ἑαυτοῦ[ς] ἐ]ω[ρ]ῶμεν | καὶ οὐδ' ἂν ἐγείνετό |
 [τι, εἰ μὴ ἦν ρεῦμα συνε|χὲς ἀφ' ἡμῶν πρὸς ἐκεῖ]|[να φερόμενον καὶ] ἡμεῖν | [εἶδωλον
 ἀναφ]ερων. ἀπε|λύν[χ]ει γὰρ καὶ τοῦτο τὴν | ἀπόροισιν διὰ τὸ ἔκασ|τον τῶν μορίων
 εἰς τὴν | κατ' εὐθὺ χώραν φέρεσ|θαι. ν τὰ οὖν ἀπὸ τῶν πρα|γμάτων ῥέοντα εἶδω|λα,
 ἐνπείπτοντα ἡμῶν | ταῖς ὀψεσιν, τοῦ τε ὁρᾶν | ἡμᾶς τὰ ὑποκείμενα | αἷτια γίνεταί
 καὶ, εἰς [τὴν ψυχὴν εἰσιόντα,]| [τοῦ ἐννοεῖν αὐτά. κατ'] | ἐνπτ[ώσεις μὲ]ν ο[ὖν] τὰ |
 ὑπὸ τῶν ὀψεων βλεπό|μενα ἢ ψυχὴ παραλαμ|βάνει.

§3 Successors of Pythagoras: *Tim.* 46a–b τὸ δὲ περὶ τὴν τῶν κατόπτρων εἰδω-
 λοποιῖαν, καὶ πάντα ὅσα ἐμφανῆ καὶ λεῖα, κατιδεῖν οὐδὲν ἔτι χαλεπόν. ἐκ γὰρ τῆς
 ἐντὸς ἐκτὸς τε τοῦ πυρὸς ἑκατέρου κοινωνίας ἀλλήλοισι, ἐνός τε αὖ περὶ τὴν λειότητα
 ἐκάστοτε γενομένου καὶ πολλαχῇ μεταρρυθμισθέντος, πάντα τὰ τοιαῦτα ἐξ ἀνάγκης
 ἐμφαίνεται, τοῦ περὶ τὸ πρόσωπον πυρὸς τῷ περὶ τὴν ὄψιν πυρὶ περὶ τὸ λεῖον καὶ
 λαμπρὸν συμπαгоὺς γιγνομένου. δεξιὰ δὲ φαντάζεται τὰ ἀριστερά, ὅτι τοῖς ἐναντίοις
 μέρεσιν τῆς ὀψεως περὶ τάναντία μέρη γίγνεται ἐπαφὴ παρὰ τὸ καθεστὸς ἔθος τῆς
 προσβολῆς. **Aristotle** *Mete.* 3.2 372a29–b1 ὅτι μὲν οὖν ἡ ὄψις ἀνακλᾶται, ὥσπερ
 καὶ ἀφ' ὕδατος, οὕτω καὶ ἀπὸ ἀέρος καὶ πάντων τῶν ἐχόντων τὴν ἐπιφάνειαν λεῖαν,
 ἐκ τῶν περὶ τὴν ὄψιν δεικνυμένων δεῖ λαμβάνειν τὴν πίστιν. *de An.* 3.12 435a5–8
 διὸ καὶ περὶ ἀνακλάσεως βέλτιον ἢ τὴν ὄψιν ἐξιούσαν ἀνακλᾶσθαι τὸν ἀέρα πάσχειν
 ὑπὸ τοῦ σχήματος καὶ χρώματος, μέχρι πέρ οὐ ἂν ἦ εἷς. ἐπὶ δὲ τοῦ λεῖου ἐστὶν εἷς.
ps.Alexander *Probl.* 2.53, pp. 67.35–68.1 Ideler οἱ πολλοὶ καθαριευόμενοι παραφυ-
 λάττονται καὶ παραιτοῦνται βλέπειν νεκρούς· αἱ γὰρ ὀπτικάι ἀκτῖνες, ἀπιοῦσαι πρὸς
 τὰ νεκρὰ σώματα κατ' ἀντανάκλασιν ἀναφέρουσι μολυσμόν τινα διὰ τῶν ὀφθαλμῶν
 τῇ ψυχῇ. **Calcidius** in *Tim.* c. 257 *namque ille* (sc. Aristotle) *censet radii visualis*
impacti in solidam speculi superficiem propterea que infracti mucronem ad os
reverti obviumque vultui factum vultum suum cernere et in speculo putare sibi
vultus apparere simulacrum.

§4 kephalaia: **Philo of Alexandria** *Her.* 214 ἔν γὰρ τὸ ἐξ ἀμφοῖν τῶν ἐναν-
 τίων, οὗ τμηθέντος γνώριμα τὰ ἐναντία. οὐ τοῦτ' ἐστίν, ὃ φασιν "Ἕλληνες τὸν μέγαν
 καὶ αἰοίδιμον παρ' αὐτοῖς Ἡράκλειτον (fr. 35 (d) Marcovich) κεφάλαιον τῆς αὐτοῦ
 προστησάμενον φιλοσοφίας αὐχεῖν ὡς ἐφ' εὐρέσει καινῇ; **Posidonius** (F 18 E.-
 K., 255 Theiler) at **Geminus' Epitome** at **Alexander of Aphrodisias** at **Simp. in**
Phys. 292.3–5 πολλαχοῦ τοίνυν αὐτὸν κεφάλαιον ἀποδείξειαι προθήσεται ὅ τε ἀστρο-
 λόγος καὶ ὁ φυσικός, οἷον ὅτι μέγας ὁ ἥλιος (cf. ch. 2.21), ὅτι σφαιροειδὴς ἡ γῆ (cf.
 ch. 3.10.1), οὐ μὴν κατὰ τὰς αὐτὰς ὁδοὺς βαδιούνται.

Liber 4 Caput 15

P^B: ps.Plutarchus *Plac.* 901D–E; pp. 405^a26–406^a14 Diels—**P^G**: ps.Galenus *HPh* c. 96; *DG* p. 637.5–11 Diels—**P^Q**: Qustā ibn Lūqā pp. 204–205 Daiber
S: Stobaeus *Ecl.* 1.52.17–18, p. 486.4–17 Wachsmuth

Titulus 1ε'. Εἰ ὁρατὸν τὸ σκότος (P)

- §1 Σφαῖρος ὁ Στωικὸς ὁρατὸν εἶναι τὸ σκότος, ἐκ γὰρ τῆς ὁράσεως προχεῖσθαι τινα εἰς αὐτὸ αὐγὴν· καὶ οὐ ψεύδεται ἡ ὄρασις, βλέπεται γὰρ ταῖς ἀληθείαις, ὅτι ἔστι σκότος. προέρχονται δὲ ἐκ τῆς ὀψεως ἀκτίνες ὁμιχλώδεις· τὸ μὲν σκότος συνάγει πως καὶ συγκρίνει τὴν ὄρασιν καὶ ἀμβλύνει, τὸ δὲ φῶς διακρίνει καὶ ποδηγεῖ τὴν ὄρασιν ἡμῶν ἐπὶ τὰ ὁρατὰ διὰ τοῦ μεταξὺ ἀέρος. διὰ τοῦτο μὴ ὁρᾶν ἡμᾶς ἐν τῷ σκότει ἀλλ' αὐτὸ μόνον τὸ σκότος. (P¹, S¹+G²) 5
- §2 Χρύσιππος κατὰ τὴν συνέντασιν τοῦ μεταξὺ ἀέρος ὁρᾶν ἡμᾶς, νυγέντος μὲν ὑπὸ τοῦ ὁρατικοῦ πνεύματος, ὅπερ ἀπὸ τοῦ ἡγεμονικοῦ μέχρι τῆς κόρης διήκει, κατὰ δὲ τὴν πρὸς τὸν περικείμενον ἀέρα ἐπιβολὴν ἐντείνοντος αὐτὸν κωνοειδῶς, ὅταν ᾗ ὁμογενὴς ὁ ἀήρ. προχέονται δ' ἐκ τῆς ὀψεως ἀκτίνες πύριναί, οὐχὶ μέλαιναί καὶ ὁμιχλώδεις· διόπερ ὁρατὸν εἶναι τὸ σκότος. (P^{BQ2}, S³) 10

§1 Sphaerus *SVF* 1.627 (Stoici *SVF* 2.869); §2 Chrysippus *SVF* 2.866

titulum non hab. S §1 lemma οἱ Στωικοὶ ... σκότος ut duplicationem sententiae prioris seculisimus apud S^{L2} ut interpolatum ab P^B, §1 secl. Diels (1881) 350 prob. Wachsmuth, apud P autem serv. Diels *DG* quod prob. Mau Lachenaud || [2] Σφαῖρος ... Στωικὸς S^{L1} : οἱ Στωικοὶ P^{BGQ} et S^{L2} || ὁράσεως P^{BSL} : ὀψεως P^G : *aus dem Gesichtssinn* Q || [2–3] προχεῖσθαι S^L, cf. *es fließt* Q : περιχεῖσθαι P^B : ἐξικνεῖσθαι P^G || [3] αὐγὴν P^{BGQ}, prob. edd. : αὐτὴν S^{L1} et S^{L2}, corr. Diels Wachsmuth || [3–4] καὶ ... σκότος] om. S^{L1}, hab. S^{L2} || ταῖς ... ἔστι P^{BSL} : ὑπ' αὐτῆς P^G || [4] post σκότος add. ὑπολαμβάνουσιν P^G || [4–8] προέρχονται ... τὸ σκότος P^G, om. P^{BQSL} : falso P² adaequavit Diels *DG* 637, ut add. Galeni damn. ibid. 16, 38 || [5] συνάγει P^{G(AB)} : συνάπτει conl. Corr. Voss. || συγκρίνει corr. Voss. prob. Diels : συγκρινεῖ P^{G(AB)} || [6] τοῦ corr. Voss. : τὸ P^{G(AB)} §2 [9] post συνέντασιν add. τὰ ὄντα S^L, secl. Diels Wachsmuth || post μεταξὺ add. *dem Sehenden und dem Gesehenen* Q || νυγέντος P^{BSL} : (*durch*) *die Aus-sendung* Q || [10] ὁρατικοῦ P^{BSL} : om. P^Q || ἀπὸ ... ἡγεμονικοῦ P^{BSL} : *als Leiter bezeichnet wird* Q || μέχρι S^{PQ} : μετὰ P^B || [11] περικείμενον S^L : παρακείμενον P^B : *auf welche sie stößt* Q || [12] αὐτὸν] αὐτὸν ab Arnim prob. Lachenaud || [13] πύριναί, οὐχὶ P^{BSL} : om. P^Q || καὶ ὁμιχλώδεις P^{BSL} : *und nicht lichtartige* Q

Testes primi:

ps.Galenus HPh c. 96 (~ tit.) εἰ ὁρατὸν τὸ σκότος (text Diels)

96.a (~ P¹) οἱ Στωικοὶ ὁρατὸν εἶναι τὸ σκότος ὑπολαμβάνουσιν· ἐκ γὰρ τῆς ὀψεως ἐξικνεῖσθαι εἰς (αὐτὸ) αὐγὴν. καὶ οὐ ψεύδεται ἡ ὄρασις· βλέπεται γὰρ ὑπ' αὐτῆς τὸ σκότος,

96.b (—) προέρχονται δὲ ἐκ τῆς ὀψέως ἀκτῖνες ὀμιχλώδεις· τὸ μὲν σκότος συνάγει πῶς καὶ συγκρίνει τὴν ὄρασιν καὶ ἀμβλύνει, τὸ δὲ φῶς διακρίνει καὶ ποδηγεῖ τὴν ὄρασιν ἡμῶν ἐπὶ τὰ ὁρατὰ διὰ τοῦ μεταξὺ ἀέρος. διὰ τοῦτο μὴ ὁρᾶν ἡμᾶς ἐν τῷ σκότει ἀλλ' αὐτὸ μόνον τὸ σκότος.

Loci Aetiani:

quaestio A 1.15.9 Ἐπίκουρος καὶ Ἀρίσταρχος τὰ ἐν τῷ σκότῳ σώματα χροιάν οὐκ ἔχειν. A 1.15.10 Ἀριστοτέλης ... ἐν δὲ τῷ σκότῳ τὰ σώματα χροιάν δυνάμει μὲν ἔχειν, ἐνεργείᾳ δὲ μηδαμῶς· πολὺ δὲ τὸ μεταξὺ τοῦ τε μὴ ἔχειν καὶ μὴ ὁρᾶσθαι.

§1 A 4.13.10 (αὐ)γῶν αὐτὴν σύμφυσιν. A 4.9.4 οἱ Στωικοὶ τὰς μὲν αἰσθήσεις ἀληθεῖς.

§2 A 4.13.7 τὸν μεταξὺ ἀέρα. A 4.4.4 τοῦ ἡγεμονικοῦ, ἅφ' οὗ ταῦτα πάντα ἐπιτέτῃται διὰ τῶν οἰκειῶν ὀργάνων. A 4.8.1 ... πάλιν δ' αἰσθητήρια λέγεται πνεύματα νοερά ἀπὸ τοῦ ἡγεμονικοῦ ἅφ' οὗ συνίσταται ἐπὶ τὰ ὄργανα τεταμένα. A 4.21.3 ἡ μὲν ὄρασις ἐστὶ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις ὀφθαλμῶν. A 4.13.7 εἰς τὸν ὁμογενῆ ἀέρα. A 4.13.9 κατὰ τι(νων ἀκ)τίνων ἔκχυσιν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

We have two witnesses for this rather brief chapter, viz. P (represented in various ways by P^B, P^G and P^Q) and S^L, the Florentine florilegium, cf. above at ch. 4.8 Commentary A(1). Elsewhere the direct tradition of S has sometimes preserved paragraphs concerned with Aristotle and Plato, but ch. 4.15 has no such lemmata. For complications in the transmission of the tradition of P, which affects the text of L, see below, section D(b). We note that (in the context of this chapter) G preserves an illuminating phrase not paralleled elsewhere, see also below, section D(b). For comparable extra evidence in chapters of G see above, ch. 1.1, Commentary A.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There are no parallel accounts presenting a comparable duality of detailed doxai. An interesting discussion of the visibility of darkness, but without name-labels, is found in Calcidius when commenting on *Tim.* 52b (cited below at section E(a), General texts). This passage ends with the statement that the eyes believe (*suspiciantur*) they see colours in the dark, and shares its general theme with the present chapter. Waszink ad loc. speaks of 'doctrina Peripatetica', basing this ascription on Aristotle's view of the potential presence of colour in the dark of ch. 1.15.10, though this potential presence is not

mentioned by Calcidius. As a parallel for this purported Peripatetic doctrine he refers to the visibility of darkness according to Sphaerus and Chrysippus, and refers to the present chapter.

Individual parallels that may be relevant have been collected at section E(b), among which one elsewhere in Calcidius for §2, namely at *in Tim.* 237, a brief account of the Stoic theory of vision without reference to darkness.

(2) *Sources.* Views on seeing in the dark and/or the visibility of darkness are already formulated by Plato, Aristotle, Theophrastus, and then by Lucretius; see below, section D(e). The views of Sphaerus and Chrysippus will derive from a Stoic handbook, or from a more general one also containing Stoic doctrine. Because only Stoic views are mentioned this chapter belongs with the exclusively Stoic chapters 4.11, 4.21 and 4.21.

C Chapter Heading

This is a very precise heading, concerned with the category of quality, and formulating a question to which the answer can be not only 'yes' or 'no', but also 'in certain respects'. For the dialectical aspect of the question word εἰ see above, ch. 1.1, Commentary C. The heading is extant in P (P^B, P^G and P^Q), but lacking in S^L. It is not paralleled elsewhere as a heading or title. For the few headings beginning with εἰ cf. chs. 4.2, 4.9, 4.20, 5.4, 5.5, and 5.15.

D Analysis

a Context

This chapter is the third of the trio dealing with vision and constitutes a sort of appendix discussing a traditional problem. Qua theme it is connected with ch. 1.15.9–10, which treat the visibility (or not) of colour in the dark.

b Number–Order of Lemmata

P^B and P^Q have two lemmata each. P^G has a single rather long lemma, the first part of which is the same as P^B's first and S^L's second lemma. Its second part, the sentence προέρχονται ... τὸ σκότος, rejected as a wilful addition of G by Diels, is not paralleled in the other witnesses, though the words §1[4–5] προέρχονται δὲ ἐκ τῆς ὀψέως ἀκτῖνες ὀμιχλώδεις are mirrored by the words §2[12–13] προχέονται δ' ἐκ τῆς ὀψέως ἀκτῖνες πύρινοι, οὐχὶ μέλαιναί καὶ ὀμιχλώδεις in S^L's third lemma (see also below). S^L has three lemmata, of which the first two are identical but for the name-labels, 'Sphaerus the Stoic' in S^L1, 'the Stoics' in S^L2. S^L2 is moreover identical with P1. P^BQ2 and S^L3 are identical. In 1997 we accepted the argument of Diels (1881) 250 that S2 has been interpolated in S^L from P^B (see M–R1. 267), so should be bracketed in S^L (as Wachsmuth has indeed done). We now believe that is perhaps more plausible that the first lemma was equipped with

variae lectiones at its beginning, viz. with ‘Sphaerus the Stoic’ and ‘the Stoics’ as alternatives. P chose ‘the Stoics’, whereas S wrote the lemma out twice, each time with a different name-label and with a shorter doxa the first time, thus preserving the name label Sphaerus, which in the *Placita* occurs only here.

The second part of G’s lemma is of particular interest. The discovery of the scanty remains of the Antinoopolis papyrus of P has shown that in several cases G, though diverging from P^B, preserves the (or an) original tradition of P; see M–R 1.127–130. The relegation by Diels of the words §1[4–9] *προέρχονται ... τὸ σκότος* to a doxographical limbo cannot be right, because the doctrine it promotes is to some extent squarely opposed to that of Chrysippus in the final lemma of P and S (which lemma, again, is lacking in G): a standard example of doxographical diaphonia. This would seem to be beyond G’s powers of invention. The ‘misty rays’ issuing from the eyes when it is dark are *explicitly contradicted* by the Chrysippean view in the next lemma according to which these rays are ‘fiery, not black and misty’. A connection there must be. Q’s surprising ‘not luminous (or fiery) rays’ at §2 *ad finem* seems to be a *Verschlimmbesserung* rather than a reminiscence of the ἀκτῖνες ὀμιχλώδεις preserved in G.

c Rationale–Structure of Chapter

The dominant Stoic doctrine of vision, i.e. that of Chrysippus, is found here instead of in ch. 4.13 ‘On vision’, because in the present chapter it allows for a diaphonia with the second part of §1, extant in P^G only. Compare, for instance, the postponed placement for the same reason of the Stoic definition of void (κενόν) not in ch. 1.18 but in ch. 1.20. The two lemmata are agreed that darkness is visible, but disagree as to the *modus quo*.

(§1) According to the doxa attributed to Zeno’s pupil Sphaerus some sort of beam proceeds from the visual organ into the darkness. With an implicit backwards reference to the epistemic theme of ch. 4.9.4 (‘the sensations are true’) it is pointed out that the ensuing perception of darkness is true. The visual organ sends out ‘misty rays’ at night, explaining that the darkness in a physical way exerts a negative but light a positive influence upon our visual rays. Light makes us see objects, darkness only darkness. So this theory, whatever its shortcomings, explains why we cannot see things in the dark.

(§2) with name-label Chrysippus provides elements of the standard Stoic theory of vision one would have expected to find in a lemma of ch. 4.13. It includes the mathematical visual cone (also attributed to Chrysippus elsewhere, see below, section E(b)§2) as defined in both recensions of the second proposition of Euclid’s *Optics*, ‘the figure enclosed by the visual rays is a cone having its apex at the eye and its base at the limits of the things seen’ (on this work see above, ch. 4.13, Commentary C(1)). But *ad fin.* the lemma adds

a sentence that states the contrary to §1: the rays are ‘not black or misty, but fiery’—i.e., normal, usual visual rays. Why we (unlike certain animals—but nothing, of course, was known about the *tapetum lucidum*) then only see darkness, not things, is not explained. We note that the comparison of the contact of the base of the cone and the object seen with contact by *touch* by means of a *stick*, found elsewhere in accounts of the Stoic doctrine of vision (see below, section E(b)§3 and above, ch. 4.13 Commentary D(d)§4) is absent.

d Further Comments

General Points

(1) The present quaestio, which excludes that we see anything but darkness itself when it is dark, is related to the more general and traditional issue concerned with the nocturnal vision of certain animals (and even some humans), explained in various ways by Presocratic thinkers (e.g. Democritus 68A157 attributed night vision to the owl through τὸ πυρῶδες τῶν ὀψέων), and criticized by Theophrastus in the *De sensibus*. Also note, however, that ‘to see darkness’ (cf. the heading of the chapter) is said of the blind, see Sophocles *OT* 419, Euripides *Phoen.* 377, *Bacch.* 510. The capacity to see in the dark could be explained by the fire in the eyes, or the visual ray or beam: according to the third proposition of Euclid’s *Optics* (cited below at section E(b)§3) objects are only visible when the visual rays fall upon them, which entails the problematic conclusion (cf. above, ch. 4.13 Commentary D(c), and below, individual points §1) that vision may be possible when darkness reigns.

‘Darkness visible’ (Milton, *PL* 1.63), as in the present chapter, helps explain Seneca *Ep.* 57.2 *non ut per tenebras videamus, sed ut ipsas*, just as the hypothetical ‘black rays’ (denied in §2) help explain Vergil *Aen.* 7.456–457 *atro lumine*, a phrase explained by Servius as ‘hellish light’; for fuller quotations see below, section E(b) General texts. Edgeworth (1983) may be right in assuming that Milton remembered Vergil’s expression.

(2) The verb προχέισθαι at §1[3], cf. §2[12] προχέονται varies the terminus technicus ἐκχέισθαι for the issuing of rays (ἄκτῖνες) from the eyes, see (as cited above, ch. 4.13 at section E(b) General texts) Euclid *Opt.* (rec. Theonis) p. 146.20, 152.1–3 etc., Cicero *Att.* 2.3.2, Heron *Def.* 135.11, Alexander of Aphrodisias in *Mete.* 141.6–7, and Plotinus *Enn.* 4.5[29]2.8–13; compare ch. 4.13.10 κατὰ τι(νων ἀκ)τίνων ἔκχυσιν. We assume that §1[4] προέρχονται, not paralleled elsewhere for the issuing of rays, is a *variatio* for προχέονται and not an (in itself easily comprehensible) misreading.

Individual Points

§1 The tenet may be seen as someone's reply to Aristotle's criticism of Empedocles' and of Plato's theory of vision (in the *Timaeus*). See the pertinent objection of Aristotle *Sens.* 2 437b11–14 (Greek text at section E(b) General texts): 'if it (sc. the visual beam) were fire, as Empedocles (31A91) posits and has been written in the *Timaeus* (45c), and if in fact vision should occur when light issues from the eye as from a lamp, why then should vision not be equally possible in the dark?' The answer given to this query in §1 is that what issues is not pure light, but light that has been troubled and obstructed by the conditions obtaining at night, so that it fails to reach the objects. Galen speaks of visual *pneumata* of different quality, e.g. pure as the aether, or opaque in the manner of mist (θολερὸν ὁμίχλης δίκην—cf. the ἀκτῖνες ὁμιχλώδεις); see *De symptomaton causis* 7.98.7–17 K., somewhat cavalierly printed as *SVF* 2.870 by Von Arnim.

§2 For the difficulties involved with the not always consistent evidence for the standard Stoic theory see Hahm (1978) 65–69. Ingenkamp (1971) argues that the fiery rays issuing from the eyes are a doxographical misunderstanding, but this suggestion is contradicted by the evidence about the misty rays in §2. Even so, both positions may have been adapted the better to suit a discussion.

The close parallel of this paragraph with Diogenes Laertius *V.P.* 7.157 (cited below section E(a)§2) was noticed by Von Arnim, who prints §2 as *SVF* 2.866 and the Diogenes passage as *SVF* 2.867.

e Other Evidence

Plato in his discussion of vision *Tim.* 45d briefly speaks of what happens at night: the visual ray no longer blends with the outside air since this has lost its fire, hence sight is no longer possible. Aristotle argues that darkness is *invisible* though the visual faculty also distinguishes darkness, but 'in another way', *de An.* 2.10 422a20–21 and 3.2 425b20–22, cited at section E(b) General texts. Compare Alexander *de An.* 52.14 τοῦ γὰρ σκούτου οὐκ ἄλλη τις ἢ ὄψις ἐστὶ κριτικῇ. Theophrastus is less sure, see fr. 278.19–21 FHS&G at Priscianus Lydus *Metaphr. in Theophr.* 10.3–5 'but if darkness is seen without light, light will not be the cause of being seen for all things, or else darkness itself is not visible, as Theophrastus infers'. Epicurus mentions 'darkness-like air' as to some extent an obstacle to vision, fr. 29 Usener at Plutarch *Adv.Col.* 1110C–D. Lucretius *DRN* 2.746 speaks of *caecis ... tenebris*, and 4.337–352 describes darkness as 'the black air of darkness' (the opposite of 'bright clear air' and 'light') which fills the eye; cf. Giussani ad loc. 'per Lucrezio ... l'oscurità è un qualche cosa di positivo, un fluido', and Bailey ad loc.; see further below section E(b) General texts.

E Further Related Texts

a Proximate Tradition

General texts: *ps.Galen Def.Med.* 19.435.10–13 K. τμγ'. νυκτάλωψ ἐστὶ πάθος καὶ διάθεσις ὀφθαλμῶν διχα φανεράς αἰτίας. συμβαίνει δὲ τοῖς οὕτω διακειμένοις ἡμέρας μὲν μὴ ὄρᾶν, νυκτὸς δὲ βλέπειν. *Calcidius in Tim.* c. 345 *ergo quia silvestria quidem sentiuntur, silva vero minime sentitur natura propria, sed propter silvestria cum isdem sentiri putatur, fit huius modi sensus incertus, praeclareque dictum silvam sine sensu tangentium tangi, quia puro sensu minime sentiatur, ut si quis dicat tenebras quoque sine sensu videri. non enim perinde sentit visus hominis tenebras intuentis ut cum solet intueri res coloratas dilucidasque, sed contraria passione et amissione atque indigentia eorum omnium quae oculi vident—sunt enim tenebrae decolores et sine claritudinis illustratione—, nec potest visus comprehendere aliquam qualitatem tenebrarum, sed suspicari quod non sit potius quam quid rerum sit, nihilque videns id ipsum sibi videtur videre quod non videt et videre se aliquid putat, cum nihil videat—quis enim visus in tenebris?—, sed quia natura oculi haec est, ut colores discernat, conans, opinor, discernere naturam decolorem, tenebras sentire se suspicatur.*

§2 *Chrysippus: Diogenes Laertius V.P.* 7.157 (physical section) ὁρᾶν δὲ τοῦ μεταξὺ τῆς ὁράσεως καὶ τοῦ ὑποκειμένου φωτὸς ἐντεινομένου κωνοειδῶς, καθά φησι Χρύσιππος (*SVF* 2.867) ἐν β' τῶν Φυσικῶν καὶ Ἀπολλόδωρος (*SVF* 3 *Apoll.* 12). γίνεσθαι μὲν τὸ κωνοειδὲς τοῦ ἀέρος πρὸς τῇ ὄψει, τὴν δὲ βάσιν πρὸς τῷ ὀρωμένῳ· ὥς διὰ βακτηρίας οὖν τοῦ ταθέντος ἀέρος τὸ βλέπόμενον ἀναγγέλλεσθαι.

b Sources and Other Parallel Texts

General texts: *Plato Tim.* 45d ἀπελθόντος δὲ (sc. τοῦ φωτὸς) εἰς νύκτα τοῦ συγγενοῦς πυρὸς ἀποτέμνεται· πρὸς γὰρ ἀνόμοιον ἐξὶόν ἀλλοιοῦται τε αὐτὸ καὶ κατασβέννυται, συμφυρὲς οὐκ ἐστὶ τῷ πλησίον ἀέρι γιγνόμενον, ἅτε πῦρ οὐκ ἔχοντι. *Aristotle de An.* 2.10 422a20–22 ὥσπερ δὲ καὶ ἡ ὄψις ἐστὶ τοῦ τε ὁρατοῦ καὶ τοῦ ἀοράτου (τὸ γὰρ σκότος ἀόρατον, κρίνει δὲ καὶ τοῦτο ἡ ὄψις). *de An.* 3.2 425b21–22 ὅταν μὴ ὀρώμεν, τῇ ὄψει κρίνομεν καὶ τὸ σκότος καὶ τὸ φῶς, ἀλλ' οὐχ ὡσαύτως. *Sens.* 2 437b11–15 ἐπεὶ εἴ γε πῦρ ἦν (sc. ἡ ὄψις), καθάπερ Ἐμπεδοκλῆς (31A91 DK) φησὶ καὶ ἐν τῷ Τιμαίῳ (45b–46a) γέγραπται, καὶ συνέβαινε τὸ ὄρᾶν ἐξιόντος ὥσπερ ἐκ λαμπτήρος (cf. 31B84 DK) τοῦ φωτός, διὰ τί οὐ καὶ ἐν τῷ σκότει ἑώρα ἂν ἡ ὄψις; τὸ δ' ἀποσβέννυσθαι φάναι ἐν τῷ σκότει ἐξιοῦσαν, ὥσπερ ὁ Τίμαιος λέγει, κενόν ἐστὶ παντελῶς. *HA* 8.34 619b18–21 γλαυκες δὲ καὶ νυκτικὸρακες, καὶ τὰ λοιπὰ ὅσα τῆς ἡμέρας ἀδυνατεῖ βλέπειν, τῆς νυκτὸς μὲν θηρεύοντα τὴν τροφὴν αὐτοῖς πορίζεται, οὐ κατὰ πᾶσαν δὲ τὴν νύκτα τοῦτο ποιεῖ, ἀλλ' ἄκρας ἐσπέρας καὶ περὶ ὄρθρον. *GA* 5.1 779b15–20 τὸ μὲν οὖν ὑπολαμβάνειν τὰ μὲν γλαυκὰ πυρῶδη, καθάπερ Ἐμπεδοκλῆς (31A91 DK) φησι, τὰ δὲ μέλανα πλεῖον ὕδατος ἔχειν ἢ πυρός, καὶ διὰ τοῦτο τὰ μὲν ἡμέρας οὐκ ὀξὺ βλέπειν, τὰ γλαυκὰ, δι' ἔνδειαν ὕδατος, θάτερα δὲ νύκτωρ δι' ἔνδειαν πυρός, οὐ λέγεται καλῶς, εἴπερ μὴ πυρὸς τὴν ὄψιν θετέον ἀλλ' ὕδατος πᾶσιν. *EE* 7.2 1235b35–38 ὁμοίως δὲ καὶ ἡδέα ἀπλῶς σώματι τὰ τῷ ὑγαίνοντι καὶ ὀλοκλήρῳ, οἷον τὸ ἐν τῷ φωτὶ ὄρᾶν καὶ οὐ τὸ ἐν τῷ σκότει· καίτοι τῷ ὀφθαλμῶντι ἐναντίως. *Theophrastus Sens.* 18 (Empedocles 31A86 DK) ἀτόπως δὲ

καὶ ὅτι τὰ μὲν ἡμέρας, τὰ δὲ νύκτωρ μᾶλλον ὀρᾷ· ... πάντες ἅπαντα μεθ' ἡμέραν μᾶλλον ὀρώσι πλην ὀλίγων ζώων· τούτοις δ' εὖλογον τοῦτ' ἰσχύειν τὸ οἰκεῖον πῦρ. *Sens.* 27 (on Anaxagoras, 59A92 DK) καὶ τοῖς μὲν πολλοῖς μεθ' ἡμέραν, ἐνίοις δὲ νύκτωρ εἶναι τὸ ἀλλόχρων· διὸ ὀξυωπεῖν τότε. *Sens.* 42 (Diogenes 64A19 DK) διὸ τοὺς μελανοφθάλμους μεθ' ἡμέραν καὶ τὰ λαμπρὰ μᾶλλον ὀρᾷν, τοὺς δ' ἐναντίους νύκτωρ. *Epicurus Against Theophrastus* Book 2 (fr. 29 Usener) ap. *Plu. Adv. Col.* 1110D πολλάκις ἀέρος ὁμοίως σκοτώδους περιεχυμένου οἱ μὲν αἰσθάνονται χρωμάτων διαφορὰς οἱ δ' οὐκ αἰσθάνονται δι' ἀμβλύτητα τῆς ὀψεως· ἔτι δ' εἰσελθόντες εἰς σκοτεινὸν οἶκον οὐδεμίαν ὄψιν χρώματος ὀρώμεν ἀναμείναντες δὲ μικρὸν ὀρώμεν. *Aristophanes of Byzantium Epit. HA* 2.320 λέγεται δὲ καὶ βλέπειν ὕαιναν ἴσα καὶ φωτὶ κατὰ νύκτα. *Lucretius DRN* 2.746–747 *denique nos ipsi caecis quaecumque tenebris / tangimus, haud ullo sentimus tincta colore.* *DRN* 4.337–352 *e tenebris autem quae sunt in luce tuemur / propterea quia, cum propior caliginis aer / ater init oculos prior et possedit apertos, / insequitur candens confestim lucidus aer, / qui quasi purgat eos ac nigras discutit umbras / aeris illius; nam multis partibus hic est / mobilior multisque minutor et mage pollens. / qui simul atque vias oculorum luce replevit / atque patefecit quas ante obsederat aer / ater, continuo rerum simulacra sequuntur / quae sita sunt in luce, lacessuntque ut videamus. / quod contra facere in tenebris e luce nequimus / propterea quia posterior caliginis aer / crassior insequitur, qui cuncta foramina complet / obsiditque vias oculorum, ne simulacra / possint ullarum rerum coniecta moveri.* *Capitula Lucretiana* at *DRN* 4.312 *ex tenebris in luce quae sint videri et rursum ex luce quae sint in tenebris videri non posse.* *Vergil Aen.* 7.456–457 *sic effata facem iuveni coniecit et atro / lumine fumantis fixit sub pectore taedas.* cf. *Servius auctus in Aen.* 7.457, p. 159.22–23 Thilo 'atro' autem 'lumine' furiali, inferno; alias ratione caret. *Seneca Ep.* 57.2 *nihil illo carcere longius, nihil illis facibus obscurius, quae nobis praestant non ut per tenebras videamus, sed ut ipsas.* *Alcinous Did.* c. 18, p. 173.23–25 H. ὅθεν καὶ τοῦ φωτὸς νύκτωρ ἀπιόντος ἢ σκοτωθέντος οὐκέτι προσφύεται τὸ ἀφ' ἡμῶν ρεύμα τῷ πλησίον ἀέρι. *Plutarch Quest. Conv.* 720D–E 'ἐμοὶ μὲν οὖν' εἶπεν (sc. ὁ Ἀμμώνιος) 'οὐ φαύλως ἢ πρόνοια δοκεῖ μεμηχανῆσθαι τῇ ἀκοῇ σαφήνειαν, ὅτε τῆς ὀψεως οὐδὲν ἢ κομιδῇ τι μικρὸν ἔργον ἐστί· σκοτεινὸς γὰρ ὢν ὁ ἀήρ κατ' Ἐμπεδοκλέα (31B49 DK) 'νυκτὸς ἐρημικῆς ἀλαώπιδος', ὅσον τῶν ὁμμάτων ἀφαιρεῖται τοῦ προαισθάνεσθαι, διὰ τῶν ὥτων ἀποδίδωσιν'. *Sextus Empiricus P.* 1.45 ἐπεὶ οὖν καὶ τῶν ζώων τινὰ φύσει λαμπηδόνα ἐν τοῖς ὀφθαλμοῖς ἔχει καὶ φῶς λεπτομερές τε καὶ εὐκίνητον ἀπ' αὐτῶν ἀποστελλει, ὥς καὶ νυκτὸς ὀρᾷν, θεόντως ἂν νομίζοιμεν ὅτι μὴ ὁμοία ἡμῖν τε κἀκείνοις τὰ ἐκτὸς ὑποπίπτει. *Alexander of Aphrodisias in Sens.* 23.2–3 εὐλογώτερον, εἰ τῷ ἐκπέμπειν φῶς τὸ ὀρᾷν, νυκτὸς μᾶλλον ὀρᾷν τὰ ζῶα ἢ μεθ' ἡμέραν. *Plotinus* 2.4.[12]10 καὶ οἷον ὀφθαλμῷ τὸ σκότος ὕλην δὴ παντὸς ἀοράτου χρώματος, οὕτως οὖν καὶ ψυχὴ ἀφελοῦσα ὅσα ἐπὶ τοῖς αἰσθητοῖς οἷον φῶς τὸ λοιπὸν οὐκέτι ἔχουσα ὀρίσαι ὁμοιοῦται τῇ ὄψει τῇ ἐν σκότῳ ταῦτόν πως γινομένη τότε τῷ ὁ οἷον ὀρᾷ. *Oribasius* 8.48.1 νυκτάλωπα δὲ λέγουσιν, ὅταν συμβῇ τὴν μὲν ἡμέραν βλέπειν, δυομένου δ' ἡλίου ἀμαυρότερον ὀρᾷν, νυκτὸς δὲ γενομένης οὐδ' ὅλως ὀρᾷν. *Aëtius of Amida Iatr.* 7.48 πρὸς νυκτάλωπα· νυκταλωπίαν δὲ λέγουσιν, ὅταν συμβῇ τὴν μὲν ἡμέραν

βλέπειν, δύναντος δὲ τοῦ ἡλίου ἀμαυρότερον ὁρᾶν, εἴτα νυκτὸς γενομένης μηδὲν βλέπειν. γίγνεσθαι δὲ τοῦτο δοκεῖ μάλιστα διὰ τινὰ ἀσθένειαν περὶ τὴν κεφαλὴν, καὶ μάλιστα διὰ τὴν τοῦ ὀπτικοῦ πνεύματος παχύτητα καὶ τῶν λοιπῶν περὶ τὸν ὀφθαλμὸν ὑγρῶν καὶ χιτῶνων. τισὶ δὲ συμβαίνει νυκτὸς μὲν βέλτιον ὁρᾶν, ἡμέρας δὲ χεῖρον καί, εἰ νυκτὸς σελήνη φαίνοιτο, μὴ ὁρᾶν· σπᾶνιον δὲ τοῦτο, τὸ δὲ πρῶτον πλείστον συμβαίνει. **Priscianus** *Metaphr. in Theophr.* 6.20–22 φωτεινὸς γάρ ὢν καὶ τὸ ὁρατικὸν ἡμῶν, ὡς περιφανῶς τοῦτο ἔνια τῶν ζῶων ἐπιδείκνυσιν προλάμποντα τὰ ὑφ' ἐαυτῶν ὀρώμενα—διὸ καὶ νυκτὸς ὁρᾶν δύναται. **Theophrastus** *fr.* 278.19–21 FHS&G at *Prisc. Metaphr. in Theophr.* 10.3–5 ἀλλ' εἰ τὸ σκότος ὁράται ἄνευ φωτός, οὐκ ἔστι πᾶσι τοῦ ὁρᾶσθαι τὸ φῶς αἴτιον, ἢ οὐχ ὁρατόν, ὡς καὶ αὐτὸς (*sc.* **Theophrastus**) ἐπάγει, τὸ σκότος. **Damianus** *Opt.* 2.2 ὅτι δὲ τοῦτο τὸ προβαλλόμενον ἄφ' ἡμῶν φῶς ἐστίν, αἶ τ' ἀπολάμπουσαι τῶν ὀμμάτων δηλοῦσι μαρμαρυγαὶ καὶ τὸ τινὰς καὶ νύκτωρ ὁρᾶν οὐδὲν τοῦ ἔξωθεν προσθεομένων φωτός, ὥσπερ οὐδὲ τὰ νυκτινομα τῶν ζῶων· οἷος ἐκεῖνος ὁ Τιβέριος γέγονεν ὁ Ῥωμαίων βασιλεὺς. τῶν δὲ γε νυκτινόμων ζῶων τὰ ὀμματα καὶ ἐκλάμποντα φαίνεται νύκτωρ δίκην πυρός.

§1 Sphaerus: ps.Aristotle *Probl.* 15.6 91b5–6 ἀλλὰ διὰ τὸ ἀσθενεῖς εἶναι τὰς ἀποσχιζομένας ἀπὸ τῶν ὄψεων πρὸς τὰ ἄκρα τῶν εὐθειῶν, οὐχ ὁράται τὰ ἐν ταῖς γωνίαις· ἀλλ' ὅσον μὲν τῆς εὐθείας ἐνυπάρχει ἐν τῷ κῶνῳ, ποιεῖ αὐτὴν, τὸ δὲ λοιπὸν οὐ ποιεῖ, ἀλλὰ λανθάνουσιν αἱ ὄψεις ἐπιπίπτουσαι. πολλὰ γὰρ οὐχ ὀρώμεν ἐφ' ἃ διακνέται ἡ ὄψις, οἷον τὰ ἐν τῷ σκότει. **Philo of Alexandria** *Aet.* 86 (*SVF* 2.612) αὐγὴ δὲ τὸ ἀποστελλόμενον ἐκ φλογός, συνεργὸν ὀφθαλμοῖς εἰς τὴν τῶν ὁρατῶν ἀντίληψιν. **Alexander of Aphrodisias(?)** *de An.Mant.* 131.31–35 (on the Stoics) τὸ γὰρ λέγειν τὸν μὲν πεφωτισμένον ἀέρα τῷ διακεκρίσθαι μᾶλλον ἔχειν ἰσχύν καὶ δύνασθαι τῇ ἐπερείσει τὴν αἰσθησιν κινεῖν, τὸν δὲ ἀφώτιστον {τῷ} κεχαλασθαι {τῷ} μὴ δύνασθαι ὑπὸ τῆς ὄψεως συνεντείνεσθαι, καίτοι πυκνότερον ὄντα τοῦ πεφωτισμένου, πῶς πιθανόν;

§2 Chrysippus: ps.Aristotle *Probl.* 15.6 9115 ἢ ὅτι ἡ τῶν ὄψεων ἔκπτωσις κῶνός ἐστι. **Euclid** *Opt.* (rec. **Theonis**) "Οροι p. 154.4–12 α'. ὑποκείσθω τὰς ἀπὸ τοῦ ὀμματος ὄψεις κατ' εὐθείας γραμμάς φέρεσθαι διάστημά τι ποιούσας ἀπ' ἀλλήλων. β'. καὶ τὸ μὲν ὑπὸ τῶν ὄψεων περιεχόμενον σχῆμα εἶναι κῶνον τὴν κορυφὴν μὲν ἔχοντα πρὸς τῷ ὀμματι, τὴν δὲ βάσιν πρὸς τοῖς πέρασι τῶν ὀρωμένων. γ'. καὶ ὁρᾶσθαι μὲν ταῦτα, πρὸς ἃ ἂν αἱ ὄψεις προσπίπτωσιν, μὴ ὁρᾶσθαι δέ, πρὸς ἃ ἂν μὴ προσπίπτωσιν αἱ ὄψεις. **Cicero** *ND* 2.83 *ipseque aër nobiscum videt*. **Galen** *PHP* 7.7.20 μὴ τοῖνον ὡς διὰ βακτηρίας τοῦ πέριξ ἀέρος ὁρᾶν ἡμᾶς οἱ Στωϊκοί (*SVF* 2.865) λεγέτωσαν. **Sextus Empiricus** *M.* 7.162 (*SVF* 2.63) φαντασίαν ῥητέον εἶναι πάθος τι περὶ τὸ ζῶον ἑαυτοῦ τε καὶ τοῦ ἐτέρου παραστατικόν. οἷον προσβλέψαντές τι, φησὶν ὁ Ἀντίοχος (*fr.* 56 Luck), διατιθέμεθ' ὡς τὴν ὄψιν, καὶ οὐχ οὕτως αὐτὴν διακειμένην ἴσχομεν ὡς πρὶν τοῦ βλέψαι διακειμένην εἶχομεν. *P.* 3.51 ἡ ὄρασις, ἐάν τε κατὰ ἔντασιν γίνηται κῶνου. **Alexander of Aphrodisias(?)** *de An.Mant.* 130.14–17 εἰσὶν δὲ τινες (*SVF* 2.864), οἱ διὰ τῆς τοῦ ἀέρος συνεντάσεως τὸ ὁρᾶν φασὶ γίνεσθαι. νυττόμενον γὰρ ὑπὸ τῆς ὄψεως τὸν συνάπτοντα τῇ κόρῃ ἀέρα σχηματίζεσθαι εἰς κῶνον. τοῦτου δὲ οἷον τυπομένου κατὰ τὴν βάσιν ὑπὸ τῶν ὁρατῶν τὴν αἰσθησιν γίνεσθαι, καθάπερ καὶ τῇ ἀφ' ἣ διὰ βακτηρίας. **Calcidius** *in Tim.* c. 237 *Stoici* (*SVF* 2.863) *vero videndi causam in nativi spiritus inten-*

tionem constituunt, cuius effigiem coni similem volunt. hoc quippe progressu ex oculorum penetranti, quae appellatur pupula, et ab exordio tenui, quo magis porrigitur, in soliditatem optimato exordio, penes id quod videtur locata fundi omnifariam dilatarique eius illustratione. SVF 2.863–871. Tertullian Adv.Hermog. p. 155.24 Kroymann = c. 28.2, p. 45.22–23 Waszink etiam homini tenebrae visibiles sunt,—hoc enim ipsum, quod sunt tenebrae, videtur—, nedum deo. Damianus Opt. 6.1 γινώσκειν δὲ δεῖ ὅτι τὸ κωνικὸν τοῦτο καὶ φωτοειδὲς τῆς ὄψεως σχῆμα διὰ τῶν ἀδήλων πόρων τῆς κόρης φερόμενον σχίζεται ἐξ ἀνάγκης εἰς κεχωρισμένας μὲν ἀλλήλων ἀκτῖνας, συναυγαζούσας δὲ πάντα τὸν μεταξὺ αὐτῶν τόπον, τουτέστιν ὅλου τοῦ κώνου τὸ βάθος.

Liber 4 Caput 16

- P^B**: ps.Plutarchus *Plac.* 901F; p. 406^a15–31 Diels—**P^G**: ps.Galenus *HPh* c. 97; p. 637.11–19 Diels; pp. 306–310 Jas—**P^Q**: Qustā ibn Lūqā pp. 204–207 Dai-ber—**P^s**: Psellus *Omn.Doctr.* c. 108.4–5, p. 60 Westerink—**P^{sy}**: Symeon Seth *CRN* 4.75, p. 73.14 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.53.1–4, p. 491.6–19 Wachsmuth; cf. Phot. *Bibl.* 167, p. 12b32 Henry (titulus solus)
 Cf. Nem: Nemesius *NH* c. 6, p. 56.8–10; c. 10, p. 67.4, 7–9 Morani

Titulus ις'. Περί ἀκοῆς (P,S)

- §1 Ἐμπεδοκλῆς τὴν ἀκοὴν γίνεσθαι κατὰ πρόσπτωσιν πνεύματος τῷ χονδρώδει, ὅπερ φησὶν ἐξηρτῆσθαι ἐντὸς τοῦ ὠτός 'κώδωνος' δίκην αἰωρούμενον καὶ τυπτόμενον. (P₁,S₁)
- §2 Ἀλκμαίων ἀκούειν ἡμᾶς τῷ κενῷ τῷ ἐντὸς τοῦ ὠτός· τοῦτο γὰρ εἶναι τὸ διηχοῦν κατὰ τὴν τοῦ πνεύματος ἐμβολήν· πάντα γὰρ τὰ κενὰ ἤχει. (P₂,S₂)
- §3 Διογένης τοῦ ἐν τῇ κεφαλῇ ἀέρος ὑπὸ τῆς φωνῆς τυπτομένου καὶ κινουμένου. (P₃,S₃)
- §4 Πλάτων καὶ οἱ ἄπ' αὐτοῦ πλήττεσθαι τὸν ἐν τῇ κεφαλῇ ἀέρα, τοῦτον δ' ἀνακλᾶσθαι εἰς τὰ ἡγεμονικά καὶ γίνεσθαι τῆς ἀκοῆς τὴν αἴσθησιν. (P₄,S₄)

§1 Empedocles 31A93 DK cf. B99; §2 Alcmaeon 24A6 DK; §3 Diogenes 64A21 DK, T9 Laks; §4 Plato cf. *Tim.* 67a–b

§1 [2] πρόσπτωσιν **P^B** : ἔμπτωσιν **P^G** : *Zusammenstoßen* Q : πρόπτωσιν **S^L** corr. Diels Wachsmuth || πνεύματος **P^{B(I,II)}** **S^L** : πνεύματι **P^{B(II)}** : τῶν πνευμάτων **P^G** || [3] χονδρώδει **P^G** (mss. χόνδρω δι' corr. Diels) prob. Mau Lachenaud cf. Nem. p. 67.8 χονδρώδες : χρονωίδει **P^{B(I,II)}** : κοχλιώδει **P^{B(III)}** : *dem knorpelartigen Teil* Q : χόνδρω **S^L** || ὅπερ i.q. χονδρώδες **P^{BG}** prob. Diels Mau : ὅνπερ **S^L** prob. Wachsmuth : *jene Luft* Q || ἐντὸς **P^{BS^L}** : ἐκ **P^G** || ἐξηρτῆσθαι ... δίκην **P^{BGS^L}** : *das Ohr in Kegelform betritt* Q || δίκην **P^{BS^L}** : τρόπον **P^G** || [4] αἰωρούμενον καὶ **P^{BGS^L}** : om. **P^Q** (ut vid.) §2 [5] post ἡμᾶς add. φησι **P^G** || τῷ ἐντὸς] om. **P^G** || [5–6] τοῦτο ... ἐμβολήν] *wir hören den Schall, welchen wir manchmal vernehmen, vielmehr aus diesem Grunde* Q || [6] διηχοῦν **P^B** : περιηχοῦν **P^G** : διηθοῦν **S^L** || ἐμβολήν **P^B** prob. Laks–Most : εἰσβολήν **P^{GS^L}** prob. Diels || κενὰ **P** ret. Diels ap. **P** prob. Mau Laks–Most : κοῖλα **S^L** ret. Diels ap. **S** prob. Wachsmuth || ἤχει] ἤχειν **P^G** §3 [8–9] καὶ κινουμένου] om. **P^G** || *Dann geschieht dadurch das Hören* add. **P^Q** (ex §4 ?) §4 [10] Πλάτων καὶ οἱ ἄπ' αὐτοῦ **P^{BQ}** : Πλάτων **P^G** : οἱ ἀπὸ Πλάτωνος **S** || *die äußere Luft* ut subi. verbi πλήττεσθαι add. Q || [11] τὰ ἡγεμονικά **P^{BS}** : τὸ ἡγεμονικόν **P^{GQ}**

*Testes primi:**Traditio ps.Plutarchi:***ps.Galenus** *HPh* c. 97 (~ tit.) Περὶ ἀκοῆς (text Jas)

97.1 (~ P₁) Ἐμπεδοκλῆς τὴν ἀκοὴν γίνεσθαι κατὰ ἔμπρωσιν τῶν πνευμάτων τῷ χονδρώδει ὅπερ φησὶν ἐξηρτησθαι ἐκ τοῦ ὠτός κώδωνος τρόπον αἰωρούμενον καὶ τυπτόμενον.

97.2 (~ P₂) Ἀλκμαίων ἀκούειν ἡμᾶς φησι τῷ κενῷ τοῦ ὠτός. τοῦτο γὰρ εἶναι τὸ περιηχοῦν κατὰ τὴν τοῦ πνεύματος εἰσβολήν· πάντα γὰρ τὰ κενὰ ἤχεϊν.

97.3 (~ P₃) Διογένης τοῦ ἐν τῇ κεφαλῇ ἀέρος ὑπὸ τῆς φωνῆς τυπτομένου.

97.4 (~ P₄) Πλάτων πλήττεσθαι τὸν ἐν τῇ κεφαλῇ ἀέρα, τοῦτον δ' ἀνακλᾶσθαι εἰς τὸ ἡγεμονικὸν καὶ γίνεσθαι τῆς ἀκοῆς τὴν αἴσθησιν.

Psellus *Omn.Doctr.* c. 108 4–5 (~ §2) ἀκούομεν δὲ τῷ κενῷ τῷ ἐντός τοῦ ὠτός, τοῦτο γὰρ εἶναι τὸ διηχοῦν κατὰ τὴν τοῦ πνεύματος ἐμβολήν.

Symeon Seth *CRN* 4.75 (~ tit.) Περὶ ἀκοῆς

*Testes secundi:***Nemesius** *NH* c. 10, p. 67.4 (~ tit.) Περὶ ἀκοῆς

NH c. 6, p. 56.8–10 ὡς καὶ τῷ (κατὰ τὴν ἀκοὴν) ἀερώδει τῶν τοῦ ἀέρος παθημάτων, ἅηρ γὰρ ἐστὶν ἡ τῆς φωνῆς οὐσία ἢ ἀέρος πληγὴ (~ quaestio).

NH c. 10, p. 67.7–9 ὄργανα δὲ ... ταύτης (sc. τῆς ἀκοῆς) ..., μάλιστα δὲ αὐτῶν τὸ χονδρώδες γένος, πρὸς γὰρ ψόφους καὶ ἤχους ἐπιτήδειός ἐστιν ὁ χόνδρος (~ §1).

Loci Aetiani:

§4 A 3.16.6 (ap. P) οἱ ἀπὸ Πλάτωνος. A 4.9.11 (de Pythagora et Platone) πρὸς δὲ τὴν ἀκοὴν τὸ πνευματικόν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

There are two witnesses, P (represented in various ways by P^B, P^G and P^Q), and S. Both have four lemmata in the same order, so for all we know the chapter may be complete. S's lemmata except 16.4 (Plato c.s.) are again extant only in S^L, the Florentine compendium, cf. above, ch. 4.8 Commentary A(1).

B Proximate Tradition and Sources

(1) *Proximate tradition.* There is virtually no proximate tradition. The cousin writing *Nem NH* c. 10 is very different. There is also an excerpt of §2 in *Psellus*,

who in compiling his chapter on the five senses made excerpts from chs. 4.13 and 4.16–19.

(2) *Sources*. Diels *DG* 222–223 and Ax (1986) 80–81 discuss the parallels in Theophrastus *De sensibus*. What is important, as Ax points out, is that Theophrastean antecedents (name-label plus a doxa) are extant for all four lemmata; see further below, section D(d) and passages cited in section E(b) §§1–4. Aristotle provides the general information *de An.* 2.8 420a18–19 that ‘they say we hear by means of something which is void [cf. §2] and resonant, because we hear by that which has the air enclosed in it [cf. §§3–4]’, and further tells us *PA* 2.10 656b13–16 that ‘what is called empty is filled with air’ (see below, section E(b) *General texts*). That the lemmata have been modified in the course of transmission, or are somewhat garbled, is not surprising. Although this evidence is insufficient to ground Diels’ grand hypothesis of the ‘Theophrasteum fundamentum’ of the older parts of the *Placita*, it is clear that in some cases material has been incorporated that was conveniently available in the *De sensibus*.

C Chapter Heading

Found in all witnesses, and in Nem. The umbrella formula that dominates in the *Placita* (see above, ch. 1.3 Commentary C) here covers the question type of cause (διὰ τῆ) and the category of place. The heading in S, though missing in the main tradition, is confirmed by Photius and the index of S^L. The formula περὶ ἄκοῆς indicating the subject to be treated is paralleled e.g. at ps.Aristotle *MM* 1.21.2 and Theophrastus *Sens.* 5.

D Analysis

a Context

Hearing is the second of the senses to be treated, and is (in accordance with the tradition) located after ch. 4.13, sight (plus chs. 4.14 mirror images and 4.15 darkness), and before ch. 4.17, smell, and ch. 4.18, taste: the same order as Aristotle’s in *de An.* 2.7–10. (Touch, as we noted at ch. 4.13, Commentary D(a) above, is absent.) The chapter on voice or sound (φωνή), a theme that in other sources, e.g. Aristotle *de An.* 2.8, is often treated together with hearing and could very well have been placed immediately after ch. 4.16, is here located after the cluster of chapters on the senses, viz. at ch. 4.19 (and followed by a chapter on the corporeality of voice, ch. 4.20).

b Number–Order of Lemmata

All our witnesses have four lemmata, and all in the same order, which there is thus no reason to change.

c Rationale–Structure of Chapter

The diaeresis opposes what is outside to what is inside, and what is full to what is empty. It lists in succession: §1 a view according to which hearing is caused by (outside) *pneuma* striking against a specific little body inside the ear which rings like a bell; §2 one according to which this *pneuma* enters an empty space inside the ear which then resounds; §3 one according to which the inside ear is (not empty but) filled with air that is struck and moved by the sound; and §4 one which likewise speaks of air that is struck, explicitly inside the head (not the ear), which is reflected to the ‘regent parts’ (note the plural), and thus the sensation of hearing comes about. The opposition between ‘inside the ear’ and ‘inside the head’ is hardly a strong one. That between an inside ear or head filled with air (§§3–4) and an inside ear that is empty (§2) seems stronger, but it should be noted that according to some authorities ‘empty’ is equivalent to ‘filled with air’. There is an appreciable opposition between an inside ear equipped with a specific hearing aid (§1) and one that is empty (§2) or filled with air (§§3–4). Laks (2007) 45–48, discussing the whole chapter, gives a good account of oppositions and commonalities; note esp. his diaeretic scheme at *ibid.* 50.

Though we may have the complete Aëtian chapter (see above, section A), its information about views about hearing is far from complete: we miss, for instance, those of Democritus, Aristotle and the Stoics.

d Further Comments

Individual Points

§1 Diels *DG* 222 notes the resemblance between §1 and Theophrastus *Sens.* 9 (‘convenire videntur, sed cum misere haec corrupta sint, ascribere nolo’); Ax rightly argues that (*pace* Diels) the Empedocles lemma differs from the passages in Theophrastus more as to wording than content. Baltussen (1993) 218 moreover points at the presence of the bell, κῶδων, in both texts.

§2 Diels also notes the resemblance between §2 and Theophrastus *Sens.* 25 (‘optime consentiunt’); Ax agrees. Note however that A turns Theophrastus’ description of a particular phenomenon: ‘it reverberates (for it produces sound by being hollow)’, into a general statement: ‘all hollow spaces reverberate’; cf. ps.Aristotle *Probl.* 21 (“Ὅσα περὶ φωνῆς) 7 899b33 καὶ γὰρ τὰ κοῖλα μᾶλλον ἤχει).

§3 Diels is optimistic about the resemblance between §3 and Theophrastus *Sens.* 40–41 (‘bene respondet’), but the Diogenes lemma in Ax’s view is much less close to Theophrastus’ version than Diels believed; similarly Baltussen (1993) 220. Laks (2008) 165 points out that ‘des trois airs qui interviennent dans le processus de l’audition [namely in Theophrastus], le doxographe ne retient

que les deux extrêmes, le son et l'air cervical'. However, one notes that the doxographer's addition of 'sound' is most helpful.

§4 Plato's definition of hearing—not mentioned by Diels—according to Ax is suggested 'vage und dazu mit fremder Begrifflichkeit' (sc. τὰ ἡγεμονικά). Baltussen (2000a) 233 speaks of 'a muddled simplification'. In *Tim.* 67b (cf. Alcinous *Did.* c. 19, p. 174.2 H.) the recipient of the auditory sensation is the liver. The plural τὰ ἡγεμονικά is probably short for τὴν αἰσθησιν καὶ τὸ ἡγεμονικόν (ch. 4.18.2[6]). Also compare Nem *NH* c. 6, p. 57.7–10 τῶν δὲ ψυχικῶν τὰ μὲν ἐστὶν ὑπουργικά τε καὶ δορυφορικά, τὰ δὲ ἀρχικά καὶ ἡγεμονικά· ἀρχικά μὲν τὸ τε διανοητικόν καὶ τὸ ἐπιστημονικόν, ὑπουργικά δὲ τὰ αἰσθητικά καὶ ἡ καθ' ὁρμὴν κίνησις καὶ τὸ φανταστικόν, and the passages of Ptolemy cited at ch. 4.5 section E(b)§14.

e Other Evidence

The other evidence of interest is found in Theophrastus *De sensibus*; see above at section B.

E Further Related Texts

a Proximate Tradition

General texts: ps.Galen *Def.Med.* 19.379.15–18 K. ριη'. ἀκοή ἐστὶν ἡ γινομένη διὰ τοῦ ἐγκεκραμένου τοῖς ὡσὶ πνεύματος ξηροτέρου μάλλον ὄντος ἢ περὶ λεπτομερεστέρου, δι' οὗ αἱ ἀκουστικαὶ ἀντιλήψεις γίνονται. **Aquilius** *Def.* 6b Rashed ἀκοή δὲ (sc. ἐστὶν) αἰσθησις δεκτικὴ φωνῶν. **Diogenes Laertius** *V.P.* 7.158 (*SVF* 2.872) ἀκούειν δὲ τοῦ μεταξὺ τοῦ φωνοῦντος καὶ τοῦ ἀκούοντος ἀέρος πληττομένου σφαιροειδῶς, εἴτα κυματούμενου καὶ ταῖς ἀκοαῖς προσπίπτοντος, ὡς κυματοῦται τὸ ἐν τῇ δεξαμενῇ ὕδωρ κατὰ κύκλους ὑπὸ τοῦ ἐμβληθέντος λίθου.

Chapter heading: *Capitula Lucretiana* at *DRN* 4.524 *de auditis*.

b Sources and Other Parallel Texts

General texts: **Antiphon** at *POxy* 1364, *CPF* 1.1 fr. A col. iii.3–6 Decleva Caizzi & *alii* (F44(b)3–6 Pendrick) τῇ ἀκοῇ τοὺς φθόγλους εἰσδεχόμεθα. **Aristotle** *de An.* 2.8 420a18–19 καὶ διὰ τοῦτο φασιν ἀκούειν τῷ κενῷ καὶ ἡχούντι, ὅτι ἀκούομεν τῷ ἔχοντι ὠρισμένον τὸν ἀέρα. *PA* 2.10 656b13–16 ἔχει δὲ καὶ τὴν ἀκοὴν εὐλόγως ἔνια τῶν ζῶων ἐν τῷ τόπῳ τῷ περὶ τὴν κεφαλὴν· τὸ γὰρ κενόν καλούμενον ἀέρος πλήρὲς ἐστὶ, τὸ δὲ τῆς ἀκοῆς αἰσθητήριον ἀέρος εἶναι φαμεν. **Porphry** *in Harm.* p. 32.5–16 ἐκ δὲ τῶν εἰρημένων σχεδὸν τὰ πάθη ἐκατέρω τῶν αἰσθήσεων ἐναντίως πέφυκεν ἐγγίνεσθαι, λέγω δὲ τῇ ὁράσει καὶ τῇ ἀκοῇ. οὐ γὰρ καθάπερ ἡ ὄρασις ἐκπέμπουσα ἐπὶ τὸ ὑποκείμενον τὴν ὕψιν κατὰ διάδοσιν, ὡς φασιν οἱ μαθηματικοί, τὴν ἀντιλήψιν ποιεῖται τοῦ ὑποκειμένου, οὕτω πού καὶ ἡ ἀκοή. ἀλλ', ὡς φησὶν ὁ Δημόκριτος (68A126a DK), 'ἐκδοχεῖον μύθων' οὕσα μένει τὴν φωνὴν ἀγγεῖου δίκην· ἡ δὲ γὰρ εἰσκρίνεται καὶ ἐνρεῖ, παρ' ἣν αἰτίαν καὶ θάττον ὁρώμεν ἢ ἀκούομεν. ἀστραπῆς γὰρ καὶ βροντῆς ἅμα γενομένης τὴν μὲν ὁρώμεν ἅμα τῷ γενέσθαι, τὴν δ' οὐκ ἀκούομεν ἢ

μετὰ πολὺ ἀκούομεν, οὐ παρ' ἄλλο τι συμβαίνειν ἢ παρὰ τὸ τῇ μὲν ὄψει ἡμῶν ἀπαντὰν τὸ φῶς, τὴν δὲ βροντὴν παραγίνεσθαι ἐπὶ τὴν ἀκοὴν ἐκδεχομένης τῆς ἀκοῆς τὴν βροντὴν.

Chapter heading: Aristotle *GA* 5.2 781b28–29 καὶ περὶ μὲν ... καὶ ἀκοῆς ... εἴρηται. **Theophrastus** *Sens.* 5 περὶ ἀκοῆς. **Origen in Cant.** (tr. Rufini) 1.105.28 *de auditu*. **Themistius in de An.** 63.1 μετὰ δὲ τὴν ὄψιν περὶ ἀκοῆς ῥητέον.

§1 Empedocles: **Theophrastus** *Sens.* 9 (on Empedocles, 31A86 DK) τὴν δ' ἀκοὴν ἀπὸ τῶν ἔσθωθεν γίνεσθαι ψόφων, ὅταν γὰρ ὁ ἀήρ ὑπὸ τῆς φωνῆς κινηθεὶς ἡχῇ ἐντός· ὥσπερ γὰρ εἶναι 'κῶδωνα' τῶν ἴσων [? Stratton] ἡχῶν τὴν ἀκοὴν, ἣν προσαγορεύει (31B99 DK) 'σάρκινον ὄζον'· κινούμενον δὲ παίειν τὸν ἀέρα πρὸς τὰ στερεὰ καὶ ποιεῖν ἡχον. **Theophrastus** *Sens.* 21 (on Empedocles, 31A86 DK) ἀλλὰ περὶ μὲν τὴν ἀκοὴν ὅταν ἀποδῶ τοῖς ἔσθωθεν γίνεσθαι ψόφοις, ἄτοπον τὸ οἶεσθαι δῆλον εἶναι πῶς ἀκούουσιν, ἔνδον ποιήσαντα ψόφον ὥσπερ 'κῶδωνος'. τῶν μὲν γὰρ ἔξω δι' ἐκεῖνον ἀκούομεν, ἐκεῖνον δὲ ψοφούντος διὰ τί; τοῦτο γὰρ αὐτὸ λείπεται ζητεῖν.

§2 Alcmaeon: **Theophrastus** *Sens.* 25 (Alcmaeon 24A5 DK) ἀκούειν μὲν οὖν φησι τοῖς ὤσιν, διότι κενὸν ἐν αὐτοῖς ἐνυπάρχει· τοῦτο γὰρ ἡχεῖν. φθέγγεσθαι δὲ τῷ κοίλῳ, τὸν ἀέρα δ' ἀντηχεῖν. **Alexander of Aphrodisias** *de An.* 48.21–49.3 ἐπεὶ δὲ ὁ ἀήρ δοκεῖ κενὸς εἶναι, οὗτος δὲ τοῦ ἀκούειν αἴτιος (διὰ γὰρ ἀέρος τὸ ἀκούειν, ὁ γὰρ ἐν τοῖς ὤσιν ἀήρ ἐγκατασκοδομημένος ὄργανον τοῦ ἀκούειν), διὰ ταύτην τὴν αἰτίαν εὐλόγως δοκεῖ λέγεσθαι εὖ ὑπὸ τινων τὸ ἀκούειν ἡμᾶς τῷ κενῷ.

§3 Diogenes: **Theophrastus** *Sens.* 40–41 (Diogenes 64A19 DK, T8 Laks) τὴν δ' ἀκοὴν, ὅταν ὁ ἐν τοῖς ὤσιν ἀήρ κινηθεὶς ὑπὸ τοῦ ἔξω διαδῶ (τὴν φωνὴν) πρὸς τὸν ἐγκέφαλον. ... (41) κινούμενον γὰρ τὸν ἐν τοῖς ὤσιν ἀέρα κινεῖν τὸν ἐντός.

§4 Plato: **Plato** *Tim.* 67a–b τρίτον δὲ αἰσθητικὸν ἐν ἡμῖν μέρος ἐπισκοποῦσιν τὸ περὶ τὴν ἀκοὴν, δι' ἧς αἰτίας τὰ περὶ αὐτὸ συμβαίνει παθήματα, λεκτέον. ὅλως μὲν οὖν φωνὴν θῶμεν τὴν δι' ὧτων ὑπ' ἀέρος ἐγκεφάλου τε καὶ αἵματος μέχρι ψυχῆς πληγὴν διαδιδόμενην, τὴν δὲ ὑπ' αὐτῆς κίνησιν, ἀπὸ τῆς κεφαλῆς μὲν ἀρχομένην, τελευτῶσαν δὲ περὶ τὴν τοῦ ἥπατος ἔδραν, ἀκοὴν. **Theophrastus** *Sens.* 6 (on Plato) ἀκοὴν δὲ διὰ τῆς φωνῆς ὀρίζεται· φωνὴν γὰρ εἶναι πληγὴν ὑπ' ἀέρος ἐγκεφάλου καὶ αἵματος δι' ὧτων μέχρι ψυχῆς, τὴν δ' ὑπὸ ταύτης κίνησιν ἀπὸ κεφαλῆς μέχρι ἥπατος ἀκοὴν. **Plutarch** *De E* 390B ἀήρ δὲ πληγείς ἐν ἀκοῇ γίγνεται φωνὴ καὶ ψόφος. **Alcinous** *Did.* c. 19, p. 173.42–174.2 H. ἀκοὴ δὲ γέγονε πρὸς φωνῆς γνῶσιν, ἀρχομένη μὲν ἀπὸ τῆς περὶ τὴν κεφαλὴν κινήσεως, τελευτῶσα δὲ περὶ ἥπατος ἔδραν.

Liber 4 Caput 17

- P^B**: ps.Plutarchus *Plac.* 902A; p. 407^a1–10 Diels—**P^G**: ps.Galenus *HPh* c. 98; p. 637.20–24 Diels; pp. 311–313 Jas—**P^Q**: Qustā ibn Lūqā pp. 206–207 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 108.5–7, p. 60 Westerink—**P^{Sy}**: Symeon Seth *CRN* 4.77, p. 74.19 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.54.1–2, p. 492.11–19 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b34 Henry (titulus solus)
Cf. Nem: Nemesius *NH* c. 11, p. 67.12 Morani (titulus solus)

Titulus ιζ'. Περὶ ὁσφρήσεως (P,S)

- §1 Ἀλκμαίων ἐν τῷ ἐγκεφάλῳ εἶναι τὸ ἡγεμονικόν· τούτῳ οὖν ὁσφραίνεσθαι ἔλκοντι διὰ τῶν ἀναπνοῶν τὰς ὁσμάς. (P1,S1)
§2 Ἐμπεδοκλῆς ταῖς ἀναπνοαῖς ταῖς ἀπὸ τοῦ πνεύμονος συνεισκρίνεσθαι τὴν ὁσμήν· ὅταν γοῦν ἡ ἀναπνοὴ βαρεῖα γίνηται, κατὰ τραχύτητα μὴ 5 συναισθάνεσθαι, ὥς ἐπὶ τῶν ρευματιζομένων. (P2,S2)

§1 Alcmaeon 24A8 DK; §2 Empedocles 31A94 DK

titulus Περὶ ὁσφρήσεως **P^{BGS}Phot** : Περὶ ὁσφρήσεων **S^L** §1 [2] post ἐγκεφάλῳ add. φησὶν **P^G** || τούτῳ **P** : τούτων **S^L**, corr. Diels Wachsmuth || [3] ἔλκοντι **P^{BQ}G(Nic)^{S^L}** : ἔλκοντος **P^G(mss.)** §2 [4] συνεισκρίνεσθαι **P^BS^L** : συνεκρίνεσθαι **P^G** || [5–6] τὴν ... συναισθάνεσθαι **P^{BQ}S^L** : om. **P^G** || [5] ὁσμήν **S^L** cf. Theophr. *Sens.* 9 : ὁδμήν **P^B** prob. Diels Mau || post ὁδμήν add. *der gesprochenen* (sic) *Sache* **Q** || γίνηται **P^{B(II,III)}** : γένηται **P^{B(I)}S^L** || συναισθάνεσθαι edd. : συναισθέσθαι **P^{B(I,II,IIIa)}** : αἰσθάνεσθαι **P^{B(III-E)Q}** || τραχύτητα παχύτητα **P^{B(II)}S^L** : *Massigkeit* (i.e. παχύτητα) **Q** || [6] ὥς **P^BS^L** : ὥσπερ **P^G**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 98 (~ tit.) Περὶ ὁσφρήσεως (text Jas)

98.1 (~ P1) Ἀλκμαίων ἐν τῷ ἐγκεφάλῳ φησὶν εἶναι τὸ ἡγεμονικόν· τούτῳ οὖν ὁσφραίνεσθαι ἔλκοντι διὰ τῶν ἀναπνοῶν τὰς ὁσμάς.

98.2 (~ P2) Ἐμπεδοκλῆς ταῖς ἀναπνοαῖς ταῖς ἀπὸ τοῦ πνεύμονος συνεκρίνεσθαι ὥσπερ ἐπὶ τῶν ρευματιζομένων.

Psellus Omn.Doctr. c. 108.5–7 (~ P1) ὁσφραινόμεθα δὲ τῷ ἡγεμονικῷ τῷ ὄντι ἐν τῷ ἐγκεφάλῳ, ἔλκοντι διὰ τῶν ἀναπνοῶν τὰς ὁσμάς.

Symeon Seth CRN 4.77 (~ tit.) Περὶ ὁσφρήσεως

Testes secundi:

Nemesius NH c. 11, p. 67.12 (~ tit.) Περὶ ὁσφρήσεως

Loci Aetiani:

§1 A 5.3.3 (Τίς ἡ οὐσία τοῦ σπέρματος) Ἀλκμαίων ἐγκεφάλου μέρος.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

There are two witnesses, P, represented in various ways by P^B, P^G and P^Q, and S, that is, entirely S^L. Because there is no lemma on Plato or Aristotle, the other Stobaeian manuscripts deleted the entire chapter (cf. above, ch. 4.8 Commentary A(1)). Both P and S^L have two lemmata, so the bilemmatic chapter may well be complete, though we cannot be sure.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There is virtually no proximate tradition, but the parallel in ps.Galen *Definitiones medicae* is interesting in view of the importance of this collection of definitions in relation to Book 5. The ‘cousin writing’ Nem NH c. 11 has a (sub-)title which is the same, but the contents are very different. There is also an excerpt of §2 in Psellus *Omn.Doctr.* 81, who made excerpts from chs. 4.13 and 4.16–19.

(2) *Sources.* As in the case of ch. 4.16, Diels DG 222–223 notes the parallels in Theophrastus *De sensibus*. We may add that the remark about the effects of a common cold echoes Theophrastus’ criticism (*Sens.* 21), but turns it into a piece of positive doctrine. What is important is that Theophrasteian antecedents (name-label plus doxa) are extant for both lemmata, see below, section D(d). Nothing comparable is found in Aristotle, apart from the general remark *Sens.* 5 444a17–19 that ‘smell is conveyed by inhalation’ (cited below, section E(b) General texts). That the lemmata have been modified in the course of transmission is not surprising. Although this evidence is insufficient to ground Diels’ grand hypothesis of the ‘Theophrasteum fundamentum’ of the older parts of the *Placita*, it is clear that here too material is incorporated that was conveniently available in the *De sensibus*, though the selection for this topic is far from representative: Anaxagoras (*Sens.* 30) and Diogenes (*Sens.* 39–41) are absent. And we of course also note the absence of the views of Plato and Aristotle.

C *Chapter Heading*

Found in all witnesses and Nem. The standard umbrella formula (see above, ch. 1.3 Commentary C) covers the question type of cause (διὰ τῆ) and the cat-

egory of place. It is paralleled e.g. at Aristotle *HA* 4.8 533a22, ps.Aristotle *MM* 1.21.2, and as part of a book title Galen *Libr.Prop.* 19.30.2 K. Περὶ ὁσφρήσεως καὶ πόθεν ἄρχεται τὸ αἰσθητήριον αὐτῆς (*De instrumento odoratus*).

D Analysis

a Context

Smell is the third of the senses to be treated, after ch. 4.13, sight (plus chs. 4.14 mirror images and 4.15 darkness) and ch. 4.16, hearing, and before ch. 4.18, taste. See further above ch. 4.13, at Commentary D(a).

b Number–Order of Lemmata

All our witnesses have two lemmata, and all in the same order which there is no reason to change.

c Rationale–Structure of Chapter

The two lemmata do not provide a strong contrast. In both cases breathing is needed for smelling. According to §1 it is the brain that smells, while no such organ is mentioned in §2: a weak diaphonia.

d Further Comments

Individual Points

§1 The central function of the Alcmaeonian brain is also found in other sources concerning the Crotoniate, esp. Theophrastus *De sensibus*, and paralleled at ch. 5.3.3 for which no antecedent in Theophrastus is extant. The attribution of a ἡγεμονικόν is of course a matter of later terminology. Diels *DG* 223, stating in general that ‘Alcmaeonis placita optime consentiunt’, when comparing *Sens.* 25 and §1 by means of a tabular quotation still calls the use of this term Stoic: ‘sed ne Stoicorum accommodationem desideres haec mihi confer’; cf. below, ch. 4.18, Commentary B.

§2 Diels *DG* 222 is positive about the connection between §2 and Theophrastus *Sens.* 21–22. We may add that the view expressed in the Empedocles lemma apparently presupposes that the organ of perception of smells is the ἡγεμονικόν in the blood (cf. ch. 4.5.9).

e Further Evidence

The other evidence of interest is found in Theophrastus *De sensibus*; see above at section B.

E Further Related Texts

a Proximate Tradition

General texts: *ps.Galen Def.Med.* 129 19.379.18–380.2 K. ριβ'. ὁσφρησίς ἐστιν ἡ ἀποτελουμένη διὰ τοῦ ἐν ταῖς ῥίσι πνεύματος ὄντος ἐνίκμου καὶ ἀτμωδεστέρου, δι' οὗ καὶ τῶν ὁσφραντῶν ἀντιλήψεις γίνονται.

b Sources and Other Parallel Texts

General texts: *Aristotle Sens.* 5 444a17–19 ἡ δ' ἀπὸ τῆς ὁσμῆς τῆς καθ' αὐτὴν ἡδείας εὐωδία ὅπως οὖν ἔχουσιν ὠφέλιμος ὡς εἰπεῖν αἰεὶ. καὶ διὰ τοῦτο γίγνεται διὰ τῆς ἀναπνοῆς. *Theophrastus Od.* 4 τὸ γὰρ τῆς ὁσμῆς ἐν ἀναπνοῇ. *Philo of Alexandria Ebr.* 190–191 (paraphrasing tropes of Aenesidemus) τί δ'; αἱ ἀπὸ τῶν ἐπιθυμιωμένων ὁσμαι μὴ τὰς ἀπλᾶς (καὶ) εἰλικρινεῖς τῶν σωμάτων φύσεις παριστᾶσιν; ἡ τὰς κεκραμένους ἔκ τε αὐτῶν καὶ ἀέρος, ἔστι δ' ὅτε καὶ τοῦ τήκοντος τὰ σώματα πυρὸς καὶ τῆς κατὰ τοὺς μυκτῆρας δυνάμεως;

Chapter heading: *Aristotle de An.* 2.9 421a7 περὶ δὲ ὁσμῆς καὶ ὁσφραντοῦ ἦττον εὐδιόριστόν ἐστι. *GA* 5.2.781b28–29 καὶ περὶ μὲν ... καὶ ὁσφρήσεως εἴρηται. *Theophrastus Sens.* 59 περὶ ὁσμῆς. *ps.Aristotle Probl.* 33 tit. Ὅσα περὶ μυκτῆρας. *Galen PHP* 7.5.46 γέγραπται δὲ τῷ βουλομένῳ καὶ περὶ τοῦδε βιβλίου ἐν ἡμέτερον, ᾧ καὶ τὸ ἐπιγράμμα ἐστὶ Περὶ τοῦ τῆς ὁσφρήσεως ὀργάνου. *Loc.Aff.* 8.215.4–5 K. ὡς ἐν τῷ Περὶ τοῦ τῆς ὁσφρήσεως ὀργάνου δέδεικται γράμματι. *Libr.Propr.* 19.30.2–3 K. Περὶ ὁσφρήσεως καὶ πόθεν ἀρχεται τὸ αἰσθητήριον αὐτῆς. *Capitula Lucretiana* at *DRN* 4.673 *de odore*.

§1 Alcmaeon: *Theophrastus Sens.* 25 (on Alcmaeon, 24A5 DK) ὁσφραίνεσθαι δὲ ῥίσι ἅμα τῷ ἀναπνεῖν ἀνάγοντα τὸ πνεῦμα πρὸς τὸν ἐγκέφαλον.

§2 Empedocles: *Empedocles* 31B102 DK ὥδε μὲν οὖν πνοιῆς τε λελόγχασι πάντα καὶ ὁσμών. *Theophrastus Sens.* 9 (on Empedocles, 31A86 DK) ὁσφρησιν δὲ γίνεσθαι τῇ ἀναπνοῇ. διὸ καὶ μάλιστα ὁσφραίνεσθαι τούτους, οἷς σφοδροτάτῃ τοῦ ἄσθματος ἡ κίνησις· ὁσμὴν δὲ πλείστην ἀπὸ τῶν λεπτῶν καὶ τῶν κούφων ἀπορροεῖν. *Sens.* 20–22 (on Empedocles, 31A86 DK) εἰ ἡ φθίσις διὰ τὴν ἀπορροήν, ᾧ περ χρηταὶ κοινοτάτῳ σημείῳ, συμβαίνει δὲ καὶ τὰς ὁσμάς ἀπορροῇ γίνεσθαι, τὰ πλείστην ἔχοντα ὁσμὴν τάχιστ' ἐχρὴν φθείρεσθαι. νῦν δὲ σχεδὸν ἐναντίως ἔχει. ... (21) ἀτόπως δὲ καὶ τὸ περὶ τὴν ὁσφρησιν εἴρηκεν. πρῶτον μὲν γὰρ οὐ κοινὴν αἰτίαν ἀπέδωκεν· ἔνια μὲν γὰρ ὅλως οὐδ' ἀναπνέει τῶν ὁσφραινομένων. ἔπειτα τὸ μάλιστα ὁσφραίνεσθαι τοὺς πλείστον ἐπισπωμένους εὐηθες· οὐδὲν γὰρ ὄφελος μὴ ὑγιαίνουσιν ἢ μὴ ἀνεωγμένης πῶς τῆς αἰσθήσεως. πολλοῖς δὲ συμβαίνει πεπηρῶσθαι καὶ ὅλως μὴδὲν αἰσθάνεσθαι. πρὸς δὲ τούτοις οἱ δύσπνοοι καὶ οἱ πονοῦντες καὶ οἱ καθεύδοντες μᾶλλον ἂν αἰσθάνοιντο τῶν ὁσμών· τὸν πλείστον γὰρ ἔλκουσιν ἀέρα. (22) νῦν δὲ συμβαίνει τούναντίον. οὐ γὰρ ἴσως καθ' αὐτὸ τὸ ἀναπνεῖν αἴτιον τῆς ὁσφρήσεως, ἀλλὰ κατὰ συμβεβηκός, ὡς ἔκ τε τῶν ἄλλων ζώων μαρτυρεῖται καὶ διὰ τῶν εἰρημένων παθῶν· ὁ δ' ὡς ταύτης οὕσης τῆς αἰτίας καὶ ἐπὶ τέλει πάλιν εἴρηκεν ὥσπερ ἐπισημαινόμενος (31B102 DK)· ὥδε μὲν οὖν πνοιῆς τε λελόγχασι πάντα καὶ ὁσμών· οὐκ ἀληθές (δὲ) οὐδὲ τὸ μάλιστα ὁσφραίνεσθαι τῶν κούφων, ἀλλὰ δεῖ καὶ ὁσμὴν ἐνυπάρχειν. ὁ γὰρ ἀήρ καὶ τὸ πῦρ κουφότατα μὲν, οὐ ποιοῦσι δὲ αἰσθησιν ὁσμῆς.

Liber 4 Caput 18

P^B: ps.Plutarchus *Plac.* 902B; p. 407^a11–20 Diels—**P^G**: ps.Galenus *HPh* c. 99; pp. 637.25–638.3 Diels—**P^Q**: Qustā ibn Lūqā pp. 206–207 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 108.7–8, p. 60 Westerink—**P^{Sy}**: Symeon Seth *CRN* 4.79, p. 76.5 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.55, p. 494.3 Wachsmuth (titulus solus); cf. Phot. *Bibl.* 167, p. 112b32–33 Henry (titulus solus)
Cf. Nem: Nemesius *NH* c. 6, p. 56.10–11; c. 9, p. 66.1, 6–9 Morani

Titulus ιη'. Περὶ γεύσεως (P,S)

- §1 Ἀλκμαίων τῷ ὑγρῷ καὶ τῷ χλιαρῷ τῷ ἐν τῇ γλώττῃ πρὸς τῇ μαλακότητι διακρίνεσθαι τοὺς χυμούς. (P₁)
- §2 Διογένης τῇ ἀραιότητι τῆς γλώττης καὶ τῇ μαλακότητι καὶ διὰ τὸ συνάπτειν τὰς ἀπὸ τοῦ σώματος εἰς αὐτὴν φλέβας διαχεῖσθαι τοὺς χυμούς ἐλκομένους ἐπὶ τὴν αἴσθησιν καὶ τὸ ἡγεμονικὸν καθάπερ ἀπὸ σπογγιάς. (P₂)

5

§1 Alcmaeon 24A9 DK; §2 Diogenes 64A22 DK, T10 Laks

lemmata non hab. S §§1[3]–2[14] διακρίνεσθαι ... ἀραιότητι **P^{B(I,III)Q}**: om. **P^{B(I)}** §1 [2] καὶ τῷ χλιαρῷ **P^{BQ}**: om. **P^G** || πρὸς **P^B**: *durch die Mischung ... mit Q* || [2–3] πρὸς τῇ μαλακότητι **P^{BQ}**: om. **P^G** || [3] διακρίνεσθαι **P^{BQ}**: κρίνεσθαι **P^G** §2 [4] τῆς ... μαλακότητι **P^{BQ}**: om. **P^G** || [5] ἀπὸ **P^{BQ}**: διὰ **P^G** || σώματος **P^B**: *Mund* [i.e. στόματος] **Q** || [6] χυμούς **P^{B(I,III)Q}**: χυλοὺς **P^{B(II)}** || ἐπὶ **P^{BQ}**: εἰς **P^G**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 99 (~ tit.) Περὶ γεύσεως (text Diels)

99.1 (~ P₁) Ἀλκμαίων οἶεται τῷ ὑγρῷ τῷ ἐν τῇ γλώττῃ κρίνεσθαι τοὺς χυμούς.

99.2 (~ P₂) Διογένης τῇ ἀραιότητι καὶ διὰ τὸ συνάπτειν τὰς ἀπὸ τοῦ σώματος εἰς αὐτὴν φλέβας διαχεῖσθαι τοὺς χυμούς ἐλκομένους εἰς τὴν αἴσθησιν καὶ τὸ ἡγεμονικὸν καθάπερ ἀπὸ σπογγιάς.

Psellus Omn.Doctr. c. 108.7–8 (~ P₂) γεύομεθα δὲ τῇ ἀραιότητι τῆς γλώττης καὶ τῇ μαλακότητι καὶ διὰ τὸ συνάπτειν τὰς ἀπὸ τοῦ σώματος εἰς αὐτὴν φλέβας τὴν φύσιν.

Symeon Seth CRN 4.79 Περὶ γεύσεως καὶ ἀφῆς (~ tit.)

Testes secundi:

Nemesius NH c. 9, p. 66.1 (~ tit.) Περὶ γεύσεως. *NH* c. 9, p. 66.6–9 ἔστι δὲ ἡ γεῦσις τῶν χυμῶν ἀντιληπτική, ὅργανα δὲ αὐτῆς ἡ γλῶσσα καὶ ταύτης μᾶλλον τὸ

ἄκρον, ἔτι τε σὺν τούτοις ἡ ὑπερῶα, ἐν οἷς ἔστι τὰ ἐξ ἐγκεφάλου φερόμενα νεῦρα πεπλατυσμένα καὶ ἀπαγγέλλοντα τὴν γενομένην ἀντίληψιν πρὸς τὸ ἡγεμονικόν (~ §§1–2). *NH* c. 6, p. 56.10–11 τῷ σπογγοειδεῖ δὲ καὶ ὕδατοειδεῖ τῷ κατὰ τὴν γεῦσιν τῶν χυμῶν ἀντιλαμβάνεται (~ §2).

Loci Aetiani:

§2 A 5.24.3 Διογένης εἰ ἐπὶ πᾶν τὸ αἷμα διαχεόμενον πληρώσει μὲν τὰς φλέβας.
A 4.23.1 τὰς δ' αἰσθήσεις ἐν τῷ ἡγεμονικῷ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The only witness for the text is P, represented in various ways by P^B, P^G and P^Q. Unfortunately because of the vagaries of transmission S^L does not preserve the text of the lemmata and the main mss. for S preserve only a brief extract from AD on Aristotle and an extended quote from Plato's *Timaeus*. The heading is also attested in S^L and Photius' index; in the latter it precedes those for touch and smell, but we follow P. Since only P and his tradition are extant, one cannot exclude that there may have been a bit more material. But for the quadrilemmatic ch. 4.16 and the equally bilemmatic ch. 4.17 both P and S are extant, and there is no difference between these two sources as to the number of paragraphs, so for ch. 4.18 there may have been no more in S as well.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There is virtually no proximate tradition. There are echoes of the same ideas in cousin writing *Nem NH* ch. 9, but his chapter as a whole is very different and much more detailed. There is also an excerpt of §2 in Psellus, who as noted before made excerpts from chs. 4.13 and 4.16–19 as he found them in his copy of P.

(2) *Sources.* Diels *DG* 223 notes the resemblance between §1 and Theophrastus *Sens.* 25 ('concordant'). He also notes the resemblance between §2 and *Sens.* 43 ('apta sunt Theophrasteis'), though he dislikes τὸ ἡγεμονικόν, which (just as in ch. 4.17.1, where see Commentary D(d)§1) he believes reveals an unwelcome Stoic influence. But the term simply became part of the philosophical *koine*. What is of some importance is that Theophrastean antecedents (namely, name-label plus doxa) are extant for both lemmata. §1 is indeed not far from Theophrastus, but §2 is more different. Nothing comparable is found

in Aristotle, apart from the general remark *de An.* 2.10 422a17–18 that ‘nothing can produce a perception of a taste without moisture’ (cited below section E(b) General texts). However, if a doxa for Democritus had been included and survived, things could have been different in view of Aristotle’s criticisms of Democritus (and others) at *Sens.* 4 442a29 ff. That the lemmata have been modified in the course of transmission is not surprising.

C Chapter Heading

Found in all representatives of P and Nem. The standard umbrella formula (see above, ch. 1.3 Commentary C) *περί γεύσεως* here covers the question type of cause (*διὰ τι*) and the category of place. It is paralleled Aristotle *de An.* 2.7 419a30, *HA* 4.8 534b29, Theophrastus *Sens.* 6 and 9, and Plutarch *Adv.Col.* 1121B.

D Analysis

a Context

Taste is the fourth and last of the (five) senses to be treated, after chs. 4.13, sight (plus 4.14 mirror images and 4.15 darkness), 4.16, hearing, and 4.17, smell. Touch, as we have noticed, is absent. Cf. above ch. 4.13, at Commentary D(a).

b Number–Order of Lemmata

The representatives of our single source P all have two lemmata, and in the same order which it does not make sense to modify. As noted above in section A, it is not impossible that there originally were more lemmata, but we can only base our text on what is preserved in P. Note that the absence—through haplography from *-ότητι* to *-ότητι*—of the last words of §1 and of the first of §2 in ms. P^{B(I)} has created a new Alcmaeon lemma in this representative of the tradition through loss of the name-label Diogenes. If we did not have other representatives of P^B, we would have to depend on P^G and P^Q for the correct text. Compare what happened in the entire extant tradition of P, viz. P^{BQ} (P^G is here absent), at ch. 4.7.1–2, where we are saved by the text of T.

c Rationale–Structure of Chapter

The two lemmata do not provide a strong contrast. In both paragraphs taste is made possible by the structure and composition of the tongue. In §1 we are not told that it is the regent part (brain) that perceives, but perhaps the Alcmaeonian *ἡγεμονικόν ... ἐν τῷ ἐγκεφάλῳ* has to be added mentally from the first lemma of the previous chapter. If not, there is a contrast between the two paragraphs in that the first fails to refer to the perceiving regent part, while the second in fact does so: *ἐπὶ τὴν αἴσθησιν καὶ τὸ ἡγεμονικόν*. Again, in §2 we are not told where the regent part is to be found, though we need not believe that it is in the brain

(in Diogenes of Apollonia the air which perceives and thinks is located in the whole body, cf. Laks 2008, 166–167). This amounts to an implicit diaphonia, if we are right in admitting the possibility that the brain of A 4.17.1 is still in some way present.

d Further Comments

General Points

For the relation with Theophrastus *De sensibus* see above at section B.

e Other Evidence

The other evidence of interest is found in Theophrastus *De sensibus*, see above at section B.

E Further Related Texts

a Proximate Tradition

General texts: Arnobius *Adv.Nat.* 2.7, p. 73.5–6 Marchesi *utrum sapor in rebus sit an palati contagionibus fiat*.

Chapter heading: *Capitula Lucretiana* at DRN 4.615 *de sapore*.

§1 *Alcmaeon:* ps.Galen *Def.Med.* 130 19.130 380.3–4 K. ρκ' γεύσις ἐστὶν ἡ γιγνομένη ποιότης τῷ ἐν τῇ γλώσσῃ πνεύματι ὄντι ὑγροτέρῳ μᾶλλον.

b Sources and Other Parallel Texts

General texts: Aristotle *de An.* 2.10 422a17–18 οὐθέν δὲ ποιεῖ χυμοῦ αἴσθησιν ἄνευ ὑγρότητος. *de An.* 2.10 422b10–16 τὰ δ' εἶδη τῶν χυμῶν, ὥσπερ καὶ ἐπὶ τῶν χρωμάτων, ἀπλὰ μὲν τάναντία, τὸ γλυκὺ καὶ τὸ πικρὸν, ἐχόμενα δὲ τοῦ μὲν τὸ λιπαρόν, τοῦ δὲ τὸ ἀλμυρόν· μεταξὺ δὲ τούτων τό τε δριμύ καὶ τὸ αὐστηρόν καὶ στρυφνὸν καὶ ὀξύ· σχεδὸν γὰρ αὗται δοκοῦσιν εἶναι διαφοραὶ χυμῶν. ὥστε τὸ γευστικόν ἐστὶ τὸ δυνάμει τοιοῦτον, γευστὸν δὲ τὸ ποιητικὸν ἐντελεχεῖα αὐτοῦ. **ps.Aristotle** *Probl.* 34 tit. "Ὅσα περὶ τὸ στόμα καὶ τὰ ἐν αὐτῷ. **Philo of Alexandria** *Ebr.* 190 (paraphrasing tropes of Aenesidemus) γλυκὺ δὲ καὶ πικρὸν τίνα τρόπον δοκιμάζεται; μὴ δίχα τῶν καθ' ἡμᾶς αὐτοὺς ἐνστομίῳ χυλῶν ὅσοι κατὰ φύσιν ἢ παρὰ φύσιν; οὐ δῆπου;

Chapter heading: Theophrastus *Sens.* 9 περὶ δὲ γεύσεως.

§1 *Alcmaeon:* Theophrastus *Sens.* 25 (on Alcmaeon, 24A5 DK) γλώττῃ δὲ τοὺς χυμοὺς κρίνειν· χλιαρὰν γὰρ οὖσαν καὶ μαλακὴν τήκειν τῇ θερμότητι· δέχεσθαι δὲ καὶ διαδιδόναι διὰ τὴν μανότητα καὶ ἀπαλότητα. **Galen** *Temp.* c. 4, 1.604.4–7 K. περὶ δὲ τῶν ἐπομένων ταῖς κράσεσιν ἐφεξῆς χρὴ διελεῖν. ἔπεται μὲν οὖν καὶ τὰ προειρημένα, μᾶλλον δ' ἀχώριστα τελέως ἐστί, ξηρῷ μὲν σκληρότης, ὑγρῷ δὲ μαλακότης, ὅταν γε μετὰ χλιαρᾶς ἢ θερμότητος. **Plutarch** *de E* 390B τὴν δὲ γεῦσιν ὑγρότητι τῶν γευστῶν τὰς ποιότητας προσιεμένην.

§2 *Diogenes:* Theophrastus *Sens.* 43 (on Diogenes, 64A19 DK) κριτικώτατον δὲ ἡδονῆς τὴν γλώτταν· ἀπαλώτατον γὰρ εἶναι καὶ μανὸν καὶ τὰς φλέβας ἀπάσας ἀνῆκεν εἰς αὐτήν· διὸ σημειὰ τε πλείστα τοῖς κάμνουσιν ἐπ' αὐτῆς εἶναι, καὶ τῶν ἄλλων ζώων τὰ χρώματα μηνύειν ὅποσα γὰρ ἂν ἦ καὶ ὅποια, τοσαῦτα ἐμφαίνεσθαι.

cf. **ps.Aristotle** *Probl.* 34.6 964a4–5 διὰ τί, ὅσας ἂν χρώας ἔχῃ τὸ δέριμα, τοσαύτας ἔχει καὶ ἡ γλώττα; *Probl.* 10.19 892b34–36 διὰ τί ἡ γλώττα οὐδενὸς πιερὰ τῶν ζώων; ἢ ὅτι τὸ πῖον πυκνόν, ἡ δὲ γλώττα ἀραιὰ φύσει ἐστίν, ὅπως τοὺς χυμοὺς γνωρίζῃ; **Alcinous** *Did.* c. 19, p. 174.21–26 H. τήν γε μὴν γεῦσιν [γλώτταν *coni.* Sauppe *prob.* Whittaker: γεῦσιν *mss.*] ποικιλωτάτων χυμῶν ἐπιγνώμονα κατεσκεύασαν οἱ θεοί, φλεβία διατείναντες ἀπὸ γλώττης μέχρι καρδίας, δοκίμια ἐσόμενα καὶ κριτήρια τῶν χυμῶν· ταῦτα δὲ συγκρινόμενα καὶ διακρινόμενα κατὰ τὰς προσπτώσεις τῶν χυμῶν διορίζει τήν ἐν τούτοις παραλλαγὴν. **Galen** *UP* 4.15, 3.318.4–8 K. τοὺς μεταγωγικοὺς ἔλκειν εἰς ἑαυτὸν ὁ σπλὴν δύνανται ἔχει χυμοὺς, ἀραιὸν ἰκανῶς καὶ χαῦνον ὑπάρχον ὥσπερ τις σπογγία πρὸς τὸ ῥαδίως ἔλκειν τε καὶ παραδέχεσθαι τὸ πάχος αὐτῶν.

Liber 4 Caput 19

P^B: ps.Plutarchus *Plac.* 902B–F; pp. 407^a21–409^a22 Diels—**P^G**: ps.Galenus *HPh* c. 100; p. 638.4–13 Diels—**P^Q**: Qustā ibn Lūqā pp. 206–209 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 108.9, p. 60 Westerink—**P^{Sy}**: Symeon Seth *CRN* 4.79, p. 76.5 Delatte (titulus solus)
S: Stobaeus *Ecl.* 1.57, p. 497.1–11 Wachsmuth; cf. Phot. *Bibl.* 167, p. 112b33 Henry (titulus solus)
 Cf. Nem: Nemesius *NH* c. 1, p. 4.16–22; c. 6, p. 56.10 Morani

Titulus ιθ'. Περὶ φωνῆς (P,S)

- §1 Πλάτων τὴν φωνὴν ὀρίζειται πνεῦμα διὰ στόματος ἀπὸ διανοίας ἡγμένον· καὶ πληγὴν ὑπὸ ἀέρος δι' ὧτων καὶ ἐγκεφάλου καὶ αἵματος μέχρι ψυχῆς διαδιδομένην· (P1a,S1a)
- §2 λέγεται δὲ καὶ καταχρηστικῶς ἐπὶ τῶν ἀλόγων ζώων φωνὴ καὶ τῶν ἀψύχων, ὡς χρεμετισμοὶ καὶ ψόφοι· (P1b,S1b) 5
- §3 κυρίως δὲ φωνὴ ἢ ἔναρθρός ἐστιν ὡς φωτίζουσα τὸ νοούμενον. (P1c,S1c)
- §4 Ἐπίκουρος τὴν φωνὴν εἶναι ῥεῦμα ἐκπεμπόμενον ἀπὸ τῶν φωνούντων ἢ ἡχούντων ἢ ψοφούντων· τοῦτο δὲ τὸ ῥεῦμα εἰς ὁμοιοσχήμονα θρύπτεσθαι θραύσματα· (ὁμοιοσχήμονα δὲ λέγεται τὰ στρογγύλα τοῖς 10 στρογγύλοις καὶ σκαληνὰ καὶ τρίγωνα τοῖς ὁμοιογενέσι)· τούτων δ' ἐμπιπτόντων ταῖς ἀκοαῖς ἀποτελεῖσθαι τὴν αἴσθησιν τῆς φωνῆς· φανερόν δὲ τοῦτο γίνεσθαι ἀπὸ τῶν ἀσκῶν ἐκρεόντων καὶ τῶν ἐμφυσώντων κναφῶν τοῖς ἱματίοις. (P2)

§2 Plato cf. *Tht.* 206d; §2 cf. *Sph.* 263e; *Tim.* 67a–c; §3—; §4 Epicurus fr. 321 Usener

titulus Περὶ φωνῆς P : Περὶ φωνῆς καὶ εἰ ἀσώματος ἢ φωνῆ (~ tit. c. 4.20) καὶ (πότεν αἰσθητικὴ γίνεταί ἡ ψυχὴ καὶ) τί αὐτῆς τὸ ἡγεμονικόν (~ tit. c. 4.21) ^{S^{FPP}Phot} §1 [2] τὴν P^BQS : om. P^G || πνεῦμα P^S : an ῥεῦμα legendum ut apud §4[8] ? || [3] ἡγμένον P : om. S : προηγμένον coni. Reiske || ὑπὸ ἀέρος P^{BS} : an die Luft Q : ὑπὸ om. P^G || δι' ὧτων P^{BS} : διὰ τῶν ὧτων P^G : zu den beiden Ohren Q || καὶ ἐγκεφάλου P^BQS : ἐγκεφάλῳ P^G || καὶ αἵματος om. P^Q || αἵματος P^{BS} : στόματι P^G §2 'non iam ad Platonem pertinet' Diels prob. Wachsmuth || [5] καὶ¹ P^{B(IIID)} : καὶ ἢ P^{B(IIID)} || καταχρηστικῶς P^{BS} : metaphorisch Q || [6] post χρεμετισμοὶ add. dem Eselsgeschrei Q §3 [7] ἢ P^B : om. P^{QS} || ἔναρθρός P^{BS} : verständliche Q || ὡς P^B : γὰρ S || post νοούμενον add. Denn der Laut wird in der Sprache der Griechen von der Erleuchtung abgeleitet Q fort. ἢ φωνὴ παρὰ τὸ φῶς, τὸ φαίνω vel sim. vertens (vid. comm. E(b)§3, et cf. Q ad 4.11[17]) §4–7 non hab. S §4 [8–9] ἐκπεμπόμενον ... ῥεῦμα P^B : om. Q per haplographiam || [13] ἀπὸ ... ἐκρεόντων P^B : im Blasen der Schläuche Q || [14] ἐμφυσώντων P^{B(IIID)} : ἐκφυσώντων P^(IIIE) : Blasen von Wasser Q

- §5 Δημόκριτος καὶ τὸν ἀέρα φησὶν εἰς ὁμοιοσχήμονα θρύπτεσθαι σώματα 15
καὶ συγκαλινδεῖσθαι τοῖς ἐκ τῆς φωνῆς θραύσμασι· ‘κολοῖδς’ γὰρ ‘παρὰ
κολοῖδον ἰζάνει’, καὶ ‘ὥς αἰεὶ τὸν ὁμοῖον ἄγει θεὸς ὥς τὸν ὁμοῖον’. καὶ γὰρ
ἐν τοῖς αἰγιαλοῖς αἱ ὅμοιοι ψῆφοι κατὰ τοὺς αὐτοὺς τόπους ὀρώνται,
κατ’ ἄλλο μὲν αἱ σφαιροειδεῖς, κατ’ ἄλλο δ’ αἱ ἐπιμήκεις· καὶ ἐπὶ τῶν
κοσκινευόντων ἐπὶ τὸ αὐτὸ συναλίζεται τὰ ὁμοιοσχήμονα, ὥστε χωρὶς 20
εἶναι τοὺς κυάμους καὶ ἐρεβίνθους. ἔχοι δ’ ἂν τις πρὸς τοὺτους εἰπεῖν·
πῶς ὀλίγα θραύσματα πνεύματος μυρίανδρον ἐκπληροῖ θέατρον; (P3)
- §6 οἱ δὲ Στωικοὶ φασὶ τὸν ἀέρα μὴ συγκεῖσθαι ἐκ θραυσμάτων, ἀλλὰ 25
συνεχῇ δι’ ὅλου μηδὲν κενὸν ἔχοντα· ἐπειδὴν δὲ πληγῇ πνεύματι,
κυματοῦται κατὰ κύκλους ὀρθοὺς εἰς ἄπειρον, ἕως πληρώσῃ τὸν 25
περικείμενον ἀέρα, ὥς ἐπὶ τῆς κολυμβήθρας τῆς πληγείσης λίθω· καὶ
αὕτη μὲν κυκλικῶς κινεῖται, ὁ δ’ ἀήρ σφαιρικῶς. (P4)
- §7 Ἀναξαγόρας τὴν φωνὴν γίνεσθαι πνεύματος ἀντιπεσόντος μὲν
στερεμνίῳ ἀέρι, τῇ δ’ ὑποστροφῇ τῆς πλήξεως μέχρι τῶν ἀκοῶν
προσενεχθέντος· καθὼ καὶ τὴν λεγομένην ἡχώ γίνεσθαι. (P5) 30

§5 Democritus 68A128 DK; Homerus *Od.* 17.218; Plato *Lys.* 214a–b; Aristoteles *EE* 7.1 1235a6–g; *Rhet.* 1.11 1371b16–17; ps.Aristoteles *MM* 2.11.2; §6 Stoici *SVF* 2.425; §7 Anaxagoras 59A106 DK

§5 [15–16] εἰς ... θραύσμασι P^B : *durch die Formen der Teile, welche durch den Laut bewegt werden, bis sie davon wie sie (die Formen der Teile) wird* Q || [17] ὥς¹ ... ὁμοῖον P^B : *und jeder setzt sich zu seinesgleichen* Q || ὥς¹ P^{B(I,II)} : om. P^{B(II)} || [18] τοὺς ... τόπους P^B : *einem einzigen Ort* Q || [19] κατ’ ἄλλο ... ἐπιμήκεις om. P^Q || αἱ ἐπιμήκεις P^{B(III,E)}, scr. marg. P^{B(III:A-alter.man.)} : om. P^{B(III:αA)} : lac. praebent P^{B(I,II)} || [20] κοσκινευόντων P^B : κοσκινευομένων Burchard ap. *DG* conl. S.E. M. 7.117 cf. *wenn sie gesiebt werden* Q (aut ὑπὸ τῶν scribendum pro ἐπὶ τ.) || [21] τοὺτους P^{B(II)Q} : τοῦτοις P^{B(I,II)} || [22] ὀλίγα P^B : ὀλίγ’ ἂν DK || θέατρον P^B : *den Zwischenraum* Q §6 [23] ἐκ P^B : ἀπὸ P^G || θραυσμάτων P^{B(I,II)G} : θραυμάτων P^{B(II)} : *Teilen* Q || [24] post συνεχῇ add. (εἶναι) edd. sed non prob. Diels || ἔχοντα P^{BQ} : om. P^G || [25] κυματοῦται] κυκλοῦται P^{B(II)} || ὀρθοὺς om. P^G || πληρώσῃ] πληρώσει P^{B(II)} || [26] περικείμενον] ἐπικείμενον P^{B(II)} || ἐπὶ om. P^G || [26–27] καὶ ... σφαιρικῶς] κινουμένης καὶ κυκλοειδῶς καὶ σφαιροειδῶς P^G §7 [28] Ἀναξαγόρας P^{BQ} : Ἀναξίμανδρος P^G || ἀντιπεσόντος P^B : ἐμπεσόντος P^G : *anstößt* Q || [30] καὶ P^{BG} : om. P^Q || λεγομένην P^{BG} : om. P^Q

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 100 (~ tit.) Περὶ φωνῆς (text Diels)

100.1 (~ P1a) Πλάτων φωνὴν ὀρίζειται πνεῦμα διὰ στόματος ἀπὸ διανοίας ἡγμένον καὶ
πληγὴν ἀέρος διὰ τῶν ὥτων ἐγκεφάλω καὶ στόματι μέχρι ψυχῆς διαδομένην.

100.2 (~ P4) οἱ δὲ Στωικοὶ φασὶ τὸν ἀέρα μὴ συγκεῖσθαι ἀπὸ θραυσμάτων, ἀλλὰ συν-
εχῇ δι’ ὅλου μηδὲ κενόν· ἐπειδὴν πληγῇ τῷ πνεύματι, κυματοῦται κατὰ κύκλους
εἰς ἄπειρον, ἕως πληρώσῃ τὸν περικείμενον ἀέρα, ὥς τῆς κολυμβήθρας τῆς πλη-
γείσης λίθω κινουμένης καὶ κυκλοειδῶς καὶ σφαιροειδῶς.

100.3 (~ P5) Ἀναξίμανδρος [sic] τὴν φωνὴν γίνεσθαι πνεύματος ἐμπεσόντος μὲν στερεμνίῳ ἀέρι, τῇ δ' ὑποστροφῇ τῆς πλήξεως μέχρι τῶν ἀκοῶν προσενεχθόντος· καθὼ καὶ τὴν λεγομένην ἡχὴ γίνεσθαι.

Psellus *Omn.Doctr.* 108.9 ἡ δὲ φωνὴ πνεῦμα ἐστὶ διὰ τοῦ στόματος ἀπὸ διανοίας ἡγμένον (~ P1).

Symeon Seth *CRN* 4.79 Περί γεύσεως καὶ ἀφῆς (~ tit.)

Testes secundi:

§1 *Nemesius NH* c. 1, p. 4.16–22 τὸν αὐτὸν δὲ τρόπον καὶ ἐπὶ τῆς φωνῆς ζητῶν εὐρήσεις ἐξ ἀπλῆς καὶ μονοειδοῦς τῆς ἵππων καὶ βοῶν ἐκφωνήσεως κατὰ μέρος εἰς ποικίλῃν καὶ διάφορον προαχθεῖσαν τὴν τῶν κοράκων καὶ μιμηλῶν ὄρνεων φωνήν, ἕως εἰς τὴν ἔναρθρον καὶ τελείαν τὴν ἀνθρώπου κατέληξε, πάλιν δὲ τὴν ἔναρθρον διάλεκτον ἐξήψε τῆς διανοίας καὶ τοῦ λογισμοῦ ἐξάγγελον ποιήσας αὐτὴν τῶν κατὰ νοῦν κινήματων (~ §§1–3). *NH* c. 6, p. 56.10 ἀὴρ γάρ ἐστιν ἡ τῆς φωνῆς οὐσία ἡ ἀέρος πληγὴ (~ §4).

Loci Aetiani:

quaestio A 4.16.3 Διογένης τοῦ ἐν τῇ κεφαλῇ ἀέρος ὑπὸ τῆς φωνῆς τυπτομένου καὶ κινουμένου (sc. τὴν ἀκοὴν γίνεσθαι).

§2 A 4.16.4 Πλάτων καὶ οἱ ἀπ' αὐτοῦ πλήττεσθαι τὸν ἐν τῇ κεφαλῇ ἀέρα, τοῦτον δ' ἀνακλᾶσθαι εἰς τὰ ἡγεμονικά καὶ γίνεσθαι τῆς ἀκοῆς τὴν αἴσθησιν. al. A 4.20.1 Πλάτων ... ἀσώματον· οὐ γὰρ τὸν ἀέρα, ἀλλὰ τὸ σχῆμα τὸ περὶ τὸν ἀέρα καὶ τὴν ἐπιφάνειαν κατὰ ποῖαν πληξίν γίνεσθαι φωνήν.

§3 A 5.20.4 Πυθαγόρας Πλάτων λογικάς μὲν εἶναι καὶ τῶν ἀλόγων ζώων καλουμένων τὰς ψυχάς, οὐ μὴν λογικῶς ἐνεργούσας παρὰ τὴν δυσκρασίαν τῶν σωμάτων καὶ τῷ μὴ ἔχειν τὸ φραστικόν, ὥσπερ ἐπὶ τῶν πιθήκων καὶ τῶν κυνῶν· λαλοῦσι μὲν γὰρ οὗτοι οὐ φράζουσι δέ. A 5.20.3 Ἀναξαγόρας πάντα τὰ ζῶα λόγον ἔχειν τὸν ἐνεργητικόν, τὸν δ' οἰοῖται νοῦν, μὴ ἔχειν τὸν παθητικόν, τὸν λεγόμενον τοῦ νοῦ ἐρμηνέα.

§§4–5 A 1.13.1 Ἐμπεδοκλῆς ἔφη πρὸ τῶν τεττάρων στοιχείων θαυράσματα ἐλάχιστα οἰοῖται στοιχεῖα πρὸ τῶν στοιχείων ὁμοιομερῆ. A 1.13.4 Ἡρακλείδης θαυράσματα.

§5 A 1.5.3[9–10] πρὸς δὴ τὸν Πλάτωνα ῥητέον ... A 1.14.4 οἱ ἀπὸ Λευκίππου τὰ ἄτομα πολυσχῆμονα. A 1.16.2 οἱ τὰς ἀτόμους (εἰσαγόντες) ... μὴ εἰς ἄπειρον εἶναι τὴν τομήν.

§6 A 1.16.1 οἱ ἀπὸ Θάλεω καὶ Πυθαγόρου παθητὰ (τὰ) σώματα καὶ τμητὰ εἰς ἄπειρον, καὶ πάντα τὰ συνεχῆ. A 1.18.5 Ζήνων καὶ οἱ ἀπ' αὐτοῦ ἐντὸς μὲν τοῦ κόσμου μηδὲν εἶναι κενόν.

§7 A 4.20 tit. πῶς ἡχῶ γίνεται.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

There are two witnesses, P, represented in various ways by P^B, P^G, P^Q; and S, for the heading and the Plato lemma together with the definitions at §§1–3. Even in the Florentine florilegium the larger part of the text is absent. There are five lemmata in P^B, of which three remain in P^G. S *Ecl.* 1.57 has combined the headings of the three chapters 4.19–4.21, cf. below ch. 4.20 Commentary A, and ch. 4.21 Commentary C.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Ps.Galen's *Definitiones medicae* (cf. above, ch. 4.17, Commentary B) is rather early, but for the most part the proximate tradition is late. As to its wider ramifications, it is noteworthy that Lactantius *Op.D.* 15.1 explicitly ascribes the definition of voice as air that has been struck (§1) to both philosophers and *grammarians*. See further the important passages from the *Commentaria on Dionysius Thrax*, deriving from late Neoplatonist school practice, quoted at section E(a)§1 (cf. also below, ch. 4.20 at Commentary B). The surprising tenacity of the tradition here is similar to that pertaining to the proem of the work; see above, Book 1.titulus et index, Commentary D(c). The Democritus lemma (§5) so closely corresponds to a passage in Sextus Empiricus that they must go back to a common tradition.

(2) *Sources.* The chapter appears to have been derived from very good source material. The Platonic material (§1) goes back to passages in the dialogues or further developments spun out of these, and §§2–3 contain parallels to influential views of the grammarians Seleucus and Philoxenus, both first cent. CE, so more or less contemporary with A. The Epicurean doxa (§4) is in part based upon a passage in the *Letter to Herodotus* (close verbal parallels). The Stoa lemma (§5), again, is closely parallel to the authoritative treatment of the subject in the physical section of the doxography of Diogenes Laertius *V.P.* Book 7 (not noticed by Von Arnim, who prints A 4.19.4 as *SVF* 2.425 and the Diogenes passage as *SVF* 2.872). Apparently special care was lavished on the present chapter, or it was shielded from further abridgement in P. The subject continued to be important, as is clear from the reverberations in the late *Commentaria on Dionysius Thrax*.

C *Chapter Heading*

Of the standard umbrella type περι τοῦ δεῖναι, see above, ch. 1.3 Commentary C. It is paralleled as e.g. a formula referring to a subject or question in Aristotle, in the Aristotelian *Problemata*, in Stoic dialectic, in grammarians, and as head-

ing of a chapter in Oribasius *Coll.Med.* 62. As a book title it is known as that of Galen's lost treatise Περὶ φωνῆς, numerous references to which are found in his œuvre. The question types concerned are those of cause and substance, while the categories of place and action and passion also play a part.

D Analysis

a Context

The chapter follows on after chs. 4.13–18 dealing with the senses (touch omitted) and particular phenomena related to some among them. A position that is perhaps equally appropriate would have been immediately after ch. 4.16, 'On hearing'. Plato *Tim.* 47cd and 67bc (followed by Theophrastus *Sens.* 6) deals with voice and hearing simultaneously, as does Aristotle in his chapter on the sense of hearing, *de An.* 2.8 419b4–421b6. Lucretius too discusses hearing and voice together, *DRN* 4.524–579. But according to the standard Stoic theory voice (like hearing) is a separate part of the soul (see ch. 4.4.2 etc.), which presumably is why it gets a separate chapter here, cf. M–R 2.1.146–147. Ch. 4.19 is continued by ch. 4.20, which deals with the issue of the corporeality of voice and the origin of its echo. The former a bit surprisingly is not an explicit issue in the present chapter, where voice is corporeal in all the doxai. The postponement of an exposition of the diaphonia is a sign that A (somewhat atypically) does not give equal weight to the two opposite sides. Note that the origin of the echo (apparently prepared by ἡχοῦντων in §2) is already mentioned in the final lemma of ch. 4.19, which makes for a smooth connection with the long title and second lemma of ch. 4.20.

b Number–Order of Lemmata

Of the five lemmata in P^B and P^Q only three are found in P^G, in the same relative order. In S and his tradition only the heading and §§1–3 are extant. There is no reason for interfering with the order as transmitted in P. The difference between Epicurus (§4) and Democritus (§5) is that Democritus includes air, just as the Stoics (§6) and Anaxagoras (§7), so Democritus is closer to the latter two. This explains the unchronological lemmata order, §5 following after §4. The Plato lemma (§1) is first because it contains a definition; see below.

c Rationale–Structure of Chapter

Voice is presented not only as produced by a speaker or some other sort of source, but also as received, heard (φωνή also means 'sound'). A consequence of this is that what in the original sources was formulated primarily as pertaining to spoken or thought *logos* (Plato *Tht.* 206d, *Sph.* 263e), or to hearing (*Tim.* 67b), has been rephrased and rearranged to suit a focus on, or heading per-

taining to, voice. For a drastic example of this reorganization see Alcinous *Did.* c. 19, p. 173.42–174.4 H., cited section E(b)§1. See Ingenkamp (1966) 80, and Ax (1986) 78–79, who aptly speaks of *Umlemmatisierung*, or ‘placing under a different heading’, but whose claim that in ch. 4.19 φωνή denotes ‘voice’ alone, and not (καταχρηστικῶς) also ‘sound’ in general, we cannot follow. But the Stoic doctrine of hearing is indeed found in the present chapter and not in ch. 4.16, see below, section D(d)§4. The distribution of voice/sound and hearing over two separate chapters in the *Placita* (namely chs. 4.16 and 4.19) is in tune with a scholastic practice we have encountered more often.

Ch. 4.20 provides a diaphonia of doxai pertaining to the incorporeality versus the corporeality of voice. According to the doxai of the present chapter, however, voice is corporeal: *pneuma* in §1 Plato and (apparently) in the two clarifying remarks that follow; a stream of various small particles of the same shape in §4 Epicurus; air corpuscles plus small particles in §5 Democritus; continuous air struck by *pneuma* in Stoicism §6; *pneuma* returned by the air it has struck in §7 Anaxagoras.

It is not always easy to establish the structure of a chapter that is mainly extant in P. Here the main diaeresis/diaphonia is between the discrete substrate of the Atomists (§§4–5) and the continuous substrate of the Stoics (§6). We note the identical formulas εἰς ὁμοιοσχήμονα θρύπτεσθαι θράυσματα (both §4 and §5), which are opposed to μὴ συγκεῖσθαι ἐκ θραυσμάτων (§6). The similar wording plus the negation strongly highlight the contrast. The tenets of Plato (§1) and Anaxagoras (§7) at beginning and end, both of which speak of *pneuma*, lie outside this diaeresis. This explains the final position of the Anaxagoras lemma, since exceptional lemmata, or those that fail to fit the diaeresis of a chapter, are as a rule found *ad finem*, see e.g. A at P 2.2, 2.14, 3.9, and M–R 2.1.9, 2.1.12, 3.228–229, etc. But it does not explain the position of the Plato lemma *ad initium*. The most probable explanation is that this lemma provides an explicit definition of the essence. Also elsewhere in the *Placita* definitions (both nominal and essential ones) are found at the beginning of chapters, though as a rule without name-label; see chs. 1.6.1, 1.9.1, 1.10.1, 1.11.1, 1.12.1, 1.14.1, 1.15.1, 2.1.1, 2.32.1, 3.1.1, 4.8.1, and 5.29.1, and esp. ch. 1.9 at Commentary D(d).

A weaker diaphonia is that between Epicurus (§4), who does not mention air, and the others, who do.

d Further Comments

General Points

Though ‘breath’ (*pneuma*) functions in the Plato’s first definition in §1, we are not informed about the production of voice and the role of respiration and the function of the trachea, and have to wait for ch. 4.21 1.[15–19].

Individual Points

§§1–3 (1) While §1 is derived from passages in Plato (as we have seen §2 is ascribed to grammarians, too), §§2–3 are different, as Diels already pointed out *ad loc.* They are widely paralleled in grammatical literature. Wachsmuth appropriately gave them their own separate lemma. The antithesis between *καταχρηστικῶς* ('by analogy', 'metaphorically', 'by extension') and *κυρίως* ('in the proper sense') is not paralleled before the first cent. BCE, in the grammarian Trypho, e.g. *Περὶ τρῶπων* 192.21–24, and Philo of Alexandria, e.g. *Leg.* 2.10. For these definitions see also Mansfeld (2005b).

(2) Note that at §1[2] the Stoic *πνεῦμα* replaces the *ῥεῦμα* of Plato *Sph.* 263e (echoed ps.Plato *Def.* 414d); cf. *Th.* 206d *ῥοή*, *Tim.* 75e *λόγων νᾶμα ἔξω ῥέον*. One is tempted to conjecture *ῥεῦμα*, because then both Plato (§1) and Epicurus (§4) would speak of *ῥεῦμα*. This would make the structure of the chapter clearer, while from the point of view of the original source *nihil obstat*. Against this change, of course, is the unanimous textual tradition. But that in the course of transmission a Platonic *ῥεῦμα* was supplanted by a Stoicizing *πνεῦμα* is virtually certain.

(3) Ax (1986) 81 argues that there is no reference to *ἀκοή* in the present lemma, but misses the implication of the phrase §1[3] *δι' ὧτων*. *Ibid.* p. 78 he argues that these words were added by the doxographer, although they are already found in both Theophrastus and Plato.

(4) In spite of the shared term *ὀρίζεται* the definition in §1 is quite different from Theophrastus' introductory words at *Sens.* 6, cited section E(b)§2. But *πληγὴν ... ψυχῆς* in §1[3–4] is very close to Theophrastus, who himself excerpted Plato very carefully, although he seems to give 'the erroneous impression that Plato takes hearing ... to be *itself a sound*' (Long 1996c, 352, his emphasis). What in the original sources was formulated primarily as pertaining to *logos* or hearing, has been rephrased to suit a focus, or heading, pertaining to voice/sound; see at section D(c) above. This already happened in Theophrastus.

§3 For 'voice' as 'illuminating what is thought' see Mansfeld (2005b). This idea helps explain the Stoic view that also the first case of the noun, i.e. the spoken or even written word in a particular shape, is a 'fall' or *ptosis*, since it has 'fallen from the concept in the soul' (*SVF* 2.164, cited section E(b)§3).

Sprache der Griechen: cf. chs. 1.8 (heading), 2.1.1[2], 3.7.2[6], 4.11.1[17], and 4.12.1[9]. The etymology of *φωνή* 'sound' from *φῶς* 'light' has to be explained to his public, since no connection is present in Arabic between the words for 'sound' and 'light'.

§4 The Epicurus doxa includes both animals and things.

§5 The quotation of the Homeric line is paralleled in Plato and Aristotle, that of the proverb in Aristotle, but they are not found in the parallel passage

in Sextus Empiricus; see section E(b)§5. This is not the place to inquire into the ultimate origin of this combination (further illustrative quotes are found in both Aristotle and Plato). Either Sextus Empiricus (or the tradition on which he depends) eliminated these proof texts, or A or the tradition on which he depends added them. If the latter, the Democritean view was contaminated with what is in Aristotle (and Plato). If the former, one might hypothesize that all three philosophers depend on an earlier anthology of parallel ideas, which Democritus further developed by the empirical examples of similar stones and grains that aptly illustrate atomic motions.

The dialectical objection at the end of the lemma is an important reminder of one of the aims and uses of *placita*. Explicit examples in the *Placita* itself are rare: see chs. 1.2.2, 1.3.2–4, 1.5.3, and 1.7.7; M–R 2.1.32, 2.1.71, and 2.72 n. 149. Note the plural ‘to those’, while the lemma has only one name-label: a shift to Democritus’ purported followers in the didactic context. Perhaps it is also generalised to those who hold this view.

§6 This doxa about hearing is not found in its proper chapter (4.16) but in the chapter ‘On voice’ (*Umlemmatisierung*). On rearrangement as a characteristic of epitomatization see Opelt (1962) 961. The passage in the physics section at Diogenes Laertius *V.P.* 7.158 is exactly, and virtually verbatim, parallel.

§7 The theme of the concluding phrase anticipates the second lemma of the next chapter, itself announced in the second part of the heading of that chapter. The difference in name-labels between P^{BQ} (Anaximander) and P^G (Anaxagoras) is almost certainly due to the use of abbreviations, as at Diogenes Laertius *V.P.* 8.70, where Ἀναξαγόρου has been restored (by Gigante) for mss. ἀναξιμανδρου on the basis of *V.P.* 8.56. Tiziano Dorandi informs us (*per litt.*, we translate from the Italian) why in his edition of Diogenes Laertius he has preserved the ἀναξιμανδρου of the manuscripts (with Diels *PPF* and *Vors.* and with the *Nachlass* of v. d. Muehl). This decision depends on my editorial criteria: the mistake may go back to Diogenes Laertius himself, who may have erred in transcribing his source (or the error may already have been in the source). In an edition of one of the philosophers in question I would write (at least in the apparatus) something like ἀναξιμανδρου codd. D.L., lege Ἀναξαγόρου. In Diogenes Laertius *V.P.* 2.17 the same doxa in a simplified form, i.e. ‘that the impact of air is the origin of voice’, is said to have been stated first by Archelaus, another Presocratic whose name begins with the letter A (and who is also Anaxagoras’ pupil). We for our part have made the appropriate choice in favour of G, since we are trying to reconstruct A.

e Other Evidence

Aristotle *de An.* 2.8 and ps.Aristotle *Probl.* Book 11 deal with the topic of φωνή. Xenocrates as reported by Porphyry and the majority of the (later) Stoics as reported in Diogenes Laertius *V.P.* 7.55 began their exposition of dialectic with a discussion of φωνή. These authorities were followed by the grammarians, who introduce their account of grammar with one of φωνή. The collection of definitions by a certain Aquilius (second cent. CE?) edited by Rashed begins with one, or rather two, definitions of φωνή, see Rashed (2012) 136.

E Further Related Texts

a Proximate Tradition

General texts: ps.Galen *Def.Med.* 19.380.12–381.4 K. ρηγ'. φωνή ψόφος τίς ἐστιν ἔμψυχος. ἄλλως· φωνή ἐστιν ἡ γινομένη καθ' ὁρμὴν τοῦ ἡγεμονικοῦ ἐκτεινομένου καὶ συνεκτείνοντος τὸ πνεῦμα τὸ διὰ φάρυγγος μέχρι τοῦ πνεύμονός τε καὶ τοῦ στόματος καὶ τῆς γλώττης, τούτων διατυπτόντων τὸν πλησιάζοντα ἀέρα. ἄλλως. φωνή ἐστιν ἀποτέλεσμα τοῦ ἐν ἡμῖν τεθησαυρισμένου πνεύματος διασειόμενον διὰ τραχείας ἀρτηρίας καὶ εἰδοποιούμενον διὰ γλώττης καὶ ἐπιγλωττίδος. ἄλλως· φωνή ἐστιν ἀπήχησις πνεύματος κατὰ προαίρεσιν ἡμῶν γινομένη συστελλομένων τῶν μεσοπλευρίων μυῶν καὶ προσκρουόντων τῇ τραχείᾳ ἀρτηρίᾳ, λάρυγγι, φάρυγγι, ἐπιγλωττίδι καὶ ἀπαγγέλλουσα τὰς ψυχικὰς διαθέσεις. **Galen** *De voce* excerpted at **Oribasius** *Coll.Med.* 62.1 δύο ἐστὶ τὰ πρῶτα καὶ γενικώτατα κεφάλαια τῶν εἰς γένεσιν φωνῆς ἀναγκαίων, τὸ μὲν ἕτερον αὐτῶν ἐκφύσησις, τὸ δ' ἕτερον ἡ ἐν τῇ γλωττίδι πληγὴ τῆς ἐκφύσησεως· ἄνευ γὰρ τοῦ πληγῆναι τὸν ἀέρα γενέσθαι φωνὴν ἀδύνατον· κτλ. *AA* 2.675.7–8 ἐκφύσησιν, ἥς χωρὶς οὐχ οἶόν τε γενέσθαι φωνήν. *Inst.Log.* 13.9 κατὰ δὲ τὸ ποιεῖν καὶ πάσχειν αἱ τῶν αἰτίων γίνονται ζητήσεις· ἐν ἱατρικῇ μὲν οὖν ἐ(κ) τίνος αἰτίας γίνονται φωνή κτλ.

Chapter heading: *Divisiones Aristoteleae* 30, p. 37.22 Mutschmann ἡ φωνή. *Capitula Lucretiana* at *DRN* 1.298 *de ... voce*.

§1 Plato: **Aquilius** *Def.* 1 Rashed φωνή ζῶου ἐστὶ ψόφος διὰ τραχείας ἀρτηρίας, ἀνθρώπου δὲ ψόφος ἑναρθρος διὰ τραχείας ἀρτηρίας.

§2 Plato: **Porphyry** (*ad Geda*l.?) 70F Smith at *Simp. in Cat.* 213.12–17 (*verbatim*) ἔστιν δὲ ἐννοηματικός (sc. λόγος i.e. ὀρισμός) ὁ ἀπὸ τῶν γνωρίμων τοῖς πᾶσιν εἰλημμένος καὶ κοινῇ παρὰ πᾶσιν ὁμολογούμενος [cf. below *S.E. M.* 6.39, ἀναμφισβητήτως], οἷον ... 'φωνή ἐστιν τὸ ἴδιον αἰσθητὸν ἀκοῆς' (cf. e.g. *SVF* 3 Diog. 17). οὐσιώδεις δὲ εἰσιν ὅροι οἱ καὶ τὴν οὐσίαν αὐτὴν τῶν ὀριζομένων διδάσκοντες, οἷον ... 'φωνή ἐστιν ἀῆρ πεπληγμένος' (cf. e.g. *SVF* 1.74, 2.138, 3 Diog. 17). cf. **Priscian** *Inst.Gramm.* at *Gr.Lat.* 1.1, p. 5.2–4 Hertz–Keil (*FDS* 479) *philosophi definiunt, vocem esse aërem tenuissimum ictum vel suum sensibile aurium, id est quod proprie auribus accidit. et est prior definitio a substantia sumpta, altera vero a notione, quam Graeci ἔννοιαν dicunt, hoc est ab accidentibus. accidit enim voci auditus, quantum in ipsa est.* **Marius Victorinus** *ArsGramm.* c. 2, p. 66.9 *Mariotti vox est aër ictus auditu percipibilis, quantum in ipso est.* **Dositheus of Alexandria** *ArsGramm.* §6.2 Tolkiehn (*FDS* fr. 500) φωνή ἐστιν ἀῆρ πεπληγώς

αἰσθητὸς ἀκοῇ τὸ ὅσον ἐφ' ἑαυτῷ ἐστίν. *Commentaria in Dionysium Thracem, Scholia Vaticana* (i.e. of Stephanus) p. 181.6–8 Uhlig (*FDS* fr. 483) οἱ δὲ λέγοντες ἀσώματον οὐ φασι τὴν φωνὴν (ὅτι) ἀήρ πεπληγμένος, ἀλλὰ πληγὴ ἀέρος ἦτοι ἴδιον αἰσθητὸν ἀκοῆς. *Scholia Londinensia* (i.e. of Heliodorus) p. 482.7–9 Uhlig (*FDS* fr. 481) ἀλλ' ἐπειδὴ ὁ ἀήρ σῶμά ἐστιν, ὁ δὲ Πλάτων τὴν φωνὴν οὐ δοξάζει σῶμα, δεῖ λέγειν τὸν ὅρον οὕτως· πληγὴ ἀέρος ἢ τὸ ἴδιον αἰσθητὸν ἀκοῆς. **ps.Theodosius de Gramm.** p. 15.2–6 Götting τί ἐστι φωνή; φωνή ἐστίν ἀήρ πεπληγμένος ἢ τὸ ἴδιον αἰσθητὸν ἀκοῆς. ἀλλ' ἐπειδὴ ὁ ἀήρ σῶμά ἐστιν, ὁ δὲ Πλάτων οὐ δοξάζει τὴν φωνὴν σῶμα, λέγει τὸν ὅρον τῆς φωνῆς οὕτως· φωνή ἐστὶ πληγὴ ἀέρος ἢ τὸ ἴδιον αἰσθητὸν ἀκοῆς. **Divisiones Aristoteleae** 30, p. 37^a23–38^a9 Mutschmann = at D.L. 3.107 ἢ φωνὴ διαιρεῖται εἰς δύο· ἐν μὲν αὐτῇ ἐστὶν ἔμψυχον, ἐν δὲ ἄψυχον. ἔμψυχον μὲν ἢ τῶν ζῶων φωνή, ἄψυχον δὲ φθόγγοι καὶ ἦχοι. τῆς τοῦ ἐμψύχου φωνῆς ἢ μὲν ἐστὶν ἐγγράμματος, ἢ δὲ ἀγράμματος. ἐγγράμματος μὲν ἢ τῶν ἀνθρώπων, ἀγράμματος δὲ ἢ τῶν ζῶων. τῆς ἄρα φωνῆς ἢ μὲν ἔμψυχος, ἢ δὲ ἄψυχος. cf. pp. 37^b23–38^b12 Mutschmann (cod. Marc.) διαιρεῖται ἢ φωνὴ εἰς τέσσαρα· ἔστι γὰρ αὐτῆς ἢ μὲν ἔμψυχος, ἢ δὲ ἄψυχος, καὶ ἢ μὲν καὶ ἐγγράμματος, ἢ δὲ ἀγράμματος. ἔστι δὲ ἢ μὲν ἔμψυχος, ἢ τῶν ζῶων, ἢ δὲ ἄψυχος, οἷον ἦχοι καὶ ψόφοι καὶ ἢ τῆς λύρας καὶ τῶν αὐλῶν φωνή· καὶ ἐγγράμματος μὲν ἢ τῶν ἀνθρώπων φωνὴ καὶ ζῶων τινῶν, οἷον ἀηδόνων χελιδόνων στρουθίων καὶ τῶν τοιούτων, ἀγράμματος δὲ ἢ ἀδιάθετος, ὡς οἱ ποπυσμοὶ καὶ ἦχοι καὶ ψόφοι καὶ τὰ τοιαῦτα. *Commentaria in Dionysium Thracem, Scholia Vaticana* (i.e. of Stephanus) p. 181.28–31 Uhlig (*FDS* 503A) ἰστέον δὲ ὅτι ἢ φωνὴ κυρίως (μὲν) λέγεται ἐπὶ τῶν ἀνθρώπων ...· καταχρηστικῶς δὲ καὶ ἐφ' ἐτέρων λέγεται φωνή. cf. *Scholia Vaticana* (i.e. of Stephanus). p. 175.13–17 Uhlig ἐπεὶ δὲ καὶ ἄλλα ἐστὶ ζῶα τὴν ἐναρμόνιον φωνὴν ἀπομιμούμενα, καὶ φθέγγεται ὡς δοκεῖν ἀνθρώπου ἀκούειν, ἄρα κακείνων εἰποῖμεν ἐναρμόνιον εἶναι τὴν φωνήν; φαρμέν οὐ· μιμεῖται γὰρ τὴν τοῦ ἀνθρώπου φωνήν, οὐκ ἀπὸ διανοίας δὲ ἐκπέμπεται.

§3 Definition/etymology of voice: Commentaria in Dionysium Thracem, Scholia Vaticana (i.e. of Stephanus) p. 181.32–36 Uhlig (Philoxenus fr. *195 Theodoridis) σχηματίζεται δὲ ἢ φωνὴ παρὰ τὸ φῶ, τὸ φαίνω, κατὰ πρόσληψιν συλλαβῆς τῆς (ν) γινομένη {φῶ} φωνή· φαίνει γὰρ καὶ λαμπρῶς δηλοῖ τὰ ἐνθυμήματα· ἢ ὅτι φωτονόη τις ἐστίν· αὕτη γὰρ τὰ τοῦ νοὸς ἐνθυμήματα εἰς φῶς ἐξάγει. **Orion of Thebes Etym.** 160.12–14 Sturz φωνή· ἢ φωτίζουσα τῷ λόγῳ τὰ τοῦ νοῦ.—φῶς· ὁ ἄνθρωπος, ὁ μόνος τὰ τῆς διανοίας φωτίζων τῷ λόγῳ, ἢ παρὰ τὸ φῶ τὸ λέγω. *Etym.* 162.12–14 φθέγγεσθαι· πλεονασμῷ τοῦ θ, φέγγεσθαι γὰρ ἐστὶ παρὰ τὸ φέγγος, ὃ ἐστὶ τὸ φῶς. εἴρηται οὖν παρὰ τὸ εἰς φῶς ἄγειν τὰ τοῦ νοῦ κινήματα. *Commentaria in Dionysium Thracem, Scholia Vaticana* (i.e. of Stephanus) p. 175.7–9 Uhlig μόνη γὰρ ἢ τοῦ ἀνθρώπου φωνὴ ἑναρθρος· ὅθεν καὶ φῶς ὁ ἄνθρωπος, ὡς εἶναι αὐτὴν φωτεινοειδῆ τινα, τὴν φωτίζουσαν καὶ σαφηνίζουσαν τὰ ἐντὸς τοῦ νοῦ. *Scholia Londinensia* (i.e. of Heliodorus) p. 483.5–6 Uhlig φωνὴ δὲ λέγεται οἷον εἶ φασιν τις οὖσα, τουτέστι λαμπρῶς δηλοῦσα τὰ νοήματα· ἢ φωτονόη τις οὖσα, παρὰ τὸ φωτίζειν τὸν νοῦν. **ps.Theodosius de Gramm.** p. 10.11–13 Götting εἴρηται δὲ φωνὴ διὰ τὸ εἶναι φῶς νοῦ, ἡγουν ἢ τὰ ἐν τῷ νῷ φωτίζουσα

§5 Democritus: Sextus Empiricus M. 7.116–119 παλαιὰ γὰρ τις, ὡς προεῖπον, ἄνωθεν παρὰ τοῖς φυσικοῖς κυλίστα δόξα περὶ τοῦ τὰ ὅμοια τῶν ὁμοίων εἶναι

γνωριστικά· καὶ ταύτης ἔδοξε μὲν καὶ Δημόκριτος (68B164 DK) κεκομικέναι τὴν παραμυθίαν (117) ἀλλ' ὁ μὲν Δημόκριτος ἐπὶ τε τῶν ἐμψύχων καὶ ἀψύχων ἵστησι τὸν λόγον. 'καὶ γὰρ ζῶα', φησίν, 'ὁμογενέσι ζώοις συναγελάζεται, ὡς περιστεραὶ περιστεραῖς καὶ γέρανοι γεράνοις, καὶ ἐπὶ τῶν ἄλλων ἀλόγων' ὡσαύτως δὲ καὶ ἐπὶ τῶν ἀψύχων, καθάπερ ὅραν πάρεστιν ἐπὶ τε τῶν κοσκινευομένων σπερμάτων καὶ ἐπὶ τῶν παρὰ ταῖς κυματωγαῖς ψηφίδων· ὅπου μὲν γὰρ κατὰ τὸν τοῦ κοσκίνου δῖνον διακριτικῶς φακοὶ μετὰ φακῶν τάσσονται καὶ κριθαὶ μετὰ κριθῶν καὶ πυροὶ μετὰ πυρῶν, (118) ὅπου δὲ κατὰ τὴν τοῦ κύματος κίνησιν αἱ μὲν ἐπιμήκεις ψηφίδες εἰς τὸν αὐτὸν τόπον ταῖς ἐπιμήκεσιν ὠθοῦνται, αἱ δὲ περιφερεῖς ταῖς περιφερέσιν, ὡς ἂν συναγωγόν τι ἐχούσης τῶν πραγμάτων τῆς ἐν τούτοις ὁμοιότητος.' ἀλλ' ὁ μὲν Δημόκριτος οὕτως. **Hippolytus Ref.** 1.12.2 (on Leucippus, 67A10 DK) ὅταν εἰς μέγα κενὸν ἐκ τοῦ περιέχοντος ἀθροισθῇ πολλὰ σώματα καὶ συρρυῇ, προσκρούοντα ἀλλήλοις συμπλέκεσθαι τὰ ὁμοιοσχήμονα καὶ παραπλήσια τὰς μορφάς.

§6 **Anaxagoras: Diogenes Laertius V.P.** 7.158 (physical section) (*SVF* 2.872) ἀκούειν δὲ τοῦ μεταξὺ τοῦ φωνούντος καὶ τοῦ ἀκούοντος ἀέρος πληττομένου σφαιροειδῶς, εἶτα κυματούμενου καὶ ταῖς ἀκοαῖς προσπίπτοντος, ὡς κυματοῦται τὸ ἐν τῇ δεξαμενῇ ὕδωρ κατὰ κύκλους ὑπὸ τοῦ ἐμβληθέντος λίθου.

b Sources and Other Parallel Texts

General texts: **Galen** *Inst.Log.* 13.9–10 κατὰ δὲ τὸ ποιεῖν καὶ πάσχειν αἱ τῶν αἰτίων γίνονται ζητήσεις· ἐν ἱατρικῇ μὲν οὖν ἐ(κ) τίνος αἰτίας γίνονται φωνὴ κτλ. **Lactantius** *Op.D.* 15.1 Perrin *de voce autem quam rationem reddere possumus?* (contin. below). **Origen** *CC* 6.62, p. 439.16–17 Marcovich (cf. *SVF* 2.138) εἶπερ ἐστὶν ἡ φωνὴ ἀῆρ πεπληγμένος ἢ πληγὴ ἀέρος ἢ εἶδος ἀέρος ἢ ὅ τι δῆποτε ὀρίζονται εἶναι τὴν φωνὴν οἱ περὶ ταῦτα δεινοί.

Chapter heading: ps.Aristotle *Probl.* 11 tit. "Ὅσα περὶ φωνῆς. **Diogenes Laertius V.P.** 7.55 (*SVF* 2.136) τῆς δὲ διαλεκτικῆς θεωρίας συμφώνως δοκεῖ τοῖς πλείστοις ἀπὸ τοῦ περὶ φωνῆς ἐνάρχεσθαι τόπου. *V.P.* 7.55 ὡς φησι Διογένης ὁ Βαβυλώνιος (*SVF* 3 Diog. 17) ἐν τῇ Περὶ φωνῆς τέχνῃ. ... ὡς φησιν Ἀρχεδημός (*SVF* 3 Arch. 6) τε ἐν τῇ Περὶ φωνῆς. **Galen** *Ord.Lib.Prop.* c. 2.7, 19.55.10–11 *K. Lib.Prop.* c. 1.6, 19.13.5 *K.* καὶ τὰ Περὶ φωνῆς τέτταρα = c. 5.1, p. 154.21 Boudon-Millot. **Simplicius in Phys.** 425.33–426.8 (*FDS* fr. 480) ὁμοίως δὲ ἀμαρτάνουσι καὶ οἱ τὴν φωνὴν τὸ ἴδιον αἰσθητὸν ἀκοῆς ὀρίζομενοι· ἀκουστοῦ γὰρ οὗτος ὀρισμός, ὃ συμβέβηκε τῇ φωνῇ· οὐδὲ γὰρ αὕτη μόνη ἀκουστή, εἶγε καὶ ὁ ψόφος ἄλλος ὢν παρὰ τὴν φωνὴν ἀκουστός ἐστι. καὶ οἱ ἀέρα δὲ πεπληγμένον τὴν φωνὴν ἀποδιδόντες, ὥσπερ Διογένης ὁ Βαβυλώνιος (*SVF* 3 Diog. 19), ἀμαρτάνουσι· σῶμα γὰρ οὕτως ἔσται ἡ φωνή, εἶπερ ἐν γένει τῷ ἀέρι ἐστί, καὶ τὸ πεπονθός, τουτέστι τὸν πεπληγμένον ἀέρα, ἀντὶ τοῦ πάθους, ὅπερ ἐστὶν ἡ πληγὴ, ἀποδιδόασιν. καίτοι εἶπερ ἄρα κατὰ τὴν πληγὴν ἡ φωνὴ ἐστίν, ἀλλ' οὐχὶ κατὰ τὸ πεπληγμένον. καὶ ἔστιν ἡ φωνή, ὡς ὁ Ἀλέξανδρος φησι, 'πληγὴ προαιρετικὴ τοῦ ἐκπνεομένου ἀέρος διὰ τῶν φωνητικῶν ὀργάνων'. μήποτε δὲ οὐχ ἡ πληγὴ, ἀλλ' ὁ ἀπὸ τῆς πληγῆς ἦχος.

§§1–2 **Plato: Diogenes of Babylon** at *D.L.* 7.55 ἔστι δὲ φωνὴ ἀῆρ πεπληγμένος ἢ τὸ ἴδιον αἰσθητὸν ἀκοῆς, ὡς φησι Διογένης ὁ Βαβυλώνιος (*SVF* 3 Diog. 17) ἐν τῇ Περὶ φωνῆς τέχνῃ (cf. *Commentaria in Dionysium Thracem, Scholia*

Londinensia (i.e. of Heliodorus) p. 482.5–6 Uhlig) ζῶου μὲν ἐστὶ φωνὴ ἀήρ ὑπὸ ὀρμῆς πεπληγμένος, ἀνθρώπου δ' ἔστιν ἔναρθρος καὶ ἀπὸ διανοίας ἐκπεμπομένη, ὡς ὁ Διογένης φησὶν, ἥτις ἀπὸ δεκατεσσάρων ἐτῶν τελειοῦται. **Porphry in Ptol. Harm.** 8.22–28 διὰ τοῦτο γὰρ καὶ ἐπιτιμᾶν τινὰς εὐλόγως Ξενοκράτει (fr. 10 Heinze, F 7 Isnardi Parente²), ὅτι ἐγχειρήσας ὑπὲρ τῶν διαλεκτικῶν πραγματεύεσθαι ἀπὸ φωνῆς ἀρχεται, οὐδὲν οἰομένους εἶναι πρὸς τὰ διαλεκτικὰ τὸν τῆς φωνῆς ἀφορισμόν, ὅτι ἐστὶν ἀέρος κίνησις, οὐδὲ τὴν μετὰ ταῦτα διαίρεσιν, ὅτι ἐστὶ τῆς φωνῆς τὸ μὲν τοιοῦτον, οἷον ἐκ γραμμάτων συγκεῖσθαι, τὸ δὲ τοιοῦτον, οἷον ἐκ διαστημάτων τε καὶ φθόγγων· πάντα γὰρ εἶναι ταῦτα ἀλλότρια τῆς διαλεκτικῆς. *in Ptol. Harm.* 30.1–33.4 (Xenocrates fr. 9 Heinze, F 6 Isnardi Parente²).

§1 Plato: Archytas *Περὶ μαθηματικῆς* (47B1 DK, fr. 1 Huffman) at Porph. *in Harm.* p. 56.10–12 Düring (verbatim) ... πρᾶτον μὲν οὖν ἐσκέψαντο, ὅτι οὐ δυνατόν ἐστιν ἡμεν ψόφον μὴ γεννηθείσας πληγὰς τινων ποτ' ἀλλάλα. πλαγὰν δ' ἔφαν γίνεσθαι, ὅκκα τὰ φερόμενα ἀπαντιάζαντα ἀλλάλοις συμπέτη (κτλ.). cf. **Porphry in Harm.** p. 104.12–13 Düring ἔλεγον δ' οἱ περὶ τὸν Ἀρχύταν (47A18 DK, fr. A18 Huffman) 'ἐνὸς φθόγγου γίνεσθαι κατὰ τὰς συμφωνίας τὴν ἀντίληψιν τῇ ἀκοῇ'. **Plato Tim.** 67b ὅλως μὲν οὖν φωνὴν θάμεν τὴν δι' ὧτων ὑπ' ἀέρος ἐγκεφάλου τε καὶ αἵματος μέχρι ψυχῆς πληγὴν διαδιδομένην (cited Porph. *in Ptol. Harm.* 46.6–8). **ps.Aristotle Probl.** 7.5 886b14–15 ἡ δὲ διότι φωνὴ μὲν πᾶσα καὶ ψόφος πνεῦμα ἐστίν. **Theophrastus Sens.** 6 & 85 (on Plato) ἀκοὴν δὲ διὰ τῆς φωνῆς ὀρίζεται· φωνὴν γὰρ εἶναι πληγὴν ὑπ' ἀέρος ἐγκεφάλου καὶ αἵματος δι' ὧτων μέχρι ψυχῆς. **Timaeus Locrus** 58, p. 220.4–5 Thesleff φωνὰ δ' ἐστὶ μὲν πλάξιν ἐν ἀέρι διικνουμένα ποτὶ τὰν ψυχὰν δι' ὧτων, ὧν τοὶ πόροι διήκοντι ἄχρις ἥπατος χωρέοντες. **Seneca Nat.** 2.6.3 *quid enim est vox nisi intentio aëris, ut audiat, linguae formata percussu?* **Plutarch de E** 390B ἀήρ δὲ πληγεὶς ἐν ἀκοῇ γίνεσθαι φωνὴ καὶ ψόφος. *Gen.Socr.* 588E πληγὴ γὰρ ἡ φωνῆ προσέοικε, τῆς ψυχῆς δι' ὧτων βίᾳ τὸν λόγον εἰσδεχομένης ὅταν ἀλλήλοις ἐντυγχάνωμεν. *Plat. Quaest.* 1006B ἔστι γὰρ ἡ φωνὴ πληγὴ τοῦ αἰσθανομένου δι' ὧτων ὑπ' ἀέρος· πλήττει γὰρ πληγεὶς ὁ ἀήρ ὑπὸ τοῦ κινήσαντος. **ps.Plutarch Mus.** 1131D ὀρίζονται τὴν φωνὴν οἱ ἄριστοι γραμματικοὶ ἀέρα πεπληγμένον αἰσθητὸν ἀκοῇ. **Galen UP** 8.6, 3.644.11–16 K. ἀλλ' ἐπεὶ ψόφος καὶ φωνὴ τοῦτ' ἦν, εἴτ' οὖν ἀήρ πεπληγμένος εἴτε καὶ πλήξῃ τις ἀέρος ὑπάρχουσα, διαφέρει γὰρ οὐδέν, εἰ μόνον τοῦθ' ἐν ὁμολογοῖτο, τὴν ἐκ τῆς πληγῆς κίνησιν οἷον κύμα προΐουσαν ἐπὶ τὸν ἐγκεφάλον ἀνιέναι δεῖν. **Lactantius Op.D.** 15.1 *Perrin grammatici quidem ac philosophi vocem esse definiunt aerem spiriti verberatum, unde verba sint nuncupata; quod perspicue falsum est* (cf. **Isidore of Seville Etym.** 3.20.2 *vox est aer spiritu verberatus, unde et verba sunt nuncupata*). **Alcinous Did.** 19, pp. 173.42–174.4 H. ἀκοὴ δὲ γέγονε πρὸς φωνῆς γνῶσιν, ἀρχομένη μὲν ἀπὸ τῆς περὶ τὴν κεφαλὴν κινήσεως, τελευτώσα δὲ περὶ ἥπατος ἔδραν· ἡ δὲ φωνὴ ἐστὶν ἡ δι' ὧτων ἐρχομένη ἐγκεφάλου τε καὶ αἵματος, διαδιδομένη δὲ μέχρι ψυχῆς πληγὴ. **ps.Alexander Probl.** 2.61.6–9 Ideler ἡ δὲ ἀκοὴ ψόφων καὶ ἤχων γνωστικὴ, ἅπερ περὶ πληγὴν ἀέρος πάρεστιν. **Sextus Empiricus M.** 6.39 φωνὴ τοίνυν ἐστίν, ὡς ἂν τις ἀναμφισβητήτως ἀποδοίη, τὸ ἴδιον αἰσθητὸν ἀκοῆς.

§2 Plato: Theophrastus Sens. 91 ἐνδεστέπως (δὲ) καὶ ὁ τῆς φωνῆς εἴρηται λόγος· οὕτε γὰρ κοινὸς ἅπασιν τοῖς ζῴοις ἐστίν. **Philo of Alexandria Somn.** 2.29

καὶ μὲν δὲ καὶ τῆς ἐνάρθρου φωνῆς, ἣν μόνος ἐκ πάντων ζώων ἔλαχεν ἄνθρωπος. **Sextus Empiricus** *M.* 8.275 (*SVF* 2.223) οἱ δὲ δογματικοὶ ... φασιν, ὅτι ἄνθρωπος οὐχὶ τῷ προφορικῷ λόγῳ διαφέρει τῶν ἀλόγων ζώων (καὶ γὰρ κόρακες καὶ ψιττακοὶ καὶ κίτται ἐνάρθρους προφέρονται φωνάς), ἀλλὰ τῷ ἐνδιαθέτῳ.

§3 Definition of voice: *Th.* 206d τὴν ... διάνοιαν ἐμφανῆ ποιεῖν διὰ φωνῆς ... εἰς τὴν διὰ τοῦ στόματος ῥοήν. *Sph.* 263e τὸ δὲ γ' ἀπ' ἐκείνης (sc. τῆς ψυχῆς) ῥεῦμα διὰ τοῦ στόματος ἰὸν μετὰ φθόγγου κέκληται λόγος; **ps.Plato** *Def.* 414d φωνὴ ῥεῦμα διὰ στόματος ἀπὸ διανοίας. **Euripides** *Supp.* 203–204 πρῶτον μὲν ἐνθεὶς σύνεσιν, εἶτα δ' ἄγγελον / γλώσσαν λόγων δούς, ὥστε γινώσκειν ὅπα. **Aristotle** *Int.* 1 16a3–4 ἔστι μὲν οὖν τὰ ἐν τῇ φωνῇ τῶν ἐν τῇ ψυχῇ παθημάτων σύμβολα. **Lucretius** *DRN* 6.1149 *animi interpretes ... lingua*. **Horace** *A.P.* 111 *post effert animi motus interprete lingua*. **Philo of Alexandria** *Somn.* 2.29 καὶ μὲν δὲ καὶ τῆς ἐνάρθρου φωνῆς ... ἔστιν ἃ γνωρίζομεν· οἷον ὅτι ἀπὸ διανοίας ἀναπέμπεται, ... ὅτι ἡ γλώσσα πλήττουσα τῇ τῆς φωνῆς τάσει τὸ ἔναρθρον ἐνσφραγίζεται καὶ λόγον, ἀλλ' οὐ ψιλὴν αὐτὸ μόνον φωνὴν ἀργὴν καὶ ἀδιατύπτωτον ἦχον ἀπεργάζεται, ὅτι κήρυκος ἢ ἐρμηνεύς ἔχει τάξιν πρὸς τὸν ὑποβάλλοντα νοῦν. *Det.* 125–129. **Plutarch** fr. 89 Sandbach (*Schol. vet. in Hes. Op.* 719–721 Pertusi) γλώσσης τοι θησαυρός· ὁ μὲν θησαυρὸς τῆς γλώττης ἐστὶν ἡ κρύψις τῶν νοημάτων ἢ ἐν τῇ ψυχῇ καὶ τῶν φαντασιῶν τῶν μὴ γενομένων ἐκφόρων ὑπὸ τῆς γλώττης προπετῶς κινουμένης. (cf. **Talleyrand** *L'homme a reçu la parole pour pouvoir cacher sa pensée*.) **Ptolemy** *Iudic.* c. 2 p. 6.5–9 διάλεκτος (sc. ἔστιν) δὲ τὰ τῆς φωνῆς σύμβολα, δι' ὧν προφέρεται τοῖς πλησίον τὰ διανοηθέντα· καὶ ἔστιν εἰκὼν τις ὁ μὲν φθόγγος αὐτοῦ τοῦ νοῦ, τῆς δ' ἐννοίας ἢ φωνῆς, τῆς δὲ διανοίας ἢ διάλεκτος, καὶ ὅλως ὁ προφορικὸς λόγος τοῦ ἐνδιαθέτου. **Epimerismi Homerici** p. 376.83–85 Dyck (ἐπι) τοῦ ἱφθιμὸς ὁ δὲ Σέλευκος (fr. 1. Müller) λέγει πλεονασμὸν εἶναι τοῦ θ ὥσπερ παρὰ τὸ φέγγος φέγγεσθαι καὶ φθέγγεσθαι παρὰ τὸ εἰς φῶς προάγειν τὸν λόγον. **Lactantius** *Op.D.* Perrin 10.13 *lingua intus inclusa, quae vocem motibus suis in verba discernit, et est interpretes animi nec tamen sola per se potest loquendi munus implere* etc. **Plotinus** *Enn.* 1.2[19] 3.27–28 ὡς γὰρ ὁ ἐν φωνῇ λόγος μίμημα τοῦ ἐν ψυχῇ κτλ. **Calcidius** in *Tim.* c. 220 (*SVF* 2.879) *vocem quoque dicunt e penitrali pectoris, id est corde, mitti, gremio cordis nitente spiritu, qua nervis obsitus limes interiectus cor a pulmone secernit utroque et vitalibus ceteris, quo* (sc. spiritu) *faucium angustias arietante formanteque lingua et ceteris vocalibus organis articulatos edit sonos, sermonis elementa, quo quidem interpretem mentis arcani motus aperiantur*. **Ammonius Hermείου** in *Interpr.* 43.9–15 ἀποκρίνονται οἱ ἀπὸ τῆς Στοᾶς (*SVF* 2.164) ὡς ἀπὸ τοῦ νοήματος τοῦ ἐν τῇ ψυχῇ καὶ αὕτη (sc. εὐθεῖα οἱ ὁρθὴ πτώσις) πέπτωκεν· δ γὰρ ἐν ἑαυτοῖς ἔχομεν τὸ Σωκράτους νόημα δηλῶσαι βουλόμενοι, τὸ Σωκράτους ὄνομα προφερόμεθα· καθάπερ οὖν τὸ ἄνωθεν ἀφεθὲν γραφεῖον καὶ ὁρθὸν παγὲν πεπτωκέναι τε λέγεται καὶ τὴν πτώσιν ὁρθὴν ἐσχηκέναι, τὸν αὐτὸν τρόπον καὶ τὴν εὐθεῖαν πεπτωκέναι μὲν ἀξιοῦμεν ἀπὸ τῆς ἐννοίας, ὁρθὴν δὲ εἶναι διὰ τὸ ἀρχέτυπον τῆς κατὰ τὴν ἐκφώνησιν προφοράς.

§4 Epicurus: **Epicurus** *Ep.Hdt.* at D.L. 10.52–53 ἀλλὰ μὴν καὶ τὸ ἀκούειν γίνε-
ται πνεύματός (codd. Dorandi, ῥεύματός alii fors. recte) τιнос φερομένου ἀπὸ τοῦ

φωνούντος ἢ ἠχοῦντος ἢ ψοφούντος ἢ ὅπως δήποτε ἀκουστικὸν πάθος παρασκευάζοντος. τὸ δὲ ρεῦμα τοῦτο εἰς ὁμοιομερεῖς ὄγκους διασπείρεται, ἅμα τινὰ διασφάζοντας συμπάθειαν πρὸς ἀλλήλους καὶ ἐνότητα ἰδιότροπον, διατείνουσιν πρὸς τὸ ἀποστεῖλαι καὶ τὴν ἐπαίσθησιν τὴν ἐπ' ἐκείνου ὡς τὰ πολλὰ ποιοῦσαν (53) ... οὐκ αὐτὸν οὖν δεῖ νομίζειν τὸν ἀέρα ὑπὸ τῆς προιεμένης φωνῆς ἢ καὶ τῶν ὁμογενῶν σχηματίζεσθαι (πολλὴν γὰρ ἔνδειαν ἔξει τοῦτο πάσχω ὑπ' ἐκείνης), ἀλλ' εὐθύς τὴν γινομένην πληγὴν ἐν ἡμῖν, ὅταν φωνὴν ἀφίωμεν, τοιαύτην ἐκθλιψιν ὄγκων τινῶν ρεύματος πνευματῶδους ἀποτελεστικῶν ποιεῖσθαι, ἢ τὸ πάθος τὸ ἀκουστικὸν ἡμῖν παρασκευάζει. **Lucretius** *DRN* 4.531 ... *primordia vocum*. 4.542–548 *asperitas autem vocis fit ab asperitate / principiorum et item levor levore creatur; / nec simili penetrant auris primordia forma, / cum tuba depresso graviter sub murmure mugit / et reboat raucum retro cita barbata bombum, / et † validis necti tortis † ex Heliconis / cum liquidam tollunt lugubri voce querellam*. **Aulus Gellius** 5.15.8 *Democritus* (fr. 492 Luria) *ac deinde Epicurus* (note on fr. 321, p. 353 Usener) *ex individuīs corporibus vocem constare dicunt eamque, ut ipsis eorum verbis utar; ρεῦμα ἀτόμων*.

§5 **Democritus: Theophrastus** *Sens.* 55 (on Democritus, 68A135 DK) τὴν γὰρ φωνὴν εἶναι πυκνουμένου τοῦ ἀέρος καὶ μετὰ βίας εἰσιόντος. **Homer** *Od.* 17.284 ὡς αἰεὶ τὸν ὁμοῖον ἄγει θεὸς ὡς τὸν ὁμοῖον. **Plato** *Lys.* 214a–b 'αἰεὶ' τοι τὸν ὁμοῖον ἄγει θεὸς ὡς τὸν ὁμοῖον' καὶ ποιεῖ γνῶριμον. **Aristotle** *EE* 7.1 1235a6–9 δοκεῖ γὰρ τοῖς μὲν τὸ ὁμοῖον τῷ ὁμοίῳ εἶναι φίλον, ὅθεν εἴρηται (*Od.* 17.284) 'ὡς αἰεὶ τὸν ὁμοῖον ἄγει θεὸς ὡς τὸν ὁμοῖον' 'καὶ γὰρ κολοῖός παρὰ κολοῖόν'. *Rhet.* 1.11 1371b16–17 καὶ 'ὡς αἰεὶ τὸν ὁμοῖον', καὶ 'καὶ γὰρ κολοῖός παρὰ κολοῖόν'. **ps.Aristotle** *MM* 2.11.2 καὶ γὰρ 'κολοῖός' φασὶ 'παρὰ κολοῖόν ἰζάνει', καὶ 'αἰεὶ τοι τὸν ὁμοῖον ἄγει θεὸς ὡς τὸν ὁμοῖον'. **ps.Plutarch** *Prov.Alex.* cent. 1.66 Crusius αἰεὶ 'κολοῖός παρὰ κολοῖόν ἰζάνει' διὰ τὸ φιλάλληλον τοῦ ζώου. **Diogenianus** at Schneidewin–Von Leutsch, *Paroem.* cent. 1.61. **Zenobius Sophista** at Schneidewin–Von Leutsch, *Epit.* cent. 2.47.

§6 **Stoics: Seneca** *Nat.* 1.2.1 (on the halo) *cum in piscinam lapis missus est, videmus in multos orbes aquam discedere et fieri primum angustissimum orbem, deinde laxiorem ac deinde alios maiores, donec evanescat impetus et in planitiem immotarum aquarum solvatur. tale quiddam cogitemus fieri etiam in aëre*. **Sextus Empiricus** *M.* 7.231 (*SVF* 2.56) ὥσπερ γὰρ ὁ ἀήρ, ὅταν ἅμα πολλοὶ φωνῶσιν, ἀμυθῆτους ὑπὸ ἐν καὶ διαφερούσας ἀναδεχόμενος πληγὰς εὐθύς πολλὰς ἴσχει καὶ τὰς ἐτεροιώσεις, οὕτω καὶ τὸ ἡγεμονικὸν ποικίλως φαντασιούμενον ἀνάλογόν τι τοῦτω πείσεται. **Chrysippus** *de An.* I at Gal. *PHP* 3.1.9–11 (*SVF* 2.885, verbatim) ὁ Χρύσιππος ... οὕτως λέγει· ἡ ψυχὴ πνεῦμά ἐστι ... ταύτης οὖν τῶν μερῶν ἐκάστω διατεταγμένων μορίῳ τὸ διήκον αὐτῶν εἰς τὴν τραχεῖαν ἀρτηρίαν φωνὴν εἶναι. **Calcidius** *in Tim.* c. 267 *modulatus siquidem aër articulatae voci factusque vox et intellegibilis oratio pergit ad intimos sensus audientis intellectui nuntians tam praesentia quam absentia*.

§7 **Anaxagoras: Pliny** *Nat.* 1 p. 12.29 *qua ratione echo reddatur*. **Theophrastus** *Sens.* 28 (on Anaxagoras, 59A92 DK) ἀκούειν ... τῷ διικνεῖσθαι τὸν ψόφον ἄχρι τοῦ ἐγκεφάλου· τὸ γὰρ περιέχον ὅσπου εἶναι κοῖλον, εἰς δ' ἐμπίπτει τὸν

ψόφον. *Sens.* 59 (Anaxagoras 59A92 DK) Ἀναξαγόρας ... πρὸς τούτοις περί τε φωνῆς ὅτι κίνησις τοῦ ἀέρος. **Diogenes Laertius** *V.P.* 2.17 (Archelaus 60A1 DK) πρῶτος δὲ εἶπε φωνῆς γένεσιν τὴν τοῦ ἀέρος πληξίν. **Theophrastus** *Sens.* 53 (on Democritus, 68135 DK) ... ὥσπερ ἐπὶ τῆς ἡχοῦς. ἀνακλᾶσθαι γάρ φησι καὶ πρὸς αὐτὸν τὸν φθεγξάμενον τὴν φωνήν.

Liber 4 Caput 20

P^B: ps.Plutarchus *Plac.* 902F–903A; pp. 409^a23–410^a21 Diels—**P^G**: ps.Galenus *HPh* c. 101; p. 638.15–20 Diels—**P^Q**: Qustā ibn Lūqā pp. 208–211 Daiber
S: Stobaeus 1.57 p. 497.1 Wachsmuth (titulus solus); cf. Phot. *Bibl.* 167, p. 112b34 Henry (titulus solus)

Titulus κ'. Εἰ ἀσώματος ἡ φωνὴ καὶ πῶς ἡχῶ γίνεται (P,S)

- §1 Πυθαγόρας Πλάτων Ἀριστοτέλης ἀσώματον· οὐ γὰρ τὸν ἀέρα, ἀλλὰ τὸ σχῆμα τὸ περὶ τὸν ἀέρα καὶ τὴν ἐπιφάνειαν κατὰ ποιὰν πληξίν γίνεσθαι φωνήν· πᾶσα δ' ἐπιφάνεια ἀσώματος. συγκινεῖται μὲν γὰρ τοῖς σώμασιν, αὐτὴ δ' ἀσώματος πάντως καθέστηκεν, ὥσπερ ἐπὶ τῆς καμπομένης 5
 §2 οἱ δὲ Στωικοὶ σῶμα τὴν φωνήν· πᾶν γὰρ τὸ δρῶν ἢ καὶ ποιοῦν σῶμα, ἡ δὲ φωνὴ ποιεῖ καὶ δρᾷ· ἀκούομεν γὰρ αὐτῆς καὶ αἰσθανόμεθα προσπι-
 τούσης τῇ ἀκοῇ καὶ ἐκτυπούσης καθάπερ δακτυλίου εἰς κηρόν. ἔτι πᾶν τὸ κινεῖ καὶ ἐνοχλοῦν σῶμά ἐστι, κινεῖ δ' ἡμᾶς ἡ εὐμουσία ἐνοχλεῖ δ' ἡ 10
 ἀμουσία. ἔτι πᾶν τὸ κινούμενον σῶμά ἐστι· κινεῖται δ' ἡ φωνὴ καὶ προσπίπτει εἰς τοὺς λείους τόπους καὶ ἀντανανκλάται, καθάπερ ἐπὶ τῆς σφαίρας τῆς βαλλομένης εἰς τοῖχον· ἐν γοῦν ταῖς κατ' Αἴγυπτον πυραμίσιν ἔνδον μία φωνὴ ῥηγνυμένη τέτταρας ἢ καὶ πέντε ἡχοὺς 15
 ἀπεργάζεται. (P2)

§1 Pythagoras—; Plato cf. *Tim.* 67b–c; Aristoteles cf. *de An.* 2.8 419b4–420a2; §2 Stoici *SVF* 2.387

lemmata non hab. **S** **titulus** Εἰ ... γίνεται P : Περὶ φωνῆς (~ tit. c. 4.19) καὶ εἰ ἀσώματος ἡ φωνὴ (~ tit. c. 4.20) καὶ (πότεν αἰσθητικῇ γίνεται ἡ ψυχὴ καὶ) τί αὐτῆς τὸ ἡγεμονικόν (~ tit. 4.21) *S^{FPP}Phot* || ἡχῶς **P^G** §1 [2] Πυθαγόρας ... Ἀριστοτέλης **P^B** : post Πυθαγόρας et Πλάτων add. καὶ **P^G** || post ἀσώματον **P^{BQ}** add. εἶναι τὴν φωνὴν ὑπολαμβάνουσιν **P^G** || οὐ ... ἀέρα **P^{BG}** : *und zeigt sich in der Luft* Q || [2–3] ἀλλὰ ... τὸ² **P^B** : τὸ δὲ **P^G** || [3] καὶ ... ἐπιφάνειαν **P^B** : om. *P^Q(ut vid.)* || [3] πληξίν **P^B** : πληγὴν **P^G** || [4–6] πᾶσα ... καμπομένη **P^B** : om. **P^G** || [4–5] ἀσώματος ... αὐτὴ δ' **P^B** : om. **P^Q** (haplographia) || [5] αὐτῇ] αὕτη **P^{B(1)}** §2 [7] post σῶμα¹ **P^B** add. εἶναι **P^G** || δρῶν ... ποιοῦν : *jedes Wirkende und jedes Bewirkte* Q (δρῶν ἢ καὶ δρώμενον **P^Q**) || δρῶν **P^G** prob. Diels Mau : δρώμενον **P^B** || καὶ **P^B** : om. **P^G** || iterum post σῶμα² add. εἶναι **P^G** || [7–8] ἡ ... δρᾷ **P^B** : καὶ γὰρ ἡ φωνὴ καὶ δρᾷ καὶ ποιεῖ **P^G** || [9] τῇ ... ἔτι om. **P^G** || ἐκτυπούσης **P^{B(1111)}** : ἐκτυπούσης **P^{B(1)}** : *daran schlägt* Q || δακτυλίου **P^{B(1)}** : δακτύλιον **P^{B(11)}** : δακτύλου **P^{B(111)}** : *Stab* Q || post κηρόν add. *geschlagen wird* Q || [10] κινεῖ ... εὐμουσία **P^B** : al. **P^G** κηλεῖ δὲ ἡμᾶς εὐμουσος φωνὴ || [10–15] ἐνοχλεῖ ... ἀπεργάζεται **P^B** : om. **P^G** || [12] προσπίπτει] ἐκπίπτει **P^{B(111)}** || [14] πυραμίσιν **P^B** : *feurigen Gestalten* (sic) Q || ἡχοὺς scripsimus, dub. Diels : ἡχους **P^B** : *Melodien* Q

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus c. 101 (~ tit.) Εἰ ἀσώματος ἡ φωνὴ καὶ πῶς ἦχος γίνεται (text Diels)

101.1 (~ §1) Πυθαγόρας καὶ Πλάτων καὶ Ἀριστοτέλης ἀσώματον εἶναι τὴν φωνὴν ὑπολαμβάνουσιν. οὐ γὰρ τὸν ἀέρα, τὸ δὲ περὶ τὸν ἀέρα καὶ τὴν ἐπιφάνειαν κατὰ ποιὰν πληγὴν γίνεσθαι φωνήν.

101.2 (~ §2) οἱ δὲ Στωικοὶ σῶμα εἶναι τὴν φωνήν. πᾶν γὰρ τὸ δρῶν ἢ ποιοῦν σῶμα εἶναι· καὶ γὰρ ἡ φωνὴ καὶ δρᾷ καὶ ποιεῖ, ἀκούομεν γὰρ αὐτῆς καὶ αἰσθανόμεθα προσπιπτούσης· πᾶν τὸ κινεῖν καὶ ἐνοχλοῦν σῶμά ἐστιν· κηλεῖ δὲ ἡμᾶς εὐμουςος φωνή.

Loci Aetiani:

§1 A 1.14.1 σχήμα ἐστὶν ἐπιφάνεια καὶ περιγραφὴ καὶ πέρας σώματος. A 4.6.2 Ἀριστοτέλης ἀκίνητον τὴν ψυχὴν πάσης κινήσεως προηγουμένην, τῆς δὲ κατὰ συμβεβηκὸς μετέχειν, καθάπερ τὰ σχήματα καὶ τὰ πέρατα καὶ καθάπαξ τὰ περὶ τοῖς σώμασιν εἶδη. A 4.8.9 οἱ ἀπὸ τῶν ἀρχαίων *** τῶν περὶ τὰ σώματα ἀσωμάτων λόγων, ἅπερ ἤδη σχήματα προσαγορεύουσι. A 4.8.11 οἱ ἄλλοι εἰδῶν ἢ σχημάτων ἑτεροιώσει (ἢ) ἐν ψυχῇ τυπώσει, ἀπορροίαις πάντως μᾶλλον ἢ εἰδώλοις. A 4.13.4 Ἀρίσταρχος σχήματα συνδιατυποῦντά πως αὐτοῖς τὸν ἀέρα. Al. A 3.5.3 καμπύλας δὲ γραμμὰς καθ' ὅδατος βλέπομεν γινομένας· κάμπτεται γὰρ ἡ ὄψις βίᾳ διὰ τὴν πυκνοτέραν τοῦ ὕδατος ὕλην· διὸ καὶ τὴν κώπην ἐν τῇ θαλάσῃ μακρόθεν κάμπτομένην ὁρώμεν.

§2 A 4.19.5 τῇ δ' ὑποστροφῇ τῆς πλήξεως μέχρι τῶν ἀκοῶν προσενεχθέντος· καθὼ καὶ τὴν λεγομένην ἡχὴ γίνεσθαι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses are P, variously represented by P^B, P^G and P^C, as well as S, the latter for the second part of the heading only. In S, contrary to what happened elsewhere, the lemma Plato/Aristotle was excised by the epitomators, perhaps because its name-labels started with Pythagoras. S *Ecl.* 1.57 has combined the headings of the three chapters 4.19–4.21, cf. above ch. 4.20 Commentary A, and below ch. 4.21 Commentary C.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* A more detailed doxographical overview is found in Aulus Gellius, who cites the Stoics and uses proper Stoic terminology. Another extension of the proximate tradition is late, just as is the case with the previous

chapter, cf. ch. 4.19 at Commentary B; see the passages from the *Commentaria on Dionysius Thrax* and other grammatical literature, quoted at section E(a) General texts below.

(2) *Sources*. The sources for §1 appear to be works of early Peripatetics represented by Theophrastus, ps.Aristotle *De audiendo*, and Strato, see the passages cited at section E(b)§1. The Stoic sources are not clear, but do not seem to be inferior to those for chs. 4.11–12 and 4.21.

C Chapter Heading

The long and specific heading, including the reference to the echo, is found in all representatives of P. Whether S had a somewhat shorter version, namely Εἰ ἀσώματος ἢ φωνῆς, or whether something disappeared in the lacuna which included the second part of the heading is unclear. Since we strive to maximize the evidence we have opted for the longer version. For headings beginning with εἰ cf. chs. 4.2, 4.9, 4.15, 5.4, 5.5, and 5.15, and cf. above, ch. 1.1 Commentary C on the dialectical aspect of the interrogative particle.

D Analysis

a Context

The chapter follows on after ch. 4.19, ‘On voice/sound’, which deals with voice/sound as corporeal only, so qua theme the present chapter, in rendering the diaphonia explicit and thus to some extent redressing the balance, is an appropriate and much needed sequel. In Aristotle *de An.* 2.8 the echo is explained in the chapter on voice/sound, in Alexander *de An.* 47.25–49.3 the account of echo follows after that of hearing and is in its turn followed by that of voice. Our chapter is followed by ch. 4.21, ‘How does the soul perceive and what is its regent part?’, which seems to be an illustrative duplication and complement of chs. 4.11 ‘How the sensation comes to be ...’ plus ch. 4.5, ‘On the regent part ...’; see above, Introduction to Book 4, section 6. Ch. 4.22 ‘On respiration’ is a more appropriate sequel to ch. 4.20, as it takes up the theme of one of Aristotle’s *Parva naturalia*, the collection of appendixes to the *De anima*.

b Number–Order of Lemmata

The chapter is bi-lemmatic. There are no grounds to change the order of P, although we may assume that P’s epitome omitted several other lemmata relating to views cited in richer parallel accounts.

c Rationale–Structure of Chapter

The rationale of this (abridged) chapter is very clear: a diaphonia between those who hold that voice/sound is incorporeal and those who hold that it

is corporeal. For this type of opposition cf. chs. 1.11, 4.2–3, 5.4; cf. M–R 2.1.14, 2.1.58–59, 2.1.147.

d Further Comments

Individual Points

§1 P may have coalesced two lemmata, one with the name-labels Pythagoras Plato (voice/sound corporeal, see ch. 4.19.1), the other with the name-label Aristotle: voice/sound incorporeal. But Gellius attributes incorporeality of voice to Plato. The explanation referring to incorporeal ‘shape’ and ‘surface’ is consistent with the view attributed to Aristotle at ch. 4.6.2, cited above at *loci Aetiani*. The bent stick is not that of the optical illusion.

§2 The Stoic image of the bouncing ball is anticipated in Aristotle’s illustration of the echo’s movement, but need not necessarily derive therefrom. Q surprisingly did not know what pyramids are.

e Other Evidence

See at section B above.

E Further Related Texts

a Proximate Tradition

General texts: Aulus Gellius 5.15.1–9 *corpusne sit vox an ἀσώματον, varias esse philosophorum sententias. vetus atque perpetua quaestio inter nobilissimos philosophorum agitata est, corpusne sit vox an incorporeum. hoc enim vocabulum quidam finxerunt proinde quod Graece dicitur ἀσώματον. corpus autem est, quod aut efficiens est aut patiens; id Graece definitur: τὸ ἦτοι ποιοῦν ἢ πάσχον. quam definitionem significare volens Lucretius poeta ita scripsit (DRN 1.304, cf. Sen. Ep. 106.8): ‘tangere enim aut tangi nisi corpus nulla potest res’. alio quoque modo corpus esse Graeci dicunt τὸ τριχῇ διασπαστόν (cf. ch. 1.12.1), sed vocem Stoici corpus esse contendunt eamque esse dicunt ictum aëra; Plato autem non esse vocem corpus putat: ‘non enim percussus’ inquit ‘aer, sed plaga ipsa atque percussio, id vox est’. Democritus (fr. 492 Luria) ac deinde Epicurus (note at fr. 321, p. 353 Usener) ex individuīs corporibus vocem constare dicunt eamque, ut ipsīs eorum verbis utar, ῥεῦμα ἀτόμων appellant. Sextus Empiricus M. 6.53–55 οἷ γέ τοι περὶ τὸν Δημόκριτον (—) καὶ Πλάτωνα πᾶν αἰσθητὸν ἀναιροῦντες συναναιροῦσι καὶ τὴν φωνήν, αἰσθητὸν τι δοκοῦσαν πρᾶγμα ὑπάρχειν. καὶ γὰρ ἄλλως, εἰ ἔστι φωνή, ἦτοι σῶμά ἐστιν ἢ ἀσώματον· οὔτε δὲ σῶμά ἐστιν, ὥς οἱ Περιπατητικοὶ διὰ πολλῶν διδάσκουσιν, οὔτε ἀσώματος, ὥς οἱ ἀπὸ τῆς Στοᾶς (—)· οὐκ ἄρα ἔστι φωνή. **Commentaria in Dionysium Thracem, Scholia Vaticana** (i.e. of Stephanus) p. 181.4–17 Uhlig (FDS 483) καὶ οἱ μὲν τῶν παλαιῶν λέγουσι τὴν φωνὴν σῶμα, οἱ δὲ ἀσώματον· οἱ γὰρ λέγοντες (ᾧτι) ἄῃρ πεπληγμένος, σῶμα αὐτὴν νοοῦσι· σῶμα γὰρ (ὁ) ἄῃρ, ἐν ὑπάρχων τῶν τεσσάρων στοιχείων· οἱ δὲ λέγοντες ἀσώματον οὐ φασι τὴν φωνὴν (ᾧτι) ἄῃρ πεπληγμένος, ἀλλὰ πληγὴ ἀέρος ἦτοι ἴδιον αἰσθητὸν ἀκοῆς· ὅπερ*

ἐστὶ καὶ μᾶλλον ἀληθές. καὶ δῆλον ἐκ μεθόδου τοιαύτης· τῶν πραγμάτων τὰ μὲν ἐν τῷ γίνεσθαι ἔχει τὸ εἶναι, καθάπερ ἡ αὐλητική καὶ (ἡ) ὀρχηστική· ταῦτα γὰρ ἐνεργούμενα μὲν εἰσὶ, γεγονότα δὲ οὐκ εἰσίν, ἅμα γὰρ τῷ παύσασθαι τὴν ἐνέργειαν φθείρεται καὶ τὸ γινόμενον· τὰ δὲ ἐν τῷ γεγονέναι ἔχει τὸ εἶναι, ὥσπερ ἡ ἀνδριαντοποιητική καὶ (ἡ) τεκτονική· ταῦτα (γὰρ) ἐν μὲν τῷ γίνεσθαι οὐκ ἔχουσι τὴν ὑπαρξιν, καθὼ οὐπω ἀποτελέσμα ἔχουσι, μετὰ δὲ τὸ γενέσθαι ἔχουσι καὶ τὸ εἶναι, τότε τοῦ ἀποτελέσματος ὄντος. ἄρ' οὖν ἡ φωνὴ ἐν τῷ γίνεσθαι ἔχει τὴν ὑπαρξιν, μετὰ δὲ ταῦτα οὐχ ὑφίσταται· καὶ δῆλον ὅτι οὐκ ἔστι σῶμα, ἀλλ' ἀσώματον.

Chapter heading: Aulus Gellius 5.15.pr.1 *corpusne sit vox an ἀσώματον, varias esse philosophorum sententias. Capitula Lucretiana* at DRN 4.526 *corpoream esse vocem*.

§1 Pythagoras Plato Aristotle: Aulus Gellius 5.15.7 *Plato autem non esse vocem corpus putat: non enim percussus inquit aër, sed plaga ipsa atque percussio, id vox est. Commentaria in Dionysii Thracis Artem Grammaticam, Scholia Londinensia* (i.e. of Heliodorus) p. 482.7–12 Uhlig (*FDS* 481) ἀλλ' ἐπειδὴ ὁ ἄηρ σῶμά ἐστιν, ὁ δὲ Πλάτων τὴν φωνὴν οὐ δοξάζει σῶμα, δεῖ λέγειν τὸν ὅρον οὕτως· 'πληγὴ ἀέρος ἢ τὸ ἴδιον αἰσθητὸν ἀκοῆς'. εἰσὶ δὲ τινες λόγοι δεικνύντες τὴν φωνὴν ἀσώματον· καὶ ἔχουσιν οὕτως· τῶν πραγμάτων τὰ μὲν ἐν τῷ γίνεσθαι ἔχει τὸ εἶναι, τὰ δὲ ἐν τῷ γεγονέναι· (εἰ) ἄρα οὖν ἡ φωνὴ ἐν τῷ γίνεσθαι ἔχει τὴν ὑπαρξιν καὶ μετὰ ταῦτα οὐχ ὑφίσταται, δῆλον ὅτι οὐκ ἔστι σῶμα. **ps.Theodosius de Gramm.** p. 15.7–11 Göttinger εἰσὶ δὲ τινες λόγοι δεικνύντες τὴν φωνὴν ἀσώματον καὶ ἔχουσιν οὕτως· τῶν πραγμάτων τὰ μὲν ἐν τῷ γίνεσθαι ἔχουσι τὸ εἶναι, τὰ δὲ ἐν τῷ γεγονέναι· ἄρα οὖν ἡ φωνὴ ἐν τῷ γίνεσθαι ἔχει τὸ εἶναι καὶ μετὰ ταῦτα οὐχ ὑφίσταται· δηλονότι οὐκ ἔστι σῶμα.

§2 Stoics: Servius auctus in *Aen.* 2.488, p. 294.6–8 Thilo 'ferit ... clamor': *secundum philosophos* [physicos] (*SVF* 2.142) *qui dicunt, vocem corpus esse: bene ergo 'ferit'; [nam et fluvius habet mugitum, res incorporalis]*. Aulus Gellius 5.15.6 *sed vocem Stoici* (*SVF* 2.141) *corpus esse contendunt eamque esse dicunt ictum aëra. Sextus Empiricus M.* 8.12 (*SVF* 2.166) τοῦτων δὲ δύο μὲν εἶναι σῶματα, καθάπερ τὴν φωνὴν καὶ τὸ τυγχάνον. *P.* 3.115 ἡ πόρησάν τινες λέγοντες, ὅτι τὸ κινούμενον οὐ μένει, πᾶν δὲ σῶμα διαρκῶς κινεῖται κατὰ τὰς τῶν δογματικῶν ὑπολήψεις. *Simplicius in Phys.* 426.1–6 καὶ οἱ ἀέρα δὲ πεπληγμένον τὴν φωνὴν ἀποδιδόντες, ὥσπερ Διογένης ὁ Βαβυλώνιος (*SVF* 3 Diog. 19), ἀμαρτάνουσι· σῶμα γὰρ οὕτως ἔσται ἡ φωνή, εἴπερ ἐν γένει τῷ ἀέρι ἐστὶ, καὶ τὸ πεπονθός, τουτέστι τὸν πεπληγμένον ἀέρα, ἀντὶ τοῦ πάθους, ὅπερ ἐστὶν ἡ πληγὴ, ἀποδιδόασιν. καίτοι εἴπερ ἄρα κατὰ τὴν πληγὴν ἡ φωνὴ ἐστίν, ἀλλ' οὐχὶ κατὰ τὸ πεπληγμένον. *Commentaria in Dionysii Thracis Artem Grammaticam, Scholia Londinensia* (i.e. of Heliodorus) p. 482.13–31 Uhlig) ὁ δὲ Ἐπίκουρος (—) καὶ ὁ Δημόκριτος (68A127 DK) καὶ οἱ Στωϊκοὶ (*FDS* 481) σῶμά φασιν τὴν φωνήν. πᾶν (γὰρ) ὃ δύναται δρᾶσαι καὶ παθεῖν σῶμά ἐστιν, ὥσπερ ὁ σίδηρος· πάσχει μὲν γὰρ οὗτος ὑπὸ πυρός, δρᾶ δὲ εἰς ἀνθρώπους ἢ εἰς ξύλα· εἰ ἄρα καὶ ἡ φωνὴ καὶ δρᾶ καὶ πάσχει, σῶμά ἐστι· καὶ δρᾶ μὲν, ἡνίκα ἀκούοντες ἡμεῖς ἢ φωνῆς ἢ κιθάρας πρὸς τέρψιν ἐρχόμεθα, πάσχει δέ, ὡς ὅταν φωνοῦντων ἡμῶν ἄνεμος πνεύσῃ καὶ ποιήσῃ ἡττον ἀκούεσθαι τὴν φωνήν. ἔτι καὶ οὕτως ἀποδείκνυται σῶμα· πᾶν αἰσθητὸν σῶμά ἐστιν, οἷον τὸ ξύλον, ὁ λίθος·

ταῦτα γὰρ αἰσθητά εἰσιν, ὑποπίπτουσι γὰρ τῇ ὁράσει· εἰ ἄρα οὖν καὶ ἡ φωνὴ αἰσθητόν, ὑποπίπτει γὰρ τῇ ἀκοῇ, δῆλον ὅτι σῶμά ἐστιν. ἔτι ἰδιὸν ἐστὶ σώματος τὸ ποτὲ μὲν αὐξάνεσθαι, ποτὲ δὲ λήγειν, οἷον ὡς ἐπὶ τοῦ δένδρου· εἰ ἄρα οὖν καὶ ἡ φωνὴ καὶ αὖξεται καὶ λήγει, δῆλον ὅτι σῶμά ἐστι· καὶ αὖξεται μὲν, ὡς ἐπὶ τῶν παίδων, ὧν ἡ φωνὴ βραχεῖά ἐστι μικρῶν ὄντων, αὐξηθέντων δὲ μεγάλῃ· λήγει δὲ, ὅταν ἀσθενήσαντός τινος ἀσθενούσα καὶ αὕτη μειωθῇ. ἔτι πᾶν τὸ ἀντιτυποῦν σῶμά ἐστιν, ὡς ἐπὶ τοῦ λίθου· καὶ γὰρ ἀπτομένων ἡμῶν τούτου ἀντιτυπία γίνεται—ἀντιτυπία δὲ λέγεται ὅταν εὐρεθῇ τι προσκρούον—εἰ ἄρα καὶ ἡ φωνὴ ἀντιτυπεῖ προσκρούουσα ταῖς ἀκοαῖς—καὶ γὰρ ἡ φωνὴ προσκρούουσα ταῖς ἀκοαῖς ἐξάκουστος γίνεται—, δῆλον ὅτι σῶμά ἐστιν. **ps.Theodosius de Gramm.** p. 15.12–16.4 Götting γνώμαι παλαιαὶ περὶ φωνῆς· ὁ δὲ Δημόκριτος (—) καὶ ὁ Ἐπίκουρος (—) καὶ οἱ Στωϊκοὶ (—) σῶμα λέγουσι τὴν φωνήν, ὅτι πᾶν, ὃ ἔχει ἐνέργειαν καὶ πάθος, ἡγουν δύναται δρᾶσαι καὶ παθεῖν, σῶμά ἐστιν. ὥσπερ ὁ σίδηρος· πάσχει γὰρ οὗτος ὑπὸ πυρός, δρᾶ δὲ εἰς ἀνθρώπους καὶ εἰς τὰ ξύλα καὶ πέτρας· εἰ τοῖνυν ἡ φωνὴ καὶ δρᾶ καὶ πάσχει, σῶμά ἐστιν. καὶ δρᾶ μὲν, ἡνίκα ἀκούοντες ἡμεῖς ἡ φωνῆς ἡ κιθάρας πρὸς τέρψιν ἐρχόμεθα· πάσχει δὲ, ὡς ὅταν φωνούντων ἡμῶν πνεύσῃ ἄνεμος, καὶ ποιήσῃ ἥττον ἀκούεσθαι τὴν φωνήν. καὶ ἔτι πᾶν αἰσθητὸν σῶμά ἐστιν, οἷον τὸ ξύλον καὶ ὁ σίδηρος, ὁ λίθος καὶ τὰ ὅμοια. ταῦτα γὰρ αἰσθητά εἰσὶ καὶ τῇ ὁράσει ὑποπίπτουσιν. αἰσθητὸν τοῖνυν καὶ ἡ φωνὴ ἐστὶ καὶ τῇ ἀκοῇ ὑποπίπτει· ἄρα ἡ φωνὴ σῶμά ἐστιν. καὶ ἔτι ἰδιὸν τοῦ σώματος ἐστὶ τὸ ποτὲ μὲν αὐξάνεσθαι, ποτὲ δὲ λήγειν. ἡ οὖν φωνὴ ποτὲ μὲν αὖξεται, ποτὲ δὲ λήγει· ἄρα σῶμά ἐστιν. ἐπὶ μὲν τῶν παιδίων βραχεῖά ἐστὶν ἡ φωνή, μικρῶν ὄντων· αὐξηθέντων δὲ μεγάλῃ· λήγει δὲ ἐπὶ τῶν ἀσθενούντων. καὶ ἔτι πᾶν τὸ ἀντιτυποῦν σῶμά ἐστιν, ὡς ἐπὶ τοῦ λίθου· καὶ γὰρ ἀπτομένων ἡμῶν τούτου, ἀντιτυπία γίνεται. τότε οὖν γίνεται ἡ ἀντιτυπία, ὅταν εὐρεθῇ τι προσκρούον· εἰ οὖν ἡ φωνὴ ἀντιτυπεῖ προσκρούουσα ταῖς ἀκοαῖς, ἄρα σῶμά ἐστιν.

b Sources and Other Parallel Texts

General texts: **Aristotle** *APo.* 2.15 98a24–29 τὰ δ' αὐτὰ προβλήματά ἐστι τὰ μὲν τῷ τὸ αὐτὸ μέσον ἔχειν, οἷον ὅτι πάντα ἀντιπερίστασις. τούτων δ' ἓν αὖ γένει ταυτά, ὅσα ἔχει διαφορὰς τῷ ἄλλων ἢ ἄλλως εἶναι, οἷον διὰ τί ἡχεῖ, ἢ διὰ τί ἐμφαίνεται, καὶ διὰ τί ἱρις· ἅπαντα γὰρ ταῦτα τὸ αὐτὸ πρόβλημα ἐστὶ γένει (πάντα γὰρ ἀνάκλασις), ἀλλ' εἶδει ἕτερα. **Aristides Quintilianus de Mus.** 1.4.30–32 τὴν δὲ φωνὴν οἱ μὲν ἀέρα πεπληγμένον, οἱ δὲ ἀέρος πληγὴν ἔφασαν, οἱ μὲν αὐτὸ τὸ σῶμα τὸ πεπονθὸς ἦχον, οἱ δ' ὅπερ ἄμεινον, τὸ τούτου πάθος ὀρισάμενοι. **Porphyry** (*ad Geda.*?) F70 Smith at *Simp. in Cat.* 213.15–21 (verbatim) οὐσιώδεις δὲ εἰσιν ὅροι οἱ καὶ τὴν οὐσίαν αὐτὴν τῶν ὀριζομένων διδάσκοντες, οἷον 'φωνή ἐστὶν ἀήρ πεπληγμένος'. καὶ οἱ μὲν ἐννοηματικοὶ ὅροι ἅτε κοινῇ παρὰ πᾶσιν ὁμολογούμενοι οἱ αὐτοὶ εἰσιν, οἱ δὲ οὐσιώδεις κατὰ αἰρέσεις ἰδίας προαγόμενοι ἀντιλέγονται ὑπὸ τῶν ἑτεροδόξων· τοῖς γοῦν λέγουσιν ἀέρα τὴν φωνὴν καὶ σῶμα οὐχ ὁμογνωμονοῦσιν οἱ ἀρχαῖοι κατ' ἐνέργειαν αὐτὴν ἀσώματον ἀφοριζόμενοι καὶ πληγὴν.

§1 Pythagoras Plato Aristotle: **ps.Aristotle Probl.** 11.23 901b16–19 διὰ τί, εἴπερ ἡ φωνὴ ἐστὶν ἀήρ τις ἐσχηματισμένος καὶ φερόμενος, διαλύεται πολλάκις τὸ σχῆμα, ἢ δὲ ἡχώ, ἢ γίνεται πληγέντος τοῦ τοιούτου πρὸς τι στερεόν, οὐ διαλύεται αὕτη, ἀλλὰ σαφῶς ἀκούομεν αὐτῆς; differently **ps.Aristotle Aud.** 1 800a1–4 τὰς

δὲ φωνὰς ἀπάσας συμβαίνει γίνεσθαι καὶ τοὺς ψόφους ἢ τῶν σωμάτων ἢ τοῦ ἀέρος πρὸς τὰ σώματα προσπίπτοντος, οὐ τῷ τὸν ἀέρα σχηματίζεσθαι, καθάπερ οἶονται τινες κτλ. differently **Priscian of Lydia** *Metaphr.* 14.10–12 (Theophrastus fr. 277A FHS&G) ἡ δὲ ἀκοή (sc. τοῦ ἀέρος πως ἔοικε) σχηματιζομένου· εἴρηται δὲ ὡς οὐ κατὰ τὸ πάθος ἡ αἰσθησις, οὐδὲ σχῆμα ἡ φωνή, ἀλλὰ τι τέλειον τῆς ἐνεργείας εἶδος. against **Alexander of Aphrodisias** in *Sens.* 126.17–22 μὴ τοιοῦτους ἀφικνεῖσθαι τοὺς ψόφους πρὸς τὴν ἀκοήν, ὁποῖους αὐτοὺς οἱ λέγοντες ἐσχημάτισαν. εἴτε δὴ τῷ τὸ σχῆμα ὑπαλλάττεσθαι αὐτῶν ἐν τῇ φορᾷ εἴτε τῷ ἐκλύεσθαι τὸν τόνον τῆς πληγῆς, ὡς Στράτων (fr. 114 Wehrli, 65 Sharples) λέγει (οὐ γὰρ φησιν ἐν τῷ σχηματίζεσθαι πως τὸν ἀέρα τοὺς διαφόρους ψόφους γίνεσθαι, ἀλλὰ τῇ τῆς πληγῆς ἀνισότητι). **Themistius** in *Phys.* 40.19–21 ὅταν (sc. ὁ φυσικός) τὰ σχήματα θεωρῇ, ὡς πέρατα φυσικοῦ σώματος αὐτὰ θεωρεῖ, ὁ δὲ μαθηματικός οὐχ ὡς πέρατα, ἀλλ' ὡς εἶδη τινὰ ὄντα καθ' αὐτὰ ἀπάσης ἔξω κινήσεως.

§2 **Stoics: Plato** *Tht.* 206d τὸ μὲν πρῶτον εἴη ἂν τὸ τὴν αὐτοῦ διάνοιαν ἐμφανῇ ποιεῖν διὰ φωνῆς μετὰ ῥημάτων τε καὶ ὀνομάτων, ὥσπερ εἰς κάτοπτρον ἢ ὕδωρ τὴν δόξαν ἐκτυπούμενον εἰς τὴν διὰ τοῦ στόματος ῥοήν. **ps.Aristotle** *Probl.* 11.45 904a37–39 τοιοῦτο δὲ καὶ τὸ περὶ τὴν ἡχώ συμβαῖνον ἐστίν, ἀνάκλασις τῆς φωνῆς ἐπὶ τούναντίον. **Lucretius** *DRN* 4.524–527 *principio auditur sonus et vox omnis, in auris / insinuata suo pepulere ubi corpore sensum. / corpoream quoque enim <vocem> constare fatendumst / et sonitum, quoniam possunt impellere sensus. / ... / (533) haud igitur dubiumst quin voces verbaque constent / corporeis e principiiis.* **Plutarch** *Gen.Socr.* 589C ὁ γὰρ ἀήρ φθόγγοις ἐνάρθροις τυπωθείς, καὶ γενόμενος δι' ὅλου λόγος καὶ φωνή, πρὸς τὴν ψυχὴν τοῦ ἀκροωμένου περαίνει τὴν νόησιν. **Diogenes Laertius** *V.P.* 7.55–56 καὶ σῶμα δ' ἐστὶν ἡ φωνή κατὰ τοὺς Στωικούς (*SVF* 2.140), ὡς φησιν Ἀρχέδημος (*SVF* 3 Arch. 6) τε ἐν τῇ Περὶ φωνῆς καὶ Διογένους (*SVF* 3 Diog. 18) καὶ Ἀντίπατρος (*SVF* 3 Antip. 16) καὶ Χρύσιππος ἐν τῇ δευτέρᾳ τῶν Φυσικῶν. (56) πᾶν γὰρ τὸ ποιοῦν σῶμά ἐστι· ποιεῖ δὲ ἡ φωνή προσιοῦσα τοῖς ἀκούουσιν ἀπὸ τῶν φωνούντων. **Clement of Alexandria** *Strom.* 1.17.82.3 (*SVF* 2.353) τὸ αἴτιον ἐν τῷ ποιεῖν καὶ ἐνεργεῖν καὶ δρᾶν νοεῖσθαι. **Aristotle** *de An.* 2.8 419b25–27 ἡχώ δὲ γίνεται ὅταν, ἀέρος ἐνὸς γενομένου διὰ τὸ ἀγγεῖον τὸ διορίσαν καὶ καλύσαν θρυφθῆναι, πάλιν ὁ ἀήρ ἀπωσθῇ, ὥσπερ σφαῖρα (cited **Porphyry** in *Ptol.* 52.15–17). **ps.Aristotle** *Probl.* 11.23 901b16–19 διὰ τί, εἴπερ ἡ φωνή ἐστὶν ἀήρ τις ἐσχηματισμένος καὶ φερόμενος, διαλύεται πολλάκις τὸ σχῆμα, ἡ δὲ ἡχώ, ἡ γίνεται πληγέντος τοῦ τοιοῦτου πρὸς τι στερεόν, οὐ διαλύεται αὕτη, ἀλλὰ σαφῶς ἀκούομεν αὐτῆς; **Lucretius** *DRN* 4.572–580 *quae bene cum videas, rationem reddere possis / tute tibi atque aliis, quo pacto per loca sola / saxa paris formas verborum ex ordine reddant. / palantis comites cum montis inter opacos / quaerimus et magna dispersos voce ciemus. / sex etiam aut septem loca vidi reddere voces, / unam cum iaceres: ita colles collibus ipsi / verba repulsantes iterabant dicta referri.*

§2[10] **Stoics: Plato** *Tht.* 193b–c τῷ κηρίνῳ ὥσπερ δακτυλίων σφῶν ἀμφοῖν τὰ σημεῖα. **Aristotle** *de An.* 2.12 424a17–20 καθόλου δὲ περὶ πάσης αἰσθήσεως δεῖ λαβεῖν ὅτι ἡ μὲν αἰσθησις ἐστὶ τὸ δεκτικὸν τῶν αἰσθητῶν εἰδῶν ἄνευ τῆς ὕλης, οἶον ὁ κηρὸς τοῦ δακτυλίου ἄνευ τοῦ σιδήρου καὶ τοῦ χρυσοῦ δέχεται τὸ σημεῖον.

Sextus Empiricus *M.* 7.228 Κλεάνθης (*SVF* 1.484) μὲν γὰρ ἤκουσε τὴν τύπωσιν κατὰ εἰσοχὴν τε καὶ ἐξοχὴν, ὥσπερ καὶ (τὴν) διὰ τῶν δακτυλίων γιγνομένην τοῦ κηροῦ τύπωσιν. **Diogenes Laertius** *V.P.* 7.45–46 (*SVF* 2.53) τὴν δὲ φαντασίαν εἶναι τύπωσιν ἐν ψυχῇ, τοῦ ὀνόματος οἰκείως μετενηνεγμένου ἀπὸ τῶν τύπων τῶν ἐν τῷ κηρῷ ὑπὸ τοῦ δακτυλίου γινομένων.

Liber 4 Caput 21

P^B: ps.Plutarchus *Plac.* 903A–C; pp. 410^a22–411^a24 Diels—P^G: ps.Galenus *HPh* c. 102; pp. 638.21–639.2 Diels—P^Q: Qustā ibn Lūqā pp. 210–213 Daiber
S: Stobaeus *Ecl.* 1.57 p. 497.3 Wachsmuth (titulus solus); cf. Phot. *Bibl.* 167, p. 112b34 Henry (titulus solus)
Cf. Nem: Nemesius *NH* c. 12, p. 68.6–9; c. 15, p. 72.7–9; c. 19, p. 81.10–11 Morani

Titulus κα'. Πόθεν αἰσθητικὴ γίνεται ἡ ψυχὴ καὶ τί αὐτῆς τὸ ἡγεμονικόν (P,S)

§1 οἱ Στωικοὶ φασιν εἶναι τῆς ψυχῆς ἀνώτατον μέρος τὸ ἡγεμονικόν τὸ ποιοῦν τὰς φαντασίας καὶ συγκαταθέσεις καὶ αἰσθήσεις καὶ ὁράς· καὶ τοῦτο λογισμὸν καλοῦσιν. ἀπὸ δὲ τοῦ ἡγεμονικοῦ ἑπτὰ μέρη ἐστὶ τῆς ψυχῆς καὶ ἐκτεινόμενα εἰς τὸ σῶμα, καθάπερ αἱ ἀπὸ τοῦ πολυπόδος πλεκτάναι· τῶν δ' ἑπτὰ μερῶν τῆς ψυχῆς πέντε μὲν εἰσι τὰ αἰσθητήρια, ὄρασις ἀκοὴ ὄσφρησις γεῦσις καὶ ἀφή·

ὦν ἡ μὲν ὄρασίς ἐστι πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις ὀφθαλμῶν, ἀκοὴ δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις ὠτων, ὄσφρησις δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις μυκτῆρων, {λεπτύνον} γεῦσις δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις γλώττης, ἀφή δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις ἐπιφανείας εἰς θίξιν εὐαίσθητον τῶν προσπιπτόντων.

τῶν δὲ λοιπῶν τὸ μὲν λέγεται σπερματικόν, ὅπερ καὶ αὐτὸ πνεῦμά ἐστι διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρις τῶν παραστατῶν· τὸ δὲ

§1[1–23] *SVF* 2.836

lemmata non hab. S **titulus** Πόθεν ... ἡγεμονικόν P^{BQ}: Πόθεν αἰσθητικὴ γίνεται ἡ ψυχὴ P^G: Περὶ φωνῆς (~ tit. c. 4.19) καὶ εἰ ἀσώματος ἡ φωνή (~ tit. c. 4.20) καὶ (πόθεν αἰσθητικὴ γίνεται ἡ ψυχὴ καὶ) τί αὐτῆς τὸ ἡγεμονικόν (~ tit. 4.21) S^{FPP}Phot §1 [3] ἀνώτατον μέρος] inv. P^G || [3–4] τὸ² ... καλοῦσιν P^{BQ}: om. P^G || [4] post καὶ² add. τὰς P^{B(I,II)} || καὶ αἰσθήσεις P^B: om. P^Q || [5–8] ἑπτὰ ... ἀφή] al. P^G ἐστὶ τινα τείνοντα ἐπὶ τὰ ἄλλα μέρη τῆς ψυχῆς, ἃ ποιεῖ τὴν αἴσθησιν ἐνεργεῖν || [5] ἑπτὰ P^{BQ}: τινα P^G || ἐστὶ] εἰσὶ P^{B(III)} || [6] ἐκτεινόμενα ... σῶμα P^{BQ}: ἐπὶ τὰ ἄλλα P^G || [6–8] al. P^G qui pro ἐκτεινόμενα ... ἀφή scrib. ἃ ποιεῖ τὴν αἴσθησιν ἐνεργεῖν || [8] ἀκοὴ ὄσφρησις scripsimus, cf. *Gehörsinn, Geruchssinn* Q: ὄσφρησις ἀκοὴ P^B edd. || [9] ὦν ... ἐστι P^B: διόπερ ὄρασιν λέγουσι P^G || τοῦ P^B: om. P^G || [10] ἀκοὴ P^B: ἀκοὴν P^G || [11–14] ὄσφρησις ... προσπιπτόντων P^{BQ}: om. P^G || [12] λεπτύνον post μυκτῆρων P^B, non hab. P^Q, iam secl. Reiske prob. edd. || μυκτῆρων ... ἡγεμονικοῦ P^{B(I,II)Q}: om. P^{B(II)} || [12–13] πνεῦμα ... δὲ P^B: om. P^Q per haplographiam || [12] τοῦ] om. P^{B(I)} || [14] εἰς ... προσπιπτόντων om. P^Q || τῶν] om. P^{B(III)} || [15] τὸ P^G prob. Diels Mau: ὁ P^B || σπερματικόν P^G: σπέρμα P^{BQ} antiquitus corruptum sed prob. Diels Mau alii || ὅπερ P^{B(I,II)}: ὁ P^{B(III)Q}

‘φωνᾶεν’ ὑπὸ τοῦ Ζήνωνος εἰρημένον, ὃ καὶ φωνητικὸν καλοῦσιν, ἐστὶ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρι φάρυγγος καὶ γλώττης καὶ τῶν οἰκείων ὀργάνων.

αὐτὸ δὲ τὸ ἡγεμονικὸν ὥσπερ ἐν κόσμῳ κατοικεῖ ἐν τῇ ἡμετέρᾳ 20 σφαιροειδεῖ κεφαλῇ. (P1)

§1[18–21] SVF 1.150

[17] φωνητικὸν P^G : φωνήν P^{BQ} antiquitus corruptum sed prob. Diels Mau alii || [18] μέχρι P^{B(III)G} : ἕως P^{B(LII)} || [20] post κόσμῳ fort. (σφαιροειδεῖ ὁ θεός) addendum cf. c. 1.6.1, *wie dieser Teil in der Welt eine kugelförmige Gestalt hat* Q : ὁ ἥλιος add. Diels in app., (il sole) Torraca : ἐν ἡλίῳ Hirzel (1882) 2.153 n.: ἥλιος add. Armim in text. : οὐρανός Lammert WS 39 (1917) 255 n. 2 cf. Ptol. *Iudic.* §15 || ἡμετέρᾳ] om. P^G || [21] κεφαλῇ P^{BG} : *in unserm Anfang* ..., *und das ist das Haupt* Q i.q. ‘Doppelübersetzung’ vid. Daiber pp. 13–14

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 102 (~ tit.) Πόθεν αἰσθητικὴ γίνεται ἡ ψυχὴ (text Diels)

102.1 (~ P1[3]) οἱ Στωικοὶ φασιν εἶναι τῆς ψυχῆς μέρος ἀνώτατον τὸ ἡγεμονικόν,

102.2 (~ P1[5–8]) ἀπὸ δὲ τοῦ ἡγεμονικοῦ ἐστὶ τινα τείνοντα ἐπὶ τὰ ἄλλα μέρη τῆς ψυχῆς, ἃ ποιεῖ τὴν αἴσθησιν ἐνεργεῖν·

102.3 (~ P1[9–11]) διόπερ ὄρασιν λέγουσι πνεῦμα διατεῖνον ἀπὸ ἡγεμονικοῦ μέχρι ὀφθαλμῶν, ἀκοὴν δὲ πνεῦμα διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ μέχρι τῶν ὠτων·

102.4 (~ P1[15–18]) τῶν δὲ λοιπῶν τὸ μὲν σπερματικόν, ὅπερ καὶ αὐτὸ πνεῦμά ἐστι, διατεῖνον ἀπὸ τοῦ ἡγεμονικοῦ * * * * φωνητικόν, ὅπερ ἐστὶ τὸ πνεῦμα διατεῖνον ἀπὸ ἡγεμονικοῦ μέχρι φάρυγγος καὶ γλώττης.

102.5 (~ P1[20–21]) αὐτὸ δὲ τὸ ἡγεμονικὸν εἶναι ἐν τῇ σφαιροειδεῖ κεφαλῇ.

Testes secundi:

Nemesius NH c. 15, p. 72.7–9 (~ §1[2–7]) Ζήνων δὲ ὁ Στωικὸς (SVF 1.143) ὀκταμερῇ φησιν εἶναι τὴν ψυχὴν, διαιρῶν αὐτὴν εἰς τε τὸ ἡγεμονικόν καὶ εἰς τὰς πέντε αἰσθήσεις καὶ εἰς τὸ φωνητικόν καὶ τὸ σπερματικόν. **NH** c. 19, p. 81.10–11 (SVF 3.416) ἔστι δὲ ὁ θυμὸς τὸ δορυφορικόν τοῦ λογισμοῦ. **NH** c. 12, p. 68.6–9 τοῦ δὲ διανοητικοῦ εἰσι γενικῶς μὲν αἶ τε κρίσεις καὶ αἶ συγκαταθέσεις καὶ ἀποφυγαὶ καὶ ὀρμαί, εἰδικῶς δὲ αἶ τε νοήσεις τῶν ὄντων καὶ αἶ ἀρεταὶ καὶ αἶ ἐπιστήμαι καὶ τῶν τεχνῶν οἱ λόγοι καὶ τὸ βουλευτικόν καὶ προαιρετικόν (~ §1[2–4]).

Loci Aetiani:

titulus A 4.5 tit. Τί τὸ τῆς ψυχῆς ἡγεμονικόν. **A** 4.8.12 οἱ Στωικοὶ πᾶσαν αἴσθησιν εἶναι συγκατάθεσιν καὶ κατάληψιν. **A** 4.11 tit. Πῶς γίνεται ἡ αἴσθησις. **A** 4.23.1 οἱ Στωικοὶ τὰ μὲν πάθη ἐν τοῖς πεπονημένοις τόποις, τὰς δ’ αἰσθήσεις ἐν τῷ ἡγεμονικῷ.

§1[3–8] **A** 4.8.1 αἴσθησις ἐστὶν ἀντίληψις (δι’) αἰσθητηρίου ἢ κατάληψις· πολλὰ καὶ δὲ λέγεται ἡ αἴσθησις, ἥ τε γὰρ ἕξις καὶ ἡ δύναμις καὶ ἡ ἐνέργεια· καὶ ἡ φαντασία

ἡ καταληπτικὴ δι' αἰσθητηρίου γίνεται κατὰ τὸ ἡγεμονικόν. A 4.9.4 οἱ Στωικοὶ τὰς μὲν αἰσθήσεις ἀληθεῖς, τῶν δὲ φαντασιῶν τὰς μὲν ἀληθεῖς τὰς δὲ ψευδεῖς. A 4.23.1 οἱ Στωικοὶ τὰ μὲν πάθη ἐν τοῖς πεπονθόσι τόποις, τὰς δ' αἰσθήσεις ἐν τῷ ἡγεμονικῷ.

§1[9–14] A 4.8.1 πάλιν δ' αἰσθητήρια λέγεται πνεύματα νοερά ἀπὸ τοῦ ἡγεμονικοῦ (ἀφ' οὗ συνίσταται) ἐπὶ τὰ ὄργανα τεταμένα A 4.4.4 οἱ Στωικοὶ ἐξ ὀκτώ μερῶν φασὶ συνεστάναι, πέντε μὲν τῶν αἰσθητικῶν, ὀρατικοῦ ἀκουστικοῦ ὀσφρητικοῦ γευστικοῦ ἀπικτικοῦ, ... ὀγδόου δ' αὐτοῦ τοῦ ἡγεμονικοῦ, ἀφ' οὗ ταῦτα πάντα ἐπιτέταται διὰ τῶν οἰκείων ὀργάνων, προσφερῶς ταῖς τοῦ πολυπόδου πλεκτάναις. A 4.10.1 οἱ Στωικοὶ πέντε τὰς εἰδικὰς αἰσθήσεις, ὅρασιν ἀκοήν ὀσφρησιν γεῦσιν ἀφήν. A 4.15.3 Χρύσιππος κατὰ τὴν συνέντασιν τοῦ μεταξὺ ἀέρος ὁρᾷ ἡμᾶς, νυγέντος μὲν ὑπὸ τοῦ ὀρατικοῦ πνεύματος, ὅπερ ἀπὸ τοῦ ἡγεμονικοῦ μέχρι τῆς κόρης διήκει.

§1[15–19] A 4.4.4 ἔκτου δὲ φωνητικοῦ, ἐβδόμου δὲ σπερματικοῦ.

§1[20–21] A 1.6[9–12] σφαιροειδὴς γὰρ ὁ κόσμος, ὃ πάντων τῶν σχημάτων πρωτεύει· μόνον γὰρ τοῦτο τοῖς ἑαυτοῦ μέρεσιν ὁμοιοῦται· περιφερὴς δ' ὢν ἔχει τὰ μέρη περιφερῆ· (διὰ τοῦτο γὰρ κατὰ τὸν Πλάτωνα ἐν τῇ κεφαλῇ τὸ ἱερώτατον συνέστηκε νοῦς). A 2.5a.1–4 Πλάτων τὸ ἡγεμονικόν τοῦ κόσμου ἐν οὐρανῷ τίθεται. Κλεάνθης ὁ Στωικός ἐν ἡλίῳ. Ἀρχεδήμος ἐν γῇ. Φιλόλαος ἐν τῷ μεσαιτάτῳ πυρί, ὅπερ τρόπως δίκην προῦπεβάλλετο τῇ τοῦ παντὸς (σφαίρᾳ) ὁ δημιουργὸς θεός. A 4.5.1 Πλάτων Δημόκριτος ἐν ὅλῃ τῇ κεφαλῇ (sc. τὸ τῆς ψυχῆς ἡγεμονικόν).

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses for P are P^B and P^Q, partly confirmed by P^G. P^G has not only abridged further, as is the rule, but also replaced part of a lemma with an improvised remark. In P^Q parts of the text have been omitted or lost, perhaps also through *saut du même au même*, just as in one ms. of P^B. S is lost apart from part of the chapter heading (confirmed by Photius' index), which is important in that it proves (again) that he did excerpt the chapter, thereby confirming its attribution to A, but the text was subsequently squeezed out. T did not excerpt the chapter.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition is virtually non-existent for this chapter. The cousin source Nem NH c. 12 contains a parallel to ch. 4.21.1 and begins with a backward glance at NH c. 6, which is parallel to ch. 4.12.

(2) *Sources*. The sources belong with the mainstream Stoic tradition, except the minority view concerned with the position of the regent part in the head (see below, section D(e)§1[20–21]). As intermediary source we may think of a Stoic handbook (Diels' 'liber Stoicorum', see below, section D(a)), or one providing Stoic doctrine, just as was the case for chs. 4.11, 4.12 and 4.15.

C Chapter Heading

A detailed and specific one. P^G has omitted the second part of the heading of P^{BQ}. S 1.57 has combined the headings of the three chapters 4.19–4.21. Wachsmuth *Prolegomena* p. x is almost certainly right that the words *πόθεν αἰσθητικὴ γίνεται ἢ ψυχὴ καὶ* had already fallen by the wayside before Photius made up his table of contents (*saut du même au même*, presumably). The second part of the present heading recalls the first part of that of ch. 4.5: *Τί τὸ τῆς ψυχῆς ἡγεμονικόν*, and its first part recalls the first part of that of ch. 4.11: *Πῶς γίνεται ἢ αἰσθησις*. The sub-question *πόθεν* (*unde*) belongs with the question type of cause, see ch. 1.6 above, Commentary C; the question *τί* to the question type and category of essence/substance. On the dialectical aspect of these interrogatives *πόθεν* and *τί* see further above, ch. 1.1, Commentary C.

D Analysis

a Context

This is the last chapter of the series of chapters on the soul in the proper sense of the word which began at ch. 4.2. It is followed by an appendix, ch. 4.22 'On respiration', treating a theme to which Aristotle devoted a little treatise in the *Parva Naturalia* appended to the *De anima*, and by ch. 4.23, which deals with the issue of the impact of bodily pains on the soul, a topic not separately treated by Aristotle but of some importance in Hellenistic philosophy. Just as chs. 4.11, 4.12, and 4.15, chapter 4.21 is devoted to Stoic doctrine only, and just as these three chapters it appears to have been added to further illustrate and to some extent correct or at least update what comes before. Diels *DG* 61 briefly refers to what he believes to be the common origin of these 'supplementa Stoica' in a 'liber Stoicorum'. But note that in the present case, too, this additional material is worth having. The updating and correcting are relevant to the various tenets (including Stoic ones) concerning the parts of soul in ch. 4.4 and those concerning sensation in ch. 4.8, as well as to the series of doxai concerned with the location of the regent part in ch. 4.5. It may have been easier to add a new chapter than to rewrite several others. The chapter also further supplements the information on Stoic doctrine in ch. 4.11, but unfortunately fails to help identify the material left out there by P. See also above, Introduction to Book 4, section 5.

b Number–Order of Lemmata

Just as with chs. 4.11 and 4.12 there is no need to divide the chapter into lemmata, as we are dealing with a single name-label and a single doctrine. Dividing up the single doxa (as Diels did), but distinguishing five instead of four sections, helps to follow the exposition.

c Rationale–Structure of Chapter

In the absence of a plurality of views there is no diaeretic and/or diaphonic structure, though the point about the location of the regent part provides a strong opposition to ch. 4.5.7.

d Further Comments

Individual Points

§1[5] For λογισμός meaning ‘reason’ in a Stoic context see Whittaker (1998).

§1[8–13] Consistently with the metaphor of the tentacles of the octopus (§1[6–7])—also in ch. 4.4.4, where the direction of motion is also from regent part to sense organs—this account emphasises the active side of the perceptive process, not the receptive side as in ch. 4.11.

§1[15–16] We have of course preferred G’s readings σπερματικόν and φωνητικόν to the σπέρμα and φωνήν found in P^B. These are paralleled in several other testimonia. See ch. 4.4.4[10–11], Chrysippus at Galen *PHP* 3.1.11 p. 170.15, Porphyry *de An.* at Stob. 1.49.25a, p. 350.15, Nem *NH* c. 15, p. 72.9 for σπερματικόν, and again A 4.4.4.[11], Diogenes Laertius *V.P.* 7.110, 157, again Porphyry *de An.* at Stob. 1.49.25a, p. 350.15, and again Nem *NH* c. 15, p. 72.9 for φωνητικόν. It is true that Chrysippus at Gal. *PHP* 3.1.11 (assuming the text is good, which probably it is not) speaks of φωνήν not φωνητικόν, but even he uses σπερματικόν not σπέρμα.

§1[15–18] It is only here and not in ch. 4.19 that we hear something about the production of voice in the physical sense and the role of the trachea.

§1[20–21] That the regent part is located in the head is a minority view among the Stoics, see ch. 4.5.7, where according to ‘all [*sic*] the Stoics’ it is placed in the heart or the *pneuma* near the heart. For the minority view see also Philodemus *Piet.* col. ix.9–27 Henrichs, Cornutus *ND* 2, p. 2.13–15 and 20, p. 29.15–30.2 Torres, and Chrysippus at Galen *PHP* 3.8.3–4 (*SVF* 2.908), who argued against it (passage quoted section E(b)§1[19–20]). Relevant in this connection are the various Stoic views on the regent part of the cosmos. These are listed at Diogenes Laertius *V.P.* 7.139: the aether (Antipater, not in *SVF* 3), the heaven (Chrysippus, not in *SVF* 2, and Posidonius F 23 E.-K.), the sun (Cleanthes *SVF* 1.499), or the purest aether (Chrysippus *SVF* 2.644). In ch. 2.5a above, on the location of the regent part of the cosmos, we have, one after the other: Plato: in the heaven, Cleanthes: in the sun, Archdemus: in the earth, and Philolaus:

in the innermost fire. The view rejected by Chrysippus is based on an analogy between Cosmic Soul and human soul. Note that in §1[3] the regent part is said to be the ‘highest part of the soul’, clearly not only in a metaphorical sense. The comparison between head and cosmos, both round, and the location of the higher soul in the head are of course originally Platonic; for the *Placita* see ch. 1.6[9–12], quoted among the *Loci Aetiani*. It is hard to avoid the conclusion that what we have here is the reception of a Platonic view in later Stoicism. It is paralleled in Ptolemy’s *On the Criterion and the Hegemonikon*.

This final sentence can be understood without an explicit subject for ὥσπερ ἐν κόσμῳ (sc. κατοικεῖ), but then is rather harsh. We believe that just as in ch. 1.6[7–25] and 1.7.22[114], see ch. 1.6 Commentary D(d)§1[7–25], κόσμος should be translated ‘heaven’ and not ‘cosmo’/‘monde’ as by Torraca and Lachenaud. Also, that (Diels’) ὁ θεός should be added before and σφαιροειδεῖ after ἐν κόσμῳ, for we need this to balance ἐν σφαιροειδεῖ κεφαλῇ, the spherical head being the highest part of the human body, just as the ‘spherical heaven’ is the highest part of the world. We have refrained from adding these words to the text, only putting them in the apparatus and adding them to the translation *exempli gratia*.

e Other Evidence

The Stoic doctrine of our chapter, with and without name-label, is paralleled in a multiplicity of sources; see below at section E(b)§1 passim.

E Further Related Texts

a Proximate Tradition

General texts: Arius Didymus fr. 39.5 Diels at Eus. *PE* 15.20.5 (*SVF* 2.821) ἔχειν δὲ πᾶσαν ψυχὴν ἡγεμονικόν τι ἐν αὐτῇ, ὃ δὴ ζωὴ καὶ αἴσθησις ἐστι καὶ ὁρμή. **Diogenes Laertius** *VP*. 7.159 (*SVF* 2.837) ἡγεμονικὸν δ’ εἶναι τὸ κυριώτατον τῆς ψυχῆς, ἐν ᾧ αἱ φαντασίαι καὶ αἱ ὁρμαὶ γίνονται καὶ ὅθεν ὁ λόγος ἀναπέμπεται· ὅπερ εἶναι ἐν καρδίᾳ.

Chapter heading: Diogenes Laertius *VP*. 7.159 (*SVF* 2.744) τὴν δὲ ψυχὴν αἰσθητικήν.

§1[3–8] **Stoics:** Diogenes Laertius *VP*. 7.110 (ethical section) (*SVF* 2.828) φασὶ δὲ τὴν ψυχὴν εἶναι ὀκταμερῇ· μέρη γὰρ αὐτῆς τὰ τε πέντε αἰσθητήρια καὶ τὸ φωνητικὸν μόριον καὶ τὸ διανοητικόν, ὅπερ ἐστὶν αὐτῇ ἡ διάνοια, καὶ τὸ γεννητικόν. *VP*. 7.157 (physical section) μέρη δὲ ψυχῆς λέγουσιν (*SVF* 2.828) ὀκτώ, τὰς πέντε αἰσθήσεις καὶ τοὺς ἐν ἡμῖν σπερματικούς λόγους καὶ τὸ φωνητικὸν καὶ τὸ λογιστικόν.

§1[9–19] **Stoics:** Philo of Alexandria *Fug.* 182 (*SVF* 2.861) ποτίζεται οὖν, ὥσπερ ἀπὸ πηγῆς τοῦ κατὰ ψυχὴν ἡγεμονικοῦ τὸ σῶμα τὸ ἡγεμονικὸν πρόσωπον, τὸ μὲν ὁρατικὸν πνεῦμα τείνοντος εἰς ὄμματα, τὸ δ’ ἀκουστικὸν εἰς οὖς, εἰς δὲ μυκτῆρας τὸ ὁσφρήσεως, τὸ δ’ αὖ γέυσεως εἰς στόμα, καὶ τὸ ἀφῆς εἰς σύμπασαν τὴν ἐπιφάνειαν.

Diogenes Laertius V.P. 7.52 αἰσθησις δὲ λέγεται κατὰ τοὺς Στωϊκοὺς (*SVF* 2.71) τό τε ἀφ' ἡγεμονικοῦ πνεύμα ἐπὶ τὰς αἰσθήσεις διήκον καὶ ἡ δι' αὐτῶν κατάληψις καὶ ἡ περὶ τὰ αἰσθητήρια κατασκευή.

§1[20–21] **Stoics: Diogenes Laertius V.P.** 7.139 τὸν ὅλον κόσμον ζῶον ὄντα καὶ ἔμψυχον καὶ λογικόν, ἔχειν ἡγεμονικόν μὲν τὸν αἰθέρα, καθά φησιν Ἀντίπατρος ὁ Τύριος ἐν τῷ ὀγδόῳ Περὶ κόσμου (—). Χρύσιππος δ' ἐν τῷ πρώτῳ Περὶ προνοίας (—) καὶ Ποσειδώνιος ἐν τῷ Περὶ θεῶν τὸν οὐρανόν φασι τὸ ἡγεμονικόν τοῦ κόσμου (F 23 E.-K.), Κλεάνθης δὲ τὸν ἥλιον (*SVF* 1.499).

b Sources and Other Parallel Texts

General texts: Arius Didymus fr. 39 at Eus. *PE* 15.20.3 ἀναθυμιάσιν μὲν οὖν ὁμοίως τῷ Ἡρακλείτῳ (22B12 DK) τὴν ψυχὴν ἀποφαίνει Ζήνων (*SVF* 1.141, 1.519), αἰσθητικὴν δὲ αὐτὴν εἶναι διὰ τοῦτο λέγει, ὅτι τυπούσθαι τε δύναται {τὸ μέγεθος} τὸ μέρος τὸ ἡγούμενον αὐτῆς ἀπὸ τῶν ὄντων καὶ ὑπαρχόντων διὰ τῶν αἰσθητηρίων καὶ παραδέχεσθαι τὰς τυπώσεις· ταῦτα γὰρ ἴδια ψυχῆς ἐστίν. **Galen PHP** 5.3.7 (*SVF* 2.841) μὴ τοίνυν μηδὲ ἐπὶ τῆς ψυχῆς σύγχει (sc. you, Chrysippus) τὰ μόρια ταῖς ἐνεργείαις. αἱ μὲν γὰρ ἐννοιαὶ καὶ αἱ προ{σ}λήψεις ἐνεργεῖαι, (μόρια δὲ) τῆς ψυχῆς, ὡς αὐτὸς σὺ δι' ἐτέρων ἐκδιδάσκεις, τό τε ἀκουστικὸν πνεῦμα καὶ τὸ ὀπτικὸν ἔτι τε πρὸς τοῦτοις φωνητικὸν τε καὶ γεννητικὸν καὶ πρὸ πάντων αὐτῶν τὸ ἡγεμονικόν, ἐν ᾧ καὶ τὸν λόγον ἔφης συνίστασθαι.

§1[3–8] **Stoics: SVF** 2.834–849.

§1[3–5] **Stoics: Philodemus de Mus.** 4 col. 25.11–13 Delattre (*SVF* 3 Diog. 58) [καὶ] | γὰρ πρὸ τοῦ λογισμὸν ἔ[χειν] | καὶ σύνεσιν ἄπτεσθα[ι] ἡμῶν. **Pollux Onom.** 2.226–227 (*Soranus de An.* fr. 13[b] Podolak) καὶ ὁ μὲν νοὺς καὶ λογισμὸς καὶ ἡγεμονικόν, εἴτε ... περὶ τὴν καρδίαν, ὡς ἡ Στοά (—). **Galen PHP** 5.6.34–35 τὴν μὲν οὖν τοῦ Κλεάνθους (*SVF* 1.570) γνώμην ὑπὲρ τοῦ παθητικοῦ τῆς ψυχῆς ἐκ τῶνδε φαίνεσθαι φησι τῶν ἐπῶν·—‘τί ποτ’ ἔσθ’ ὃ βούλει, θυμέ; τοῦτό μοι φράσον. — ἐγώ, λογισμέ; πᾶν ὃ βούλομαι ποιεῖν’ κτλ. **PHP** 3.3.2–3 ὁ Χρύσιππος (*SVF* 2.906, p. 254.35–40) σπουδάζει κατασκευάζειν ἐπιχειροῦντι πρὸς ἐναντιώματος ἂν εἴη, καὶ μάλισθ’ ὅσα φανερώς ἐπιτιμῶντα{ι} ποιεῖ τὸν λογισμὸν τῷ θυμῷ, καθάπερ καὶ τάδε· ‘στήθος δὲ πληξας κραδίην ἡνίπαπε μύθῳ· / τέτλαθι δὴ κραδίη· καὶ κύντερον ἄλλο ποτ’ ἔτλης.’ (3) ταυτί γάρ “Ὀμηρος (*Od.* 20.17–18) ἐποίησε τὸν Ὀδυσσεά λέγοντα πρὸς ἑαυτόν. **Sextus Empiricus P.** 1.65–66 ἴδωμεν οὖν πρότερον περὶ τοῦ ἐνδιαθέτου (sc. λόγου). οὗτος τοίνυν κατὰ τοὺς μάλιστα ἡμῖν ἀντιδοξοῦντας νῦν δογματικούς, τοὺς ἀπὸ τῆς Στοᾶς (—), ἐν τοῦτοις ἔοικε σαλεύειν, τῇ αἵρέσει τῶν οικείων καὶ φυγῇ τῶν ἀλλοτρίων, τῇ γνώσει τῶν εἰς τοῦτο συντεινουσῶν τεχνῶν, τῇ ἀντιλήψει τῶν κατὰ τὴν οἰκίαν φύσιν ἀρετῶν (καὶ) τῶν περὶ τὰ πάθη. **Sextus Empiricus P.** 3.188 (*SVF* 2.96) πῶς οὖν ἐν τῷ ἡγεμονικῷ, πνεύματι κατ’ αὐτοὺς ὑπάρχοντι, ἐναπόθεσις γίγνεται καταλήψεων. **Iamblichus de An. fr. 10 Finamore–Dillon at Stob. *Ecl.* 1.49.33, p. 368.16–20 κατὰ μὲν τοὺς Στωϊκοὺς (*SVF* 2.826) ... · πνεύματα γὰρ ἀπὸ τοῦ ἡγεμονικοῦ φασιν οὕτοι διατείνειν ἄλλα κατ’ ἄλλα, τὰ μὲν εἰς ὀφθαλμούς, τὰ δὲ εἰς ὦτα, τὰ δὲ εἰς ἄλλα αἰσθητήρια· ἐνταῦθα δὲ ἰδιότητι ποιότητος περὶ τὸ αὐτὸ ὑποκείμενον· ὥσπερ γὰρ τὸ μῆλον ἐν τῷ αὐτῷ σώματι τὴν γλυκύτητα ἔχει καὶ τὴν εὐωδίαν, οὕτω καὶ τὸ ἡγεμονικόν ἐν ταύτῳ φαντασίαν συγκατάθεσιν ὁρμὴν λόγον**

συνεῖληφε. *de An.* fr. 12 Finamore–Dillon at Stob. *Ecl.* 1.49.34, p. 369.6–9 οἱ ἀπὸ Ζήνωνος (SVF 2.831) ὀκταμερῇ τὴν ψυχὴν {δια}δοξάζουσι, περὶ ἥν τὰς δυνάμεις εἶναι πλείονας, ὥσπερ ἐν τῷ ἡγεμονικῷ ἐνυπαρχουσῶν φαντασίας συγκαταθέσεως ὁρμῆς λόγου.

§1[5–19] **Stoics:** Calcidius in *Tim.* 220 ‘haec igitur,’ inquit (sc. Chrysippus, SVF 2.879), ‘octo in partes divisa invenitur; constat enim e principali et quinque sensibus, etiam vocali substantia et serendi procreandique potentia. porro partes animae velut ex capite fontis cordis sede manantes per universum corpus porriguntur omniaque membra usque quaque vitali spiritu complent reguntque et moderantur innumerabilibus diversisque virtutibus nutriendo adolendo movendo motibus localibus instruendo sensibus compellendo ad operandum totaque anima sensus, qui sunt eius officia, velut ramos ex principali parte illa tamquam trabe pandit futuros eorum quae sentiunt nuntios, ipsa de his quae nuntiaverint iudicat ut rex.’ ... ut ait idem Chrysippus: ‘sicut aranea in medietate cassis omnia filorum tenet pedibus exordia, ut, cum quid ex bestiis plagas incurrerit ex quacumque parte, de proximo sentiat, sic animae principale positum in media sede cordis sensuum exordia retinere, ut, cum quid nuntiabunt, de proximo recognoscat’.

§1[9–14] **Stoics:** Iamblichus *de An.* fr. 10 Finamore–Dillon at Stob. *Ecl.* 1.49.33, p. 369.13–16 πνεύματα γὰρ ἀπὸ τοῦ ἡγεμονικοῦ φασιν οὗτοι (SVF 2.826) διατείνειν ἄλλα κατ’ ἄλλα, τὰ μὲν εἰς ὀφθαλμούς, τὰ δὲ εἰς ὠτα, τὰ δὲ εἰς ἄλλα αἰσθητήρια.

§1[16–19] **Stoics:** Aristotle *PA* 3.3 664a35–b1 ἡ δὲ καλουμένη φάρυγξ καὶ ἀρτηρία συνέστηκεν ἐκ χονδρώδους σώματος· οὐ γὰρ μόνον ἀναπνοῆς ἕνεκέν ἐστιν ἀλλὰ καὶ φωνῆς. Galen *UP* 3.411.8–16 K. ὅσα δ’ ἐξ ἀέρος εἰσπνεῖ ζῶα καὶ αὖθις εἰς τοῦτον ἐκπνεῖ διὰ στόματος, ἅπανσι τοῦτοις ὁ πλεῦμων ἐκπεπλήρωκε τὴν τοῦ θώρακος εὐρύτητα, φωνητικὸν ἅμα καὶ ἀναπνευστικὸν ὄργανον γενόμενος. ἡ δ’ ἀρχὴ τῆς κινήσεως αὐτῷ παρὰ τοῦ θώρακος ἐστίν, ὡς ἐν τοῖς περὶ τῆς ἀναπνοῆς λογισμοῖς ἀποδεδεικται· καὶ μὲν γε καὶ ὅσον εἰς φωνῆς γένεσιν συντελεῖ, καὶ τοῦτ’ ἐν τοῖς Περὶ φωνῆς εἴρηται. etc.

§1[20–21] **Stoics:** Chrysippus *de An.* at Gal. *PHP* 3.8.3–4 (SVF 2.908, verbatim) ἀκούω δὲ τινὰς λέγειν παραμυθουμένους πρὸς τὸ ἐν τῇ κεφαλῇ εἶναι τὸ ἡγεμονικὸν τῆς ψυχῆς μέρος. ... πιθανοῦ μὲν τινος ἐχόμενοι, διαμαρτάνοντες δ’ ὡς ἐμοὶ φαίνεται κτλ. Philodemus *Piet.* col. ix.9–18 Henrichs τινὰς δὲ τῶν Στωικῶν (SVF 3 Diog. 33) | φάσκειν ὅτι τὸ ἡγε|μονικὸν ἐν τῇ κε|φαλῇ· φρόνησιν γὰρ[ρ] | εἶναι, διὸ καὶ Μῆτιν | καλεῖσθαι· Χρύσιπ[π]ον (—) δ’ ἐν τῷ στή|[θ]ει τὸ ἡγεμονικὸν | εἶναι κτλ. Cornutus *Comp.* c. 2, p. 2.6–16 Torres ὥσπερ δὲ ἡμεῖς ὑπὸ ψυχῆς διοικούμεθα, οὕτω καὶ ὁ κόσμος ψυχὴν ἔχει τὴν συνέχουσιν αὐτόν, καὶ αὕτη καλεῖται Ζεὺς. ... οἰκεῖν δὲ ἐν τῷ οὐρανῷ λέγεται, ἐπεὶ ἐκεῖ ἐστὶ τὸ κυριώτατον μέρος τῆς τοῦ κόσμου ψυχῆς· καὶ γὰρ αἱ ἡμέτεραι ψυχὰι πῦρ εἰσιν. *Comp.* c. 20, p. 29.15–30.2 Torres ἡ δὲ Ἀθηνᾶ ἐστὶν ἡ τοῦ Διὸς σύνεσις, ἡ αὐτὴ οὐσα τῇ ἐν αὐτῷ προνοίᾳ γενέσθαι δ’ ἐκ τῆς τοῦ Διὸς κεφαλῆς λέγεται, τάχα μὲν τῶν ἀρχαίων ὑπολαβόντων τὸ ἡγεμονικὸν τῆς ψυχῆς ἡμῶν ἐνταῦθ’ εἶναι, καθάπερ καὶ ἕτεροι τῶν μετὰ ταῦτα ἐδόξασαν, τάχα δ’ ἐπεὶ τοῦ μὲν ἀνθρώπου τὸ ἀνωτάτω μέρος τοῦ σώματος ἡ κεφαλὴ ἐστὶ, τοῦ δὲ κόσμου

ὁ αἰθήρ, ὅπου τὸ ἡγεμονικὸν αὐτοῦ ἐστὶ καὶ ἡ τῆς φρονήσεως οὐσία. **Ptolemy** *Iudic.* c. 15.1–2 pp. 21.23–22.6 τούτων δὲ οὕτως ἐφωδευμένων, ὅτι μὲν ἡγεμονικὸν γίνε-
ται τοῦ σώματος, ἐν ᾧ τὸ ἡγεμονικὸν τῆς ψυχῆς, οὐδὲ εἰς ἂν ἀπορήσειεν· εἰ δ' αὐτὸ
τὸ ἡγεμονικὸν οὕτως ἀπλῶς ληπτέον καὶ οὐχ ὥς τῶν πρὸς τι ὄν, ὡδί πως κατὰ τὸ
κεφαλαιῶδες διοριστέον· ἐὰν μὲν γὰρ τὸ βέλτιστον ἀπλῶς καὶ τιμιώτατον καλῶμεν
ἡγεμονικόν, ἐν ἐγκεφάλῳ τοῦτο ἔσται. δέδεικται γὰρ ἡμῖν ἱκανῶς, ὅτι τὸ διανοητι-
κὸν καὶ δυνάμει καὶ οὐσίᾳ τιμιώτερον καὶ θεϊότερόν ἐστιν ἢ τε τῷ παντὶ καὶ ἐν ἡμῖν·
καὶ ὅτι τόπος αὐτοῦ τὰ ἀνωτάτω, τοῦ κόσμου μὲν ὁ οὐρανός, ἀνθρώπου δὲ ἡ κορυφή.
Lactantius *Op.D.* 16.4 Perrin *alii sedem eius* (sc. mentis) *in cerebro esse dixer-*
unt, ... oportuisse scilicet quod totius corporis regimen haberet, potius in summo
tamquam in arce corporis habitare nec quicquam esse sublimius quam id quod
universum ratione moderetur, sicut ipse mundi dominus et rector in summo est.
cf. **Plato** *Tim.* 44.d τὰς μὲν δὴ θείας περιόδους δύο οὔσας, τὸ τοῦ παντὸς σχῆμα
ἀπομιμησάμενοι περιφερὲς ὄν, εἰς σφαιροειδὲς σώμα ἐνέδησαν, τοῦτο δ' νῦν κεφαλὴν
ἐπονομάζομεν, ὃ θεϊοτάτόν τέ ἐστιν καὶ τῶν ἐν ἡμῖν πάντων δεσποτοῦν.

Liber 4 Caput 22

PP: *Papyrus Antinoopolis* 85 fr. 5 verso p. 78 Barns-Zilliacus—PB: ps.Plutarchus *Plac.* 903D–904B; pp. 411^a25–414^a21 Diels—PG: ps.Galenus *HPh* c. 103 Diels; *DG* p. 639.3–16; pp. 313–324 Jas—PQ: Qustā ibn Lūqā pp. 212–215 Daiber
S: Stobaeus *Ecl.* 1.60 p. 499.17 Wachsmuth (titulus solus); cf. Phot. *Bibl.* 167, p. 112b36 Henry (titulus solus)
Cf. Nem: Nemesius c. 28, p. 89.18 Morani (titulus solus)

Titulus κβ'. Περὶ ἀναπνοῆς (P,S)

§1 Ἐμπεδοκλῆς τὴν πρώτην ἀναπνοὴν τοῦ πρώτου ζώου γενέσθαι τῆς
(μὲν) ἐν τοῖς βρέφεσιν ὑγρασίας ἀποχώρησιν λαμβανούσης, πρὸς δὲ τὸ
παρακενωθὲν ἐπεισόδου {τῆς ἔξωθεν} τοῦ ἐκτὸς ἀερώδους γινομένης εἰς
τὰ παρανοιχθέντα τῶν ἀγγείων· τὸ δὲ μετὰ τοῦτο ἤδη τοῦ ἐμφύτου
θερμοῦ τῇ πρὸς τὸ ἐκτὸς ὀρμῇ τὸ ἀερώδες ὑπαναθλίβοντος, τὴν
ἐκπνοήν, τῇ δ' εἰς τὸ ἐντὸς ἀνθυποχωρήσει τῷ ἀερώδει τὴν ἀντεπείσ-
οδον παρεχομένου, τὴν εἰσπνοήν. τὴν δὲ νῦν κατέχουσιν φερομένου τοῦ
αἵματος ὡς πρὸς τὴν ἐπιφάνειαν καὶ τὸ ἀερώδες διὰ τῶν ῥινῶν ταῖς
ἐαυτοῦ ἐπιρροαῖς ἀναθλίβοντος κατὰ τὴν ἐκχώρησιν αὐτοῦ γίνεσθαι
τὴν ἐκπνοήν, παλινδρομοῦντος δὲ καὶ τοῦ ἀέρος ἀντεπεισιόντος εἰς τὰ
διὰ τοῦ αἵματος ἀραιώματα τὴν εἰσπνοήν. ὑπομινύσκει δ' αὐτὸ ἐπὶ τῆς
κλεψύδρας. (P1)

§1 Empedocles 31A74 DK

lemmata non hab. S. **titulus** Περὶ ἀναπνοῆς P : Περὶ ἀναπνοῆς καὶ παθῶν S^{L-indPhot} §1 [2]
πρώτου P^B : om. P^Q secl. olim Karsten Diels conl. c. 5.15.3 || τοῦ ἀρτιγενούς add. schol. P^{B(11)}
ad τοῦ πρώτου damn. Karsten Diels Mau || γενέσθαι P^B Mau : γινέσθαι Diels conl. c. 5.15.3 ||
[2–3] τῆς ... βρέφεσιν P^B : *wird dem Embryo zuteil* Q || (μὲν) add. Diels ex c. 5.15.3 prob. Mau
Primavesi Laks–Most || [3] ἀποχώρησιν P^{B(1,11)Q} : ἀναχώρησιν P^{B(11)} || post ἀποχώρησιν add.
von den Atemorganen Q || [3–4] πρὸς ... παρακενωθὲν P^B : om. P^Q || [4] τῆς ἔξωθεν P^B : om.
P^{Q(ut vid.)} secl. Diels conl. c. 5.15.3 prob. Mau || ἀερώδους P^B : *Luft* Q || [4–5] εἰς ... ἀγγείων P^B :
in das von den Gefäßen Geöffnete Q || [5] τὸ P^{BQ} Mau : τὴν conl. Diels *DG* add. p. 853 || [6]
post ὀρμῇ punctum pos. P^Q || τῇ πρὸς ... ὀρμῇ P^B : *das Austreten ... nach außen* Q || [7–8] τῇ
δ' εἰς ... εἰσπνοήν P^B : *Dabei ist ein Teil der luftartigen Substanz für das Austreten und ein Teil*
zur Herbeiziehung und zum Eintreten bestimmt Q || [7] τὸ P^{B(11)} || [8] τὴν ... κατέχουσιν
P^B : *Gleichzeitig damit geschieht* Q || [9] αἵματος ὕδατος P⁽¹¹⁾ || [9–11] καὶ τὸ ... ἐκπνοήν P^B :
seine [sc. des Blutes] Auspressung dessen, was eintritt, sein Ausstoßen des Überrestes nach
außen und sein Einbiegen in die Lücken, welche im Blut sind Q || [10] κατὰ emend. corr. Voss.
prob. Diels Mau : καὶ P || ἐκχώρησιν ἐγγώρησιν P⁽¹¹⁾ || [11] ἀντεπεισιόντος ἀντεπεισυχθέντος
P^{B(111)} || [12] αὐτὸ P^{B(1,111)} : {αὐ}τὸ Diels DK : post αὐτὸ τὸ add. Mau Lachenaud || [12–13]
αὐτὸ ... κλεψύδρας P^B : *was wir in den Tropfenzählern sehen, von welchen das Wasser tropft*
Q

- §2 Ἀσκληπιάδης τὸν μὲν πνεύμονα χώνης δίκην συνίστησιν, αἰτίαν δὲ τῆς
 ἀναπνοῆς τὴν ἐν τῷ θώρακι λεπτομέρειαν ὑποτίθεται, πρὸς ἣν τὸν 15
 ἔξωθεν ἀέρα ρεῖν τε καὶ καθαίρεσθαι παχυμερῆ ὄντα, πάλιν δ'
 ἀπωθεῖσθαι μηκέτι τοῦ θώρακος οἴου τ' ὄντος μήτ' ἐπεισδέχεσθαι μήθ'
 ὑποστέγειν· ὑπολειπομένου δὲ τινος ἐν τῷ θώρακι λεπτομεροῦς αἰὲ
 βραχέος (οὐ γὰρ ἅπαν ἐκκρίνεται), πρὸς τοῦτο πάλιν τὸ εἶσω ὑπομένον
 <τὴν> βαρύτητα τοῦ ἐκτὸς ἀντεπισφέρεσθαι. ταῦτα δὴ ταῖς σικύαις 20
 παρεικάζει· τὴν δὲ κατὰ προαίρεσιν ἀναπνοὴν γίνεσθαι φησι
 συναγομένων τῶν ἐν τῷ πνεύμονι λεπτοτάτων πόρων καὶ τῶν βραγχίων
 στενουμένων· τῇ γὰρ ἡμετέρᾳ ταύτῃ ὑπακούει προαιρέσει. (P2)
- §3 Ἡρόφιλος δυνάμεις ἀπολείπει περὶ τὰ σώματα τὰς κινητικὰς ἐν νεύροις 25
 ἐν ἀρτηρίαις ἐν μυσί· τὸν οὖν πνεύμονα νομίζει πρῶτον ὀρέγεσθαι δια-
 στολῆς τε καὶ συστολῆς φυσικῶς· εἴτα δὲ καὶ τᾶλλα. ἐνέργειαν μὲν οὖν
 εἶναι τοῦ πνεύμονος τὴν ἔξωθεν τοῦ πνεύματος ὀλκὴν· ὑπὸ δὲ τῆς

§2 Asclepiades cf. Vallance *ANRW* 2.37.1, p. 724; §3 Herophilus fr. 143b Von Staden

§2 [14] τὸν ... συνίστησιν ^{PBQ}: om. ^{PG} || πνεύμονα ^{PB}: *pneuma* Q || δὲ om. ^{PG} || [15] ὑποτίθεται ^{PB}: εἶναι φησι ante τὴν ^{PG}: *glaubte* Q || [16] καθαίρεσθαι ^{PG}, cf. *schlecht wird* Q compositum verbi αἰρεῖν supputans (φθεῖρεσθαι cred. Daiber): φέρεσθαι ^{PB} Diels Mau Vallance || [17] οἴου ... ὑποστέγειν ^{PBQ}: τοιοῦτόν τι ὑποστέγοντος ^{PG} || ἐπεισδέχεσθαι || ἐπιδέχεσθαι ^{PB(1)} || [18] ὑποστέγειν Diels edd., cf. ^{PG} ὑποστέγοντος: *ergreifen* Q: ὑστερεῖν ^{PB} || θώρακι ^{PBQ}: σώματι ^{PG} || [19–20] πρὸς ... ἀντεπισφέρεσθαι ^{PB}: *gelangt zu ihr von außen etwas, was sie (die Brust) ausdehnt* Q || [19] ἐκκρίνεται ^{PBQ}: ἐκκρίνεσθαι ^{PG} || καὶ ante πρὸς add. ^{PG} || ὑπομένον ^{PB}: ὑποκείμενον ^{PG} || [20] <τὴν> add. Diels prob. edd. || βαρύτητα τοῦ ^{PB(1,11)}: βαρύτητας τὰς ^{PB(11)}: ἡ βαρύτης ^{PG}: om. ^{PQ} || [20] ἀντεπισφέρεσθαι ^{PB(1,11-a.c.11)}: ἀντεπισφέρεται ^{PB(11p.c.)}: ἀντεπισφέρεται ^{PG} || δὴ ^{PB(1,11)} Mau Lachenaud: δὲ ^{PB(11)} Diels || [21] παρεικάζει ^{PB} Mau Lachenaud: ἀπεικάζει ^{PG} Diels: *ist dem ähnlich* Q || φησι ^{PBQ}: om. ^{PG} || [22] τῷ ... πόρων ^{PB}: *Organe der Brust* Q || λεπτοτάτων ^{PB}: om. ^{PGQ} || [22–23] καὶ ... στενουμένων ^{PB}: om. ^{PG} || [22] βραγχίων ^{PB(1)}: βραγχίων ^{PB(11)}: βραχέων ^{PB(11)}: βρογχίων conl. corr. Voss.: *Ringe der Luftröhre* Q || [23] τῇ γὰρ ^{PB}: ταῦτα γὰρ τῇ ^{PG} || [23] ὑπακούει ^{PB}: ὑπακούειν ^{PG} || προαιρέσει ^{PBG}: *Willen* Q §3 [24] post nomen hab. ^{PG} δὲ || δυνάμεις ^{PBQ}: δύναμιν ^{PG} || τὰς ^{PB}: om. ^{PG} || κινητικὰς κινητικὴν ^{PG} || ἐν ^{PB}: καὶ ^{PG} || [25] πρῶτον ὀρέγεσθαι corr. Diels (cf. infra [I. 29] δευτέραν): μόνον ὀρέγεσθαι ^{PB} Mau Von Staden Lachenaud Jas (in ^{PB}): προορέγεσθαι sive προσορέγεσθαι ^{PG}, emend. πρῶτον ὀρέγεσθαι Jas: *begehrt und verlangt* Q ('Doppelübersezung'): om. πρῶτον sive μόνον ^{PQ} || [26–27] δὲ ... πνεύμονος om. ^{PB(1)} (sed δὲ ... πνεύματος non recte Diels) || [26] εἴτα ... τᾶλλα ^{PB(11)Q(ut vid.)} prob. Mau Lachenaud: εἴτα δὴ τὰ ἄλλα ^{PB(11)}: non hab. ^{PG}: del. Diels Von Staden de quo dub. Mau ('fort. recte'): post τᾶλλα verbum ἐνεργεῖν olim add. Beck || οὖν ^{PG} add. Diels prob. Mau Von Staden: om. ^{PB} || [27] πνεύμονος ^{PB(1,11)}: om. ^{P(1)} || πνεύματος || πνεύμονος ^{PB(11)}

πληρώσεως τῆς θύραθεν γινομένης ἐφέλκεται· παρακειμένως δὲ διὰ τὴν
 δευτέραν ὄρεξιν ἐφ' αὐτὸν ὁ θώραξ τὸ πνεῦμα μετοχετεύει, πληρωθεὶς
 δὲ καὶ μηκέτι ἐφέλκεσθαι δυνάμενος πάλιν εἰς τὸν πνεύμονα τὸ 30
 περιττὸν ἀντιμεταρρεῖ, δι' οὗ πρὸς τὰ ἐκτὸς τὰ τῆς ἀποκρίσεως γίνεται,
 τῶν σωματικῶν μερῶν ἀντιπασχόντων ἀλλήλοις. ὅτε μὲν γὰρ διαστολὴ
 〈ὅτε δὲ συστολὴ〉 γίνεται πνεύμονος, ταῖς ἀλλήλων ἀντιμεταλήψεσι
 πληρώσεως τε καὶ κενώσεως γινομένης, ὡς τέσσαρας μὲν γίνεσθαι 35
 κινήσεις περὶ τὸν πνεύμονα, τὴν μὲν πρώτην καθ' ἣν ἔξωθεν ἀέρα
 δέχεται, τὴν δὲ δευτέραν καθ' ἣν τοῦθ' ὅπερ ἐδέξατο θύραθεν ἐντὸς
 αὐτοῦ πρὸς τὸν θώρακα μεταρρεῖ, τὴν δὲ τρίτην καθ' ἣν τὸ ἀπὸ τοῦ
 θώρακος συστελλόμενον αὐθις εἰς αὐτὸν ἐκδέχεται, τὴν δὲ τετάρτην
 καθ' ἣν τὸ ἐξ ὑποστροφῆς ἐν αὐτῷ γινόμενον θύραζε ἐξεραῖ. τούτων δὲ 40
 τῶν κινήσεων δύο μὲν εἶναι διαστολάς, τὴν τ' ἔξωθεν τὴν τ' ἀπὸ τοῦ
 θώρακος· δύο δὲ συστολάς, τὴν μὲν ὅταν ὁ θώραξ ἐφ' αὐτὸν τὸ πνευμα-
 τικὸν ἐλκύσῃ, τὴν δ' ὅταν αὐτὸς εἰς τὸν ἐκτὸς ἀέρα ἀποκρίνη· δύο γὰρ
 μόναι γίνονται περὶ τὸν θώρακα, διαστολὴ μὲν ὅταν ἀπὸ τοῦ πνεύμονος
 ἐφέλκεται, συστολὴ δ' ὅταν τούτω πάλιν ἀνταποδιδῷ. (P3)

[28] θύραθεν P^B : ἔξωθεν P^G : *durch die Pforten* Q || ἐφέλκεται P^B prob. Diels Von Staden : ἐφέλ-
 κεσθαι P^G : ἐφέλκεται crucif. Mau qui conī. sive 〈ἐπειδὴν μηκέτι〉 ἐφέλκεται sive παύεται quod
 'fort. recte' sec. Von Staden : 〈μηκέτι〉 ἐφέλκεσθαι conī. Lachenaud || ἐφέλκεται· παρακειμέ-
 νως P^B : *wird all das herbeigezogen, was auf sie stößt* Q || [28–30] παρακειμένως ... πάλιν) μὴ
 δυνάμενον P^G || [28–29] παρακειμένως ... ὄρεξιν P^B prob. Diels Von Staden Lachenaud : secl.
 Mau quia glossema et 'absque dubio spuria' || [28] περιέκμενος conī. Mau in app. || [29] ἐφ'
 αὐτὸν Diels prob. Mau : ἐφ' ἐαυτὸν P^{B(II)} : ἐπ' αὐτὸν P^{B(II,III)} || ἐφ' ... μετοχετεύει P^B : *bringt
 dicht aneinander, ein Teil zum anderen, sodaß das Pneuma ausgepreßt wird* Q || μετοχετεύει
 P^{B(II)} : μετοχετεύων P^{B(II,III)} || [29–31] πληρωθεὶς ... γίνεται P^{BQ} : al. P^G εἰς τὸν θώρακα τὸ περιτ-
 τὸν ἀναπέμπει, τὸν δὲ εἰς τὸν ἔξωθεν ἀέρα ἀπωθεῖν || [30–31] πάλιν ... ἀντιμεταρρεῖ P^B : om.
 P^Q || [30] ἀντιμεταρρεῖ P^B prob. Diels Mau Von Staden : ἀντιμετερεῖ conī. Bernardakis prob.
 Lachenaud conl. infra [I. 39] ἐξεραῖ || [31] τὰ ... ἀποκρίσεως P^B : *was in ihr zurückgeblieben
 war* Q || [32] ἀντιπασχόντων ἀλλήλοις P^B : *sind einander gleich, wenn eins von ihnen ein Reiz
 empfängt* Q || ὅτε ... διαστολὴ P^B : *wenn sich die Brust ausdehnt* Q || [33] 〈ὅτε δὲ συστολὴ〉
 add. Diels prob. Mau Von Staden, cf. *zieht sich die Brust zusammen* Q || πνεύμονος] πνεύμα-
 τος P^{B(II)} || ταῖς ... ἀντιμεταλήψεσι P^B : *dabei sind sie einander in der Funktion gleich; jedes
 einzelne (kann) die Stelle des anderen einnehmen* Q || [36] θύραθεν P^B : *durch die Eingänge*
 Q || [37] αὐτοῦ edd. : αὐτοῦ P^B || μεταρρεῖ] μεταρρεῖν P^{B(II)} || [38] αὐτὸν corr. Reiske Diels prob.
 Mau Von Staden : αὐτὸν P^{B(II,III)} : τὸν αὐτὸν P^{B(II)} || post τετάρτην add. καὶ P^{B(II,III)} || [39] γινόμε-
 νον P^{B(III)} prob. Diels Von Staden : γινόμενον P^{B(II,III)} || [41] ὁ om. P^{B(II)} || ἐφ' αὐτὸν corr. Diels
 conl. ἐφ' αὐτὸν *supra* [I. 29] prob. Mau Von Staden : ὑπ' αὐτὸν P^{B(II,III)} : ὑπ' αὐτο P^{B(II)} || [41–
 42] ἐφ' ... πνευματικὸν P^B : *die Brust aus der Lunge* Q || [42] ἐκτὸς] κόλπον P^{B(III)} || [44] τούτω
 corr. Diels prob. Mau Von Staden : ταῦτο P^{B(II,III)}, αὐτὸ P^{B(III)}

Testes primi:

Traditio ps.Plutarchi:

Papyrus fr. 5 verso (~ P §3[42–44])

- τη]ν δε [οταν αὐτ]ος
 εις τον εκτος αερα αποκριν]η δυ[ο γαρ μον]αι
 γινονται περι τον θωρακα] διαστολη μεν
 οταν απο του πνευμονος ε]φελκηται συσ
 5 τολη δε οταν τουτω παλιν αν]ταποδιδω
 continuat caput 23

ps.Galenus *HPh* c. 103 (~ tit.) Περὶ ἀναπνοῆς (text Jas)

- 103.1 (~ P2) Ἀσκληπιάδης αἰτίαν τῆς ἀναπνοῆς εἶναί φησι τὴν ἐν τῷ θώρακι λεπτομέρειαν, πρὸς ἣν τὸν ἔξωθεν ἀέρα ρεῖν τε καὶ καθαίρεσθαι παχυμερῆ ὄντα, πάλιν δὲ ἀπωθεῖσθαι μηκέτι τοῦ θώρακος τοιοῦτόν τι ὑποστέγοντος. ὑπολειπομένου δέ τινος ἐν τῷ σώματι ὑπὸ λεπτομεροῦς αἰεὶ βραχέος (οὐ γὰρ ἅπαν ἐκκρίνεσθαι) καὶ πρὸς τοῦτο πάλιν τὸ ὑποκείμενον ἢ βαρύτερης τοῦ ἐκτὸς ἀντεπιφέρεται ταῦτα δὲ σικύαις ἀπεικάζει. τὴν δὲ κατὰ προαίρεσιν ἀναπνοὴν γίνεσθαι φησι συναγομένων τῶν ἐν τῷ πνεύμονι πόρων· ταῦτα γὰρ τῇ ἡμετέρᾳ προαιρέσει ὑπακούειν.
- 103.2 (~ P3) Ἡρόφιλος δὲ δύνάμιν ἀπολείπει περὶ τὰ σώματα κινητικὴν ἐν νευροῖς καὶ ἐν ἀρτηρίαις καὶ μυσὶ· τὸν οὖν πνεύμονα νομίζει πρῶτον ὀρέγεσθαι διαστολῆς τε καὶ συστολῆς φυσικῶς. ἐνέργειαν μὲν οὖν εἶναι τοῦ πνεύμονος τὴν ἔξωθεν τοῦ πνεύματος ὀλκὴν, ὑπὸ δὲ τῆς πληρώσεως τῆς ἔξωθεν γιγνομένης ἐφέλκεσθαι μὴ δυνάμενον εἰς τὸν θώρακα τὸ περιττὸν ἀναπέμπειν, τὸν δὲ εἰς τὸν ἔξωθεν ἀέρα ἀπωθεῖν.

Testes secundi:

Nemesius c. 28, p. 89.18 (~ tit.) Περὶ ἀναπνοῆς

Loci Aetiani:

- §1 A 5.15.3 Ἐμπεδοκλῆς μὴ εἶναι μὲν ζῶον τὸ ἔμβρυον ἀλλ' ἄπνουν ὑπάρχειν ἐν τῇ γαστρὶ· πρῶτην δ' ἀναπνοὴν τοῦ ζῶου γίνεσθαι κατὰ τὴν ἀποκύησιν, τῆς μὲν ἐν τοῖς βρέφεσιν ὑγρασίας ἀποχώρησιν λαμβανούσης, πρὸς δὲ τὸ παρακενωθὲν ἐπεισόδου τοῦ ἐκτὸς ἀερώδους γινομένης εἰς τὰ παρανοιχθέντα τῶν ἀγγείων.
- §3 A 5.15.5 Ἡρόφιλος κίνησιν ἀπολείπει φυσικὴν τοῖς ἐμβρύοις, οὐ πνευματικὴν· τῆς δὲ κινήσεως αἷτια νεύρα· τότε δὲ ζῶα γίνεσθαι, ὅταν προχυθέντα προσλάβῃ τι τοῦ ἀέρος.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The witnesses for P are P^B, P^G, P^Q, and the five mutilated last lines of the chapter in P^P. Apart from the chapter heading listed in the index of S^L and the quotation of the heading in Photius' index S is again lost. This text clearly was too difficult for P^Q, whose translation is not good, while P^G is again incomplete and much abridged. Yet several readings that differ from those of P^B are worth accepting, see below, section D(d).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The proximate tradition is virtually limited to the passage from Galen's *De utilitate respirationis* cited below section E(a)§2. In the *traditio proxima* represented by Nem we are informed about the discussion concerning the causes of respiration as being either physical or psychic (or both). See Nem *NH* c. 28, p. 90.9–15 (in the chapter titled 'On Respiration'): 'so on account of this necessity the soul is active in this part no less when we are asleep, since it knows that if it should slacken even for a very short time the living being would perish. So here again the natural is implicated with the domain of the soul: for it is through an artery [i.e. the windpipe], a natural organ that is in continual motion, that (the soul) creates the activity of breathing, so that its task should never fail, nor that of the other arteries. For this reason some who did not understand have thought breathing to be a purely natural function' (tr. Sharples–Van der Eijk). Among those 'some' we may presumably count Empedocles and Herophilus. Nem, who is here much influenced by Galen, begins the chapter at p. 89.19 by stating the Galenic view that 'respiration belongs with the activities of the soul' (ἡ ἀναπνοὴ δὲ τῶν ψυχικῶν ἐστὶν ἔργων).

(2) *Sources.* Perhaps Aristotle is more important here than Theophrastus, see Baltussen (1993) 219. In the *De respiratione* Aristotle states (1 470b6–7) that only a few of his predecessors have discussed respiration (περὶ γὰρ ἀναπνοῆς ὀλίγοι μὲν τινες τῶν πρότερον φυσικῶν εἰρήκασιν). He discusses Empedocles at length (ch. 7). P's account of breathing differs from Aristotle's in that the Stagiritic does not deal with the respiration of the first living being (born from the earth). But his brief account of respiration as it happens now describes the same process as Aristotle, and like Aristotle he refers to the clepsydra, though he does not quote the famous fr. 31B100DK (quoted below section E(b)§1). Aristotle also discusses Democritus, Anaxagoras, Diogenes and the *Timaeus* (2 470b28–471a5, 3 471b15–17, 4 471b30–472a16, 5 472b6–473a2), though more briefly than Empedocles. All these others are absent from P, who instead has the Hellenistic doctors Hero-

philus and Asclepiades, who of course are not in Aristotle. Cf. Althoff (1999) 78–85. It is clear that compared with Aristotle and Galen the collection of doxai in P (we do not know about A) is quite limited. Even Aristotle's own view is lacking.

C Chapter Heading

Of the standard umbrella type *περὶ τοῦ δεῖναι* (cf. ch. 1.1 Commentary C), and found in both P and S. It is paralleled as the title of one of Aristotle's *opera minora*, the *De respiratione*—see also his cross-reference at *PA* 4.13 669a4–5 *καθάπερ εἴρηται ἐν τοῖς Περὶ ἀναπνοῆς*—and of a work of Asclepiades. See further e.g. the Galenic variations *Περὶ χρείας ἀναπνοῆς* (*De utilitate respirationis*) and *Περὶ τῶν τῆς ἀναπνοῆς αἰτίων δύο* (*De causis respirationis*). The main question type is that of cause, while the categories of place and action and passion, and (in §1) that of time also play a part.

D Analysis

a Context

The chapter follows on as a sort of appendix after the chapters on the perceptions and the senses and sense data, and comes directly after ch. 4.21, which, as we have noted, provides a supplementary and to some extent alternative detailed account of perception and the regent part. At the end of this chapter, 4.21[16–19], the 'vocal part' (*φωνητικόν*) of the soul is described as 'a *pneuma* stretching from the ruling part to the trachea and tongue and its appropriate organs'. That speech and respiration are connected is clearly presupposed here. See e.g. Galen *AA* 2.675.7–8 K, 'exhalation, without which voice cannot be generated' (quoted section E(b) General texts); useful overview in Baumgarten (1962) 173–195. A pseudo-Galenic treatise 'On Voice and Respiration' is extant in a Latin translation, presumably from the Arabic (*De voce et anhelitu*, ed. Baumgarten 1962). Respiration, as we noticed above at section B(2), is the theme of one of Aristotle's *Parva naturalia*, which constitute an appendix to the *De anima*. The present chapter is followed by ch. 4.23 on the issue of the impact, or not, of bodily discomfort on the soul. Respiration concerns both body and soul: it is quasi-automatic but can be influenced by the will (see §2 and below, section D(c)).

b Number–Order of Lemmata

P^{BQ} have three lemmata, of which P^G omits the first. P may have left out other tenets (e.g. one for Diocles, a name-label relatively often found in A), see the dialectical passage from the first chapter of Galen's *De utilitate respirationis* quoted below at section E(a)§2; and above section B as well as

below section E(b) General texts for the names mentioned in Aristotle's *De respiratione*. The order of A's lemmata is not chronological: Herophilus, not Asclepiades, comes last. This may be explained by the fact that from one lemma to the next the mechanics of respiration, though similar, become more complicated and detailed. Yet from a systematic point of view the sequence is not entirely satisfactory, because §2 Asclepiades (also voluntary respiration) is in part opposed to §1 Empedocles and §3 Herophilus (only mechanical respiration), so would have been in an equally defensible position at the end; see below at section D(c). Diaeresis here apparently prevails over diaphonia.

c Rationale–Structure of Chapter

In P's text of the present chapter of A we have physico-mechanical explanations of respiration in §1 and §3, and also for the most part in §2. The not very strong diaphonia is between §§1 and 3 on the one hand and §2 on the other. §1 Empedocles and §3 Herophilus hold that respiration is caused by internal and external physical and mechanical factors. §2 Asclepiades agrees that respiration is caused by internal and external physical and mechanical factors, but adds that it can also be *voluntary*, that is, obviously, that it can also be caused by the *soul* (which, as we may recall, is the 'common exercising of the senses' according to the Asclepiades lemma ch. 4.2.8). For the distinction between physical and psychic, i.e. voluntary movements see Galen *Mot.Musc.* 4.372.13–17 K., τῶν κινήσεων αἱ μὲν ἀρτηρίας τε καὶ φλεβὸς φυσικαί τε καὶ χωρὶς ὀρμῆς, αἱ δὲ τῶν μυῶν ψυχικαί τε καὶ μεθ' ὀρμῆς ... εἴτε δὲ μετὰ προαιρέσεως λέγοις τὰς τῶν μυῶν γίνεσθαι κινήσεις, ἢ ἐκουσίως, ἢ μετὰ βουλήσεως, οὐδὲν διοίσει. For an argument that respiration is (also) voluntary see *ibid.* 442.2–443.4 K. Yet the overall emphasis on the mechanical aspect of respiration in the present chapter is to some extent out of tune with the general scope of Book 4.2–21, with its detailed account of the soul and of its predominant role in natural processes. We should take P's interest in specifically physiological and medical tenets into account, which becomes very clear in the next book, *ubi vide* (see also Runia 1999a, repr. M–R 3.515–575).

d Further Comments

General Points

This is one of the longest chapters in the *Placita*, presumably because the processes that are described are very complicated and so very hard to abridge (as can be seen in G's efforts).

Individual Points

§1 A's interpretation of the Empedoclean mechanics (primary role of the blood) is very similar to that advocated by Rashed (2008). The (first) respiration of the primeval living being born from the earth is described in literally the same terms as that of today's new-born infant at ch. 5.15.3, a striking repetition which we seldom find in (P at) A. See below, ch. 5.15.3, Commentary D(c)(3)). Diels should not have followed Karsten in bracketing *πρώτου*. For a similar contrast and comparison between what happens at cosmogony with what happens now, see below, ch. 5.7.1–2 as different from the paragraphs that follow, and ch. 5.18.1 as different from the paragraphs that follow.

§2 This passage is lacking in Furley–Wilkie (1984). We should accept PG's *καθαίρεσθαι* instead of PB's *φέρεισθαι* in §2[16]. It is hard to believe that *φέρεισθαι* could be corrupted into or misread as *καθαίρεσθαι*, while *φέρεισθαι* instead of *καθαίρεσθαι* is easily explained as a case of *perseveratio*. *καθαίρεσθαι* makes sense: the heavy-particled outside air is 'cleansed' before joining the fine-particled air that is inside. PG's *καθαίρεσθαι* is moreover supported by PQ's formula *schlecht wird*, a failed translation not of *φέρεισθαι* but of *καθαίρεσθαι* (misread as *καθαίρεισθαι*), so here we have both PG and PQ against PB. A juncture of two virtually synonymous verbs of course also fails to satisfy the doxographical standard of brevity.

§3 Diels' correction of *πρώτον* for *μόνον*, inspired by the odd compositum *προορέγεσθαι* in a ms. of PG, is worth accepting.

e Other Evidence

Respiration is dealt with *inter alia* in Plato *Tim.* 77e–79a, in Aristotle's *De respiratione*, in *Probl.* 34.7–8 and 34.11–12, in ps.Aristotle *De spiritu*, and in no less than three works of Galen: *De utilitate respirationis* (*Περὶ χρείας ἀναπνοῆς*), *De causis respirationis* (*Περὶ τῶν τῆς ἀναπνοῆς αἰτιῶν*) and *De difficultate respirationis* (*Περὶ δυσπνοίας*). According to Aristotle respiration is not voluntary, while according to Galen it is voluntary, and without even mentioning Aristotle in this context he calls those who favour the mechanical explanation 'sophists'. In his medical Encyclopedia *Kulliyat* (lat. *Colliget*) Averroes discussed various views, and argues for the most part in favour of Aristotle against Galen, see Bürgel (1967).

E Further Related Texts

a Proximate Tradition

General texts: ps.Galen *Def.Med.* 19.375.5–15 K. ρη'. ἀναπνοή ἐστὶ κίνησις θώρακος καὶ πνεύμονος. μέρη δὲ αὐτῆς εἰσι δύο, εἰσπνοὴ καὶ ἐκπνοή. ἢ οὕτως. ἀναπνοὴ ἐστὶν ὅλην ἀέρος διὰ στόματος καὶ μυκτῆρων εἰς ἐγκέφαλον καὶ διὰ φάρυγγος καὶ

πνεύμονος εἰς καρδίαν· πάρεισι δέ τοι καὶ εἰς τὴν κοιλίαν. καὶ ἐκ τοῦ ληφθέντος πάλιν ὀλίγη τις ἀνταπόδοσις εἰς τὸ περιέχον γίνεται. ρθ'. διαπνοὴ ἐστὶν ὁλκὴ ἀέρος ἀπροαίρετος ὑπὸ τοῦ φυσικοῦ θερμοῦ διὰ τῆς ἐπιφανείας ἅμα τοῖς συναπερχομένοις αὐτοῦ σώματος γινομένη. ἐτέρως. διαπνοὴ ἐστὶν ἐκ τοῦ σώματος ὁλκὴ ἀέρος μετ' ὀρέξεως φυσικῆς δι' ὅλου τοῦ σώματος καὶ πάλιν δι' ἐξόδων ἀπόκρισις. **Galen** *Inst. Log.* 13.9 κατὰ δὲ τὸ ποιεῖν καὶ πάσχειν αἱ τῶν αἰτίων γίνονται ζητήσεις· ἐν ἱατρικῇ μὲν οὖν ἐ(κ) τίνος αἰτίας γίνονται φωνὴ καὶ ἀναπνοὴ κτλ.

§2 Asclepiades: **Galen** *Ut. Resp.* c. 2, 4.471.2–8 K. τί ποτ' οὖν τηλικούτον ἐστὶ τὸ παρὰ τῆς ἀναπνοῆς ἡμῖν χρηστόν; ἀρὰ γε τῆς ψυχῆς αὐτῆς γένεσις, ὡς Ἀσκληπιάδης (cf. Vallance *ANRW* 2.37.1, p. 721) φησὶν; ἢ γένεσις μὲν οὐχί, θρέψις δέ τις, ὡς ὁ τοῦ Νικάρχου Πραξαγόρας (fr. 32 Steckerl); ἢ τῆς ἐμφύτου θερμότητος ἀνάψυξις τις, ὡς Φιλιστίων (fr. 6 Wellmann) τε καὶ Διοκλῆς (fr. 31 Van der Eijk) ἔλεγον; ἢ καὶ θρέψις καὶ ἔμψυξις, ὡς Ἱπποκράτης; ἢ τούτων μὲν οὐδὲν, ἐπιπληρώσεως δ' ἔνεκεν ἀρτηριῶν ἀναπνέομεν, ὡς Ἐρασίστρατος (fr. 99 Garofalo) οἶεται; **Calcidius** in *Tim.* c. 214 *spiritus quippe, ut ipsi* (sc. qui dividuam fore silvae substantiam censuerunt interponentes immense inani modo expertia modo partes quidem, sed indifferentes, sui similes, tum atomos vel solidas moles) *asseverant, per fauces ad pulmonem commeans in respiratione attenuatus ad cordis sedem facit transitum* etc.

b Sources and Other Parallel Texts

General texts: **Aristotle** *Resp.* 1 470b6–9 περὶ γὰρ ἀναπνοῆς ὀλίγοι μὲν τινες τῶν πρότερον φυσικῶν εἰρήκασιν· τίνος μέντοι χάριν ὑπάρχει τοῖς ζώοις, οἱ μὲν οὐδὲν ἀπεφήναντο, οἱ δὲ εἰρήκασιν μὲν, οὐ καλῶς δ' εἰρήκασιν ἄλλ'. ἀπειροτέρως τῶν συμβαινόντων. *Resp.* 2 470b28–471a5 Δημόκριτος μὲν οὖν ὁ Ἀβδηρίτης (fr. 464 Luria) καὶ τινες ἄλλοι τῶν περὶ τῆς ἀναπνοῆς εἰρηκότων οὐδὲν περὶ τῶν ἄλλων διωρίσκειν ζῶων, εἰσὶ καὶ μέντοι λέγειν ὡς πάντων ἀναπνεόντων· Ἀναξαγόρας (59A115) δὲ καὶ Διογένης, πάντα φάσκοντες ἀναπνεῖν, περὶ τῶν ἰχθύων καὶ τῶν ὀστρέων λέγουσι τίνα τρόπον ἀναπνέουσιν, καὶ φησιν Ἀναξαγόρας μὲν, ὅταν ἀφώσι τὸ ὕδωρ διὰ τῶν βραγχίων, τὸν ἐν τῷ στόματι γινόμενον ἀέρα ἔλκοντας ἀναπνεῖν τοὺς ἰχθύς· οὐ γὰρ εἶναι κενὸν οὐδέν· Διογένης (64A31 DK) δ' ὅταν ἀφώσι τὸ ὕδωρ διὰ τῶν βραγχίων, ἐκ τοῦ περὶ τὸ στόμα περιεστώτος ὕδατος ἔλκειν τῷ κενῷ τῷ ἐν τῷ στόματι τὸν ἀέρα, ὡς ἐνόντος ἐν τῷ ὕδατι ἀέρος. *Resp.* 4 471b30–472a2 Δημόκριτος (68A106 DK) δ' ὅτι μὲν ἐκ τῆς ἀναπνοῆς συμβαίνει τι τοῖς ἀναπνέουσιν λέγει, φάσκων κωλύειν ἐκθλίβεσθαι τὴν ψυχὴν· οὐ μέντοι ὡς τούτου γ' ἔνεκα ποιήσασαν τοῦτο τὴν φύσιν οὐθὲν εἴρηκεν· ὅλως γὰρ ὥσπερ καὶ οἱ ἄλλοι φυσικοί, καὶ οὗτος οὐθὲν ἄπτεται τῆς τοιαύτης αἰτίας. **MA** 11 703b5–11 λέγω δ' ἀκουσίους (sc. κινήσεις) μὲν οἶον τὴν τῆς καρδίας τε καὶ τὴν τοῦ αἰδοῦ (πολλάκις γὰρ φανέντος τινός, οὐ μέντοι κελεύσαντος τοῦ νοῦ κινεῖνται), οὐχ ἐκουσίους δ' οἶον ὕπνον καὶ ἐγρήγορσιν καὶ ἀναπνοήν, καὶ ὅσαι ἄλλαι τοιαυταὶ εἰσιν. οὐθενὸς γὰρ τούτων κυρία ἀπλῶς ἐστὶν οὐθ' ἢ φαντασία οὐθ' ἢ ὄρεξις. **ps.Aristotle** *Spir.* 3 482a28–32 περὶ δὲ ἀναπνοῆς οἱ μὲν οὐ λέγουσι τίνος χάριν, ἀλλὰ μόνον ὅν τρόπον γίνεται, καθάπερ Ἐμπεδοκλῆς (—) καὶ Δημόκριτος (fr. 463 Luria). οἱ δ' οὐδὲ τὸν τρόπον ὅλως λέγουσιν, ἀλλ' ὡς φανερῶ χρώνται. δεῖ δὲ καὶ εἰ καταψύξεως χάριν, αὐτὸ τοῦτο διασαφῆσαι. **Galen** *AA* 2.675.7–8 (*De voc. test.* 32 Baumgarten)

ἐκφύσησιν, ἥς χωρὶς οὐχ οἶόν τε γενέσθαι φωνήν. *Caus.Resp.* c. 1, 4.465.7–466.9 K. ὄντων δὲ τριῶν κατὰ γένος, ὡς τύπῳ φάναι, τῶν αἰτίων τῆς ἀναπνοῆς, δυνάμεως προαιρετικῆς, ὀργάνων τῶν ὑπηρετουμένων τῇ προαιρέσει, καὶ πὶ τούτοις τῆς χρείας, δι' ἣν καὶ τῶν προκειμένων αἰτίων δεόμεθα, ἡ μὲν χρεία τὸ κυριώτατόν ἐστι τῶν τῆς ἀναπνοῆς αἰτίων, τηροῦσα μὲν τὴν συμμετρίαν τῆς ἐμφύτου θερμασίας, τρέφουσα δὲ τὴν οὐσίαν τοῦ ψυχικοῦ πνεύματος· ἡ προαίρεσις δὲ διατάττει καὶ οἶον ῥυθμίζει τὰς ἀναπνευστικὰς ἐνεργείας· τὸ γε μὴν τῶν ὀργάνων εἶδος πολυσχιδὲς καὶ πολὺτροπὸν τι καθέστηκε. τὰ μὲν γὰρ τῇ παρακομιδῇ τοῦ πνεύματος ἀνάγκηται· τὰ δ' ὑποδέχεται τὸν ἀέρα· τὰ δὲ τούτων ἐστὶ κινητικὰ τῶν κινούντων. κτλ. *Diff.Resp.* 7.827.4–7 ὅσοι δ' οὐ δύνανται τῶν σοφιστῶν εἰπεῖν αὐτοῦ τὴν αἰτίαν, οὗτοι δ' εἰσιν, ὡς ἔμπροσθεν ἐδείξαμεν, οἱ τὴν ἀναπνοὴν ἀπροαίρετόν τε καὶ φυσικὸν ἔργον ὑπειληφότες. *Inst.Log.* 13.9–10 κατὰ δὲ τὸ ποιεῖν καὶ πάσχειν αἱ τῶν αἰτίων γίγνονται ζητήσεις· ἐν ἱατρικῇ μὲν οὖν ἐ(κ) τίνος αἰτίας γίγνονται φωνῇ καὶ ἀναπνοῇ καὶ θρέψις (καὶ) πέψις. *Mot.Dub.* c. 2.5–6 + c. 2.11–13, pp. 128.13–21 + 130.3–12 Nutton–Bos *utrum autem musculis sicut in aliis particulisque secundum impetum moventur fiant motus hii, vel secundum alium modum sit decens fieri, in dissonantiam constitutum est, quibusdam quidem naturale opus esse sicut pulsu{u}m arteriarum et cordi; quibusdam autem electivum sicut et mixtam esse respirationem enuntiantibus.* (6) *sed hec quidem scrutatio logicae artis est magis. ...* (11) *et nervos quidem qui movent predictos musculos assumens hamo absque quod perforarem thoracem, immobilem eum effici multotiens ostendi et docui amicos ut similiter sicut ego ostendant.* (12) *et hii (qui) actum electivum putant esse respirationem, maxime apparuit hoc esse indicium opinionis eorum: immobilis enim fit thorax confestim et animal mox moritur curvatum quidem quia desiderans inspirare, nec potens autem movere thoracem.* (13) *horum igitur singulum illi qui ante me post antiquos invenerunt, ego autem ultra eos superadinveni.*

Chapter heading: Aristotle *Resp.* Περὶ ἀναπνοῆς. **ps.Aristotle *Spir.*** 3 482a28 περὶ δὲ ἀναπνοῆς. **Galen *Ord.Lib.Prop.*** c. 2.7, 19.55.11 K. δὺο δὲ Περὶ τῶν τῆς ἀναπνοῆς αἰτίων. ***Libr.Propr.*** c. 5.1, p. 154.20–21 Boudon–Millot ἄλλα δὲ δύο Περὶ τῶν τῆς ἀναπνοῆς αἰτίων. **Marcellinus I *Puls.*** l. 78 Schöne Ἀσκληπιάδης (cf. Vallance *ANRW* 2.37.1, p. 723) δὲ ἐν τῷ Περὶ ἀναπνοῆς αὐτοῦ συντάγματι κτλ.

§1 Empedocles: Empedocles 31B100 DK at Arist. *Resp.* 7 473b9–474a6 ὦδε δ' ἀναπνεῖ πάντα καὶ ἐκπνεῖ· πᾶσι λίφαιμοι / σαρκῶν σύριγγες πύματον κατὰ σῶμα τέτανται, / καὶ σφιν ἐπὶ στομίοις πυκιναῖς τέτρηνται ἄλλοξιν / ῥίνων ἔσχατα τέρθρα διαμπερές, ὥστε φόνον μὲν / κεῦθειν, αἰθέρι δ' εὐπορίην διόδοισι τετμήσθαι. / ἔνθεν ἔπειθ' ὁπόταν μὲν ἀπαῖξῃ τέρεν αἷμα, / αἰθήρ παφλάζων καταΐσσεται οἷδαμι μάργωι, / εὐτε δ' ἀναθρόωσκη, πάλιν ἐκπνέει, ὥσπερ ὅταν παίς / κλεψύδρῃ παίζουσα διειπετέος χαλκοῖο—/ εὐτε μὲν αὐλοῦ πορθμὸν ἐπ' εὐειδεῖ χερὶ θείσῃ / εἰς ὕδατος βᾶπτῃσι τέρεν δέμας ἀργυφέοιο, / οὐδεὶς ἄγχοσδ' ὄμβρος ἐσέρχεται, ἀλλὰ μιν εἵργει / ἄερος ὄγκος ἔσωθε πεσὼν ἐπὶ τρήματα πυκνά, / εἰσόκ' ἀποστεγάσῃ πυκινὸν ῥόον· αὐτὰρ ἔπειτα / πνεύματος ἐλλείποντος ἐσέρχεται αἵσιμον ὕδωρ. / ὥς δ' αὐτως, θθ' ὕδωρ μὲν ἔχῃ κατὰ βένθεα χαλκοῦ / πορθμοῦ χωσθέντος βροτέφω χροῖ ἡδὲ πόροιο,— αἰθήρ δ' ἐκτὸς ἔσω λελημένος ὄμβρον ἐρύκει, / ἀμφὶ πύλας ἡθμοῖο δυσσηχέος ἄκρα κρατύνων, / εἰσόκε χειρὶ μεθῇ, τότε δ' αὖ πάλιν, ἔμπαλιν ἢ πρίν, / πνεύματος ἐμπί-

πτοντος ὑπεκθέει αἷσιμον ὕδωρ. / ὥς δ' αὐτως τέρεν αἶμα κλαδασσόμενον διὰ γυίων / ὅππότε μὲν παλίνροσον ἀπαΐξειε μυχόνδε, / αἰθέρος εὐθύς ρεῦμα κατέρχεται οἴδατι θύον, / εὖτε δ' ἀναθρώσκηι, πάλιν ἐκπνέει ἴσον ὀπίσσω. **Aristotle Resp.** 7 473a15–b8 λέγει δὲ περὶ ἀναπνοῆς καὶ Ἐμπεδοκλῆς (on 31B100 DK), οὐ μέντοι τίνος γ' ἔνεκα, οὐδὲ περὶ πάντων τῶν ζώων οὐδὲν ποιεῖ δηλον, εἴτε ἀναπνεύουσιν εἴτε μὴ. καὶ περὶ τῆς διὰ τῶν μυκτῆρων ἀναπνοῆς λέγων οἶεται καὶ περὶ τῆς κυρίας λέγειν ἀναπνοῆς. ... γίγνεσθαι δέ φησι τὴν ἀναπνοὴν καὶ ἐκπνοὴν διὰ τὸ φλέβας εἶναι τινὰς ἐν αἷς ἔνεστι μὲν αἶμα, οὐ μέντοι πλήρεις εἰσὶν αἵματος, ἔχουσι δὲ πόρους εἰς τὸν ἔξω ἀέρα, τῶν μὲν τοῦ σώματος μορίων ἐλάττους, τῶν δὲ τοῦ ἀέρος μείζους· διὸ τοῦ αἵματος πεφυκότος κινεῖσθαι ἄνω καὶ κάτω, κάτω μὲν φερομένου εἰσρεῖν τὸν ἀέρα καὶ γίγνεσθαι ἀναπνοὴν, ἄνω δ' ἰόντος ἐκπίπτειν θύραζε καὶ γίνεσθαι τὴν ἐκπνοὴν, παρεικάζων τὸ συμβαίνον ταῖς κλεψύδραις. **Theophrastus Sens.** 9 (on Empedocles, 31A86 DK) ὁσφρησιν δὲ γίνεσθαι τῇ ἀναπνοῇ· διὸ καὶ μάλιστα ὁσφραίνεσθαι τούτους, οἷς σφοδρότατῃ τοῦ ἄσθματος ἡ κίνησις. **Sens.** 22 (Empedocles 31A86 DK) οὐ γὰρ ἴσως καθ' αὐτὸ τὸ ἀναπνεῖν αἴτιον τῆς ὁσφρήσεως, ἀλλὰ κατὰ συμβεβηκός, ὡς ἔκ τε τῶν ἄλλων ζώων μαρτυρεῖται καὶ διὰ τῶν εἰρημένων παθῶν· ὁ δ' ὡς ταύτης οὕσης τῆς αἰτίας καὶ ἐπὶ τέλει πάλιν εἴρηκεν ὥσπερ ἐπισημαινόμενος (31B102 DK) ὥδε μὲν οὖν ποιήσῃς τε λελόγχασι πάντα καὶ ὁσμῶν'. **Demetrius Laco Apor. Test.** (PHerc. 1012) col. lxxv.1–14 Puglia λέγει γὰρ Ἐμπεδοκλῆς (—), τὴν | ἀναπνοὴν αἰτιολογῶν τὴν | ἀνθρώπων τῶν καθ' ἑαυτὸν· | ὥδε δ' ἀναπνήρουσι καὶ ἐκ|πνήρουσι λίφαιμοι / σαρκῶν | σήρινγες πύματον κατὰ σῶ|μα τέτανται'. καὶ τὰ κόλου|θα δὲ συνάπτει, δηλὸν ὡς, | ἀναπνοὴν λαμβάνων οὔτε | τὸ ὅλον—ἐπεὶ [π]ῶς ἂν ἀντι|διή(ι)ρει ταύτῃ τὴν [ἐ]κπνο|ήν, μέρος [τῆς] ἀναπ[νοῆς;—οὐ|[τ'] αὐτὴν [τὴν ἐ]κπνοήν, κα|[τ'] ἰδίαν α[ὐτῇ συ]νκαταρι|θμείται [καὶ τὴν εἰσπνοήν.

§2 **Asclepiades: Galen in Epid. iii** 17a.506.3–4 K. εἴ τις Ἀσκληπιάδειον (cf. Vallance *ANRW* 2.37.1, p. 719) ἐξηγοίτο, πόρους καὶ ὄγκους ἀναρμά τε στοιχεῖα καὶ τὴν πρὸς τὸ λεπτομερές φορὰν ἐστὶν αὐτῷ ῥητέον. *in Epid. vi* p. 327.12–13 Wenkebach–Pfaff τινῶν μὲν ἔνεκα γενέσεως πνεύματος ψυχικοῦ (sc. τὰς εἰσπνοὰς γίνεσθαι λεγόντων), καθάπερ Ἀσκληπιάδης (cf. Vallance *ANRW* 2.37.1, p. 719). cf. **Plato Tim.** 78b (image of fish trap with pair of funnels).

§3 **Herophilus: Galen Us. Puls.** c. 4.2, 5.163.14–164.6 K. οἶον γοῦν τι ἢ εἰσπνοῇ τοῖς ἀναπνευστικοῖς ὀργάνοις, τοιοῦτον ἢ διαστολῇ ταῖς ἀρτηρίαις, καὶ οἶον γοῦν τι ἐκείνοις ἢ ἐκπνοῇ, τοιοῦτον ταῖς ἀρτηρίαις ἢ συστολῇ. (Heroph. fr. 154 Von Staden follows:) ταύτης δὲ τῆς διπλῆς καὶ συνθέτου τῶν ἀρτηριῶν κινήσεως, ἣν δὴ καὶ σφυγμὸν ὀνομάζομεν, ἐξηγεῖται μὲν ἡ καρδία, καθάπερ καὶ ἡμῖν ἐν ἐτέροις καὶ μυρίοις ἄλλοις πρὸ ἡμῶν ἀποδεδείκται, οὐ μὴν καθ' ὃν Ἐρασίστρατος (cf. fr. 110 Garofalo) ὑπελάμβανε τρόπον, ἀλλ' ὡς Ἡρόφιλος τε καὶ Ἱπποκράτης, καὶ σχεδὸν οἱ δοκιμώτατοι πάντες τῶν παλαιῶν ἱατρῶν τε καὶ φιλοσόφων.

Liber 4 Caput 23

PP: *Papyrus Antinoopolis* 85 fr. 5 verso p. 78 Barns-Zilliacus—**PB:** ps.Plutarchus *Plac.* 904C; pp. 414^a22–415^a7 Diels—**PG:** ps.Galenus *HPh.* c. 104; p. 639.17–21 Diels—**PQ:** Qustā ibn Lūqā pp. 214–215 Daiber
S: Stobaeus *Ecl.* 1.60, p. 499.17 Wachsmuth (titulus solus); cf. Phot. *Bibl. cod.* 167, p. 112b36 Henry (titulus solus)
Cf. Nem: Nemesius *NH* c. 2, p. 21.6–9, 21.20–22 Morani

Titulus κγ'. Περὶ παθῶν σωματικῶν καὶ εἰ συναλγεί τούτοις ἡ ψυχὴ (P,S)

- §1 οἱ Στωικοὶ τὰ μὲν πάθη ἐν τοῖς πεπονθόσι τόποις, τὰς δὲ αἰσθήσεις ἐν τῷ ἡγεμονικῷ. (P1)
- §2 Ἐπικουρος καὶ τὰ πάθη καὶ τὰς αἰσθήσεις ἐν τοῖς πεπονθόσι τόποις· τὸ γὰρ ἡγεμονικὸν ἀπαθές. (P2)
- §3 Στράτων καὶ τὰ πάθη τῆς ψυχῆς καὶ τὰς αἰσθήσεις ἐν τῷ ἡγεμονικῷ οὐκ ἐν τοῖς πεπονθόσι τόποις συνίστασθαι. ἐν γὰρ ταύτῃ κείσθαι τὴν ὑπομονήν, ὥσπερ ἐπὶ τῶν δεινῶν καὶ ἀλγυνῶν καὶ ὥσπερ ἐπὶ τῶν ἀνδρείων καὶ δειλῶν. (P3)

5

§1 Stoici *SVF* 2.854; §2 Epicurus fr. 317 Usener; §3 Strato fr. 110 Wehrli, 63A Sharples

lemmata non hab. S **titulus** Περὶ ... ψυχῆ ^{PBQ} : περὶ παθῶν σω]ματικῶν ^{PP} : σωματικῶν ... ψυχῇ om. ^{PG} prob. Diels *DG* in app. : Περὶ ἀναπνοῆς (~ tit. c. 4.22) καὶ παθῶν ^{SL-indPhot} || τούτοις ^{PB} : αὐτοῖς ^{PB(I ind.)Q(ut vid.)} : τουτῷ ^{PB(III:E)} §1[2]–§2[4] τὰς δὲ ... τόποις om. ^{PB(II)} §2[4]–§3[6] Ἐπικουρος ... ἡγεμονικῷ : om. ^{PP} per haplographiam §3 [7] συνίστασθαι ^{PBPG} : *zusammen* ... *sind* Q || [7–8] ἐν² ... ὥσπερ lac. hab. ^{PG} || [7] ταύτῃ ^{PBQ} : τούτῳ conii. Zeller || κείσθαι ^{PB(III)} : κινεῖσθαι ^{PB(III)} : *ist* Q || [7–8] ὑπομονήν ^{PPB} : *die Geduld und das Ertragen* Q || [7] ταύτῃ] τούτῳ conii. Zeller, reiec. Diels Sharples || [8–9] καί² ... δειλῶν ^{PBQ} : τὴν ἐνέργειαν ^{PG} : om. ^{PP}, secl. Diels prob. Sharples

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis fr. 5 verso (Barns-Zilliacus 1960, 77, 1967, 182) (P titulus et §§1–3)

- [περι παθων σω]ματικῶν
[οι Στωικοι τα μεν παθ]η εν τοις πεπονθοσι
[τοποις τας δε αισθησεις] εν τω ηγεμονικω ου
[κ εν τοις ποπονθοσι το]ποις συνιστασθαι εν
10 [γαρ ταυτη κεισθαι την υπο]μονην ωσπερ ε
[πι των δεινων και αλγυνων]))——

ps.Galenus HPh c. 104 Περὶ παθῶν (~ tit.) (text Diels)

104.1 (~ P2) Ἐπικουρος τὰ πάθη καὶ τὰς αἰσθήσεις ἐν τοῖς πεπονθόσι τόποις, τὸ δὲ ἡγεμονικὸν ἀπαθές εἶναι νομίζει.

104.2 (~ §3) Στράτων δὲ καὶ τὰ πάθη τῆς ψυχῆς καὶ τὰς αἰσθήσεις ἐν τῷ ἡγεμονικῷ, οὐκ ἐν τοῖς πεπονθόσι τόποις, συνίστασθαι * τῶν δεινῶν καὶ τῶν ἀλγεινῶν τὴν ἐνέργειαν.

Testes secundi:

Nemesius *NH* c. 2, p. 21.20–22 ἀμφιβάλλεται γάρ, εἴτε τὸ σῶμα μόνον ἐστὶ τὸ ἀλγοῦν λαβὸν παρὰ τῆς ψυχῆς τὴν αἴσθησιν, αὐτὴ δὲ μένει ἀπαθής, εἴτε καὶ συναλγεί τῷ σώματι· καὶ κρατεῖ μᾶλλον παρὰ τοῖς ἐνδοξότεροις τὸ πρότερον (~ *quaestio*). *NH* c. 2, p. 21.6–9 (Cleanthes *SVF* 1.518) ἔτι φησὶν· οὐδὲν ἀσώματον συμπάσχει σώματι οὐδὲ ἀσωμάτῳ σῶμα, συμπάσχει δὲ ἡ ψυχὴ τῷ σώματι νοσοῦντι καὶ τεμνομένῳ καὶ τὸ σῶμα τῇ ψυχῇ· αἰσχυνομένης γοῦν ἐρυθρὸν γίνεται καὶ φοβουμένης ὠχρόν· σῶμα ἄρα ἡ ψυχὴ (~ §1).

Loci Aetiani:

titulus A 5.25 tit. et §2 Ὅποτέρου ἐστὶν ὕπνος καὶ θάνατος, ψυχῆς ἢ σώματος. Ἀναξάγορας κατὰ κόπον τῆς σωματικῆς ἐνεργείας γίνεσθαι τὸν ὕπνον· σωματικὸν γάρ εἶναι τὸ πάθος, οὐ ψυχικόν.

§1 A 4.21.1 οἱ Στωικοὶ φασιν εἶναι τῆς ψυχῆς ἀνώτατον μέρος τὸ ἡγεμονικόν τὸ ποιοῦν τὰς φαντασίας καὶ συγκαταθέσεις καὶ αἰσθήσεις καὶ ὀρμάς.

§2 A 4.4.7 Δημόκριτος Ἐπικούρου διμερῆ τὴν ψυχὴν, τὸ μὲν λογικὸν ἔχουσιν ἐν τῷ θώρακι καθιδρυμένον, τὸ δ' ἄλογον καθ' ὅλην τὴν σύγκρισιν τοῦ σώματος διασπαρμένον.

§3 A 4.5.2 Στράτων ἐν μεσοφρῷ (sc. τὸ τῆς ψυχῆς ἡγεμονικόν εἶναι).

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

Our only witness for the text of the chapter is P, represented by P^P, P^B, P^Q, and P^G (who again omits the first lemma). The heading is in part attested by S, but again the text is lost for the *Eclogae*. On the papyrus snippet see further below Commentary D(d) General points.

B *Proximate Tradition and Sources*

(1) *Proximate tradition*. The parallel doxographical overview in Plutarch(?) *De libidine et aegritudine*, cited below section E(a) General texts and §4, is particularly rich. The cousin writing Nem c. 2 provides a parallel for the bare bones of the issue.

(2) *Sources*. The sources are not clear, apart from the Strato lemma, for which we have a satisfactory parallel that at least indicates a shared tradition.

C Chapter Heading

Diels preferred the short umbrella heading (type $\pi\epsilon\rho\iota\ \tau\omicron\upsilon\ \delta\epsilon\iota\nu\alpha$, see above, ch. 1.3 Commentary C) of P^G to the long heading of P^B (and P^Q). P^P is in favour of a somewhat longer short heading. But we probably need the long heading, as the chapter is not about affections in general (let alone about emotions), but about such occurrences as pains in the body and their reverberations in the soul: the $\kappa\alpha\iota$ is explicative. The shorter part of the chapter heading in S is identical to the heading of P^G , but it must be taken into account that it is part of a composite heading that is likely to have been abridged compared with the original. The book title $\Pi\epsilon\rho\iota\ \pi\alpha\theta\acute{\omega}\nu$, *On Affections* in a general sense is attested for ps. Hippocrates, Xenocrates, Theophrastus, Zeno, Chrysippus, Sphaerus, Herillus, Posidonius, and ps.Andronicus. A subdivision of Stoic ethics entitled $\pi\epsilon\rho\iota\ \pi\alpha\theta\acute{\omega}\nu$ is listed at Diogenes Laertius *V.P.* 7.84 (*SVF* 1.178, 3.1).

D Analysis

a Context

This is the concluding chapter of the book on psychology. Although the demarcation between Books 4 and 5 is to some extent arbitrary since the soul is still involved in the first chapters of Book 5 (see M–R 2.1.149–150 and below, ch. 5.1, Commentary D(a)), the problematical commonality of body and soul constitutes an acceptable finale. This topic, much discussed in ancient philosophical literature, is in Book 4, the Book on the soul, appropriately approached from the side of the soul as influenced by the body, not from that of the body as influenced by the soul. That the first chapters of Book 5 could also have been the last of Book 4 demonstrates that in a certain sense these two Books, dealing not with nature in general like the first three but with human nature (for the most part), belong together. For further details see the Introductions to these Books and above, General introduction section 2.7.

b Number–Order of Lemmata

P has three lemmata, of which P^G omits the first and (as far as his text goes) parallels the second and third. The order P_1 – P_2 – P_3 is systematic not chronological and should not be interfered with. P may have abridged A's chapter considerably, as the views of e.g. Plato and Aristotle are lacking (they perhaps were to be found in S's lost chapter). The account of a multiplicity of views in Plutarch(?) *De libidine et aegritudine* at any rate provides an impression of what has been lost because of P's abridgement. We cannot know what may have been the order and number of A's lemmata. P's residue is structured to his own doxographical satisfaction. Yet this is a very tight construction, which may also have been the main structure in A.

c Rationale—Structure of Chapter

The three quite brief lemmata of P's chapter are firmly linked by the presence of several identical formulas: ἐν τοῖς πεπονθόσι τόποις and τὰ πάθη and τὰς αἰσθήσεις in all three, ἐν τῷ ἡγεμονικῷ in both §1 and §3 (paralleled by τὸ ἡγεμονικόν in §2). Each lemma has been formulated in such a way that it relates in the first place diaeretically and even diaphonically to the other two (see at section D(d)). The Epicurean lemma aptly occupies a middle ground, as the strongest opposition is between the Stoic view and that of Strato, who is here *plus stoïcien que les Stoïciens*.

Stoics: affections in the affected bodily places, perceptions thereof in the regent part;

Epicurus: both affections and perceptions thereof in the bodily places, regent part unaffected [so there no perceptions of these affections];

Strato: the (according to others 'bodily') affections are of the soul, and the perceptions thereof are in the regent part.

All three tenets intimate that the soul is, or can be, independent of what happens to the body, see at D(d).

The individual points listed immediately below at Commentary D(d) largely explain the diaeresis too.

d Further Comments

General Points

The papyrus fragment of this chapter is of some interest. It is reproduced on Plate IV of Barnes-Zilliaceus (1960–1967). Its last six (partially preserved) lines cover the entire chapter. This is only possible because of the massive *saut du même au même* from the ἐν τοῖς πεπονθόσι τόποις in line 4 to exactly the same phrase in line 7. The snippet also allows us to observe some interesting paratextual markings. The lines above the final two letters of the first line indicate that it is the chapter heading. This line is also shorter, because the first lemma starts a new line. The last line contains a long stripe preceded by two upright semicircles. The stripe, called a *παράγραφος*, must have the function of indicating the end of Book 4. Such markings are very common in literary papyri of this period, including some well-known New Testament examples (private communication from James Royse).

Individual Points

§§1–2 The haplography in P^{B(II)} created a new (and bizarre) lemma for the Stoics in a part of the tradition, viz. οἱ Στωικοὶ τὰ μὲν πάθη ἐν τοῖς πεπονθόσι

τόποις· τὸ γὰρ ἡγεμονικὸν ἀπαθές. This may be compared with what happened in the entire tradition of P (including P^Q, so at an earlier stage of the transmission) at ch. 4.7.1–2, and elsewhere. In the present chapter the residual lemmata in P^{B(II)} still provide a conflict that is satisfactory from a purely doxographical point of view. This was not the case for the haplography in P^P, which resulted in only one name-label being preserved and must have made the text quite unintelligible.

§1 The contents of the doxa can be defended from the point of view of Stoic physiological psychology. That the perceptions are in the soul entails that one is in principle free to make up one's mind about what is going on (e.g. be convinced that pain is an indifferent).

§2 As Zeller (1909) 433 n. 2 (followed by Diels *DG ad loc.*) already pointed out, the doxa attributed to Epicurus is not consistent with the evidence on this topic found elsewhere; see section E(b)§2. It must have been formulated the better to provide a diaphonia with the doxa of the Stoics. A charitable interpretation of the result will refer to the Epicurean doctrine of the regent part of the soul of the wise man as independent of what happens to the body, which of course is not the same as being unaware of what is going on there.

§3 That according to the Strato doxa the regent part is capable of enduring bodily pains in the same way, as it is capable of deciding in connection with good or bad actions, also establishes the priority of the mind over the body.

e Other Evidence

Of special interest are the parallels in ps.Aristotle *Physiognomonica*, for which we have used the edition of Foerster (1893) and the translation and commentary of Vogt (1999). Aristotle himself accepted physiognomy as a scientific discipline.

E Further Related Texts

a Proximate Tradition

General texts: Plutarch(?) *Lib. Aegr.* 4–7 ἔδει μὲν τοὺς δογματικούς καὶ καταληπτικούς εἶναι φιλοσόφους φάσκοντας εἰ μὴ περὶ ἄλλο τι τὴν γε τῶν παθῶν ἐνάργειαν ὁμολογεῖν ἀλλήλοις καὶ συμφέρεσθαι· πολὺς δ' αὐτῶν ὁ παράλογός ἐστιν. οἱ μὲν γὰρ ἅπαντα συλλήβδην ταῦτα τῇ ψυχῇ φέροντες ἀνέθεσαν, ὥσπερ Στράτων ὁ φυσικός (Strato fr. 111 Wehrli, 63B Sharples), οὐ μόνον τὰς ἐπιθυμίας, ἀλλὰ καὶ τὰς λύπας, οὐδὲ τοὺς φόβους καὶ τοὺς φθόνους καὶ τὰς ἐπιχειρεκακίας ἀλλὰ καὶ πόνους καὶ ἡδονὰς καὶ ἀλγηδόνas καὶ ὅλως πᾶσαν αἴσθησιν ἐν τῇ ψυχῇ συνίστασθαι φάμενος (5) ἔνιοι (Heraclides of Pontus fr. 72 Wehrli, 80 Schütrumpf) δ' ἀντικρυς καὶ δόξαν καὶ διαλογισμὸν εἰς τὸ σῶμα κατατείνουσιν, οὐδ' εἶναι οὐσίαν τὸ παράπαν ψυχῆς λέγοντες ἀλλὰ τῇ τοῦ σώματος διαφορᾷ καὶ ποιότητι καὶ δυνάμει συντελεῖσθαι τὰ τοιαῦτα. τὸ μὲν γὰρ Περὶ τῶν ἐν Ἄιδου βιβλίον ἐπιγραφόμενον, ἐν ᾧ τὴν ψυχὴν τῇ

οὐσίᾳ παρυπάρχειν ἀποφαίνεται ὁ λόγος, οἱ μὲν οὐδ' εἶναι τὸ παράπαν Ἑρακλείδου νομίζουσιν οἱ δὲ πρὸς ἀντιπαρεξαγωγήν συντετάχθαι τῶν εἰρημένων ἑτέροις περὶ οὐσίας ψυχῆς ... οἱ δ' ὥσπερ διὰ μέσου τῶν λόγων ἐπεχείρησαν ἀφορίζειν τῆς ψυχῆς ἴδια πάθη καὶ τοῦ σώματος, ἐν κοινῷ καὶ πλάτος οὐκ ἔχοντι φερόμενοι τότῳ συνεχύθησαν. (6) ὁ γέ τοι Ποσειδώνιος (F 154 E.-K, 436 Theiler) τὰ μὲν εἶναι ψυχικά, τὰ δὲ σωματικά, καὶ τὰ μὲν οὐ ψυχῆς περὶ ψυχὴν δὲ σωματικά, τὰ δ' οὐ σώματος, περὶ σῶμα δὲ ψυχικά φησι, ψυχικά μὲν ἀπλῶς λέγων τὰ ἐν κρίσει καὶ ὑπολήψεσιν, οἷον ἐπιθυμίας φόβους ὀργάς, σωματικά δ' ἀπλῶς πυρετοὺς περιψύξεις πυκνώσεις ἀραιώσεις, περὶ ψυχὴν δὲ σωματικά ληθάργους μελαγχολίας δηγμοὺς φαντασίας διαχύσεις, ἀνάπαλιν δὲ περὶ σῶμα ψυχικά τρόμους καὶ ὠχριάσεις καὶ μεταβολὰς τοῦ εἶδους κατὰ φόβον ἢ λύπην. Διόδοτος πάλιν ἴδια μὲν τινα τοῦ λογικοῦ φησι τῆς ψυχῆς πάθη, ἴδια δὲ τοῦ συμφυοῦς καὶ ἀλόγου εἶναι. ... ἡμεῖς σώματος καὶ ψυχῆς εὐθὺς ἐν πρώτῃ κατα τρόπον καταβολῇ συγχυθέντων πάθη διαλαβεῖν καὶ χωρίσαι ζητοῦντες ἀκριβοὺς σφόδρα λόγου καθάπερ ὀργάνου λεπτοῦ πρὸς τὴν διαίρεσιν δεόμεθα. (7) οἱ δὲ ταύτην ἀπογόνοντες φιλόσοφοι φασὶ μήτε σώματος εἶναι τι μήτε ψυχῆς ἴδιον πάθος ἀλλὰ τοῦ κοινοῦ· τὸν γὰρ ἄνθρωπον ἡδεσθαι καὶ λυπεῖσθαι καὶ φοβεῖσθαι, τὸν ἄνθρωπον, οὐχὶ τὴν ψυχὴν κτλ. *Doxography B* at Stob. *Ecl.* 2.7.10, p. 88.10 (SVF 3.378) εἶναι δὲ πάθη πάντα τοῦ ἡγεμονικοῦ τῆς ψυχῆς. *Suda* s.v. Ψ 164, p. 4.53.4–5 Adler ὅτι τὰ τῆς ψυχῆς ἅπαντα παθήματα τοῦ συναμφοτέρου ἐστί, καὶ οὐκ ἴδια τῆς ψυχῆς.

§1 *Stoics*: Arius Didymus fr. 39 Diels at Eus. *PE* 15.20.5 (SVF 2.821) ἔχειν δὲ πάσαν ψυχὴν ἡγεμονικόν τι ἐν αὐτῇ, ὃ δὴ ζωὴ καὶ αἴσθησις ἐστί καὶ ὁρμή.

b Sources and Other Parallel Texts

General texts: Aristotle *Apr.* 2.27 70b7–16 τὸ δὲ φυσιογνωμονεῖν δυνατὸν ἐστίν, εἴ τις δίδωσιν ἅμα μεταβάλλειν τὸ σῶμα καὶ τὴν ψυχὴν ὅσα φυσικά ἐστί παθήματα ... συμπάσχειν γὰρ ἀλλήλοις ὑπόκειται. *de An.* 1.1 403a16–28 ἔοικε δὲ καὶ τὰ τῆς ψυχῆς πάθη πάντα εἶναι μετὰ σώματος, θυμός, πραότης, φόβος, ἔλεος, θάρσος, ἔτι χαρὰ καὶ τὸ φιλεῖν τε καὶ μισεῖν· ἅμα γὰρ τούτοις πάσχει τι τὸ σῶμα. ... καὶ διὰ ταῦτα ἤδη φυσικὸν τὸ θεωρῆσαι περὶ ψυχῆς, ἢ πάσης ἢ τῆς τοιαύτης. *Met.* E.1 1026a4–6 δῆλον πῶς δεῖ ἐν τοῖς φυσικοῖς τὸ τί ἐστί ζητεῖν καὶ ὀρίζεσθαι, καὶ διότι καὶ περὶ ψυχῆς ἐνίας θεωρῆσαι τοῦ φυσικοῦ, ὅση μὴ ἄνευ τῆς ὕλης ἐστίν. **ps.Aristotle** *Phgn.* 1.1 805a1–15 ὅτι αἱ διάνοιαι ἔπονται τοῖς σώμασι καὶ οὐκ εἰσὶν αὐταὶ καθ' ἑαυτὰς ἀπαθείς οὐσαι τῶν τοῦ σώματος κινήσεων, τοῦτο {δὲ} δῆλον πάνυ γίνεσθαι ἐν τε ταῖς μέθαις καὶ ἐν ταῖς ἀρρωστίαις· πολὺ γὰρ ἐξαλλάττουσαι φαίνονται αἱ διάνοιαι ὑπὸ τῶν τοῦ σώματος παθημάτων. καὶ τοῦναντίον δὴ τοῖς τῆς ψυχῆς παθήμασι τὸ σῶμα συμπάσχον φανερόν γίνεται περὶ τε τοὺς ἔρωτας καὶ τοὺς φόβους τε καὶ τὰς λύπας καὶ τὰς ἡδονάς. ἔτι δὲ ἐν τοῖς φύσει γινομένοις μᾶλλον ἢ τις συνίδοι ὅτι οὕτως ἔχει πρὸς ἀλλήλα σώμα τε καὶ ψυχὴ συμφυῶς ὥστε τῶν πλείστων ἀλλήλοις αἴτια γίνεσθαι παθημάτων. οὐδὲν γὰρ πώποτε ζῶον γεγέννηται τοιοῦτον, ὃ τὸ μὲν εἶδος ἔσχεν ἑτέρου ζώου, τὴν δὲ διάνοιαν ἄλλου, ἀλλ' αἰεὶ τοῦ αὐτοῦ τό τε σῶμα καὶ τὴν ψυχὴν, ὥστε ἀναγκαῖον ἔπεσθαι τῷ τοιῷδε σώματι τοιάνδε διάνοιαν. *Phgn.* 2.35 808b11–30 δοκεῖ δέ μοι ἡ ψυχὴ καὶ τὸ σῶμα συμπαθεῖν ἀλλήλοις· καὶ ἡ τῆς ψυχῆς ἕξις ἀλλοιουμένη συναλλοιοῖ τὴν τοῦ σώματος μορφήν, πάλιν τε ἡ τοῦ σώμα-

τος μορφή ἀλλοιουμένη συναλλοιοῖ τὴν τῆς ψυχῆς ἔξιν. ἐπειδὴ γάρ ἐστι ψυχῆς τὸ ἀνιάσθαι τε καὶ εὐφραίνεσθαι, καταφανές, ὅτι οἱ ἀνιώμενοι σκυθρωπότεροί εἰσι καὶ οἱ εὐφραίνόμενοι ἰλαροί. εἰ μὲν οὖν † ἔτι τῆς ψυχῆς λελυμένης τὴν ἐπὶ τοῦ σώματος μορφήν μένειν, ἣν μὲν ἂν καὶ οὕτως ἡ ψυχὴ τε καὶ τὸ σῶμα συμπαθῇ, οὐ μέντοι συνδιατελοῦντα ἀλλήλοις. νῦν δὲ καταφανές, ὅτι ἐκάτερον ἐκατέρω ἔπεται. μάλιστα μέντοι ἐκ τοῦδε δῆλον (ἂν) γένοιτο. μανία γὰρ δοκεῖ εἶναι περὶ ψυχὴν, καὶ οἱ ἰατροὶ φαρμάκοις καθαίροντες τὸ σῶμα καὶ διαίταις τισὶ πρὸς αὐτοῖς χρῆσάμενοι ἀπαλλάττουσι τὴν ψυχὴν τῆς μανίας. ταῖς δὲ τοῦ σώματος θεραπαίαις {καὶ} ἅμα ἢ τε τοῦ σώματος μορφή λέλυται καὶ ἡ ψυχὴ μανίας ἀπήλλακται. ἐπειδὴ οὖν ἅμα ἀμφοτέρω λύονται, δῆλον ὅτι συνδιατελοῦσιν ἀλλήλοις. συμφανές δὲ καὶ ὅτι ταῖς δυνάμεσι τῆς ψυχῆς ὅμοιαι αἱ μορφαὶ τοῖς σώμασιν ἐπιγίνονται, ὥστ' ἐστὶν ἅπαντα ἐν τοῖς ζώοις τοῦ αὐτοῦ τινὸς δηλωτικά. **Anon. Londiniensis latr.** col. i.15–21 Manetti δεῖ γινώσκειν ὡς τῶν παθῶν | τὰ [μέν ψυ]χικά, τὰ δὲ σωματικά, σω[ματικ]ὰ λαμβάνοντες τὰ περὶ τὴν | [ζωτικ]ήν δυνάμιν λαμβανόμενα | [π(ρὸς) δέ] τὰς ἄλλας δυνάμεις ἀντιδιαστέ(λ)|[λο]μενοι τὴν ζωτικὴν δυνάμιν | [τῇ] ψυχῇ. **Ptolemy iudic.** cc.14–16 ὁμοίως δὲ καὶ τῶν σωματῶν τὰς διαφορὰς πρὸς τὰς τῶν οὐσιῶν τῆς ψυχῆς κατὰ μέρος δυνάμεις συμβάλλεσθαι τὴ κτλ. (too long to quote).

Chapter heading: Ptolemy Tetr. 3.13.1 Περί σινῶν καὶ παθῶν σωματικῶν.

§§1–3 **Stoics Epicurus Strato: Galen tit.** Περί τῶν πεπονθότων τόπων cf. e.g. in *Hipp.Epid.* iii 17a.534.12–13 K. καθότι κἀν τοῖς Περί τῶν πεπονθότων τόπων ὑπομήμασιν ἐδείκνυσεν.

§1 **Stoics: Hierocles Eth.El.** col. 4.11–13 Bastianini–Long θάτερον γὰρ ἐστὶ τῷ ἐ[τ]έρῳ συμπαθὲς καὶ οὐτε τῶν | σωματικῶν παθῶν ἀνήκοος ἡ ψυχὴ οὐτε αὖ τέλος ἐκ[κεκώφητ]αι πρὸς τὰ τῆς ψυχῆς δεινὰ τὸ σῶ[μα κτλ. **Galen PHP** 2.3.4–5 ἐστὶ δὲ τὸ ἡγεμονικόν, ὡς καὶ αὐτοὶ (—) βούλονται, τὸ κατάρχον αἰσθησέως τε καὶ ὁρμῆς. (5) οὐκοῦν ἄλλοθεν χρὴ δεικνύναι τὴν καρδίαν ἐν αὐτῇ τὸ ἡγεμονικὸν ἔχουσαν ἢ ἐκ τοῦ πάσης μὲν τῆς καθ' ὁρμὴν κινήσεως ἐξηγεῖσθαι τοῖς ἄλλοις τοῦ ζώου μορίοις, ἅπασαν δὲ αἰσθῆσιν εἰς αὐτὴν ἀναφέρεισθαι.

§2 **Epicurus: differently Epicurus Ep.Hdt.** at D.L. 10.63 ἐστὶ δὲ τὸ μέρος (sc. ἡ ψυχὴ as part of the compound) πολλὴν παραλλαγὴν εἰληφὸς τῇ λεπτομερείᾳ καὶ αὐτῶν τούτων, συμπαθὲς διὰ τοῦτο μᾶλλον καὶ τῷ λοιπῷ ἀθροίσματι. differently **Lucretius DRN** 3.168–174 *praeterea pariter fungi cum corpore et una / consentire animum nobis in corpore cernis. / si minus offendit vitam vis horrida teli / ossibus ac nervis disclusis intus adacta, / at tamen insequitur languor terraeque petitus / suavis et in terra mentis qui gignitur aestus / interdumque quasi exsurgendi incerta voluntas. DRN* 3.250–255 ... *postremis datur ossibus atque medullis / sive voluptas est sive est contrarius ardor. / nec temere huc dolor usque potest penetrare neque acre / permanare malum, quin omnia perturbentur / usque adeo ut vitae desit locus atque animai / diffugiant partes per caulas corporis omnis. DRN* 3.463–473 *quin etiam morbis in corporis avius errat / saepe animus; dementit enim deliraque fatur, / interdumque gravi lethargo fertur in altum / aeternumque soporem oculis nutuque cadenti; / unde neque exaudit voces nec noscere voltus / illorum potis est, ad vitam qui revocantes / circumstant lacrimis rorantes ora genasque. / quare animum quoque dissolvi fateare*

necesseset, / quandoquidem penetrant in eum contagia morbi; / nam dolor ac morbus leti fabricator uterquest, / multorum exitio perdocti quod sumus ante.
 also differently **Diogenes of Oenoanda** fr. 44 col. 1.7–2.7 Smith [δυσε]πιλόγιστος δέ ἐσ-[τι το]ῖς πολλοῖς ἢ τῶν | [ψυχι]κῶν τούτων ὑπερ[οχή] παθῶν. ἐπεὶ γὰρ | [οὐκ] ἔστιν ἐξ ἀντιπα[ράθ]έσεως ὅφ' ἕνα καὶ[ρὸν] ἀμφοτέρως παθεῖν | τὰς ἀκρότητας (τῶν | ψυχικῶν λέγω παθῶν | τῶν τε σωματικῶν) διὰ τὸ σπανίως ποτὲ τοῦ-|το συνβαίνειν καί, ὅταν δὲ συνβῇ, τὸ ζῆν ἀναιρεῖσθαι κτλ. **Aristotle** *de An.* 1.2 405b19–21 Ἀναξαγόρας (59A100 DK) δὲ μόνος ἀπαθὴ φησιν εἶναι τὸν νοῦν, καὶ κοινὸν οὐθὲν οὐθενὶ τῶν ἄλλων ἔχειν. *de An.* 3.4 430a18–19 καὶ οὗτος ὁ νοῦς (sc. τὸ αἷτιον καὶ ποιητικόν) χωριστὸς καὶ ἀπαθὴς καὶ ἀμιγής. **Plutarch** *Gen.Socr.* 588D–E Σωκράτει δ' ὁ νοῦς καθαρὸς ὦν καὶ ἀπαθὴς, τῷ σώματι μικρὰ τῶν ἀναγκαίων χάριν καταμειγνὺς αὐτόν.

§3 **Strato: Plutarch(?)** *Lib.Aegr.* 4 cf. above section E(a) General texts.

Aetius Placita
Book 5 Physiology:
Text and Commentary



Introduction to Book 5

1 Transmission

Of the five books that make up A's compendium, Book 5 is the most poorly attested. This is because we are almost wholly dependent on P and its tradition for our textual material. We know from the evidence of the chapter headings of the Laurentian ms. and Photius' index that S made extensive use of the contents of this book for his chapters *Ecl.* 1.42–46, but most regrettably the Byzantine copyists excised almost all of these excerpts, preserving only 10 doxai in all: 1 in ch. 5.18, 1 in 5.20, 2 in 5.26, 1 in 5.28 and 5 in 5.30 (but care must be exercised with the titles in the Laurentianus, because some have been interpolated from P). In fact there are only two lemmata in S for which the equivalent is not found in P: 5.28.2 and 5.30.5, both of which appear to duplicate other doxai (and the latter of which is derived, quite exceptionally, together with three other lemmata from the *Florilegium* and not the *Eclogae* part of S's great Anthology). As for T, he leaves aside this book entirely, only recording three doxai from ch. 5.26 at second hand via a parallel text in Clement of Alexandria. For this chapter he may thus be regarded as a secondary witness, and as such he is the only witness in this category for the entire book.

Nolens volens, therefore, we must be almost wholly reliant on P and his tradition for this book. Since authors such as Eusebius, Lydus (except a brief mention of two doxai from ch. 5.2 on dreams), Cyril and Symeon Seth with their dominant focus on cosmology are not interested in its subject matter, there remain only five witnesses in all, the Antinoopolis papyrus, the Byzantine mss., Qustā, ps.Galen and Psellus. There are more papyrus fragments for Book 5 than any of the other books (11 with text from 13 chapters), but they yield very little, except on two points: (a) they show that early in the textual history the text could differ quite markedly from later witnesses (e.g. the curious chapter number for ch. 5.4 which might even be a trace of an edition in two books); and (b) through fr. 6^v we obtain a richer text for 5.1.1 which was evidently simplified in the later course of transmission. The Byzantine mss. record the pinax and all 30 chapters for a total of 112 lemmata. The archetype must have been damaged, because their quality trails off badly towards the end of the book. However, their text can be supplemented by G and Q. G includes all chapters in his epitome except chs. 5.27–28. He splits the final chapter 5.30 into two, for a total of 29 chapters in all. 78 of P's 114 lemmata are retained, but in many cases their contents are further abridged. Importantly, G preserves doxai at A 5.19.5, 5.23.3 and 5.29.3 that are no longer present in P^B, showing that he is using a more com-

plete text. This is also the case for Q, who translates the whole text in P^B, but also has the additional material in G (except A 5.23.3) and significantly adds more text for A 5.27.2 and 5.29.2. He also includes the precious mention of the name-label of Herophilus in A 5.30.2 which had fallen out in P^B and also, it seems, in the texts used by G and S. Ps makes use of only 13 chapters, but he does paraphrase passages from Book 5 more than is his practice in the case of the other books. In addition, ch. 5.30 is copied in full in a little-known Psellan text entitled Ἐπιλύσεις ποικίλων ἐρωτημάτων (but lacking the additional name-labels in GQ). All in all, the witnesses allow the editor to attain a reasonably secure text.

But, of course, since this text is almost wholly reliant on the tradition of P, it must be far from complete. Together with chs. 3.9–16 it is the most seriously incomplete section of A's surviving compendium. On average the book has 3.8 lemmata per chapter, by far the lowest of the 5 books (Book 1: 5.9; Book 2: 6.4; Book 3: 5.7; Book 4: 5.8). In order to gauge the degree of incompleteness we can draw on the statistical analysis of Jeremiah (M–R 4.297–373; see further General Introduction, section 2.7). He divides the whole work into two groups: (1) where P and S are both well represented, 87 chapters in all; (2) where P is preserved, but S is not extant or severely truncated, the remaining 48 chapters (M–R 4.286). By means of statistical analysis he determines that for the first group 42 lemmata are most likely missing, for the second group 81 lemmata (M–R 4.295). If we take the 30 chapters pro rata in the group of 48, there would be 45 missing. Another approach would be to take the average number of lemmata for chapters in Books 1 to 4, which is 6.0, and apply it to the 30 chapters of Book 5. In this scenario there would be 66 missing (180 minus 114). Jeremiah's result is lower, because the average number of doxai per chapter for the book is slightly lower than for the others, even when allowance is made for the absence of S and T. The actual number may be somewhere in between, so perhaps 55–60 missing doxai, about two per chapter. In our commentary, under section D(b), we will from time to time attempt to estimate the relative completeness of the chapter as transmitted, in light of comparisons with other books and the available evidence in the proximate tradition.

2 Subject Matter and Macro-structure

Unlike the other four books, Book 5 does not have an introductory remark indicating its subject. It thus continues on from Book 4, which according to its proem had the task of treating 'the particular phenomena' (τὰ κατὰ μέρος). The division between the two books can be fairly cleanly described as that between *psychology*, treating the activities of the soul with a strong emphasis on thought

and perception, and *physiology*, in which the role of the body and its processes comes more strongly to the fore. But this is not an absolute divide in ancient terms, since for example perception needs the bodily instrumentaria that make it possible and bodily processes cannot occur for the most part without psychic direction. So it is understandable that the division between the books is a bit untidy. The last two chapters of Book 4 on respiration and bodily affections have been placed there as a kind of appendix to the section on the voice at the end of ch. 4.21 (following on from chs. 4.19–20); see ch. 4.21 Commentary, D(a). However, given the bevy of medical details, they might have been better placed in Book 5, while the reverse could have been beneficial for the first two chapters on divination and dreams in Book 5, which clearly deal primarily with psychic processes.

The macro-structure of the book's subject matter is also not as neatly organised as one might wish. The main body of the book gives an overview of the development of the human being from conception to maturity. It amounts to a mini-treatise on the subjects of spermatology (chs. 5.3–5), conception (5.6–10), heredity (5.11–13) and embryology (5.15–18, 21–22). As last in the sequence ch. 5.23 deals with the question of when the human being (ἄνθρωπος) attains maturity. This chapter heading makes explicit the anthropocentric focus throughout these chapters, as seen for example in the questions whether females produce semen, how males and females are engendered, how similarities to parents and ancestors occur, on the length of viable pregnancies and so on. Such emphasis is consistent with two models in the background of the *Placita's* overall structure, Plato's *Timaeus* and the psychological and biological treatises of Aristotle. But the sequence is broken twice, first with a chapter on the sterility of mules (ch. 5.14) and then with two chapters on living beings, how they are born (ch. 5.19) and how many different kinds there are (ch. 5.20). The final seven chapters can be regarded as a kind of appendix, as suggested by Mansfeld (1990) 3189. The comparable processes of sleep and death are treated (chs. 5.24–25) and there is a chapter on plants (ch. 5.26) which is linked up as in Plato's *Timaeus* with questions of nourishment and growth (chs. 5.27–28). There is a single chapter on the aetiology of disease (ch. 5.29 on fever) and then the more general chapter on health, disease and old age (ch. 5.30) rounds off the book, and with it the compendium. The chapters in the appendix also focus for the most part on human beings, but chs. 5.27–28 treat nourishment more generally for all animals. We shall return to this vacillation in focus below in section 6.

3 Name-Labels

The final book of the *Placita* shares many common elements with the name-labels in the previous four books, but also shows some differences. In all there are 35 different name-labels, making it the least diverse of all the books, even when allowance is made for its small number of doxai (114); see the table furnished by Jeremiah in M–R 4.307. In terms of chronology they can be grouped as follows: Presocratics 14 (60 doxai); Classical period 4 (19); Hellenistic period 5 (26); doctors 8 (19); others 4 (Euripides the poet, Timaeus the astrologer, scientists, anonymi, 7 doxai in all). So even in the domain of physiology and biology the Presocratics predominate. But it should be noted that there is very limited inclusion of the early sixth century figures: Thales, Anaximander, Heraclitus, Xenophanes all just have one doxa each and the first thinkers to make an impact are Parmenides (5) and Alcmaeon (6), together with Pythagoras (5) who often stands in for his later followers. Most striking of all is the large number of doxai (some quite lengthy) attributed to Empedocles, no less than 17, all included within the sequence chs. 5.7–28. As Jeremiah has noted (M–R 4.324), the *Placita* are historically conservative, its citations peaking in the fifth century and declining thereafter. His graph (ibid.) shows that for Book 5 the period from the fifth to the third century is completely dominant, more so than in other Books, though not dissimilar from Book 4.

When we move past the fifth century there is less spread of names, with the philosophers associated with the Hellenistic schools well represented: Stoics (13), Aristotle and his school (11), Plato (7), Epicurus and his school (7). The figure for Plato is unexpectedly low, given the amount of physiological subject-matter in the *Timaeus*. For a list of the top 15 cited thinkers see M–R 4.328. The most distinctive feature of Book 5 is the large group of doctors, who scarcely appear in the earlier books. This is of course determined by the subject-matter (even though there is little discussion of specifically medical topics). The great fourth and third century doctors Diocles, Herophilus and Erasistratus are well represented (14 doxai) and there are 5 anonymous references to doctors. Quite surprisingly there is no reference to the father of medicine, Hippocrates, and only one to his followers (5.18.4). Another surprising absentee is Praxagoras.

Another feature of Book 5 is the relative prominence of multiple name-labels, which as Jeremiah's table at M–R 4.329 shows, record a higher incidence than elsewhere in the book, even though there are no long lists (triplets at A 5.4.2, 5.5.1, 5.18.3; 20 doublets). Most of the combinations are what we might expect, e.g. Pythagoras–Plato–Aristotle (5.4.2), Democritus–Epicurus (5.16.1, 5.19.5, 5.20.2), Parmenides–Empedocles (5.28.2), Anaxagoras–Euripides (5.19.),

Heraclitus–Stoics (5.23.1). But there are also some strange bedfellows, Xenophanes–Epicurus (5.1.2), Leucippus–Zeno (5.4.1), Stoics–Epicureans (5.26.3). The effect is to concentrate the number of views and give them more emphasis relative to the philosophers who hold them.

What explanations can be given for the relative lack of diversity of names in this book? Its incomplete preservation will have contributed. In his process of abridgement, P shows a bias towards the big names (M–R 1.189, 4.298), so having only his version without help from S will mean that we miss out on more uncommon names. It might also be argued that the subject-matter is more peripheral to the φυσικὸς λόγος. To be sure, as we shall see below in section 5, physiological and medical subjects had been incorporated into the doxographical tradition early, but it seems that many philosophers did not pronounce on them. There are almost no individual Stoics and Epicureans named (if Diogenes in 5.15.4 is the Stoic, he is not identified as such). One might have also expected a larger diversity of doctors to be included.

4 Method and Micro-structure

Book 5 has, as was already noted, by far the lowest average number of lemmata per chapter (3.80). Its longest chapter has only eight doxai (ch. 5.7), much less than is the case in other books. There are two monolemmatic chapters (chs. 5.6, 5.22) and three with only two doxai (chs. 5.21, 5.27–28), all of which are most likely incomplete. Most chapters, however, have at least three doxai (11 examples), which as we shall see has important consequences for their structure. There are also few doxai of any great length. Two chapters have series of long doxai: ch. 5.18 on the complex matter of viable pregnancies, and ch. 5.29 on the aetiology of fever. For the rest there are only a handful of Empedoclean doxai which extend beyond seven lines, A 5.19.6 on the birth of living beings, 5.22.1 on the composition of our generic parts, and 5.26.4 on origin of plants. In each case protological details lengthen the account.

Book 5 also deviates from the rest of the compendium in that it has very few chapters whose headings use the common ‘umbrella’ Περί x formula (only ch. 5.1 on divination, 5.27 on growth and increase, 5.30 on health and disease and old age; 5.19 on the birth of living beings is a special case since there the περί formula is used to introduce two other questions). There is also only one chapter which ask the τίς or τί question, commencing with a definition and asking the question of substance (ch. 5.3 on the οὐσία of semen, cf. 5.26 using εἶ). By far the greatest number of chapters inquire after the cause, using either the formula with πῶς (11 examples with two more in second position in the head-

ing) or with διὰ τί (three examples) or with πόθεν (two examples). This usage is in sharp contrast to the other books, where πῶς is only used four times (chs. 1.4, 2.19, 3.17, 4.11) and διὰ τί only subordinately in ch. 2.30. The other formula that is common in the book is asking questions with εἰ, e.g. ch. 5.5 whether females too release semen (see also 5.4, 5.15, and in second or third position in the heading 5.19, 5.20, 5.26, 5.29). Such questions readily invite a positive or negative answer which will structure the chapter in terms of a diaphonia. The remaining chapter headings mostly ask questions in the usual way of the *Placita*, involving the categories of quality (ch. 5.22), quantity (5.20, 5.22) and time (5.21, 5.23).

Book 5 is therefore overwhelmingly focused on seeking the cause of physiological and biological processes. The most common formula for this quest is πῶς plus the verb γίγνομαι (or sometimes γεννάω in a reproductive context). Not only does it occur frequently in chapter headings, as we have just seen, but the verb occurs repeatedly in the doxai of the chapter itself, together with numerous examples of phrases involving the prepositions διὰ, κατὰ and παρὰ and nouns in the dative case indicating agency. In the expression of the causes themselves there is a good deal of variation. Sometimes they are piled up in long lists of alternative explanations, most notably in the chapters on conception (chs. 5.6, 5.8, 5.9, 5.13). As our author claims in A 5.8.1 when speaking of Empedocles, the alternatives given appear to virtually exhaust the listing of all the causes that can be given. Much of the information is very brief and schematic, as is consistent with the general method of the *Placita*. Rarely are detailed explanations furnished. The most extensive are found—perhaps not surprisingly—in the only chapter to deal with a specific disease (as the ancients thought), ch. 5.29 on fever. As elsewhere in the work, the stream of information is enlivened by images and illustrations, such as sexual fantasies in sleep (5.2.3), women falling in love with statues (5.12.2), and a remarkable description of viticultural terroir (5.26.4).

The virtually universal method of organising the micro-structure of the individual chapter is by means of the dialectical techniques of the diaeresis and the diaphonia, which lend themselves as well for the delineation of causes as they do for other kinds of questions. Sometimes opposed views are emphasised, e.g. on whether the embryo is living being or not (ch. 5.15), at other times the diaeresis takes the form of an ordered list (ch. 5.17, though not as well organised as we might wish). Our doxographer loves schematic grids, in which he can fill out the various possibilities, for example on whether semen is bodily (ch. 5.4) or whether plants are living beings or ensouled or neither (ch. 5.26). For each chapter, where relevant, we have outlined the diaeretical structure, often including an evaluative comment. It is evident that our author wishes to

attain informative and didactically useful structures, but it also seems that he has not always mastered his material sufficiently well. Sometimes, of course, factors relating to the poor transmission of his work may be to blame.

In previous books we have observed a creative tension between systematic and historical aspects of doxography. Book 5 stands out in its lack of historiographical material. Very little information is given regarding name-labels. Diocles is introduced as a doctor in 5.9.1, but nothing is said about little-known names such as Hippo (chs. 5.5, 5.8), Polybus and Timaeus (both in 5.18). Only in the case of Leophanes (5.7.5) are we told that Aristotle mentions him. There are no topics for which the 'first discoverer' is cited. The role of Hippocrates as initiator of medical research is ignored (but he is mentioned at A 5.18.4 as having initiated a series of followers). Alcmaeon is prominent with five doxai; as in Book 4 he is usually placed at or close to the beginning of the chapter. If this implies an early date, this is not made explicit. It is not surprising that in Jeremiah's analysis of the relative importance of systematic and historical factors in the ordering of lemmata, Book 5 is second to Book 2 in its prioritising of systematic concerns (M–R 4.315).

In the light of Book 5's dominant emphasis on physiological and biological causation, it is worth noting what is absent. In ch. 5.1 on divination, which as we saw is clearly out of place, the role of the divine can hardly be avoided, and the same can be said for the next ch. 5.2 on dreams. But already there it is limited to a single comment in the doxa of Herophilus (5.2.3). In the rest of the book, there is no reference to theological themes or to the divine, with the exception of a single reference to the cosmic god in ch. 5.20 on the genera of living beings (if our text based on Q is correct). It is hardly surprising, therefore, that in this chapter there is no reference to the theory of reincarnation. There is also very little mention of epistemology, except in the same chapter on ζῶα and a couple of remarks attributed to Diocles in A 5.14.3 and 5.29.2. The chapter on dreams (5.2) concentrates on how they come about, and not on their truth value. In a few chapters A also touches on the role of numbers, particularly the length of pregnancy (ch. 5.18) and the development of the fetus (ch. 5.21). Here it is quite striking how he refrains from using arithmological material, in marked contrast to parallel accounts elsewhere. He does make reference to astrological doctrines in a long and complex doxa explaining the in viability of eight-month old fetuses (5.18.6), but not with reference to the birth of twins (ch. 5.10).

But there is an unexpected presence. Two chapter headings diverge from the norm and contain an aorist verb rather than one in the present tense: ch. 5.19 on how the ζῶα came into being, and ch. 5.26 how plants grew. In addition there are a number of doxai—mostly attributed to Empedocles (5.7.1, 5.18.1, 5.19.4, 5.26.4, 5.27.1), but also one to Anaximander (5.19.3)—, which in their explana-

tions refer to cosmogonic and protological factors, including some quite bizarre doctrines. These doxai, which have parallels in Book 2, appear to be fossils from an early period of Greek scientific explanation which the doxographical tradition has preserved. We shall return to them at the end of the following section.

5 Sources: Proximate Tradition

By far the most important documents for studying doxographical traditions relevant to Book 5 are two quite different works. Censorinus in writing a birthday book for his patron in the year 238 CE (also used in the last chapter of Book 2) includes lengthy and detailed doxographies on a large number of topics relating to human life, starting with conception (ch. 4) and ending with the 'climactic age' of 81, the year of the death of 'the most holy figure of ancient philosophy', Plato (ch. 14.2). For eleven chapters in the sequence chs. 5.3–23 he offers significant and sometimes quite detailed parallels, including name-labels and doxai. Among these are chapters in which he reveals substantially more material than is found in what remains of Book 5, e.g. chs. 5.3, 5.5, 5.18 etc. In contrast the medical compilation falsely attributed to Galen, the *Definitiones medicae*, is not where one would usually look for doxography. But it has a section towards the end of the work, §§439–452, which offers brief outlines on key subjects of spermatology, embryology and gynaecology, including many doxai, though mostly anonymously presented (name-labels are only found in §§439–441 and 445). Parallel material to A is found in every chapter of this text for chs. 5.3 to 5.18 excepting 5.4, 5.12 and 5.14, and there are also four further chapters for which relevant material is found in other definitions (chs. 5.4, 5.24, 5.27, 5.29). Other later authors which provide useful parallels are Aulus Gellius (for Plato chs. 5.18 and 5.21), Tertullian who in the *De anima* ranges beyond psychology proper (see esp. chs. 5.24–25, 28), and Lactantius in the anthropological passages in his *De opificio Dei*.

It is not likely that the Latin authors just mentioned took their material directly from A or similar doxographical works. Aulus Gellius, Censorinus and Lactantius all mention Varro as an important source and it is indeed as good as certain that the parallel doxographical material was drawn from his *Logistorici*, and especially the treatise *Tubero de origine humana* (Cens. 9.1). Diels *DG* 186–198 studied the text of Censorinus in detail and argued that his source Varro drew on the *Vetusta placita*, a postulated earlier and richer version of the *Placita* as we find them in A. But this reduction to a single source is simplistic, inspired by 19th century fondness for the *Einquellentheorie*. Another vital author whom Diels cites is Cicero, but in his writings we find no material parallel to chs. 5.3–23

at all, only to chapters preceding (5.1–2) and following (5.24–25) the main body of the book. Diels also missed two further important witnesses. Philo, in the passage that yielded so much valuable evidence for Book 2 and 4 (see Introduction to Book 2, section 5, Introduction to Book 4, section 8), also unmistakably makes reference to a *doxa* in ch. 5.15, and elsewhere he also refers to a *doxa* in ch. 5.17, both on the subject of embryology. In addition, Diels makes only a ‘cavalier remark’ (M–R 3.149) on ps.Galen *Def.Med.* at DG 258 and did not exploit its rich store of parallels. Both these witnesses writing in Greek will of course not have derived their material via the Latin author Varro. However, in the summaries of the opinions of prominent Greek philosophers compiled by Hippolytus, on three occasions topics from Book 5 are referred to (A 5.7.4 Anaxagoras on male and female conception, Hippo on semen cf. ch. 5.3, Archelaus on animal intelligence cf. 5.20). Only in the first case is the *doxa* also found in A. Nevertheless a shared relationship to a common tradition may be assumed. Noteworthy too is that Clement of Alexandria, in a series of excerpts on logic appended as Book 8 of the *Stromata*, uses two parallel topics from this Book (ch. 5.15 on whether the embryo is a living being, 5.26 on whether the plant is a living being) as illustrations of how to treat *quaestiones* or προβλήματα. In the former case only positions are indicated, in the latter name-labels are added. There is also a short work preserved under the name of Galen which resembles a rhetorical exercise on the first topic arguing a particular position (θέσις) as indicated by its title Εἰ ζῶν τὸ κατὰ γαστρός. The Δικτυακά of Dionysius of Aegae as recorded by Photius contains fifty such θέσεις on medical subjects, of which the first two pairs are exactly parallel to chs. 5.3 and 5.5 (though differently formulated). These two works show that the topics in this book were traditional and could provide material for dialectical exercises.

Another key feature of Book 5, as we have already seen, is the presence of *doxai* attributed to doctors, whether by name or generically (οἱ ἰατροί). These number 26 in all (listed at M–R 3.533, 537–538), almost a quarter of the total. Aristotle had already affirmed that natural scientists and doctors had the topics of the first principles of health and disease in common (see on ch. 5.30). Diels DG 232 argued that originally the medical material in the *Placita* had been derived from a parallel *doxographical* tradition initiated by Aristotle’s pupil Meno which was later updated. However, the medical compendia available to us do not show a great overlap with the contents of Book 5. Prime among these is the *Iatrika* attributed to an unknown author who has received the name Anonymus Londiniensis. Many of the name-labels of both early Greek and Hellenistic doctors are held in common with the Aëtian *Placita*, but more specifically in ch. 5.22 on the elements of the bodily parts, 5.29 on fever and 5.30 on disease there are no exact parallels in content (similarly for the Anonymus

Parisinus, see on ch. 5.29). Another document, attributed to the Anonymus Bruxellensis, is more interesting because its subject is spermatology and there is much similarity in terms of the subjects treated. But name-labels are scarce and in the key passage on the nature of semen the author refers to doctors (as does *Def.Med.*), whereas A only cites philosophers (ch. 5.3). Other works that give access to material on doctors drawn from the proximate tradition are Celsus *De medicina* (on ch. 5.27), ps.Galen *Introductio sive medicus* (5.29), Soranus *Gynaecia* (on 5.3, 5.5 etc.), and ps.Soranus *Quaestiones medicinales* (5.27, 5.29).

How far back can this proximate tradition on topics of physiology and biology be traced? There are faint indications that Epicurus, like in the case of Books 2 and 3, may have drawn on doxographical material, at least in the organisation of his remarks on physiology (see the scholion cited on ch. 5.3 on the nature of semen). His later follower Lucretius too appears to follow well-worn paths in his statements on the subjects of heredity (cf. ch. 5.11) and sterility (cf. ch. 5.9, 5.13). Stoic doctrine, as witnessed by the summary of the φυσικὸς λόγος at Diogenes Laertius *V.P.* 7.133, also appears to be indebted to such organisational schemata (M–R 2.1.107–108). Earlier some fairly tenuous links with the writings of Theophrastus can be identified (5.19 on the eternity of animal species, 5.20 on Diogenes and 5.28 on Empedocles, both as summarised in the *De sensibus*). But there is also indirect evidence that points to early collections of material. Firstly, as noted above in section 3, there is the sheer preponderance of names and doxai from the Presocratic period (14 out of 35 names, 60 out of 114 doxai), with a particular predilection for Empedocles, whose presence in this book, as we have already noted in section 3, is quite dominant. Secondly and more specifically, there is the already noted curious series of ‘fossilised’ doxai which include cosmogonic and protological factors in their explanations. These would seem to indicate that at some stage, on a number of topics included in this book, distillations were made of material originally drawn at greater length from early poems and treatises which gave ‘scientific’ explanations in terms of the origins of the cosmos and the living beings that populated it. The Peripatos is the most logical place for this to have happened. But we also have to take into account other less specifically doxographical sources.

6 Other Source Material

Traditional themes such as the connection between sleep and death (ch. 5.24) and the ages of man (ch. 5.23) go back to the archaic period and poets such as Homer and Solon. But the first writers to express what we might call sci-

entific views on physiological and biological themes were the early Greek philosophers, with a pioneering role played, it seems, by Alcmaeon. Their poems and prose writings are for the most part lost, but with the assistance of later authors such as Aristotle, Plutarch and Galen we gain occasional glimpses into the original formulation of their views. This is particularly the case for Empedocles (chs. 5.7, 5.14, 5.18–19, 5.21–22, 5.26–28), but also for Parmenides (5.7), Anaxagoras (5.29) and Diogenes of Apollonia (5.21). The first relevant collection of writings which are fully preserved is the Hippocratic corpus. On many of the topics in Book 5 it provides interesting parallel information, e.g. on female semen (ch. 5.5), heredity (chs. 5.9–10, 5.12), the embryo (5.15), nutrition (5.27) and so on. In the case of two chapters the connections are more direct. In ch. 5.18 Hippocrates' followers and his son-in-law Polybus are referred to, and pronouncements of the latter on the viability of seven- and eight-month olds are drawn from the treatise *De octimestri partu* which in antiquity was attributed to him. In ch. 5.21 on the formation of embryos in the womb we can see that the author of *De natura pueri* was influenced by Empedocles' views and may himself in turn have exercised influence on the doctor Asclepiades in his differentiation of male and female embryos. But the Hippocratic view is not included in the chapter as it has come down to us.

About a generation later than these two Hippocratic works Plato in the *Timaeus* gives a detailed account of many features of the male human being, to which are appended briefer remarks on women and other living beings. In the main body of the book only views on semen (chs. 5.4–5) and the embryo (5.15) are included, but in the peripheral chapters we also find views on divination (5.1), the genera of ζῷα (5.20) and the relationship between plants and animals. The source for all these views is exclusively the *Timaeus*. Of much greater significance are the biological writings of Aristotle. Above all in the *De generatione animalium*, but also in the *De partibus animalium* and *Historia animalium*, we find discussions of almost all the Book's topics. But in determining the extent of his influence it is necessary to be more precise. Aristotle's biological works are wide-ranging, covering broad areas of the animal world. Book 5 focuses primarily, as we have seen, on human beings. It is above all in the organisation and general outline of biological and physiological topics that Aristotle's influence on the book's contents is most marked. For the majority of the chapter headings there are parallels in his works, as can be seen in the relevant listings in the Further Related Texts, section E(a)&(b). A noteworthy example is the actual title of *De generatione animalium*, Περὶ ζῶων γενέσεως, which is identical to the first part of the chapter heading of ch. 5.20. But for the actual content of the reported doxai the number of specific parallels is quite limited. This is the case for the views of philosophers earlier than Aristotle, but also for the doxai attributed

to the Stagirite himself. Of the ten doxai with Aristotle as name-label only in two cases is it at all likely that they may be traced directly to his own words, in A 5.18.4 to a text in *Historia animalium* 10 (if this book is authentic, see on ch. 5.9), and in 5.17.2 to a text in *Metaphysica* Δ. The *Placita* are thus proof of the continuing influence of Aristotle's biological works in the Hellenistic period, but do not necessarily show that they were being read. An intermediate stage in the process of reception has taken place.

As we have seen in the previous books, the *Placita* underwent substantial development during the Hellenistic period under the influence of new streams of philosophical and scientific thought. A is aware that on some issues Epicurus and his school take a distinct position, e.g. on the validity of divination (5.1.2) and the status of the heavenly beings (5.20.2), but mostly the founder is portrayed as following in the wake of the earlier atomists (in fact the doxa in divination is the only case where he is independent). Apart from Diogenes Laertius and Lucretius (already mentioned above in the previous section) we do not have the sources to trace further Epicurean influence in detail, but there is an unusual case at 5.12.3 where it seems that Epicurean terminology is used to formulate a Stoic doxa on mental *συνπάθεια* which might explain how children can resemble other people rather than their parents. The Stoa is more solidly represented in the book, but here too, in the absence of extant sources beyond doxographical accounts, we can only estimate the influence of Stoic ideas on the formulation of doxai. Certainly the quaestio of the corporeality of semen (ch. 5.4, note the key role of Zeno together with the atomist Leucippus starting off the chapter) and the emphasis on the role of *pneuma* in various physiological processes (chs. 5.15, 5.24) suggest such influence. The latter role is also credited to the Peripatetic Strato (chs. 5.4, 5.8, 5.24) and the doctors (chs. 5.8, 5.15, 5.29) and it is difficult to determine the extent to which these views have been reformulated in terms of Stoic doctrine. Very little is noticeable of the influence of Middle Platonist views which was on the rise in the period just before A put together his compendium, but mention may be made of the listing of the kinds of living beings in ch. 5.20 and the concomitant theology, which is consistent with the heavily Middle Platonist theology at 1.7.22, and also of the inclusion of Pythagoras combined with Plato in that same chapter (A 5.20.4), to which Aristotle is added in 5.4.2.

In the case of the doctors of the post-Aristotelian period too, beginning with Diocles and ending with Asclepiades, all their works have been lost and it is impossible to determine the provenance of the doctrines in the *Placita* or their authenticity. A striking case is on the infertility of women, treated in both chs. 5.9 and 5.13. The same view is credited to both Diocles and the Stoa, and we cannot be certain of the validity of the respective attributions (though Dio-

cles' credentials are superior). At A 5.14.3 on the sterility of mules a passage appears to be cited from Diocles verbatim, presumably a remnant of an earlier stage of the tradition when there had been direct access to his works. Later doctors can also shine light on certain topics. This is particularly the case for the great Galen, most notably in his *De semine* and *De foetuum formatione*. Galen is well acquainted with the dialectical method of the *Placita* (see the overview of Tieleman in M–R 4.453–472 and above, General Introduction section 5.2.1), but he appears to betray no direct knowledge of the doxai as compiled in A's Book. Other medical authors who can shed light on its contents are Soranus (esp. the *Gynaecia*, see on chs. 5.3–6, 5.9, 5.12, 5.16, 5.18), Aëtius medicus and Oribasius.

Finally we should point out that two chapters in Book 5 are of particular interest and value for understanding the tradition of the *Placita*. In ch. 5.7 on the conception of males and females we can see the layered nature of the sources that have come together in A's compendium: first the original works of the philosophers and doctors that provide the reports of original research (or speculation), next the organising talent of Aristotle and his school, and finally the specific conversion of the material into the schematism of the *Placita*, with its combination of name-labels and doctrines, which will have been produced in various iterations before reaching A and the works dependent on him. In ch. 5.18 on the viability of fetuses for differing terms of pregnancy we encounter six longer than usual doxai on a much discussed subject in antiquity, not only giving views of seldom cited thinkers, but perhaps also yielding some insight into earlier and fuller forms of exposition found in the *Placita* prior to the version of A, which in the case of Book 5 in its surviving form has unfortunately been even further reduced than elsewhere.

Liber 5 Titulus et index

T: Theodoretus CAG 4.31 Raeder, cf. 2.95, 5.16 (titulus)—P^B: ps.Plutarchus 904C–D; p. 269 Diels—P^Q: Qustā ibn Lūqā p. 216 Daiber (titulus), pinax in ms. Damascenus fol. 7^v (ineditus)

Titulus ΑΕΤΙΟΥ ΠΕΡΙ ΤΩΝ ΑΡΕΣΚΟΝΤΩΝ ΤΟ Ε', ἐν ᾧ κεφάλαια τάδε·

Index

α'.	Περὶ μαντικῆς	
β'.	Πῶς ὄνειροι γίνονται	
γ'.	Τίς ἡ οὐσία τοῦ σπέρματος	5
δ'.	Εἰ σῶμα τὸ σπέρμα	
ε'.	Εἰ καὶ αἱ θήλειαι προΐενται σπέρμα	
ς'.	Πῶς αἱ συλλήψεις γίνονται	
ζ'.	Πῶς ἄρρενα γεννᾶται καὶ θήλεα	
η'.	Πῶς τέρατα γίνεται	10
θ'.	Διὰ τί γυνὴ πολλάκις συνουσιάζουσα οὐ συλλαμβάνει	
ι'.	Πῶς δίδυμα καὶ τρίδυμα γίνεται	
ια'.	Πόθεν γίνονται τῶν γονέων ἡ ὁμοίωσις καὶ τῶν προγόνων	
ιβ'.	Πῶς ἄλλοις ὅμοιοι γίνονται οἱ γεννώμενοι καὶ οὐ τοῖς γονεῦσιν	
ιγ'.	Πῶς στεῖραι γίνονται αἱ γυναῖκες καὶ ἄγονοι οἱ ἄνδρες	15
ιδ'.	Διὰ τί αἱ ἡμίονοι στεῖραι	
ιε'.	Εἰ τὸ ἔμβρυον ζῶον	
ισ'.	Πῶς τρέφεται τὰ ἔμβρυα	
ιζ'.	Τί πρῶτον τελεσιουργεῖται ἐν τῇ γαστρὶ	
ιη'.	Διὰ τί τὰ ἑπταμηνιαῖα γόνιμα	20

titulus [1] scripsimus, cf. T 4.31 et M–R 1.326 : Πλουτάρχου φιλοσόφου τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν δογμάτων ἐν ἐπιτομῇ τὸ ε', ἐν ᾧ κεφάλαια τάδε P^{B(1)} : βιβλίον πέμπτον ἐν ᾧ κεφάλαια τάδε P^{B(11)} : περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις βιβλίον ε' P^{B(111E)} : om. P^{B(111x)} : *Die fünfte Abhandlung aus dem Buch des Plutarchos* Q

index totum indicem om. P^{B(111x)G} : exstat in P^Q ms. Z sed hactenus ineditus, vid. comm. infra || [4] ὄνειροι P^{B(1,111)} : οἱ ὄνειροι P^{B(11)}, *der Traum* Q || [7] καὶ P^{B(11–111)} : om. P^{B(1)Q} || [9] γεννᾶται καὶ θήλεα P^{B(1)} : καὶ θήλεα γεννᾶται P^{B(11)} : γεννῶνται καὶ θήλεα P^{B(111)} || [10] τέρατα P^{B(1,111)Q} : ἄρρενα P^{B(1)} || [12] γίνεται P^{B(1–111A)} : γίνονται P^{B(111E)} || [13] Πόθεν ... προγόνων, cf. tit. c. 5.11 : ἡ ὁμοίωσις, cf. *die Ähnlichkeit* Q : αἱ ὁμοιώσεις P^{B(1,11)} : om. αἱ P^{B(111)} καὶ P^{B(111AE)}, cf. *und* Q : ἡ P^{B(1,11)} || προγόνων] προτέρων P^{B(111E)} || [14] ὅμοιοι γίνονται P^{B(1)} : inv. P^{B(1,111)} || οἱ γεννώμενοι P^{B(1)Q} : om. P^{B(1,111)} || τοῖς γονεῦσιν P^B : *ihren Vätern* Q || [15] αἱ P^{B(1,11)} : om. P^{B(111)} || οἱ P^{B(1,11)} : om. P^{B(111)} || [19] τῇ P^{B(1,111)} : om. P^{B(1)} || [20] τὰ P^{B(1,111)} : om. P^{B(1)} || add. Q *aber die in acht Monaten (Geborenen) nicht aufgezogen werden?*

- ιθ'. Περὶ ζώων γενέσεως, πῶς ἐγένοντο ζῶα, καὶ εἰ φθαρτά
 κ'. Πόσα γένη ζώων καὶ εἰ πάντα αἰσθητικά καὶ λογικά
 κα'. Ἐν πόσῳ χρόνῳ μορφοῦται τὰ ζῶα ἐν τῇ γαστρὶ ὄντα
 κβ'. Ἐκ ποίων συνίσταται στοιχείων ἕκαστον τῶν ἐν ἡμῖν γενικῶν μορίων
 κγ'. Πότε ἀρχεται ὁ ἄνθρωπος τῆς τελειότητος 25
 κδ'. Πῶς ὕπνος γίνεται καὶ θάνατος
 κε'. Ὅποτέρου ἐστὶν ὕπνος καὶ θάνατος, ψυχῆς ἢ σώματος
 κς'. Πῶς ἠὺξήθη τὰ φυτὰ καὶ εἰ ζῶα
 κζ'. Περὶ τροφῆς καὶ αὐξήσεως
 κη'. Πόθεν αἱ ὁρέξεις γίνονται τοῖς ζώοις καὶ αἱ ἡδοναί 30
 κθ'. Πῶς γίνεται πυρετὸς καὶ εἰ ἐπιγέννημά ἐστιν
 λ'. Περὶ ὑγείας καὶ νόσου καὶ γήρωος

[21] Περὶ ... φθαρτά P^B : *Über Werden und Vergehen der Lebewesen* Q || [22] αἰσθητικά P^{B(I)} : αἰσθητά P^{B(II,III)} || [23] πόσῳ P^{B(II, III)} : ποίῳ P^{B(II)Q} || [25–26] titulos κγ' et κδ' transp. P^{B(III)} numeris permutatis || [25] πότε ... τελειότητος, cf. tit. c. 5.23 : πότε καὶ πῶς P^B : *wie* Q || [26] post θάνατος hab. P^{B(I,III:AE)} τῆς ψυχῆς ἢ σώματος, cf. *und bedeutet er einen Tod für die Seele und den Körper* Q || [27] om. P^{B(II)} numeros κε'–κθ' titulis κς'–λ' attribuens || [30] αἱ om. P^{B(III:E)} [31] πυρετὸς P^{B(I–III:A)} : ὁ πυρετὸς P^{B(III:E)Q} || [32] νόσου καὶ γήρωος P^{B(III:E)Q} : inv. P^{B(II,III:A)}

Testes primi:

Theodoretus CAG 4.31 vid. lib. 1. titulus et index

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

As discussed in the equivalent chapter of Book 1, for the title of the entire work and its individual books we must rely on the evidence of T, the only witness to cite the title of the original work and give the name of its author. The titles in P and those witnesses dependent on its tradition are expanded versions of the original title. The title at the head of this Book in P^B is similar to that of Book 4 in that it omits the preposition Περὶ at the beginning, but it does make a reference to the *epitome* character of the work. In Q's translation, as was the case for Book 2, the title is not translated, but only the number of the book and its author are indicated. There are no other witnesses to the title of this book.

The index is found in most mss. of P^B. In addition, one of the mss. of Q, Zāhi-riya (Damascus) 4871, contains a translation of the list and thus provides valu-

able additional evidence on the manuscript tradition. Daiber did not include it in his edition, but he has kindly provided the editors with a translation (see Appendix in vol. 4). On this translation and its source see further the Commentary on Book 1 titulus et index. Both Eusebius and Symeon Seth did not make use of this book, so unlike for the previous four books, they do not provide any additional evidence.

For the question whether A's text contained the index see Book 1 titulus et index Commentary D. On the practice of prefacing texts with tables of content and chapter headings see Book 1 titulus et index Commentary D(e).

C *Book Title*

See above, section A. On how this title relates to the title of the original work see Book 1 titulus et index Commentary C.

D *Analysis of the Index*

(1) For a discussion giving the reasons why we are convinced that A's original compendium contained these indices at the beginning of each book, see M–R 2.196–204 and Book 1 titulus et index Commentary D(6) and D(e).

(2) For the methodology of the reconstruction of the index see Book 1 titulus et index Commentary D(3). We argue that priority must be given to the chapter headings in the text of the chapters themselves, since A will have based his index on these when he compiled the work. It is thus to be assumed that the list of chapter headings in the index accurately reflects the chapter headings in the text of the Book.

(3) In the present book the chapter headings in the list of P^B correspond closely to those found in the body of the book, as is to be expected. The only case where the intra-textual heading has a reading not found in at least one ms. of the index is at ch. 5.11 where the singular ἡ ὁμοίωσις in the chapter heading corresponds to a plural αἱ ὁμοιώσεις in the pinax as recorded in the mss.

(4) Three of the headings in Q's list differ from their equivalent in P^B (and in the text of the book in Q himself), namely chs. 18, 19 and 24. Each case is different. For ch. 18 Q appears to have lengthened the heading based on the contents of the chapter. This may be another indication that he drew up his list based on the Book's contents rather than translating a list in his original (cf. our Commentary on the Index of Book 2, section D). For ch. 19 it looks like the heading in the index is an abridged version of the title of the chapter in the book itself. For ch. 24 he shares the longer heading with two of the manuscript families, but grammatically the resultant heading is awkward and it is likely that the words τῆς ψυχῆς ἡ σώματος have been copied across from the heading of the next chapter.

D(e) *Other Evidence*

For further discussion on the use of *pinakes* (tables of contents) in ancient works see Book 1 titulus et index Commentary D(e). See also the same chapter Commentary E for an extensive list of parallel texts relating to the compilation and use of *pinakes* (tables of contents) or indices of chapter headings.

In the section E Further related texts below, parallel to our presentation in Book 4 titulus et index, we present a limited number of texts in which subjects relating to the physiology of the body are described in terms more or less reminiscent of the list of headings in A's Book 5. In the case of Celsus, because he is introducing the different theories of medicine, the focus is wholly on questions of health and disease formulated in terms of causation. This concurs well with A's presentation in Book 5, in which—as noted in the Introduction, section 4—the majority of topics are formulated in terms of seeking after the cause. Pliny's list of topics is broader but much less organised (and in his treatment he includes almost no doxography as such). His index is formulated as a list of topics, usually in the nominative, but also using the preposition *de*, i.e. equivalent to the 'umbrella' formulation with Περί in the *Placita*.

E *Further Related Texts*

a Proximate Tradition

Philo Cher. 114 ποῦ γάρ μου τὸ σῶμα πρὸ γενέσεως ἦν; ποῖ δὲ καὶ χωρήσει μεταστάντος (μου); ποῦ δὲ καὶ τοῦ δοκοῦντος ὑφεστάναι τῶν ἡλικιῶν αἱ διαφοραί; ποῦ τὸ βρέφος, ποῦ ὁ παῖς, ποῦ (ὁ) ἀντίπαις, ποῦ ὁ ἄρτι ἡβῶν, ποῦ τὸ μειράκιον, ὁ πρωτογένειος, ὁ νεανίας, ὁ τέλειος ἀνὴρ (cf. ch. 5.23) κτλ. (for the rest of the text see Book 4 titulus et index Commentary E(a)). **Celsus Med.** 1 *proem.* 13–20, 45–46 *igitur ii, qui rationalem medicinam profitentur, haec necessaria esse proponunt: abditarum et morbos continentium causarum notitiam, deinde evidentium; post haec etiam naturalium actionum; novissime partium interiorum.* (14) *abditas causas vocant, in quibus requiritur, ex quibus principiis nostra corpora sint, quid secundam, quid adversam valetudinem* (cf. ch. 5.29) *faciat. neque enim credunt, posse eum scire, quomodo morbos curare conveniat, qui, unde hi sint, ignoret; neque esse dubium, quin alia curatione opus sit, si ex quatuor principiis vel superans aliquid, vel deficiens adversam valetudinem* (ch. 5.30) *creat; ut quidam ex sapientiae professoribus dixerunt ...* (18) *evidentes vero eas [sc. causas] appellant, in quibus quaerunt, initium morbi calor attulerit, an frigus; fames, an satietas; et quae similia sunt; occurrurum enim vitio dicunt eum, qui originem non ignorarit.* (19) *naturales vero corporis actiones appellant, per quas spiritum trahimus et emittimus* (ch. 4.22); *cibum potionemque et assumimus et concoquimus* (ch. 5.27); *itemque per quas eadem haec in omnes membrorum partes digeruntur. tum requirunt etiam, quare venae nostrae modo submittant se, modo attollant; quae ratio somni, quae vigiliae sit* (ch. 5.24); *sine quorum notitia neminem putant vel occurrere, vel mederi morbis inter haec nascenti-*

bus posse. (20) ex quibus quia maxime pertinere ad rem concoctio videtur, huic potissimum insistunt (ch. 5.27) ... (45) quum haec per multa volumina, perque magnae contentionis disputationes a medicis saepe tractata sint atque tractentur: subjiciendum est, quae proxima vero videri possint. ea neque addicta alterutri opinioni sunt, neque ab utraque nimium abhorrentia; media quodammodo inter diversas sententias: quod in plurimis contentionibus deprehendere licet, sine ambitione verum scrutantibus, ut in hac ipsa re; (46) nam quae demum causae, vel secundam valetudinem praestent (ch. 5.30), vel morbos excitent (cf. ch. 5.29); quomodo spiritus (ch. 4.22), aut cibus (ch. 5.27), vel trahatur, vel digeratur, ne sapientiae quidem professores scientia comprehendunt, sed conjectura persequuntur.

b Sources and Other Parallel Texts

Pliny Nat. Libro VII. continentur: ... *de homine generando* (ch. 5.3–10): *pariendi tempora per inlustria exempla a mensibus VII ad XIII* (cf. ch. 5.18), ... *monstruosi partus* (ch. 5.8), ... *de conceptu hominum* (ch. 5.6), *de generatione hominum* (ch. 5.7), *similitudinum exempla* (cf. 5.11–12), *numerosissimae subolis exempla* (cf. ch. 5.10) ... *quae ratio generandi* (cf. ch. 5.9), ... *de divinatione* (ch. 5.1), ... *de spatiis vitae longissimis* (cf. ch. 5.23), ... *in morbis exempla varia* (cf. ch. 5.29), *de morte* (cf. ch. 5.30), *de anima* (cf. ch. 4.2–7a). **Libri VIII–XI de animalibus** (cf. ch. 5.19–20). **Liber XII. continentur arborum naturae** (cf. ch. 5.26).

Liber 5 Caput 1

PP: *Papyrus Antinoopolis* 85 fr. 6 verso p. 78 (et adn. p. 82) Barns–Zilliacus—
PB: ps.Plutarchus *Plac.* 904E; pp. 415^a10–416^a5 Diels—PG: ps.Galenus *HPh*
c. 105; p. 639.22–29 Diels; pp. 324–325–331 Jas—PQ: Quṣṭā ibn Lūqā pp. 216–
217 Daiber

Titulus α'. Περὶ μαντικῆς (P)

- §1 Πλάτων καὶ οἱ Στωικοὶ τὴν μαντικὴν εἰσάγουσι κατὰ τὸ θεόπεμπτον
εἶναι, ὅπερ ἐστὶν ἐνθεαστικόν, καὶ κατὰ θεϊότητα τῆς ψυχῆς, ὅπερ ἐστὶν
ἐνθουσιαστικόν· καὶ τὸ ὄνειροπολικόν καὶ τὸ ἀστρομαντικόν καὶ τὸ
ὀρνεοσκοπικόν καὶ τὸ ἱεροσκοπικόν. οὗτοι τὰ πλείστα μέρη τῆς 5
μαντικῆς ἐγκρίνουσι. (P1)
- §2 Ξενοφάνης καὶ Ἐπίκουρος ἀναιροῦσι τὴν μαντικὴν. (P2)
- §3 Πυθαγόρας δὲ μόνον τὸ θυτικόν οὐκ ἐγκρίνει. (P3)
- §4 Ἀριστοτέλης καὶ Δικαίαρχος τὸ κατ' ἐνθουσιασμόν μόνον παρεισάγουσι
καὶ τοὺς ὀνείρους, ἀθάνατον μὲν εἶναι οὐ νομίζοντες τὴν ψυχὴν, θεοῦ δέ 10
τινος μετέχειν αὐτῇν. (P4)

§1 Plato cf. *Tim.* 71e, *Phdr.* 244b–c; Stoici *SVF* 2.1190; §2 Xenophanes 21A52 DK; Epicurus
fr. 395 Usener; §3 Pythagoras —; §4 Aristoteles cf. *Div.Somm.* 1 463b12–14; Dicaearchus
fr. 13b Wehrli, 30B Mirhardy

§1 [2] εἰσάγουσι PB(IIII)G, cf. *bekannten sich zu der Wahrsagekunst* Q : εἶναι λέγουσι PB(II) ||
[2–3] κατὰ τὸ θεόπεμπτον εἶναι scripsimus : καὶ γὰρ θεόπεμπτον εἶναι PG Primavesi : κατὰ
τὸ ἔνθεον PB Diels Mau Lachenaud : cf. Q *gemäß der göttlichen fünften Substanz* = κατὰ
τὸ θεῖον πεμπτόν ? || [3] ἐνθεαστικόν PG Diels Mau Lachenaud : *sehend* Q qui ἐνθεαστικόν
legisse et a verbo ἐνθεάομαι derivasse videtur : ἐνθουσιαστικόν PB || [3–4] καὶ ... ἐνθουσιαστι-
κόν Primavesi : κατὰ τὸ θεϊότατον τῆς ψυχῆς, ὅπερ ἐστὶν ἐνθουσιαστικόν PG : κατὰ θιο[τητα
| εν]θουσιαστι[χον PP : *und entsprechend der Göttlichkeit der Seele. Dies ist, was "Eingebung"*
genannt wird Q : κατὰ θεϊότητα τῆς ψυχῆς, ὅπερ εἶπεν ἐνθουσιαστικόν PB : ut glosses del.
Diels Mau Lachenaud || [3] ἐστὶν] εἶπεν PG(I)Nic Jas (PG2 ἐστὶν) || [4–5] καὶ τὸ ἀστρομαντι-
κόν ... ἱεροσκοπικόν Primavesi (sc. εἰσάγουσι ex l. 1) : καὶ τ[ρο]αστρομαν[τικον]καὶτοορνεοσκοπι
| κονκαὶτ[ρο]ορνεοσκοπι[χον PP sec. reconstr. Primavesi (vid. comm.) : καὶ τὸ ἀστρονομικόν καὶ τὸ
ὀρνεοσκοπικόν PG : *was ... in der astrologischen Wahrsagerei und im Wegjagen der Vögel (zur*
Gewinnung von Omen) geschieht Q : om. PB Diels Mau Lachenaud || [5–6] οὗτοι ... ἐγκρί-
νουσι PB, cf. Q *dieses sind alle Teile der Wahrsagerei* :] μέρη τῆς μ[αντικῆς PP : non hab. PG ||
[5] πλείστα] *alle* Q || [6] ἐγκρίνουσι PB : superscr. εἰσάγουσι PB(II) : om. PQ ut vid. §2 [7]
Ξενοφάνης ... μαντικὴν PB^{GQ} : lemma non hab. PP §3 [8] θυτικόν] πυθικόν PG || οὐκ] om.
PB(III)E §4 [9] Δικαίαρχος PB : Δίαρχος PG : Δήμαρχος PQ (?) || [9–10] τὸ ... ὀνείρους] al. PG
τοὺς ὀνείρους εἰσάγουσιν || [10] εἶναι] om. PG || τὴν ψυχὴν post μὲν ponit PG || [11] αὐτῇν] om.
PG

indices of Photius and the Laurentianus ms. Because the chapter is lost, we do not know whether it may have contained material from the *Placita*. The addition of the words καὶ ὡς εἴη ἀναγκαία τῷ βίῳ καὶ ἡ τῶν μελλόντων πρόγνωσις (only in L, not in Photius) indicates that the contents of this chapter will most likely have had an ethical rather than a physical emphasis (compare *Ecl.* 2.27 Περὶ ἀνάγκης τῆς κατὰ τὸν βίον (also lost) with the chapters on necessity in A 1.25–26).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The only treatise on the subject that has survived is Cicero's *De divinatione*, written hurriedly as part of the sequence of his philosophical treatises. Its introduction is most valuable, not only because it contains a doxography showing important similarities to our chapter (esp. in §5), but also on account of its overview of literary treatments of the subject by the Stoa and other Hellenistic schools (§6). We give an analysis of the contents of Cicero's introductory section in relation to the present chapter below in section D(e). There can be no doubt that its analysis of philosophical views is indebted to the tradition proximate to the *Placita*, as is the case for his treatment of principles in *Luc.* 117 (cf. A 1.3), of theology in *ND* 1.25–41 (cf. A 1.7), of psychology in *Tusc.* Book 1 (cf. A 4.2–7 and esp. 4.9) etc; see further above at the relevant chapters, all at Commentary B.

Other material on this subject that reveals a link with the wider doxographical tradition is scarce. The Stoic definition given by Arius Didymus in his ethical doxography (text below section E(a)§1), like §1 in our chapter, emphasises the connection with the divine but only mentions the kinds (εἶδη) of divination without specifying them further. Sextus Empiricus at *M.* 9.132 links the subject directly to the question of the existence of the gods (cf. ch. 1.7) and specifies four kinds of divination (though not called as such), which closely resemble the list in §1 (but bird-watching not included). On this text see also Section D(d) below.

(2) *Sources.* The art and practice of divination in its various forms occupied a central place in Greek culture from the archaic period onwards, declining in influence after the fourth century but retaining a presence until in late antiquity it finally wilted under the assault of Christianity. Already in the fifth century its practices were subjected to philosophical critiques, leading to mixed responses as is witnessed by the contents of the present chapter. We know nothing about the content of Xenophanes' critique. Plato's nuanced pronouncements on the subject at *Tim.* 71e–72b, which focuses on the role of dreams and visions, were highly influential. The Stoic contribution to discussions was particularly fecund and influential; see the still always useful

overview of Wachsmuth (1860). On philosophical critiques of divination in general see Burkert (2005) 48–51; broader surveys in Pfeffer (1976), Struck (2009), but without reference to this text.

C Chapter Heading

The umbrella formula Περὶ x is found in all witnesses. It frequently occurs as a book title, e.g. in Cicero's work *Dñv.* and in the treatises cited at D.L. 9.147. Here it covers the question types of existence and substance.

D Analysis

a Context

There is no introductory statement regarding the contents of the book, unlike at the beginning of Books 1–4. So we must presume that it continues the treatment of the τὰ κατὰ μέρος introduced at the beginning of Book 4. The basic division in terms of contents between the two books is not clear-cut, but it can be roughly formulated as comprising psychology (predominantly human) in Book 4 and physiology (human and animal) in Book 5, or in ancient formulation between περὶ ψυχῆς and περὶ ζῴου. From that perspective both 5.1 on divination and 5.2 on dreams might have been better placed in Book 4 (but see the comments at ch. 4.23 Commentary D(a)). We can compare the beginning of Book 4, where the first chapter clearly belongs with the previous book; see ch. 3.16 Commentary D(a), ch. 3.17 Commentary D(a), ch. 4.1 Commentary D(a), and the Introduction to Book 5 section 2.

b Number–Order of Lemmata

The first lemma is of particular interest because of the major divergence of the witnesses at no less than three places.

(1) In the case of the first reason attributed to Plato and the Stoics for accepting divination we read κατὰ τὸ θεόπεμπτον εἶναι based on P^G, in preference to the briefer reading of P^B κατὰ τὸ ἐνθεον. As noted by O. Primavesi (unpublished paper), the strange rendering of Q, *gemäß der göttlichen fünften Substanz*, can be explained through a misconstrual of the Greek by the translator who read κατὰ τὸ θε[ῖ]ο[ν]πεμπτὸν εἶναι instead of κατὰ τὸ θεόπεμπτον εἶναι.

(2) The phrase κατὰ θεϊότητα τῆς ψυχῆς ὅπερ ἐστὶν ἐνθουσιαστικόν was regarded by Diels, followed by Mau and Lachenaud, as a gloss (or doublet) of the previous phrase. But this is certainly incorrect, for these words are attested by the papyrus and are also present in G and Q. All three witnesses add it as a second reason for acceptance of divination, making a distinction between ἐνθεαστικόν and ἐνθουσιαστικόν, the former emphasizing the visionary aspect, the latter the aspect of divine possession. On ἐνθεαστικόν see further below sec-

tion D(e). These two reasons for accepting divination recur by implication in the fourth lemma.

(3) In P^B only the further aspect of the interpretation of dreams (τὸ ὄνειροπολικόν) is added. Here too P^G and Q supply additional material, both including divination of the stars (τὸ ἀστρομαντικόν) and the inspection of birds (τὸ ὀρνεοσκοπικόν). These should both be included in the text. But the small papyrus snippet points to even more material. In an unpublished paper O. Primavesi has suggested the following text for the papyrus, incorporating the material identified by Barns and Zilliaceus (letters in bold type present in the papyrus; see text above under *testes primi*):

Πλάτωνκαί οἱ Στωικοὶ τὴν μαντικὴν εἰσάγου
 σικαὶ γὰρ θεόπεμπτον εἶναι ὁ περὲς τὴν ἐνθεα
 στικὸν καὶ κατὰ θιότητα τῆς ψυχῆς ὁ
 περὲς τὴν ἐνθουσιαστικὸν καὶ τὸ ὄνειροπο
 5 λικὸν καὶ τὸ ἀστρομαντικὸν καὶ τὸ ὀρνεοσκοπι
 κὸν καὶ τὸ ἱεροσκοπικόν. οὐ τοι τὰ
 πλεῖστα μέρη τῆς μαντικῆς ἐγκρίνουσι
 Πυθαγόρας δὲ μόνον τὸ θυτικὸν οὐκ ἐγκρί
 νει Ἀριστοτέλης καὶ Δικαίαρχος τὸ κατ' ἐν
 10 θουσιασμὸν μόνον παρὰ εἰσάγουσικαὶ τοὺς
 ὄνειρους ἀθάνατον μὲν εἶναι οὐ νομίζοντες
 τὴν ψυχὴν θείου δέ τινος μετέχειν αὐτήν.

This reconstruction demonstrates that, contrary to our view in M–R 1.129, the papyrus does not have the term τὸ ἱεροσκοπικόν instead of, but rather *in addition to* τὸ ὀρνεοσκοπικόν, thus revealing four further aspects of divination compared to just the one in P^B and three in P^G and P^Q. Admittedly line 5 with this term is the longest (38 letters), but only marginally so (compare line 1 (37), line 2 (36), line 11 (35) etc.). Primavesi's reconstruction is fully convincing and we have included it in our text above. The reason for the omissions will in both cases have been haplography. Jas (2018a) 322 raises the possibility that in the papyrus τὸ ἱεροσκοπικόν replaces the original τὸ ὀρνεοσκοπικόν and concludes that this is a question the future editor of P will have to decide.

A further reason for accepting the majority readings of P^G, P^Q and P^P against P^B in this lemma is that their evidence coheres well with further doxographical material found in Cicero and other authors. In the case of the fourth lemma on Aristotle and Dicaearchus, however, P^G omits one of two aspects of divination mentioned in P^{BQ}, so here he has followed his frequent practice of reducing the material in P that he had in front of him.

c Rationale–Structure of Chapter

The structure of the chapter as preserved in P is not difficult to divine. The first lemma introduces the subject and outlines a maximum view of what divination covers. As the final words of the lemma indicate, the emphasis comes to lie on the parts of *μαντική*. As emphasized in the Stoic doxography at D.L. 7.149, it is a *τέχνη* (already affirmed at Eur. *Phoen.* 772, Pl. *Plt.* 260e, Arist. *Pol.* 1274a28), and so can be divided into parts.

To start with, two kinds of divination are privileged, through divine messaging (*κατὰ τὸ θεόπεμπτον*) and through divine possession. Implicit in the former is perhaps the special role of dreams, although this is not made explicit (cf. the doxography in Cicero to be discussed below in section D(e)). The recognition of divination in the case of these two elements is attributed to Plato and the Stoics. In the remainder of the lemma the scope is then widened to four kinds of divination, of which the kind through dreams is mentioned first. The second lemma goes to the opposite extreme, with every kind of divination rejected. In the third only one of the kinds introduced at the outset is not included, if we take *τὸ θυτικόν* to refer to *τὸ ἱεροσκοπικόν* in §1. This is further evidence in favour of the reading of the papyrus. The final lemma only admits two of the five (or six) kinds, the same two with which the first lemma commenced.

As often in P, the contours of a diaeresis are thus fairly clear, but we may wonder whether his process of epitomization has obscured a clearer original. The combination of labels in the first lemma—Plato and the Stoics—is awkward. The first part up to *ἐνθουσιαστικόν* is clearly based on the well-known text at *Tim.* 71e, though with some embellishment (and wholly deleting the aspect of Platonic irony). The next part is purely Stoic, as parallels in Cicero and Diogenes Laertius show (see below, section E(a)§1). In the final sentence, as Diels ad loc. noted, *οὗτοι* must refer to the Stoics. It is possible that P combined two separate lemmata in A (the combination of these two name-labels on their own occurs only here in P—in both P 2.17.4 and 5.24.4 one of the two has to be emended away—and never in S or T). Unlike in the parallel text in Cicero, P does not start with the view denying the validity of divination. This is what we might have expected, since the quaestio addressed in the chapter is that of existence and substance, and so it is logical to commence with a view in which the existence of the phenomenon is denied; cf. the chapters 1.7 on the gods, 1.18 on the void, 1.24 on coming to be and passing away etc. The contrasting view of Pythagoras (note the adversative *δέ*) would follow the first lemma better than the second.

It is difficult to determine how exactly the final lemma differs from the view ascribed to Plato and the Stoics in the first. In a text that may have been a source for the doxa, *Div.Somn.* 2 463b12–14, Aristotle claims that, since liv-

ing beings other than humans also dream, dreams are not be sent by a god, but are daemonic since nature is daemonic. The implication is that this happens at a sub-rational psychic level, and not at the rational or supra-rational level of νοῦς (cf. A 4.7a.1). The final part of the lemma similarly qualifies the soul as not fully divine (in contrast to the θεϊότης of the soul in §1). So it seems that divination is introduced at a lower level than Plato and the Stoics are said to affirm, with correspondingly a lower truth value. Could this be implied by the difference in the two verbs εἰσάγουσι and παρεισάγουσι? The latter verb might be paraphrased as ‘they concede the existence of’. See further the discussion by Sharples (2001a) 163–167 on the interpretation of Dicaearchus’ doxa. He focuses mainly on the difficulties of interpreting the texts on him in Cicero.

The diaeresis can thus be summarized as follows: §1 affirmation of existence of divination in many forms; §2 total rejection; §§3–4 affirmation of certain parts, which implies rejection of others. It should be noted that the diaeresis would have allowed for more possibilities if all the different types of divination introduced in the first lemma were discussed. In the absence of S we do not know whether the chapter originally had more lemmata. But it may be suspected that it did.

d Further Comments

Individual Points

§1 For the text in this lemma, see our discussion above in section D(b). It may be noted that ἐνθεαστικὸς is a *vox Platonica*, used by Plato of the poets at *Leg.* 3.682a in describing how Homer and other poets can hit on the truth. The usual translation is ‘inspired’, but given the context of divine messages presumably sent through dreams, it is worth noting that the root verb θεάομαι means ‘to see’, so we translate ‘visionary’. θεόπεμπτος, however, is not found in Plato. In extant sources it is first used by Aristotle in the text cited above when he denies that dreams can have a divine origin (*Div.Somn.* 2 463b13).

The reading τὸ ἀστρομαντικόν in the papyrus (not found in P^B) is supported by Q’s translation *astrologische Wahrsagerei*. G’s reading τὸ ἀστρονομικόν can be regarded as a normalisation or vulgarisation, since the other term is exceedingly rare in extant Greek literature, there being only two independently recorded examples, one in a report at Diodorus Siculus 36.5.1 on the Sicilian revolutionary Athenion (the term very likely to have been drawn from Posidonius), the other in a text at Sextus Empiricus *M.* 9.132 on divination linking its existence to that of the gods. The latter text refers to four aspects of divination: θεοληπτική, ἀστρομαντική, λογική and ἡ δι’ ὀνείρων πρόρρησις. The parallelism with A’s text is strong and a Stoic source is likely, as Von Arnim saw (*SVF* 2.1018).

Given this parallelism it is tempting to follow Fabricius (followed by Bury in the LCL, but not by Von Arnim or Mutschmann) and read *θυτική* instead of *λογική* (*τὸ θυτικόν* in §3 picks up *τὸ ὀρνεοσκοπικόν καὶ τὸ ἱεροσκοπικόν* in §1).

e Other Evidence

The doxography at the beginning of Book 1 of Cicero's *De divinatione*, the only work specifically dedicated to the subject that has survived, reveals important correspondences with A's chapter. Its contents can be summarized as follows:

- §1 subject and terminology introduced—etymologies of *divinatio* and *μαντική*
- §§2–3 its existence shown by evidence of the nations
- §4 Romans are convinced the mind is divinely inspired in two ways, through *furor* and through dreams
- §5a the ancients put forward arguments to prove the truth of divination
- §5b only Xenophanes and Epicurus dismissed it
- §5c list of philosophers who accepted it—Socrates and his school; Zeno and his school; Pythagoras (who wished to be an augur himself); Democritus; Dicaearchus (who accepted only divination through dreams and *furor*)
- §6 Stoics defend nearly every kind of divination, but Panaetius remained sceptical
- §7 Cicero himself, esp. in the light of the many arguments against the Stoics by Carneades, will follow Academic practice and compare the arguments on both sides.

We note the following. (1) The view denying divination is attributed to the same two philosophers Xenophanes and Epicurus in both doxographies, but as we already noted above Cicero, following the practice also found in the *Placita*, places it first, not second as in P. (2) The main representative of the positive view are the Stoics, linked to the Old Academy and the Peripatetics, but Plato is not mentioned except for the etymology of *μαντική* in 1.1 (*Resp.* 571c–572b is cited later at 1.60). Various members of the school and their writings are mentioned, including a deviant view (Panaetius). As noted by Diels *DG* 225, this listing deviates from the method of the *Placita* (it is closer to what we find in Diogenes Laertius). (3) Cicero observes the two main sources of divine inspiration, but does not give a clear outline of the various kinds of divination. (4) Cicero's mention of Pythagoras contradicts what we find in P. (5) Dicaearchus is mentioned and the two kinds of divination he accepts agree with P (they are

further explained at 2.100). Aristotle is not named here but the mention later in 1.81 is consistent with P. (6) The explicit mention of the New Academy for the method that Cicero will apply finds no parallel in P.

As already noted by Diels *DG* 224 and Pease (1920–1923) 1.19–20, the two doxographies show sufficient correspondences, both in name-labels and doxai, to justify the conclusion that they are indebted to the same tradition. Importantly, the same method of diaphonia and diaeresis can be discerned in both texts. Though older, the tradition will have been significantly developed in the period following Carneades and Panaetius. A more recent philosopher mentioned by Cicero is Posidonius, but he might have added this name himself (Cicero calls him *noster*). A does not contain any names later than Epicurus, but the parallel texts in Diodorus and Sextus that were noted above in section D(d) suggest his sources may have contained such material. It must again be emphasized that P's text may well have been abridged from a fuller original, but of course this was most likely the case for A himself as well. Pease loc. cit. downplays the similarity. It is true that the listing of Stoics §6 'differs from the custom of the *Placita*,' showing a greater resemblance to the clustering of references that we find in Diogenes and AD (cf. the *Περὶ αἰρέσεων* genre) or Philodemus (*Successions* literature). But this all can be regarded as belonging to the proximate tradition, and there is no need to assume that Cicero simply took over a single source for most of this section, as Pease does. The most recent commentary on Book 1, Schultz (2014), does not analyse the passage in any detail and makes no reference to our text.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *Div.* 1.4–7 *et cum duobus modis animi sine ratione et scientia motu ipsi suo soluto et libero incitarentur, uno furente, altero somniantem ...* (5) *atque haec ... veteres rerum magis eventis moniti quam ratione docti probaverunt. philosophorum vero exquisita quaedam argumenta, cur esset vera divinatio, conlecta sunt. e quibus, ut de antiquissimis loquar, Colophonius Xenophanes unus (21A52 DK), qui deos esse diceret, divinationem funditus sustulit; reliqui vero omnes praeter Epicurum (Usener fr. 395) balbutientem de natura deorum divinationem probaverunt, sed non uno modo. nam cum Socrates omnesque Socratici Zenoque (FDS 462) et ei qui ab eo essent profecti, manerent in antiquorum philosophorum sententia vetere Academia et Peripateticis consentientibus; cumque huic reo magnam auctoritatem Pythagoras iam ante tribuisset, qui etiam ipse augur vellet esse, plurimisque locis gravis auctor Democritus (68A138 DK) praesensionem rerum futurarum comprobaret, Dicearchus Peripateticus (fr. 14 Wehrli, 31A Mirhardy) cetera divinationis genera sustulit, somniorum et furoris reliquit. Cratippusque, familiaris noster, quem ego parem*

summis Peripateticis iudico, isdem rebus fidem tribuit, reliqua divinationis genera reiecit. (6) sed cum Stoici omnia fere illa defenderent, quod et Zeno (SVF 1.172) in suis commentariis quasi semina quaedam sparsisset et ea Cleanthes (SVF 1.550) paulo uberiora fecisset, accessit acerrimo vir ingenio, Chrysippus (SVF 2.1187), qui totam de divinatione duobus libris explicavit sententiam, uno praeterea de oraculis (cf. SVF 3 p. 205 lxv), uno de somniis (cf. SVF 3 p. 196 xi); quem subsequens unum librum Babylonius Diogenes edidit (SVF 3. Diog. Bab. 35), eius aditor, duo Antipater (SVF 3. Antip. 37), quinque noster Posidonius (F 26 E.-K., F371b Theiler). sed a Stoicis vel princeps eius disciplinae, Posidonii doctor, discipulus Antipatri, degeneravit Panaetius (test. 137 Alesse); nec tamen ausus est negare vim esse divinandi, sed dubitare se dixit. quod illi in aliqua re invitissimis Stoicis Stoico facere licuit, nos ut in reliquis rebus faciamus, a Stoicis non concedetur? praesertim cum id, de quo Panaetio non liquet, reliquis eiusdem disciplinae solis luce videatur clarius. (7) sed haec quidem laus Academiae praestantissimi philosophi iudicio et testimonio comprobata est. etenim nobismet ipsis quaerentibus quid sit de divinatione iudicandum, quod a Carneade (F9 Mette) multa acute et copiose contra Stoicos disputata sint, verentibusque, ne temere vel falsae rei vel non satis cognitae adsentiamur, faciendum videtur, ut diligenter etiam atque etiam argumenta cum argumentis comparemus, ut fecimus in iis tribus libris, quos De natura deorum scripsimus. nam cum omnibus in rebus temeritas in adsentiendo errorque turpis est, tum in eo loco maxime, in quo iudicandum est, quantum auspiciis rebusque divinis religionique tribuamus; est enim periculum, ne aut neglectis iis inopia fraude aut suspectis anili superstitione obligemur. Sextus Empiricus M. 9.132 (SVF 2.1018) εἰ μὴ εἰσὶ θεοί, οὐδὲ μαντική ὑπάρχει, ἐπιστήμη οὖσα θεωρητική καὶ ἐξηγητική τῶν ὑπὸ θεῶν ἀνθρώποις διδομένων σημείων, οὐδὲ μὴν θεοληπτική καὶ ἀστρομαντική, οὐ λογική [θυτική conj. Fabricius and others], οὐχ ἡ δι' ὀνείρων πρόρρησις. Nemesius NH 12 68.9–11 Morani τοῦτο (sc. τὸ διανοητικόν) δὲ ἐστὶ τὸ καὶ διὰ τῶν ὀνείρων θεσπίζον ἡμῖν τὸ μέλλον, ἥνπερ μόνην ἀληθὴ μαντείαν οἱ Πυθαγόρειοι λέγουσιν εἶναι τοῖς Ἑβραίοις ἀκολουθήσαντες.

Chapter heading: Diogenes Laertius V.P. 7.149 (Chrysippus, Posidonius) cited below under §1. V.P. 7.178 (writings of Sphaerus, SVF 1.620) Περὶ μαντικῆς. Cicero Div. 1.6 (Chrysippus) cited above under General texts. Philodemus Περὶ θεῶν διαγωγῆς (SVF 2.1183) καθάπερ ὁ (μὲν) Χρύσιππος ἐν τοῖς περὶ μαντικῆς λέγει. Plutarch Περὶ μαντικῆς fr. 147 Sandbach, cf. Lamprias catalogue no. 71 Περὶ μαντικῆς ὅτι σφίζεται κατὰ τοὺς Ἀκαδημαϊκοὺς. Lactantius Inst. 1.6.8 Heck–Wlosok tertiam Delphida, de qua Chrysippus (SVF 2.1216) loquitur in eo libro, quem De divinatione composuit.

§1 **Plato Stoics:** Cicero Div. 1.4–6 above under General texts; Luc. 107 at id quidem perspicuum est, cum Panaetius (test. 136 Alesse), princeps prope meo quidem iudicio Stoicorum, ea de re dubitare se dicat quam omnes praeter eum Stoici certissimam putant, vera esse (responsa) haruspicum auspicia oracula somnia vaticinationes, seque ab adsensu sustineat—quod is potest facere vel de iis rebus quas illi a quibus ipse didicit certas habuerint, cur id sapiens de reliquis

rebus facere non possit? **Diogenes Laertius** *VP.* 7.149 καὶ μὴν καὶ μαντικὴν ὕφε-
στάναι φασὶ πάσαν, ἣ καὶ πρόνοιαν εἶναι· καὶ αὐτὴν καὶ τέχνην ἀποφαίνουσι διὰ τινὰς
ἐκβάσεις, ὥς φησι Ζήνων (SVF 1.174) τε καὶ Χρύσιππος (SVF 2.1191) ἐν τοῖς δύο Περὶ
μαντικῆς (cf. SVF 3 p. 201 xxxvi fr. 3) καὶ Ἀθηνόδωρος καὶ Ποσειδώνιος (F 7, 27 E.-
K.; 258, 371a Theiler) ἐν τῷ δευτέρῳ τοῦ Φυσικοῦ λόγου καὶ ἐν τοῖς εἴ Περὶ μαντικῆς.
ὁ μὲν γὰρ Παναίτιος (test. 139 Alesse) ἀνυπόστατον αὐτὴν φησιν. **Arius Didymus**
at Stob. *Ecl.* 2.7.5b12, p. 67.16–19 (Stoic doxography) εἶναι δὲ τὴν μαντικὴν φασιν
ἐπιστήμην θεωρητικὴν σημείων τῶν ἀπὸ θεῶν ἢ δαιμόνων πρὸς ἀνθρώπινον βίον συν-
τείνοντων. ὁμοίως δὲ καὶ τὰ εἶδη τῆς μαντικῆς.

§2 Xenophanes Epicurus: **Cicero** *Div.* 1.5 cited above under General texts.
ND 2.162 *illud vero, quod uterque vestrum arripit fortasse ad reprehendum,*
Cotta quia Carneades lubenter in Stoicos invehebatur, Velleius quia nihil tam
inridet Epicurus (fr. 395 Usener) *quam praedictionem rerum futurarum, mihi*
videtur vel maxime confirmare deorum prudentia consuli rebus humanis. est
enim profecto divinatio ... *Div.* 2.40 *ergo hic* (sc. Epicurus, *ibid.*) *circumitione*
quadam deos tollens recte non dubitat divinationem tollere; sed non, ut hic sibi
constat, item Stoici. illius enim deus nihil habens nec sui nec alieni negotii non
potest hominibus divinationem impertire; vester autem deus potest non imper-
tire, ut nihilo minus mundum regat et hominibus consulat. **Diogenes Laertius**
VP. 10.135 μαντικὴν δ' ἄπασαν ἐν ἄλλοις ἀναιρεῖ (sc. Ἐπίκουρος, frs. 27 & 395
Usener), ὥς καὶ ἐν τῇ Μικρᾷ ἐπιτομῇ· καὶ φησι· 'μαντικὴ οὐσα ἀνυπαρκτος, εἰ καὶ
ὑπαρκτή, οὐδὲν παρ' ἡμᾶς ἡγη(τέα) τὰ γινόμενα.'

§3 Pythagoras: **Cicero** *Div.* 1.5 cited above under General texts. **Nemesius**
NH 12 cited above under general texts.

§4 Aristotle Dicaearchus: **Cicero** *Div.* 1.5 cited above under General texts.
Div. 1.113, *nec vero umquam animus hominis naturaliter divinat, nisi cum ita*
solutus est et vacuus, ut ei plane nihil sit cum corpore, quod aut vatibus con-
tingit aut dormientibus. itaque ea duo genera a Dicaearcho (fr. 31C Mirhardy)
probantur et ut dixi a Cratippo nostro. haec me Peripateticorum ratio magis
movebat et veteris Dicaearchi et eius, qui nunc floret, Cratippi, qui censent esse
in mentibus hominum tamquam oraculum aliquod, ex quo futura praesentiant,
si aut furore divino incitatus animus aut somno relaxatus solute moveatur ac
libere.

b Sources and Other Parallel Texts

General texts: **Origen** *CC* 4.88, p. 304.12–19 Marcovich (SVF 2.1212) πρῶτον
μὲν γὰρ ἐζήτῃται, πότερον ἔστι τις τέχνη οἰωνιστικὴ καὶ ἀπαξαπλῶς ἡ διὰ ζώων
μαντικὴ ἢ οὐκ ἔστι· δεύτερον δὲ παρὰ τοῖς παραδεξαμένοις εἶναι τὴν δι' ὀρνίθων
μαντικὴν οὐ συμπεφώνηται ἢ αἰτία τοῦ τρόπου τῆς μαντείας· ἐπειδὴ περ οἱ μὲν ἀπὸ
τινῶν δαιμόνων ἢ θεῶν μαντικῶν φασὶ γίνεσθαι τὰς κινήσεις τοῖς ζώοις, ὅρῃσι μὲν
εἰς διαφόρους πτήσεις καὶ εἰς διαφόρους φωνὰς τοῖς δὲ λοιποῖς εἰς τὰς τοιασδὶ κινή-
σεις ἢ τοιασδί, ἄλλοι δὲ θειοτέρας αὐτῶν καὶ πρὸς τοῦτ' ἐπιτηδεύουσιν εἶναι τὰς ψυχὰς,
ὅπερ ἔστιν ἀπιθανώτατον. **Quintilian** *Inst.* 5.7.35, *his adicere si quis volet ea quae*
divina testimonia vocant, ex responsis, oraculis, ominibus, duplicem sciat esse

eorum tractatum: generalem alterum in quo inter Stoicos (SVF 2.1195) et Epicuri (cf. p. 248.18 Usener) sectam secutos pugna perpetua est, regaturne providentia mundus (cf. ch. 2.3), specialem alterum circa partes divinationis, ut quaeque in quaestionem cadet. (36) aliter enim oraculorum, aliter haruspicum, augurum, coniectorum, mathematicorum fides confirmari aut refelli potest, cum sit rerum ipsarum ratio diversa. See also **Tertullian** on dreams, *de An.* 46.11 Waszink, cited on ch. 5.2 E(a) under General texts.

Chapter heading: Plato *Ion* 531b οἷον περὶ μαντικῆς λέγει τι “Ὅμηρός τε καὶ Ἡσίοδος. **Aristotle** *Div.Somn.* 1 462b12–14 περὶ δὲ τῆς μαντικῆς τῆς ἐν τοῖς ὕπνοις γινομένης καὶ λεγομένης συμβαίνειν ἀπὸ τῶν ἐνυπνίων, οὔτε καταφρονῆσαι βῆδιν οὔτε πεισθῆναι. **Pliny** *Nat.* 1 Index liber VII. *De divinatione.* **Clement of Alexandria** *Strom.* 1.134.4 ἥδη δὲ καὶ Ὀρφέα (1014T Bernabé) Φιλόχορος (FGrH 328F76) μάντιν ἱστορεῖ γενέσθαι ἐν τῷ πρώτῳ Περὶ μαντικῆς. **Boethius** *Cons.Phil.* 5 prosa 4 §1 *tum illa: vetus, inquit, haec est de providentia querela M.que Tullio cum divinationem †distribuit† vehementer agitata tibi que ipsi res diu prorsus multumque quesita, sed haudquaquam ab ullo vestrum hactenus satis diligenter ac firmiter expedita.* **Planudes** Greek translation of Boethius *Cons.Phil.* 5.74.1 Μegas παλαιὰ μὲν, εἶπεν, αὕτη περὶ προνοίας ἡ ζήτησις, καὶ Μάρκῳ Τουλλίῳ, ἡνίκα τὰς περὶ μαντικῆς διαιρέσεις ἐποιοεῖτο.

§1 **Plato:** **Plato** *Tim.* 71e ἱκανὸν δὲ σημεῖον ὡς μαντικὴν ἀφροσύνη θεὸς ἀνθρωπίνῃ δέδωκεν· οὐδεὶς γάρ ἐννοῦς ἐφάπτεται μαντικῆς ἐνθέου καὶ ἀληθοῦς, ἀλλ’ ἢ καθ’ ὕπνον τὴν τῆς φρονήσεως πεδηθεὶς δύναμιν ἢ διὰ νόσον, ἢ διὰ τινὰ ἐνθουσιασμόν παραλλάξας. **Phdr.** 244b–d τόδε μὴν ἄξιον ἐπιμαρτύρασθαι, ὅτι καὶ τῶν παλαιῶν οἱ τὰ ὀνόματα τιθέμενοι οὐκ αἰσχροὺς ἡγοῦντο οὐδὲ ὄνειδος μανίαν· οὐ γὰρ ἂν τῇ καλλίστῃ τέχνῃ, ἣ τὸ μέλλον κρίνεται, αὐτὸ (c) τοῦτο τοῦνομα ἐμπλέκοντες μαντικὴν ἐκάλεσαν. ἀλλ’ ὡς καλοῦ ὄντος, ὅταν θεὸς μοῖρα γίγνηται, οὕτω νομίσαντες ἔθεντο, οἱ δὲ νῦν ἀπειροκάλως τὸ ταῦ ἐπεμβάλλοντες μαντικὴν ἐκάλεσαν. ἐπεὶ καὶ τὴν γε τῶν ἐμφρόνων, ζήτησιν τοῦ μέλλοντος διὰ τε ὀρνίθων ποιουμένων καὶ τῶν ἄλλων σημείων, ἅτ’ ἐκ διανοίας ποριζομένων ἀνθρωπίνῃ οἰήσει νοῦν τε καὶ ἱστορίαν, οἰονοιστικὴν ἐπωνόμασαν, ἣν νῦν οἰωνιστικὴν τῷ ω σεμνύνοντες οἱ νέοι καλοῦσιν· (d) ὅσῳ δὴ οὖν τελεώτερον καὶ ἐντιμότερον μαντικὴ οἰωνιστικῆς, τό τε ὄνομα τοῦ ὀνόματος ἔργον τ’ ἔργου, τόσῳ κάλλιον μαρτυροῦσιν οἱ παλαιοὶ μανίαν σωφροσύνης τὴν ἐκ θεοῦ τῆς παρ’ ἀνθρώπων γινομένης. **ps.Plato** *Def.* 414b μαντικὴ ἐπιστήμη θεωρητικὴ τοῦ ὄντος καὶ μέλλοντος ζῶν θνητῷ.

Stoics: **Cicero** *Div.* 2.130 **Chrysippus** (SVF 2.1189) *quidem divinationem definit his verbis: vim cognoscentem et videntem et explicantem signa, quae a dis hominibus portendantur; officium autem esse eius praenoscere, dei erga homines mente qua sint quidque significant, quem ad modumque ea procurantur atque expientur. idemque somniorum coniectionem definit hoc modo: esse vim cernentem et explanantem, quae a dis hominibus significantur in somnis.* **Diodorus Siculus** 36.5.1 (attributed to **Posidonius** by Theiler, fr. 194b) γίνεται δὲ τούτων ἀρχηγὸς Ἀθηναίων ὄνομα, ἀνὴρ ἀνδρεῖα διαφέρων, Κίλιξ τὸ γένος. οὗτος οἰκονόμος ὢν δυοῖν ἀδελφῶν μεγαλοπλούτων, καὶ τῆς ἀστρομαντικῆς πολλὴν ἔχων ἐμπειρίαν.

§2 Xenophanes Epicurus: Scholion in Aeschylum on Prom. 624 Herrington Ἐπικούρειόν ἐστι δόγμα, ἀναιροῦν τὴν μαντικὴν. **Origen** CC 7.3, p. 460.13–20 Marcovich λέγωμεν οὖν περὶ τῶν κατελεγμένων χρηστηρίων ὅτι δυνατόν μὲν ἡμῖν συνάγουσιν ἀπὸ Ἀριστοτέλους καὶ τῶν τὰ τοῦ Περιπάτου φιλοσοφούντων οὐκ ὀλίγα εἰπεῖν εἰς ἀνατροπὴν τοῦ περὶ τῆς Πυθίας καὶ τῶν λοιπῶν χρηστηρίων λόγου· δυνατόν δὲ καὶ τὰ λελεγμένα τῷ Ἐπικούρῳ καὶ τοῖς ἀσπαζομένοις αὐτοῦ τὸν λόγον περὶ τῶν αὐτῶν παραθέμενον δεῖξαι ὅτι καὶ Ἑλλήνων τινὲς ἀνατρέπουσι τὰς νομιζομένας καὶ τεθαυμασμένας ἐν πάσῃ Ἑλλάδι θεοπροπίας.

§4 Aristotle Dicaearchus: Aristotle Div.Somn. 2 463b12–22 ὅλως δὲ ἐπεὶ καὶ τῶν ἄλλων ζώων ὀνειρώττει τινὰ, θεόπεμπτα μὲν οὐκ ἂν εἴη τὰ ἐνύπνια, οὐδὲ γέγονε τούτου χάριν (δαιμόνια μέντοι· ἢ γὰρ φύσις δαιμονία, ἀλλ' οὐ θεία). **Cicero Div.** 1.81 *Aristoteles* (cf. ps.Arist. *Probl.* 30.1 954a34–38) *quidem eos etiam, qui valetudinis vitio furerent et melancholici dicerentur, censebat habere aliquid in animis praesagiens atque divinum.* **Sextus Empiricus M.** 9.20–22 Ἀριστοτέλης (*de Phil.* 12a Ross) δὲ ἀπὸ δυεῖν ἀρχῶν ἔννοιαν θεῶν ἔλεγε γεγονέναι ἐν τοῖς ἀνθρώποις, ἀπὸ τε τῶν περὶ τὴν ψυχὴν συμβαινόντων καὶ ἀπὸ τῶν μετεώρων. ἀλλ' ἀπὸ μὲν τῶν περὶ τὴν ψυχὴν συμβαινόντων διὰ τοὺς ἐν τοῖς ὕπνοις γινομένους ταύτης ἐνθουσιασμοὺς καὶ τὰς μαντείας. ὅταν γάρ, φησὶν, ἐν τῷ ὕπνῳ καθ' αὐτὴν γένηται ἡ ψυχὴ, τότε τὴν ἴδιον ἀπολαβοῦσα φύσιν προμαντεύεται τε καὶ προαγορεύει τὰ μέλλοντα.

Liber 5 Caput 2

P^B: ps.Plutarchus *Plac.* 904E–F; p. 416^a6–22 Diels—P^G: ps.Galenus *HPh* c. 106; p. 640.1–8 Diels—P^L: Ioannes Lydus *Mens.* 4.135, p. 162.3–7 Wuensch—P^Q: Qustā ibn Lūqā pp. 216–217 Daiber—P^S: Psellus *Omn.Doctr.* c. 116.1–6, p. 63 Westerink

Titulus β'. Πῶς ὄνειροι γίνονται (P)

- §1 Δημόκριτος τοὺς ὄνειρους γίνεσθαι κατὰ τὰς τῶν εἰδώλων παραστάσεις. (P₁)
- §2 Στράτων ἀλόγῳ φύσει τῆς διανοίας ἐν τοῖς ὕπνοις αἰσθητικωτέρας μὲν πως γινομένης, παρ' αὐτὸ δὲ τοῦτο τῷ γνωστικῷ κινουμένης. (P₂)
- §3 Ἡρόφιλος τῶν ὄνείρων τοὺς μὲν θεοπνεύστους κατ' ἀνάγκην γίνεσθαι, τοὺς δὲ φυσικοὺς ἀνειδωλοποιουμένης τῆς ψυχῆς τὸ συμφέρον αὐτῇ καὶ τὸ πρὸς τούτοις ἐσόμενον, τοὺς δὲ συγκαματικοὺς ἐκ τοῦ αὐτομάτου κατ' εἰδώλων πρόσπτωσιν, ὅταν ἅ βουλόμεθα βλέπωμεν, ὡς ἐπὶ τῶν τὰς ἐρωμένης ὁρώντων ἐν ὕπνῳ γίνεται. (P₃)

5

10

§1 Democritus 68A136 DK; §2 Strato fr. 130 Wehrli, 68 Sharples; §3 Herophilus T226 von Staden

titulus ὄνειροι P^{BPs}: οἱ ὄνειροι P^G: *der Traum* Q || γίνονται] *entsteht* Q §1 [2] τοὺς P^B: om. P^G || παραστάσεις P^{BL}: παρατηρήσεις P^G: *Gegenwart* Q §2 [4] ἀλόγῳ φύσει P^B: *infolge der Natur* Q: ἄλλῃ τις φύσις P^G prob. Primavesi || [5] πως P^B prob. Sharples: τῆς ψυχῆς P^G prob. Primavesi: non vert. Q || παρ' P^{BQ}: δι' P^G Primavesi || αὐτὸ δὲ τοῦτο P^G Diels Mau Primavesi (αὐτὸ δὲ Lachenaud): αὐτῷ δὲ τοῦτῳ P^B (παρ' ... τοῦτο non vert. Q) || τῷ γνωστικῷ κινουμένης P^B Diels Mau prob. Sharples: τὸ γνωστικὸν κινουμένης conl. Lachenaud: γνωστικῆς γινομένης P^G: *in einer Erkenntnisbewegung bewegt* Q: γνωστικῶς κινουμένης conl. Primavesi ex P^{GQ} (οὐ γνωστικῶς susp. Diels) §3 [6] τῶν ὀνείρων P^{B(L,II)G}: τοὺς ὀνειρούς P^{B(III)} || μὲν P^{B(L,II)G}: om. P^{B(III)} || θεοπνεύστους P^B Mau Lachenaud Von Staden (cf. P^{Ss}), cf. *auf dem Wege der Eingebung der Gottheit* Q: θεοπέμπτους P^{GL} Diels conl. Arist. *Div.Somn.* 1 463a13 || [7] ἀνειδωλοποιουμένης τῆς ψυχῆς P^B: εἰδωλοποιουμένης τῆς ψυχῆς P^G, *wenn die Seele sich vorstellt* Q || [8] πρὸς ... ἐσόμενον P^B, *was dem folgen wird* Q: πάντως ἐσόμενον P^G Diels || συγκαματικούς (< συγκεράννυμι) P^B, quod P^{B(II)Sch} ita explicat ἀπὸ τε λογικοῦ καὶ παθητικοῦ τῆς διανοίας: συγκεριματικούς (< συγκρίνω) P^G: non vert. Q: πνευματικούς susp. Diels (ex 5.15), συγχρουματικούς Reiske, συγκυρματικούς Wytttenbach || ἐκ τοῦ αὐτομάτου P^{BQ} (*von selbst* Q): αὐτομάτως P^G: del. Diels || [9] πρόσπτωσιν] πρόπτωσιν P^{B(II)} || ὡς ἐπὶ τῶν P^B, cf. *gleich denen* Q: non hab. P^G || ante τὰς ἐρωμένας inserit φιλοῦντων γίγνεται P^G || [10] ὁρώντων Diels Primavesi, cf. *welche im Schlaf ihre Geliebte sehen* Q: ἐχόντων P^{B(II)} Von Staden, cf. βλεπόντων conl. Reiske: ἔχειν P^{B(L,II)}, cf. ἔχειν δοκούντων conl. Mau: ἐρώντων P^G (cf. P^{Ss} ἔρωτας) || ἐν ὕπνῳ P^{BQ}: ἐν ὕπνοις P^G || γίνεται P^B: non hab. P^G

*Testes primi:**Traditio ps.Plutarchi:*

ps.Galenus *HPh* c. 106 (~ tit.) Πῶς οἱ ὄνειροι γίνονται (text Diels)

106.1 (~ P1) Δημόκριτος ὀνείρους γίνεσθαι κατὰ τὰς τῶν εἰδώλων παρατηρήσεις.

106.2 (~ P2) Στράτων ἄλλη τις φύσις τῆς διανοίας ἐν τοῖς ὕπνοις αἰσθητικωτέρας μὲν τῆς ψυχῆς γινομένης, δι' αὐτὸ δὲ τοῦτο γνωστικῆς γινομένης.

106.3 (~ P3) Ἡρόφιλος τῶν ὀνείρων τοὺς μὲν θεοπέμπτους κατ' ἀνάγκην γίνεσθαι, τοὺς δὲ φυσικοὺς εἰδωλοποιουμένης τῆς ψυχῆς τὸ συμφέρον αὐτῇ καὶ τὸ πάντως ἐσόμενον· τοὺς δὲ συγκριματικοὺς αὐτομάτως κατ' εἰδώλων πρόσπτωσιν, ὅταν ἂ βουλόμεθα βλέπωμεν· * φιλοῦντων γίγνεται τὰς ἐρωμένας ἐρώντων ἐν ὕπνοις.

Ioannes Lydus *Mens.* 4.135 ἀπὸ δὲ τῶν Αὐξιφωτίων ἡγουν τοῦ Ἰανουαρίου ὡς μάλιστα προσέχειν κατὰ τὸ δοκοῦν Ἡροφίλῳ, ὃς καὶ θεοπέμπτους ἐνέκρινε τοὺς ὀνείρους (~ P3), ὁ δὲ Δημόκριτος κατὰ τὰς παραστάσεις τῶν εἰδώλων (~ P1).

Psellus *Omn.Doctr.* c. 116 Πῶς ὄνειροι γίνονται (~ tit.)

Πολλαὶ τῶν ὀνείρων εἰσὶν αἱ αἰτίαι. οἱ μὲν γὰρ αὐτῶν εἰσὶ θεόπνευστοι ἄνωθεν διὰ μέσου τοῦ νοῦ τῇ λογικῇ ψυχῇ ἡμῶν ἐγγινόμενοι· οἱ δὲ οἷον ἀπηχήματα εἰσὶ τῶν ἡμερινῶν πράξεων· οἱ δὲ ἀπὸ τῆς φανταστικῆς ἐντυπώνονται δυνάμει, φανταζούσης ἡμῖν τοὺς ἡμερινοὺς ἔρωτας ἢ ἄλλο τι πάθος ψυχῆς (cf. P3). ἕτεροι δὲ ἀπὸ τῶν χυμῶν ἀνεγείρονται ...

Loci Aetiani:

§§1, 3 A 4.13.1 Λεύκιππος Δημόκριτος Ἐπίκουρος κατὰ εἰδώλων εἴσκρισιν ὦντο τὸ ὁρατικὸν συμβαίνειν. A 4.8.10 Λεύκιππος Δημόκριτος Ἐπίκουρος τὴν αἴσθησιν καὶ τὴν νόησιν γίνεσθαι εἰδώλων ἔξωθεν προσιόντων· μηδενὶ γὰρ ἐπιβάλλειν μηδετέραν χωρὶς τοῦ προσπίπτοντος εἰδώλου. A 4.13.12 Ἐμπεδοκλῆς ... καὶ πρὸς τὸ διὰ τῶν εἰδώλων ἐκδοχὰς. A 4.14.2 Λεύκιππος Δημόκριτος Ἐπίκουρος τὰς κατοπτρικὰς ἐμφάσεις γίνεσθαι κατ' εἰδώλων παραστάσεις, ἅτινα φέρεσθαι μὲν ἅφ' ἡμῶν, συνίστασθαι δὲ ἐπὶ τοῦ κατόπτρου κατ' ἀντιπεριστροφὴν.

§2 A 5.24.4, Στράτων οἱ Στωικοὶ τὸν μὲν ὕπνον γίνεσθαι ἀνέσει τοῦ αἰσθητικοῦ πνεύματος οὐ κατ' ἀναχαλασμόν, καθάπερ ἐπὶ τῆς (μέθης), φερομένου δ' ὡς ἐπὶ τὸ ἡγεμονικὸν μεσόφρυν.

§3 A 5.1.1, Πλάτων καὶ οἱ Στωικοὶ τὴν μαντικὴν εἰσάγουσι κατὰ τὸ θεόπεμπτον εἶναι, ὅπερ ἐστὶν ἐνθεαστικόν; 5.1.3 Ἀριστοτέλης καὶ Δικαίαρχος τὸ κατ' ἐνθουσιασμόν μόνον παρεισάγουσι καὶ τοὺς ὀνείρους.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

In addition to the three usual witnesses for Book 5, P^B, Q and G, the chapter was also partially utilized by L and Ps, giving us some helpful readings. Previous editors, with the exception of Von Staden, seem ignorant of this additional evidence.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The most interesting text that can shed light on the doxographical treatment of the subject is found in an unusual place, in the *Scholia* to Lucan's *Bellum civile* edited by Usener in 1869 and included by Diels in his *Prolegomena* at *DG* 198; see text below in section E(a) General texts. The passage records three views on the origin of dreams attributed to Varro, Epicurus (cf. §1) and Plato. The name of the Roman polymath seems odd in this list. Usener ad loc. rightly points out that one of his works may have been the source of the doxography and that his name may have replaced that of a Greek philosopher (he suggests Empedocles). The parallel to A is so apposite because it focuses completely on the physical causes of dreams. The Epicurean doxa recalls that of Democritus in A's chapter. It does not appear that the views are organised by means of a diaeresis. If a diaeresis between internal and external causes is intended, it is not made at all clearly.

Other texts to focus on the sources of dreams are found in Cicero *Div.* 2.120, 139, which give a clear diaeresis between internal and external sources for dreams, with Democritus again representing the latter. At 2.126 he allows for 'another cause', with the implication that God might be the source. This approach is taken up by Tertullian, who in *de An.* 47 states that dreams emanate from demons, from God, from nature acting on the soul, or from a peculiar ecstatic state. In the previous chapter he is more concerned with the truth value of dreams and refers to a large number of ancient authorities, including Strato. But the details of A's doxai are not included.

(2) *Sources.* There are brief references to the subject of dreams in Plato *Tim.* 45e–46a, 71e–72a, *Resp.* 571c–572b, but the first extant treatise on the subject is Aristotle's *Περὶ ἐνυπνίων* (*Parv.Nat.* 458a–462b). It contains no references to the views of other thinkers. In the next brief treatise *De divinatione per somnum* (*Parv.Nat.* 462b–464b) there is a discussion of the atomist explanation of Democritus (464a5–12, puzzlingly absent in DK) in terms of εἴδωλα and ἀπόρροιαί, cf. §1.

A further much discussed subject is the classification of the various kinds of dreams. The classification attributed to Herophilus in §3 is the earliest example.

Von Staden claims (1989, 308) that ‘with his tripartite classification of dreams Herophilus seems to have launched a remarkably rich Hellenistic and patristic tradition of dream theory’ and that his ‘attempt to provide a systematic classification of dreams by origin seems to represent something novel and unusually influential.’ This may in general terms be correct, but does not mention that in later traditions the various classifications have differing points of emphasis. Posidonius (cited by Cicero) and Philo (who adapts for exegetical purposes) both offer a typology of the various kinds of dreams, but differ from Herophilus in focusing on divine-sent dreams only (his first category). The tradition of dream classification continues through to late antiquity (Calcidius, Macrobius). On the whole it dwells on the truth-value of dreams rather than their physical and physiological causes. For this reason we have not included the relevant texts in the Proximate tradition below but among other parallel texts; see section E(b) General texts. See further the discussion in D(e) below.

C Chapter Heading

All the witnesses are in agreement. This chapter is the first in the book to have a heading starting with $\pi\acute{\omega}\varsigma$, dealing with the sub-question *unde* and the question type of cause $\delta\iota\alpha\ \tau\acute{\iota}$, which is the dominant type in Book 5 with 11 examples (also chs. 6–8, 10, 12, 13, 16, 24, 26, 29; also in second part of heading chs. 19, 23). See further Introduction to Book 5, section 4. Here we have the combination with the verb $\gamma\acute{\iota}\gamma\upsilon\omicron\mu\alpha\iota$, which occurs no less than 7 times, at chs. 8, 10, 12, 13, 24, 29 (and in 5.7 with $\gamma\epsilon\upsilon\upsilon\acute{\nu}\alpha\tau\alpha\iota$). Elsewhere it occurs only at chs. 1.4, 2.19, 3.17 and 4.11; see further above, ch. 1.4, Commentary C. Aristotle uses the formula for the subject of the dream at *Insomn.* 2 459a23.

D Analysis

a Context

The subject of the chapter follows on quite naturally from ch. 1, where dreams are mentioned by implication in §1 and explicitly in §3, there being in Greek thought a close connection between the interpretation of dreams and the art of divination. Like ch. 1, this chapter too might have better been placed among the psychological subjects of Book 4. See further our comments at ch. 4.23 Commentary D(a). It is intriguing that the scholion on Epicurus *Ep.Hdt.* preserved at D.L. 10.66 gives a kind of summary of psychological and physiological subjects (text below under section E(a) General texts). The occurrence of sleep is mentioned after the discussion of the soul and preceding the mention of semen. The sequence is reminiscent of the *Placita*, something like an early version of which Epicurus may have utilised; cf. Runia (2018), on this text 411–412. In A, however, the subject of sleep is not taken up until ch. 5.24.

b Number–Order of Lemmata

There are just three lemmata, each with a single name-label. In the absence of further evidence the order in P must be retained. As we shall in the next subsection, it is likely that A's original chapter would have included further doxai.

c Rationale–Structure of Chapter

The diaeresis with which the chapter as it has come down to us begins is between external and internal causes of dreams, as indicated in the first two lemmata. It can be paralleled in an introductory passage in Artemidorus *Onirocrit.* 1.6 on the cause of dreams (πότερον ἔξωθεν ἡμῖν ἐστὶ τοῦ δνειρώσσειν ἢ αἰτία ὑπὸ θεοῦ γινομένη ἢ ἑνδον αἰτιόν τι, ὃ ἡμῖν διατίθῃσι τὴν ψυχὴν καὶ ποιεῖ φύσει συμβεβηκὸς αὐτῇ), which he sets aside as not relevant to his concerns. The first lemma attributed to Democritus explains dreams through the manifestations of *eidola*, presumably from an external source (see also the reports in Cicero and Plutarch cited below in section E(a) & (b)). The difficult second lemma attributed to Strato focuses on an internal source, i.e. the altered activity of the mind during sleep.

The third lemma recording the view of the Alexandrian physician Herophilus takes a different approach and gives a classification of three different kinds of dreams. This doxa may have at least partly the notion of dream interpretation as a τέχνη in mind, thus linking up with the previous ch. 5.1 on divination. Certainly the 'divinely inspired' (θεόπνευστοι) kind recalls §1 and §4 in ch. 5.1. These dreams occur 'by necessity', i.e. without a human contribution, and are distinguished from the 'natural' kind (φυσικοί) which are formed in the soul (cf. the doxa attributed to Strato). As Kessels notes (1969, 416), the usual sense of φυσικός as 'arising from natural (or physical) causes' suits the context well. The third kind is called 'mixed' (συγκραματικοί) and they occur spontaneously through the impact of *eidola*, but not necessarily external ones as in the Democritus lemma. What is mixed is presumably the activity of the soul, which subconsciously determines what it wishes to see, and the presence of available *eidola* from past experiences. There is also an implicit division in the Herophilean doxa between external, internal/natural, and mixed internal/semi-external (*eidola*), but this introduces the further complication of two different kinds of external sources for the dreams.

It is surely surprising that, in contrast to the previous chapter, no doxai are included which refer to the views of Plato and Aristotle included in various doxographical accounts. We may contrast Artemidorus in the passage cited above, who says he does not inquire into whether the cause of dreams is external or internal, 'as Aristotle does', referring to his view that dreams are not directly God-sent (texts below section E(a) General texts). Such lemmata may

well have been epitomized away by P, though he usually shows a preference for such important names, as noted at M–R 1.190.

It is important to note that A, to judge by P's evidence, focuses on the physical aspects of dream theory and shows only a very limited interest in the epistemological aspect, i.e. the truth value of dreams, which is the chief concern of writers such as Cicero and Tertullian (see further section D(e) below). The contrasts between 'by necessity', by psychic activity and 'spontaneously' in §3 may have epistemological consequences, but these are not spelled out. This is consistent with the approach taken in the psychology of Book 4, where the emphasis also falls on the physical and mechanistic aspects of cognition (with some exceptions e.g. chs. 4.9, 4.12). It must constantly be borne in mind that A's treatise is a *physikos logos*, which determines its basic approach. This means that the specifically epistemological aspects of its subjects will be underplayed. We note too that there is only a single reference to divine inspiration in A (§3 dreams that are θεόπνευστοι), in contrast to other texts in which the theological aspect is dominant; see further below section D(e). It is also basic to the *physikos logos*, as A understands it, that theology is part of physics, but approached in what we might call a secularizing spirit; see above, ch. 1.6 Commentary D(d)§1[38–54], 2.6 Commentary D(e) and further Mansfeld (2013a).

d Further Comments

Individual Points

§2 In the absence of further information relating to Strato's views, it is impossible to determine the exact text of his doxa with any certainty. We note the following:

(1) One might expect ἀλογῶ κινήσει rather than ἀλογῶ φύσει in the light of quotations from Strato's Περὶ κινήσεως preserved in fr. 41 Sharples (= Simp. in *Phys.* 964.29–965.19). It is possible, however, that A wished to emphasize the 'natural' origin in contrast to a higher noetic or divine source (admitted by Strato in the same fragment).

(2) In P^{BQ} τῆς διανοίας is the subject of the two participles that follow, whereas G adds τῆς ψυχῆς as their subject. Fr. 41 Sharples demonstrates that the mind's activity is regarded as psychic activity, so G's reading is best seen as a paraphrasing clarification of the text in P.

(3) Primavesi in his unpublished edition of the text of this chapter largely followed the version of G, which differs at various points from the other witnesses. He thus follows G in placing the doxa in *oratio recta*, placing a colon after the name-label, i.e. Στράτων· ἄλλη τις φύσις ... Such a practice occurs comparatively rarely elsewhere, e.g. for definitions at A 1.23.1–3, 1.25.1, 5.3.1, but not also for an argument at 2.5.1. However, the meaning differs little compared to the text in P

and Q which we have retained. For the final phrase he modified G's transmitted text and offers the conjecture γνωστικῶς for τῷ γνωστικῷ (perhaps supported by Q and cf. G γνωστικῆς). This is attractive, since it is difficult to see what τὸ γνωστικόν can be in this context and the adverb indicates how the mind can have seemingly rational thoughts which in fact are not rational. Sharples' rendering 'is affected by the cognitive [power]' is not convincing. Wehrli adduces a reference to the judging faculty (τὸ ἐπικρίνον), which is restrained or has its own movement at Arist. *Insomn.* 3 461b5–7, but that leads the soul to be deceived in thinking that the image it sees is real, which differs from what Strato appears to affirm. We have incorporated Primavesi's conjecture in our text.

§3 This doxa too gives rise to a number of textual problems.

(1) The witnesses are sharply divided on whether we should read θεοπνεύσους or θεοπέμπτους in the first line. Lydus' evidence shows that the latter was already present at an early date. The former is the *lectio difficilior* because the latter reading could easily have been introduced under the influence of 5.1.1 (where we have preferred G's reading κατὰ τὸ θεόπεμπτον εἶναι to P^B κατὰ τὸ ἐνθεον). The term is admittedly rare in non-Christian texts, but is found e.g. at Herodian at *Gramm. Graec.* 3.2 655.2.

(2) The two readings συγγραμματούς in P^B and συγκριματούς in G are both *hapax legomena*. Both Kessels (1969) 422 and Schrijvers (1977) 17 prefer G's reading, the former interpreting it as 'physiological' or 'somatic', the latter as 'composite'. But in the latter case it is hardly different to the reading of P^B, which can be retained.

(3) Diels' conjecture ὁρώντων in the final phrase is perhaps a little weak compared with P^B ἐχόντων (taken over by Von Staden), but it is supported by Q and by G's reading ἐρώντων.

e Other Evidence

As discussed above in section B, there is a substantial body of texts setting out classifications of dreams, thus continuing the early attempt of Herophilus recorded in §1. Posidonius (in Cicero) and Philo discuss the kinds of divine-sent dreams only, both mentioning the role of the soul or the mind in some of the alternatives (texts below section E(a) General texts). Both might be thought to be adapting the basic division between dreams that come from outside (i.e. God or demons) and those that appear internally via the soul (whether or not it is inspired). But their approach differs from that of A (and also Tertullian) because their starting-point is divine-sent dreams only, not dreams in general. Von Staden's discussion (1989, 307–310) on the Herophilean doxa is flawed because he does not allow for the differences between Herophilus' and Posidonius' classification, namely that the latter focuses on dreams involving

divine impulse only. The double diaeresis in Artemidorus *Oneir.* 1.1 (between premonitory *ὕνιοι* and non-premonitory *ἐνύπνια*, the latter being divided into psychic, somatic and psychosomatic kinds) also differs, in spite of superficial resemblances (and a very similar erotic example). As the examples show, the tripartition is simply based on the subjects dreamt about, and not the source of the dreams. Extended later texts are found in Calcidius and Macrobius. The former presents a veritable mini-treatise on dreams and starts with a doxography giving the views of Aristotle and Heraclitus/Stoics, before moving on to his main subject Plato. Here too the emphasis is primarily on divinely sent dreams, and much less on the physiological and psychological processes outlined however briefly by our author. Calcidius postulates a connection between Plato's views and the *philosophia Hebraica* (which may be a reference to Philo). Waszink (1941) and (1975) lxviii argues that the intermediary source of this particular reference may have been Numenius. The section chs. 250–256 as a whole he (1975, 260) derives from Porphyry. A text in Augustine *Ep.* 162 also distinguishes between dreams that are sent by God or by angels and those that arise in the soul.

There has been much scholarly discussion on ancient dream classification. In addition to the studies of Waszink and Von Staden mentioned above, see also Kessels (1969); Schrijvers (1977); Dodson (2003); Torallas Tovar (2014). In these studies the main focus of interest is the source and truth-value of dreams rather than their physical and psychological mechanism as analysed in Aëtius. For this reason the Herophilean doxa receives considerable attention, but not Aëtius' chapter as a whole.

E Further Related Texts

a Proximate Tradition

General texts: *Scholia in Epicurum* on D.L. *Ep.Hdt.* 66 λέγει (fr. 311 Usener) ἐν ἄλλοις καὶ ἐξ ἀτόμων αὐτὴν (the soul) συγκεῖσθαι λειοτάτων καὶ στρογγυλωτάτων, πολλῶ τινι διαφερουσῶν τῶν τοῦ πυρός (cf. ch. 4.3)· καὶ τὸ μὲν τι ἄλογον αὐτῆς, ὃ τῷ λοιπῷ παρεσπάρθαι σώματι· τὸ δὲ λογικὸν ἐν τῷ θώρακι, ὡς δῆλον ἐκ τε τῶν φόβων καὶ τῆς χαρᾶς (cf. A 4.4.7, 4.5.6). ὕπνον τε γίνεσθαι τῶν τῆς ψυχῆς μερῶν τῶν παρ' ὅλην τὴν σύγκρισιν παρεσπαρμένων ἐγκατεχομένων ἢ διαφορουμένων, εἴτα συμπιπτόντων τοῖς πορίμοις [as emended by Schneider, Dorandi; Lapini suggests ἐγειρομένοις or ἐγηγερμένοις, mss. ἐπερεισμοῖς]. τὸ τε σπέρμα ἀφ' ὅλων τῶν σωματίων φέρεσθαι. Doxography in *Commenta Bernensia in Lucanum* p. 220.19–222.8 Usener (cf. Diels *DG* 198) Varro (fr. 30 Salvatore) dixit somnia nasci aut ex abun(dan)tia principiorum aut deminutione, cum aut plus nobis caloris est aut minus aut plus humoris aut minus aut plus (a)eris aut minus aut plus terreni aut minus. nam cum plus ignis est, in somnis potiones et omne genus refrigerationis desideramus, cum aeris abundantia, volare nos et sub-

limia petere et in ceteris sui similia colligi. Epicurus (fr. 327 Usener) *dicit atomos influere animis nostris in imaginibus corporum et ea quae gessimus aut quae gesturi sumus, per quietum videri. Plato* (*Tim.* 71b–e) *item dixit iecur nostrum levior suco praestare splendorem velut speculum: {in} quo dum inciderint imagines illae quas Epicurus tradit animum eas videre et quae habeat somnia conici. quaecumque igitur videamus aut per recordationem rerum quas gessimus aut per metum, dum timemus qualia eventura sint, prospicimus. Cicero Div. 2.120 utrum igitur censemus dormientium animos per sene ipsos in somniando moveri, an, ut Democritus* (68A137 DK) *censet, externa et adventicia visione pulsari? Div. 2.126, sive enim externus et adventicius pulsus animos dormientium commovet, sive per se ipsi animi moventur, sive quae causa alia est cur secundum quietem aliquid videre, audire, agere videamus, eadem causa vigilantibus esse poterat. Luc. 48 deinde cum mens moveatur ipsa per se sese, ut et ea declarant ... quae dormientibus vel furiosis videntium non numquam ... Philo of Alexandria Somn. 1.1–2 ἡ μὲν πρὸ ταύτης γραφῆ περιεῖχε τῶν θεοπέμπτων ὀνείρων τοὺς κατὰ τὸ πρῶτον εἶδος ταττομένους, ἐφ' οὗ τὸ θεῖον ἐλέγομεν κατὰ τὴν ἰδίαν ἐπιβολὴν τὰς ἐν τοῖς ὕπνοις ἐπιπέμπειν φαντασίας. ἐν ταύτῃ δ', ὡς ἂν οἷόν τε ᾖ, δηλώσομεν τοὺς ἐφαρμόττοντας τῷ δευτέρῳ. (2) δεύτερον δ' εἶδος, ἐν ᾧ ὁ ἡμέτερος νοῦς τῷ τῶν ὅλων συγκινούμενος ἐξ αὐτοῦ κατέχεσθαι τε καὶ θεοφορεῖσθαι δοκεῖ, ὡς ἱκανὸς εἶναι προλαμβάνειν καὶ προγινώσκειν τι τῶν μελλόντων. Somn. 2.1 τὸ τρίτον εἶδος, ὅπότεν ἐν τοῖς ὕπνοις ἐξ αὐτῆς ἡ ψυχὴ κινουμένη καὶ ἀναδονούσα ἑαυτὴν κορυβαντιᾷ καὶ ἐνθουσιῳσά δυνάμει προγνωστικῇ τὰ μέλλοντα θεσπίζει. Tertullian de An. 46.1–47.4 Waszink ecce rursus urgemur de ipsorum somniorum retractatu quibus anima iactatur exprimere ... (2) vana in totum somnia Epicurus (—) iudicavit liberans a negotiis divinitatem et dissolvens ordinem rerum et in passivitate omnia spargens, ut eventui exposita et fortuita ... (3) Aristoteles (Div.Somn. 1 462b12–24) maiorem partem mendacio reputans agnoscit et verum ... (10) quanti autem commentatores et affirmatores in hanc rem (i.e. somnia revelatoria)? Artemon (5 F2 Del Corno) Antiphon (Antiphon 15 F4 Del Corno, T12 Pendrick) Strato (fr. 131.1 Wehrli, 69 Sharples) Philochorus (FrGH 328 T7, 31 F2 Del Corno) Epicharmus (19 F2 Del Corno) Serapion (12 F1 Del Corno) Cratippus (28 F5 Del Corno) Dionysius Rhodius (7 F2 Del Corno) Hermippus (20 F2 Del Corno), tota saeculi litteratura ... (11) ... sed et Stoici (—) deum malunt providentissimum humanae institutioni inter cetera praesidia diviniatricum artium et disciplinarum somnia quoque magis indidisse, peculiare solacium naturalis oraculi. (47.1) definimus enim a daemoniis plurimum incuti somnia, etsi interdum vera et gratiosa, ... (2) a deo autem, ... ea deputabuntur quae ipsi gratiae comparabuntur, si qua honesta sancta prophetica revelatoria aedificatoria vocatoria, ... (3) tertia species erunt somnia quae sibimet ipsa anima videtur inducere ex intentione circumstantiarum. porro quam non est ex arbitrio somniare (nam et Epicharmus (19 F3 Del Corno) ita sentit), quomodo ipsa erit sibi causa alicuius visionis? num ergo haec species naturali formae relinquenda est servans animae etiam in ecstasi res suas perpeti? (4) ea autem, quae neque a deo neque a daemonio neque ab anima*

videbuntur accidere, et praeter opinionem et praeter interpretationem et praeter enarrationem facultatis, ipsi proprie ecstasi et rationi eius separabuntur. **Dio- genes Laertius V.P.** 7.158 (Stoic doxography) αἰτίας δὲ τῶν παθῶν (i.e. during sleep, cf. A 5.24) ἀπολείουσι τὰς περὶ τὸ πνεῦμα τροπὰς.

Chapter heading: cf. **Arnobius Adv.Nat.** 2.7, p. 72.20 *Marchesi potest ... scire ... quibus causis mergamur in somnos, quibus evigilemus, quibus modis fiant insomnia, quibus visa.*

§1 Democritus: cf. **Cicero Div.** 2.120 cited above. *Div.* 2.139 *nullae ergo imagines obrepunt in animos dormientium extrinsecus, nec omnino fluunt ullae, nec cognovi quemquam* (sc. Democritum), *qui maiore auctoritate nihil diceret.* cf. **Epicurus in Commenta Bernensia** cited above, General texts.

§2 Strato: Diogenes Laertius V.P. 5.59 (catalogue of Strato's writings) *Περὶ ἐνυπνίων* (fr. 18 Wehrli, 1 Sharples). **Tertullian de An.** 46.10 cited above, General texts.

b Sources and Other Parallel Texts

General texts: **Plato Tim.** 45e–46a γενομένης δὲ πολλῆς μὲν ἡσυχίας βραχυόνοι-ρος ὕπνος ἐμπίπτει, καταλειφθεῖσών δὲ τινων κινήσεων μειζόνων, οἶαι καὶ ἐν οἷοις ἂν τόποις λείπωνται, τοιαῦτα καὶ τοσαῦτα παρέσχοντο ἀφομοιωθέντα ἐντὸς ἔξω τε ἐγερθεῖσιν ἀπομνημονεύόμενα φαντάσματα. *Tim.* 71e–72a ἀλλὰ συννοῆσαι μὲν ἔμφρονος τὰ τε ῥηθέντα ἀναμνησθέντα ὄναρ ἢ ὕπαρ ὑπὸ τῆς μαντικῆς τε καὶ ἐνθουσιαστικῆς φύσεως, καὶ ὅσα ἂν φαντάσματα ὀφθῇ, πάντα λογισμῷ διελέσθαι ὅπη τι σημαίνει καὶ ὅτῳ μέλλοντος ἢ παρελθόντος ἢ παρόντος κακοῦ ἢ ἀγαθοῦ. **Aristotle Insomn.** 1 458a34–b3 μετὰ δὲ ταῦτα περὶ ἐνυπνίου ἐπιζητητέον, καὶ πρῶτον τίνι τῶν τῆς ψυχῆς φαίνεται, καὶ πότερον τοῦ νοητικοῦ τὸ πάθος ἐστὶ τοῦτο ἢ τοῦ αἰσθητικοῦ· τούτοις γὰρ μόνοις τῶν ἐν ἡμῖν γνωρίζομεν τι. *Div.Somn.* 1 462.12–22 περὶ δὲ τῆς μαντικῆς τῆς ἐν τοῖς ὕπνοις γινομένης καὶ λεγομένης συμβαίνει ἀπὸ τῶν ἐνυπνίων, οὔτε καταφρονῆσαι ῥᾶδιον οὔτε πεισθῆναι. τὸ μὲν γὰρ πάντας ἢ πολλοὺς ὑπολαμβάνει ἔχειν τι σημειώδες τὰ ἐνύπνια παρέχεται πίστιν ὥς ἐξ ἐμπειρίας λεγόμενον, καὶ τὸ περὶ ἐνίων εἶναι τὴν μαντικὴν ἐν τοῖς ἐνυπνίοις οὐκ ἄπιστον· ἔχει γὰρ τινα λόγον· διὸ καὶ περὶ τῶν ἄλλων ἐνυπνίων ὁμοίως ἂν τις οἰηθῇ. τὸ δὲ μηδεμίαν αἰτίαν εὐλογον ὁρᾶν καθ' ἣν ἂν γίνοιτο, τοῦτο δὴ ἀπιστεῖν ποιεῖ· τό τε γὰρ θεὸν εἶναι τὸν πέμποντα, πρὸς τῇ ἄλλῃ ἀλογίᾳ, καὶ τὸ μὴ τοῖς βελτίστοις καὶ φρονιμωτάτοις ἀλλὰ τοῖς τυχοῦσι πέμπειν ἄτοπον. *Div.Somn.* 2 463b12–15 ὅλως δὲ ἐπεὶ καὶ τῶν ἄλλων ζῶων ὀνειρώττει τινὰ, θεόπεμπτα μὲν οὐκ ἂν εἴη τὰ ἐνύπνια, οὐδὲ γέγονε τοῦτου χάριν δαιμόνια μέντοι· ἢ γὰρ φύσις δαιμόνια, ἀλλ' οὐ θεία. *Div.Somn.* 2 464a19–22 καὶ διὰ ταῦτα συμβαίνει τὸ πάθος τοῦτο τοῖς τυχοῦσι καὶ οὐ τοῖς φρονιμωτάτοις. μεθ' ἡμέραν τε γὰρ ἐγίγνετ' ἂν καὶ τοῖς σοφοῖς, εἰ θεὸς ἦν ὁ πέμπων· οὕτω δ' εἰκὸς τοὺς τυχόντας προορᾶν· ἢ γὰρ διάνοια τῶν τοιούτων οὐ φροντιστικὴ, ἀλλ' ὥσπερ ἔρμος καὶ κενὴ πάντων, καὶ κινήθεισα κατὰ τὸ κινεῖν ἄγεται. **Cicero Div.** 1.64, *sed tribus modis censet* (Posidonius F 108 E.-K., 373a Theiler) *deorum impulsu homines somnare: uno, quod praevideat animus ipse per sese, quippe qui deorum cognitione teneatur; altero, quod plenus aër sit immortalium animorum, in quibus tamquam insignitate notae veritatis appareant; tertio, quod ipsi di cum dormi-*

entibus colloquantur. **Artemidorus Onirocr.** 1.6 Pack οὐχ ὁμοίως δὲ νῦν ἐγὼ ὡς Ἀριστοτέλης (*Div.Somn.* 1 462b18–22, 2 463b12–15, 464a19–22) διαπορῶ πότερον ἔξωθεν ἡμῖν ἐστὶ τοῦ ὀνειρώσσειν ἢ αἰτία ὑπὸ θεοῦ γινομένη ἢ ἔνδον αἰτιόν τι, ὃ ἡμῖν διατίθῃσι τὴν ψυχὴν καὶ ποιεῖ φύσει συμβεβηκὸς αὐτῇ, ἀλλὰ θεόπεμπτα {ὡς} ἤδη καὶ ἐν τῇ συνηθείᾳ πάντα τὰ ἀπροσδόκητα καλοῦμεν. **Calcidius in Tim.** cc. 250–256 *et quoniam tractatum incurrimus somniorum, de quo varie senserunt veteres, fiat earum quae in honore sunt opinionum commemoratio. Aristoteles (—), ut qui dei providentiam usque ad lunae regionem progredi censeat, infra vero neque providentiae scitis regi nec angelorum ope consultisque sustentari nec vero daemonum prospicientiam putet intervenire proptereaque tollat omnem divinationem negetque praenosci futura, unum genus somniorum admittit atque approbat, quod ex his quae vigilantes agimus aut cogitamus residens in memoria movet interpellatque per quietem gestarum deliberatarumque rerum conscias animas. nec errat; est enim etiam haec progenies somniorum, sed non sola, ut Aristoteles (Insomn. 3 462a29–31) putat; multa quippe incognita inopinataque neque umquam temptata animis somniamus, ... (251) Heraclitus (fr. 116(c) Marcovich) vero consentientibus Stoicis (SVF 2.1198) rationem nostram cum divina ratione conectit regente ac moderante mundana: propter inseparabilem comitatum consciam decreti rationabilis factam quiescentibus animis opere sensuum futura denuntiare; ex quo fieri, ut appareant imagines ignotorum locorum simulacraque hominum tam viventium quam mortuorum. idemque asserit divinationis usum et praemoneri meritos instruentibus divinis potestatibus. hi quoque parte abutentes sententiae pro solida perfectaue scientia. (252) sunt qui nostrum intellectum et pervolitare convexa mundi putent miscereque se divinae intellegentiae, quam Graeci noyn vocant, et velut ex maiore disciplina minusculas scientias mutuatum, quae summa et eminens imagnetur mens, nuntiare mentibus nostris invitante ad coetum animae nocturnae solitudinis opportunitate. (253) sed Plato (Resp. 571b–c) magna diligentia summaque cura discussis penitus latibulis quaestionis vidit atque assecutus est non unam somniorum esse genituram ... (256) multiformis ergo est ratio somniorum, siquidem sunt quae velut percussa gravius verberataque mente vestigiis doloris penitus insignitis per quietem refovent imagines praeteritae consternationis, sunt item quae iuxta cogitationes rationabilis animae partis vel purae atque immunis a perturbatione vel in passionibus positae oboriuntur, nihiloque minus quae divinis potestatibus consulentibus praemonstrantur vel etiam poenae loco ob delictum aliquod formata in atrocem et horridam faciem. consentit huic Platonico dogmati Hebraica philosophia de somniis satis dictum.* **Macrobius in Somn.** 1.3.1–3 *his praelibatis antequam ipsa somnii verba tractemus, prius quot somniandi modos observatio deprehenderit, cum licentiam figurarum, quae passim quiescentibus ingeruntur, sub definitionem ac regulam vetustas mitteret, edisseramus, ut cui eorum generi somnium quo de agimus adplicandum sit innotescat. (2) omnium quae videre sibi dormientes videntur quinque sunt principales et diversitates et nomina. aut enim est ὄνειρος secundum Graecos quod Latini somnium vocant, aut est ὄραμα quod visio recte appellatur, aut est χρηματισμός quod oraculum nuncupatur, aut est ἐνύπνιον quod insomnium dicitur,*

aut est φάντασμα quod Cicero, quotiens opus hoc nomine fuit, visum vocavit. (3) ultima ex his duo cum videntur, cura interpretationis indigna sunt, quia nihil divinationis adportant, ἐνύπνιον dico et φάντασμα ...

Chapter heading: cf. Aristotle *Insomn.* 2 459a23–24 τί δ' ἐστὶ τὸ ἐνύπνιον, καὶ πῶς γίνεται, ἐκ τῶν περὶ τὸν ὕπνον συμβαινόντων μάλιστα ἂν θεωρήσαιμεν. also *Somn. Vig.* 1 453b17–19 πρὸς δὲ τούτοις τί ἐστὶ τὸ ἐνύπνιον, καὶ διὰ τίνα αἰτίαν οἱ καθεύδοντες ὅτε μὲν ὀνειρώττουσιν ὅτε δὲ οὐ. cf. also Philo of Alexandria *Somn.* Περὶ τοῦ θεοπέμπτους εἶναι τοὺς ὀνειρούς.

§1 Democritus: Aristotle *Div.somn.* 2 4643b31–464a6 περὶ δὲ τῶν μὴ τοιαύτας ἔχόντων ἀρχὰς ἐνυπνίων οἷας εἶπομεν, ἀλλ' ὑπερορίας ἢ τοῖς χρόνοις ἢ τοῖς τόποις ἢ τοῖς μεγέθεσιν, ἢ τούτων μὲν μηδέν, μὴ μέντοι γε ἐν αὐτοῖς ἔχόντων τὰς ἀρχὰς τῶν ἰδόντων τὸ ἐνύπνιον, εἰ μὴ γίνεται τὸ προορᾶν ἀπὸ συμπτώματος, τοιόνδ' ἂν εἴη μᾶλλον ἢ ὥσπερ λέγει Δημόκριτος (fr. 472 Luria) εἰδῶλα καὶ ἀπορροίας αἰτιώμενος. Epicurus *Gnom. Vat.* 24 ἐνύπνια οὐκ ἔλαχε φύσιν θείαν οὐδὲ μαντικὴν δύναμιν, ἀλλὰ γίνεται κατὰ ἔμπτωσιν εἰδῶλων. Plutarch *Quaest. Conv.* 735A ὑποθέμενος τοῦτο δὴ τοῦπιδήμιον ὃ φησιν Δημόκριτος (68A77 DK) 'ἐγκαταβυσσοῦσθαι' τὰ εἰδῶλα διὰ τῶν πόρων εἰς τὰ σώματα καὶ ποιεῖν τὰς κατὰ τὸν ὕπνον ὕψεις ἐπαναφερόμενα.

§3 Herophilus: cf. Aristotle *Div.Somn.* 2 463b12–15 ὅλως δὲ ἐπεὶ καὶ τῶν ἄλλων ζῶων ὀνειρώττει τινὰ, θεόπεμπτα μὲν οὐκ ἂν εἴη τὰ ἐνύπνια, οὐδὲ γέγονε τοῦτου χάριν (δαιμόνια μέντοι ἢ γὰρ φύσις δαιμονία, ἀλλ' οὐ θεία). also Artemidorus *Oneir.* 1.1 Pack ταύτη γὰρ ὄνειρος ἐνύπνιον διαφέρει, ἢ συμβέβηκε τῷ μὲν εἶναι σημαντικῶ τῶν μελλόντων, τῷ δὲ τῶν ὄντων. σαφέστερον δ' ἂν μάθοις οὕτω. τὰ ποιὰ τῶν παθῶν προσανατρέχειν πέφυκε καὶ προσανατάσσειν ἑαυτὰ τῇ ψυχῇ καὶ τοὺς ὀνειρωγμοὺς ἀποτελεῖν. οἷον ἀνάγκη τὸν ἐρώντα ὄναρ ἅμα τοῖς παιδικοῖς εἶναι δοκεῖν ... τούτων δὲ οὕτως ἔχόντων ἴδιοις ἂν ἢ μὲν ἴδια σώματος μόνου ἢ δὲ ἴδια ψυχῆς (ἢ δὲ κοινὰ σώματι καὶ ψυχῇ), οἷον ἐρώντα δοκεῖν ἅμα τοῖς παιδικοῖς εἶναι καὶ νοσοῦντα θεραπεύεσθαι καὶ συμμίσγειν ἰατροῖς· κοινὰ γὰρ ταῦτα σώματι καὶ ψυχῇ. ἐμὲν δὲ καὶ καθεύδειν καὶ πάλιν αὐτὸ πίνειν τε καὶ ἐσθίειν ἴδια σώματος ἡγήτεον, ὥσπερ ἴδια ψυχῆς χαίρειν τε καὶ λυπεῖσθαι. σαφές δὲ ἀπὸ τούτων ὅτι τῶν σωματικῶν ἢ μὲν δι' ἐνδειαν ἢ δὲ διὰ περισσότητα ὀράται, τῶν δ' αὐτῶν ψυχικῶν ἢ μὲν διὰ φόβον ἢ δὲ δι' ἐλπίδα. also Augustine *Ep.* 162.5, pp. 515.21–516.19 Goldbacher *quando non divinitus admonemur, nisi quod haec volentes agimus, illa praeter arbitrium patimur; non solum haec movent, quae in animo de ipso animo fieri non absurde forte quis putat quamvis et hoc causis occultioribus, quibus agitur, ut istud potius quam illud in conspectu animi veniat, sed etiam quod ait propheta: et dixit mihi angelus, qui loquebatur in me—neque enim forinsecus voces ad aures corporeas prophetae venisse credendum est, cum dicit qui loquebatur in me, non ad me—, utrum voces erant de spiritu factae corporalibus similes, quales agimus, cum apud nos taciti multa memoriter plerumque etiam cantando transcurrimus, sed tamen editae ab angelo, (quas miris modis) cernebat ab alio, quam ipse fuerat, sibi suggeri, et quod in evangelio scriptum est: ecce angelus domini apparuit illi in somnis dicens, quo modo enim apparuerit vel corpus angelicum oculis clausis ... vel spiritus spiritui dormientis specie aliqua simili corporis, sicut nos ipsi nobis videmur tali figura etiam per loca moveri somniantes longe aliter quam membra in stratis iacentia.*

Liber 5 Caput 3

PP: *Papyrus Antinoopolis* 85 fr. 5a recto p. 78 Barns–Ziliacus—**PB:** ps.Plutarchus *Plac.* 905A; p. 416^a6–22 Diels—**PG:** ps.Galenus *HPH* c. 107.9–15; p. 640.16–20 Diels; pp. 331–338 Jas—**PQ:** Qusṭā ibn Lūqā pp. 218–219 Daiber

Titulus γ'. Τίς ἡ οὐσία τοῦ σπέρματος (P)

- §1 Ἀριστοτέλης· σπέρμα ἐστὶ τὸ δυνάμενον κινεῖν ἐν ἑαυτῷ εἰς τὸ ἀποτελέσαι τι τοιοῦτον, οἷόν ἐστι τὸ ἐξ οὗ συνεκρίθη. (P₁)
- §2 Πυθαγόρας ἀφρὸν τοῦ χρηστοτάτου αἵματος τὸ σπέρμα, περίττωμα τῆς τροφῆς, ὥσπερ τὸ αἷμα καὶ μυελόν. (P₂)
- §3 Ἀλκμαίων ἐγκεφάλου μέρος. (P₃)
- §4 Πλάτων μυελοῦ τοῦ νωτιαίου ἀπόρροιν. (P₄)
- §5 Ἐπίκουρος ψυχῆς καὶ σώματος ἀπόσπασμα. (P₅)
- §6 Δημόκριτος ἀφ' ὅλων τῶν σωμαμάτων καὶ τῶν κυριωτάτων μερῶν, οἷον ὁστῶν σαρκῶν ἰνῶν. (P₆)

5

10

§1 Aristoteles cf. *GA* 4.1 766b12; §2 Pythagoras —; §3 Alcmaeon 24A13 DK; §4 Plato cf. *Tim.* 74a; §5 Epicurus fr. 329 Usener; §6 Democritus 68A141 DK

titulus Τίς ἡ τοῦ (τοῦ del. Diels, cf. PG) οὐσία σπέρματος ^{PBQ(ut vid.)} : Περί οὐσίας σπέρματος ^{PG} §1 [2] ἐστὶ ^{PB} : εἶναι φησι ^{PG} || ἐν ἑαυτῷ ^{PB} : αὐτὸν ^{PG} : ἑαυτὸ ^{PQ(ut vid.)} || εἰς] πρὸς ^{PG} || [3] τι] τὸ ^{PG} || τὸ] om. ^{PG} || συνεκρίθη ^{PBG} : ἀπεκρίθη dub. Diels et leg. ut vid. ^{PQ} §2 [4] τὸ σπέρμα] ἢ ^{PG} || περίττωμα ^{PB(IIIDG)} : περίττευμα ^{PB(IIID)} cf. *Überschuf* Q || [5] ὥσπερ ... μυελόν] non hab. ^{PG} || μυελόν ^{PB(II,IIID)Q} : μυελῶν ^{PB(II)} §6 [9–10] οἷον ὁστῶν σαρκῶν (mss. σαρκικῶν aut σαρκινῶν, emend. Jas, καὶ add. ^{PG2}) ἰνῶν ^{PG} prob. Primavesi, cf. οἷον ὁστῶν σαρκῶν καὶ ἰνῶν Diels Mau Lachenaud : ὁ γόνος τῶν σαρκικῶν ἰνῶν ^{PB(II,IIID)}, ubi *ΟΓΟΝΟΣ ΤΩΝ ΕΧ ΟΙΟΝ ΟΣΤΩΝ* corruptum est, cf. Diels *DG* 15; similiter ὁ γόνος τῶν σαρκῶν καὶ ἰνῶν ^{PB(II)} et ^{PQ} (*der Same ..., aus dem Fleisch und aus den Fasern* Q)

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 5a recto = P §§5–6

α[] . . []
ψ[υχης κ]αι σ[ώματος αποσπασμα Δημοκρι]
το[ς α]φ ὁλων [των σωματων και των κυρι]
ωτατων με[ρων οιον οστων σαρκων και ινων]
continuat caput 4

ps.Galenus c. 107 (~ tit.) Περί οὐσίας σπέρματος (text Jas)

107.1 (~ P₁) Ἀριστοτέλης σπέρμα εἶναι φησι (τὸ δυνάμενον) κινεῖν αὐτὸ πρὸς τὸ ἀποτελέσαι τὸ τοιοῦτον, οἷόν ἐστιν τὸ ἐξ οὗ συνεκρίθη.

107.2 (~ P₂) Πυθαγόρας ἀφρὸν τοῦ χρηστοτάτου αἵματος ἢ περίττωμα τῆς τροφῆς.

- 107.3 (~ P3) Ἀλκμαίων ἐγκεφάλου μέρος.
 107.4 (~ P4) Πλάτων τοῦ νωτιαίου μυελοῦ ἀπόρροιαν.
 107.5 (~ P5) Ἐπίκουρος ψυχῆς καὶ σώματος ἀπόσπασμα.
 107.6 (~ P6) Δημόκριτος ἀφ' ὧν τῶν σωμάτων καὶ τῶν κυριωτάτων μερῶν οἶον
 σαρκῶν ὁστῶν ἰνῶν.

Loci Aetiani:

titulus et quaestio A 1.3.1 Θαλῆς ... στοχάζεται δ' ἐκ τούτου πρῶτον, ὅτι πάντων τῶν ζῶων ἡ γονὴ ἀρχὴ ἐστὶν ὑγρὰ οὖσα. A 4.4.4 οἱ Στωικοὶ ἐξ ὀκτῶ μερῶν φασι συνεστάναι (τὴν ψυχὴν), ... ἐβδόμου δὲ σπερματικοῦ. A 4.21.4 (de Stoicis) τῶν δὲ λοιπῶν (μέρων τῆς ψυχῆς) τὸ μὲν λέγεται σπερματικόν. A 5.4 Εἰ σῶμα τὸ σπέρμα.

§3 A 4.17.1 Ἀλκμαίων ἐν τῷ ἐγκεφάλῳ εἶναι τὸ ἡγεμονικόν.

§5 A 5.4.1 Λεύκιππος καὶ Ζήνων σῶμα· ψυχῆς γὰρ εἶναι ἀπόσπασμα. cf. A 5.11.3 οἱ Στωικοὶ ἀπὸ τοῦ σώματος ὅλου καὶ τῆς ψυχῆς φέρεσθαι τὰ σπέρματα.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

P^B and Q transmit six doxai, which perhaps because of their relative brevity are all quite faithfully retained in G. A papyrus fragment contains snippets of the last two doxai joined with the first lines of the next chapter. The remaining letters are of no value for determining the text of the final phrase of §6.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There are three doxographical passages in the proximate tradition which show resemblances to A's chapter. Censorinus, in moving from the question of human origins (ch. 4), to that of human birth (ch. 5), first notes that the 'professors of wisdom' disagree on where semen comes from and gives three views: (a) from both left and right parts of the body (Parmenides); (b) from the marrow (Hippo); (c) from the whole body (Anaxagoras Democritus Alcmaeon). We note that the question of 'where it comes from' is basic to A's approach, although only explicitly expressed in §6. The second, a very brief doxography in ps.Galen's *Definitiones medicae*, is valuable because it gives a clear diaeresis of two (or rather three) of the positions taken in A's chapter and also replicates two name-labels, one for each position (Plato, Democritus). A similar diaeresis is found in Lactantius, with the views attributed anonymously.

As already noted in our Introduction to Book 5, these three documents are key witnesses to the tradition of the *Placita* on the subjects of spermatology, embryology, heredity and related issues. For Censorinus, who dated his little treatise to 238 CE, it may be considered virtually certain that his chief source for the passages with material similar to A was Varro. The evidence was set out in considerable detail by Diels at *DG* 186–198, who argued that the likely source was his book *Tubero de origine humana* cited at §9.1. The other work that Censorinus refers to is *Atticus de numeris* at §2.2. These works both derive from the so-called *Logistorici*, treatises of a philosophical character which honour a recently departed person and treat a subject with which that person was connected (Rocca-Serra 1980, xi n. 24). In a brief examination of Censorinus' sources Rocca-Serra (1980) viii–ix agrees with Diels that chs. 4–8 ultimately represent extracts from the *Vetusta placita*, and that much is owed to Varro. Whether or not one accepts Diels' hypothesis, there can be no doubt the material in these chapters goes back to a late Hellenistic doxographical tradition which has been transmitted through to A. See further the Introduction to Book 5, section 5 above. We note too a quaestio related to the subject of this chapter in the *Δικτυαχά* of Dionysius of Aegae preserved by Photius. It is dialectically formulated in terms of a diaphonia between two θέσεις, does the semen derive from the whole body or from the testicles only. On this work see Von Staden (1999) 177–187; Runia (1999a) 242–243; and the Introduction to Book 5, section 5 above.

The important parallel text in ps.Galen *Def.Med.* §439 is the first in a long series of sections on spermatology, embryology and gynaecology (§§439–461) which depart from this work's usual method of presenting brief definitions. The first 14 sections (§§439–452) contain much material relevant to Book 5 of the *Placita*. On this work see Kollesch (1973), who dates it (pp. 60–66) to the last decades of the first cent. CE, i.e. very close in time to A; Runia (1999a) 230, 242–243; and the Introduction to Book 5 above. This passage is excerpted in a set of notes in Codex Marcianus 521 f. 100^r, first published by Diels at *DG* 233. It is not an independent witness but is wholly derived from the ps.Galenic text §§439–452, including the list of what appear to be headings but are in fact drawn from the beginnings of the various sub-sections of this text. Diels later realised (1893, 102 n. 2 = Burkert ed. 1969, 240 n. 2) that it was derived from ps.Galen. This textual fragment is valuable because it proves the authenticity of this section of ps.Galen's compendium.

Mention should also be made of the valuable treatise on spermatology of the so-called Anonymus Bruxellensis (previously attributed by its early editors to Vindicianus, but this is no longer accepted; see Debru 1999, 453–454). It gives as its subject in the opening sentence both the nature of semen (*quid sit*) and

where it comes from (*unde*), i.e. deals with two question types. It outlines the positions of various philosophers and physicians and gives much more detail on their arguments than we find in A. There is, however, as Van der Eijk rightly notes (2000–2001, 2.80), little correspondence with the contents of A's presentation.

(2) *Sources*. Aristotle devotes a long section of *GA* to the examination of semen, introduced at 1.16 721a28 as one of the ὁμοιομερῆ (uniform parts). At 1.18 724a14 he commences his investigation into what semen is (i.e. the same quaestio as in our chapter) with a dialectical passage in which he takes issue with the pan-genesis theory found at A §6. But no name-labels are mentioned. The content of his treatment had only a limited influence on the later doxographical tradition. Epicurus does not mention the subject of the nature of semen in his *Letters*, but it is briefly listed in the doxography contained in a scholion inserted at *Ep.Pyth.* 66; on this text see above on ch. 5.2 Commentary D(a). The subject is included in the summary of the Stoic φυσικός λόγος at D.L. 7.133, being part of the study of causes (τὸ αἰτιολογικόν) in which common ground is sought with 'the doctors'. An all too brief summary follows at D.L. 7.158–159. Galen's work *Περὶ σπέρματος* takes as its starting-point the *χρεία* and *δύναμις* of semen and betrays no interest in a doxographical tradition such as that of A.

The pre-Aristotelian sources for the doxographical tradition on the nature of semen will have been rich, since the question was much discussed from about 500 BCE onwards. Most of these original documents are lost, but in addition to Plato's discussion in the *Timaeus* (see below on §4), there is preserved a treatise *Περὶ γονῆς* in the Hippocratic corpus (no. 21 in the listing of Jouanna and Magdelaine in *DPhA* 3.776). The title is usually translated 'On generation', but as the opening words of the work indicate, *γονή* is also the word for semen.

On the early tradition of spermatology in Greek medicine see Lesky (1951), (1952); Lonie (1981); Longrigg (1985); (1993) *passim*; Althoff (1999) 85–89 (on Aristotle). Lesky's monograph (presented to the Mainz academy in 1950, but not published until the following year) is the classic work on the entire subject of reproduction and heredity in the ancient world and has not been superseded. Her work is systematically organised in terms of physiological theories, so discussion of sources must be sought via the *index locorum*. Useful overviews of individual philosophers and doctors in Longrigg (1993).

C Chapter Heading

This is the only chapter in Book 5 with a heading that indicates that its subject is the οὐσία (substance, nature, essence) of something. It is the last in a long line of chapters inquiring after the substance of the major components of the physical world (2.11, 13, 20, 25, 3.9 in P^B, 4.3). The usage in the present chapter clearly goes

back to Aristotle and is also found in the Anon. Bruxellensis (see texts below section E(a) Chapter heading, (b) General texts). It differs from the approach used by Galen noted above in section B. For the distinction and connection between *Περὶ τοῦ δεῖναι* and *Περὶ οὐσίας τοῦ δεῖναι* see above, ch. 1.3, Commentary C ad init., and for similar problems at chs. 1.21–22, 1.25–26 and 1.27–28 see the Commentary on those chapters, all at Commentary C.

D Analysis

a Context

After the first two psychological chapters 5.1 and 5.2, which might better have been placed in Book 4 (see on chs. 5.1 and 5.2. Commentary D(a)), this chapter is the first to focus on physiology proper, i.e. those phenomena in which the role of the body is predominant. It commences the long section chs. 5.3–23, which amounts to a doxographical treatment of subjects belonging to spermatology, embryology and what we would now call genetics. See our remarks in the Introduction to Book 5, section 5. A starts with the subject of semen, since it is the starting-point of animal and human life.

b Number–Order of Lemmata

We cannot go beyond the evidence of the tradition of P and the six doxai it records. As we shall see in the following sub-section, these cover the main positions on the subject. Nevertheless the wealth of material in the wider doxographical tradition not used by P suggests that the coverage in A may have been fuller. The name-labels recorded in the three documents in the proximate tradition which are missing here are: Parmenides, Hippo, Anaxagoras (Censorinus); Diocles, Praxagoras, Hippocrates (*Def.Med.*); and Alexander and Diogenes of Apollonia (Anon. Bruxellensis). So it is highly likely that A's chapter originally contained more name-labels and also quite possibly more doxai.

c Rationale–Structure of Chapter

The opening doxa unusually eschews indirect speech and gives what looks like a verbatim quote; cf. the similar practice at A 2.5.1. But it is not likely to be an actual quotation from an Aristotelian work. Although the language and the contents are basically Aristotelian, nothing resembling this sentence is found in GA, where Aristotle deals with the subject of semen at great length, or elsewhere in the extant works (it is not impossible that it derives from a lost exoteric work, but not very likely). But we should note that the practice of commencing a chapter with its subject as first word followed by *ἐστὶ* occurs frequently elsewhere in order to introduce a preliminary definition (chs. 1.9–12, 14–15, 23, 2.30, 3.1, cf. 1.25.1, 4.8.1–2, 5.29). Of these passages only 1.23 follows the same

practice as here, i.e. first giving the name-label of the purported source of the definition followed by the definition itself, in that case Pythagoras Plato (in two cases we find an explicit indication that it is a definition, A 4.8.1 οἱ Στωϊκοὶ ὀρίζονται οὕτως τὴν αἴσθησιν· αἴσθησις ἐστὶν ...; 5.29.1 Ἐρασίστρατος ὀρίζεται τὸν πυρετὸν οὕτως· πυρετός ἐστι ...). The rest are all without name-label. G and Q give a text that is more in line with P's usual practice (φησί/'glaubte' + infinitive). It is far from impossible that this was P's original text, but we retain the text of P^B as the *lectio difficilior*. The doxa is intended as an introductory definition and as such stands apart from the rest of the chapter. Its metaphysical content differs from the remaining five doxai which all report various physical substances. It is best regarded as a nominal definition which sets the scene as it were for the descriptions that follow in the remainder of the chapter. See the discussion of such definitions and their role in the *Placita* above ch. 1.9 Commentary D(d) under General points. Unusually the definition is not anonymous, as in 1.9–15, but is attributed to Aristotle. It should also be noted that, through its metaphysical content, it forms an implicit diaeresis with the remainder of the doxai in the chapter.

The remaining doxai all indicate the physical nature of semen and/or its source in a highly compact fashion. The first, §2, presents the view that semen is 'foam from the most useful (kind of) blood', which is equated with 'residue from food'. This doxa represents what Lesky has called the 'hematogenic' theory of the nature of semen (1951, 120 ff.). The doxa combines two views, that of Diogenes of Apollonia (attributed to him by the Anon. Brux. 1, 3, but to Hippo by Censorinus), and of Aristotle. For the latter he uses the exact Aristotelian formula περίττωμα τῆς τροφῆς but without the additional qualifications χρησίμου and ἐσχάτης (GA 1.18 725a11, 1.19 726a26; see texts below section E(b) General texts). The whole is then puzzlingly attributed to Pythagoras (elsewhere a quite different view linked to that of Alcmaeon is attributed to anonymous Pythagoreans by Alexander Polyhistor as recorded at D.L. 8.28). Pythagoras is perhaps invoked as a distinguished *auctor* of an established view (as often elsewhere in A). The two parts of the doxa, foam and residue, are most likely drawn from Aristotle (where they are separate) and conflated. The indication for this is the qualification that in Aristotle applies to the residue, i.e. that it is 'useful', is transferred to the other view of semen as foam (in Aristotle blood is the ἐσχάτη τροφή (GA 1.19 726b2), but it is not connected with foam as explanation of semen's whiteness). The question may be asked whether this combination is the result of A having conflated the two parts or whether it is due to P's epitomization. The former is perhaps more likely.

In the next two lemmata A presents what Lesky has called the 'encephalomyelogenic' theory of semen (1951, 9 ff., cf. Lonie 1981, 101–102). It is divided

into two separate views: Alcmaeon, the originator of the theory (Lesky *ibid.*), regards semen as a 'part of the brain', Plato as 'an effluence from the marrow in the backbone' (clearly derived from the *Timaeus*). A thus not unintelligently divides what ps.Galen nevertheless keeps together. Censorinus, on the other hand, appears to contradict this view by lumping Alcmaeon together with the atomist view—which A presents last (§6)—in opposing the view that semen comes from the bone marrow. The contradiction can be rescued, as suggested by Lesky (1952), by interpreting Alcmaeon's opposition as regarding only the view that it is from the marrow and not the brain. But this is perhaps being too kind to Censorinus. It is worth noting that Galen describes this theory, taken over by Plato, as the *παλαιὰ δόξα*, and also attributes it to Hippocrates (text below under section E(b)§4). The great doctor, however, is almost entirely absent in the *Placita* (only at A 4.5.2, 5.18.4).

The final two lemmata are perhaps best taken together as representing the pan-genesis view. The second of these, §6, attributes the view to Democritus, who according to Lesky (1951, 72) must be seen as the originator of the doctrine, though it may have been inspired by Anaxagoras (as implicitly suggested by the doxography in Censorinus). Ps.Galen also attributes this view to Democritus (accompanied by Hippocrates, in opposition to Galen above; in fact both theories are found in the Hippocratic corpus). We are left with §5, which attributes a reduced version of this view—semen as a fragment of soul and body—to Epicurus. This must be a mistake, for elsewhere Epicurus is recorded as faithfully following the atomist view and this is taken over by his disciple Lucretius. His view is clearly summarised in the scholion to *Ep.Hdt.* 66 which we discussed in ch. 5.2 Commentary D(a). (See the texts cited below under section E(a)§5.) As will emerge in two following chapters (A 5.4.1, 5.11.3) the doxa in fact represents the Stoic position, but does so clumsily: semen is a part of soul (cf. A 4.4.4, 4.21.4) but as such is also corporeal (see the text from AD cited below under section E(a)§5). It also takes *σπέρματα* or *σπερματικοὶ λόγοι* from all the body's parts (implicit in A 5.11.3). The lemma may in fact be a doublet of the lemma in the next chapter, from which it is separated only by the final Democritean doxa and which repeats the atomist connection by coupling Zeno with Leucippus. But its reappearance at 5.11.3 militates against this possibility. It is more likely that A, or even more likely P, has garbled an original Stoic doxa and given it a wrong name-label (compare what has happened with P in A 1.20.1).

Despite the mishap towards the end, however, this chapter is one of A's better efforts. After the initial definition he manages to set out the main views on the subject in a compact fashion, using a clear diaeresis, which in fact anticipates the tripartition of ancient theories delineated by Lesky in her monograph. This is in contrast to the other three doxographies in the proximate tradition, which

all relate only two of the main positions (the Parmenidean doxa in Censorinus is not relevant; see below on chs. 5.7 and 5.11). The sequence of the doxai also follows a logical order, beginning at the micro-level with an explanation in terms of the blood, moving from there to the larger bodily parts brain and spine, and ending with the view that semen is taken from all the parts of the body. The name-labels are not all accurate, as we have seen, but four of the main theorists are identified. Following the usual doxographical method the order is systematic rather than chronological.

Comparison with the other doxographies in the proximate tradition reveals that the three texts in the proximate tradition all adopt the same approach as A, setting out distinct positions in a diaeresis. A's list with its five doxai (excluding the opening definition) is in fact the most extensive, though lacking some of the colourful detail of Censorinus. This convergence of method shows that A's basic method, of which the diaeresis is a key technique, goes back to anterior traditions. A difference, however, is that his name-labels are all drawn from the philosophical tradition (including Alcmaeon as a *φυσικός*) with Epicurus as the youngest representative. The Hellenistic physicians, who will be very prominent in Book 5, are not included. This is in contrast to Diocles, Praxagoras, Hippocrates and Asclepiades in ps.Galen, Diocles and Alexander the pupil of Asclepiades in the Anon. Bruxellensis.

d Further Comments

Individual Points

§3 Alcmaeon is prominent in the remains of Book 5, with five doxai (also at 5.14.1, 5.17.3, 5.24.1, 5.30.1). This is in addition to his contribution to psychology in Book 4 (see 4.16.2, 4.17.1, 4.18.1). The fact that he is so often placed at or close to the beginning of the chapter might imply that he is an early contributor to the discussions (cf. the role of the Milesians in Book 2). But this is not made explicit. The *πρῶτος εὐρετής* motif is in fact absent in what we have of Book 5, occurring for the last time at A 4.2.1. The claim that Alcmaeon was a pioneer in human psychology and physiology is a modern invention, encouraged by Diels' early placement of his fragments in VS ahead of Parmenides. The role of pioneer in these areas of enquiry should be credited to the Eleatic; see further Mansfeld (2015e).

§6 For the final phrase *οἷον ὁσῶν σαρκῶν ἰνῶν* the textual corruption in P^{BQ} is exposed by P^G, as already seen by Diels; cf. DG 15. Other difficulties are whether to read *σαρκῶν* or *σαρκικῶν* and whether the final two nouns are connected by *καί*. See the detailed discussion at Jas (2018a) 331–322. They do not of course affect the sense. The three examples given in fact go back to Aristotle who in the context of questions about the inheritance by children of traits from

their parents (cf. ch. 5.11) at GA 1.18 722a17 asks whether the semen is drawn only from the *ὁμοιομερή*, such as flesh and bone and nerve, or from the *ἀνομοιομερή* such as face and hand (text below section E(b)§6). The same distinction with the same triad is found in a statement attributed to Hippocrates on male semen at the Anon. Bruxellensis 25.

E Further Related Texts

a Proximate Tradition

General texts: Censorinus *DN* 5.2–3 *igitur semen unde exeat, inter sapientiae professores non constat. Parmenides* (28A53 DK) *enim tum ex dextris tum e laevis partibus † id ire † putavit. Hipponi vero {et} Metapontino* (38A1, A12 DK), *sive, ut Aristoxenus* (fr. 21 Wehrli, iii 3 130 Kaiser) *auctor est, Samio ex medullis profluere semen videtur, idque eo probari, quod post admissionem pecudum si quis mares interimat, medullas utpote exhaustas non reperiatur.* (3) *sed hanc opinionem nonnulli refellunt, ut Anaxagoras* (59A107 DK) *Democritus* (68A141 DK) *et Alcmaeon Crotoniates* (24A13 DK); *hi enim post gregum contentionem non medullis modo verum et adipe multaque carne mares exhauriri respondent.* **ps.Galen** *Def.Med.* 439, pp. 19.449.14–450.5 K. *ὡςπερ Πλάτων* (cf. below E(b)§4) *φησὶ καὶ Διοκλῆς* (fr. 41 Van der Eijk), *ἀπὸ ἐγκεφάλου καὶ νωτιαίου. Πραξαγόρας* (fr. 34 Steckerl) *δὲ καὶ Δημόκριτος* (68B124 DK) *ἔτι τε Ἱπποκράτης* (*Genit.* 3 cited below E(b)§6) *ἐξ ὅλου τοῦ σώματος. ὁ μὲν Δημόκριτος λέγων* (68B124 DK) *‘ἄνθρωποι εἰς ἔσται καὶ ἄνθρωπος πάντες’. ὁ δὲ Ἱπποκράτης φησὶ* (*Corpus Hippocraticum Aër.* 14, p. 2.60.1–2 Littré, *Morb.Sacr.* 2, p. 2.264.19–20 Littré, cf. *Genit.* 1 cited below B§1) *· ἡ γὰρ ἡδονὴ πανταχόθεν ἔρχεται τοῦ σώματος ἀπὸ μὲν τῶν ὑγιῶν ὑγιῆς, ἀπὸ δὲ τῶν νοσερῶν νοσερά. τὸ σπέρμα ἐστὶν κατὰ μὲν τοὺς Στωϊκοὺς* (SVF 2.742) *ὁ μεθίησι τὸ ζῶον ὑγρὸν μετὰ πνεύματος καὶ ψυχῆς, ὡς δὲ οὐ μέρος. κατὰ δὲ Ἀσκληπιάδην* (Vallance ANRW 2.37.1, p. 721) *τὸ ἐν ταῖς ἀφροδισίαις συνουσίαις ἐκκρινόμενον γεννητικὸν ὑγρὸν* (excerpted by **Codex Marcianus** 521 f. 100^r, see Diels *DG* 233). **Hippolytus** *Ref.* 1.16.2 (on Hippo, 38A3 DK) *καὶ γὰρ τὸ σπέρμα εἶναι τὸ φαινόμενον ἡμῖν ἐξ ὑγροῦ, ἐξ οὗ φησι ψυχὴν γίνεσθαι.* **Lactantius** *Op.D.* 12.4 Perrin *ipsum semen quidam putant ex medullis tantum, quidam ex omni corpore ad venam genitalem confluere ibique conlescere.*

Chapter heading: **Anonymus Bruxellensis** 1 Wellmann *hic de semine quid sit vel unde nascatur.* cf. **Codex Marcianus** 521 f. 100^r (*DG* 233) *δόξα Δημόκριτου* (—) *περὶ σπέρματος ... δόξα τῶν Στωϊκῶν περὶ σπέρματος.* **Arnobius** *Adv.Nat.* 1.38, p. 33.10 Marchesi *rationes quas habent semina.* **Dionysius of Aegae** at Photius *Bibl.* 185 (cf. 211) 129b17–19 τρίτον ὅτι ἀφ’ ὅλου τοῦ σώματος ἡ τοῦ σπέρματος ἔκκρισις γίνεται, τέταρτον ὅτι οὐκ ἀφ’ ὅλου ἀλλ’ ἀπὸ τῶν διδύμων (quaestio).

§1 Aristotle: **ps.Galen** *Def.Med.* 94, p. 19.370.14–16 K. 58^r. *σπέρμα ἐστὶ πνεῦμα ἐνθερμον ἐν ὑγρῷ ἐξ ἑαυτοῦ κινούμενον καὶ δυνάμενον τοιοῦτον γεννᾶν οἶον ἀφ’ οὗ καὶ ἀφέθη.* **Stoics** at D.L. 7.158 (SVF 2.741) *σπέρμα δὲ λέγουσι εἶναι τὸ οἶον τε γεννᾶν τοιαῦτα ἀφ’ οὗ καὶ αὐτὸ ἀπεκρίθη.*

§2 *Pythagoras*: cf. *Anonymus Bruxellensis* 1 *Alexander amator veri appellatus, discipulus Asclepiadis, libro primo de semine spumam sanguinis eius essentiam dixit Diogenis placitis consentiens.*

§3 *Alcmaeon*: ps.Galen *Def.Med.* 439, p. 19.449.14–16 K. cited above. *Censorinus* 5.3 cited above.

§4 *Plato*: ps.Galen *Def.Med.* 439, p. 19.449.14–16 K. cited above; also *Codex Marcianus* 521 f. 100^r (*DG* 233).

§5 *Epicurus*: Arius Didymus at Eus. *PE* 15.20.1 (fr. 39 Diels) τὸ δὲ σπέρμα φησὶν ὁ Ζήνων (SVF 1.128) εἶναι ὁ μεθίησιν ἄνθρωπος πνεῦμα μεθ' ὕγρου, ψυχῆς μέρος (καὶ) ἀπόσπασμα καὶ τοῦ σπέρματος τοῦ τῶν προγόνων κέρασμα καὶ μίγμα τῶν τῆς ψυχῆς μερῶν συνεληλυθός (cf. also *Codex Marcianus* 521 f. 100^r, *DG* 233). *Diogenes Laertius* *V.P.* 7.159 (SVF 1.626) καὶ ἀφ' ὧν δὲ τῶν σωμάτων αὐτὸ φασι καταφέρεισθαι οἱ περὶ τὸν Σφαῖρον πάντων γούν γεννητικὸν εἶναι τῶν τοῦ σώματος μερῶν. *Scholia in Epicurum* at *Ep.Hdt.* 66 τὸ δὲ σπέρμα ἀφ' ὧν τῶν σωμάτων φέρεσθαι; also *Lucretius* *DRN* 4.1041–1044 *quod* (sc. semen) *simul atque suis electum sedibus exit, / per membra atque artus decedit corpore toto / in loca conveniens nervorum certa, cietque / continuo partis genitalis corporis ipsas.*

§6 *Democritus*: ps.Galen *Def.Med.* 439, p. 449.14–16 K. cited above. also *Censorinus* 5.3 cited above. see also *Diogenes Laertius* *V.P.* 7.159 on the Stoics cited above on §5.

b Sources and Other Parallel Texts

General texts: *Aristotle* *GA* 1.16 721a26–29 τὰ μὲν οὖν περὶ τὴν γένεσιν ὄργανα τοῖς ζώοις περὶ ὧν οὐκ ἐλέχθη πρότερον, τοῦτον ἔχει τὸν τρόπον τῶν δ' ὁμοιομερῶν ἀπελείφθη περὶ γονῆς καὶ γάλακτος, περὶ ὧν καιρὸς ἐστὶν εἰπεῖν, περὶ μὲν γονῆς ἤδη ... *GA* 1.18 724a14–17 ἀρχὴ δὲ καὶ ταύτης τῆς σκέψεως καὶ τῶν ἐπομένων πρῶτον λαβεῖν περὶ σπέρματος τί ἐστίν· οὕτω γάρ καὶ περὶ τῶν ἔργων αὐτοῦ καὶ τῶν περὶ αὐτὸ συμβαινόντων ἔσται μᾶλλον εὐθεώρητον. *GA* 2.2 735a30 περὶ δὲ τῆς τοῦ σπέρματος φύσεως ἀπορήσειεν ἂν τις. *Diogenes Laertius* *V.P.* 7.132–133 τὸν δὲ φυσικὸν λόγον διαιροῦσιν (sc. the Stoics, Posidonius fr. 254 Theiler, not in SVF or E.-K.) εἷς τε τὸν περὶ σωμάτων τόπον καὶ περὶ ἀρχῶν ... καὶ οὕτω μὲν εἰδικῶς, γενικῶς δ' εἰς τρεῖς τόπους, τὸν τε περὶ κόσμου καὶ τὸν περὶ τῶν στοιχείων καὶ τρίτον τὸν αἰτιολογικόν. ... (133) ... τὸν τ' αἰτιολογικὸν εἶναι καὶ αὐτὸν διμερῆ· μίᾳ δ' αὐτοῦ ἐπισκέψει ἐπικοινωνεῖν τὴν τῶν ἱατρῶν ζήτησιν, καθ' ἣν ζητοῦσι περὶ τε τοῦ ἡγεμονικοῦ τῆς ψυχῆς, καὶ τῶν ἐν ψυχῇ γινομένων καὶ περὶ σπερμάτων καὶ τῶν τούτοις ὁμοίων. *V.P.* 7.158–159 cited below ch. 5.4 E(b)§1. *Soranus* *Gyn.* 1.2.2–3 ἐξ ὧν τὸν μὲν περὶ τῶν κατὰ φύσιν εἷς τε τὸν φυσικόν (ἐν ᾧ σκεπτόμεθα περὶ σπέρματος καὶ ζωογονίας) (sc. λόγον) ... τὸν μὲν οὖν φυσικὸν ἄχρηστον ὄντα πρὸς τὸ τέλος, φερέκοσμον δὲ πρὸς χρηστομάθειαν, κεχωρίκαμεν ἐντεῦθεν, μόνον πρὸς τὸ παρὸν ἐχόμενοι τῶν ἀναγκαίων.

Chapter heading: *Democritus* at D.L. 9.47 (catalogue of writings, 68A33 DK) Αἰτίαι περὶ σπερμάτων καὶ φυτῶν καὶ καρπῶν. Αἰτίαι περὶ ζώων α' β' γ'. *Aristotle* *GA* 1.18 724a14–15 text above under General texts. *Megasthenes* *FGrH* 715 fr. 33 at *Strabo* 15.1.59 (on the Brahmins) καὶ περὶ σπέρματος δὲ καὶ ψυχῆς

ὁμοια λέγεται. **Aristophanes of Byzantium** *Epit.HA* 1.54 Lambros ἐπειδὴ δὲ ἀρχὴ πάσης γενέσεως ἐναίμου τὸ σπέρμα, τί δὲ ἐστὶ καὶ ποῖον κατὰ τὴν οὐσίαν καὶ πόθεν ζητεῖται, ἀκόλουθον ἂν εἴη τοῖς προειρημένοις καὶ περὶ τούτου εἰπεῖν. ἐναπορεῖ ὁ Ἀριστοτέλης κατὰ μὲν πρῶτον περὶ τῆς οὐσίας αὐτοῦ ... cf. also *Epit.HA* 2.36 42.14 περὶ ... τῆς τοῦ σπέρματος οὐσίας (full text cited on ch. 5.8). **Sphaerus** at D.L. 7.178 (*SVF* 2.626, catalogue of his writings) (Περὶ) σπέρματος. cf. also *V.P.* 7.133 cited above. **Athenaeus of Attalia** Περὶ σπέρματος cited by Galen *Sem.* 2.1.44, p. 156.1 De Lacy. **Galen** Περὶ σπέρματος. **Soranus Gyn.** 1.12.3 περὶ οὗ διελάβομεν ἐν τῷ Περὶ σπέρματος λόγῳ (and see text cited above under General texts).

§1 Aristotle: **Aristotle** *GA* 4.1 766b12–15 διαφέρει δὲ τὸ τοῦ ἄρρενος σπέρμα ὅτι ἔχει ἀρχὴν ἐν ἑαυτῷ τοιαύτην οἷαν κινεῖν {καὶ ἐν τῷ ζῳῳ} καὶ διαπέττειν τὴν ἐσχάτην τροφήν, τὸ δὲ τοῦ θήλεος ὕλην μόνον. cf. **Diogenes Laertius** *V.P.* 7.158 cited above E(a)§1. **Plutarch** *QPlat.* 4 1003B ὥσπερ οὖν, εἰ φαίη τις αἰεὶ τὴν τοῦ σπέρματος δύναμιν εἶναι μετὰ σώματος, γεγονέναι μέντοι τὸ σῶμα τῆς συκῆς ἢ τῆς ἐλαίας ὑπὸ σπέρματος, οὐδὲν ἔρει διάφωνον (αὐτὸ γὰρ τὸ σῶμα, κινήσεως αὐτῷ καὶ μεταβολῆς ὑπὸ τοῦ σπέρματος ἐγγενομένης, ἔφυ τοιοῦτο καὶ διεβλάστησεν) ...

§2 Pythagoras: **Corpus Hippocraticum** *Genit.* 1, p. 7.470.8–12 Littré τριβομένου δὲ τοῦ αἰδοίου καὶ τοῦ ἀνθρώπου κινευμένου, τὸ ὑγρὸν θερμαίνεται ἐν τῷ σώματι καὶ διαχέεται καὶ κλονέεται ὑπὸ τῆς κινήσεως καὶ ἀφρῆει, καθάπερ καὶ τᾶλλα ὑγρά ζύμπαντα κλονεύμενα ἀφρῆει· οὕτω δὲ κὰν τῷ ἀνθρώπῳ ἀποκρίνεται ἀπὸ τοῦ ὑγροῦ ἀφρέοντος τὸ ἰσχυρότατον καὶ πιότατον, καὶ ἔρχεται εἰς τὸν νωτιαῖον μυελόν. **Aristotle** *GA* 1.18 725a11–13 χρησίμου ἄρα περιττώματος μέρος τί ἐστὶ τὸ σπέρμα. χρησιμώτατον δὲ τὸ ἐσχάτον καὶ ἐξ οὗ ἡδὴ γίγνεται ἕκαστον τῶν μορίων. *GA* 1.19 726a26–28 ὅτι μὲν οὖν περίττωμά ἐστι τὸ σπέρμα χρησίμου τροφῆς καὶ τῆς ἐσχάτης ... ἐν τοῖς προειρημένοις φανερόν. *GA* 2.3 736a13–21, αἴτιον δὲ τῆς λευκότητος τοῦ σπέρματος ὅτι ἐστὶν ἡ γονὴ ἀφρός ... ἔοικε δὲ οὐδὲ τοὺς ἀρχαίους λανθάνειν ἀφρώδης ἢ τοῦ σπέρματος οὕσα φύσις· τὴν γοῦν κυρίαν θεὸν τῆς μίξεως ἀπὸ τῆς δυνάμεως ταύτης προσηγόρευσαν. **Philo** *Opif.* 67 τὸ σπέρμα τῶν ζώων γενέσεως ἀρχὴν εἶναι συμβέβηκε· τοῦθ' ὥς ἔστι φαυλότατον ἐοικὸς ἀφρῶ, θεωρεῖται. **Clement of Alexandria** *Paed.* 1.48.3 τινὲς δὲ καὶ τὸ σπέρμα τοῦ ζώου ἀφρόν εἶναι τοῦ αἵματος κατ' οὐσίαν ὑποτίθενται ὃ δὴ τῇ ἐμφύτῳ τοῦ ἄρρενος θερμῇ παρὰ τὰς συμπλοκάς ἐκταραχθὲν ἐκριπιζόμενον ἐξαφροῦται κὰν ταῖς σπερματίσιν παρατίθεται φλεψίν· ἐντεῦθεν γὰρ ὁ Ἀπολλωνιάτης Διογένης (64A24, cf. B6 DK, T15a Laks) τὰ ἀφροδίσια κεκλήσθαι βούλεται. But note **Pythagorica Hypomnemata** at Alex.Polyh. fr. 9 Giannatasio Andria (Pythagorei 58Bia DK) at D.L. 8.28 τὸ δὲ σπέρμα εἶναι σταγόνα ἐγκεφάλου περιέχουσαν ἐν ἑαυτῇ ἀτμὸν θερμόν.

§4 Plato: cf. **Corpus Hippocraticum** *Genit.* 1 cited above on §1. **Plato** *Tim.* 74a καὶ περὶ τὸν διαυχένιον ἄμα καὶ νωτιαῖον μυελόν ἐξ αὐτοῦ σφονδύλους πλάσας ὑπέτεινεν οἷον στρόφιγγας, ἀρξάμενος ἀπὸ τῆς κεφαλῆς, διὰ παντὸς τοῦ κύτους. καὶ τὸ πᾶν δὴ σπέρμα διασφύζων οὕτως λιθοειδεῖ περιβόλῳ συνέφραξεν. also *Tim.* 77d, 86c, 91b. **Galen** in *Tim.* 77d3–6, p. 14.10–13 Schröder γόνιμον μυελόν εἶπε τὸν νωτιαῖον οὐσης καὶ ταύτης παλαιᾶς δόξης, ὥς καὶ τὸν Ἱπποκράτην δοκεῖν αὐτῆς

μετεσχηκέναι καὶ νομίζειν ἐκ τοῦ νωτιαίου μυελοῦ τὸ σπέρμα κατέρχεσθαι πρὸς τὸ τοῦ ἄρρενος αἰδοῖον.

§6 Democritus: *Corpus Hippocraticum Aër.* 14, p. 2.60.1–2 Littré ὁ γὰρ γόνος πανταχόθεν ἔρχεται τοῦ σώματος, ἀπὸ τε τῶν ὑγιερῶν ὑγιερὸς, ἀπὸ τε τῶν νοσερῶν νοσερός. *Morb.Sacr.* 2, p. 2.264.19–20 Littré ὡς ὁ γόνος ἔρχεται πάντοθεν τοῦ σώματος, ἀπὸ τε τῶν ὑγιερῶν ὑγιερὸς, ἀπὸ τε τῶν νοσερῶν νοσερός. *Genit.* 3, p. 7.474.5–11 Littré τὴν δὲ γονὴν φημι ἀποκρίνεσθαι ἀπὸ παντὸς τοῦ σώματος, καὶ ἀπὸ τῶν στερεῶν καὶ ἀπὸ τῶν μαλθακῶν, καὶ ἀπὸ τοῦ ὑγροῦ παντὸς τοῦ ἐν τῷ σώματι. εἰσὶ δὲ τέσσαρες ἰδέαι τοῦ ὑγροῦ, αἷμα, χολή, ὕδωρ καὶ φλέγμα. τοσαύτας γὰρ ἰδέας ἔχει ξυμφυέας ὁ ἄνθρωπος ἐν ἐωυτῷ, καὶ ἀπὸ τουτέων αἱ νοῦσοι γίνονται (cf. also Codex Marcianus 521 f. 100^r, *DG* 233). **Aristotle** *GA* 1.17 721b8–10 καὶ πότερον ἀπὸ παντὸς ἀπέρχεται (sc. τὸ σπέρμα) τοῦ σώματος ἢ οὐκ ἀπὸ παντὸς. *GA* 1.18 722a15–17 ἔτι πότερον ἀπὸ τῶν ὁμοιομερῶν μόνον ἀπέρχεται ἂν ἐκάστου οἶον ἀπὸ σαρκὸς καὶ ὀστοῦ καὶ νεύρου, ἢ καὶ ἀπὸ τῶν ἀνομοιομερῶν οἶον προσώπου καὶ χειρὸς.

Liber 5 Caput 4

PP: *Papyrus Antinoopolis* 85 fr. 5b recto pp. 78–79 Barns–Zilliacus—**PB**: ps.Plutarchus *Plac.* 905B; p. 417^a18–418^a2 Diels—**PG**: ps.Galenus *HPh* c. 108; p. 640.9–15 Diels—**PQ**: Qusṭā ibn Lūqā pp. 218–219 Daiber
SL: Index capitum Γ 10; sed verisim. interpolatus ex P, cf. Elter (1880) 73–74, adn. p. 294 ed. Wachsmuth

Titulus δ'. Εἰ σώμα τὸ σπέρμα (P)

- §1 Λεύκιππος καὶ Ζήνων σώμα· ψυχῆς γὰρ εἶναι ἀπόσπασμα. (P₁)
§2 Πυθαγόρας Πλάτων Ἀριστοτέλης ἀσώματον μὲν εἶναι τὴν δύναμιν τοῦ σπέρματος ὥσπερ νοῦν τὸν κινοῦντα, σωματικὴν δὲ τὴν ὕλην τὴν προ-
χομένην. (P₂)
§3 Στράτων καὶ Δημόκριτος καὶ τὴν δύναμιν σώμα· πνευματικὴ γάρ. (P₃)

5

§1 Leucippus 67A35 DK; Zeno Stoicus *SVF* 1.128; §2 Pythagoras —; Plato —; Aristoteles cf. *GA* 2.3 737a7–12; §3 Strato fr. 94 Wehrli, fr. 70 Sharples; Democritus 68A142 DK

titulus Εἰ ... σπέρμα] Περί τοῦ εἰ σώμα τὸ σπέρμα **SL**^{ind} || ante titulum (quem non hab. ut vid.) exhib. **P**^p numerum μβ', i.e. 42 §1 [2] post σώμα add. εἶναι **P**^G || εἶναι (καὶ σώματος) coni. Reiske, non prob. Diels et non confirm. **P**^p §2 [3] nomina coniungit cum καὶ bis **P**^G || [4] ὥσπερ νοῦν τὸν κινοῦντα **P**^{BQ} : om. **P**^G §3 [6] Στράτων καὶ Δημόκριτος] add. καὶ Ἐπίκουρος **P**^{G2} (abest in **P**^p) || καὶ² ... γάρ **P**^{BQ}(ut vid.) : κατὰ δύναμιν εἶναι σωματικὴν **P**^{G1} Diels : καὶ τὴν δύναμιν εἶναι σωματικὴν **P**^{G2} per litt. Jas : καὶ κατὰ δύναμιν σώμα· πνευματικὸν δὲ coni. Reiske, prob. dubitanter Mau (πνευματικὴν γάρ coni. Wyttenbach) || πνευματικὴ γάρ] om. **P**^G

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 5b recto = tit. et P §§1–3

- 5 μβ [
Λεύκιππος καὶ [Ζήνων σώμα εἶναι ψυχῆς]
γὰρ εἶναι ἀποσπα[σμα Πυθαγόρας Πλάτων]
Ἀριστοτέλης ἀσω[ματον μὲν τὴν δύναμιν]
εἶναι τοῦ σπερμ[ατος ὥσπερ νοῦν τὸν κί]
10 [ν]οῦντα σω[ματικὴν δὲ τὴν ὕλην τὴν πε]
ριεχομ[ενην] Στράτων καὶ Δημοκρίτος καὶ]
τὴν δύναμ[ιν]

ps.Galenus HPh c. 108 (~ tit.) Εἰ σώμα τὸ σπέρμα (text Diels)

108.1 (~ P₁) Λεύκιππος καὶ Ζήνων σώμα εἶναι· ψυχῆς γὰρ εἶναι ἀπόσπασμα.

108.2 (~ P₂) Πυθαγόρας καὶ Πλάτων καὶ Ἀριστοτέλης ἀσώματον μὲν εἶναι τὴν δύναμιν τοῦ σπέρματος, σωματικὴν δὲ ὕλην τὴν προχομένην.

108.3 (~ P₃) Στράτων καὶ Δημόκριτος κατὰ δύναμιν εἶναι σωματικὴν.

Loci Aetiani:

titulus et quaestio A 4.3 Εἰ σῶμα ἢ ψυχὴ καὶ τίς ἡ οὐσία αὐτῆς. A 4.20 Εἰ ἀσώματος ἢ φωνῇ καὶ πῶς ἡχώ γίνεται. A 5.3 Τίς ἡ οὐσία τοῦ σπέρματος.

§1 A 4.4.4 οἱ Στωικοὶ ἐξ ὀκτῶ μερῶν φασὶ συνεστάναι (τὴν ψυχὴν), ... ἐβδόμου δὲ σπερματικοῦ. A 4.21.4 (de Stoicis) τῶν δὲ λοιπῶν (μέρων τῆς ψυχῆς) τὸ μὲν λέγεται σπερματικόν. A 5.3.5 Ἐπίκουρος (sic) ψυχῆς καὶ σώματος ἀπόσπασμα.

§3 A 5.8.2 (de monstis) Στράτων παρὰ πρόσθεσιν ἢ ἀφαίρεσιν ἢ μετάθεσιν ἢ ἐμπνευμάτωσιν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The usual witnesses for this book, P^B, P^Q and P^G, are complemented by a small snippet of the papyrus, which contains remnants of the last four lines of ch. 5.3 and the first seven lines of ch. 5.4. G retains all three lemmata. On the heading in S^L see below, section C. On the apparent presence of §1 in T see below, section D(e).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There are no exact parallels for this chapter in the proximate tradition. It is, of course, closely related to the more general topic of the substance of semen already discussed in ch. 5.3, where we saw that the nominal definition was cast in Aristotelian terms and emphasised the potential nature of the seed, but the remaining five focused on its material component. This implied diaeresis is further developed in the present chapter. The origin of the problem posed in the chapter can clearly be seen in Aristotle's discussion of the nature and working of semen in *GA* 1.18–22, where he concludes that its δύναμις is derived from the male and its ὕλη from the female. The distinction between the two kinds of semen is not present in this chapter, but will be introduced in the chapter that follows, ch. 5.5. The question is reformulated in the materialistic philosophy of the Stoa, since semen is corporeal but also has psychic powers (τὸ σπερματικόν being a part of the soul). There are some good parallel texts for the Zenonian doctrine in AD and in ps.Galen *Definitiones medicae*, as well as in the Stoic doxography in Diogenes Laertius (texts below at section E(a)§1 & (b)§1). Most likely these texts ultimately reflect a similar doxographical tradition to that used by A. On the parallel text in T see below, section D(e).

It is worth noting that the explicit distinction and antithesis between the incorporeal and the corporeal belongs to the conceptual apparatus of the *Placita*: see M–R 2.1.14, 57–58, 147 and also in the next sub-section on the chapter heading. It derives from the philosophy of Plato, Aristotle and the early Academy, via the Stoa to the later phase when it is influenced by the rise of Middle Platonism.

(2) *Sources*. There is no extant evidence for the approach taken to this question in pre-Aristotelian texts. Of discussions in the atomists our text is the only surviving trace. Similarly we have no further evidence relating to Strato or other Peripatetic treatment.

C Chapter Heading

There is no variation in the formulation of the chapter heading in the main witnesses. In the list contained in the Laurentianus ms. of S, however, we find the heading in P prefaced with the phrase Περὶ τοῦ, i.e. Περὶ τοῦ εἰ σῶμα τὸ σπέρμα. Since this phrase in combination with an interrogative heading is found elsewhere only at 2.8 (Περὶ τοῦ τίς ἢ αἰτία τὸν κόσμον ἐγκλιθῆναι) and there is no parallel with a heading involving a topic introduced with εἰ, it is probable that the addition does not go back to A.

For the complicated situation regarding the index of chapter headings from S's *Eclogae* see the General Introduction section 4.3.2, and below on ch. 5.19 Commentary C. In the pinax for the entire *Anthology* partly preserved in S^L at Γ 10 under the heading Περὶ τῆς γενέσεως τῶν ζῴων (i.e. ch. 5.19) we find a list of no less than 18 further headings introduced by the words ἐν ᾧ καὶ ταῦτα. See the text printed in Wachsmuth (1882) 17 (originally published in 1871). The list was analysed by Elter (1880) 73–74, who demonstrated that at least four of these headings were demonstrably interpolated from P, namely the headings of 5.4, 5.5, 5.17 and the second mention of 5.19. This interpretation was taken over by Wachsmuth in his edition; see the note at (1884) 1.294. The remaining headings most likely refer to sub-headings taken from A and used by S in a manner similar to his practice in *Ecl.* 1.26 on the moon. This hypothesis is at least partly confirmed by Photius' list of chapters, in which he summarizes the contents of *Ecl.* 1.42 as Περὶ τῆς γενέσεως τῶν ζῴων καὶ τὰ ἐξῆς. For the most part we follow Elter's analysis in our edition, although it contains speculative elements and cannot be considered wholly certain. In the case of the present chapter, given the unparalleled form of the heading in the pinax of S^L as noted above, interpolation from P seems probable. It should be noted that, if Elter and Wachsmuth are correct, S will not have included the text of this chapter—together with the previous two and the next one—in his anthology. He must have thus regarded the subject of spermatology (narrowly conceived) as not relevant to his aims in the *Anthology*.

Chapter headings beginning with εἰ are uncommon in the first three books (only at chs. 1.5, 2.3–4), but occur with increasing frequency the last two books (chs. 4.3, 4.9, 4.15, 4.20, 5.4–5, 5.15, in the latter part of the heading in 5.19, 5.20, 5.26, 5.29; on this kind of heading see ch. 1.1, Commentary C). They include the three chapters in which the topic under discussion focuses on whether something is a body or not: 4.3 εἰ σῶμα; 4.20 εἰ ἀσώματος; 5.4 εἰ σῶμα. The distinction between corporeal and incorporeal is made further explicit in the body of each chapter. It should be noted that the εἰ x formula encourages a yes or no answer, so is highly suitable for dialectical discussion.

Most lines of the chapter are partially preserved in the papyrus except the heading. Most puzzlingly, instead of the chapter heading, it is headed by what seems to be a chapter number 42. For a possible explanation see M–R 1.127–128, where it is suggested that it could be the result of a numbering in which Books 3–5 were taken together (but it should then be 45, not 44 as we stated there). This may imply an earlier version of the Aëtian *Placita* in two books, but there is not a scrap of further evidence to support this hypothesis. Another possibility is that through inadvertence a sheet or column number has found its way into the text and has supplanted the chapter heading.

D Analysis

a Context

The chapter continues the treatment of the subject of semen. Formally there might seem an analogy between the two chapters 4.2–3, entitled Περὶ ψυχῆς and Εἰ σῶμα ἢ ψυχὴ καὶ τίς ἢ οὐσία αὐτῆς respectively. But the approach differs substantially, since there in the first chapter all the incorporeal views on the soul are listed and in the second all the corporeal views, whereas here the two views are contrasted within the single chapter. A closer parallel is 4.20 Εἰ ἀσώματος ἢ φωνῇ (on whether sound is incorporeal), to be further discussed below.

b Number–Order of Lemmata

The tradition of P only yields 3 doxai. As we shall see, the neatness of the diaeresis suggests that these were the main views which A listed, but this can be no more than a supposition.

c Rationale–Structure of Chapter

Although the chapter heading highlights the question whether semen is a body, the doxai in the chapter itself examine its metaphysical aspects and so link up not only with chs. 4.2–3 and 4.20 mentioned above (as well as the definition at the beginning of ch. 5.3), but also to a limited degree with Book 1 and esp. 1.9–12 (note the diaeresis between incorporeal and corporeal causes at 1.11.3–4).

The first view is primarily Stoic: semen as a fragment of soul (τὸ σπερματικόν is one of the soul's seven irrational parts, cf. ch. 4.4.4) is itself wholly corporeal (since according to the Stoa soul is corporeal). In opposition to this view is the Aristotelian position that it is incorporeal as far as its δύναμις (functionality or capacity to act) is concerned, but corporeal with regard to its material composition. On the triple-barrel name-label in §2 see section D(d) below. The third doxa responds directly to the second in arguing that its δύναμις too is a body, i.e. corporeal, since that functionality is identical to the πνεῦμα of which it consists.

The chapter thus exhibits a fairly straightforward diaeresis. It cannot be the same as the simple diaphonia between incorporeal and corporeal in 4.2–3 and 4.20, since it is inconceivable that semen can be wholly incorporeal. The basic diaeresis is between the view that there is no distinction between its functionality and its material basis (doxa 1) and that the view that there is such a distinction (doxai 2–3). But for the second half of the opposition there is the further distinction between the view that its functionality is incorporeal (doxa 2) or corporeal (doxa 3).

Because of the neatness and completeness of the diaeresis, it is eminently likely that we have the chapter in its original form. But it always remains possible that P omitted doxai with further systematic distinctions or cut short some of the detail of the explanations.

d Further Comments *Individual Points*

§1 In our commentary on ch. 5.3 we argued that the similar doxa at 5.3.5 is wrongly attributed to Epicurus and that A (or P) may have garbled an originally Stoic name-label. But since there are similarities between the pan-genesis view held by Democritus (5.3.6) and the view of the Stoa (cf. the view of Sphaerus at D.L. 7.158 cited at ch. 5.3 section E(b) General texts), it is not entirely unreasonable to associate Leucippus with this view. His name reappears at A 5.7.6, where it is noted that he pronounced on an issue related to procreation.

§2 The doxa is basically Aristotelian in tenor. It may well ultimately (but not directly) be based on his statement about the σῶμα of seed at GA 2.3 737a7–12, where he also speaks about the νοῦς (but uses his own terminology of ἀρχή, χωριστόν and ἀχώριστον). The triple-barrel name-label group Pythagoras–Plato–Aristotle occurs elsewhere three times in A, at 2.10.1, 2.23.8, and—interestingly—4.20.1 (on the incorporeality of sound). Plato in fact does not dwell on the metaphysical aspects of semen in his discussions in the *Timaeus*, but the association is warranted because as Aristotle's teacher he introduced him to the distinction between the incorporeal and the corporeal. In true first cent. CE fashion Pythagoras is promoted as the great progenitor of non-physicalism;

cf. A 1.3.7 (going back ultimately to Aristotle and the Old Academy; see ch. 1.3 Commentary D(d)§7). Also see A 1.9.2 with Commentary D(d)(2), and A 1.16.1.

§3 *Pneuma* does not play an extensive role in Strato's fragments (though he did write a work *Περὶ τοῦ πνεύματος*, D.L. 5.59). But at A 5.8.2 the ἐμπνευμάτωσις of the womb is one of the causes of the birth of monstrosities and at 5.24.4 he (with the Stoics) is credited with the view that sleep is caused by the relaxation of the αἰσθητικὸν πνεῦμα. Aristotle mentions that semen contains *pneuma* at GA 2.3 736b37 just before the passage cited above on §2. Wehrli in his commentary on Strato's fragments (1969, 70) suspects that the combination with Democritus is erroneous and that the doxa has suffered from abridgement.

Diels' text for the final lemma as recorded in G reads Στράτων καὶ Δημόκριτος κατὰ δύνανμιν εἶναι σωματικήν (DG 641). This seems to make little sense if the adjective is taken to qualify the noun, and if not, then the noun understood with σωματικήν is unclear. In an unpublished communication to the authors Jas argues that the correct reading is καὶ τὴν (instead of κατὰ) δύνανμιν εἶναι σωματικήν, which restores the credibility of the text at the expense of somewhat simplifying the doxa. Jas also points out that the ms. Baroccianus 131 not utilised by Diels also adds the name-label of Epicurus to that of Democritus. It is not translated by Nicolaus and she believes that it should not be included in G's text. It is not confirmed by the papyrus of P, and can safely be ignored for the text of A.

e Other Evidence

As was noted in the Introduction to Book 5, section 1 above, T does not make any use of A's Book 5 in his work. This may seem to be contradicted by the fact that at CAG 5.25 he reports the same doctrine attributed to Zeno that we find in §1 of this chapter (text below in section E(a)§1). The explanation is that, as we noted earlier in section B, there is a common tradition between A and AD on this point and that T has cited the latter (which gives more detail than A) via its citation in Eusebius *PE*. On a further parallel between Book 5 and T, this time via Clement, see A 5.26.1–3 and our Commentary at D(e).

E Further Related Texts

a Proximate Tradition

General texts: —

Chapter heading: —

§1 *Leucippus Zeno*: ps.Galen *Def.Med.* 94, pp. 19.371.18–372.3 K. ζδ'. ὁ δὲ Κιτιεὺς Ζήνων (SVF 1.128, 2.742) οὕτως ὤρισατο. σπέρμα ἐστὶν ἀνθρώπου ὃ μεθίησιν ἄνθρωπος μεθ' ὕγρου, ψυχῆς μέρους ἄρπαγμα καὶ σύμμιγμα τοῦ τῶν προγόνων γένους ...; cf. §439, p. 19.450.3–5 K. ὑλθ' τὸ σπέρμα ἐστὶν κατὰ μὲν τοὺς Στωϊκοὺς

(SVF 2.742) ὁ μεθίησι τὸ ζῶον ὑγρὸν μετὰ πνεύματος καὶ ψυχῆς, ὡς δὲ οὐ μέρος. **Arius Didymus** fr. 39 Diels at Eus. *PE* 15.20.1 τὸ δὲ σπέρμα φησὶν ὁ Ζήνων (SVF 1.128) εἶναι, ὁ μεθίησιν ἄνθρωπος, πνεῦμα μεθ' ὑγροῦ, ψυχῆς μέρος καὶ ἀπόσπασμα καὶ τοῦ σπέρματος τοῦ τῶν προγόνων κέρασμα καὶ μίγμα τῶν τῆς ψυχῆς μερῶν συνεληλυθός. **Plutarch** *Cohib.* 462F καίτοι, καθάπερ ὁ Ζήνων (SVF 1.128) ἔλεγε τὸ σπέρμα σύμμιγμα καὶ κέρασμα τῶν τῆς ψυχῆς δυνάμεων ὑπάρχειν ἀπεσπασμένον, οὕτως ἔοικε τῶν παθῶν πανσπερμία τις ὁ θυμὸς εἶναι.

Theodoret *CAG* 5.25 (from Arius Didymus via Eusebius) Ζήνων δὲ ὁ Κιτιεύς (SVF 1.128) ὁ τῆσδε τῆς αἰρέσεως ἡγησάμενος, τοιάδε περὶ ψυχῆς δοξάζειν τοὺς οἰκείους ἐδίδαξε φοιτητάς· τὸν γάρ τοι ἀνθρώπινον θορόν, ὑγρὸν ὄντα καὶ μετέχοντα πνεύματος, τῆς ψυχῆς ἔφησεν εἶναι μέρος τε καὶ ἀπόσπασμα καὶ τοῦ τῶν προγόνων σπέρματος κέρασμά τε καὶ μίγμα, ἐξ ἀπάντων τῶν τῆς ψυχῆς μορίων ξυναθροισθέν. οὗ δὴ χάριν αὐτὴν καὶ φθαρτὴν προσηγόρευσεν.

§2 **Pythagoras Plato Aristotle: Plutarch** *QPlat.* 4 1003B cited at ch. 5.3 section E(b)§1.

b Sources and Other Parallel Texts

General texts: —

Chapter heading: —

§1 **Leucippus Zeno: Stoics** at D.L. *V.P.* 7.158–159 (SVF 2.741) σπέρμα δὲ λέγουσι εἶναι τὸ οἶόν τε γεννᾶν τοιαῦτα ἀφ' οἴου καὶ αὐτὸ ἀπεκρίθῃ. ἀνθρώπου δὲ σπέρμα, ὁ μεθίησιν ὁ ἄνθρωπος μεθ' ὑγροῦ, συγκρινᾶσθαι τοῖς τῆς ψυχῆς μέρεσι κατὰ μίγμον τοῦ τῶν προγόνων λόγου. (159) εἶναι δ' αὐτὸ Χρύσιππος φησὶν ἐν τῇ δευτέρᾳ τῶν Φυσικῶν πνεῦμα κατὰ τὴν οὐσίαν, ὡς δῆλον ἐκ τῶν εἰς τὴν γῆν καταβαλλομένων σπερμάτων, ἃ παλαιωθέντα οὐκέτι φύεται, ὡς δῆλον διαπεπνευκυίας αὐτοῖς τῆς δυνάμεως. καὶ ἀφ' ὧν δὲ τῶν σωμάτων αὐτὸ φασὶ καταφέρεσθαι οἱ περὶ τὸν Σφαῖρον (SVF 1.626)· πάντων γοῦν γεννητικὸν εἶναι τῶν τοῦ σώματος μερῶν.

§2 **Aristotle: Aristotle** *GA* 1.19 726b15–21 ὥστε τὸ σπέρμα ἐστὶ τὸ τῆς χειρὸς ἢ τοῦ προσώπου ἢ ὅλου τοῦ ζῴου ἀδιορίστως χεῖρ ἢ πρόσωπον ἢ ὅλον ζῶον· καὶ οἶον ἐκείνων ἕκαστον ἐνεργεῖα τοιοῦτον τὸ σπέρμα δυνάμει, ἢ κατὰ τὸν ὄγκον τὸν ἑαυτοῦ, ἢ ἔχει τινὰ δύναμιν ἐν ἑαυτῷ (τοῦτο γὰρ οὕτω δῆλον ἡμῖν ἐκ τῶν διωρισμένων πότερον τὸ σῶμα τοῦ σπέρματος ἐστὶ τὸ αἴτιον τῆς γενέσεως ἢ ἔχει τινὰ ἔξιν καὶ ἀρχὴν κινήσεως γεννητικὴν). *GA* 1.21 730a24–28 ὅτι μὲν οὖν οὕτ' ἀπὸ παντός ἀπέρχεται τὸ σπέρμα τοῖς προεξιμένους σπέρμα τῶν ζώων, οὔτε τὸ θῆλυ πρὸς τὴν γένεσιν οὕτω συμβάλλεται τοῖς συνισταμένοις ὡς τὸ ἄρρεν, ἀλλὰ τὸ μὲν ἄρρεν ἀρχὴν κινήσεως τὸ δὲ θῆλυ τὴν ὕλην, δῆλον ἐκ τῶν εἰρημένων. *GA* 2.3 737a7–12 Drossaart Lulofs (quoted virtually verbatim at **Galen** *Sem.* 1.3, p. 70.4–10 De Lacy) τὸ δὲ τῆς γονῆς σῶμα, ἐν ᾧ συναπέρχεται τὸ σπέρμα τὸ τῆς ψυχικῆς ἀρχῆς, τὸ μὲν χωριστὸν ὃν σῶματος, ὅσοις ἐμπεριλαμβάνεται τι θεῖον (τοιοῦτος δὲ ἐστὶν ὁ καλούμενος νοῦς) τὸ δὲ ἀχώριστον, —τοῦτο τὸ σῶμα τῆς γονῆς διαλύεται καὶ πνευματοῦται, φύσιν ἔχον ὑγρὰν καὶ ὕδατῶδη.

Liber 5 Caput 5

PP: *Papyrus Antinoopolis* 85 fr. 6 recto p. 79 Barns—Zilliacus—**PB:** ps.Plutarchus *Plac.* 905B–C; p. 418^{a3}–22 Diels—**PG:** ps.Galenus *HPh* c. 109; p. 640.21–25 Diels—**PQ** Qustā ibn Lūqā pp. 218–221 Daiber—**PPs:** Psellus *Omn.Doctr.* c. 110.5–11, p. 61 Westerink
SL: Index capitum Γ 10; sed verisim. interpolatus ex P, cf. Elter (1880) 73–74, adn.p. 294 ed. Wachsmuth

Titulus ε'. Εἰ καὶ αἱ θήλειαι προῖενται σπέρμα (P)

- §1 Πυθαγόρας καὶ Ἐπίκουρος καὶ Δημόκριτος καὶ τὸ θῆλυ προῖεσθαι σπέρμα· ἔχει γὰρ παραστάτας ἀπεστραμμένους· διὰ τοῦτο καὶ ὄρεξιν ἔχει περὶ τὰς χρήσεις. (P₁)
- §2 Ἀριστοτέλης καὶ Ζήνων ὕλην μὲν ὑγρὰν προῖεσθαι οἰοῖται ἀπὸ τῆς συγγυμνασίας ἰδρώτας, οὐ μὴν σπέρμα πεπτικόν. (P₂) 5
- §3 Ἴππων προῖεσθαι μὲν σπέρμα τὰς θηλείας οὐχ ἥκιστα τῶν ἀρρένων, μὴ μέντοι εἰς ζωογονίαν τοῦτο συμβάλλεσθαι διὰ τὸ ἐκτὸς πίπτειν τῆς ὑστέρας· ὅθεν ἐνίας προῖεσθαι πολλάκις δίχᾳ τῶν ἀνδρῶν σπέρμα, καὶ μάλιστα τὰς χηρευούσας. (P_{3a}) 10
- §4 (* * *) καὶ εἶναι τὰ μὲν ὅσα παρὰ τοῦ ἄρρενος τὰς δὲ σάρκας παρὰ τῆς θηλείας. (P_{3b})

§1 Pythagoras —; Epicurus fr. 330 Usener; Democritus 68A142 DK; §2 Aristoteles cf. *GA* 1.19 727a27–30, 2.4 738a34–b4; Zeno *SVF* 1.129; §3 Hippo 38A13 DK; §4 —

titulus Εἰ καὶ αἱ θήλειαι προῖενται σπέρμα ^{SL-ind} || καὶ ^{PBG^{SL}}: non hab. ^{PQ(ut vid.)}, cf. index libri V ubi om. ^{PB(II)Q} || αἱ θήλειαι ^{PBG}, *aus den Weibchen* Q : θήλεια ^{SL} || σπέρμα || τὰ σπέρματα ^{SL}
§1 [2] καὶ¹ & καὶ² ^{PG} : om. ^{PB} || Ἐπίκουρος καὶ Δημόκριτος ^{PPBQ} : inv. ^{PG} || [3] ἀπεστραμμένους || ἀπεστραμμένως ^{PB(III)Q} || [3–4] καὶ ὄρεξιν ἔχει ^{PB} (cf. ^{PQ} sed om. καὶ ut vid.) : ὀρεκτικῶς ἔχει ^{PG} || [4] περὶ ^{PB(II)GQ(ut vid.)} : παρὰ ^{PB(II,III)Q} §2 [5] καὶ om. ^P ut vid. || ὕλην ^{PB} : καὶ add. ante ὕλην ^{PG} || οἰοῖται ^{PBQ(ut vid.)} : καὶ ^{PG} || [5–6] συγγυμνασίας ^{PB} : γυμνασίας ^{PG} || [6] σπέρμα πεπτικόν ^{PB(II)GQ} : σπέρμα παπτικόν ^{PB(II)} : σπερμαντικὴν ^{PB(III,AE)} : σπερμαντικόν ^{PB(III,α)}
§§3–4 non hab. ^{PG} §3 [7] Ἴππων ^{PPB} : ^{PQ} nomen incertum, fort. Ἴππαρχος || [8] μέντοι ^{PB(II,II)} : μέντοι γε ^{PB(III)Q} || [9] ἐνίας Diels *DG* conl. 5.9.1, *einigen Leuten, daß heißt Frauen* Q : ὀλίγας ^{PB} : (οὐκ) ὀλίγας conl. Wytténbach || ἀνδρῶν ^{PB(II)Q} : ἀρρένων ^{PB(II,III)Q} || [10] μάλιστα τὰς conl. Wytténbach, prob. edd. : τὰς μάλιστα ^{PB} §4 [11–12] καὶ ... θηλείας P, secl. Kranz VS; lac. ponimus, ubi nomen intercidisse videtur, vid. comm. infra

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 6 recto = P §§1–3

Πυθαγόρας καὶ Ἐπικοῦρος καὶ Δημοκρίτος]
καὶ τὸ θῆλυ προῖεσθαι σπέρμα [ἔχει γὰρ]

- 5 παραστατας απεστρ]αμμενου[ς δια του]
το και ορεξιν εχει] περι τας χηρσε[ις Αρις]
τοτελης Ζηνων υλην μ]εν υγραν προ[ιεσθαι]
οιονει από της συγγυμ]νασιας ιδρ[ωτας ου]
[μην σπερμα πεπτικον Ιππ]ων προ[ιεσθαι]

ps.Galenus *HPh* c. 109 (~ tit.) Εἰ καὶ αἱ θήλειαι προῖενται σπέρμα (text Diels)

109.1 (~ P1) Πυθαγόρας καὶ Δημόκριτος καὶ Ἐπίκουρος καὶ τὸ θῆλυ προῖεσθαι σπέρμα. ἔχει γὰρ παραστάτας ἀπεστραμμένους. διὰ τοῦτο ὀρεκτικῶς ἔχει περὶ τὰς χρήσεις.

109.2 (~ P2) Ἀριστοτέλης καὶ Ζήνων καὶ ὕλην μὲν ὑγρὰν προῖεσθαι καὶ ἀπὸ τῆς γυμνασίας ιδρώτας, οὐ μὲν σπέρμα πεπτικόν.

Psellus *Omn.Doctr.* c. 110.5–13 συμβάλλεται δὲ καὶ τὸ θῆλυ πρὸς τὴν κύησιν ἐξυγραιομένη τὴν μήτραν ἐν ταῖς μίξεσιν· ἡ δὲ ὑγρασία αὕτη σπέρματος μὲν οὐκ ἔχει λόγον, οἷον δὲ ὕλη γίνεται τῇ καταβολῇ τῆς ἀνδρώας γονῆς (cf. P2). καὶ τὸ μὲν τοῦ ἄρρενος σπέρμα εἰς τὰ στερεώτερα μέρη τοῦ σώματος ἐξαρκεῖ, οἷον ὀστά καὶ νεῦρα καὶ φλέβας καὶ ἀρτηρίας καὶ τὰ τοιαῦτα· τὸ δὲ τοῦ θήλεος εἰς τὰ ὑγρότερα μέρη τοῦ σώματος, αἶμα φημί καὶ ἀμφοτέρας τὰς χολάς· ἡ μᾶλλον πάντα ἐξ ἀμφοτέρων, ἀλλὰ τὰ μὲν τοῦ ἄρρενος πλεον ἔχει, τὰ δὲ τοῦ θήλεος (cf. P3).

Loci Aetiani:

§§1, 3 A 5.11.2 Παρμενίδης, ὅταν μὲν ἀπὸ τοῦ δεξιοῦ μέρους τῆς μήτρας ὁ γόνος ἀποκριθῇ, τοῖς πατράσιν· ὅταν δ' ἀπὸ τοῦ ἀριστεροῦ, ταῖς μητράσιν. A 5.11.3 (de Stoicis) προῖεσθαι δὲ καὶ τὴν γυναῖκα σπέρμα· καὶ μὲν ἐπικρατήσῃ τὸ τῆς γυναικός, ὅμοιον εἶναι τὸ γεννώμενον τῇ μητρὶ, ἐὰν δὲ τὸ τοῦ ἀνδρός, τῷ ἀνδρὶ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

P appears to transmit three doxai, of which G regrettably preserves only the first two (but see below, Commentary D(a–c) on a possible fourth doxa). Psellus uses some material from this chapter in his chapter Πῶς αἱ συλλήψεις γίνονται, the heading of which is taken from A 5.6. On the heading in S^L see below, section C.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Important comparative material is furnished by the proximate tradition as represented by Censorinus and Nemesius. Both authors

give a clear diaphonia, but the question they pose is not wholly the same as that which A addresses in our chapter (although he touches on it in the final doxa). A asks whether females release semen just as males do (even if in a different way). Censorinus and Nemesius ask whether only males have seed and contribute to the birth of offspring or whether females contribute too, i.e. with the semen that they possess. It can easily be seen that the former question is more limited than the latter, but that the second and broader approach relates better to the origin of the problem, namely how to explain that, if the male semen appears to be the instigator of conception, it nevertheless often happens that children resemble their mothers, and so the female must also contribute to the process not only from a material but also from a formal or (to use modern parlance) genetic point of view. The treatment of the topic at ps.Galen *Def.Med.* 440 is also of interest. It asks the same question as A, i.e. whether females have seed, but uses different terminology (εἰ σπερμαίνει). It gives two of the same reasons for a positive answer as in A (female desire, same organs), but adds others, including the resemblance of children to mothers (cf. ch. 5.11). Hippocrates is then cited in favour of this view. The resemblance question returns in 5.11 and is clearly the dominant topic in relation to which the issue of female semen is raised. See for example the texts of Lucretius and Lactantius cited below (on the latter text with its conjoined name-labels Varro and Aristotle see below, section D(e)).

(2) *Sources.* The various questions are well formulated by Aristotle in *GA* 1.17 721a35 and 1.19 726a31–b1, and also discussed at some length (texts below section E(b) General texts). From there the topic was picked up by the Hellenistic schools. But, as the name-labels indicate, reflection on them goes back to the Presocratic period. It was also discussed in the Hippocratic school, as witnessed by the treatise *Περὶ γυνῆς* which is dated to the end of the fifth cent. BCE or a little later (Jouanna 1999, 392). For further discussions on this subject see Gerlach (1937–1938); Lesky (1951) 24ff. and passim; Van der Horst (1990a), (2012), who in both articles gives a useful overview of Greek and Latin texts and copious references to secondary literature (for Jewish knowledge based on Greek medicine see also 2018, 111–112). See also the references given at ch. 5.3 Commentary B.

C Chapter Heading

This is another of the limited number of chapter headings commencing with εἰ, on which see our comments at ch. 5.4 Commentary C. The chapter heading in the index of S^L is probably interpolated from the list in P. On both these topics see our remarks on ch. 5.4, Commentary C. Elter's reason for concluding that it is interpolated is based on the absence of the name 'Ιππων in Photius' name-

lists. As noted above in ch. 5.4 Commentary C, S appears not to have included the subject of spermatology in his collection of excerpts.

The καὶ preceding αἱ θήλεια in the heading is clearly necessary, since the topic of the chapter is whether females *also* have semen that contributes to the conception and genetic make-up of the offspring. The apparent heading in Codex Marcianus 521 f. 100^r (Diels *DG* 233) is in fact excerpted from ps.Galen *Def.Med.* §440 with the words ἐζήτῃται εἰ abbreviated to εἴ. The chapter heading itself has excellent antecedents in Aristotle *GA*, esp. at 1.19 726a30 where we find the same phrase προίεται σπέρμα (singular because the subject is τὸ θῆλυ).

D *Analysis*

a Context

The chapter is the third and last dedicated to questions related to semen. In the previous two the question of which sex produces semen has not yet been broached. The subject returns in ch. 5.11 when the question of the similarity of children to their parents and grandparents is discussed.

b Number–Order of Lemmata

The witnesses record three lemmata. But see the next sub-section on whether P may have originally contained at least four doxai. The fact that the parallel text in Censorinus has five name-labels that do not occur in P's version of the chapter suggests that he will have epitomised away some of the material originally present in A.

c Rationale–Structure of Chapter

The three doxai form a quite straightforward diaeresis. The first, affirming the females also release semen, is opposed to the second, where it is denied that they do this: they emit moisture that resembles perspiration, but it is not to be regarded as productive semen (it was the view of Aristotle, followed by the Stoics, that only concocted semen is fertile). The third view, predictably, represents a compromise position: the female does release semen, but it does not contribute to the process of birth because it falls outside the womb (i.e. it is not linked to the act of sexual intercourse).

The final sentence of the lemma attributed to Hippo is problematic. First it is said that females do emit semen but that it does not contribute to the process of birth since it falls outside the womb. But in the final sentence we read that bones come from the male, flesh from the female, the second part of which contradicts the earlier part of the doxa. It should also be noted that in ch. 5.7 on how males and females are conceived there are two doxai attributed to 'Hipponax' which also appear to refer to the same philosopher (on the name-label

see ch. 5.7 Commentary D(d)§3). In A 5.7.3 it is unclear whether the two kinds of semen (thick/strong, fluid/weaker) refer to male semen only or also female. In 5.7.8 males result if the semen prevails, females if the nourishment prevails. Lesky (1951, 28) interprets this statement as being consistent with the view that the female does not contribute to the birth, but disregards the final sentence of 5.5.3.

The decision of Kranz to bracket the final sentence is in our view commendable. However, a different mode of treatment should be considered. It is possible that the final sentence is a remnant of a fourth doxa, which follows on from the first lemma. If the position in the first doxa is accepted, i.e. that both male and female emit semen and (by implication) that both contribute to conception, then the question can be asked, what does the male contribute and what the female. This is a different question from that which will be asked in ch. 5.7. The answer is not that the male contributes the form, the female the matter or the food, but rather that each contribute different bodily elements (cf. 5.7.7 and the solution of Galen, *De semine* 2.4, noted by Nemesius ch. 25 cited below). We have not found any direct parallels for this position in the sources (it is expanded by Psellus §110, presumably on the basis of what he found in P). We consider this possibility very likely and have adjusted the text accordingly. It would mean that there is a lacuna in the text. Because of the contradiction noted above, it is unlikely that the final view should be attributed to Hippo and thus there must be a missing name-label. For this reason we postulate a fourth doxa for the chapter. If this is accepted, then the words καὶ εἶναι will also be suspect, since they link the final part of the doxa to what precedes. It is the kind of doxa that could easily have been attributed to Parmenides or Empedocles. Both name-labels are present in Censorinus 5.4 but are conspicuously absent in A.

d Further Comments

Individual Points

§1 As noted in the Introduction to Book 5, multiple name-labels are prominent in this Book. It should be noted that there is considerable variation throughout A (and P) in whether groups of name-labels are juxtaposed or connected with καί, with the former predominating. Here the three names are linked in P^G and this reading is supported by the papyrus. We have retained the reading in our text, despite the absence of the connectives in P^B. It suggests that instances of καί may have been stripped out in the course of transmission and adaptation. But it must be noted that the order of the name-labels Democritus and Epicurus differs between the four witnesses. G is the only one which retains the chronological order. In all other 13 instances of the two names in the *Placita*

the chronological order is adhered to, so there is a case for following G. Nevertheless the evidence of three witnesses, including one that is very early, weighs heavily and we have retained this reading. It should also be noted that in the *Placita* chronological order is often not adhered to in multiple name-labels; see for example A 2.23.8 Plato–Pythagoras–Aristotle.

‘Concealed testicles’ refers to the female ovaries. The role of the female ovum in mammalian conception was wholly unknown to the ancients and was discovered by K.A. von Baer as late as 1827.

§2 A uses the technical term πεπτικός, which in fact Aristotle only uses in the summary of his view on male and female semen at *GA* 4.1 766a32. This relatively rare term has caused confusion in the mss. of P^B. For some interesting notes on the (primitive theory) that the female is merely as it were a nurse who temporarily houses the child see Groeneboom (1952) 191 on Aeschylus *Eum.* 657–666.

§3 Diels’ conjecture ἐνίας instead of the ὀλίγους of the mss. of P^B is justified, not only because it is supported by P^Q, but also because ὀλίγοι referring to persons does not appear to belong to A’s vocabulary, whereas there are parallels for ἐνίας close by, at 5.9.1, 5.13.2.

e Other Evidence

In addition to the slightly different formulation of the topic at issue (noted above in section B), there is also only a limited correspondence between the labels in A and in the proximate tradition. Epicurus represents the positive view in both A and Censorinus, but Democritus is (erroneously, cf. 5.7.7) associated with the opposite point of view in Nemesius (unlike in A). Aristotle (in Nemesius) and the Stoics (in Censorinus) represent the negative view, as they do in A, but Hippo is associated with this view as well (Censorinus), instead of the more subtle position recorded by A. For Pythagoras and Alcmaeon, see the note on §1 above in section D(d). It is likely that a doxa of Empedocles (who is recorded on the subject by Aristotle, *GA* 4.1 764a2) was epitomized away by P (he occurs 17 times in Book 5, far ahead of the next most popular, the Stoics who occur 13 times). All in all, the proximate tradition and A are less close to each other than one might have expected. As we see so often, the doxographical traditions are fluid and subject to modification at different stages of transmission.

Of special interest is the report in Lactantius *Op.D.* 12.6, where a doxa on conception is introduced by the name labels *Varro et Aristoteles* followed by a report in which it is first stated that females do have semen and that this is the reason that progeny can look like their mothers. This of course differs from the view attributed to the Stagirite in A’s chapter (cf. 5.11.3 where it is attributed

to the Stoics). In a learned note Perrin (1974) 358–362 argues persuasively that it is unlikely that Lactantius will have had direct access to Aristotle and that Varro will have been his source, most likely via his treatise *Tubero de origine humana* (also cited by Censorinus 9.1; see our remarks at ch. 5.3 Commentary B). The differing view on Aristotle can be explained if the report is based on a (most likely ps.Aristotelian) text such as GA 4.1 766b11–26 which can be read as speaking of female semen as a material residue. Another possibility is the influence of a text such as HA 10.2 634b29–39 which also assumes female semen.

E Further Related Texts

a Proximate Tradition

General texts: Galen *Sem.* 2.1.12–14, p. 146.14–20 De Lacy (cf. 2.1.31–32, p. 152.1–2) ὥσπερ οὖν ἄξιον μέμψασθαι (τοῖς add. De Lacy) πολλοῖς τῶν ἱατρῶν, οὕτως ἐπαινεῖσαι δίκαιον Ἱπποκράτην τὸν πρῶτον ἀπάντων ταῦτα εὐρόντα. φησὶ γοῦν ἀρχόμενος τοῦ Περί φύσεως παιδίου (*Corpus Hippocraticum Nat.Puer.* 1, p. 7.486.1–3 Littré)· ‘ἦν ἡ γονὴ μένῃ ἀπ’ ἀμφοῖν ἐν τῇσι μήτρῃσι τῆς γυναικὸς, πρῶτον μὲν μίσγεται ὁμοῦ ἅτε τῆς γυναικὸς οὐκ ἀτρεμούσης, καὶ ἀθροίζεται καὶ παχύνεται θερμαινόμενη.’ καὶ τὰ ἄλλα ἐφεξῆς διδάσκει κατὰ λόγον, ὅπως ἐκ συναμφοτέρας τῆς γονῆς μιχθείσης ἡ γένεσις ἀποτελεῖται τῷ ἐμβρύῳ. **ps.Galen Def.Med.** 440, p. 19.450.6–16 K. υμ’. ἐζήτῃται εἰ σπερμαίνει τὸ θῆλυ ὥσπερ τὸ ἄρρεν σπερμαίνει· καὶ γὰρ τὸ θῆλυ τὴν αὐτὴν ὄρεξιν ἔχει καὶ κοινωνεῖ τῶν αὐτῶν νοσημάτων· καὶ φανερώς διὰ τῆς ἀνατομῆς δείκνυται τοὺς σπερματικούς ἔχον πόρους καὶ τὸ μέγιστον τοῦ σπερμαίνειν μαρτύριον αἱ ὁμοιότητες τῶν γενομένων πρὸς τὰς τεκούσας· ὅτι δὲ συμβάλλεται μαρτυρεῖ Ἱπποκράτης λέγων ἐν τῷ Περί παίδων φύσεως (*Nat.Puer.* 1 7.486.1–3 Littré)· ‘ἦν ἡ [ἡ om. ps.Gal.] γονὴ μένῃ ἀπ’ ἀμφοῖν ἐν τῇσι μήτρῃσι τῆς γυναικὸς, πρῶτον [πρότερον ps.Gal.] μὲν μίσγεται ὁμοῦ, ἅτε τῆς γυναικὸς οὐκ ἀτρεμούσης, ἀθροίζεται δὲ καὶ παχύνεται θερμαινόμενη [-ον ps.Gal.], ἔπειτα πνεῦμα ἴσχει’. **Censorinus DN** 5.4 *illud quoque ambiguam facit inter auctores opinionem, utrumne ex patris tantum modo semine partus nascatur, ut Diogenes* (64A27 DK) *et Hippon* (cf. 38A13 DK) *Stoicique* (SVF 1.128 etc.) *scripserunt, an etiam ex matris, quod Anaxagorae* (cf. 59A107 DK) *et Alcmaeoni* (24A13 DK) *nec non Parmenidi* (T50 Coxon) *Empedoclique* (31A81 DK) *et Epicuro* (fr. 330 Usener) *visum est*. **Nemesius NH** 25, pp. 86.19–87.4 Ἀριστοτέλης (see below (b)§2) μὲν οὖν καὶ Δημόκριτος (—) οὐδὲν βούλονται συντελεῖν τὸ τῆς γυναικὸς σπέρμα πρὸς γένεσιν τέκνων· τὸ γὰρ προῖεμενον ἐκ τῶν γυναικῶν ἰδρώτα τοῦ μορίου μᾶλλον ἢ γονὴν εἶναι βούλονται. Γαληνὸς (*Sem.* 2.2) δὲ καταγινώσκων Ἀριστοτέλους λέγει σπερμαίνειν μὲν τὰς γυναῖκας καὶ τὴν μίξιν ἀμφοτέρων τῶν σπερμάτων ποιεῖν τὸ κύημα· διὸ καὶ τὴν συνουσίαν μίξιν λέγεσθαι· οὐ μὴν τελείαν γονὴν ὡς τὴν τοῦ ἀνδρός, ἀλλ’ ἔτι ἁπείτον καὶ ὑγροτέραν· τοιαύτη δὲ οὖσα τῆς γυναικὸς ἡ γονὴ τροφὴ γίνεται τῆς τοῦ ἀνδρός.

Chapter heading: cf. *Codex Marcianus* 521 f. 100^r (Diels *DG* 233) ὅτι σπερμαίνει τὸ θῆλυ. also *Dionysius of Aigai* at *Photius Bibl.* 185 (cf. 211) 129b15–17

πρῶτον ὅτι ἐξ ἀμφοτέρων ἢ τοῦ σπέρματος καταβολή καὶ ζωογονία, δεύτερον ὅτι οὐκ ἐξ ἀμφοτέρων (quaestio).

§2 *Aristotle Zeno*: cf. *Lactantius Op.D.* 12.6 *Perrin conceptum igitur Varro et Aristoteles sic fieri arbitrantur. aiunt non tantum maribus inesse semen verum etiam feminis et inde plerumque matribus similes procreari, sed earum semen sanguinem esse purgatum: quod si recte cum virili mixtum sit, utraque concreta et simul coagulata informari.* Perhaps based on *Aristotle GA* 4.1 766b11–26 cited below under section E(b)§3; cf. also *HA* 10.2 634b26–30 also cited below *ibid.*

§3 *Hippo*: cf. *Censorinus DN* 5.4 cited above. also *Hippolytus Ref.* 1.16.2 (on Hippo, 38A3 DK) καὶ γὰρ τὸ σπέρμα εἶναι τὸ φαίνομενον ἡμῖν, ἐξ ὕγρου, ἐξ οὗ φησι ψυχὴν γίνεσθαι.

b Sources and Other Parallel Texts

General texts: *Corpus Hippocraticum Genit.* 4, p. 7.474.16–18 Littré μεθεῖαι δὲ καὶ ἡ γυνὴ ἀπὸ τοῦ σώματος ὅτε μὲν ἐς τὰς μήτρας, αἱ δὲ μήτραι ἰκμαλέαι γίνονται, ὅτε δὲ καὶ ἔξω, ἣν χάσκωσιν αἱ μήτραι μᾶλλον τοῦ καιροῦ κτλ. *Aristotle GA* 1.17 721a35–721b2 καὶ τὰ θήλεα δὲ πότερον συμβάλλεται σπέρμα τι ἢ οὐ, καὶ εἰ μὴ σπέρμα, πότερον οὐδ' ἄλλο οὐθέν, ἢ συμβάλλεται μὲν τι, οὐ σπέρμα δέ. *GA* 1.19 726a30–b1 διὰ τούτων γὰρ φανερόν ἐσται καὶ περὶ τοῦ θήλεος, πότερον προίεται σπέρμα ὥσπερ τὸ ἄρρεν καὶ ἔστιν ἐν μίγμα τὸ γιγνόμενον ἐκ δυοῖν σπερμάτων, ἢ οὐθέν σπέρμα ἀποκρίνεται ἀπὸ τοῦ θήλεος· καὶ εἰ μηθέν, πότερον οὐδὲ ἄλλο οὐθέν συμβάλλεται εἰς τὴν γένεσιν ἀλλὰ μόνον παρέχει τόπον, ἢ συμβάλλεται τι, καὶ τοῦτο πῶς καὶ τίνα τρόπον. *Corpus Hippocraticum Genit.* 7, p. 7.478.22–24 Littré οὗτος ὁ λόγος ἐρέει καὶ τὸν ἄνδρα καὶ τὴν γυναῖκα ἔχειν καὶ θήλυ γόνον καὶ ἄρσενα κτλ. *Galen Sem.* 2.1.33, p. 152.9 De Lacy πολλῶ γε ἦν ἄμεινον, ὅτι μὲν ὑπάρχει τὸ τῶν θηλειῶν σπέρμα, τοῖς φαινομένοις πιστεύειν, ἦντινα δὲ δύνανται ἔχειν, τῷ λόγῳ σκοπεῖσθαι. *Sem.* 2.1.66, p. 160.1 ὥστε ψευδῶς λέγεται τὸ μόνου τοῦ πατρὸς εἶναι τὸ σπέρμα.

Chapter heading: cf. *Aristotle GA* 1.17 721a35, 1.19 726a30–31 cited above.

§1 *Pythagoras Epicurus Democritus*: cf. *Lucretius* 4.1208–1211 *et commiscendo quom semine forte virilem / femina vim vicit subita vi corripuitque, / tum similes matrum materno semine fiunt / ut patribus patrio etc.*

§2 *Aristotle Zeno*: *Aeschylus Eum.* 657–661 (Apollo speaking) καὶ τοῦτο λέξω, καὶ μάθ' ὥς ὀρθῶς ἐρῶ. / οὐκ ἔστι μήτηρ ἢ κεκλημένη τέκνου / τοκεύς, τροφὸς δὲ κύματος νεοσπόρου· / τίκτει δ' ὁ θρώσκων, ἢ δ' ἄπερ ξένῳ ξένῃ / ἔσωσεν ἔρνος, οἷσι μὴ βλάβη θεός. *Aristotle GA* 1.19 727a27–30 ἐπεὶ δὲ τοῦτ' ἔστιν ὃ γίγνεται τοῖς θήλεσιν ὥς ἡ γονὴ τοῖς ἄρρεσιν, δύο δ' οὐκ ἐνδέχεται σπερματικὰς ἅμα γίνεσθαι ἀποκρίσεις, φανερόν ὅτι τὸ θήλυ οὐ συμβάλλεται σπέρμα εἰς τὴν γένεσιν. εἰ μὲν γὰρ σπέρμα ἦν, {τὰ} καταμήνια οὐκ ἂν ἦν· νῦν δὲ διὰ τὸ ταῦτα γίνεσθαι ἐκεῖνο οὐκ ἔστιν. cf. *GA* 2.4 738a33–35 ἐξ ἀνάγκης μὲν οὖν ἡ περιττωσις αὐτῇ γίγνεται τοῖς θήλεσι διὰ τὰς εἰρημένους αἰτίας· μὴ δυναμένης τε γὰρ πέττειν τῆς φύσεως ἀνάγκη περιττωμα γίνεσθαι ... *GA* 2.4 738a34–b4 ἐξ ἀνάγκης μὲν οὖν ἡ περιττωσις αὐτῇ γίγνεται τοῖς θήλεσι διὰ τὰς εἰρημένους αἰτίας· μὴ δυναμένης τε γὰρ πέττειν τῆς

φύσεως ἀνάγκη περίττωμα γίνεσθαι μὴ μόνον τῆς ἀχρήστου τροφῆς ἀλλὰ καὶ (τοῦ αἵματος) ἐν ταῖς φλεψίν, ὑπερβάλλειν τε πληθύνοντα κατὰ τὰς λεπτοτάτας φλέβας. ἔνεκα δὲ τοῦ βελτίονος καὶ τοῦ τέλους ἡ φύσις καταχρῆται πρὸς τὸν τόπον τοῦτον τῆς γενέσεως χάριν ὅπως οἷον ἔμελλε τοιοῦτον γένηται ἕτερον· ἤδη γὰρ ὑπάρχει δυνάμει γε ὃν τοιοῦτον οἶον ἐστὶ σώματος ἀπόκρισις. GA 4.1 763b30–33 φασι γὰρ οἱ μὲν ἐν τοῖς σπέρμασιν εἶναι ταύτην τὴν ἐναντίωσιν εὐθύς, οἷον Ἀναξαγόρας (59A107 DK) καὶ ἕτεροι τῶν φυσιολόγων· γίνεσθαι τε γὰρ ἐκ τοῦ ἄρρενος τὸ σπέρμα, τὸ δὲ θῆλυ παρέχειν τὸν τόπον. summarised at GA 4.1 766b8–26 ἀναλαβόντες δὲ πάλιν λέγομεν ὅτι τὸ μὲν σπέρμα ὑπόκειται περίττωμα τροφῆς ὃν τὸ ἔσχατον (ἔσχατον δὲ λέγω τὸ πρὸς ἕκαστον φερόμενον, διὸ καὶ ἔοικε τὸ γεννώμενον τῷ γεννήσαντι· οὐθὲν γὰρ διαφέρει ἀφ' ἑκάστου τῶν μορίων ἀπελθεῖν ἢ πρὸς ἕκαστον προσελθεῖν—ὀρθότερον δ' οὕτως). διαφέρει δὲ τὸ τοῦ ἄρρενος σπέρμα ὅτι ἔχει ἀρχὴν ἐν ἑαυτῷ τοιαύτην οἷαν κινεῖν †καὶ ἐν τῷ ζῳῳ† καὶ διαπέττειν τὴν ἐσχάτην τροφήν, τὸ δὲ τοῦ θήλεος ὕλην μόνον. κρατήσαν μὲν οὖν εἰς αὐτὸ ἄγει, κρατηθὲν δ' εἰς τοῦναντίον μεταβάλλει ἢ εἰς φθοράν. ἐναντίον δὲ τῷ ἄρρενι τὸ θῆλυ, θῆλυ δὲ τῇ ἀπεψίᾳ καὶ τῇ ψυχρότητι τῆς αἱματικῆς τροφῆς. ἡ δὲ φύσις ἐκάστω τῶν περιττωμάτων ἀποδίδωσι τὸ δεκτικὸν μόριον. τὸ δὲ σπέρμα περίττωμα, τοῦτο δὲ τοῖς μὲν θερμότεροις καὶ ἄρρεσι τῶν ἐνάιμων εὐογκον τῷ πλήθει, διὸ τὰ δεκτικὰ μόρια πόροι ταύτης τῆς περιττώσεως εἰσι τοῖς ἄρρεσιν· τοῖς δὲ θήλεσι δι' ἀπεψίαν πλήθος αἱματικόν (ἀκατέργαστον γάρ), ὥστε καὶ μόριον δεκτικὸν ἀναγκαῖον εἶναι τι, καὶ εἶναι τοῦτο ἀνόμοιον καὶ μέγεθος ἔχειν. διὸ τῆς ὑστέρας τοιαύτη ἡ φύσις ἐστίν. τούτῳ δὲ τὸ θῆλυ διαφέρει τῷ μορίῳ τοῦ ἄρρενος. differently Aristotle HA 10.2 634b26–39 καὶ πρῶτον ταῦτα σκεπτέον, εἰ καλῶς ἔχει, μετὰ δὲ ταῦτα πῶς ἔχει τὸ στόμα τῶν ὑστερῶν. δεῖ γὰρ εἰς ὀρθὸν ἔχειν· εἰ δὲ μή, οὐχ ἔλξουσιν εἰς αὐτὰς τὸ σπέρμα. εἰς τὸ πρόσθεν γὰρ αὐτῶν (sc. τῶν ὑστερῶν) καὶ ἡ γυνὴ προίεται, ὡς δῆλον, ὅταν ἐξονειρώτῳσιν αὐταὶ τελῶς· τότε γὰρ οὗτος ὁ τόπος θεραπείας δεῖται αὐταῖς ὑγρανθεῖς ὥσπερ εἰ ἀνδρὶ συνεγένοντο, ὡς προῖεμενον ἐνταῦθα καὶ τὸ παρὰ τοῦ ἀνδρός, εἰς τὸν αὐτὸν τόπον καὶ οὐχὶ εἰς τὰς ὑστέρας εἴσω. ἀλλ' ὅταν ἐνταῦθα προῖωνται, ἐντεῦθεν σπῶσι τῷ πνεύματι, οἷον αἱ ῥίνες, καὶ αἱ ὑστέραι τὸ σπέρμα. διὸ καὶ παντὶ σχήματι συνοῦσαι κυῖσκονται, ὅτι εἰς τὸ πρόσθεν παντελῶς ἐχούσης γίνεται καὶ αὐταῖς καὶ τοῖς ἀνδράσιν ἢ πρόεσις τοῦ σπέρματος· εἰ δ' εἰς αὐτήν, οὐκ ἂν πάντως συγγινόμεναι συνελάμβανον. Diogenes Laertius V.P. 7.159 (on the Stoics, SVF 1.626) τὸ δὲ τῆς θηλείας (sc. σπέρμα) ἄγονον ἀποφαίνονται· ἄτονόν τε γὰρ εἶναι καὶ ὀλίγον καὶ ὕδατῶδες, ὡς ὁ Σφαίρος φησιν.

§3 *Hippo: Soranus Gyn.* 1.12 ἐνθεν δὲ δοκεῖ τὸ τοῦ θήλεος σπέρμα πρὸς ζωογονίαν μὴ συλλαμβάνεσθαι τῷ εἰς τὸ ἐκτὸς ἐκχεῖσθαι, περὶ οὗ διελάβομεν ἐν τῷ Περὶ σπέρματος λόγῳ.

Liber 5 Caput 6

P^B: ps.Plutarchus *Plac.* 905C–D; pp. 418^a23–419^a9 Diels—**P^G**: ps.Galenus *HPh* c. 110; p. 641.1–7 Diels—**P^Q**: Qusṭā ibn Lūqā pp. 220–221 Daiber—**P^s**: Psel-
lus *Omn.Doctr.* c. 110.1–5, pp. 60–61 Westerink
S^{L-ind}: Stobaeus *Ecl.* 1.42.2, p. 1. 295.3 Wachsmuth (titulus solus)

Titulus ζ'. Πῶς αἱ συλλήψεις γίνονται (P,cf.S)

§1 Ἀριστοτέλης τὰς μὲν συλλήψεις γίνεσθαι προανελκομένης μὲν ὑπὸ τῆς
καθάρσεως τῆς μήτρας, τῶν δὲ καταμηνίων συνεπισπωμένων ἀπὸ τοῦ
παντὸς ὄγκου μέρος τι τοῦ καθαροῦ αἵματος, ᾧ συμβαίνει τὸν τοῦ
ἄρρενος γόνον· μὴ γίνεσθαι δὲ τὰς κυήσεις παρ' ἀκαθαρσίαν τῆς μήτρας 5
ἢ ἐμπνευμάτωσιν ἢ φόβον ἢ λύπην ἢ δι' ἀσθένειαν τῶν γυναικῶν ἢ δι'
ἀτονίαν τῶν ἀνδρῶν. (P1)

§1 Aristoteles cf. *HA* 9.2 582b11, *GA* 2.4 739a26

titulus Πῶς ... γίνονται ^{P^BGQ^{Ps}}: Περὶ συλλήψεως ^{S^{L-ind}} §1 [2] post Ἀριστοτέλης add. ^{P^G} ὑπο-
λαμβάνει || μὲν¹ ^{P^B}: om. ^{P^G} || προανελκομένης ^{P^B}: προελκομένης ^{P^G} || μὲν² ^{P^B}: om. ^{P^G} || [3]
συνεπισπωμένων ^{P^BPs}: ἐπισπωμένων ^{P^G}, cf. *hervorgezogen* Q || [4] ὄγκου ^{P^BPs}, cf. *Menge* Q :
σώματος ^{P^G} ᾧ || corr. Reiske : ὡς ^{P^BGQ} || [5] δὲ ^{P^BQ}: om. ^{P^G} || [6] δι' ἀσθένειαν ^{P^B(I,III)} Mau
Lachenaud : ἀσθένειαν ^{P^B(I)G} Diels (om. δι' bis ^{P^Q} ut vid.)

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 110 (~ tit.) Πῶς αἱ συλλήψεις γίνονται (text Diels)

110.1 (~ P1) Ἀριστοτέλης ὑπολαμβάνει τὰς συλλήψεις γίνεσθαι προελκομένης ὑπὸ
τῆς καθάρσεως τῆς μήτρας, τῶν δὲ καταμηνίων ἐπισπωμένων ἀπὸ παντὸς τοῦ
σώματος μέρος τι τοῦ καθαροῦ αἵματος, ὡς συμβαίνει τὸν τοῦ ἄρρενος γόνον.
μὴ γίνεσθαι τὰς κυήσεις παρ' ἀκαθαρσίαν μήτρας ἢ ἐμπνευμάτωσιν ἢ φόβον ἢ
λύπην ἢ ἀσθένειαν τῶν γυναικῶν ἢ δι' ἀτονίαν τῶν ἀνδρῶν.

Psellus *Omn.Doctr.* c. 110 (~ tit.) Πῶς αἱ συλλήψεις γίνονται

ἢ σύλληψις τῶν ζῶων γίνεται, καὶ μάλιστα τῶν ἀνθρώπων, ὅταν ἐπιτήδειος καὶ ξηρο-
τέρα συμμέτρως ἡ μήτρα γένηται πρὸς τὴν παραδοχὴν τοῦ σπέρματος, τῶν κατα-
μηνίων συνεπισπωμένων ἀπὸ τοῦ παντὸς ὄγκου μέρος τι τοῦ καθαροῦ αἵματος
(cf. P1).

Loci Aetiani:

§1 A 5.9 Διὰ τί γυνὴ πολλάκις συνουσιάζουσα οὐ συλλαμβάνει. A 5.10.3 Ἐρασίστρα-
τος διὰ τὰς (ἐπι)σύλληψις, ὥσπερ ἐπὶ τῶν ἀλόγων ζῶων· ὅταν γὰρ ἡ μήτρα ᾗ
κεκαθαρμένη, τότε ἐπισύλληψιν δέχεσθαι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The chapter with its heading and single lemma is preserved in P^B, G and Q. Ps takes over the chapter heading and partly utilizes the contents. S^L records an abridged ‘umbrella’ type chapter heading with Περί, but without any doxai. In Wachsmuth’s judgment the heading was introduced by S as a sub-heading in the chapter Περί τῆς τῶν ζώων γενέσεως, presumably because it falls under καὶ τὰ ἐξῆς included in the heading in Photius’ index. It remains possible that the heading was interpolated from P, as was probably the case for the heading of chs. 5.4 and 5.5; see further on 5.4 Commentary C. But see further under section C.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The only quasi-doxographical text that has a separate section on the subject of conception is ps.Galen *Def.Med.* 451 (text cited below, section E(a) General texts), which like A, focuses on the cause but gives a wholly different explanation. There is also a section on the subject in Lactantius’ work on God’s work in creation which is dependent on earlier sources (as noted in Commentary D(e) on ch. 5.5, the combination of the name-labels Varro and Aristotle almost certainly indicates the former as the source).

(2) *Sources.* In general it can be said that the topic of conception and the impediments thereto do not appear to have aroused much specific discussion or controversy in ancient medical literature. We record below in section E(b) passages in the *Corpus Hippocraticum*, Aristotle and some later authors, but none make reference to earlier thinkers with specific views which A could have used for his purpose.

C *Chapter Heading*

As noted above on ch. 5.2, chapter headings beginning with πῶς are common in Book 5, but rare elsewhere in the *Placita*. The question type involved is that of cause (διὰ τῆς). For headings beginning with, or containing, words that signalize *questions* see above, ch. 1.1 Commentary C. The present chapter is the first of a whole sequence of chapters using this formula, which testifies to Book 5’s focus on causation; see 5.7–8, 10, 12–13, 16. The aspect of cause is made explicit in the text on the subject ps.Galen *Def.Med.*

On the presence of the heading in the pinax in S^L see above, chs. 5.4 and ch. 5.5 Commentary C. The divergence of the text of the heading in S, Περί συλλήψεως, supports the view that this heading is *not* interpolated from P, unlike

the next two in the list, but is derived from A. We prefer, however, to retain the wording of the heading as it is found in the tradition of P.

D *Analysis*

a Context

The topic of conception follows on quite naturally from the two chapters on semen.

b Number–Order of Lemmata

Monolemmatic chapters are extremely infrequent in A, as is hardly surprising, since a single lemma rules out a diaeresis or a diaphonia, which is the most common structuring and didactic technique in the *Placita*. Most of the chapters that only have a single lemma are either exceptional (e.g. 1.4, 3.6, 18—all without name-labels; 4.11, 21—single very long doxai) or very likely incomplete (because S is silent, e.g. 3.14, 5.22–23, 28). In this chapter it is very likely that further lemmata have been lost because P has epitomised them away. It is possible, however, given (as noted above) that there seems to have been little controversy on the subject, that a single lemma was thought sufficient to give a summary of the subject. Apart from this, one could say that there is an internal diaeresis or diaphonia in this lemma, because it first shows how conception comes about and then tells us how it is prevented or impeded.

c Rationale–Structure of Chapter

The single lemma with the name-label Aristotle gives a description which is compatible with Aristotelian doctrine, e.g. as presented in *De generatione animalium*, but is not based on any extant passage in his works, as noted by Rose (1863) 382. For ἀπὸ τοῦ παντὸς ὄγκου μέρος τι τοῦ καθαροῦ αἵματος compare τὸ ὑπολειφθέν at GA 1.19 727b17. The explanation is couched in physiological terms with an emphasis on the role of the female. But neither is the role of heat mentioned (cf. GA 2.4 739b4, Galen *Def.Med.* 451) nor the pneumatic composition of the semen (GA 2.3 736b30–737a1). On the hematogenic theory of conception see further Lesky (1951) 134–145.

The second half of the lemma, which gives reasons why conception does not occur, anticipates and partly doubles up on ch. 5.9, where the subject is mentioned in the heading (οὐ συλλάμβανει).

d Further Comments

Individual Points

§1[1] προανελκομένης. In antiquity the womb is regarded as an independent organ which can move of its own accord and cover quite a distance within the female body.

§1[6] We follow Mau and Lachenaud against Diels in preferring δι' ἀσθένειαν (τῶν γυναικῶν) as recorded in the majority of the mss. of P^B against ἀσθένειαν as found in the oldest ms. M. It felicitously preserves the symmetry with the final phrase δι' ἀτονίαν (τῶν ἀνδρῶν).

§1[7] The unusual phrase δι' ἀτονίαν τῶν ἀνδρῶν, here in both P^{BQ} and G, is paralleled in G's version of the Diocles lemma 5.13.2 (fr. 43c Van der Eijk), where it is not found in P. The word ἀτονία meaning 'poor condition' does not occur in the Aristotelian corpus. For use of the term for the womb cf. the chapter heading of Soranus *Gyn.* 3.47 Περί ἀτονούσης μήτρας. It is possible that the Aristotelian doxa has been contaminated with Diocles' views on the subject, or that two original doxai have been coalesced. See further at ch. 5.13 Commentary D(d)§2.

E Further Related Texts

a Proximate Tradition

General texts: ps.Galen *Def.Med.* 451, p. 19.454.11–13 K. υνα'. αἰτία συλλήψεως ἢ τῆς μήτρας σύμμετρος θερμασία καὶ ἡ πρόσφατος τῶν ἐμμηνίων κάθαρσις καὶ ὄρεξις· ταῦτα γὰρ ὁμοῦ συνελθόντα κατέσχε τὸ σπέρμα. cf. **Codex Marcianus** 521 f. 100^r (Diels *DG* 233) τίς αἰτία συλλήψεως (from ps.Galen). **Lactantius** *Op.D.* 12.6 cited on ch. 5.5 section E(a)§2.

Chapter heading: cf. **Lactantius** *Op.D.* 12.1 Perrin *de utero quoque et conceptione*.

b Sources and Other Parallel Texts

General texts: **Corpus Hippocraticum** *Prorrh.* 2.24, p. 9.54.6–16 Littré τῶν δὲ γυναικῶν ὅσαι μᾶλλον καὶ ἥσσον ἐν γαστρὶ λαμβάνειν πεφύκασιν, ὧδε ὑποσκέπτεσθαι· ... πυνθάνεσθαι (δὲ) χρῆ καὶ περὶ τῶν καταμνηνίων ... τὸ δὲ χωρίον ἐν ᾧ ἡ ξύλληψις ἐστίν, ὃ δὴ μήτηρ ὀνομάζομεν, ὑγιές τε χρῆ εἶναι καὶ ξηρὸν καὶ μαλακόν, καὶ μήτ' ἀνεσπασμένον ἔστω μήτε προπετὲς, μήτε τὸ στόμα αὐτοῦ ἀπεστράφθω μήτε ξυμμεμυκέτω μήτ' ἐκπεπλίχθω· ἀμήχανον γάρ, ὃ τι ἂν ἦ τῶν τοιούτων κωλυμάτων, σύλληψιν γενέσθαι. **Aristotle** *HA* 9.2 582b7–12 ταῖς μὲν (sc. women) γὰρ ἀθρόα ἢ κάθαρσις γίνεται ταῖς δὲ κατ' ὀλίγον, τὸ δὲ σῶμα βαρύνεται πάσαις, ἕως ἂν ἐξέλθῃ. πολλαῖς δὲ καὶ ὅταν ὀρμᾷ τὰ καταμήνια καὶ μέλλῃ ῥήγνυσθαι, πνιγμοὶ γίνονται καὶ ψόφος ἐν ταῖς ὑστέραις, ἕως ἂν ῥαγῇ. φύσει μὲν οὖν ἡ σύλληψις γίνεται μετὰ τὴν τούτων ἀπαλλαγὴν ταῖς γυναιξίν. **GA** 2.4 739a26–28 ἄνευ μὲν οὖν τῆς τοῦ ἄρρενος προέσεως ἐν τῇ συνουσίᾳ ἀδύνατον συλλαβεῖν καὶ ἄνευ τῆς τῶν γυναικείων περιττώσεως ἢ θύραζε προελθούσης ἢ ἐντὸς ἱκανῆς οὔσης. **Soranus** *Gyn.* 1.18.5 Ilberg ὑποδεδειγμένης δὲ τῆς φύσεως τῶν γυναικείων μερῶν, ἐπεὶ τὰ τῆς μήτρας ἔργα καθάρσεις, συλλήψεις, κυφοραὶ καὶ μετὰ τελείωσιν ἀποτέξεις, τῇ φυσικῇ χρώμενοι τάξει πρῶτον ἐροῦμεν περὶ ἐμμήνων. *Gyn.* 1.29.6 χωρὶς γὰρ τῆς καθάρσεως σύλληψις οὐ γίνεται. κατ' ἔννοιαν δὲ σύλληψις ἐστὶν κράτησις ἐπίμονος σπέρματος ἢ ἐμβρύου ἢ ἐμβρύων ἢ ἐν ὑστέρᾳ διὰ φυσικὴν αἰτίαν. **Oribasius** *Coll.Med.* Lib.inc. 14, p. 4.102.4–22 Raeder (Aristotle fr. 259–260 Rose², deleted

in Rose³) Περί συλλήψεως καὶ ἐπικυήσεως. αἱ δὲ συλλήψεις γίνονται μὲν οὐ πολὺ μετὰ τὰς καθάρσεις, ὀλιγάκις δὲ καὶ πρὸ τῆς καθάρσεως αὐταῖς τοσοῦτον ἐχούσαις τὸ περίσσευμα, ὅσον ἐστὶ ταῖς ἄλλαις πρὸς τῷ λήγειν ἤδη γινομένης τῆς καθάρσεως· οὔτε δὲ μὴ γινομένων ὅλως τῶν καταμηνίων, οὔτε πεπαυμένων πρὸ πολλοῦ, δυνατὸν γενέσθαι σύλληψιν, οὔδὲ μὴν ἀκμαζούσης τῆς καθάρσεως (ἔμπροσθεν μὲν γὰρ τῶν καθάρσεων τετυλωμένης τῆς μήτρας, οὐχ οἶόν τε προσφυῆναι τὸ σπέρμα), οὔδὲ μὴν ἀκμαζουσῶν (ἐκκλύζεται γὰρ ὑπ' αὐτῶν ὁ γόνος), οὔδὲ πάλιν κατὰ πᾶν πεπαυμένων, καὶ τῆς μήτρας ἀνεξηραμμένης ἤδη καὶ κατεψυγμένης. ληγοῦσης δὲ τῆς καθάρσεως, καὶ τῆς μήτρας ἀκμὴν ἐναίμου τε οὔσης καὶ διαθέρμου καὶ διὰ ταῦτα ὀργώσης πρὸς τὴν παραδοχὴν τοῦ σπέρματος, καιρὸς εὐφυῆς πρὸς σύλληψιν. γίνεται δὲ τισιν ἐπισύλληψις καὶ ἐπικυήσις, αἷς ἐστὶν ἑλκωσίς τε περὶ τὴν μήτραν καὶ τροφὴ ἱκανή. τισὶ μὲν οὖν ἀπὸ τῆς πρώτης συλλήψεως ἔτι μενούσης ἐπὶ τινὰς χρόνους τῆς ἑλκώσεως, ὕστερον ἐπισυλλαμβάνουσι, τισὶ δὲ καὶ μετὰ ταῦτα, καταμηνίων ἐπιφανέντων, κατ' ἄλλα μέρη τῆς ὑστέρας· διὸ καὶ τινες μετ' ὀλίγον, τινὲς δὲ μετὰ πλείονα χρόνον, τῷ πρώτῳ ἕτερον ἐπιτίκτουςιν.

Chapter heading: *Pliny Nat.* 1 Index Liber VII *de conceptu hominum.* cf. *Oribasius Coll.Med.* 14 Raeder cited above.

Liber 5 Caput 7

PP: *Papyrus Antinoopolis* 85 fr. 7 recto p. 79 Barns–Zilliacus—**PB:** ps.Plutarchus *Plac.* 905D–F; pp. 419^a10–420^a18 Diels—**PG:** ps.Galenus *HPh* c. 111; p. 641.8–15 Diels; pp. 338–346 Jas—**PQ:** Qustā ibn Lūqā pp. 220–223 Daiber—**PPs:** *Omn.Doctr.* 111.5–7, p. 67 Westerink
SL: Stobaeus *Ecl.* 1.42.5, p. 1.295.10 Wachsmuth (titulus solus)

Titulus ζ'. Πὼς ἄρρενα γεννᾶται καὶ θήλεα (P,cf.S)

- §1 Ἐμπεδοκλῆς ἄρρενα καὶ θήλεα γίνεσθαι παρὰ θερμότητα καὶ ψυχρότητα· ὅθεν ἰστορεῖται τοὺς μὲν πρώτους ἄρρενας πρὸς ἀνατολὴ καὶ μεσημβρίᾳ γεγενῆσθαι μᾶλλον ἐκ τῆς γῆς, τὰς δὲ θηλείας πρὸς ταῖς ἄρκτοις. (P1) 5
- §2 Παρμενίδης ἀντιστρόφως· τὰ μὲν πρὸς ταῖς ἄρκτοις ἄρρενα βλαστήσαι, τοῦ γὰρ πυκνοῦ μετέχειν πλείονος· τὰ δὲ πρὸς ταῖς μεσημβρίαις θήλεα παρὰ τὴν ἀραιότητα. (P2)
- §3 Ἴππων παρὰ τὸ συνεστός τε καὶ ἰσχυρὸν (ῆ) παρὰ τὸ ῥευστικόν τε καὶ ἀσθενέστερον σπέρμα. (P3) 10
- §4 Ἀναξαγόρας Παρμενίδης τὰ μὲν ἐκ τῶν δεξιῶν καταβάλλεσθαι εἰς τὰ δεξιὰ μέρη τῆς μήτρας, τὰ δ' ἐκ τῶν ἀριστερῶν εἰς τὰ ἀριστερά· εἰ δ' ἐναλλαγείη τὰ τῆς καταβολῆς, γίνεσθαι θήλεα. (P4)
- §5 Λεωφάνης, οὗ μέμνηται Ἀριστοτέλης, τὰ μὲν ἐκ τοῦ δεξιοῦ διδύμου τὰ δ' ἐκ τοῦ ἀριστεροῦ. (P5) 15

§1 Empedocles 31A81 DK; §2 Parmenides 28A53 DK; §3 Hippo 38A14 DK; §4 Anaxagoras 59A111 DK; Parmenides 28A53 DK; §5 Leophanes cf. Arist. *GA* 4.1 765a21–25

titulus γεννᾶται ^{PB(1,11)SL-ind} cf. *geschieht die Erzeugung* Q : γεννῶνται ^{PB(111)} : γίνονται mss. ^{PG} corr. Jas ex Nic, sed cf. PPs Πὼς ἄρρενα καὶ θήλεα γίνεται §1 [2] post Ἐμπεδοκλῆς add. ^{PG} οἶται καὶ Ἀσκληπιάδης (cf. 5.10, 5.21), sed verba καὶ Ἀσκληπιάδης ut glossema secl. Jas (non leg. PP) || [3–4] πρὸς ἀνατολὴ καὶ μεσημβρίᾳ γεγενῆσθαι ^{PBQ} : ἀπὸ ἀνατολῆς καὶ μεσημβρίας γίνεσθαι ^{PG} || [4] ἐκ τῆς γῆς ^{PBG} : om. ^{PQ} §2 [6] Παρμενίδης ... ἄρκτοις om. ^{PP} per haplographiam || post Παρμενίδης ins. δ' ^{PG} || βλαστήσαι ^{PBQ} : γίνεσθαι ^{PG} || [7] μετέχει ^{PG} : μετέχει ^{PB}, corr. Xylander Diels || ταῖς μεσημβρίαις ^{PB} : τὴν μεσημβρίαν ^{PG} §§3–7 non hab. ^{PG} §3 [9] Ἴππων scripsimus, cf. Ἰππώνου ^{SPhot}, Cens. 6.4 *Hippon* : Ἰππῶναξ ^{PBQ}, cf. ^{PG} §8, prob. Diels *DG VS* edd.; vid. §8 et comm. infra || τε! con. Diels, cf. *und* Q : ἢ ^{PB} || (ῆ) add. Diels (*sowie* ^{PQ}) || ῥευστικόν ^{PB(1,11)} : ῥευστόν ^{PB(11)} §4 [11–12] εἰς τὰ δεξιὰ μέρη τῆς μήτρας ^{PB(1,11)} : εἰς τὰ μέρη τῆς μήτρας τὰ δεξιὰ ^{PB(11)} || [13] γίνεσθαι ^{PB(11)} : γένεσθαι ^{PB(1,11)} : γίνεσθαι (τὰ μὲν) θήλεα (ἄρρενικώτερα, τὰ δὲ ἄρρενα θηλύτερα) prop. Tarán Diels *DG* 194 secutus; vid. comm. infra §5 [14] Λεωφάνης ^{PB(111)QSPhot} : Λεοφανίας ^{PB(1,11)} || τοῦ om. ^{PB(11)}

- §6 Λεύκιππος διὰ τὴν παραλλαγὴν τῶν μορίων, καθ' ἣν ὁ μὲν καυλὸν ἢ δὲ μήτραν ἔχει· τοσοῦτον γὰρ μόνον λέγει. (P6)
- §7 Δημόκριτος τὰ μὲν κοινὰ μέρη ἐξ ὁποτέρου ἂν τύχη, τὰ δ' ἰδιάζοντα κατ' ἐπικράτειαν. (P7)
- §8 Ἴππων, εἰ μὲν ἢ γονὴ κρατήσκειν, ἄρρεν· εἰ δ' ἢ τροφή, θήλυ. (P8)

20

§6 Leucippus 67A36 DK; §7 Democritus 68A143 DK; §8 Hippo 38A14 DK

§6 [17] γὰρ P^{B(I-III)} : om. P^{B(III-AE)} || τοσοῦτον ... λέγει om. P^Q §7 [18] post ἰδιάζοντα hab. P^B καὶ, del. Reiske Diels (non hab. P^Q ut vid.) §8 [20] Ἴππων iterum scripsimus, vid. ad §3 supra || κρατήσκειν P^{B(I,II)G} : κρατήσκει P^{B(III)} || τροφή P^{BQ} : ὕλη P^G

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 7 recto = P §§1–2

- E[μπεδοκλῆς ἀρρενα καὶ θήλεα γίνεσθαι]
[π]ᾶρα [θερμότητα καὶ ψυχρότητα οθεν]
ἵστορεῖ[ται τοὺς μὲν πρῶτους ἀρρενας πρὸς]
ἀνατολῇ [καὶ μεσημβρία γεγενῆσθαι]
5 μαλλόν [ἐκ τῆς γῆς τὰς δὲ θηλείας πρὸς ταῖς]
ἀ[ρκτοῖς ἀρρενα βλαστήσαι τοῦ γὰρ πυ]
κνοῦ [μετέχειν πλείονος τὰ δὲ πρὸς ταῖς με]
ση[μβρίαῖς]

ps.Galenus HPh c. 111 (~ tit.) Πῶς ἄρρενα γεννᾶται καὶ θήλεα (text Jas)

- 111.1 (~ P1) Ἐμπεδοκλῆς οἶεται {καὶ Ἀσκληπιάδης} ἄρρενα καὶ θήλεα γίνεσθαι παρὰ θερμότητα καὶ ψυχρότητα· ὅθεν ἱστορεῖται τοὺς μὲν πρῶτους ἀρρενας ἀπὸ ἀνατολῆς καὶ μεσημβρίας γίνεσθαι μᾶλλον ἐκ τῆς γῆς, τὰς δὲ θηλείας πρὸς ταῖς ἄρκτοις.
- 111.2 (~ P2) Παρμενίδης δ' ἀντιστρόφως, τὰ μὲν πρὸς ταῖς ἄρκτοις ἄρρενα γίνεσθαι, τοῦ γὰρ πυκνοῦ μετέχειν πλείονος, τὰ δὲ πρὸς τὴν μεσημβρίαν δι' ἀραιότητα.
- 111.3 (~ P8) Ἴππωνας δὲ εἰ μὲν ἢ γονὴ κρατήσκειν, ἄρρεν, εἰ δὲ ἢ ὕλη, θήλυ.

Psellus Omn.Doctr. c. 111 (~ tit.) Πῶς ἄρρενα καὶ θήλεα γίνεται

- c. 111.5–7 ἐπεὶ οὖν τὸ ἄρρεν θερμότερόν ἐστι τοῦ θήλεος, τὸ μὲν ἐμπεσὸν σπέρμα εἰς τὸν δεξιὸν κόλπον ἄρρεν γίνεται διὰ τὴν θερμότητα, τὸ δὲ εἰς τὸν ἀριστερόν θήλυ διὰ τὴν ψυχρότητα (cf. P1, P4)

Loci Aetiani:

quaestio cf. 5.11 Πόθεν γίνονται τῶν γονέων αἱ ὁμοιώσεις καὶ τῶν προγόνων

- §1 A 5.11.1 Ἐμπεδοκλῆς ὁμοιότητας γίνεσθαι κατ' ἐπικράτειαν τῶν σπερματικῶν γόνων, ἀνομοιότητας δὲ τῆς ἐν τῷ σπέρματι θερμοσφύρας ἐξατμισθείσης.
- §2 A 2.7.1 Παρμενίδης στεφάνας εἶναι περιπεπλεγμένους ἐπαλλήλους, τὴν μὲν ἐκ τοῦ ἀραιοῦ τὴν δ' ἐκ τοῦ πυκνοῦ ... A 3.1.6 Παρμενίδης τὸ τοῦ πυκνοῦ καὶ ἀραιοῦ

μίγμα γαλακτοειδές αποτελέσαι χρώμα. A 5.11.2 Παρμενίδης, ὅταν μὲν ἀπὸ τοῦ
δεξιοῦ μέρους τῆς μήτρας ὁ γόνος ἀποκριθῇ, τοῖς πατράσιν· ἔταν δ' ἀπὸ τοῦ ἀρι-
στεροῦ, ταῖς μητράσιν

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

P records eight mainly brief lemmata, the most in number (though not in length) of any chapter in Book 5. G epitomises radically, taking over only the first two and the last. Ps takes over the chapter heading and makes light use of §4, but the remainder of his chapter contains material that does not appear to derive from the *Placita*. The rare name-label Leophanes, found only here in what remains of A, occurs in Photius' index of Stobaeus (*Bibl.* 167, 156.8 Henry). Diels rightly deduced that the Anthology in all likelihood originally included this doxa, *DG* 420b1; see also Elter (1880) 46.

B *Proximate Tradition and Sources*

(1) *Proximate tradition*. The most important parallel text in the proximate tradition is found in Censorinus, who clearly states the quaestio involved at §6.4, *ut mares feminaeve nascantur, quid causae esset*, indicating very explicitly that the question is one of cause (cf. πῶς in A's chapter heading). There is a good but not complete overlap with A and, as we shall below in sub-section (2), with Aristotle. Five of the seven separate name-labels in A are found in Censorinus (excluding Leophanes and Leucippus), but his Alcmaeon does not appear in A. Two other documents, ps.Galen *Definitiones medicae* and Lactantius contain anonymised parallels for A's doxai (texts below section E(a) General texts). Lactantius' source is likely to have been Varro (see our discussion on Lactantius' evidence in chs. 5.5–6). Most intriguingly mention is made of the doxa of Anaxagoras in Hippolytus' summary of his doctrine (1.18.12, text below), another example of the links between A and the *traditio proxima* that are so frequent in the earlier books of A's compendium. It remains puzzling that he does not refer to Alcmaeon despite his appearance six times in this book, so we may have a case of P's abridgement here.

(2) *Sources*. Going further back, it is clear that the general inspiration for this and some following chapters in A is Aristotle's treatment of these questions in Book 4 of *De generatione animalium*. The questions posed in chs. 5.7–8 and 5.11 are discussed in *GA* 4.1–4; see for example the summary at 4.3 769b3–

10 which emphasises the aspect of cause (αἰτία) and outlines the subjects of all three chapters (text below section E(b) General texts). The specific subject of sex differentiation is discussed in *GA* 4.1. Of A's seven name-labels no less than four (Anaxagoras, Empedocles, Democritus, Leophanes) occur in this passage. Indeed A explicitly draws attention to this source when he says that Leophanes 'was mentioned by Aristotle' (765a25), adding this comment because perhaps the man was known from no other source; see below section E(b)§5. It is to be noted that three of the name-labels in A are not found in Aristotle (Parmenides, Hippo and Leucippus, and also not Alcmaeon who only appears in Censorinus), and that only philosophers are cited, without any reference to physicians.

Another striking feature of our chapter—in contrast to those that follow—that all the doxai in the chapter give views of the Presocratics. Thanks to Galen (text below E(b)§1) we actually have brief quotations from the poems of Parmenides and Empedocles which give a glimpse of the original material on which the doxai are based (and which will have been known to Aristotle). Moreover, the latter's discussion of Democritus' view at *GA* 4.1 764a6–11 (text below section E(b)§7) in which the causality of heat and cold is rejected, may indicate that the atomist responded to these earlier views (but it could also be an editorial comment by Aristotle himself).

All in all, this chapter provides a fascinating insight into the layered nature of the sources that underlie A's treatment of a question in biology. For further analysis see further below at section D(e). For literature on conception and birth in ancient sources see above, ch. 5.3 Commentary B.

C Chapter Heading

Another chapter heading with πῶς indicating 'cause' (see on 5.6 Commentary C). The verb γεννᾶται, which deviates from the usual γίνεται (cf. chs. 5.2, 6, 8, 10 etc.), is well enough attested (P^{BQ} S^L) to be retained (G and Ps revert to the more common verb).

On the chapter headings in S^L see above, ch. 5.4 Commentary C. The heading for this chapter is identical to that found in the tradition of P, but there are no grounds for concluding that it must be interpolated from there.

D Analysis

a Context

As the chapter's contents reveal, sex determination could be related to semen (i.e. prior to conception) or factors relating to reproduction (i.e. after conception). A has chosen to place it after his treatment of both subjects, i.e. semen in ch. 5.3–5, conception in ch. 5.6. The result is an admirably logical sequence of topics.

b Number–Order of Lemmata

As noted above, this chapter as preserved by P is the one with the most doxai in Book 5. It may well have been one of those chapters in which he chose to retain most or all of the doxai in his source, as he did for example in chs. 3.1–2, but we cannot be sure (and see below on the absence of Alcmaeon). Since P seldom interferes with the order of the doxai, the sequence of lemmata is also most likely to derive from A, but here too certainty is not attainable.

c Rationale–Structure of Chapter

Analysis of the doxai's contents and comparison with the proximate tradition reveal that the eight lemmata of chapter are organised in a number of different ways.

A first diaeresis separates the first two doxai from the remaining six. In §§1–2 the generation of males and females is explained through the factors of heat and cold, but these are immediately related to their origin from the earth. The remaining doxai §§3–8 describe their occurrence through the normal process of intercourse between the sexes. The difference can be explained in terms of two kinds of explanation: the first is *protological*, i.e. the present-day situation results from what happened during the original cosmogony; the second is *actual* or *contemporary*, i.e. describing what happens now without reference to origins. Protological explanations are invoked in Empedoclean doxai earlier at A 4.22.1[2], where *πρώτου* should not be excised, see our Commentary ad loc. and also later at A 5.18.1 and explicitly at 5.19.4. A parallel can be drawn in the connection between cosmogony and cosmology in ch. 2.8 on the tilting of the cosmos. In the present chapter the distinction helps to explain the fact that there is a double reference to doxai of Parmenides in the same chapter.

It is apparent that the first two doxai form an antithetical pair. This is very deliberately emphasised through the term *ἀντιστρόφως*, used only here in the surviving *Placita*. The explanation of sex differentiation through the factors of heat and cold is confirmed by evidence in Aristotle's biological works *De partibus animalium* and *De generatione animalium*; see the texts cited below section E(b) §§1–2. Both philosophers are named in the former work, only Empedocles in the latter. Indeed, the antithetical pair of doxai surely has its origin in the text at *PA* 2.2 648a25–31 in which it is stated that according to Parmenides women are hotter than men (also anonymously stated at *GA* 4.1 765b19–22), whereas Empedocles holds the opposite view. Here the chronological order has been preserved, whereas in our chapter it has been reversed, with Parmenides presented as unhistorically responding in opposition to Empedocles. Remarkably Aristotle himself presents as factual (or endoxic) an association between

male births and the (cold) north winds and female births and the (hot) warm winds; see *HA* 6.19 574a1–2, *GA* 4.2 766b34–35, 767a8–13.

A text in Galen also opposes the two philosophers and cites a line of poetry for each point of view (text below section E(b)§§1, 4). There is no trace of this opposition in Censorinus, but heat and cold form the third of the positions in ps.Galen *Def.Med.* This latter text differs, however, in attributing the sex differentiation to the semen rather than to the womb (this is not clear in A either). On Empedocles' theory see further Lesky (1951) 33–36. On the coupling of Parmenides and Empedocles in §§1–2 (also Parmenides in §4) see further Mansfeld (2015e) = (2018d) 192–193.

At §3 there is a silent transition to the remaining doxai, which explain the generation of males and females with reference to the normal processes of sexual intercourse alone. The first doxa ascribed to Hippo (on the name-label see below, section D(d)) stands on its own in giving an explanation of sex differentiation in terms of the nature of the semen involved in the conception (it must be male if the doxa is to be consistent with ch. 5.5.3). Comparison with Censorinus is instructive. He mentions Hippo together with Alcmaeon, the latter explaining the difference with reference to quantity, the former quality of seed. An Alcmaeon doxa may well have been originally present in A. On his prominence in Book 5 see Commentary on 5.3, D(d)§3. On this explanation see further Lesky (1951) 23–29.

The next two doxai ascribed to Anaxagoras–Parmenides and Leophanes (§§4–5) should be taken together. The explanation for this group is given in terms of differentiation between right and left, both with regard to the testicles and locations in the womb. For Anaxagoras the source is Aristotle *GA* 4.1 763b30–764a1, for Parmenides (ultimately) the line of his poem cited by Galen (fr. 28B17 DK). The theory allows for four possibilities: semen from right testicle in right part of womb = males, semen from left testicle in left part of womb = females, semen from right testicle in left part of womb = effeminate males, semen from left testicle in right part of womb = manly females. The doxa in A, which only allows for two possibilities, is not consistent with this more refined scheme. Tarán (1965) 264, building on Diels *DG* 194, proposes that the final two words be emended to γίνεσθαι (τὰ μὲν) θήλεα (ἀρρενικώτερα, τὰ δὲ ἄρρενα θηλυτέρα). Another possibility is Diels' simpler suggestion γίνεσθαι ἀρρενοθήλεα. But the mistake may well have lain with A and it would be unwise to introduce the emendation into the text. Both Censorinus and ps.Galen *Def.Med.* cite the view correctly as one of the possible explanations (but the former differs in attributing it also to Empedocles). The full four possibilities are given by Lactantius *Op.D.* 12.12–13, but without a name-label. On this explanation see further Lesky (1951) 39–56.

The name-label Leophanes is unique in the *Placita*. We may surmise that A (or his tradition) mentions the reference to him in Aristotle, i.e. at *GA* 4.1 765a25 because that is his only source of information about him. In this passage he is mentioned only for the specific detail of trying to determine the sex by tying up the left or the right testicle during intercourse. In A his doxa is generalized to a simple system where semen from the right testicle produces males, from the left females. Since this differs from the previous doxa if that is interpreted as a binary scheme (right right and left left as males, right left and left right as females), it is possible that A intended a diaphonia between these views, as in the case of §§1–2. But if so, it is not formulated at all clearly.

The final three doxai §§6–8 can be taken together. The doxai of the two atomists take as their starting-point the pan-genesis doctrine (see A 5.3.6). As A's slightly disparaging comment makes clear, Leucippus' explanation amounts to no more than a statement of the difference. The details in the original treatise (not transmitted via Aristotle) must have been scanty. At 1.25.4 A gives a rare quotation from Leucippus' Περὶ νοῦ. The present information may allude to the same work, which may have contained not only epistemology and psychology, but also physiological theories. It is rather unusual for the doxographer to include a critical remark; it may well have been taken over from his source. For example there are complaints about lack of precision and appropriate information at Theophrastus *Sens.* 4, 9, 33, 49, 92. Similarly Diogenes Laertius (or his source) will from time to time include criticism in his doxographical accounts, e.g. at 2.1 (on Anaximander), 9.9 on Heraclitus. On rare occasions A himself records critical remarks (ἐνστάσεις) of Peripatetic descent, notably at ch. 1.3.2 & 1.3.3.

Democritus, as Leucippus' pupil, is placed after him and by implication gives a more satisfactory explanation. The distinction is made between parts held in common by the two sexes and parts that they have individually as males or as females, i.e. the sexual parts. Their nature is determined by 'dominance', presumably of the male or the female semen (the existence of the latter is acknowledged for Democritus in A 5.5.1). This report could have its origin in Aristotle's mention of Democritus' theory in *GA* 4.1 765b6–11, where dominance is explicitly attributed to the role of the semen. Censorinus, however, appears to add further details involving the speed of semen, i.e. sex is determined by whichever semen gets to the vital place in the womb first. The anonymous reference to the ἰδιοσυγκρασία of the semen in ps.Galen would appear to be a reference to Democritus' theory. On this theory and the role of 'dominance' see Lesky (1951) 73–74.

The final doxa again has the name-label Hippo. It appears to have been added because it too involves the notion of 'dominance'. The two factors

involved are the male semen and the nutrition in the womb offered by the woman. On this view see further Lesky (1951) 27–28.

All in all, this chapter is another excellent example of the diaeretic method that A uses so frequently in his compendium. The chapter divides firstly, as noted above, into two separate temporal dimensions, (protologically) at the beginning of zoological life (§§1–2) and now (§§3–8). There are also four kinds of explanation in terms of (1) temperature of the womb, (2) nature of the semen, (3) right and left location (of testicles and womb), and (4) dominance. Within the four explanations there are further diaereses, certainly in (1), less clearly in (3) and (4). In (2) there is only one doxa, but here an Alcmaeon doxa may have been epitomised away by P. As we shall see below in section D(e), these diaereses correspond at least in part to what we find in the proximate witnesses.

In this chapter two name-labels are repeated. In the case of Parmenides there are explanations in terms of heat and cold (§1) and right and left (§4). These could be reconciled (parallelism of geographical and physiological characteristics), but this is no concern of A. Similarly the two doxai attributed to Hippo are compatible but have different roles to play within the chapter. As often doxai and the doctrinal positions they represent are more important for A than name-labels.

d Further Comments

Individual Points

§1 The mss. of G add to Empedocles the name-label Asclepiades. Diels *ad loc.* suggested it might have been imported from ch. 5.10 where the two name-labels follow each other (5.10.1–2). But he did not notice that in A 5.21.2 Asclepiades is also associated with a doxa that differentiates between male and female embryos in terms of heat (cf. also heat and cold in 5.30.7). This doxa is retained by G in his §125. Jas (2018a) 334 argues the name-label is likely to result from a marginal note referring to this other doxa that found its way into the text. This argument is not conclusive. The additional name-label might have referred only to the first part of the doxa. A can be quite careless in such matters. It should be noted, however, that G's reading is not supported by the papyrus snippet. Since G is opposed by all three other witnesses ^{PBQ}, it is perhaps safer to follow Jas' lead and not include the additional name in P, and so not in A as well.

§§1–2 We have cited below in section E(b)§§1, 4 the text of Galen's comment on Parmenides and Empedocles, which includes brief quotes from their poems, as it is found in the manuscripts. In determining the best text a distinction needs to be made between what the reading in Galen should be and what

the original text in the poems might have been. The doxographical contents of Galen's remark may have involved alteration of the original text at some stage in the tradition. It is certainly suggestive that the Empedoclean text as transmitted contains a reference to the earth (γᾶίης). This line could thus have been among the sources for A's doxa. We might translate 'for in the warmer part of the earth the male was found'. There is thus a link between physiological and geographical location (but this is not found in Aristotle's reference to Empedocles' view). See also the comment by Deichgräber (1930a) 375–376 in his review of Wenkebach's studies on Galen's text.

§3 The name-label Hipponax, here and in §8, is confirmed for the tradition of P by both Q and in G (§8 only). As Censorinus proves, it must refer to the philosopher Hippo, already cited in A 5.5.3 (and elsewhere only at A 4.3.9 on the nature of the soul). The alternative form of the name is only found with certainty here. Does the name go back to A, or is it a mistake introduced in the tradition of P? It would be most helpful to know what stood in S, but the name preserved by Photius in his listing of names (114b3) is the solecism Ἰππώνου, which might be the result of a misunderstood abbreviation on the part of a scribe (cf. Diels 1881, 346, note at DK 1.386). It should be noted that this name would be based on A 5.5.3, the first occurrence of the name in the work (ch. 4.3 was copied out later in *Ecl.* 1.49). It is difficult to believe that A would have not realised that the name-label in ch. 5.7 was the same as that in ch. 5.5. The reference to the philosopher at Anon.Lond. 11.23 unfortunately cannot help, since *pace* Jas it appears that both versions of the name can be read there; cf. Diels VS 233, Manetti (2011) 21. We apply the principle of charity and opt for the reading consistent with ch. 5.5.

§§6–7 μόρια in §6 must mean the constituent or vital parts, i.e. the sexual organs, whereas μέρη in §7 is used more generally and refers to all the parts of the body. It is difficult to be precise in what noun is understood with ἐξ ὁποτέρου, but the phrase refers to either parent or their semen. Remarkably the same word ὁποτέρου occurs at Aristotle *GA* 4.1 764a10, in the passage which is surely the ultimate source of the doxa.

§7 The theory of sex determination through 'dominance' is also attributed to the Peripatetic Strato at Galen *Sem.* 2.5.12, whose view as noted by De Lacy (1992) 242 resembles that of Democritus. Strato is cited together with the atomist in A 5.4.2 and on his own at A 5.8.2. It is not unlikely that his name-label was originally present in this chapter and excised by P.

e Other Evidence

As noted above in section B, the commonalities between A and the proximate witnesses are such that all documents must belong to a shared tradition. Cen-

sorinus has three of A's four main kinds of explanation: (1) nature of semen (Alcmaeon, Hippo); (2) dominance (Democritus, Parmenides); (3) right and left location (Anaxagoras, Empedocles). Surprisingly the explanation involving heat and cold is missing (and his linking of Empedocles with the right/left view must be wrong). Ps.Galen also has three of the main kinds of explanation, all without name-labels: (1) right and left location; (2) dominance (see above, section D(c) on how κατὰ τὴν τοῦ σπέρματος ἰδιοσυγκρασίαν should be interpreted); (3) heat and cold. Galen's comment on Parmenides and Empedocles may also have some kind of link to a doxographical tradition.

This chapter thus gives us a valuable glimpse of how the doxographical tradition derived its material. Five of the eight doxai can be traced back to works of Aristotle (esp. *GA*, but also *PA*), with even the occasional verbal reminiscence (see above, section D(d) on §7). As noted above, A himself refers to Aristotle for the mention of the rare name-label Leophanes (but in this doxa he uses the term δίδυμος and not ὄρχις as in Aristotle). However, the diaeresis that structures A's chapter cannot be clearly discerned in Aristotle's treatment. The diaphonia between the first two views is briefly noted in *PA* 2.2, but not in *GA* 4.1. Three of A's doxai cannot be paralleled in Aristotle (Hippo twice and Leucippus) and, as we saw, A does not mention the key figure Alcmaeon, to whom Censorinus does refer in his report. The doxographical tradition must therefore at some stage not only have absorbed additional views of Presocratic philosophers but also structured the collected material in ways that built upon but (as usual) went beyond the Stagirite's presentation in his biological works. Diels saw in this convergence evidence for the existence of the *Vetusta placita*; see *DG* 188–201, but we prefer to speak of 'intermediate doxographical traditions'.

For an intriguing Jewish rabbinic solution to the problem based on whether the seed of the woman or the man is emitted first, see Van der Horst (2018) 111–112.

E Further Related Texts

a Proximate Tradition

General texts: Censorinus *DN* 6.4–6 *ceterum ut mares feminaeve nascantur, quid causae esset varie ab isdem philosophis proditum est. nam ex quo parente seminis amplius fuit, eius sexum repraesentari dixit Alcmaeon* (24A14 DK); *ex seminibus autem tenuioribus feminas, ex densioribus mares fieri Hippon* (38A14 DK) *adfirmat* (~ §3); (5) *utrius vero parentis principium sedem prius occupaverit, eius reddi naturam Democritus* (68A143 DK) *rettulit* (cf. §7); *at inter se certare feminae et maris, et penes utrum victoria sit, eius habitum referri auctor est Parmenides* (28A54 DK). (6) *ex dextris partibus profuso semine mares gigni, at e laevis feminas, Anaxagoras* (59A111 DK ~ §4) *Empedoclesque* (31A81 DK)

consentiunt, quorum opiniones, ut de hac specie congruae, ita de similitudine liberorum dispariles ... (for continuation see on ch. 5.11). **ps.Galen Def.Med.** 446, p. 19.453.1–6 K. υμστ'. γίνεται δὲ τὸ ἄρρεν κατὰ μὲν τινὰς ἐπειδὰν τὸ ἐκ τῶν δεξιῶν ἀποσπασθὲν σπέρμα καταβληθῇ εἰς τὴν μήτραν· θήλυ δὲ ἐκ τῶν ἀριστερῶν (cf. §4). ἄλλοι δὲ ἔφασαν κατὰ τὴν τοῦ σπέρματος ἰδιοσυγκρασίαν (~ §7) ἦτοι παρὰ τὴν θερμότητα ἢ τὴν ψυχρότητα γίνεσθαι· τὸ μὲν γὰρ θερμότερον σπέρμα ποιεῖ τὸ ἄρρεν, τὸ δὲ ψυχρότερον τὸ θήλυ (~ §1). **Lactantius Op.D.** 12.12–14 Perrin (Parmenides 28A54; from Varro = Suppl. fr. 51 Salvatore) *disparēs quoque naturae hoc modo fieri putantur: cum forte in laevam uteri partem masculinae stirpis semen inciderit, marem quidem gigni opinatio est, sed quia sit in femina parte conceptus, aliquid in se habere femineum supra quam decus virile patiat, vel formam insignem vel nimium candorem vel corporis levitatem vel artus delicatos vel staturam brevem vel vocem gracilem vel animum inbecillum vel ex his plura.* (13) *item si partem in dexteram semen feminini generis influxerit, feminam quidem procreari, sed quoniam in masculina parte concepta sit, habere in se aliquid virilitatis ultra quam sexus ratio permittat, aut valida membra aut inmoderatam longitudinem aut fuscum colorem aut hispidam faciem aut vultum indecorum aut vocem robustam aut animum audacem aut ex his plura.*

Chapter heading: cf. **Codex Marcianus** 521 f. 100^r (DG p. 233 Diels, from *Def.Med.* 446) πότε ἄρρεν γίγνεται πότε θήλυ.

§3 **Hippo:** See **Censorinus** 6.4 quoted above (Hippo).

b Sources and Other Parallel Texts

General texts: **Aristotle GA** 4.1 763b20–26 περὶ μὲν οὖν τῆς γενέσεως τῆς τῶν ζῶων εἴρηται καὶ κοινῇ καὶ χωρὶς περὶ πάντων. ἐπεὶ δ' ἐν τοῖς τελειοτάτοις αὐτῶν ἐστὶ τὸ θήλυ καὶ τὸ ἄρρεν κεχωρισμένον, καὶ ταύτας τὰς δυνάμεις ἀρχὰς φαμεν εἶναι πάντων καὶ ζῶων καὶ φυτῶν, ἀλλὰ τὰ μὲν αὐτὰς ἀχωρίστους ἔχει τὰ δὲ κεχωρισμένους, λεκτέον περὶ τῆς γενέσεως τῆς τούτων πρώτων ... **GA** 4.3 769a1–6 διὰ τίνα μὲν οὖν αἰτίαν θήλεα καὶ ἄρρενα γίγνεται ... διώρισται περὶ πάντων. **GA** 769b3–10 οὐ ῥάδιον δὲ οὐδὲ τρόπον ἓνα τῆς αἰτίας ἀποδιδόντας τὰς αἰτίας εἰπεῖν περὶ πάντων, τοῦ τε γίνεσθαι θήλυ καὶ ἄρρεν καὶ διὰ τί τὸ μὲν θήλυ τῷ πατρὶ πολλὰκις ὅμοιον τὸ δ' ἄρρεν τῇ μητρὶ (cf. ch. 5.11), καὶ πάλιν τῆς πρὸς τοὺς προγόνους ὁμοιότητος (cf. ch. 5.11), ἔτι δὲ διὰ τίν' αἰτίαν ὅτε μὲν ἄνθρωπος μὲν τούτων δ' οὐθενὶ προσόμοιος, ὅτε δὲ προῖον οὕτω τέλος οὐδὲ ἄνθρωπος ἀλλὰ ζῶόν τι μόνον φαίνεται τὸ γιγνόμενον, ἃ δὴ καὶ λέγεται τέρατα (cf. ch. 5.9).

Chapter heading: cf. **Aristophanes of Byzantium Epit.HA** 1.84 ἄρρενα δὲ φησιν ἢ θήλεα γίνεσθαι παρὰ τὸ πεπέφθαι ὑπὸ θερμοῦ ἢ ἄπεπτον εἶναι τὸ τοῦ ἀνδρὸς σπέρμα. cf. *Epit.HA* 2.36 cited on ch. 5.8. **Pliny Nat.** 1 Index Liber VII *de homine ... de generatione hominum.*

§§1–2 **Empedocles Parmenides:** **Aristotle PA** 2.2 648a25–31 ἔνιοι γὰρ τὰ ἔνυδρα τῶν πεζῶν θερμότερά φασιν εἶναι, καὶ τὰ ἄναιμα τῶν ἐναίμων καὶ τὰ θήλεα τῶν ἀρρένων, οἷον Παρμενίδης (28A52 DK) τὰς γυναικας τῶν ἀνδρῶν θερμότερας εἶναι φησι καὶ ἕτεροὶ τινες, ὥς διὰ τὴν θερμότητα καὶ πολυαιμούσαις γινομένων τῶν γυναικείων, Ἐμπεδοκλῆς (—) δὲ τοὐναντίον. cf. **GA** 4.1 765b19–22 καὶ ἔστιν αὐτὸ

τουναντίον σημεῖον ἢ δι' ἥνπερ αἰτίαν οἶονταί τινες τὸ θῆλυ θερμότερον εἶναι τοῦ ἄρρενος, διὰ τὴν τῶν καταμηνίων πρόεσιν.

§1 *Empedocles*: Empedocles 31B67 DK, see verses cited in text of Galen below. Aristotle GA 4.1 764a1–15 οἱ δ' ἐν τῇ μήτρᾳ, καθάπερ Ἐμπεδοκλῆς (31A81 DK)· τὰ μὲν γὰρ εἰς θερμὴν ἐλθόντα τὴν ὑστέραν ἄρρενα γίνεσθαι φησι τὰ δ' εἰς ψυχράν θήλεα, τῆς δὲ θερμότητος καὶ τῆς ψυχρότητος τὴν τῶν καταμηνίων αἰτίαν εἶναι ῥύσιν, ἢ ψυχροτέραν οὖσαν ἢ θερμότεραν καὶ ἢ παλαιότεραν ἢ προσφατωτέραν. ... τοῦτο γὰρ ὡς ἀληθῶς Ἐμπεδοκλῆς ῥαθυμότερον ὑπέιληφεν οἰόμενος ψυχρότητι καὶ θερμότητι διαφέρειν μόνον ἀλλήλων, ὁρῶν ὅλα τὰ μόρια μεγάλῃν ἔχοντα διαφορὰν τὴν τε τῶν αἰδοίων καὶ τὴν τῆς ὑστέρας. GA 4.1 765a9–11, ὁμοίως ἀναγκαῖον ἀπαντᾶν καὶ πρὸς τὸν Ἐμπεδοκλέους λόγον ὃς διορίζει τὸ θῆλυ πρὸς τὸ ἄρρεν θερμότητι καὶ ψυχρότητι τῆς ὑστέρας. see also GA 1.18 722b7–30, 4.1 764b4–765a3 (on semen and offspring). Galen *Hipp.Epid.* 6.48, p. 119.12–120.2 Wenkebach τὸ μέντοι ἄρρεν ἐν τῷ δεξιῷ μέρει τῆς μήτρας κυῖσκεσθαι καὶ ἄλλοι τῶν παλαιοτάτων ἀνδρῶν εἰρήκασιν. ὁ μὲν γὰρ Παρμενίδης (28B17 DK) οὕτως ἔφη· 'δεξιτεροῖσιν μὲν κούρους, λαιοῖσιν δ' αὐ κούρας,' ὁ δ' Ἐμπεδοκλῆς οὕτως (31B67 DK)· 'ἐν γὰρ θερμότερῳ τὸ κατ' ἄρρενα ἔπλετο γυῖφ [earlier editors γαίης; Diels emends to τοκάς ἄρρενος ἔπλετο γαστήρ(?)], / καὶ μέλανες διὰ τοῦτο καὶ ἄδρομελέστεροι ἄνδρες / καὶ λαχνήεντες μάλλον.'

§2 *Parmenides*: cf. Aristotle GA 4.2 766b34–35 καὶ τὸ βορείοις ἄρρενοτοκεῖν μάλλον ἢ νοτίοις (διὰ ταῦτο συμβαίνει· ὑγρότερα γὰρ τὰ σώματα νοτίοις suppl. Peck) ὥστε καὶ περιττωματικώτερα. GA 4.2 767a9–13 φασὶ δὲ καὶ οἱ νομεῖς διαφέρειν πρὸς θηλυγονίαν καὶ ἄρρενογονίαν οὐ μόνον ἐὰν συμβαίῃ τὴν ὀχείαν γίνεσθαι βορείοις ἢ νοτίοις ἀλλὰ καὶ ὀχευόμενα βλέπη πρὸς νότον ἢ βορέαν· οὕτω μικρὰν ἐνίστοε ῥοπήν αἰτίαν γίνεσθαι τῆς ψυχρότητος καὶ θερμότητος, ταῦτα δὲ τῆς γενέσεως.

§4 *Anaxagoras Parmenides*: Parmenides 28B17 DK, see verses quoted in text Galen cited above. *Corpus Hippocraticum Aph.* 5.48, p. 4.550.1–2 Littré ἔμβρυα τὰ μὲν ἄρρενα ἐν τοῖσι δεξιόισι, τὰ δὲ θήλεα ἐν τοῖσιν ἀριστεροῖσι μάλλον. Aristotle GA 4.1 763b27–764a1 πότερον δὲ καὶ πρὶν δῆλῃν τὴν διαφορὰν εἶναι πρὸς τὴν αἴσθησιν ἡμῶν τὸ μὲν θῆλυ τὸ δ' ἄρρεν ἐστίν, ἐν τῇ μητρὶ λαβόντα τὴν διαφορὰν ἢ πρότερον, ἀμφισβητεῖται. φασὶ γὰρ οἱ μὲν ἐν τοῖς σπέρμασιν εἶναι ταύτην τὴν ἐναντίωσιν εὐθύς, οἷον Ἀναξαγόρας (59A107 DK) καὶ ἔτεροι τῶν φυσιολόγων· γίνεσθαί τε γὰρ ἐκ τοῦ ἄρρενος τὸ σπέρμα, τὸ δὲ θῆλυ παρέχειν τὸν τόπον, καὶ εἶναι τὸ μὲν ἄρρεν ἐκ τῶν δεξιῶν τὸ δὲ θῆλυ ἐκ τῶν ἀριστερῶν [καὶ τῆς ὑστέρας τὰ μὲν ἄρρενα ἐν τοῖς δεξιόις εἶναι τὰ δὲ θήλεα ἐν τοῖς ἀριστεροῖς secl Peck 'nam argumento aliena; cf. 765a22']. Hippolytus *Ref.* 1.8.12 (on Anaxagoras, 59A42 DK), καὶ ἄρρενας μὲν γίνεσθαι, ὅταν ἀπὸ τῶν δεξιῶν μερῶν ἀποκριθὲν τὸ σπέρμα τοῖς δεξιόις μέρεσι τῆς μήτρας κολληθῇ, τὰ δὲ θήλεα κατὰ τουναντίον. Galen *Hipp.Epid.* 6.48, p. 119.12–120.2 cited above on §1. See also Censorinus *DN* 5.2 *igitur semen unde exeat inter sapientiae professores non constat. Parmenides* (28A53 DK) *enim tum ex dextris tum e laevis partibus oriri putavit.*

§5 *Leophanes*: Aristotle GA 4.1 765a21–25 παραπλησίως δὲ τινες πεπεισμένοι τούτοις εἰσὶ καὶ λέγουσιν ὡς τὸν δεξιὸν ὄρχιν ἀποδομένους ἢ τὸν ἀριστερὸν συμβαίνει τοῖς ὀχεύουσιν ἄρρενοτοκεῖν ἢ θηλυτοκεῖν· οὕτω γὰρ καὶ Λεωφάνης ἔλεγεν.

§7 *Democritus: Aristotle GA 4.1 764a6–11* Δημόκριτος δὲ ὁ Ἀβδηρίτης (68a143 DK) ἐν μὲν τῇ μητρὶ γίγνεσθαι φησι τὴν διαφορὰν τοῦ θήλεος καὶ τοῦ ἄρρενος, οὐ μέντοι διὰ θερμότητά γε ἢ ψυχρότητα τὸ μὲν γίγνεσθαι θῆλυ τὸ δ' ἄρρεν ἀλλ' ὁποτέρου ἂν κρατήσῃ τὸ σπέρμα τὸ ἀπὸ τοῦ μορίου ἐλθὼν ᾧ διαφέρουσιν ἀλλήλων τὸ θῆλυ καὶ τὸ ἄρρεν. *Nemesius NH 25*, pp. 86.19–87.4 cited on ch. 5.5 (but the doxa is mistaken). cf. *Galen Sem. 2.5.12*, p. 182.8–10 De Lacy ὥστ' οὐκ ἂν ἀπο τρόπου δόξειενό φυσικὸς Στράτων ὑπειληφέναι, τὸ μὲν ἄρρεν γίνεσθαι ζῶον ἐπικρατεῖα γονῆς ἄρρενος, τὸ δὲ θῆλυ θηλείας.

Liber 5 Caput 8

P^B: ps.Plutarchus *Plac.* 905F–906A; pp. 420^a19–421^a5 Diels—**P^G**: ps.Galenus *HPh* c. 112; p. 641.16–20 Diels; pp. 346–351 Jas—**P^L**: *Mens.* 4.84, pp. 134.21–135.2 Wuensch—**P^Q**: Qustā ibn Lūqā pp. 222–223 Daiber—**P^{Ps}**: cf. Psellus *Phil.Min.* 1 op. 16 p. 53 Duffy (titulus solus)
S^L: Stobaeus *Ecl.* 1. 42.6, p. 1. 295.12 Wachsmuth (titulus solus)

Titulus η'. Πῶς τέρατα γίνεται (P,cf.S)

- §1 Ἐμπεδοκλῆς τέρατα γίνεσθαι παρὰ πλεονασμὸν σπέρματος ἢ παρ' ἔλλειψιν ἢ παρὰ τὴν τῆς κινήσεως ταραχὴν ἢ παρὰ τὴν εἰς πλείω διαίρεσιν ἢ παρὰ τὸ ἀπονεύειν· οὕτω προειληφῶς φαίνεται σχεδόν τι πάσας τὰς αἰτιολογίας. (P1)
- §2 Στράτων παρὰ πρόσθεσιν ἢ ἀφαίρεσιν ἢ μετάθεσιν ἢ ἐμπνευμάτωσιν. (P2)
- §3 τῶν ἱατρῶν τινες παρὰ τὸ διαστρέφεσθαι τότε τὴν μήτραν ἐμπνευματουμένην. (P3)

5

§1 Empedocles 31A81; §2 Strato fr. 99 Wehrli, 74 Sharples; §3 —

titulus γίνεται **PBG1** **S^L**-ind: γίνονται **P^{G2}**, cf. **P^{Ps}** §1 [2] post nomen hab. νομίζει **P^G** || σπέρματος] πνεύματος **P^L** || [3] ἔλλειψιν **P^{B1}**: ἔλλειμα **P^G** || ταραχὴν **P^{GQ}** Diels Mau Lachenaud : ἀρχὴν **P^B** prob. Vitek : al. **P^L** ὑπερβολὴν || [4] παρὰ τὸ ἀπονεύειν **P^B**, cf. *infolge seine Neigung zu irgendem Teil* Q : παρὰ ἀπόνευσιν **P^G** emend. Jas (ἀπόπνευσιν mss. Diels) || post ἀπόνευσιν add. **P^G** τέρατα γίνεσθαι || [4–5] οὕτω ... αἰτιολογίας om. **P^G** || [5] αἰτιολογίας corr. Reiske : ἀπολογίας **P^B**, *gibt er ... die Antwort auf den ganzen Fragenkomplex über die Geschädigten* Q (fort. interpretatio sec. Daiber) §2 [6] Στράτων] Πλάτων **P^L** || πρόσθεσιν **P^{B(1,111)GLIQ}** : πρόσθεσιν **P^{B(1)L2}** || ἢ ἀφαίρεσιν ἢ μετάθεσιν **P^{B1Q}** : om. **P^G** || ἐμπνευμάτωσιν **P^G** Diels : πνευμάτωσιν **P^{B1}** Mau Lachenaud §3 [8] post τινες add. δὲ **P^G** || τότε **P^B** : om. **P^{GQ}**(ut vid.)

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 112 (~ tit.) Πῶς τέρατα γίνονται (text Jas)

112.1 (~ P1) Ἐμπεδοκλῆς νομίζει σπέρματος παρ' ἔλλειμα ἢ παρὰ τὴν τῆς κινήσεως ταραχὴν ἢ παρὰ τὴν εἰς πλείω διαίρεσιν ἢ παρὰ ἀπόνευσιν τέρατα γίνεσθαι.

112.2 (~ P2) Στράτων παρὰ πρόσθεσιν ἢ ἐμπνευμάτωσιν.

112.3 (~ P3) τῶν ἱατρῶν τινες δὲ παρὰ τὸ διεστράφθαι τὴν μήτραν ἐμπνευματουμένην.

Ioannes Lydus *Mens.* 4.84 ὅτι ὁ Στράτων (mss. Πλάτων) κατὰ πρόσθεσιν ἢ ἀφαίρεσιν ἢ μετάθεσιν ἢ πνευμάτωσιν συμβαίνειν λέγει τοὺς τερατώδεις τοκετοὺς (~ P2), ὁ δὲ Ἐμπεδοκλῆς αὐτὴν τοῦ πνεύματος τὴν ἔλλειψιν ἢ ὑπερβολὴν αἰτιάται (~ P1).

Cf. Psellus *Phil.Min.* 1 c. 16 p. 53 Duffy Διὰ τίνα αἰτίαν τῶν γεννωμένων τινὰ τερατοειδῆ γίνονται.

Loci Aetiani:

§1 5.10.1 Ἐμπεδοκλῆς δίδυμα καὶ τρίδυμα γίνεσθαι κατὰ πλεονασμὸν καὶ περισχισμόν τοῦ σπέρματος. A 5.19.6 Ἐμπεδοκλῆς τὰς πρώτας γενέσεις τῶν ζώων καὶ φυτῶν μηδαμῶς ὁλοκλήρους γενέσθαι, ἀσυμφυέσι δὲ τοῖς μορίοις διεζευγμένas κτλ.

§2 A 5.6.1 Ἀριστοτέλης ... μὴ γίνεσθαι δὲ τὰς κυήσεις παρ' ἀκαθαρσίαν τῆς μήτρας ἢ ἐμπνευμάτωσιν.

§3 A 5.9.3 (*cur conceptus non occurrit*) Ἐρασίστρατος παρὰ τὴν μήτραν, ὅταν τύλους ἔχῃ καὶ σαρκώσεις ἢ ἀραιότερα ἢ τοῦ κατὰ φύσιν ἢ μικροτέρα. A 5.13.1 οἱ ἱατροὶ στείρας γίνεσθαι παρὰ τὴν μήτραν ...

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

There are four witnesses to this chapter, P^B, Q and G, three of whom record the three same lemmata (with some abbreviation in G), and L who offers a paraphrase, first a full one of the second lemma, followed by a partial one of the first. Ps does not refer to the chapter in his *Omn.Doctr.*, but there may be a reminiscence of the heading in *Opusc.* 16.7 (a possible reference to the first doxa in one of his minor works, Συλλογαὶ διάφοροι καὶ ποικίλαι, is taken from Philoponus; see text below section E(b)§1). On the inclusion of the heading in S^L see the Commentary on chs. 5.5 and 5.6.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The only closely related text is found in ps.Galen *Def.Med.* 449, which gives significant parallels to the material in all three doxai, though without name-labels.

(2) *Sources.* Aristotle raises the quaestio of the occurrence of *monstra* in *GA* 4.3–4. It is introduced at 4.3 767b7, where the term τέρας is used, as part of the subject of resemblance to parents. It is treated at considerable length, but there are no direct links with A's chapter. This is illustrated by the fact that his doxographical report on Democritus (4.3 769b30–34 = 68A146 DK, cited below—the text is partly corrupt) appears to correspond to the first explanation in the list that A attributes to Empedocles.

C Chapter Heading

There is agreement on the heading in all the witnesses that we have (the heading in Ps is an expansion). Its formulation follows on from that of the previous two chapters, with πῶς indicating that the chapter deals with the cause of the phenomena (note the term αἰτιολογία in the first doxa and Ps' interpretation διὰ τίνα αἰτίαν). It is thus yet another example of the question type of διὰ τί. On this question type see ch. 1.4 Commentary C.

On the chapter headings in S^L see above, ch. 5.4 Commentary C. The heading for this chapter is identical to that found in the tradition of P, but as in the case of the previous chapter 5.7, there are no grounds for concluding that it must be interpolated from there.

D Analysis

a Context

The subject follows on logically from the previous chapters: from chs. 5.3–5 because of the crucial role of male and female semen; from 5.6 because the causes relate primarily to the process of conception; from 5.7 because of the aspect of differentiation; and from both 5.6–7 through the role of the womb. All these factors here result in defective births.

b Number–Order of Lemmata

It can be considered almost certain that the chapter is incomplete as transmitted by P. For example, as noted above, Aristotle has a section on Democritus' treatment of the question which gives a different cause (mixing of semen leading to disorder of parts, cf. also the text in ps.Arist. *Probl.* 10.61) that has not been included. One might have expected some illustrations of the kind of deformation involved (as in the *Def.Med.* text). Also lacking is any reference to theories involving damage at the moment of birth, e.g. Parmenides fr. 28B18 DK (on which see Bien 1997, 85–95).

c Rationale–Structure of Chapter

The three doxai are so compactly formulated as to be quite cryptic. There are ten causes listed, all using the παρά plus noun or infinitive construction: five in the first doxa (Empedocles), four in the second (Strato), and one in the third (doctors). Taking our cue from the parallel at *Def.Med.* 449 (on which see below, section D(e)), we can discern two main clusters of causes, the one involving the nature or interaction of both male and female semen, the other movements of or occurrences in the womb. Thus in the case of the second doxa attributed to Strato, the first two relate to semen, the last two to the womb, but in the absence of the relevant possessive genetives, the doxai are unclear. We note

that there is also overlap between the various causes presented. Thus Strato's first and second cause are parallel to Empedocles' first and second, his third to Empedocles' third, while the fourth is no doubt linked to that of the doctors in the final lemma.

The focus on the womb that we find in all three doxai recurs in A 5.9.3 with the name-label of the doctor Erasistratus, which suggests that the name of the Alexandrian may lie behind the anonymised τῶν ἱατρῶν τινες here. The same may be the case in A 5.13.1, where the name-label is simply οἱ ἱατροί.

A thorough analysis of the doxographical material in A, supplemented by ps.Galen and Aristotle, has been given by Bien in his monograph on defective births (1997). He argues (67–84) for the following categories of causes:

- (a) excess or deficiency of semen (Empedocles, Strato, ps.Galen *Def.Med.* without name-label, Democritus in Aristotle);
- (b) disturbed movement of semen (Empedocles, Strato);
- (c) pneumatic causes (Strato, cf. doctors);
- (d) anomalies of formation in the womb (Empedocles, doctors, anonymi in ps.Galen *Def.Med.*).

Because of the cryptic nature of the text, this taxonomy of causes cannot be considered certain. The category (b) is more likely to refer to the womb. In addition *pneuma* plays some kind of role in both (c) and (d). What all these texts have in common, as well noted by Bien (1997) 77, is that they focus on physical causes of misformation, most involving the role of semen. There is no use made of the concept of 'powers', as in Parmenides fr. 28B18 DK, or of the concepts of form and matter, as in Aristotle's treatment (cf. *GA* 4.3–4).

Because of the various overlaps noted above, A's three doxai do not form as clear a diaeresis as we find in ps.Galen. At most it can be said that the second doxa attributed to Strato seems to have a bridging role, since its first three causes link up with the first doxa, whereas its fourth involving *pneuma* makes a link to the third doxa of the doctors. But our doxographer does little more than list the causes and gives no clear guidance on how they can be systematically analysed. In particular it is noteworthy that no correlations are made with the chapters on semen presented earlier in ch. 5.3–5. The role of semen is stated in the case of the first cause (παρὰ πλεονασμὸν σπέρματος) and after that is not referred to or explained in any way. This is quite disappointing.

In this context A's unparalleled remark that Empedocles 'plainly anticipates almost all the causes that can be given' is of interest because it expresses his conviction that he is presenting a reasonably exhaustive list. The claim is rather overblown, however, because in fact other causes can be given. For example, the questions of flawed development during pregnancy and physical or mental impairment resulting from occurrences during the process of birth are not

mentioned. In addition A does not mention the special case of hermaphroditism, which attracts a great deal of comment and attempted explanation in ancient texts (and has its own section in the doxography at ps.Galen *Def.Med.* 448 just preceding that on *monstra*).

d Further Comments

Individual Points

§1 The phrases *παρὰ πλεονασμὸν* and *παρ' ἑλλειψιν* are exactly paralleled in ps.Galen *Def.Med.* (although the order is reversed, as in Lydus who uses the different term *ὑπερβολή*) and are illuminated by the examples he gives, e.g. excessively large or small heads, or an excessive (or, we might add, deficient) number of fingers or toes. For *παρὰ τὴν εἰς πλείω διαίρεσιν* one might think of multiple heads (cf. Arist. *GA* 4.3 769b27). But for twins see the next chapter, 5.10. It is unclear, however, what kind of cause 'inclining away' (*παρὰ τὸ ἀπονεύειν*) might be. It could refer to the semen which 'inclines' away from realizing all its contents (Empedocles is following the pan-genesis doctrine of conception) and so results in a lack of vital parts, such as a limb or even a head. But the verb is used of the womb elsewhere, e.g. in the *Corpus Hippocraticum* at *Mul.* 47 ἦν αἱ μήτραι κατὰ τὰ ἀριστερὰ νεύωσι, so it may refer to the wrong position of the womb, which can interfere with the proper reception of the semen; cf. the emphasis on the role of the womb in ch. 5.6.

Empedocles famously described the birth of strange creatures with double faces etc. in his cosmological poem (cf. fr. 31B57–61 and A 5.19.6 DK). Unlike in A 5.7.1 and elsewhere, the cosmogonic aspect of the topic does not occur here, but may have been excised by P in the process of epitomisation. Lucretius *DRN* 5.837–855 describes the birth of various kinds of monsters, including hermaphrodites, when the earth was young.

§2 Lydus' mistake in reading Πλάτων instead of Στράτων also occurs in P and his tradition at 5.24.4 if Corsinus' emendation is accepted (as we do). It is a commonly occurring error. In this case (unlike in ch. 5.24), it has had the consequence that the collections of Strato's fragments by Wehrli (fr. 99) and Sharples (fr. 74) overlook Lydus' text. It is cited at M–R 1.169.

The reading in G *ἐμπνευμάτωσιν* is to be preferred above *πνευμάτωσιν* in P^B and L because it is a much more common physiological and medical term and is also used, in a different context, in ch. 5.6.1. When discussing the pathology of the womb, Soranus *Gyn.* 3.47 mentions the *ἑκκρισις πνεύματων*, but not that these lead to the womb's twisting.

For *μετάθεις* one might note Aristotle's listing of kinds of deformations observed in animals at *GA* 4.3 770b37–771a2 (text below section E(b)§2). He gives the example of animals having organs switched around, e.g. the liver on

the right and the spleen on the left. This supports the interpretation that the phenomenon relates to the womb.

§3 Soranus *Gyn.* 3.47 devotes a chapter to the inflation of the womb, but does not describe the phenomenon of ‘twisting’ or relate it to the occurrence of *monstra*.

e Other Evidence

As noted above in D(c), the brief report in ps.Galen *Def.Med.* 449 has a clearer structure with its diaeresis between (a) the twisting of the womb (cf. A §3) and (b) deficiency or excess of semen (cf. A §1), which reverses the order given to the causes in §§1–2. However, the parallelism of the two texts is sufficient to indicate a common tradition (cf. ch. 5.7), in which Empedocles will have played a prominent role. It is very likely that A based his material, and no doubt also his additional comment, on what he found there. This tradition will have taken its lead from Aristotle’s treatment of the subject in *De generatione animalium*, but as we observed in section B above, does not appear to have been strongly dependent on it.

E Further Related Texts

a Proximate Tradition

General texts: ps.Galen *Def.Med.* 449, pp. 19.453.15–454.5 K. υμβ’. τέρατα γίνε-ται, ὡς μὲν τινες λέγουσι, κατὰ παρέγκλισιν τῆς μήτρας· τὸ γὰρ σπέρμα παρεγγεό-μενον ἀνωμάλως ποιεῖ τὰ τέρατα, ὃν τρόπον καὶ τὸν μόλιβδον θερμὸν ὄντα, ἐπειδὰν καταχυθῇ ἀνωμάλως, ἀνώμαλον ποιεῖ τὸ δημιούργημα. ἢ τὰ τέρατα ἦτοι κατ’ ἔλλει-ψιν ἢ κατὰ πλεονασμὸν γίνεται· καὶ τὰ μὲν κατὰ μέγεθος ὡς τὰ μεγαλοκέφαλα, τὰ δὲ κατὰ σμικρότητα ὡς τὰ στρουθοκέφαλα, τὰ δὲ κατὰ πλεονασμὸν ὥσπερ τὰ ἐξα-δάκτυλα, ἔσθ’ ὅτε δὲ καὶ πλεοναδάκτυλα.

Chapter heading: see ps.Galen *Def.Med.* 449 cited above. also **Codex Marcianus** 521 f. 100^r (*DG* p. 233 Diels, from *Def.Med.* 449) πῶς γίγνεται (τέρατα) [coni. Diels].

b Sources and Other Parallel Texts

General texts: Aristotle *GA* 4.3 767a36–b7 αἱ δ’ αὐταὶ αἰτίαι καὶ τοῦ τὰ μὲν εἰ-κότα γίγνεσθαι τοῖς τεκνώσασσι τὰ δὲ μὴ εἰκότα, ... τὰ δ’ οὐθενὶ τῶν συγγενῶν ὁμῶς δ’ ἀνθρώπῳ γέ τι, τὰ δ’ οὐδ’ ἀνθρώπῳ τὴν ἰδέαν ἀλλ’ ἤδη τέρατι. καὶ γὰρ ὁ μὴ εἰ-κὼς τοῖς γονεῦσιν ἤδη τρόπον τινὰ τέρας ἐστίν· παρεκβέβηκε γὰρ ἡ φύσις ἐν τούτοις ἐκ τοῦ γένους τρόπον τινὰ ... *GA* 4.3 769b3–11 οὐ ῥάδιον δὲ οὐδὲ τρόπον ἓνα τῆς αἰτίας ἀποδιδόντας τὰς αἰτίας εἰπεῖν περὶ πάντων· ... ἔτι δὲ διὰ τίν’ αἰτίαν ὅτε μὲν ἄνθρωπος μὲν τούτων δ’ οὐθενὶ προσόμοιος, ὅτε δὲ προῖον οὕτω τέλος οὐδὲ ἄνθρω-πος ἀλλὰ ζῶν τι μόνον φαίνεται τὸ γιγνόμενον, ἃ δὴ καὶ λέγεται τέρατα. καὶ γὰρ ἐχόμενον τῶν εἰρημένων ἐστὶν εἰπεῖν περὶ τῶν τοιούτων (i.e. τέρατα) τὰς αἰτίας. **Aristophanes of Byzantium** *Epit.HA* 1.90 τὰ δὲ τερατώδη καὶ πλεονάσαντα ἢ

ἐλλείποντα τοῖς μορίοις οἷον δακτύλοις ἢ ποσὶν ἢ ἄλλοις παρὰ τὴν τῆς ὕλης γίνεται ἢ ἔλλειψιν ἢ πλεονασμόν. **Soranus Gyn.** 3.47 Περί ἀτονούσης μήτρας. ὥσπερ καὶ τὰ ἄλλα μόρια τοῦ σώματος, οὕτως καὶ ἡ μήτρα ἐνίοτε ἀτονεῖ. παρέπεται δὲ ταῖς τοιαύτα πασχούσαις συνουσίας ἀποστροφή, ἔκκρισις πνευμάτων, πλεονασμός καταμηνίων δις ἢ τρίς ἐπιφαινομένων τοῦ μηνὸς ἀτάκτως, μελάνων, ὕδατωδῶν, ἀκρατησία τοῦ σπέρματος.

Chapter heading: cf. **Aristotle GA** 4.3 769b31 cited below §1. **Aristophanes of Byzantium Epit.HA** 2.36 καὶ περὶ μὲν κηρύσεως καὶ χρόνου οὐκ αἶει οὕτως, περὶ δὲ ἐκτέξεως καὶ διδύμων καὶ τερατωδῶν καὶ πῶς ἄρρεν ἢ θήλυ καὶ περὶ τροφῆς βρέφους καὶ ἀπογαλακτίσεως καὶ καταμηνίων ἐπισχέσεως καὶ τὸ ὅλον τῆς τοῦ σπέρματος οὐσίας καὶ πόθεν φέρεται κατὰ τὸ οἰκεῖον ἐν τῷ πρὸ τούτου συντάγματι καταριθμήσας ἐξεθέμην. cf. **Pliny Nat.** 1 Index Liber VII *monstruosi partus*.

§1 Empedocles: cf. **Aristotle GA** 4.3 769b30–34 Δημόκριτος (68A146 DK) μὲν οὖν ἔφησε γίνεσθαι τὰ τέρατα διὰ τὸ δύο γονὰς πίπτειν, τὴν μὲν πρότερον ὀρμήσασαν καὶ μὴ ἐξελθοῦσαν τὴν δ' ὕστερον καὶ ταύτην ἐξελθοῦσαν [ἐπελθοῦσαν Diels] ἔλθειν εἰς τὴν ὑστέραν, ὥστε συμφύεσθαι καὶ ἐπαλλάττειν τὰ μόρια. also **ps.Aristotle Probl.** 10.61 898a14–16 τὰ δὲ τέρατα γίνεται ἐπαλλαττόντων τῶν σπερμάτων ἀλλήλοις καὶ συγχεομένων ἐν τῇ ἐξόδῳ τῆς γονῆς ἢ ἐν τῇ μίξει τῇ ἐν τῇ ὑστέρα τῆς θηλείας. cf. **Lucretius DRN** 837–855 *multaque tum tellus etiam portenta creare / conatast mira facie membrisque coorta, / androgynem, interutras nec utrumque utrimque remotum, / orba pedum partim, manuum viduata vicissim, / muta sine ore etiam, sine vultu caeca reperta, / vinctaque membrorum per totum corpus adhaesu, / nec facere ut possent quicquam nec cedere quoquam / nec vitare malum nec sumere quod volet usus. / cetera de genere hoc monstra ac portenta creabat, / ne quicquam, quoniam natura absterruit auctum / nec potuere cupitum aetatis tangere florem / nec reperire cibum nec iungi per Veneris res. / multa videmus enim rebus concurrere debere, / ut propagando possint procudere saecula; / pabula primum ut sint, genitalia deinde per artus / semina qua possint membris manare remissis, / feminaque ut maribus coniungi possit, habere, / mutua qui mutant inter se gaudia uterque.* **John Philoponus in de An.** 14.1–8 ἀλλ' ἴσως ἀπορήσειέ τις, πόθεν οὖν τὰ τέρατα; οὐ παρὰ τὸ ἐνδεῖν ἢ πλεονάζειν τὸ σπέρμα; διὰ τί δὲ πάλιν εἰ ἀποτμηθεῖ τοῦ σίτου μόριον, οὐκέτι βλαστάνει τὸ λοιπόν; διὰ τί δὲ ἢ φλοιὸς οὐ βλαστάνει ἢ φύλλον ἢ τι τοιοῦτον; καίτοι καὶ ταῦτα μόρια τοῦ δένδρου εἰσὶ. λέγω οὖν περὶ μὲν τῶν τεράτων ὅτι ἡ ὕλη ἐστὶν ἡ αἰτία, ἐπειδὴ δεῖ καὶ ἐπιτηδειότητος τῆς ὕλης κατὰ τε τὸ ποσὸν καὶ τὸ ποιόν· ὕλη δὲ τῶν ζώων τὸ κατὰ μῆνιον· αὕτη οὖν πλεονάζουσα ἢ ἐνδέουσα ἢ παρὰ φύσιν πεποιομένη, τῶν τεράτων ἐστὶν αἰτία. cf. **Psellus Phil.Min.** 2.13, p. 33.20 O'Meara (based on Philoponus).

§2 Strato: **Aristotle GA** 4.4 770b37–771a2 γίνονται δὲ μεταβολαὶ καὶ πηρώσεις καὶ περὶ τὰ ἐντὸς μόρια τῷ ἢ μὴ ἔχειν ἔνια ἢ κεκολωμένα ἔχειν καὶ πλεῖω καὶ μεθεστῶτα τοὺς τόπους. see also texts cited on §1.

§3 Other doctors: **Soranus Gyn.** 3.31 Περί ἐμπνευματώσεως μήτρας. ἐμπνευματοῦσθαι πέφυκεν ὑστέρα μετὰ τοὺς τοκετοὺς ἐκ ψύξεως ἢ φθορᾶς ἢ δυστοκίας μύσαντος τοῦ στομίου ἢ θρόμβου παρασφηνωθέντος αὐτῷ τοῖς ἄλλοις ὁμοίως κτλ.

Liber 5 Caput 9

PP: *Papyrus Antinoopolis* 85 fr. 7 recto pp. 79–80 Barns–Zilliacus; **PB**: ps.Plutarchus *Plac.* 906A–B; p. 421*6–22 Diels—**PG**: ps.Galenus *HPh* c. 113; p. 641.21–642.2 Diels—**PQ**: Qustā ibn Lūqā pp. 222–225 Daiber—**PPs**: Psellus *Omn.Doctr.* c. 112.1–8, p. 61 Westerink
SL: ms. Stobaei (titulus solus), deest in ed. Wachsmuth, sed cf. pinacem ap. Wachsmuth (1882) 17 et vid. Diels *DG* 271, Elter (1880) 73

Titulus θ'. Διὰ τί γυνή πολλάκις συνουσιάζουσα οὐ συλλαμβάνει (P,cf.S)

- §1 Διοκλῆς ὁ ἱατρὸς ἢ παρὰ τὸ μηδ' ὅλως ἐνίας σπέρμα προῖεσθαι ἢ παρὰ τὸ ἔλαττον τοῦ δέοντος ἢ διὰ τὸ τοιοῦτον, ἐν ᾧ τὸ ζωοποιητικὸν οὐκ ἔστιν· ἢ διὰ θερμασίας ἢ ψύξεως ἢ ὑγρασίας ἢ ξηρότητος ἔνδειαν ἢ κατὰ παράλυσιν τῶν μορίων. (P1)
- §2 οἱ δὲ Στωικοὶ κατὰ λογότητα τοῦ καυλοῦ, μὴ δυναμένου τὸν γόνον εὐθυβολεῖν· ἢ παρὰ τὸ ἀσύμμετρον τῶν μορίων ὡς πρὸς τὴν ἀπόστασιν τῆς μήτρας. (P2)
- §3 Ἐρασίστρατος παρὰ τὴν μήτραν, ὅταν τύλους ἔχῃ καὶ σαρκώσεις ἢ ἀραιότερα τοῦ κατὰ φύσιν ἢ μικροτέρα τυγχάνῃ οὔσα. (P3)

5

10

§1 Diocles fr. 42 Van der Eijk; §2 Stoici *SVF* 2.751; §3 Erasistratus fr. 57 Garofalo

titulus γυνή πολλάκις **PBQPs** : inv. **PGSL**-ind Diels §1 [2] ἐνίας] om. **PB**⁽¹¹⁾ || σπέρμα] σπέρματα **PB**^(111E) || [2–4] ἢ παρὰ ... ἔστιν· ἢ om. **PG** || [3] τὸ ζωοποιητικὸν **PB**^(111D) Q : τὸ ζωοποιητὸν **PB**^(11D) (τὸ om. **PB**⁽¹¹¹⁾) || [4] ἢ! ... ἢ κατὰ al. **PG** παρὰ θερμασίαν ἢ παρὰ ψύξιν ἢ ὑγρασίαν ἢ ξηρότητα ἢ πλεονασμὸν ἢ || θερμασίαν ἢ ψύξιν ἢ ὑγρασίαν **PB**^(111:Laur.87,17), cf. **PG** §2 [6] κατὰ **PB** : παρὰ **PG** || καυλοῦ **PBQ**(ut vid.) : μορίου **PG** || [6–7] τὸν γόνον εὐθυβολεῖν **PBPs** : inv. **PG** || [7] παρὰ **PB** : διὰ **PG** || [7–8] ὡς ... μήτρας **PB** : und (infolge) des Abstandes des einen vom anderen Q : om. **PG** §3 [9] καὶ **PBQ** : ἢ **PG** || σαρκώσεις **PB**^(11D)Q(ut vid.)**Ps** : σαρκώδεις vel -δης **PB**⁽¹¹¹⁾ : σάρκας **PG** || [10] ἀραιότερα **PBQPs** : εὐρυτέρα **PG** || ἢ add. **PB**⁽¹¹¹⁾ ante τοῦ || τοῦ κατὰ φύσιν **PB** : om. **PG** || τυγχάνῃ οὔσα **PPG** : om. **PB**, cf. als das, was benötigt wird Q

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 7a verso = P §3 (?)

[	]	η̄
[	]	η̄
[	]	ᾱ

τυγ]χάνῃ οὔσα

continuat caput 10

ps.Galenus HPh c. 113 (~ tit.) Διὰ τί πολλάκις γυνή συνουσιάζουσα οὐ συλλαμβάνει (text Diels)

- 113.1 (~ §1) Διοκλῆς ὁ ἰατρός παρὰ θερμασίαν ἢ παρὰ ψύξιν ἢ ὑγρασίαν ἢ ξηρότητα ἢ πλεονασμὸν ἢ ἔνδειαν ἢ παράλυσιν τῶν μορίων.
 113.2 (~ §2) οἱ Στωικοὶ παρὰ λοξότητα τοῦ μορίου μὴ δυναμένου εὐθυβολεῖν τὸν γόνον, ἢ διὰ τὸ ἀσύμμετρον τῶν μορίων.
 113.3 (~ §3) Ἑρασίστρατος παρὰ τὴν μήτραν, ὅταν τύλους ἔχῃ ἢ σάρκας ἢ εὐρυτέρα ἢ μικρότερα τυγχάνῃ οὖσα.

Psellus *Omn.Doctr.* c. 112 (~ tit.) Διατί γυνὴ πολλάκις συνουσιάζουσα οὐ συλλαμβάνει

διὰ πολλὰς αἰτίας οὐ συλλαμβάνει γυνὴ συνουσιάζουσα· ὅταν ἢ θερμότερα ἢ τοῦ δέοντος ἢ ψυχρότερα ἢ ξηρότερα ἢ ὑγρότερα· ἢ ὅταν παραλελυμένα ἔχῃ τὰ μόρια (~ §1)· ἢ ὅταν τύλους ἔχῃ καὶ σαρκώσεις· ἢ ὅταν ἀραιότερα ἢ τοῦ κατὰ φύσιν καὶ μικρότερα (~ §3). καὶ παρὰ τὴν τοιάνδε κράσιν τοῦ ἀρρενικοῦ σπέρματος οὐ δύναται συλλαβεῖν· καὶ παρὰ τὴν τοῦ ἀρρενικοῦ αἰδοῖου ἀσυμμετρίαν, οἷον ἢ λόξωσιν, μὴ δυναμένου τὸν γόνον εὐθυβολεῖν, ἢ ἀπόστασιν, ἢ παρέγκλισιν (~ §2)

...

Loci Aetiani:

quaestio cf. A 5.6 Πῶς αἱ συλλήψεις γίνονται. A 5.6.1 ... μὴ γίνεσθαι δὲ τὰς κυήσεις παρ' ἀκαθαρσίαν τῆς μήτρας ἢ ἐμπνευμάτωσιν ἢ φόβον ἢ λύπην ἢ ἀσθένειαν τῶν γυναικῶν ἢ δι' ἀτονίαν τῶν ἀνδρῶν. A 5.13 Πῶς στεῖραι γίνονται γυναῖκες καὶ ἄνδρες ἄγονοι. A 5.14 Διὰ τί αἱ ἡμίονοι στεῖραι. A 5.14.3 καὶ ἐνδέχεσθαι διὰ τὰς τοιαύτας αἰτίας καὶ τὰς γυναῖκας εἶναι στεῖρας.

§1 A 5.5 Εἰ καὶ αἱ θήλειαι προΐενται σπέρμα.

§3 A 5.14.1 Ἀλκαίων τῶν ἡμιόνων ... τὰς δὲ θηλείας παρὰ τὸ μὴ ἀναχάσκειν τὰς μήτρας ... A 5.14.2 Ἐμπεδοκλῆς διὰ τὴν σμικρότητα καὶ ταπεινότητα καὶ στενότητα τῆς μήτρας, κατεστραμμένως προσπεφυκυίας τῇ γαστρὶ, μήτε τοῦ σπέρματος εὐθυβολοῦντος εἰς αὐτὴν (cf. §2) μήτε, εἰ καὶ φθάσειεν, αὐτῆς ἐκδεχομένης.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The three chief witnesses for Book 5 all furnish three doxai. Ps retains the heading and completely rephrases much of the contents. In S only the chapter heading remains; see below, section C. The papyrus fragment only shows a few letters but does appear to confirm a reading of G (see below, section D(d) on §3).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The main relevant text is a brief section on the multiple causes of infertility in both men and women in ps.Galen *Def.Med.* 442,

i.e. strictly speaking parallel to ch. 5.13 rather than this chapter. The two causes mentioned for women are only vaguely similar to what is found in A here. Censorinus, because he is celebrating a birthday, is not interested in why births do *not* take place. At Lucretius *DRN* 4.1233–1262 there is also a passage on female infertility, but the main causes it puts forward is the unsuitability of the male semen, unlike in the present chapter which highlights factors relating to the womb and female semen. On this passage see further on ch. 5.13.

(2) *Sources*. The question of infertility or sterility (ἄγονία, ἀτεκνία) is raised and briefly discussed by Aristotle in *GA* 2.7 and in more detail in *HA* 10.1–5 (if indeed this book is genuine—recently its authenticity has found defenders in Balme and Van der Eijk, the latter arguing that it is a medical rather than a physiological work; see Van der Eijk 1999). The aetiologies found in these texts (and the *Epitome* of Aristophanes of Byzantium), which do not mention any predecessors, do not appear to have exercised a strong influence on the current chapter, although they may have encouraged the doxographical tradition to include the topic. Hippocratic texts discuss the subject, e.g. *Mul.* 213, *Aph.* 5.62, but it is plain that their terminology bears little resemblance to A. Nevertheless such material could well have been a distant source. It is striking that, in contrast to all the chapters in Book 5 so far (except the monolemmatic 5.6), the chapter does not refer to any pre-Aristotelian thinkers.

C Chapter Heading

The chapter heading uses the formula διὰ τί with a verb to inquire after the question type of the cause. This way of signalling and starting a question is well known as a feature of the *Problemata* literature, cf. M–R 2.1.169, and above ch. 1.1 Commentary C. In A it has so far been used only as the second part of the heading of 2.30 (Περὶ ἐμφάσεως αὐτῆς [sc. σελήνης] καὶ διὰ τί γεώδης φαίνεται). In Book 5 we note use of the same formula in chs. 5.14 and 5.18, but the parallel chapter 5.13 has Πῶς στεῖραι γίνονται αἱ γυναῖκες καὶ ἄγονοι οἱ ἄνδρες. The formulation of the chapter's topic recalls some phrases in Aristophanes of Byzantium (ταῖς πυκνὰ συνουσιαζομέναις, οὐ συλλήψεται; see texts below), but is otherwise difficult to parallel.

The chapter heading is included in the list in Laurentianus ms. of S. There is no particular reason to suggest that it is interpolated from P. Wachsmuth did not include it in his edition as a sub-heading following *Ecl.* 1.42.8, but this was most likely due to an oversight. On the chapter headings in S^L see further above ch. 5.4 Commentary C.

D *Analysis*

a Context

This chapter on female infertility would appear to be misplaced, since it interrupts the sequence on types of conception (chs. 5.7 males and females, 5.8 monstrous births, 5.10 twins and triplets). It would have been better placed after ch. 5.6 on conception (note the same terminology in the chapter headings). Another difficulty is that its theme is treated again in ch. 5.13, with the difference that the latter chapter deals with the infertility of both women and men. If it had been placed closer to that chapter, the reduplication would have been more apparent.

b Number–Order of Lemmata

The lack of parallel material makes it quite impossible to gauge whether the original chapter in A had more than the three lemmata preserved in P.

c Rationale–Structure of Chapter

The first doxa is introduced with the name-label ‘Diocles the doctor’. The addition of the epithet can be explained by the fact that this is his first occurrence in the work (as far as we know). He is also the first doctor to be named in the chapters on the physiology of conception and birth which commence at ch. 5.3 (Herophilus was mentioned on dreams in 5.2). The doxa follows the same method that we saw in the previous chapter, a piling up of causes without any further explanation, all of which are introduced by causal prepositions (παρά ... παρά ... διά ... διά ... κατά). The first three reasons invoke deficiencies of female semen. The fourth involves four kinds of lack, but it is not made clear who or what suffers such lacks. One would expect for the first three at least that it is the womb. There is no mention of the organ in this doxa but the parallel doxa at A 5.13.1, which lists only conditions of the womb, confirms this interpretation. The last cause to be mentioned involves paralysis to the bodily parts in the plural, and given the context it is most likely that these too belong to the female, i.e. both semen and womb.

The next doxa attributed to the Stoics focuses on problems associated with the male member and its relation to the female womb. It is highly problematic, not for its contents, which are comprehensible enough, but because it is word for word identical to the second half of a doxa attributed to Diocles in the parallel chapter 5.13. Indeed the first two doxai in 5.9, taken together, show a strong parallelism with the Diocles doxa 5.13.2, except that the latter refers to male, and not female sterility. The parallelism emerges clearly when the texts are placed side by side:

5.9.1–2: Διοκλῆς ὁ ἰατρὸς ἢ παρὰ τὸ μηδ' ὅλως ἐνίας σπέρμα προῖσθαι ἢ παρὰ τὸ ἔλαττον τοῦ δέοντος ἢ διὰ τὸ τοιοῦτον, ἐν ᾧ τὸ ζωοποιητικὸν οὐκ ἔστιν· ἢ διὰ θερμασίας ἢ ψύξεως ἢ ὑγρασίας ἢ ξηρότητος ἔνδειαν ἢ κατὰ παραλυσιν τῶν μορίων. οἱ δὲ Στωικοὶ κατὰ λοξότητα τοῦ καυλοῦ, μὴ δυναμένου τὸν γόνον εὐθυβολεῖν· ἢ παρὰ τὸ ἀσύμμετρον τῶν μορίων ὡς πρὸς τὴν ἀπόστασιν τῆς μήτρας.

5.13.2: Διοκλῆς ἀγόνους τοὺς ἄνδρας ἢ παρὰ τὸ μηδ' ὅλως ἐνίους σπέρμα προῖσθαι ἢ παρὰ τὸ ἔλαττον τοῦ δέοντος· ἢ παρὰ τὸ ἄγονον εἶναι τὸ σπέρμα ἢ κατὰ παραλυσιν τῶν μορίων ἢ κατὰ λοξότητα τοῦ καυλοῦ, μὴ δυναμένου τὸν γόνον εὐθυβολεῖν, ἢ παρὰ τὸ ἀσύμμετρον τῶν μορίων πρὸς τὴν ἀπόστασιν τῆς μήτρας.

There is no comparative evidence among the fragments of both Diocles and the Stoics enabling us to judge the validity of the attributions. For example, it cannot be confirmed that Diocles agreed with the existence of female semen (cf. ch. 5.5, where he is not mentioned). In A 5.13.3 a quite different reason is attributed to the Stoa for the failure of couples to conceive. Van der Eijk in his discussion of this passage (2000–2001, 2.93–96) rightly notes that ‘it is not unusual in Aëtius (and in doxographical literature in general) for certain doctrines or elements of explanations to be sometimes attributed to one authority, sometimes to another’ (p. 95). He concludes (ibid.): ‘Whether these attributions are correct and have any basis in the writings of the authorities or are just fabricated by the doxographer is difficult to ascertain.’ Given the discrepancies with ch. 5.13 noted above and the surprisingly detailed medical knowledge ascribed to the Stoics in this chapter, Diels *DG* was quite right to be suspicious of this lemma; see his note ad loc. It seems most likely that 5.9.2 involves a misattribution that occurred by splitting up a single doxa recording Diocles’ views. We agree with Diels, however, that there should be no intervention in the received text.

This decision is reinforced by another feature of the chapter that must be taken into account. The final doxa attributed to Erasistratus,—who appears here for the first time in Book 5 but was already cited on the ruling part of the soul at A 4.5.3—ascribes to the female womb the cause of the failure to conceive. This means that the three doxai in this chapter form the kind of neat diaeresis so much loved by A (and also by P): §1 explanation with reference to female semen; §2 male member; §3 female womb. When we take into account that a diaeresis, though of a different kind, is also present in ch. 5.13 (see discussion there), it must make us suspect that the present text has been manipulated in order to provide an easily understood (and remembered) spectrum of aetiologies. The name-label of the Stoics may have been misplaced in the process. In chapters such as this one the setting out of the causes is patently more important than the identification of the philosophers or doctors who may have put forward these views.

On the relationship between this chapter and ch. 5.13 on the same topic and for a comparison of the doxai in them see further the discussion (with parallel columns) at Runia (1999a) 222–224.

d Further Comments

Individual Points

§3 For the final words G's reading τυγχανῇ οὔσα is supported by the papyrus, and so should be preferred. P^{B(I,11)} are lacking a verb for the final clause, which suggests it may have fallen away. The placement of ἦ in P^{B(111)} is awkward, which also points to a later addition. According to the comment on the papyrus fragment (Barns-Zilliaceus 1960, 83), 'the superlineations [in lines 1–3] presumably represent final ν, but it seems impossible to restore from the texts of [Plut.] or G as they stand.'

In HA 10.4 Aristotle notes that growths or sores on the mouth of the womb can be an obstacle to conception (text below section E(b)§3). As Garofalo (1997) 79 in his discussion of the lemma notes, the expected reference to distension of the womb (cf. A 5.8.3, 5.13.1, Arist. HA 10.4 636a28) is not given here.

e Other Evidence

The very brief treatment in ps.Galen *Def.Med.* 442 focuses on the role of the womb with only two alternatives, that infertility is caused by the womb being chilled or that it is excessively 'fat' or fleshy (for the meaning of καταπίμελος cf. Soranus *Gyn.* 4.5.1). Even though there are only two reasons, this is more a listing than a diaeresis, similar to the piling up of causes in A. For chilling cf. §1, but as noted above A does not make explicit whether the lack is related to semen or to the womb.

E Further Related Texts

a Proximate Tradition

General texts: ps.Galen *Def.Med.* 442, p. 19.451.4–9 K. υμβ'. αἰτία ἀγονίας διτται, ἢ περὶ τὸν ἄνδρα ἢ περὶ τὸ θῆλυ καὶ ἐκάτεραι πλεοναχῶς· περὶ μὲν οὖν τὸ θῆλυ ἦτοι κατὰ ψυχρον ἐχούσης ἢ κατὰ πίμελον τῆς γυναικὸς τὴν μήτραν. περὶ δὲ τὸ ἄρρεν ἦτοι ὅταν ὑποσπαδίας ᾖ, ἦτοι ἐστερημένος διδύμων ἢ ἄλλον τινὰ τρόπον ἔχων νοσήματος. cf. Lucretius *DRN* 4.1240–1259 cited below on ch. 5.13.

Chapter heading: cf. Codex Marcianus 521 f. 100^r (DG p. 233 Diels, from *Def.Med.* 442) ὅτι αἰτία ἀγονίας.

b Sources and Other Parallel Texts

General texts: Aristotle *GA* 2.7 746b16–21 ἔστι δὲ τὸ πρόβλημα καθόλου μὲν διὰ τὴν αἰτίαν ἀγονον ἢ ἄρρεν ἢ θῆλυ ἐστίν· εἰσὶ γὰρ καὶ γυναῖκες καὶ ἄνδρες ἀγονοὶ καὶ τῶν ἄλλων ζώων ἐν τοῖς γένεσιν ἐκάστοις ... τὰ δ' αἰτία τῆς ἀγονίας ἐπὶ μὲν τῶν

ἄλλων πλείω συμβαίνει. *HA* 10.1 633b12–16 ἀνδρὶ καὶ γυναικί, τοῦ μὴ γεννᾶν ἀλλή-
λοις συνόντας τὸ αἴτιον ὅτε μὲν ἐν ἀμφοῖν ἐστίν, ὅτε δ' ἐν θατέρῳ μόνον. πρῶτον
μὲν οὖν ἐπὶ τοῦ θήλεος δεῖ θεωρεῖν τὰ περὶ τὰς ὑστέρας ὅπως ἔχει ... cf. **Aristo-
phanes of Byzantium** *Epit.HA* 1.65 ἐνίαις μὲν οὖν καὶ γινομένων τῶν καταμνηνίων
ἀτεκνία παρακολουθεῖ. συμβαίνει δὲ τοῦτο κατὰ πολλὰς αἰτίας γίνεσθαι. καὶ γὰρ
ἐάν ἡ εὐνουχώδης καὶ μικρὸν τὸν τράχηλον ἔχουσα οὐ συλλήψεται, καὶ ἐάν ἐγκε-
κλεισμένας καὶ ἐάν κωφὰς καὶ μὴ ἐστομωμένας τὰς ὑστέρας ἔχη, καὶ λίαν κάθυγρος
ἢ συνεξυγραινέει (γὰρ) τὸ τοῦ ἄρρενος σπέρμα· καὶ λίαν πάλιν κατάξηρος· ἀναλη-
φθήσεται γὰρ καὶ ἀναξηρανθήσεται, ἐάν μὴ καταβαίνει τὸ ἴδιον μέτρον. καὶ ἄλλαι
δὲ πολλαὶ πηρώσεις ἀγονίας αἰτίαι καὶ τοῖς ἄρρεσι καὶ ταῖς θηλείαις ὑπάρχουσιν.
cf. **Corpus Hippocraticum** *Mul.* 213, p. 8.408.2–5 Littré νυνὶ δὲ ἀποφανέω, δι'
ἃς αἰτίας ἄφοροι γυναῖκες τὸ πάμπαν, καὶ διότι οὐ τίκτουσι πρὶν ἰηθέωσιν. φημί δὲ
τοῦτο αἴτιον εἶναι· ἣν στραφῇ τὸ στόμα τῶν μητρῶν πάμπαν ἀπὸ τοῦ αἰδοίου, οὐ
κυῖσκεται· οὐ γὰρ δέχονται αἱ μήτραι τὴν γονὴν, ἀλλ' ἐξω αὐτίκα ἔρχεται. **Soranus**
Gyn. 1.35 (Diocles fr. 172 Van der Eijk, who cites Ilberg's edition) βεβαιότερα δὲ
πρώτη σημείωσίς ἐστιν Διοκλεῖ δύνασθαι συλλαμβάνειν τὰς κατ' ὄσφυν καὶ λαγό-
νας εὐσάρκους, πλατυτέρας, φακώδεις, πυρράς, ἄρρενωπούς, ἀγόνους τὰς ἐναντίας
δὲ πάλιν· ἀτρόφους, ἰσχνὰς ἢ καταπιμέλους, πρεσβυτέρας λίαν ἢ νέας. **Aëtius of**
Amida *Iatr.* 16.26 Αἰτίαι ἀνδρῶν καὶ γυναικῶν δι' ἃς οἱ παιδοποιοῦσι, καὶ θεραπεία
καὶ σημεία συλλήψεως (see further below on A 5.13).

Chapter heading: —

§3 **Erasistratus**: cf. **Aristotle** *HA* 10.4 636a35–b1 ἔτι δ' ἐάν φύμα ἐπὶ τοῦ στό-
ματος ᾗ, πολλὰ ἐλκωθέντος, ἐμποδίζει πρὸς τὰς συλλήψεις. σημείον δὲ καὶ τοῦ ταῦτα
μὴ ἔχειν, ἐάν φαίνηται ἀνοιγομένη καλῶς ἢ ὑστέρα καὶ συμμούουσα, ὅταν γέννηται
αὐταῖς τὰ γυναικεία καὶ αἱ πρὸς τὸν ἄνδρα χρήσεις.

Liber 5 Caput 10

PP: *Papyrus Antinoopolis* 85 fr. 7b verso p. 80 Barns–Zilliacus—PB: ps.Plutarchus *Plac.* 906B–C; p. 421^a23–^b12 Diels—PG: ps.Galenus *HPH* c. 114; p. 642.3–9 Diels—PQ: Qustā ibn Lūqā pp. 224–225 Daiber—PPs: Psellus *Omn.Doctr.* c. 113.1–12, p. 62 Westerink
SL: Stobaeus *Ecl.* 1.42.10, p. 1.296.11 Wachsmuth (titulus solus)

Titulus ι'. Πῶς δίδυμα καὶ τρίδυμα γίνεται (P,S)

- §1 Ἐμπεδοκλῆς οἶται δίδυμα καὶ τρίδυμα γίνεσθαι κατὰ πλεονασμὸν καὶ περισχισμὸν τοῦ σπέρματος. (P1)
- §2 Ἀσκληπιάδης παρὰ τὴν τῶν σπερμάτων διαφοράν, ὥσπερ τὰς κριθὰς τὰς διστίχους καὶ τριστίχους εἶναι γὰρ σπέρματα γονιμώτατα. (P2)
- §3 Ἐρασίστρατος διὰ τὰς ἐπισυλλήψεις, ὥσπερ ἐπὶ τῶν ἀλόγων ζώων· ὅταν γὰρ ἡ μήτρα ᾗ κεκαθαυμένη, τότε ἐπισύλληψιν δέχεσθαι. (P3)
- §4 οἱ Στωικοὶ παρὰ τοὺς ἐν τῇ μήτρᾳ τόπους· ὅταν γὰρ εἰς πρῶτον καὶ δεύτερον ἐμπέσῃ τὸ σπέρμα, τότε γίνεσθαι τὰς ἐπισυλλήψεις καὶ τὰ δίδυμα καὶ τὰ τρίδυμα. (P4)

5

10

§1 Empedocles 31A81; §2 Asclepiades cf. Vallance *ANRW* 2.37.1, pp. 721, 725; §3 Erasistratus fr. 58 Garofalo; §4 Stoici *SVF* 2.750

titulus Πῶς Διατί PPs || δίδυμα καὶ τρίδυμα γίνεται PB : δίδυμα γίνεται καὶ τρίδυμα PPSL-ind : καὶ τρίδυμα om. PG §1 [2] οἶται PPG, cf. *glaubte* Q : om. PB || δίδυμα καὶ τρίδυμα] inv. PP || [2–3] καὶ et aut πλεονασμὸν aut περισχισμὸν om. PP §2 [4] σπερμάτων PPG Diels : σωμάτων PBQ || [5] τὰς PG Diels edd. : non hab. PB || εἶναι ... γονιμώτατα PBQ : om. PG §3 [6] ἐπισυλλήψεις PGP Diels (add. γίνεσθαι PG) : συλλήψεις PBQ(ut vid.) || ὥσπερ om. PQ || [6–7] ὥσπερ ... δέχεσθαι om. PG || [7] ἐπισύλληψιν PQ (ut. vid., *eine Empfängnis nach der anderen* Q), conl. Diels Mau Lachenaud : ἐπὶ σύλληψιν PB || δέχεσθαι conl. Diels Mau Lachenaud sec. corr. ms. Voss. : ἔρχεται PB : *tritt ein* Q (fort. leg. ἔρχεσθαι) §4 [8] τῇ] om. PB(III) || γὰρ] om. PB(III) || τόπους] κόλπους PPs || εἰς] deest in PG || [9] ἐμπέσῃ] *wenn sich der Same in jene Stelle verteilt und die erste und die zweite von ihnen gelangt* Q || τὸ PGQPs : om. PB || [9–10] καὶ τὰ δίδυμα καὶ τὰ τρίδυμα conl. corr. Voss. edd., cf. *erfolgt daraus eine Empfängnis von Zwillingen oder Drillingen* : καὶ διδύμους καὶ τριδύμους PG : καὶ τὰ τρίδυμα PB Q

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 7b verso = P tit. et §§1–2

- 5 πῶς γίνεται διδυμα καὶ τριδυμα
Ἐμπεδοκλῆς οἶται τριδυμα] καὶ διδυμα
γίνεσθαι κατὰ τοῦ σπερ
ματος Ἀσκληπιαδῆς παρὰ τὴν τῶν σπέρμα
των] ...

ps.Galenus *HPh* c. 114 (~ tit.) Πῶς δίδυμα γίνεται (text Diels)

114.1 (~ P1) Ἐμπεδοκλῆς οἶται δίδυμα καὶ τρίδυμα γίνεσθαι κατὰ πλεονασμὸν καὶ περισχισμὸν τοῦ σπέρματος.

114.2 (~ P2) Ἀσκληπιάδης παρὰ τὴν τῶν σπερμάτων διαφορὰν ὥσπερ τὰς κριθὰς τὰς διστίχους καὶ τριστίχους.

114.3 (~ P3) Ἐρασίστρατος διὰ τὰς ἐπισυλλήψεις γίνεσθαι.

114.4 (~ P4) οἱ Στωικοὶ παρὰ τοὺς ἐν τῇ μήτρᾳ τόπους· ὅταν γὰρ πρῶτον καὶ δευτέρον ἐμπέσῃ τὸ σπέρμα, τότε γίνεσθαι τὰς ἐπισυλλήψεις καὶ διδύμους καὶ τριδύμους.

Psellus *Omn.Doctr.* c. 113 (~ tit.) Διατί δίδυμα καὶ τρίδυμα γίνεται

καὶ τοῦ δίδυμα καὶ τρίδυμα γίνεσθαι πολλὰς ἂν τις αἰτίας διαριθμῇται· τὴν σχίσιν τοῦ σπέρματος (~ P1), τὴν γονιμότητα τῆς γονῆς, τοὺς ἐν τῇ μήτρᾳ κόλπους (~ P4). διάφοροι γὰρ κοιλότητες τὴν μήτραν περιειλήφασιν· ὅταν γοῦν ἐν τοῖς κόλποις τούτων τὸ σπέρμα διασχισθῇ, δίδυμα καὶ τρίδυμα γίνεται. καὶ τὸ πλήθος δὲ τοῦ ἀπορέοντος σπέρματος αἴτιον πολλάκις τοῦ πλήθους τῶν ἐγκυμονουμένων καθίσταται (~ P2). ἢ μέντοιγε μήτρα πολλοὺς μὲν ἔχει κόλπους, δύο δὲ ἀξιολόγους κοιλότητας ὑμένι μέσῳ διειργομένας, ἐν αἷς ὅταν ἐμπέσῃ τὸ σπέρμα δίδυμα καρπογονεῖ ἔμβρυα. ὁ μέντοιγε Ἐρασίστρατος καὶ τὰς ἐπισυλλήψεις αἰτιάται ὥσπερ ἐπὶ τῶν ἀλόγων ζώων (~ P3). καὶ ἄλλας δ' ἂν εἴποι τις αἰτίας, ἢ αὐτὸς ἐφευρίσκων ἢ τοῖς ἀρχαίοις ἐπόμενος.

Loci Aetiani:

§1 A 5.8.1 Ἐμπεδοκλῆς τέρατα γίνεσθαι παρὰ πλεονασμὸν σπέρματος ...

§4 A 5.7.4 Ἀναξαγόρας Παρμενίδης τὰ μὲν ἐκ τῶν δεξιῶν καταβάλλεσθαι εἰς τὰ δεξιὰ μέρη τῆς μήτρας, τὰ δ' ἐκ τῶν ἀριστερῶν εἰς τὰ ἀριστερά ...

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The three witnesses to A in the P tradition, P^B, Q and G, all record four lemmata. Ps also makes use of all four doxai, and contrary to his usual practice, includes a name-label, i.e. Erasistratus. In the remains of S's ch. 1.42, however, only the heading is preserved.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Both Censorinus and ps.Galen *Def.Med.* record discussions on the topic of twins as part of their treatment of the topics relating to birth. Censorinus' two name-labels are both Presocratics, Hippo (cf. 5.5, 5.8)

and Empedocles. For the latter he records the cause as division, the same as in A. The connection of the sex of the twins to the heat of the womb would appear to be the theory criticized by Aristotle in *GA* 4.1, but it has been revised to accommodate different sexes (cf. Lesky 1951, 36 f.). The first of the views put forward by ps.Galen may also refer to the Empedoclean doxa. His second, the theory of superfetation, is the same as A's third view. The third view, introduced by ἡμεῖς δὲ φάμεν, is the writer's own. But what does he mean by εἰς ἄμφω ταῦτα? Rathmayr's view that it refers to places in the womb is persuasive. It would then be the same view as found in the final doxa in A. The text may be defective.

(2) *Sources*. Although Aristotle mentions the topic of multiple births several times, he does not present a systematic discussion of the phenomenon and its causes in either *De generatione animalium* or *Historia animalium*. In Aristophanes of Byzantium's *Epitome* the Stagirite is attributed with two views, division and superfetation. The material in the passage (including two quotes) cannot be found in the Aristotelian corpus and is so included in the fragment collections of Rose and Gigon. Aristotle's views exerted much influence on later writers, e.g. Pliny at *Nat.* 7.48–49. The theory of multiple locations in the womb is also found in the Hippocratic corpus (*Nat.Puer.* 31) and Anon. Bruxellensis 26 (texts below section E(b)§4). On the subject of the views on twins in antiquity see the book-length study by Rathmayr (2000), with examination of texts at 53–69.

C Chapter Heading

The chapter heading again asks the cause, using πῶς as in the parallel chapters 5.7–8. G abbreviates his heading to twins only, but refers to the phenomenon of triplets in §§2 and 4. The combination of twins and triplets in the heading or quaestio is also found in ps.Galen *Def.Med.* and Erotianus (texts below).

On the chapter headings in S^L see above, ch. 5.4 Commentary C. As in previous chapters, there are no grounds for concluding that it must be interpolated from P. The word order in S^L differs slightly from that in the Byzantine mss. of P, but interestingly it is the same as is found in the papyrus snippet.

D Analysis

a Context

After the interruption of the misplaced ch. 5.9 on female infertility, the present chapter completes the sequence of various kinds of conceptions: male–female, monstrous births, twins–triplets. A slightly different and more logical sequence is found in ps.Galen *Def.Med.* 446–449: male–female, twins–triplets, hermaphrodite, monstrous births.

b Number–Order of Lemmata

The mention of Hippo in Censorinus and the reference to Democritus' view in Aelian suggest that A may have originally had more doxai. However, as we shall see, the four preserved in P do well in covering the various positions.

c Rationale–Structure of Chapter

In marked contrast to the previous chapters the doxography presents a streamlined array of causes. Each doxa basically has a single cause introduced by a prepositional phrase (κατά ... παρά ... διὰ ... παρά), with only the first undergoing a further division (πλεονασμὸν καὶ περισχισμὸν).

(1) Multiple births are caused by an excess or a division of semen. Attributed to Empedocles, this is also basically the Aristotelian view (and see above, section B on Aristophanes of Byzantium).

(2) The cause attributed to the late Hellenistic doctor Asclepiades (cf. A 4.2.8, 4.22.2) is variation in the semen. Particularly prolific semen, like barley with double and triple stalks, produce multiple births. Perhaps there is a link to his corpuscular theory, but if there is, it is not made clear (the *Placita* never refer to it).

(3) The Hellenistic doctor Erasistratus represents the cause through superfetation, i.e. resulting from multiple acts of sexual intercourse. Aristotle too draws attention to this phenomenon for the biological world, including humans (cf. *GA* 4.4 773a34ff.). The doctor insists that a purification of the womb, i.e. a menstrual period, must intervene, which corresponds to modern theories (and in fact makes the phenomenon very rare indeed).

(4) The Stoic doxa makes use of the view that the womb has multiple locations, so that when the semen enters them, multiple births can result. The theory is attributed to Democritus and is also found in the Hippocratic corpus (see texts below). No other text confirms this view for the Stoics. The term ἐπισύλληψις is used here in a less strict sense than in §3 and means no more than 'additional conceptions'.

The diaeresis of the four doxai thus covers three main theories, with the unusual (and unparalleled) view of Asclepiades perhaps meant as a variation on the first view of seminal excess and division. The same three main views are found without name-labels in the parallel text in ps.Galen *Def.Med.*

Of considerable interest is a text in Seneca, citing his friend Demetrius the Cynic, who problematizes the subject of twins as an example of the kind of theoretical knowledge which is not necessary for practical purposes. Two main options are very compactly given for the cause, division or superfetation. He also adds the problem of the different fates of twins born almost at

the same time. But this key problem in astrological theory, discussed in depth by Augustine in *C.D.* 5.1–6, our doxographer sets aside (in contrast to what he will do at ch. 5.18.6).

d Further Comments

Individual Points

§1 It is most intriguing to observe that the reconstructed papyrus supports G's reading that the verb of thinking οἶται follows the name-label. This formulation is much more common in G (16 times, 4 in the plural) than in P (3 times) or S (only once in an excerpt from A). It suggests that these slightly otiose verbs may have been omitted as the tradition developed. Because of the agreement of G and the papyrus (Q cannot help us) we should include the verb here. We note too that the papyrus inverts the order of twins and triplets in this doxa (but not in the chapter heading). This must be a scribal error.

§2 Rathmayr (2000) 61 goes astray in claiming that Asclepiades presents exactly the same theory as Empedocles. διαφορά cannot mean 'Aufspaltung' (division). The difference is that Asclepiades attributes twins to inherent differences in semen, not what happens to the semen in the womb.

§3 The Arabic translation perhaps supports P^B's reading ἔρχεται (or ἔρχεσθαι), but Diels is right to conjecture δέχεσθαι, following the suggestion of the corrector of the Vossianus ms. δέχεται, because the phrase can then have the womb as subject.

§4 As also occurs elsewhere in the *Placita* (cf. for example chs. 4.3.13, 4.18.2), the καὶ in the final phrase καὶ τὰ δίδυμα καὶ τὰ τρίδυμα is very likely epexegetic, i.e. explaining the result of the conceptions. We indicate this as an alternative in our translation.

e Other Evidence

A's method corresponds *grosso modo* with what we find in the two proximate sources Censorinus and ps.Galen, and less clearly in Seneca. A diaeresis of main explanations is given. If the third view in ps.Galen is taken to refer to multiple places in the womb, then there is a close correspondence between his three and what we find in A, with the doxa of Asclepiades added as an additional view closely related to that of twins caused by the division of semen.

E Further Related Texts

a Proximate Tradition

General texts: Censorinus *DN* 6.9–10 *sequitur de geminis, qui ut aliquando nascantur, modo seminis fieri Hippon* (38A18 DK) *ratus est: id enim cum amplius est, quam uni satis fuit, bifariam deduci. (10) id ipsum ferme Empedocles*

(31A81 DK) *videtur sensisse: nam causas quidem, cur divideretur, non posuit, partiri tantum modo ait, et si utrumque sedes aequae calidas occupaverit, utrumque marem nasci, si frigidas aequae, utramque feminam; si vero alterum calidiorem, alterum frigidiorum, dispari sexu partum futurum.* **ps.Galen Def.Med.** 447, p. 19.453.7–11 K. *ὅμη'.* τὰ δὲ δίδυμα καὶ τρίδυμα γίνεται κατὰ μὲν τινὰς διὰ τὸ εἰς θερμὴν τὴν μήτραν καθελκόμενον σπέρμα θραύεσθαι καὶ ποιεῖν οὕτως τὰ δίδυμα καὶ τρίδυμα. ἄλλοι δὲ τὰς ἐπισυλλήψεις ἡτιάσαντο, ἡμεῖς δὲ φαμεν ὅτι ἐὰν εὗρεθῇ τὸ σπέρμα εἰς ἄμφω ταῦτα, γίνεσθαι τὰ δίδυμα.

Chapter heading: see the two texts above. cf. **Codex Marcianus** 521 f. 100^r (DG p. 233 Diels, from *Def.Med.* 449) πῶς γίγνεται δίδυμα.

b Sources and Other Parallel Texts

General texts: **Aristophanes of Byzantium** *Epit.HA* 1.88 (~ Arist. fr. 285.14 Rose, 269 Gigon) δίδυμά τε καὶ τρίδυμα γίνεται ἅ μὲν κατ' ἐπισύλληψιν, ἔστι δ' ὅτε, φησί, καὶ κατὰ σχίσιν. ὅταν μὲν ἅμα ἐκτεχθῇ ἄρρεν καὶ θῆλυ, ἀνάγκη ταῦτα κατ' ἐπισύλληψιν γεγενῆσθαι, ἅτε τοῦ ἄρρενος μὲν ἐκ πεπεμμένου γεγονότος, τοῦ δὲ θήλεος ἐξ ἀπέπτου, ὥστε ὑπὸ δύο ταῦτα καταβολὰς γεγενῆσθαι. τὰ δὲ ὑπὸ μίαν καταβολὴν τοιαῦτα γινόμενα τὸ μὲν ἐκ κατεψυγμένου γίνεται σπέρματος ὑπομεμενηκότος περὶ τὸν περινεον, τὸ δὲ ἀπὸ κατενηνεγμένου καὶ οὕτως ὁμοῦ ἀμφοτέρων ἐμπεπτωκότων. ὅταν δὲ ὑπὸ μίαν καταβολὴν δύο ἄρρενα ἢ δύο θῆλεα γέννηται, ταῦτα σχισθέντος ἐν τῇ μήτρᾳ τοῦ σπέρματος γίνεται, τοῦ μὲν πεπεμμένου εἰς δύο ἄρρενα, τοῦ δὲ ἀπέπτου εἰς δύο θῆλεα. ὅτι δὲ κατ' ἐπισύλληψιν ἀρέσκει αὐτῷ γίνεσθαι (δηλον): αὐτὸς γάρ οὕτω φησί: 'συνέβη γάρ τινα δούλην περὶ Τρίκκην ἐκ τοῦ δεσπότου καὶ τοῦ ἐπιτρόπου τῇ αὐτῇ ἡμέρᾳ πλησιάσασαν τεκνώσαι δύο, ὧν τὸ μὲν ἦν τῷ ἐπιτρόπῳ ὅμοιον, τὸ δὲ τῷ δεσπότῃ. καὶ μὴν ὅτι κατὰ σχίσιν τοῦ σπέρματος τινα γίνεται, οὕτως φησί: 'τὰ δὲ διδυμοτοκοῦντα ἀπὸ μιᾶς καταβολῆς δοκεῖ ἄρρενοτοκεῖν ἢ θηλυτοκεῖν, ὅτι τὸ σπέρμα τοῦ ἄρρενος ἰσχυρόν ἐστιν, ὥστε μεριζομένου εἰς δύο ἢ εἰς πλείονα τρώφιστα γίνεσθαι'. **Anonymus Bruxellensis** 26, p. 224.17 Wellmann γένος διδύμων *geminos {nos} dicimus eo quod in orificium vulvae duo aditus abire noscuntur exvixissim. atque si divisum in duas vel tres partes semen in vascullorum capita ceciderit, gemini vel trigemini nascuntur.* cf. **Aristotle** *HA* 7.4 584b26 τὸ δὲ δὴ πλῆθος τῶν τόκων. **Seneca** *Ben.* 7.1.5 (citing Demetrius the Cynic) *licet nescias ... quid sit, quod geminorum conceptum separet, partum iungat, utrum unus concubitus spargatur in duos an totiens concepti sint, ... : non multum tibi nocebit transisse, quae nec licet scire nec prodest.*

Chapter heading: **Erotianus** *Voc.Hipp.* 43, p. 16.1 Nachmanson πῶς γὰρ ἦν δίδυμα ἢ τρίδυμα γεννᾶν τὴν γυναῖκα. cf. **Corpus Hippocraticum** *Vict.* 1.30 6.504.14 περὶ δὲ τῶν διδύμων γινομένων ὁ λόγος ὧδε δηλώσει ... **Aristophanes of Byzantium** *Epit.HA* 2.36 περὶ δὲ ... διδύμων (full text cited on ch. 5.8).

§1 Empedocles: **Aristotle** *GA* 4.1 764a33–b4 ἔτι δὲ γίγνεται δίδυμα θῆλυ καὶ ἄρρεν ἅμα ἐν τῷ αὐτῷ μορίῳ πολλάκις τῆς ὑστέρας—καὶ τοῦθ' ἱκανῶς τεθεωρήκαμεν ἐκ τῶν ἀνατομῶν ἐν πᾶσι τοῖς ζωοτοκοῦσι, καὶ ἐν τοῖς πεζοῖς καὶ ἐν τοῖς ἰχθύσιν· περὶ ὧν εἰ μὲν μὴ συνεωράκει (sc. Ἐμπεδοκλῆς, not in DK) εὐλόγως ἡμάρτανε ταύτην τὴν αἰτίαν εἰπών, εἰ δ' ἑωρακῶς, ἄτοπον τὸ ἔτι νομίζειν αἰτίαν εἶναι τὴν τῆς

ύστερας θερμότητα ἢ ψυχρότητα· ἄμφω γὰρ ἂν ἐγίγνετο ἢ θήλεα ἢ ἄρρενα, νῦν δὲ τοῦτ' οὐχ ὁρώμεν συμβαῖνον. **Aristophanes of Byzantium** *Epit.* HA 1.88 see above. cf. also **Aristotle** GA 4.4 772b1–b6 ὁ δὲ ἄνθρωπος ἐπαμφοτερίζει πᾶσι τοῖς γένεσιν· καὶ γὰρ μονοτοκεῖ καὶ ὀλιγοτοκεῖ καὶ πολυτοκεῖ ποτε, μάλιστα δὲ μονοτόκον τὴν φύσιν ἐστί—διὰ μὲν τὴν ὑγρότητα τοῦ σώματος καὶ θερμότητα πολυτόκον ..., διὰ δὲ τὸ μέγεθος ὀλιγοτόκον καὶ μονοτόκον.

§3 Erasistratus: Aristotle HA 7.4 585a3–14 δέχεται δ' ὀχείαν κύοντα μάλιστα τῶν ζῶων γυνὴ καὶ ἵππος· τὰ δ' ἄλλα ὅταν πληρωθῇ, φεύγει τοὺς ἄρρενας, ὅσα μὴ πέφυκεν ἐπικυῖσθαι, καθάπερ δασύπους. ἀλλ' ἵππος μὲν ἂν συλλάβῃ τὸ πρῶτον, οὐκ ἐπικυῖσθαι πάλιν, ἀλλ' ἐν τίκτει μόνον ὡς ἐπὶ τὸ πολὺ· ἐπ' ἀνθρώπῳ δ' ὀλίγα μὲν, γέγονε δὲ ποτε. ... ἐὰν δ' ἐγγὺς ἢ σύλληψις ἐγένετο, τὸ ἐπικυηθὲν ἐξήνεγκαν, καὶ τίκτουσιν ὥσπερ δίδυμα γόνῳ, καθάπερ καὶ τὸν Ἰφικλέα καὶ τὸν Ἡρακλέα μυθολογοῦσιν. **Pliny** *Nat.* 7.48–49 (excerpted from Aristotle).

§4 Stoics: Aelian NA 12.16 λέγει Δημόκριτος (68A151 DK) πολύγονα εἶναι ὕν καὶ κύνα, καὶ τὴν αἰτίαν προστίθησι λέγων, ὅτι πολλὰς ἔχει τὰς μήτρας καὶ τοὺς τόπους τοὺς δεκτικούς τοῦ σπέρματος. **Corpus Hippocraticum** *Nat.Puer.* 20, p. 7.540.1–4 Littré δίδυμα δὲ γίνεται ἅφ' ἐνὸς λαγνεύματος οὕτως· ἔχουσιν αἱ μήτραι κόλπους συχνοὺς καὶ γαμψοὺς, τοὺς μὲν τηλοτέρῳ, τοὺς δὲ πλησιαιτέρῳ τοῦ αἰδοίου· καὶ τὰ πολύγονα τῶν ζῶων πλείους ἔχει κόλπους τῶν ὀλίγα κυεόντων ... **Anonymus medicus** *De generatione et semine* 20–21 Ideler καὶ εἰ μὲν ἡ γονὴ εἰς δύο κόλπους τῆς μήτρας ἐμπέσῃ, δίδυμα ἔσσονται τὰ παιδιά, καὶ εἰ μὲν ἐν τοῖς δεξιαῖς τῆς ὑστέρας ἐμπέσῃ ἄρρενα τὰ δύο. εἰ δὲ ἐν τοῖς ἀριστεραῖς θηλέα τὰ δύο. ὡσαύτως καὶ τρία καὶ τέσσαρα παιδιά γίνονται, ὅταν ἡ γονὴ ἐμπέσῃ εἰς τεσσάρους κόλπους τῆς μήτρας. (21) ἱστορεῖται ἐν ταῖς ἀνατομαῖς τῶν ὑστέρων, ὅτι καὶ πέντε γίνονται παιδιά, τοῦ σπέρματος εἰς τοὺς ε' κόλπους τῆς ὑστέρας ἐμπεσοῦσης.

Liber 5 Caput 11

P^B: ps.Plutarchus *Plac.* 906C–E; pp. 422^a13–423^a8 Diels—**P^G**: ps.Galenus *HPh* c. 115; p. 642.10–19 Diels; pp. 351–361 Jas—**P^Q**: Qustā ibn Lūqā pp. 224–225 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 114.1–10, p. 62 Westerink
S^L: Stobaeus *Ecl.* 1.42.7, p. 1.295.14–15 Wachsmuth (titulus solus)

Titulus 1α'. Πόθεν γίνεται τῶν γονέων ὁμοίωσις καὶ τῶν προγόνων (P,cf.S)

- §1 Ἐμπεδοκλῆς ὁμοιότητα γίνεσθαι κατ' ἐπικράτειαν τῶν σπερματικῶν γόνων, ἀνομοιότητα δὲ τῆς ἐν τῷ σπέρματι θερμοσίας ἐξατμισθείσης. (P₁)
- §2 Παρμενίδης, ὅταν μὲν ἀπὸ τοῦ δεξιοῦ μέρους τῆς μήτρας ὁ γόνος ἀπο- 5 κριθῇ, τοῖς πατράσιν· ὅταν δ' ἀπὸ τοῦ ἀριστεροῦ, ταῖς μητράσιν. (P₂)
- §3 οἱ Στωικοὶ ἀπὸ τοῦ σώματος ὅλου καὶ τῆς ψυχῆς φέρεσθαι τὸ σπέρμα, καὶ τὰς ὁμοιομερείας ἀναπλάττεσθαι ἐκ τῶν αὐτῶν γενῶν τοὺς τύπους καὶ τοὺς χαρακτῆρας, ὥσπερ ἂν εἰ ζωγράφον ἀπὸ τῶν ὁμοίων χρωμά- 10 των εἰκόνα τοῦ βλεπομένου. προῖεσθαι δὲ καὶ τὴν γυναικα σπέρμα· κἂν μὲν ἐπικρατήσῃ τὸ τῆς γυναικός, ὅμοιον εἶναι τὸ γεννώμενον τῇ μητρὶ, ἐὰν δὲ τὸ τοῦ ἀνδρός, τῷ πατρὶ. (P₃)

§1 Empedocles 31A81 DK; §2 Parmenides 28A54 DK; §3 Stoici SVF 2.749

titulus γίνεται P^{GQ}(ut vid.): γίνονται P^{BPs} || ὁμοίωσις P^{GQ} (ut. vid. nisi ἢ add.): αἱ ὁμοιώσεις P^{BPs} (αἱ om. P^{B(111)}) || καὶ τῶν προγόνων] καὶ αἱ πρὸς τούτους ἀνομοιότητες P^{Ps} (conflat cc. 11 et 12): al. S^L Πόθεν γίνονται τῶν γονέων αἱ ὁμοιώσεις ἢ τῶν προγόνων (cf. Wachsmuth 1882, 17) §1 [2] ὁμοιότητα P^{GQ} ὁμοιότητος P^B || [2–3] τῶν σπερματικῶν γόνων P^B: τῶν σπερμάτων P^G: *des Samens der Eltern* (= γονέων?) Q || [3] ἀνομοιότητα P^{GQ}: ἀνομοιότητος P^B || [3–§2[5]] τῆς ... Παρμενίδης: lac. hab. P^G || [3] τῷ σπέρματι τοῖς σπέρμασι P^{B(11)} || θερμοσίας] θεραπείας P^{B(11)} §2 [5] nomen non hab. P^G || τοῦ δεξιοῦ μέρους] τῶν δεξιῶν μερῶν P^G, prob. Mansfeld (2018) 194 || ὁ γόνος] τὸ σπέρμα P^G, prob. Mansfeld (2018) 194 §3 [7] καὶ τῆς ψυχῆς om. P^Q || [7–8] τὸ σπέρμα καὶ τὰς ὁμοιομερείας P^G, cf. *der in der Teilchen ähnliche Same* Q: τὰ σπέρματα καὶ τὰς ὁμοιότητας P^B (τὰς ὁμοιότητας del. Beck Diels, τῆς ὁμοιότητος coni. Von Arnim) || [8] ἐκ P^{B(1,111)} (ἐξ P^G): καὶ P^{B(11)}: κατὰ P^Q dub. Daiber (*nach* Q) || τῶν αὐτῶν γενῶν P^B (γονῶν aut μερῶν dub. Diels): αὐτῶν P^G: *nach den Bildern und Mustern der Väter* Q || [9] ὥσπερ ἂν εἰ P^B: ὥς P^G || τῶν P^{B(1,111)G}: om. P^{B(111)Q} || [10] εἰκόνα τοῦ βλεπομένου P^B, cf. *ein Bild ähnlich den Bildern malt, welche man sieht* Q: ὁμοιότητα τοῦ τικτομένου P^G || καὶ] om. P^Q || [11] μὲν ἐπικρατήσῃ P^B: ἐπικρατῇ P^G || [12] ἐὰν ... πατρὶ non hab. P^G || πατρὶ P^{B(11)Q} Diels: ἀνδρὶ P^{B(1,111)} Mau Lachenaud

Testes primi:

ps.Galenus HPh c. 115 (~ tit.) Πόθεν γίνεται τῶν γονέων ὁμοιώσεις καὶ τῶν προγόνων (text Jas)

- 115.1 (~ P1–2) Ἐμπεδοκλῆς ὁμοιότητα οἶται γίνεσθαι κατ' ἐπικράτειαν τῶν σπερμάτων, ἀνομοιότητα δέ, [...] ὅταν μὲν ἀπὸ τῶν δεξιῶν μερῶν τῆς μήτρας τὸ σπέρμα ἀποκριθῇ τοῖς πατράσιν, ὅταν δὲ ἀπὸ τοῦ ἀριστεροῦ ταῖς μητράσιν.
- 115.2 (~ P3) οἱ Στωικοὶ ἀπὸ τοῦ σώματος ὅλου καὶ τῆς ψυχῆς φέρεσθαι τὸ σπέρμα καὶ τὰς ὁμοιομερείας ἀναπλάττεσθαι ἐξ αὐτῶν τοὺς τύπους καὶ χαρακτῆρας, ὡς ζωγράφον ἀπὸ τῶν ὁμοίων χρωμάτων, ὁμοιότητα τοῦ τικτομένου. προῖεσθαι δὲ καὶ τὴν γυναικα σπέρμα, καὶ ἐπικρατῇ τὸ τῆς γυναικός, ὁμοίον ἐστὶ τῇ μητρὶ.

Psellus Omn.Doctr. c. 114 Πόθεν γίνονται τῶν γονέων αἱ ὁμοιώσεις καὶ αἱ πρὸς τοὺς ἀνομοιότητες (~ tit.)

τὸ ἀποκρινόμενον σπέρμα ἢ ἀπὸ τοῦ ἀνδρὸς ἢ ἀπὸ τῆς γυναικός· τὸ μὲν ἀπὸ τοῦ ἀνδρὸς λόγους ἔχει τῶν ἐν αὐτῷ ἡθῶν καὶ τρόπων καὶ τῆς μορφῆς, καὶ τὸ ἀπὸ τῆς μητρὸς δὲ ὡσαύτως (~ P3). ὅταν οὖν ἄμφω τὰ σπέρματα συγγραθῇ, εἰ μὲν ἐπίσης, ἔχει τὸ γεννώμενον ἴσιν καὶ πρὸς τὸ ἄρρεν καὶ πρὸς τὸ θῆλυ τὴν ὁμοιότητα· ὅταν δὲ τὸ ἄρρεν κατακρατήσῃ τοῦ θήλεος, πατρόμοια τὰ τικτόμενα ἀποτελεῖται· ὅταν δὲ τὸ θῆλυ τοῦ ἄρρενος, ἀπεικασμένα πρὸς τὴν μητέρα (~ P3). ὅταν δὲ ἡ ἐν τῷ σπέρματι θερμασία ἐξατμισθῇ, οὐδενὶ τῶν τοκέων τὸ πλαττόμενον ὁμοιοῦται (~ P1).

Loci Aetiani:

cf. A 5.12 Πῶς ἄλλοις γίνονται ὅμοιοι οἱ γεννώμενοι καὶ οὐ τοῖς γονεῦσιν.

§1 A 5.7.1 Ἐμπεδοκλῆς ἄρρενα καὶ θήλεα γίνεσθαι παρὰ θερμότητα καὶ ψυχρότητα· ὅθεν ἰστορεῖται τοὺς μὲν πρῶτους ἄρρενας πρὸς ἀνατολὴν καὶ μεσημβρίαν γεγενῆσθαι μᾶλλον ἐκ τῆς γῆς, τὰς δὲ θηλείας πρὸς ταῖς ἄρκτοις.

§2 A 5.7.4 Ἀναξαγόρας Παρμενίδης τὰ μὲν ἐκ τῶν δεξιῶν καταβάλλεσθαι εἰς τὰ δεξιὰ μέρη τῆς μήτρας, τὰ δ' ἐκ τῶν ἀριστερῶν εἰς τὰ ἀριστερά· εἰ δ' ἐναλλαγείη τὰ τῆς καταβολῆς, γίνεσθαι θήλεα.

§3 cf. A 5.5 Εἰ καὶ αἱ θήλειαι προῖενται σπέρμα. A 5.4.6 Δημόκριτος ἀφ' ὅλων τῶν σωματῶν καὶ τῶν κυριωτάτων μερῶν, οἶον ὀστέων σαρκῶν ἰνῶν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

As is the case in many other chapters in Book 5 (ten cases out of thirty) our direct witnesses in the tradition of P furnish three doxai. In G the first two are conflated, no doubt through a scribal mistake, so that he appears to have only two. Ps takes over material from this chapter which he reshapes (see below, sec-

tion D(e)§3). For both the heading and in the final lines of his chapter he combines material from the next chapter 5.12. S preserves only the heading in the Laurentianus ms.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The most important parallel in the proximate tradition is again found in Censorinus, who records doxai of Empedocles, Anaxagoras and Parmenides, i.e. including two of A's three. The view of Parmenides is the same as in A, but the Empedoclean theory based on heat and cold differs. In ps.Galen *Def.Med.* there is only a brief reference to the subject in §440 as the most important evidence for the existence of female semen. The long account in Lactantius taken over from Varro may also come from this tradition. It has no name-labels and most resembles A's final doxa, though various details differ. The discussion in Lucretius *DRN* 4.1209–1232 is also similar to the doxographical texts with its use of the theory of dominance and explicit mention of the question of resemblance to grandparents and more distant ancestors. Bailey (1947) 3.1313 suggests that his source will have been Democritus as passed on by Epicurus (cf. Arist. *GA* 4.1 764a6–11 cited on ch. 5.7).

(2) *Sources.* Aristotle clearly defines the problem in *GA* 4.3, distinguishing its various sub-topics, and devotes quite a long discussion to it. He first gives his own view involving the 'mastery' (κρατεῖν) or not of the male form on the female material, but this theory has not found its way into the extant doxographical tradition. Thereafter he criticizes earlier theories which are divided into two kinds of causes, the one based on the amount or dominance of male or female semen, the other through the concept of a semen aggregate. These thinkers are called *τινες τῶν φυσιολόγων* and he clearly has various Presocratics in mind (Empedocles and Democritus are subsequently cited by name). As we shall see below, there are connections between Aristotle's two kinds of theory and A's presentation, but his text is certainly not a direct source. The author of the treatise *Περὶ γονῆς* (*Genit.*) in the *Corpus Hippocraticum* gives a full discussion of similarity to both parents as a subject that follows on from the fact that both men and women have semen. Similarly (but much later) Galen discusses similarity and dissimilarity to parents and ancestors in *Sem.* 2.1 as part of an argument in favour of both male and female semen, arguing that Aristotle's form-matter approach cannot solve the problem. He does not refer to any doxographical material.

For further analysis and discussion of the subject of heredity in ancient sources see Lesky (1951) 36–38, 44–45, 171–173.

C Chapter Heading

The formulation with the preposition *πόθεν* and the abstract noun *ὁμοίωσις* differs from what we find in Aristotle (the noun is not part of his vocabulary). For chapter headings with *πόθεν* cf. chs. 1.6, 2.3, 2.17, 4.21, 5.28. It does not ask directly for the cause (contrast Aristotle *GA* 4.3 769a1 διὰ τίνα ... αἰτίαν, also a7), but rather asks what is the determining causal factor. The mention of the *πρόγονοι* (ancestors) in the heading can be traced back to Aristotle, who mentions them in relation to this question at *GA* 4.3 767b2, 4.3 769a5. This is a notable *Leitfossil* in respect of the origin of the material taken up in the *Placita* tradition. As noted above, the subject is specifically treated in Lucretius *DRN* 4.1218–1226. These ancestors play no further role in A's chapter, which could be due to the process of P's abridgement.

On the chapter headings in *S*¹ see above, ch. 5.4 Commentary C. The heading for this chapter differs somewhat in wording from what is found in the tradition of P.

D Analysis

a Context

The question follows on from ch. 5.7 on the division of conceived fetuses into male and female. But it is not posed until the other special kinds of conception (chs. 5.8 monstrous births, 5.10 multiple births) have been treated (including the misplaced ch. 5.9). The present chapter is the first part of a diptych on similarity and dissimilarity, chs. 5.11–12.

b Number–Order of Lemmata

Given the significant parallels in Censorinus, it is quite likely that there were originally more doxai in the chapter, e.g. with the name-labels Democritus and Anaxagoras. We may have also expected the views of Aristotle and some physicians (cf. 5.12) to have been included.

c Rationale–Structure of Chapter

The three doxai each present significant positions on the chapter's subject.

(1) Empedocles invokes predominance of semen and its (internal) heat, the former to explain similarities, the latter to explain dissimilarities. The doxa seems poorly formulated, even if we take heat also to be the determining factor for the similarities. See the discussion at Lesky (1951) 37–38. The doxa is not inconsistent with A 5.7.1, but that doxa too was very loosely formulated, not indicating whether it was the heat of the semen or of the womb that was the determinative factor (according to Aristotle it is the latter; see on A 5.7.1). Empedocles is one of the theorists criticized by Aristotle in *GA* 4.3, who argues

that his theory on sex-differentiation, involving heat and cold, cannot solve the problem of how daughters resemble their fathers and sons their mothers (text below section E(b) General texts).

(2) Parmenides' explanation is based on his well-known right-left (parts of the womb) theory (see A 5.7.4) and is supported by the similar formulation in Censorinus (note that both he in 6.8 and A use a pair of temporal clauses: ὅταν ... ὅταν, *cum ... cum*). On the possibly lacunose text see further below section D(d)§2.

(3) The third doxa, attributed to the Stoics, returns to the pan-genesis theory already introduced in ch. 5.3. If both male and female semen take characteristics from all the various parts of the body, then it is not hard to explain how through the prevalence of a mother's seed a son can resemble her. Diels divides the doxa into two parts, unusually numbering the second half separately. This is misleading, since the doxa as a whole forms a single argument: first the general theory of inheritance is set out, then it is observed that females also produce semen; on that basis the theory can explain the similarities to parents. The latter question on female semen had already been treated at ch. 5.5 (its repetition here shows that the pedantic A generally divides up what was originally kept together). The problem pointed out by Diels is that there is no evidence that the Stoa supported the view that females produce semen and that is contradicted not only at A 5.5.2, but also by other texts (D.L. 7.159, Cens. 5.4, cf. Diels *DG* 423; see also Lesky 1951, 171). The name-label must have been incorrectly attached (unless there was a minority viewpoint of which we are ignorant). Given the mention of *homoiomereiai* (on which see below, section D(d)§3), it is possible that the theory was intended to represent that of Anaxagoras. This is consistent with Censorinus' report, but not with A 5.7.4 and Aristotle in *GA* 4.1. However, it should also be noted that the theory bears some resemblance to the second of theories that Aristotle criticizes, at 4.3 769a28. Admittedly, the key term *πανσπερμία* is not found in A. But the general thrust of the theory is similar and the image of the artist in A seems like a developed version of Aristotle's 'juice-mixer'. The Stoic name-label may have been attached because someone recognized an affinity with the theory of *spermatikoi logoi* (see below, section D(d)§3 on Psellus' adaptation).

The three doxai thus represent a diaeresis of three distinctive views: predominance of seminal heat, right and left parts of the womb, predominance of pan-genetic spermatic characteristics. But there is little attempt, it would seem, to achieve consistency with the earlier question of the origin of sex differentiation treated in ch. 5.7.

In addition, the composition of the chapter is rather uneven. The first doxa explains both similarity and dissimilarity (thus anticipating the next chap-

ter 5.12), but in general terms. The next doxa and the second half of the final doxa explain resemblance to the father and the mother as distinct from the parents in general. This aspect of the topic is not announced in the chapter's heading.

d Further Comments

Individual Points

§2 Mansfeld (2015e) = (2018a) 193–194 argues that the text on Parmenides may be lacunose. The description of the role played by the womb requires further explanation (194): 'I take it that, analogous to what is at issue in 5.7.4, what is produced by the right parts must be deposited in the right side of the womb to result in resemblance to male ancestors, and what is produced by the left parts must be deposited in the left side of the womb to result in resemblance to female ancestors.' He also rightly points out that G's term σπέρμα is more accurate than γόνος in P^B, and G's plural τῶν δεξιῶν μερῶν coheres better with A 5.7.4 and indeed with Parmenides' own words in fr. 28B17 DK (cited in A 5.7 section E(b)§1). But G retains the singular for the left part and we hesitate to emend the text so drastically.

§3 The reading τὰς ὁμοιομερείας in G is supported by Q. As a quite unexpected reading, not directly provoked by the context, it is almost certainly genuine. The term is also used in an Empedoclean doxa on the flavours of fruits in 5.26.4. In contrast the reading of P^B, τὰς ὁμοιότητας, is problematic. Mau and Lachenaud take over Von Arnim's emendation τῆς ὁμοιότητας, but it is clear that a subject is needed for the verb ἀναπλάττεσθαι.

Lesky (1951) 173 in her comment on Psellus is unaware that he is directly dependent on P for his information. She suspects that the Stoicizing tenor of the opening words of his chapter, and particularly the phrase λόγους ... τῶν ἐν αὐτῷ ἡθῶν καὶ τρόπων καὶ τῆς μορφῆς referring to the inherited characteristics of the offspring, come from A or his source. In fact they are more likely due to the intervention of Psellus himself, who, taking his cue from the name-label, introduces the terminology from his own knowledge of Greek philosophy.

Of considerable interest is the passage in a Viennese papyrus that most likely goes back to Origen's *Commentary on Genesis*. The text is best accessible at Metzler (2010) 184–186; see below, section E(b)§3. The theory of ἐπικράτεια, utilised in both §1 and §3 is here applied without any further details and no name-label. *Pace* Metzler (2010) 184 n. 255 it cannot be regarded as Stoic for the reasons stated above. Its use in this context suggests that this simplified view had become generally accepted by the third century CE.

e Other Evidence

It is clear that the diaeresis of three views in A resembles the parallel passage in Censorinus, although the Latin author is more fluent in linking up the doxai. The two texts share two out of three views. The doxa of Empedocles in Censorinus is the same as in P's §1, but he develops the various permutations much more elaborately and specifies that the resemblance relates to the face. The Parmenidean doxa is the same in both sources. Censorinus also includes a doxa of Anaxagoras which is missing in P, while the Stoic view is absent in the Latin author. The Anaxagorean doxa does show some resemblance to the second part of the Stoic view, but here too the important detail of the face is lacking in P. It is likely that both authors are likely to be incomplete in relation to their source. If we leave Aristotle aside, no other ancient texts give multiple views on this subject.

E Further Related Texts

a Proximate Tradition

General texts: Lucretius *DRN* 4.1208–1232 *et commiscendo quom semine forte virilem / femina vim vicit subita vi corripuitque, / tum similes matrum materno semine fiunt, / ut patribus patrio. sed quos utriusque figurae / esse vides, iuxtim miscentes vultu parentum, / corpore de patrio et materno sanguine crescunt, / semina cum Veneris stimulis excita per artus / obvia confligit conspirans mutuus ardor, / et neque utrum superavit eorum nec superatumst. / fit quoque ut interdum similes existere avorum / possint et referant proavorum saepe figuras, / propterea quia multa modis primordia multis / mixta suo celant in corpore saepe parentes, / quae patribus patres tradunt a stirpe profecta; / inde Venus varia producit sorte figuras / maiorumque refert vultus vocesque comasque, / quandoquidem nilo minus haec de semine certo / fiunt quam facies et corpora membraque nobis. / et muliebre oritur patrio de semine saeculum, / maternoque mares existunt corpore creti; / semper enim partus duplici de semine constat, / atque utri similest magis id quodcumque creatur, / eius habet plus parte aequa; quod cernere possis, / sive virum suboles sive muliebris origo.* Censorinus *DN* 6.6–8 *ex dextris partibus profuso semine mares gigni, at e laevis feminas Anaxagoras Empedoclesque consentiunt* (cf. A 5.7.4), *quorum opiniones, ut de hac specie congruae, ita de similitudine liberorum dispariles; super qua re Empedoclis disputata ratione talia profert* (31A81 DK): (7) *si par calor in parentum seminibus fuit, patri similem marem procreari; si frigus, feminam matri similem. quodsi semen patris calidius erit et frigidius matris, puerum fore, qui matris vultus repraesentet; at si calidius matris, patris autem fuerit frigidius, puellam futuram, quae patris reddat similitudinem* (~§1). (8) *Anaxagoras* (59A111 DK) *autem eius parentis faciem referre liberos iudicavit, qui seminis amplius contulisset. ceterum Parmenidis* (28A54 DK) *sententia est, cum dexterarum partes semina dederint, tunc filios esse patri consimiles, cum laevae, tunc matri* (~ §3). **Lactantius** *Op.D.* 12.8–10 Perrin (from Varro, fr. 51 Salvatore; not in DK) *similitud-*

ines autem in corporibus filiorum sic fieri putant: cum semina inter se permixta coalescunt, si virile superaverit, patri similem provenire seu marem seu feminam, si muliebri praevaluerit, progeniem cuiusque sexus ad imaginem respondere maternam. (9) id autem praevalet e duobus, quod fuerit uberius; alterum enim quodammodo amplectitur et includit: hinc plerumque fieri ut unius tantum liniamenta praetendat. (10) si vero aequa fuerit ex pari semente permixtio, figuras quoque misceri, ut suboles illa communis aut neutrum referre videatur, quia totum ex altero non habet, aut utrumque quia partem de singulis mutuata est. cf. ps.Galen Def.Med. 440 cited on ch. 5.5. also Galen Sem. 2.1.76, p. 196.19–21 De Lacy καὶ γὰρ ὅτι τοῖς προγόνους ὁμοιοῦνται τινα κατὰ τοὺς σπερματικοὺς λόγους, οὐ μόνον τοὺς τοῦ πατρὸς, ἀλλὰ καὶ τοὺς τῆς μητρὸς, εὐδὴλον ἐκ τῶν εἰρημένων ἐστί. cf. also Ther. 11, p. 14.253.15–17 K. cited on ch. 5.12.

Chapter heading: cf. Galen Sem. 2.1.56, p. 158.11 κατὰ τοῦτο δὲ ὅμοιον ἢ ἀνόμοιον τοῖς γονεῦσιν.

§1 Empedocles: cf. Lucretius DRN 4.1208–1232 and Censorinus DN 6.5 on Parmenides, both cited above.

b Sources and Other Parallel Texts

General texts: Aristotle GA 4.3 767a36–b5 αἱ δ' αὐταὶ αἰτίαι καὶ τοῦ τὰ μὲν εἰκότα γίνεσθαι τοῖς τεκνώσασιν τὰ δὲ μὴ εἰκότα, καὶ τὰ μὲν πατρὶ τὰ δὲ μητρὶ, κατὰ τε ὅλον τὸ σῶμα καὶ κατὰ μέρη ἕκαστον, καὶ μᾶλλον αὐτοῖς ἢ τοῖς προγόνους, καὶ τούτοις ἢ τοῖς τυχοῦσι καὶ τὰ μὲν ἄρρενα μᾶλλον τῷ πατρὶ τὰ δὲ θήλεα τῇ μητρὶ, τὰ δ' οὐθενὶ τῶν συγγενῶν ... (see further on ch. 5.12). GA 4.3 769a1–b7 διὰ τίνα μὲν οὖν αἰτίαν θήλεα καὶ ἄρρενα γίνεσθαι, καὶ τὰ μὲν εἰκότα τοῖς γονεῦσιν, θήλεά τε θήλεσι καὶ ἄρρενα ἄρρεσι, τὰ δ' ἀνάπαλιν θήλεά τε τῷ πατρὶ καὶ ἄρρενα τῇ μητρὶ, καὶ ὅλως τὰ μὲν τοῖς προγόνους εἰκότα τὰ δ' οὐθενί, καὶ ταῦτα καὶ καθ' ὅλον τὸ σῶμα καὶ τῶν μορίων ἕκαστον, διωρίσται περὶ πάντων. εἰρήκασιν δὲ τινες τῶν φυσιολόγων καὶ ἕτεροι περὶ τούτων διὰ τίν' αἰτίαν ὅμοια καὶ ἀνόμοια γίνεσθαι τοῖς γονεῦσιν· δύο δὴ τρόπους λέγουσι τῆς αἰτίας. ἔνιοι μὲν γὰρ φασιν ἅφ' ὁποτέρου ἂν ἔλθῃ σπέρμα πλέον τούτῳ γίνεσθαι μᾶλλον εἰκότος, ὁμοίως παντὶ τε πᾶν καὶ μέρος, ὡς ἀπιδότος ἅφ' ἑκάστου τῶν μορίων σπέρματος· ἂν δ' ἴσον ἔλθῃ ἅφ' ἑκατέρου τούτων οὐδετέρῳ γίνεσθαι ὅμοιον. εἰ δὲ τοῦτ' ἔστι ψεῦδος καὶ μὴ ἀπὸ παντὸς ἀπέρχεται δῆλον ὡς οὐδὲ τῆς ὁμοιότητος καὶ ἀνομοιότητος αἴτιον ἂν εἴῃ τὸ λεχθέν. ἔτι δὲ πῶς ἅμα θῆλυ μὲν πατρὶ εἰκότος ἄρρεν δὲ μητρὶ εἰκότος οὐκ εὐπρόως δύνανται διορίζειν· οἱ μὲν γὰρ ὥσπερ Ἐμπεδοκλῆς (—) λέγοντες ἢ Δημόκριτος (fr. 533 Luria) περὶ τοῦ θήλεος καὶ ἄρρενος τὴν αἰτίαν ἄλλον τρόπον ἀδύνατα λέγουσιν ... ἔτι δὲ διὰ τίν' αἰτίαν εἰκότος γίνεσθαι τοῖς προγόνους ὡς ἐπὶ τὸ πολὺ καὶ τοῖς ἄποθεν; οὐ γὰρ ἀπ' ἐκείνων γ' ἀπελήλυθεν οὐθέν τοῦ σπέρματος. ἀλλὰ μᾶλλον οἱ τὸν λιπόμενον τρόπον λέγοντες περὶ τῆς ὁμοιότητος καὶ τᾶλλα βέλτιον καὶ τοῦτο λέγουσιν. εἰσὶ γὰρ τινες οἱ φασὶ τὴν γονὴν μίαν οὔσαν οἷον πανσπερμίαν εἶναι τινα πολλῶν· ὥσπερ οὖν εἴ τις κεράσειε πολλοὺς χυμοὺς εἰς ἓν ὑγρόν, κάπειτ' ἐντεῦθεν λαμβάνοι, {καὶ} δύναιτ' ἂν λαμβάνειν μὴ ἴσον αἰεὶ ἅφ' ἑκάστου, ἀλλ' ὅτε μὲν τοῦ τοιοῦδε πλείον ὅτε δὲ τοῦ τοιοῦδε, ὅτε δὲ τοῦ μὲν λαβεῖν τοῦ δὲ μὴ ἐν λαβεῖν—τοῦτο συμβαίνειν καὶ ἐπὶ τῆς γονῆς πολυμιγῆς οὕσης· ἅφ' οὐ γὰρ ἂν τῶν γεννώντων πλείστον ἐγγένηται, τοῦτ'

γίγνεσθαι τὴν μορφήν εἰκόσ. οὗτος δὲ ὁ λόγος οὐ σαφὴς μὲν καὶ πλασματίας ἐστὶ πολλᾶχῃ, (b1) ... οὐ ῥάδιον δὲ οὐδὲ τρόπον ἓνα τῆς αἰτίας ἀποδιδόντας τὰς αἰτίας εἰπεῖν περὶ πάντων· τοῦ τε γίγνεσθαι θῆλυ καὶ ἄρρεν, καὶ διὰ τί τὸ μὲν θῆλυ τῷ πατρὶ πολλᾶκις ὅμοιον τὸ δ' ἄρρεν τῇ μητρὶ, καὶ πάλιν τῆς πρὸς τοὺς προγόνους ὁμοιότητος ... **Aristophanes of Byzantium** *Epit.HA* 1.89 τὰς δὲ ὁμοιότητας οἶται συμβαίνειν παρὰ τὰς ἀπειρίας καὶ εὐπειρίας τῶν σπερμάτων (view of Aristotle himself, no doxography). cf. **Corpus Hippocraticum** *Genit.* 8, p. 7.480.4–16 Littré καὶ ὁκόθεν ἂν τοῦ σώματος τοῦ ἀνδρὸς πλέον ἔλθῃ ἐς τὴν γονὴν ἢ τῆς γυναικὸς, κείνο κάλλιον ἔοικε τῷ πατρὶ· ὁκόθεν ἂν δὲ πλέον ἔλθῃ ἀπὸ τῆς γυναικὸς τοῦ σώματος, κείνο κάλλιον ἔοικε τῇ μητρὶ. ἔστι δὲ οὐκ ἀνυστὸν πάντα τῇ μητρὶ εἰοικέναι, τῷ δὲ πατρὶ μηδὲν, ἢ τὸ ἐναντίον τούτου, οὐδὲ μηδετέρῳ εἰοικέναι μηδὲν· ἀλλ' ἀμφοτέροισιν ἀνάγκη τίς ἐστὶν εἰοικέναι τινί, εἴπερ ἄρα ἀπ' ἀμφοτέρων τῶν σωμάτων τὸ σπέρμα χωρεῖ ἐς τὸ τέκνον. ὁκότερος δ' ἂν πλέον ξυμβάληται ἐς τὸ εἰοικέναι καὶ ἀπὸ πλεόνων χωρίων τοῦ σώματος, κείνῳ τὰ πλείονα ἔοικε· καὶ ἔστιν ὅτε θυγάτηρ γενομένη τὰ πλείονα ἔοικε κάλλιον τῷ πατρὶ ἢ τῇ μητρὶ, καὶ κούρος γενόμενος ἔστιν ὅτε κάλλιον ἔοικε τῇ μητρὶ ἢ τῷ πατρὶ. Καὶ ταῦτά μοι καὶ τοσαῦτα ἐστὶν ἰστορία τῷ προτέρῳ λόγῳ, ὅτι ἔνεστι καὶ ἐν τῇ γυναικὶ καὶ ἐν τῷ ἀνδρὶ καὶ κουρογονίᾳ καὶ θηλυγονίᾳ. **Galen** *Sem.* 2.2.1 162.1–6 De Lacy αὐτοὶ δ' αὖθις ἀφ' ἡμῶν αὐτῶν ἴδωμεν, εἰ τίς ποτέ ἐστιν αἰτία, δι' ἣν τὸ εἶδος τοῦ ζώου κατὰ τὴν μητέρα γίνεται μάλλον, ἢ δ' ὁμοιότης ἄλλοτ' ἄλλῳ τῶν γονέων. εἰ γὰρ καὶ ὅτι μάλιστα σπερμαίνει τὸ θῆλυ καὶ γόνιμον σπερμαίνει, ἀλλ' οὕτω γε πλέον ἢ γονιμώτερον τοῦ ἄρρενος. ἐχρῆν οὖν αἰεὶ κρατεῖσθαι μὲν τὸ θηλυκὸν σπέρμα, κρατεῖν δ' αὐτοῦ τὸ ἄρρεν, ὥστε καθ' ἑαυτὸ καὶ τὴν τοῦ εἶδους ἐργάζεσθαι καὶ τὴν τῆς ὁμοιότητος ἐπικράτησιν. see also *Sem.* 2.1.39–40 154.7–11 cited on ch. 5.12. **Anonymus medicus** *De generatione et semine* 17–18 Ideler καὶ εἰ μὲν ἐπ' ἀμφοτέρων τὸ σπέρμα ἰσχυρὸν ἔλθοι, ἄρρεν γίνεται τὸ παιδίον, καὶ εἰ μὲν ἡ τοῦ ἀνδρὸς γονὴ πλέον ἔλθοι, τῷ πατρὶ ὅμοιον ἔοικε τὸ παιδίον. (18) ἦν δὲ γονὴ τῆς γυναικὸς πλεονάσῃ, τῇ μητρὶ ἔοικεν ὅμοιον, καὶ εἰ μὲν πάλιν ἐπ' ἀμφοτέρων ἡ γονὴ ἰσχυρὰ ὑπέλθοι, ἀμφοτέρων ἔοικεν ὅμοιον.

Chapter heading: cf. **Aristotle** *GA* 4.3 769a1–5 διὰ τίνα μὲν οὖν αἰτίαν ... καὶ τὰ μὲν εἰκοτά τοῖς γονεῦσι, θήλεά τε θήλεσι καὶ ἄρρενα ἄρρεσι, τὰ δ' ἀνάπαλιν θήλεά τε τῷ πατρὶ καὶ ἄρρενα τῇ μητρὶ, καὶ ὅλως τὰ μὲν τοῖς προγόνους ἔοικόντα τὰ δ' οὐθενί, καὶ ταῦτα καὶ καθ' ὅλον τὸ σῶμα καὶ τῶν μορίων ἕκαστον, διώρισται περὶ πάντων. *GA* 769a7–8 διὰ τί τὴν αἰτίαν ὅμοια καὶ ἀνόμοια γίγνεται τοῖς γονεῦσιν. 769a24 διὰ τί τὴν αἰτίαν εἰκόσ γίγνεται τοῖς προγόνους. *GA* 4.3 769a27 περὶ τῆς ὁμοιότητος. cf. *GA* 4.3 769b6–7 τῆς πρὸς τοὺς προγόνους ὁμοιότητος. cf. **Pliny** *Nat.* 1 Index Liber VII *similitudinum exempla*.

Galen *Sem.* 2.5.1, p. 178.16–17 De Lacy ἀπορία δ' οὐ μικρὰ διαδέχεται αὐτὸν τὸν λόγον ὑπὲρ τῆς κατὰ τὰ μόρια τῶν ἐκγόνων πρὸς τοὺς γεννήσαντας ὁμοιότητος.

§1 Empedocles: cf. **Corpus Hippocraticum** *Genit.* 8 (cited above). **Aristotle** *GA* 4.3 769a17 (cited above).

§2 Parmenides: cf. **Corpus Hippocraticum** *Vict.* 1.28–29 (but characteristics rather than sex; similarly **Parmenides** fr. 28B18 DK).

§3 Stoics: **Papyrus Vindobonensis** 29447, 29464, 29829, 29883 fr. VI recto p. 94 Sanz (text at Metzler 2010, 184) καὶ αἰτιολ[ο]γοῦσιν τὴν τοῦ ἐμβρύου

ὁ]μοιότη[τα] ὄν[τως] πατέρα ἢ μητέρα ἢ [τινὰ πρὸς γένους τοῦ πατρὸς] ἢ πρὸς γένους τῆς μητρός· φασι[ν δὲ, ὅτι κ]ρα[τοῦντο]ς τοῦ γυναικείου σπέρματος ἢ ὁ[μοιό-τ]ης τῆς γυναικὸς ἢ τινος τῶν πρὸς αἵματος [αὐτῆς] ἐγγίνεται τῷ ἐμβρύῳ, εἰ δὲ τὸ τοῦ ἀνδρὸς σ[πέρμα κρα]τήσκειν, ἢ ὁμοιότης ἐπὶ τὸν πατέρα ἢ τινα [τῶν πατρ]ῶν γένους αὐτῷ παραγίνεται. cf. **anonymi** at Arist. *GA* 4.3 769a27–36 (cited above). But note **Diogenes Laertius** *V.P.* 7.159 (Stoic doxography) τὸ δὲ τῆς θηλείας (sc. σπέρμα) ἄγονον ἀποφαίνονται. also **Censorinus** 5.4 *utrumne ex patris tantum modo semine partus nascatur, ut Diogenes* (64A27 DK) *et Hippon* (38A13 DK) *Stoicique* (—) *scripserunt*. see further texts cited on ch. 5.5, and also texts of Soranus and Galen pertaining to A 5.12.2.

Liber 5 Caput 12

P^B: ps.Plutarchus *Plac.* 906E; *DG* p. 423^a9–25 Diels—**P^G**: ps.Galenus *HPh* c. 116; p. 642.20–26 Diels; pp. 361–368 Jas—**P^Q**: Qustā ibn Lūqā pp. 226–227 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* c. 114.1–2, 11–13, p. 62 Westerink
S^L: Stobaeus *Ecl.* 1.42.8, p. 1.296.6–7 Wachsmuth (titulus solus)

Titulus ιβ'. Πῶς ἄλλοις γίνονται ὅμοιοι οἱ γεννώμενοι καὶ οὐ τοῖς γονεῦσιν (P,cf.S)

- §1 οἱ μὲν πλείστοι τῶν ἱατρῶν τυχικῶς καὶ αὐτομάτως, ὅταν διαψυγῇ τὸ σπέρμα καὶ τὸ τοῦ ἀνδρὸς καὶ τὸ τῆς γυναικὸς, ἀνόμοια γίνεσθαι τὰ παιδία. (P₁)
- §2 Ἐμπεδοκλῆς τῇ κατὰ τὴν σύλληψιν φαντασίᾳ τῆς γυναικὸς μορφοῦσθαι τὰ βρέφη· πολλάκις γὰρ ἀνδριάντων καὶ εἰκόνων ἠράσθησαν γυναῖκες, καὶ ὅμοια τούτοις ἀπέτεκον. (P₂)
- §3 οἱ Στωικοὶ συμπαθεῖα τῆς διανοίας κατὰ ῥευμάτων εἰσκρίσεις καὶ ἀκτίνων (ἢ καὶ) εἰδώλων γίνεσθαι τὰς ἄλλων ὁμοιότητας. (P₃)

5

10

§1 medici —; §2 Empedocles 31A81 DK; §3 Stoici *SVF* 2.753

titulus ὅμοιοι] ὅμοια **P^G** || γίνονται ὅμοιοι] inv. **S^L**-ind || οἱ γεννώμενοι **P^B**(I-index), cf. τὰ γεννώμενα **P^G**, *viele von den Geborenen* **Q** : non hab. **P^B**(I–III:AE) || καὶ οὐ τοῖς γονεῦσιν **P^{BQ}** : deest in **P^G** || al. **P^{Ps}** Πόθεν γίνονται τῶν γονέων αἱ ὁμοιώσεις ... §1 [3] αὐτομάτως **P^B** : ἐκ τοῦ αὐτομάτου **P^G** || ὅταν **P^{GQ}**(ut vid.) : ἐκ τοῦ ὅταν **P^B**, ἐκ τοῦ del. Diels Mau Lachenaud || διαψυγῇ **P^B**(II:G) : διαψυχῇ **P^B**(I,III:α) : διαψυχθῇ **P^B**(III:AE) : *ausgetrocknet und abkühlt* **Q** §2 [6] τὴν om. **P^B**(II) || φαντασίᾳ **P^{BQ}**(Nie) : ὕψει τε καὶ φαντασίᾳ **P^G**(mss.) || [7] ἀνδριάντων καὶ εἰκόνων **P^B**(I,II:G) : εἰκόνων καὶ ἀνδριάντων **P^B**(II:Q) || γυναῖκες om. **P^G** §3 [9] οἱ Στωικοὶ **P^{BQ}** : immo Δημόκριτος Ἐπίκουρος, vid. comm. infra || συμπαθεῖα **P^B** : κατὰ συμπάθειαν **P^G** || post διανοίας lac. susp. Diels Mau Lachenaud || κατὰ **P^B** : καὶ **P^{GQ}** || ῥευμάτων **P^{BQ}** : al. **Q** *ausgegossenen Materie* (= καὶ ῥευμάτου ?) || εἰσκρίσεις **P^B** : εἴσκρισιν **P^G** : κατὰ ἔσκρισιν **P^Q** ut vid. (*entsprechend der Aussendung* **Q**) || [10] (ἢ καὶ) scripsimus coni. Diels : οὐκ **P^{BQ}** || ἄλλων corr. Diels Mau Lachenaud : ἀλλήλων **P^{BQ}**, om. **P^G**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 116 (~ tit.) Πῶς ἄλλοις ὅμοια γίνεται τὰ γεννώμενα (text Jas)

116.1 (~ P₁) οἱ μὲν πλείστοι τῶν ἱατρῶν τυχικῶς καὶ ἐκ τοῦ αὐτομάτου, ὅταν διαψυγῇ τὸ σπέρμα καὶ τὸ τοῦ ἀνδρὸς καὶ τὸ τῆς γυναικὸς, ἀνόμοια γίνεσθαι τὰ παιδία.

116.2 (~ P₂) Ἐμπεδοκλῆς τῇ κατὰ τὴν σύλληψιν φαντασίᾳ τῆς γυναικὸς μορφοῦσθαι τὰ βρέφη· πολλάκις γὰρ ἀνδριάντων καὶ εἰκόνων ἠράσθησαν καὶ ὅμοια τούτοις τετόκασιν.

116.3 (~ P₃) οἱ Στωικοὶ κατὰ συμπάθειαν τῆς διανοίας καὶ ῥευμάτων καὶ ἀκτίνων εἴσκρισιν γίνεσθαι τὰς ὁμοιότητας.

Psellus *Omn. Doctr.* c. 114.1–2, 11–13 Πόθεν γίνονται τῶν γονέων αἱ ὁμοιώσεις καὶ αἱ πρὸς τούτους ἀνομοιότητες (~ tit.)
πολλάκις δὲ καὶ τῆς γυναικὸς φαντασίαν ἐν τῷ τίκτειν λαβούσης τοῦδε ἢ τῆσδε, πρὸς τὸ φαντασθὲν ἀπεικάζεται τὸ γεννώμενον (~ P2).

Loci Aetiani:

quaestio cf. A 5.11 Πόθεν γίνονται τῶν γονέων ὁμοιώσεις καὶ τῶν προγόνων.

§1 A 5.7.1–2 Ἐμπεδοκλῆς ἄρρενα καὶ θήλεα γίνεσθαι παρὰ θερμότητα καὶ ψυχρότητα ... Παρμενίδης ἀντιστρόφως ... A 5.11.1 Ἐμπεδοκλῆς ὁμοιότητα γίνεσθαι κατ' ἐπικράτειαν τῶν σπερματικῶν γόνων, ἀνομοιότητα δὲ τῆς ἐν τῷ σπέρματι θερμασίας ἐξατμισθείσης.

§3 A 4.13.1 Λεύκιππος Δημόκριτος Ἐπίκουρος κατὰ εἰδώλων εἴσκρισιν οἶονται τὸ ὁρατικὸν συμβαίνειν πάθος. A 4.13.11 Ἐμπεδοκλῆς καὶ πρὸς τὸ διὰ τῶν ἀκτίνων καὶ πρὸς τὸ διὰ τῶν εἰδώλων ἐκδοχὰς παρέχεται. A 4.14.2 Λεύκιππος Δημόκριτος Ἐπίκουρος τὰς κατοπτρικὰς ἐμφάσεις γίνεσθαι κατ' εἰδώλων ἐνστάσεις.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

All three main witnesses record three doxai. Despite the doubts of scholars, to be discussed below, the three lemmata should be retained and the third doxa should not be broken into two. See further the discussion below at D(c). Ps appends a brief reference to the second lemma to his chapter combining the questions of chs. 5.11 and 5.12.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The chapter's subject, which continues from the previous chapter, is not separately treated in any of the witnesses to the proximate tradition, including Censorinus and Lucretius.

(2) *Sources.* The subject of the dissimilarity of children in relation to their parents and other ancestors is separately noted by Aristotle as part of his discussion in *GA* 4.3. He mentions it three times as part of a continuum of similarity/dissimilarity, first to father and mother, then to other progenitors, then to human beings in general, and ending with the case of monstrous births that involve non-human features (texts below section E(b) General texts). In the doxographical section at 769a7–b3 the question of dissimilarity is also briefly mentioned in the report on the first kind of explanation (attributed to 'some of the physiologi') with the additional comment that the reason given is uncon-

vincing (769a13 οὐδετέρῳ γίγνεσθαι ὅμοιον). However, none of the doxai found in A can be linked back to Aristotle's discussion. The author of the Hippocratic treatise *Genit.* in the passage cited on ch. 5.11 on similarities to parents argues that it is not possible for a child not to look like either of its parents in all its features.

C Chapter Heading

In contrast to the chapter heading of the twin chapter 5.11, A reverts to the formulation with πῶς + the verb γίγνομαι, which he also used in chs. 5.6–8 & 10. For the sake of brevity the heading also omits the reference to 'the ancestors'.

On the chapter headings in S^L see above, ch. 5.4 Commentary C. The heading for this chapter is almost identical to that found in the tradition of P, but there are no positive grounds for thinking it is interpolated from there.

D Analysis

a Context

The chapter forms a pair with ch. 5.11, with the present chapter focusing on dissimilarity from rather than similarity to parents. As noted above, Aristotle studies both aspects within the single chapter (as does Psellus). In the opening doxa of ch. 5.11 (Empedocles) too, both similarities and dissimilarities are explained. But A has decided to split the subject up into two twin chapters, which at least as far as their chapter headings are concerned, form a neat contrasting pair.

b Number–Order of Lemmata

Given the lack of parallels in the doxographical literature, it is perhaps unlikely that the chapter had more than the three doxai preserved in the tradition of P. On the other hand, Aristotle's doxographical section at *GA* 4.3 769a7–b3 hints at earlier discussions which might have provided additional material that has gone lost.

c Rationale–Structure of Chapter

The chapter falls into two sections, which form a kind of diaeresis.

(1) The first doxa, attributed to 'the majority of the doctors', gives a general physiological explanation involving the cooling of both the male and female semen, so that (we presume) the offspring resemble neither of the parents. The theory of the causality of heat and cold in sex determination is attributed to Empedocles and Parmenides in A 5.7.1–2, but this is in a protological context (cf. Aristotle *GA* 4.1 764a1–7). In addition heat is invoked to explain Empedocles' views on similarity *and* dissimilarity to forebears in 5.11.1. The attribution here most likely refers to the Hellenistic doctors, starting with Diocles (who is labelled ὁ ἱατρὸς in 5.9.1).

The introduction of the name-label with the particle μέν would appear to introduce a contrast with other views. But no δέ follows (none of the witnesses record it). The remaining doxai adopt a quite different approach.

(2) The remaining two doxai give as explanation various psychological factors involving thought processes. The view attributed to Empedocles (§2) differs *tout court* from the explanation given in A 5.11.1. It invokes the role of the φαντασία on the part of the woman when she conceived, as illustrated by popular tales such as the story of the Cyprian king mentioned by Soranus in his *Gynaecia*; see Gourevich (1987) and other references in the learned note at Lachenaud ad loc. (texts cited below section E(b)§2).

The final part of the chapter is difficult. Diels determined that the third lemma as found in the witnesses could not be accepted as it stands. For the Stoics an explanation in terms of a ‘fellow-feeling of the mind’ is not totally implausible, though it cannot be confirmed by any other texts (and the term συμπάθεια is usually used in a cosmological context). But the remainder of the lemma uses a wholly different atomistic terminology, which can hardly be attributed to the Stoics. He suggested ad loc. that this last section is better attributed to ‘Empedocles or the Democriteans’ and pointed out terminological resemblances with A 4.13.1 and 4.14.1. Von Arnim includes only the doxa up to the word διανοίας in his collection of Stoic fragments (*SVF* 2.753).

What Diels and his followers failed to observe is that the terminology of the entire passage so closely resembles what we find in Epicurus’ account of the process of vision in the *Epistula ad Herodotum* that it must be suspected that this is what the doxa is at least partly based upon (for further use of material from his letters see chs. 1.20.2, 2.7.3, Commentary ad loc. and the discussion at Runia 2018, 395). In the following extract, D.L. 10.48–50, the parallel terms are printed in bold (for reasons that will become clear we have added a term from the previous doxa as well):

πρός τε τούτοις ὅτι ἡ γένεσις τῶν εἰδώλων ἅμα νοήματι συμβαίνει· καὶ γὰρ
 ῥεῦσις ἀπὸ τῶν σωμάτων τοῦ ἐπιπολῆς συνεχῆς ... οὐθὲν γὰρ τούτων ἀντιμαρ-
 τυρεῖται ταῖς αἰσθήσεσιν, ἃν βλέπη τις τίνα τρόπον τὰς ἐναργείας, τίνα καὶ τὰς
 συμπαθείας ἀπὸ τῶν ἔξωθεν πρὸς ἡμᾶς ἀνοίσει. (49) δεῖ δὲ καὶ νομίζειν ἐπει-
 σιόντος τινὸς ἀπὸ τῶν ἔξωθεν τὰς μορφὰς ὁρᾶν ἡμᾶς καὶ διανοεῖσθαι· οὐ γὰρ
 ἂν ἐναποσφραγίσαιτο τὰ ἔξω τὴν ἐαυτῶν φύσιν τοῦ τε χρώματος καὶ τῆς μορ-
 φῆς διὰ τοῦ ἀέρος τοῦ μεταξὺ ἡμῶν τε καὶ κείνων, οὐδὲ διὰ τῶν ἀκτίνων ἢ ὧν
 δῆποτε ῥευμάτων ἀφ’ ἡμῶν πρὸς ἐκεῖνα παραγινομένων, οὕτως ὡς τύπων τινῶν
 ἐπεισιόντων ἡμῖν ἀπὸ τῶν πραγμάτων ὁμοχρόων τε καὶ ὁμοιομόρφων κατὰ τὸ
 ἐναρμόττον μέγεθος εἰς τὴν ὄψιν ἢ τὴν διάνοιαν, ὡκέως ταῖς φοραῖς χρωμένων,
 (50) εἶτα διὰ ταύτην τὴν αἰτίαν τοῦ ἐνὸς καὶ συνεχοῦς τὴν φαντασίαν ἀποδι-

δόντων καὶ τὴν συμπάθειαν ἀπὸ τοῦ ὑποκειμένου σφζόντων κατὰ τὸν ἐκεῖθεν σύμμετρον ἐπερειασμὸν ἐκ τῆς κατὰ βάθος ἐν τῷ στερεμνίῳ τῶν ἀτόμων πάλλσεως. καὶ ἦν ἂν λάβωμεν φαντασίαν ἐπιβλητικῶς τῇ διανοίᾳ ἢ τοῖς αἰσθητηρίοις εἴτε μορφῆς εἴτε συμβεβηκότων, μορφὴ ἐστὶν αὕτη τοῦ στερεμνίου, γινομένη κατὰ τὸ ἐξῆς πύκνωμα ἢ ἐγκατάλειμμα τοῦ εἰδώλου ...

The only term that is not found is *εἴσκρισις*, a terminological innovation first recorded in Philo and also found in the doxa on vision at A 4.13.1. Admittedly two of the terms—*ἄκτινες* and *ρεύματα*—are used negatively to refer to other theories, but that will not have stopped the doxographer from amplifying the epistemological breadth of his account (there was nothing to gain from limiting the kinds of particle stream; for *ρεύμα* see D.L. 10.53 on hearing). Especially interesting is the use of *συμπάθεια* in this context, indicating the co-affection between the object and the perceiving mind. The epistemology, with its ‘physical’ connection between the object of contemplation and the perceiver suits the context perfectly (note that in the example in Soranus the woman is actually compelled to look at the beautiful images). Note also that the concept of the ‘impression’ (*φαντασία*), which is the only philosophical term in the Empedoclean doxa, also occurs in the Epicurean passage above.

There can be little doubt, therefore, that the terminology of all but the first doxa has atomist antecedents. Moreover there is no need to divide the final doxa into two parts. The name-label *οἱ Στωικοί* is likely to be a mistake, perhaps because it was thought that the term *συμπαθεία* was specifically Stoic (it occurs elsewhere in A only ch. 1.18 in a problematic text from Aristotle on the Pythagoreans that most likely derives from AD). The mistake is more likely to have been made by A than P. This means that we should preserve the name-label in the text. There is also no need to postulate a lacuna, as done by all the editors since Diels. As for the original name-label(s), with the parallels at A 4.13.1, 5.5.1, 5.16.2 and 5.20.2 in mind, we consider *Δημόκριτος Ἐπίκουρος* the most likely candidates.

The final two doxai thus form a pair, with the second introducing a philosophical doctrine which explains as it were the possibility envisaged in the Empedocles doctrine. The diaeresis thus covers the two views of a chance result with a physiological basis and one that has an epistemological background. The parallels with the doxa at A 4.13.1 are instructive (but see the Commentary ad loc. on the difficulties of the text), revealing an interesting alignment between the account of vision in Book 4 and an instance in Book 5 where an account of vision must be presumed.

d Further Comments

Individual Points

§1 The formula οἱ πλείστοι plus genitive for a name-label is found elsewhere only at A 2.25.4 (Posidonius and the majority of the Stoics).

§3 There seems no reason why A should distinguish between streams and rays on the one hand and *eidola* on the other, especially when the latter term is the key one for atomist epistemology. We therefore follow Diels in emending the passage. His conjecture ἡ καὶ is very suitable, because it implies that the second alternative is climactic (cf. Denniston 1954, 306).

e Other Evidence

As noted above in section B, there seem to be no parallels for a separate treatment of the dissimilarity of progeny to their parents, in contrast to the way that Aristotle and also the author of the Hippocratic *Genit.* (followed by Galen) integrate this possibility into the full discussion of the topic. Given the general interest of the theme, it is not so surprising that the doxographer includes a more ‘folksy’ element.

E Further Related Texts

b Sources and Other Parallel Texts

General texts: Aristotle *GA* 4.3 767a36–b7 αἱ δ’ αὐταὶ αἰτίαι καὶ τοῦ τὰ μὲν εἰκότα γίγνεσθαι τοῖς τεκνώσασιν τὰ δὲ μὴ εἰκότα, ... τὰ δ’ οὐθενὶ τῶν συγγενῶν ὁμῶς δ’ ἀνθρώπῳ γέ τι, τὰ δ’ οὐδ’ ἀνθρώπῳ τὴν ἰδέαν ἀλλ’ ἤδη τέρατι. καὶ γὰρ ὁ μὴ εἰκῶς τοῖς γονεῦσιν ἤδη τρόπον τινὰ τέρας ἐστίν· παρεκβέβηκε γὰρ ἡ φύσις ἐν τοῦτοις ἐκ τοῦ γένους τρόπον τινὰ (also 768b5–13). *GA* 4.3 768b25–33 ἐξίσταται δὲ τὸ πάσχον καὶ οὐ κρατεῖται ἢ δι’ ἑλλειψιν δυνάμεως τοῦ πέττοντος καὶ κινούντος ἢ διὰ πλῆθος καὶ ψυχρότητα τοῦ πεττομένου καὶ διοριζομένου· τῇ μὲν γὰρ κρατοῦν τῇ δὲ οὐ κρατοῦν ποιεῖ πολὺμορφον τὸ συνιστάμενον, οἷον ἐπὶ τῶν ἀθλητῶν συμβαίνει διὰ τὴν πολυφαγίαν· διὰ πλῆθος γὰρ τροφῆς οὐ δυνάμενης τῆς φύσεως κρατεῖν ὥστ’ ἀνάλογον αὔξειν καὶ διαμένειν ὁμοίαν τὴν μορφήν, ἀλλοῖα γίγνεται τὰ μέρη καὶ σχεδὸν ἐνίοθ’ οὕτως ὥστε μὴθὲν εἰκέναι τῷ πρότερον. *GA* 4.3 769a4–5 καὶ ὅλως τὰ μὲν τοῖς προγόνοις εἰκοι τὰ δ’ οὐθενί. *GA* 4.3 769a7–19 (cited on ch. 5.11). *GA* 4.3 769b3–10 οὐ ῥάδιον δὲ οὐδὲ τρόπον ἓνα τῆς αἰτίας ἀποδιδόντας τὰς αἰτίας εἰπεῖν περὶ πάντων· ... ἔτι δὲ διὰ τίν’ αἰτίαν ὅτε μὲν ἀνθρώπος μὲν τούτων (sc. γονέων καὶ προγόνων) δ’ οὐθενὶ προσόμοιος, ὅτε δὲ προῖδον οὕτω τέλος οὐδὲ ἀνθρώπος ἀλλὰ ζῶν τι μόνον φαίνεται τὸ γιγνόμενον, ἃ δὴ καὶ λέγεται τέρατα. cf. *Corpus Hippocraticum Genit.* 8 (cited on ch. 5.11). also Galen *Sem.* 2.1.39–40, p. 154.7–11 De Lacy ὅτι μὲν γὰρ τοῦ διαπλάττοντος ἔργον ἐστίν, ὁμοιον ἢ ἀνόμιον ἐργάσασθαι τὸ ἔγγονον ὁποτέρῳ τῶν γεννησάντων, οὐδεὶς ἀγνοεῖ. τὰ δ’ ὁμοιοῦμενα παιδία τῇ μητρὶ διὰ τὴν τροφὴν ὁμοιοῦσθαι φασί, καὶ περὶ ἐντεῦθεν ἀποτείνουσι δολιχόν τοῦ λόγου, δεικνύντες, ὅσαι διὰ τροφῆς ἀλλοιώσεις ἐγίγοντο καὶ ζῶις καὶ φυτοῖς. εἴτ’ οὐκ αἰσθάνονται μηδεμίαν ὧν λέγουσιν ἀλλοιώσεων ἐπιδείξαι δυνάμενοι τὸ εἶδος ἐξαλλάττουσαν.

Chapter heading: —

§2 *Empedocles*: cf. *Porphyry ad Gaur.* 5, p. 41.22 Kalbfleisch ὡμολόγηται γάρ ὡς πολλά τε τῶν ζώων, ἀτὰρ δὴ καὶ γυναῖκες ἐν ταῖς ὀχείαις ὧν ἂν ἐκ τοῦ αὐτοῦ γένους τὰ εἶδη ταῖς φαντασίαις ἐγκολπίσωνται, ἐκείνοις ὁμοιώτατα τίκτειν. *Soranus Gyn.* 1.39, p. 27.28–33 Ilberg τί δεῖ λέγειν, ὅτι καὶ τὸ ποιὸν τῆς ψυχῆς κατὰ-στημα φέρει τινὰς περὶ τοὺς τύπους τῶν συλλαμβανομένων μεταβολάς; οὕτως ἐν τῷ συνουσιάζειν πιθήκους ἰδοῦσαί τινες πιθηκομόρφους ἐκύησαν· ὁ δὲ τῶν Κυπρίων τύραννος κακόμορφος ὧν εἰς ἀγάλματα περικαλλῆ κατὰ τοὺς πλησιασμοὺς τὴν γυναῖκα βλέπειν ἀναγκάζων {ὁ} πατὴρ εὐμόρφων ἐγένετο παῖδων. cf. also *Galen Ther.* 11, p. 14.253.15–254.7 K. οὐ γὰρ μόνοις τοῖς γεννώσιν, ἀλλὰ καὶ προγόνοις τισὶ τὰ τικτόμενα ὅμοια γίνεται. ἐμοὶ δὲ καὶ λόγος τίς ἀρχαῖος ἐμήνυσεν ὅτι τῶν ἀμόρφων τίς δυνατὸς εὐμόρφων θέλων γεννῆσαι παῖδα, ἐποίησε γράψαι ἐν πλατεῖ ξύλῳ εὐειδὲς ἄλλο παιδίον, καὶ ἔλεγε τῇ γυναικὶ συμπλεκόμενος ἐκείνῳ τῷ τύπῳ τῆς γραφῆς ἐμβλέπειν. ἡ δὲ ἀτενὲς βλέπουσα καὶ ὡς ἔστιν εἰπεῖν ὅλον τὸν νοῦν ἔχουσα οὐχὶ τῷ γεννήσαντι, ἀλλὰ τῷ γεγραμμένῳ ὁμοίως ἀπέτεκε τὸ παιδίον, τῆς δ' ὕψους, οἶμαι, διαπεμπούσης τῇ φύσει, ἀλλ' οὐκ ὅγκοις τισὶ τοῦ γεγραμμένου τοὺς τύπους.

§3 *Stoics*: cf. *Epicurus Ep.Hdt.* at D.L. 48–50 text cited above Commentary D(c).

Liber 5 Caput 13

PP: *Papyrus Antinoopolis* 85 fr. 8 verso p. 80 Barns–Zilliacus—PB: ps.Plutarchus *Plac.* 906F–907A; p. 424^a1–27 Diels—PG: ps.Galenus *HPh* c. 117; p. 643.1–7 Diels—PQ: Qustā ibn Lūqā pp. 226–229 Daiber
SL: ms. Stobaei (titulus solus), deest in editione Wachsmuth, sed cf. pinacem ap. Wachsmuth (1882) 17 et vid. Diels *DG* 271, Elter (1880) 73

Titulus ιγ'. Πῶς στείρειται γίνονται αἱ γυναῖκες καὶ ἄγονοι οἱ ἄνδρες (P,cf.S)

- §1 οἱ ἱατροὶ στείρας γίνεσθαι παρὰ τὴν μήτραν ἢ παρὰ τὸ πυκνοτέραν εἶναι ἢ παρὰ τὸ ἀραιότεραν ἢ παρὰ τὸ σκληροτέραν ἢ παρὰ τινὰς ἐπιπρω-
σεις ἢ σαρκώσεις ἢ παρὰ μικροφυῖαν ἢ παρ' ἀτροφίαν ἢ παρὰ καχεξίαν
ἢ παρὰ τὸ διαστρέφεσθαι τὸν σχηματισμὸν ἢ διὰ παρασπασμὸν. (P1) 5
- §2 Διοκλῆς ἀγόνους τοὺς ἄνδρας ἢ παρὰ τὸ μηδ' ὅλως ἐνίους σπέρμα προίε-
σθαι ἢ παρὰ τὸ ἔλαττον τοῦ δέοντος· ἢ παρὰ τὸ ἄγονον εἶναι τὸ
σπέρμα ἢ κατὰ παράλυσιν τῶν μορίων ἢ κατὰ λοξότητα τοῦ καυλοῦ, μὴ
δυναμένου τὸν γόνον εὐθυβολεῖν, ἢ παρὰ τὸ ἀσύμμετρον τῶν μορίων
πρὸς τὴν ἀπόστασιν τῆς μήτρας. (P2) 10
- §3 οἱ Στωικοὶ αἰτιῶνται τὰς ἀσυμφύλους εἰς ἐκάτερον τῶν πλησιαζόντων
δυνάμεις τε καὶ ποιότητας· αἷς ὅταν συμβῇ χωρισθῆναι μὲν ἀπ' ἀλλή-
λων συνελθεῖν δ' ἑτέροις ὁμοφύλοις, συνεκρατήθη τὸ κατὰ φύσιν καὶ
βρέφος τελεσιουργεῖται. (P3)

§1 medici —; §2 Diocles fr. 43 Van der Eijk; §3 Stoici *SVF* 2.752

titulus αἱ PB(I,II)Q : om. PB(II)G || ἄγονοι οἱ ἄνδρες (οἱ om. PB(III)) || ἄνδρες ἄγονοι PG : al. SL Περὶ
στερίων γυναικῶν καὶ ἀνδρῶν §1 [2] post στείρας add. φασὶ PG || [3] παρὰ¹ ... σκληροτέραν
PBQ (sed πυκνοτέραν et ἀραιότεραν inv. PQ) : παρὰ τὸ τὴν μήτραν στενωτέραν εἶναι ἢ ἀραιότεραν
PG || [3–4] ἢ παρὰ³ ... καχεξίαν ἢ om. PG || [4] μικροφυῖαν coni. Kronenberg, cf. *Kleinheit ihres
Umfang* Q (= PQ σμικρότητα susp. Daiber cf. 5.14.2) : μικροθυμίαν PB || ἀτροφίαν PB : *Verderb-
theit ihrer Nahrung* Q (= PQ κακοτροφίαν susp. Daiber) || [5] παρὰ τὸ διαστρέφεσθαι PBQ :
διάστροφον ἔχειν PG || διὰ παρασπασμὸν PBQ : παρὰ τὸ παρέπεσθαι δυσκрасίαν μοχθηρὰν PG
§2 [6] ἀγόνους τοὺς ἄνδρας PBQ : δι' ἀτονίαν τῶν ἀνδρῶν PG || ἐνίους σπέρμα γονήν, sed post
προίεσθαι hab. PG || [7] post ἔλαττον add. PG εἶναι || [8] ἢ κατὰ παράλυσιν] καὶ καθάπερ ἐκλυ-
σιν PG || [8–10] ἢ κατὰ² ... μήτρας desunt in PG §3 [11] τὰς ἀσυμφύλους PBQ : συμφύτους PG ||
[12–14] αἷς ... τελεσιουργεῖται desunt in PG || [12] αἷς PB Mau : οἷς Wilamowitz Lachenaud,
cf. *einer von ihnen* Q || [13] συνεκρατήθη PB(I,II,III:α) Mau : συνεκράθη PB(III:AE), συνκραθῆναι
coni. Diels || [14] τελεσιουργεῖται PB : τελεσιουργεῖσθαι coni. Diels

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 8 verso = P §1

[
οι ἰατρ[οι στείρας γινεσθαι παρα την μη]
τραν η [παρα το πυκνότεραν ειναι η πα]
ρᾱ [

ps.Galenus HPh c. 117 (~ tit.) Πῶς στείραι γίνονται γυναῖκες καὶ ἄνδρες ἄγονοι (text Diels)

117.1 (~ P1) οἱ ἰατροὶ στείρας φασὶ γίγνεσθαι παρὰ τὴν μήτραν στενωτέραν εἶναι ἢ ἀραιότεραν ἢ διάστροφον ἔχειν τὸν σχηματισμὸν ἢ παρὰ τὸ παρέπεσθαι δυσκρασίαν μοχθηράν.

117.2 (~ P2) Διοκλῆς δι' ἀτονίαν τῶν ἀνδρῶν ἢ διὰ τὸ μηδ' ὅλως προῖεσθαι γονὴν ἢ παρὰ τὸ ἔλαττον εἶναι τοῦ δέοντος ἢ παρὰ τὸ ἄγονον εἶναι καὶ καθάπερ ἔκλυσιν τῶν μορίων.

117.3 (~ P3) οἱ Στωικοὶ αἰτιῶνται τὰς συμφύτους εἰς ἐκάτερον τῶν πλησιαζόντων δυνάμεις τε καὶ ποιότητας.

Loci Aetiani:

quaestio A 5.9 Διὰ τί γυνὴ πολλάκις συνουσιάζουσα οὐ συλλαμβάνει. A 5.14 Διὰ τί αἱ ἡμίονοι στείραι.

§1 A 5.9.3 Ἐρασίστρατος παρὰ τὴν μήτραν, ὅταν τύλους ἔχῃ καὶ σαρκώσεις ἢ ἀραιότερα ἢ τοῦ κατὰ φύσιν ἢ μικροτέρα.

§2 A 5.9.1 Διοκλῆς ὁ ἰατρὸς ἢ παρὰ τὸ μηδ' ὅλως ἐνίας σπέρμα προῖεσθαι ἢ παρὰ τὸ ἔλαττον τοῦ δέοντος ἢ διὰ τὸ τοιοῦτον, ἐν ᾧ τὸ ζωοποιητικὸν οὐκ ἔστιν· ἢ διὰ θερμασίας ἢ ψύξεως ἢ ὑγρασίας ἢ ξηρότητος ἔνδειαν ἢ κατὰ παράλυσιν τῶν μορίων. sed cf. etiam A 5.9.2 οἱ δὲ Στωικοὶ κατὰ λοξότητα τοῦ καυλοῦ, μὴ δυνάμενου τὸν γόνον εὐθυβολεῖν· ἢ παρὰ τὸ ἀσύμμετρον τῶν μορίων ὡς πρὸς τὴν ἀπόστασιν τῆς μήτρας. A 5.14.3 Διοκλῆς ... καὶ ἐνδέχεσθαι διὰ τὰς τοιαύτας αἰτίας (cf. 5.14.2) καὶ τὰς γυναῖκας εἶναι στείρας.

§3 A 5.9.2 οἱ δὲ Στωικοὶ κατὰ λοξότητα τοῦ καυλοῦ, μὴ δυνάμενου τὸν γόνον εὐθυβολεῖν· ἢ παρὰ τὸ ἀσύμμετρον τῶν μορίων ὡς πρὸς τὴν ἀπόστασιν τῆς μήτρας.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The tradition of P preserves three quite substantial doxai, which are considerably altered and reduced by G. The papyrus has only a snippet, which does

include the name-label of the first doxa. S preserves only the chapter heading, on which see section C below. Ps utilized the parallel chapter 5.9 and passes this chapter by.

B Proximate Tradition and Sources

(1) *Proximate tradition.* In contrast to the parallel chapter 5.9 this chapter specifically addresses the infertility of both women and men. As noted at Commentary B on that chapter, various sources, both proximate and more distant, address this topic. The main one belonging to the proximate tradition, ps.Galen *Def.Med.* 442, divides the subject into two, dealing (unusually) first with the causes of women's sterility, followed by those in the case of the men. Lucretius in a poetically rich passage at *DRN* 4.1233–1262 selects only a single reason, namely that the man's semen is either too thin or too thick (cf. Hippo's theory on semen at 5.7.3, *Cens.* 6.4).

(2) *Sources.* In two cases, Aristotle in *HA* 10 and the late sixth cent. author Aëtius of Amida, the topic is divided into three, with also the interaction between male and female being proffered as a cause. As we shall see below, this is relevant for the structure of the present chapter. For the various texts see section E(a)&(b) below.

Ch. 26 of Aëtius of Amida's Book 16 on gynaecology gives a long account of the causes of ἀσυλληψία (for the term cf. the heading of ch. 5.6). The method of presentation shows some similarities with A, esp. in the lengthy listing of causes using either infinitival or prepositional phrases. But the passage does not possess any doxographical aspects at all, as is also the case for the text in ps.Galen *Def.Med.* Indeed, remarkably, the text in A is the only doxography with named proponents on the subject that we have been able to locate.

C Chapter Heading

The chapter heading beginning with πῶς continues the sequence of chapters seeking the cause. See our Commentary above on chs. 5.2 and 5.6. In the index of the Laurentianus ms. of S, however, we find the alternative heading Περί στειρῶν γυναικῶν καὶ ἀνδρῶν, i.e. using the umbrella type Περί x which is the most common in A. The change of the heading is certainly the work of S, who uses chapter headings with Περί almost exclusively in Book 1 of the *Eclogae*. It is thus not interpolated from P and it was a mistake on the part of Wachsmuth to leave this chapter heading out in ch. 1.42 of his edition of that book (as he also did in the case of ch. 5.9).

D *Analysis*

a Context

The chapter follows on from chs. 6–8, 10–12, which have discussed various themes related to conception. It and the following chapter on the sterility of mules now discuss the problem of when conception does not take place. The exception in this logical sequence is ch. 9, which virtually doubles up on the present chapter and seems misplaced. See the discussion further below under section D(c).

b Number–Order of Lemmata

The three lemmata with their ordered sequence give an impression of completeness. But in the absence of doxographical parallels, and taking into account that many other causes are given in other sources (e.g. Aëtius of Amida), we cannot be certain that there were not further doxai.

c Rationale–Structure of Chapter

The three doxai are presented in an ordered sequence.

(1) First the causes of female sterility are given. These concentrate on the role of the womb. As in A 5.9.1 a long sequence of possible causes are given, nine in total, but all related one way or another to the condition of the womb. (On the conjecture μικροφυῖαν, to be preferred to the mss. μικροθυμίαν see section D(d)§1.) The doxa is thus parallel to A 5.9.3, but there only four causes are given (tumors, fleshy growths, being lighter or smaller than usual). All of these four more or less recur in this chapter (tumors are not wholly the same as caluses). The fact that A 5.9.3 is attributed to Erasistratus makes it likely that the name-label here, οἱ ἱατροί, at the very least includes the eminent Alexandrian doctor. The same must also be concluded for A 5.8.3, where the aetiology of a twisted womb recalls the final two causes in the present doxa. See further Runia (1999a) 223 = M–R 3.548.

It is surprising that among the plethora of causes the heat or cold of the womb is not listed. This is one of the chief causes in other texts (ps.Galen, *Corpus Hippocraticum*, Aëtius of Amida), though not in Aristotle. It is, however, mentioned in the parallel doxa at A 5.9.1 if our interpretation of that passage is correct; see Commentary D(c).

(2) Next a list of six causes of male infertility is linked to the name-label of Diocles. These focus on the role of seed and the male member, but also on a mismatch of the male parts in relation to the womb. As discussed in our Commentary on ch. 5.9, the parallelism of this doxa with 5.9.1 & 2 taken together is unmistakable; see the parallel columns with the two texts presented there. The key difference is that in ch. 5.9 the report is split in two and assigned two

name-labels (Diocles, the Stoics). The first half enumerates female factors causing conception to be impeded, the second half male factors doing the same. In A 5.13.2 these are brought together and assigned to Diocles. Because this doxa assumes that females also have semen (cf. ch. 5.5), it is possible to convert the female factors in A 5.9.2 into male factors in 5.13.2 with very little change. Either A (or more likely his source) made the two reports deliberately parallel, or he (or the source) adapted the report for one sex so that it would work for the other.

(3) The third doxa, assigned to the Stoics, now brings the female and male factors together and denotes their *incompatibility* as the cause. The factors themselves are described in vague terms ('powers and qualities'). A look at parallel texts tells us why. Both Aristotle and Aëtius of Amida in the opening lines of their discussion mention that the cause can be due to *both* the partners (HA 633b12, *Iatr.* 16.29; texts below section E(b) General texts). One does not have to investigate the causes in detail: if there is a lack of *συμμετρία* or *συμφωνία*, the men should take a different partner and if a child is conceived, the problem is solved! The thought is the same in A, although the terminology is a little different (on *ἀσυμφύλους* see further below section D(d) on §3).

The chapter thus exhibits the simplest of diaereses: sterility through female causes, through male causes, and through the incompatibility of male and female together. The scheme is an obvious one. It goes back to Aristotle, and it is also found as late at Aëtius of Amida in the sixth century. Because there is such a widely recognized multiplicity of causes (noted already by Aristotle at 746b21), it makes little sense to attribute their discovery or outline to a particular philosopher or physician. This is no doubt why no parallel doxographies with name-labels (even anonymi) can be found. But A does assign name-labels. The comparison with ch. 5.9, and particularly the different doxai attributed to the Stoics in A 5.9.2 and 5.13.3, demonstrates that these are quite likely arbitrary and certainly cannot be regarded as trustworthy. See further our discussion above on ch. 5.13 and Runia (1999a) 222–224 = M–R 3.547–549.

d Further Comments

Individual Points

§1 In the long list of causes the one named *παρὰ μικροθυμίαν* in the mss. rouses suspicion. It appears to introduce a psychological component, which in itself is perfectly reasonable for the subject of the chapter but does not unlike the others relate well to the womb. Amazingly, the term *μικροθυμία* is a *hapax legomenon* in the whole of Greek literature. In light of Q's translation *infolge der Kleinheit ihres Umfang* Daiber ad loc. plausibly suggested *σμικροτήτα*, adducing the use of the same term for the womb of mules in A 5.14.2. However, paleo-

graphically this is not so likely. The brilliant conjecture of Kronenberg (1941) 41, μικροφυῖαν, appears to solve the problem. This word is also rare, but at least it occurs elsewhere, e.g. at Strabo 17.2.1 on pygmies, and is paleographically much more convincing. We have accordingly introduced it in into our text.

§2 For G's δι' ἀτονίαν τῶν ἀνδρῶν we might compare exactly the same phrase in the final words of A 5.6.1, on which see the note ad loc. at Commentary D(d) §1[6]. It should be noted that P's ἀγόνους τοὺς ἀνδρας, which occupies the same place as G's δι' ἀτονίαν τῶν ἀνδρῶν, echoes the ἄγονοι οἱ ἄνδρες of the chapter heading. It is possible that in G is these words have been epitomized away and that his δι' ἀτονίαν τῶν ἀνδρῶν may have reflect a richer version of P, and so go back to A (and to the Diocles fragment, *pace* Van der Eijk 2000–2001, 2.97, who suggests that G may have originally read δι' ἀγονίαν).

As noted by Van der Eijk (2000–2001) 2.97, the concept of ἀσυμμετρία (disproportion) as a cause of infertility is already found in Aristotle *HA* 10.4 636b9, *GA* 1.18 723a30, 4.2 767a23, 4.4 772a17.

§3 The infinitives postulated by Diels for the final sentence are unnecessary. A quite often changes from *oratio obliqua* to *oratio recta* for no apparent reason.

The term ἀσύμφυλος is quite uncommon and in the light of the parallel at Aëtius of Amida 16.29.38 (ἀσυμφώνως ... διακείμενοι) one might consider changing ἀσυμφύλους to ἀσυμφώνους. But the term is picked up by ὁμοφύλοις a few lines later, and so must be retained.

e Other Evidence

Ps.Galen's treatment in *Def.Med.* 442 is very brief. But we should note the recognition of multiple causes (πλεοναχῶς), which is such an obvious feature of A's treatment (and also in Aëtius of Amida's lengthy and detailed account). Similarly the parallelism which he sees between women and men (περὶ μὲν ... περὶ δέ) recalls to mind the parallelism which occurs in A in ch. 5.9 (even though the chapter is ostensibly about failure to conceive in women only) and ch. 5.13.

E Further Related Texts

a Proximate Tradition

General texts: ps.Galen *Def.Med.* 442 cited above on ch. 5.9. Lucretius *DRN* 4.1240–1259 *nam steriles nimium crasso sunt semine partim, / et liquido praeter iustum tenuique vicissim. / tenue locis quia non potis est adfigere adhaesum, / liquitur extemplo et revocatum cedit abortu. / crassius hinc porro quoniam concretius aequo / mittitur, aut non tam prolixo provolat ictu / aut penetrare locos aequae nequit aut penetratum / aegre admiscetur muliebri semine semen. / nam multum harmoniae Veneris differre videntur. / atque alias alii complent*

magis ex aliisque / succipiunt aliae pondus magis inque gravescunt. / et multae steriles Hymenaeis ante fuerunt / pluribus et nactae post sunt tamen unde puellos / suscipere et partu possent ditescere dulci. / et quibus ante domi fecundae saepe nequissent / uxoris parere, inventast illis quoque compar / natura, ut possent gnatis munire senectam. / usque adeo magni refert, ut semina possint / seminibus commisceri genitaliter apta / crassaque convenient liquidis et liquida crassis.

Chapter heading: cf. *Codex Marcianus* 521 f. 100^r 9 (*DG* p. 233 Diels, from *Def.Med.* 442) ὅτι αἰτίαι ἀγονίας.

b Sources and Other Parallel Texts

General texts: *Aristotle GA* 2.7 746b16–24 ἔστι δὲ τὸ πρόβλημα καθόλου μὲν διὰ τὴν αἰτίαν ἀγονον ἢ ἄρρεν ἢ θήλυ ἐστὶν· εἰσὶ γὰρ καὶ γυναῖκες καὶ ἄνδρες ἀγονοὶ καὶ τῶν ἄλλων ζώων ἐν τοῖς γένεσιν ἐκάστοις ... τὰ δ' αἰτία τῆς ἀγονίας ἐπὶ μὲν τῶν ἄλλων πλείω συμβαίνει. καὶ γὰρ ἐκ γενετῆς ὅταν πηρωθῶσι τοὺς τόπους τοὺς πρὸς τὴν μίξιν χρησίμους ἀγονοὶ γίνονται καὶ γυναῖκες καὶ ἄνδρες ὥστε τὰς μὲν μὴ ἡβᾶν τοὺς δὲ μὴ γενεῖαν ἄλλ' εὐνουχίας διατελεῖν ὄντας ... *HA* 10.1 633b12–15 προΐουσας δὲ τῆς ἡλικίας ἀνδρὶ καὶ γυναικί, τοῦ μὴ γεννᾶν ἀλλήλοισι συνόντας τὸ αἴτιον ὅτε μὲν ἐν ἀμφοῖν ἐστὶν, ὅτε δ' ἐν θατέρῳ μόνον. πρῶτον μὲν οὖν ἐπὶ τοῦ θήλεος δεῖ θεωρεῖν τὰ περὶ τὰς ὑστέρας ὅπως ἔχει ... *HA* 10.4–5 636b6–13 ὅσαις δὲ τούτων μηδὲν ἐμπόδιον ἦ, ἀλλ' ἔχουσιν ὃν τρόπον δεῖν εἰρητὰ ἔχειν, ἂν μὴ ὁ ἀνὴρ αἴτιος ἦ τῆς ἀτεκνίας, ἀμφοτέροι μὲν δύνανται τεκνοῦσθαι, πρὸς ἀλλήλους δ' ἐὰν μὴ ὥσι σύμμετροι τῷ ἄμα προῖεσθαι ἀλλὰ πολὺ διαφωνώσιν, οὐκ ἔσονται τέκνα τούτοις. τοῦ μὲν οὖν εἰδέναι τὰ τοῦ ἀνδρὸς αἰτία ἔστι μὲν καὶ ἄλλα σημεῖα λαβεῖν· ἃ δὲ ῥᾶω μάλιστ' ἂν φαίνοιτο, πρὸς ἄλλας πλησιάζων καὶ γεννῶν. cf. *Aristophanes of Byzantium Epit.* 1.65 and *Corpus Hippocraticum Mul.* 213 both cited on ch. 5.9. also *Aph.* 5.62–63 ὁκόσαι (sc. women) ψυχρὰς καὶ πυκνάς τὰς μήτρας ἔχουσιν, οὐ κυσκούσιν ... (63) παραπλησίως δὲ καὶ ἐπὶ τῶν ἀρρένων· ἢ γὰρ διὰ τὴν ἀραιότητα τοῦ σώματος τὸ πνεῦμα ἔξω φέρεται πρὸς τὸ μὴ παραπέμπειν τὸ σπέρμα· ἢ διὰ τὴν πυκνότητα τὸ ὕγρὸν οὐ διαχωρεῖ ἔξω· ἢ διὰ τὴν ψυχρότητα οὐκ ἐκपुरοῦται, ὥστε ἀθροίζεσθαι πρὸς τὸν τόπον τοῦτον· ἢ διὰ τὴν θερμασίην τὸ αὐτὸ τοῦτο γίνεται. see also Galen's commentary on this text, *Hipp.Aph.* 17B.860–872 K. *Aëtius of Amida Iatr.* 16.29.1–44 Zervos Αἰτίαι ἀνδρῶν καὶ γυναικῶν δι' ἃς οὐ οἱ παιδοποιοῦσι, καὶ θεραπεία καὶ σημεῖα συλλήψεως. ἀσυλληψία γίνεται ἢ περὶ τὸν ἄνδρα ἢ περὶ τὴν γυναῖκα ἢ καὶ περὶ ἀμφοτέρους. περὶ μὲν τὸν ἄνδρα ἢ τῷ διένθερμον σφόδρα καὶ οἰνοὶ πεφρυγμένον τὸ σπέρμα προῖεσθαι ἢ παρὰ τὸ κατάψυχρον ἢ παρὰ τὸ λεπτόν καὶ ὑδατῶδες καὶ ἄτονον καὶ ἀσθενὲς τῇ δυνάμει εἶναι, ὁποῖον καὶ οἱ ὑπεργεγηρακότες ἐκκρίνουσιν, ἢ παρὰ τὸ παχὺ εἶναι ὑπὲρ τὸ δέον ἢ παρὰ τὸ ὑποσπαδαίους εἶναι τοὺς ἄνδρας ἢ σμικρότατα ἔχειν τὰ αἰδοῖα καὶ οὐκ ἰσχύειν εἰς τὸ ἐντὸς τῆς μήτρας τὸ σπέρμα ἐξακοντίζειν, συμβαίνει δὲ καὶ ἐπὶ τῶν σφόδρα καταπιμέλων εὐογκον τὴν κοιλίαν ἐχόντων, ἐμποδίζεσθαι τὸν τοῦ σπέρματος ἀκοντισμὸν ἐσωτάτω εἰς τὴν μήτραν γίνεσθαι. ... περὶ δὲ τὴν γυναῖκα ἐμποδίζεσθαι τὴν κύησιν ἢ παρὰ τὸ ἔνθερμον καὶ πυρώδη εἶναι τὴν μήτραν ἢ κατάψυχρον καὶ κάθυγον ἢ κατὰξηρον καὶ αὐχμηρὰν ἢ καταπίμελον καὶ σαρκώδη ἢ ἄσαρκον καὶ λεπτὴν καὶ

ἀσθενή ἢ στενήν καὶ σμικράν, ἢ παρὰ τὸ ἐν αὐτῇ ἀγγεῖα μεμυκέναι ἢ ἐμπεφράχθαι ἢ ἀποτετυφλῶσθαι οὐλῆς γενομένης, ἢ παρὰ τὸ ὑμένας ἐπιπεφυκέναι τῷ στόματι τῆς ὑστέρας καὶ ἀτρήτους εἶναι καὶ τὸν τράχηλον σκολιὸν ἔχειν τὴν μήτραν, ἢ τὸ στόμα αὐτῆς μεμυκέναι ἢ σφόδρα ἀνεωγμένον εἶναι διὰ παντός, ἢ παρὰ τὸ ἕτερόν τι πάθος τὸ ἐφεξῆς ῥηθισόμενον εἶναι περὶ τὴν ὑστέρα. ... μάλιστα δὲ γίγνεται ἀσυλληψία καὶ περὶ τὴν ἄθετον διάπλασιν τῆς γυναικός. ... τάχα δὲ τις καὶ ἄρρητος παρὰ τὰς προειρημένας αἰτίας ἐστὶ πρόφασις τοῦ μὴ κυῖσκεσθαι, αἱ δὲ ἐπίκαιροι αἰτίαι τοιαυταί εἰσι· τῶν μὲν οὖν ἀνδρῶν ὅσοι διὰ τινὰ δίκαιαν ἢ διαγωγὴν μοχθηρὰν τὸ σπέρμα φθείρουσι, τῇ μεταθέσει τῆς διαίτης ὑγιεινότερα καὶ τεταγμένη ἀρωγῇ χρῆσάμενοι, γόνιμον ἔξουσι τὸ σπέρμα, καὶ οἱ ἀσυμφώνως πρὸς τὰς ἑαυτῶν γυναῖκας διακαίμενοι μεταλαβόντες ἄλλας, παιδοποιήσουσιν· ὑποσπαδιαῖοι χειρουργηθέντες καὶ οἱ γονορροϊκοὶ θεραπευθέντες παιδοποιήσουσιν· οἱ δὲ τυφλωθέντες τοὺς σπερματικούς πόρους, οἷον συμβαίνει τισὶ τῶν λιθοτομουμένων, ἀνιάτως ἔχουσιν ὁμοίως καὶ οἱ εὐνουχῶδεις οὐκ ἀποκρίνουσι σπέρμα οὐδὲ οἱ στενόποροι ἐξακοντίζουσιν.

Chapter heading: cf. Aristotle *GA* 2.7 746b16–18 cited above. Aëtius of Amida 16.29 cited above.

§3 Stoics: cf. Galen *Hipp.Epid.* 2.30, p. 17.443 K. πρὸς τὸ τὴν γόνιμον γένεσιν ἀποτελεσθῆναι δεῖ ὁμόφυλα εἶναι τὰ συνίοντα καὶ ζευγύναι τοὺς ὁμόλογον κράσιν ἔχοντας εἰς γένεσιν ἀνδρας τε καὶ γυναῖκας.

Liber 5 Caput 14

PB: ps.Plutarchus *Plac.* 907B; pp. 424^a28–425^a13 Diels—**PG:** ps.Galenus *HPh* c. 118; p. 643.8–14 Diels; pp. 368–377 Jas—**PQ:** Qustā ibn Lūqā pp. 228–229 Daiber
SL: Stobaeus *Ecl.* 1.42.9, p. 1.296.9 Wachsmuth (titulus solus)

Titulus ιδ'. Διὰ τί αἱ ἡμίονοι στεῖραι (P,cf.S)

- §1 Ἀλκμαίων τῶν ἡμίονων τοὺς μὲν ἄρρενας ἀγόνους παρὰ τὴν λεπτότητα τῆς 'θορήs', ὃ ἐστὶ σπέρματος, καὶ ψυχρότητα· τὰς δὲ θηλείας παρὰ τὸ μὴ 'ἀναχάσκειν' τὰς μήτρας, ὃ ἐστὶ ἀναστομοῦσθαι. οὕτω γὰρ αὐτὸς εἴρηκεν. (P1) 5
- §2 Ἐμπεδοκλῆς διὰ τὴν σμικρότητα καὶ ταπεινότητα καὶ στενότητα τῆς μήτρας, κατεστραμμένως προσπεφυκυίας τῇ γαστρὶ, μήτε τοῦ σπέρματος εὐθυβολοῦντος εἰς αὐτὴν μήτε, εἰ καὶ φθάσειεν, αὐτῆς ἐκδεχομένης. (P2)
- §3 Διοκλῆς δὲ μαρτυρεῖ αὐτῷ λέγων· 'ἐν ταῖς ἀνατομαῖς πολλάκις ἐωράκαμεν τοιαύτην μήτραν τῶν ἡμίονων· καὶ ἐνδέχεσθαι διὰ τὰς τοιαύτας αἰτίας καὶ τὰς γυναῖκας εἶναι στεῖρας. (P3) 10

§1 Alcmaeon 24B3 DK; §2 Empedocles 31A82 DK; §3 Diocles fr. 24 Van der Eijk

§1 [2] μὲν **PB** : om. **PG** || [3] θορήs **PB**(I,III)G(Nic)Q : θοροῦ **PB**(II) : σαρκὸς **PG**(mss.) || ὃ ... σπέρματος **PB** : desunt in **PG**Q, ut glossema del. maluit Diels || καὶ **PG**Q Diels VS : ἡ coni. Diels *DG* Mau Lachenaud : om. **PB** || [3–5] παρὰ ... εἴρηκεν al. **PG** παρὰ τὸ ἄνω μὴ ἀνακύπτειν τὰς μήτρας || [4] ὃ ... ἀναστομοῦσθαι **PB** : desunt in **PG**Q, ut glossema del. maluit Diels §2 [6] καὶ ταπεινότητα **PB**Q : deest in **PG** || στενότητα **PB**G : *Enge und Gekrümtheit* Q || [7] κατεστραμμένως **PB** : ἀπεστραμμένως **PG** || γαστρί **PB**Q : σαρκί **PG** || [8] μήτε ... ἐκδεχομένης om. **PG** || αὐτῆς ἐκδεχομένης **PB**(II,III) (inv. **PB**(III-E)) : αὐτῆς ἐνδεχομένης **PB**(I) §3 [10] μαρτυρεῖ αὐτῷ **PB**(I,III) : αὐτῷ μαρτυρεῖ **PB**(II) : αὐτῷ non hab. **PG**Q || πολλάκις om. **PQ** || [10–11] ἐωράκαμεν **PB** : ἐωρακέναι **PG**Q || [12] αἰτίας **PB**G : *Grund* Q || τοιαύτας αἰτίας αἰτίας ταύτας **PG** || εἶναι στεῖρας **PB** : inv. **PG**

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 118 (~ tit.) Διὰ τί αἱ ἡμίονοι στεῖραι (text Jas)

- 118.1 (~ P1) Ἀλκμαίων τῶν ἡμίονων τοὺς ἄρρενας ἀγόνους παρὰ τὴν λεπτότητα τῆς θορήs καὶ ψυχρότητα, τὰς δὲ θηλείας παρὰ τὸ ἄνω μὴ ἀνακύπτειν τὰς μήτρας.
- 118.2 (~ P2) Ἐμπεδοκλῆς δὲ διὰ τὴν σμικρότητα καὶ στενότητα τῆς μήτρας ἀπεστραμμένως προσπεφυκυίας τῇ σαρκί.
- 118.3 (~ P3) Διοκλῆς δὲ μαρτυρεῖ λέγων πολλάκις ἐωρακέναι τοιαύτην μήτραν ἐν ταῖς ἀνατομαῖς τῶν ἡμίονων καὶ ἐνδέχεσθαι διὰ τὰς αἰτίας ταύτας καὶ τὰς γυναῖκας στεῖρας εἶναι.

Loci Aetiani:

quaestio cf. A 5.9 Διὰ τί γυνή πολλάκις συνουσιάζουσα οὐ συλλαμβάνει. A 5.13 Πῶς στεῖραι γίνονται γυναῖκες καὶ ἄνδρες ἄγονοι.

§1 A 5.3.3 Ἀλκμαίων (sc. τὸ σπέρμα εἶναι) ἐγκεφάλου μέρος.

§2 A 5.9.2 οἱ δὲ Στωικοὶ κατὰ λοξότητα τοῦ καυλοῦ, μὴ δυναμένου τὸν γόνον εὐθυβολεῖν ἢ παρὰ τὸ ἀσύμμετρον τῶν μορίων ὡς πρὸς τὴν ἀπόστασιν τῆς μήτρας. A 5.9.3 Ἐρασίστρατος παρὰ τὴν μήτραν, ὅταν τύλους ἔχη καὶ σαρκώσεις ἢ ἀραιότερα ἢ τοῦ κατὰ φύσιν ἢ μικρότερα.

§3 Cf. A 3.15.11 Ἐπίκουρος ἐνδέχεσθαι μὲν ὑπὸ πάχους ἀέρος τοῦ ὑποκειμένου ὕδατῶδους ὄντος ἀνακρουομένην αὐτὴν καὶ οἷον ὑποτυπτομένην κινεῖσθαι· ἐνδέχεσθαι δὲ καὶ σηραγγῶδι τοῖς κατωτέρω μέρεσι καθεστῶσαν ὑπὸ τοῦ διασπειρομένου πνεύματος εἰς τὰς ἀντροειδεῖς κοιλότητας ἐμπίπτοντος σαλεύεσθαι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

Three doxai are preserved in all the witnesses to the P tradition. S only preserves the heading, so he must have included it as a (now lost) sub-section of *Ecl.* 1.42.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There are no texts in the proximate tradition that shed light on this chapter. On the dialectical account in Aristotle *GA* 2.8 see below.

(2) *Sources.* The lack of evidence leaves us guessing as to whence the *Placita* derived the views recorded in this chapter. But it is worth noting that the name-labels represented in the chapter are also common elsewhere in Book 5 (Alcmaeon 6 doxai, Empedocles 17, Diocles 6). It is likely, as we shall see, that the discussion on the infertility of mules was included as a kind of appendix to or illustration of the discussion on human fertility and its problems. In this instance, too, it would appear that Aristotle led the way, even though his discussion has not left any direct trace in this chapter. Of course the coverage of his treatment in the two works *HA* and *GA* is much broader and they contain detailed discussions of a wide range of examples from the animal world. However, it can be seen in the way he introduces his discussion of mules at *GA* 2.7–8 747a22–26 (text below section E(b) General texts), that the relevance to the study of human beings is at the forefront. This account at *GA* 2.8 747a26–b27 has a quite a long dialectical passage criticizing the views of Empedocles and Democritus. The details of this account do not reappear in the passage in A.

The emphasis on *human* physiology has been strengthened in the *Placita* so that it becomes completely dominant, although some traces of an originally broader approach remain. See further our comments at section D(a) and in the Introduction to Book 5, section 4. The problem is also raised in ps.Alexander *Probl.Iatr.* 1.137, but as is usual in that work, there is no doxography.

C Chapter Heading

As in ch. 5.9, but unlike in 5.13, the chapter heading seeks the cause by using the prepositional formula διὰ τῆ, which is comparatively infrequent in A (see comment at 5.9 Commentary C). The same formula is used by ps.Alexander and by Philoponus when commenting on Aristotle's account (texts below). The preposition διὰ also recurs in §2 and §3. The adjective is taken over from the chapter heading of ch. 5.13. It should be noted that the heading speaks of αἱ ἡμίονοι, i.e. female mules. This continues the prioritising of female infertility that is found in both 5.9 and 5.13. But in the first doxa (Alcmaeon) separate answers are given first for males, then for females. The second doxa follows the formulation of chapter heading by giving an answer which only discusses the infertility of female mules and by using a prepositional phrase with διὰ.

The heading in S^L is identical to that found in the tradition of P (cf. Wachsmuth 1882, 17). On the chapter headings in S^L see above, ch. 5.4 Commentary C.

D Analysis

a Context

The chapter follows on from the (misplaced) ch. 5.9 and more directly from ch. 5.13, to which it is appended (and to the subject of which it refers back in its final words). In Book 5 A almost exclusively discusses physiological subjects as they relate to human beings. This chapter is an exception, as are the chapters on living beings in general (chs. 5.19–20). In the rest of the book there are very limited references to living beings other than humans (mention of ἄλογα ζῷα at A 5.10.3; 5.21.2; ζῷα in general at A 5.21 (heading), 5.27.1; plants at A 5.26). See further our comments below at section D(d).

b Number–Order of Lemmata

The three lemmata amount to only two separate answers to the question, since the third lemma attributed to Diocles is merely a further comment on the second view of Empedocles. Given the irregular structure of the present chapter (on which see the following sub-section) and the absence of the views of Democritus, Empedocles (!) and Aristotle recorded elsewhere (and also the cause given by ps.Alexander), the odds are that it originally contained rather more material than what now remains.

c Rationale–Structure of Chapter

As already noted above, Alcmaeon's doxa does not follow on very well from the chapter heading because it commences with the cause of male mule sterility, whereas the heading mentions only female mules. Just as in ch. 5.13 but in reverse order, the cause for the males focuses on the role of semen (on which Alcmaeon has a recorded view in A 5.3.3), while for the females the state of the womb is the key to their sterility. It is clear from other doxai in A (cf. also chs. 5.17.3, 5.24.1, 5.30.1) and reports elsewhere that Alcmaeon showed an interest in biological and embryological questions (which does not necessarily make him a 'doctor' (ἰατρός); in the tradition he is primarily presented as a φυσικός, cf. D.L. 8.83, Lloyd 1975, Mansfeld 1975). The report includes two archaic terms and the explicit attestation of the authenticity of the second gives it an authentic ring (the doxa is promoted to a B fragment in DK); see the comment at M–R 2.1.214. The verb ἀναχάσκειν is used three times of the womb in the *Corpus Hippocraticum* (*Vict.* 1.30 on twins, *Superfet.* 32.1, 8 for turning it, cf. §2). For another text in which A points out the authenticity of unusual terminology see 3.3.11 (Democritus on thunder). As Diels-Kranz point out in a note on 24B3, the lightness and coolness of semen is mentioned by Aristotle *GA* 2.7 747a2 as the cause of infertility in 'effeminate men'.

The second doxa attributed to Empedocles reverts to an exclusive focus on female mules in line with the chapter heading. The cause relating to the size and shape and position of the womb is clear enough, with some overlapping with the causes given for female infertility in A 5.9.1. But because the doxa differs wholly from the (rather obscure) report on Empedocles' view given at *GA* 2.7 747a34 involving the mixture of semen, most scholars have concluded that the name-label is wrong (e.g. Diels *VS* 176; DK 1.301; Guthrie 1962–1981, 1.217), although Bollack (1965–1969) 3.570 sees no problem and Van der Eijk (2000–2001) 2.43–44 cautiously notes that Empedocles may well have offered several alternative views which have been separately recorded in the two authors.

The third doxa is meant primarily to reinforce the previous view by giving what appears to be a verbatim quote from a work by Diocles (note that it is the only text in A where the formula of μαρτυρεῖν ('attest', 'quote') is used; see further the discussion at M–R 2.1.215). It is perhaps not impossible that ἐν ταῖς ἀνατομαῖς refers to the title of a work on dissection, as Wellmann (1901) 127–130 thought, but it is much more likely to indicate the dissections that Diocles himself carried out; see the discussion by Van der Eijk (2000–2001) 45. He himself proposes that Diocles' Γυναικεῖα could also have been the source, as suggested by the final section of the doxa. For this remark A reverts to indirect speech, thereby effectuating the return to normal doxographical language used to summarize views (ἐνδέχεται is the usual term for multiple possible causes; see esp.

A 3.15.11 on the view of multiple explanations of earthquakes attributed to Epicurus). The remark offers a connection to the earlier discussion of female sterility in chs. 5.9 and 5.13. It may hint at the fact that the main interest of the subject of mules' sterility is the light that it might shine on human female infertility (as in Aristotle and Galen). It reinforces the emphasis on human physiology which is a main feature of Book 5.

In the medical author Rufus of Ephesus (a contemporary of A) we find the following statement which explains that there are three synonyms for semen: *Onom.* 225 Daremberg–Ruelle σπέρμα δὲ καὶ θορὴ καὶ γόνος τὸ αὐτὸ, ἢ ἐν παραστάταις γεννητικὴ πέψις ὁμοῦ πνεύματος καὶ τροφῆς.

From the formal point of view the chapter differs from its predecessors chs. 5.9 and 5.13 in two ways. It does not pile up alternative causes connected with ἢ (or), which is such a pronounced feature of the previous chapters. Possible separate causes are presented as working together (thinness and coolness of the semen, smallness and lowliness and narrowness of the womb). It might be thought that this would make it easier to present clear diaereses. But this does not happen. There is no clear contrast between the first and the second doxa. As we have seen, the former is divided into separate views for males and females, the latter gives a cause for females only. The two views on the role of the womb are not very different, but are also not linked. One cannot escape the impression that this chapter was most likely mutilated at some point in its transmission.

d Further Comments

Individual Points

§1 A key feature of the Alcmaeon doxa, as noted above in section D(c), is that it contains two archaic terms that presumably go back to his original treatise. For both terms P^B (but not G and Q) has included explanatory phrases beginning with ὃ ἐστὶ, i.e. ὃ ἐστὶ σπέρματος for θορῆς and ὃ ἐστὶ ἀναστομοῦσθαι for ἀναχάσκειν. Diels regarding these parenthetical remarks as glosses, but this is by no means a necessary conclusion. Explanatory comments belong to A's method; see for example ch. 3.5a(olim 18)[6], where the mss. are divided between ὅτι and ὃ. Other places where the formula ὃ ἐστὶ is used for explanatory additions occur at A 1.11.2 (τὸ ποιοῦν, ὃ ἐστὶ νοῦς), A 1.13.1 (ὁμοιομερῆ, ὃ ἐστὶ στρογγύλα). The phrase here does not occur in S, so could be an addition by P, but given the erudition required, this is not so likely. The phrases should thus be retained in the text; see further ch. 1.11 Commentary D(d) on §2.

§3 Diocles' words preserved in *oratio recta* are rendered in *oratio obliqua* in both G and Q. This might suggest that a conversion to direct speech has occurred at some time in the transmission of P. Van der Eijk (2000–2001) 2.44

entertains this possibility but argues against it, noting the infrequency of direct speech in A. It is indeed the *lectio difficilior* and should be retained.

E Further Related Texts

b Sources and Other Parallel Texts

General texts: Aristotle *GA* 2.7 746b12–16 τὰ μὲν οὖν ἄλλα τῶν ἐκ τοιαύτης μίξεως γιγνομένων συνδυαζόμενα φαίνεται πάλιν ἀλλήλοις καὶ μιγνύμενα καὶ δυνάμενα τὸ τε θῆλυ καὶ τὸ ἄρρεν γεννᾶν, οἱ δ' ὅρεις ἄγονοι μόνοι τῶν τοιούτων· οὕτε γὰρ ἐξ ἀλλήλων οὐτ' ἄλλοις μιγνύμενοι γεννώσιν. *GA* 2.8 747a22–b30 ἐν μὲν οὖν τοῖς ἀνθρώποις καὶ τοῖς ἄλλοις γένεσιν, ὥσπερ εἴρηται πρότερον, κατὰ μέρος ἡ τοιαύτη συμβαίνει πῆρως, τὸ δὲ τῶν ἡμιόνων γένος ὅλον ἄγονόν ἐστιν. περὶ δὲ τῆς αἰτίας, ὡς μὲν λέγουσιν Ἑμπεδοκλῆς (31A82 DK) καὶ Δημόκριτος—λέγων ὁ μὲν οὐ σαφῶς Δημόκριτος (fr. 519 Luria) δὲ γνωρίμως μᾶλλον—οὐ καλῶς εἰρήκασιν. λέγουσι γὰρ ἐπὶ πάντων ὁμοίως τὴν ἀπόδειξιν τῶν παρὰ τὴν συγγένειαν συνδυαζομένων. Δημόκριτος (68A149, 151 DK) μὲν γὰρ φησὶ διεφθάρθαι τοὺς πόρους τῶν ἡμιόνων ἐν ταῖς ὑστέραις διὰ τὸ μὴ ἐκ συγγενῶν γενέσθαι τὴν ἀρχὴν τῶν ζώων. συμβαίνει δ' ἐφ' ἐτέρων ζώων τοῦτο μὲν ὑπάρχειν, γεννᾶν δὲ μὴδὲν ἦττον—καίτοι χρῆν, εἴπερ αἴτιον τοῦτ' ἦν τῆς ἀγωνίας, ἄγονα καὶ τᾶλλ' εἶναι τὰ μιγνύμενα τὸν τρόπον τοῦτον. Ἑμπεδοκλῆς (31B92 DK) δ' αἰτιάται τὸ μίγμα τὸ τῶν σπερμάτων γίνεσθαι πυκνὸν ἐκ μαλα(β1)κῆς τῆς γονῆς οὕσης ἐκατέρας· συναρμόττειν γὰρ τὰ κοῖλα τοῖς πυκνοῖς ἀλλήλων, ἐκ δὲ τῶν τοιούτων γίνεσθαι ἐκ μαλακῶν σκληρὸν ὥσπερ τῷ καττιτῆρῳ μιχθέντα τὸν χαλκόν ... ἴσως δὲ μᾶλλον ἂν δόξειεν ἀπόδειξις εἶναι πιθανὴ τῶν εἰρημένων λογικῇ—λέγω δὲ λογικὴν διὰ τοῦτο ὅτι ὅσῳ καθόλου μᾶλλον πορρωτέρω τῶν οἰκείων ἐστὶν ἀρχῶν. *Pliny Nat.* 8.173 *observatum ex duobus diversis generibus nata tertii generis fieri et neutri parentium esse similia, eaque ipsa quae sunt ita nata non gignere in omni animalium genere; idcirco mulas non parere.* **ps.Alexander Probl.** 1.137 Ideler Διὰ τί αἱ ἡμίονοι οὐ τίκτουσι; ὅτι ἐκ διαφορῶν εἰδῶν ζώων συνεστήκασιν καὶ ἡ τῶν διαφορόντων κατὰ κράσιν καὶ φύσιν σπερμάτων μίξις, ἕτερόν τι γενὼν παρὰ τὸ πρότερον, καὶ τὴν τῶν γεννησάντων ἀφανίζει φύσιν· καθάπερ καὶ λευκοῦ καὶ μέλανος μίξις ἀφανίζουσα τῶν ἄκρων τὸ χρῶμα τίκτει χροῖαν ἐτέραν τὴν τοῦ φαιοῦ, μὴδὲν τῶν ἄκρων ὑπερέχουσαν. ἡ γεννητικὴ τοίνυν κράσις, ἡφάνισται καὶ τῶν εἰδῶν ἡ ἐπιτηδειότης. **Aelian NA** 12.16 ἡμιόνους δὲ λέγει (sc. Δημόκριτος 68A151 DK) μὴ τίκτειν· μὴ γὰρ ἔχειν ὁμοίας μήτρας τοῖς ἄλλοις ζώοις, ἑτερομόρφους δέ, ἥκιστα δυναμένας γονὴν δέξασθαι μὴ γὰρ εἶναι φύσεως ποίημα τὴν ἡμίονον, ἀλλὰ ἐπινοίας ἀνθρωπίνης καὶ τόλμης ὡς ἂν εἴποις μοιχιδίῳ ἐπιτέχνημα τοῦτο καὶ κλέμμα. δοκεῖ δέ μοι, ἡ δ' ὅς, ὄνος ἵππον βιάσασθαι κατὰ τύχην, μαθητὰς δὲ ἀνθρώπους τῆς βίας ταύτης γεγεννημένους εἶτα μέντοι προελθεῖν ἐπὶ τήντης γονῆς αὐτῶν συνῆθειαν. **Galen Sem.** 2.1.44–45, pp. 154.26–156.3 De Lacy καὶ μὲν γε καὶ μεῖζον ἔτι τοῦ γε κατὰ τὸ ἑβδομον βιβλίον, ὅπερ ἐστὶ περὶ σπέρματος, αὐτῷ προσομολογεῖ ὁ Ἀθήναιος (sc. of Attaleia), οὐκ οἶδ' ὅπως οὐκ αἰσθάνεται. πλέον γὰρ ἔχειν φησὶ παρὰ τῆς μητρὸς ἢ τοῦ πατρὸς τὸ γεννώμενον, οἶον ἅφ' ἵππου μὲν τὸν ἡμίονον, ὄνον δὲ τὸν ἴονον†. **John Philoponus in GA** 122.31–33, p. 123.7–8 Hayduck ὁ μὲν οὖν Δημόκριτος (fr. 519 Luria), φησὶ, τῆς τῶν ἡμιόνων ἀτεκνίας τὰς αἰτίας πειρώμενος λέγειν, τοιαῦτα ἐξετραγώδησεν ... ἐνίσταται (sc.

Aristotle) οὖν πρὸς ταύτην τὴν δόξαν καὶ φησιν ... *in GA* 126.6–9 τῆς Δημοκρίτου (—) καὶ Ἐμπεδοκλέους (—) ἀποδείξεως πιθανωτέρα ἂν εἶναι δόξειεν ἢ ῥηθησομένη ἀπόδειξις. εἴη δ' ἂν ὁ ῥηθησόμενος λόγος καὶ πειρώμενος κατασκευάζειν, διὰ τί οἱ ἡμίονοι οὐ γεννῶσι, τοιοῦτος. *in GA* 127.7–10 μέλλων δὲ τὴν οἰκείαν καὶ ἀληθῆ λέγειν δόξαν τῆς τῶν ἡμιόνων ἀτεκνίας πρῶτον ἐκτίθεται τὰ ὑπάρχοντα τοῖς ἵπποις καὶ ὄνοις, ἐξ ὧν εἰσιν ἡμίονοι, καὶ οὕτως ἐκ τούτων συνάγει πάνυ ἐντρεχῶς τὸ αἴτιον τῆς τῶν ἡμιόνων ἀτεκνίας.

Chapter heading: cf. Aristotle *GA* 3.1 749a10 περὶ μὲν οὖν τῆς τῶν ἡμιόνων ἀτεκνίας εἴρηται. **ps.Alexander** *Probl.* 1.137 Ideler Διὰ τί αἱ ἡμίονοι οὐ τίκτουσι. **John Philoponus** *in GA* 126.9 διὰ τί οἱ ἡμίονοι οὐ γεννῶσι.

§1 Alcmaeon: Rufus of Ephesus *Onom.* 225 Daremberg–Ruelle cited above section D(c).

§2 Empedocles: cf. *Corpus Hippocraticum Mul.* 213 cited on ch. 5.9.

Liber 5 Caput 15

PP: *Papyrus Antinoopolis* 85 fr. 8 recto p. 80 Barns–Zilliaceus—PB: ps.Plutarchus *Plac.* 907C–D; p. 425^{a14}–^{b14} Diels—PG: ps.Galenus *HPh* c. 119; p. 643.15–25 Diels; pp. 377–389 Jas—PQ: Qustā ibn Lūqā pp. 228–231 Daiber—PPs: Psel-lus *Omn.Doctr.* c. 115, p. 62 Westerink (titulus solus)
SL: Stobaeus *Ecl.* 1.42.11, p. 1.296.13 Wachsmuth (titulus solus)

Titulus ιε'. Εἰ τὸ ἔμβρυον ζῶον (P,S)

- §1 Πλάτων ζῶον τὸ ἔμβρυον· καὶ γὰρ κινεῖσθαι ἐν τῇ γαστρὶ καὶ τρέφεσθαι καὶ αὔξεσθαι. (P1)
- §2 οἱ Στωικοὶ μέρος εἶναι αὐτὸ τῆς γαστρού, οὐ ζῶον· ὥσπερ γὰρ τοὺς καρποὺς μέρη τῶν φυτῶν ὄντας πεπαινομένους ἀπορρεῖν, οὕτω καὶ τὸ ἔμβρυον. (P2) 5
- §3 Ἐμπεδοκλῆς μὴ εἶναι μὲν ζῶον τὸ ἔμβρυον ἀλλ' ἄπνουν ὑπάρχειν ἐν τῇ γαστρὶ· πρώτην δ' ἀναπνοὴν τοῦ ζώου γίνεσθαι κατὰ τὴν ἀποκύησιν, τῆς μὲν ἐν τοῖς βρέφεσιν ὑγρασίας ἀποχώρησιν λαμβανούσης, πρὸς δὲ τὸ παρακενωθὲν ἐπεισόδου τοῦ ἐκτὸς ἀερώδους γινομένης εἰς τὰ 10 παρανοιχθέντα τῶν ἀγγείων. (P3)
- §4 Διογένης γεννᾶσθαι μὲν τὰ βρέφη ἄψυχα, ἐνθερμα δέ· ὅθεν τὸ ἔμφυτον θερμὸν εὐθέως προχυθέντος τοῦ βρέφους τὸ ψυχρὸν εἰς τὸν πνεύμονα ἐφέλκεται. (P4)

§1 Plato cf. *Tim.* 91d2–5; §2 Stoici *SVF* 2.756; §3 Empedocles cf. 31A74 DK; §4 Diogenes Apolloniates 64A28 DK, sed verisimiliter Diogenes Babylonius

§1 [2] post ζῶον hab. εἶναι P^G || post ἔμβρυον add. ὑπείληφε P^G || post γὰρ hab. καὶ P^G || [3] καὶ αὔξεσθαι P^G Diels : om. P^{BQ} Mau Lachenaud §2 [4] τῆς om. P^G || verba οὐ ζῶον usque ad ζῶον §3[7] om. P^G per haplographiam || [5] ἀπορρεῖν P^{B(L111)} : ἀπορρεῖ P^{B(11)} §3 [7] μὴ P^{BQ} : secl. Diels quod prob. Vitek || ἄπνουν P^G edd. : ἔμπνουν P^{BQ} || [8] πρώτην P^{B(1)GQ} : πρώτα P^{B(11)} : πρώτως P^{B(111)} || [9] ἀποχώρησιν λαμβανούσης ἀποχωρούσης P^G || [9–10] πρὸς ... παρα-κενωθὲν P^B : om. P^{GQ} || [10] ἐπεισόδου P^B : τῇ δ' ἐπεισόδῳ P^G ; cf. *und wenn sich die Luft von außen ... gemischt hat* Q || γινομένης Diels Mau Lachenaud, cf. 4.22.1, γινομένου P^G : γενομέ-νης P^B, cf. *gemischt hat* Q §4 [12] Διογένης] διὸ P^G emend. Jas || γεννᾶσθαι] τίχτεσθαι P^G || ἄψυχα om. P^G || ἐνθερμα scripsimus coniecturam Diels *DG* 853 secuti, cf. *aber in ihnen ein Wärme ist* Q : ἐν θερμοσὶ P^B prob. Laks || ὅθεν om. P^G || [12–13] al. P^G ἐνθερμανθέντος τοῦ ἐμφύτου θερμοῦ || [13] τὸ ψυχρὸν P^G (sed cf. *aerem* P^{B(Nic)}, *die Luft* Q, vid. comm.) : om. P^B || [14] ἐφέλκεται P^B, cf. *daher wird ... herbeigezogen* Q : ἐφέλκεσθαι P^G Diels Mau Lachenaud

παρανοιχθέντα τῶν ἀγγείων· τὸ δὲ μετὰ τοῦτο ἤδη τοῦ ἐμφύτου θερμοῦ τῇ πρὸς τὸ ἐκτὸς ὀρμῇ τὸ ἀερῶδες ὑπαναθλίβοντος, τὴν ἐκπνοήν, τῇ δ' εἰς τὸ ἐντὸς ἀνθυποχωρήσει τῷ ἀερῶδει τὴν ἀντεπίσσοδον παρεχομένου, τὴν εἰσπνοήν. A 5.26.4 (Empedocles de plantis) ὥστε γῆς εἶναι μέρη, καθάπερ καὶ τὰ ἔμβρυα τὰ ἐν τῇ γαστρὶ τῆς μήτρας μέρη.

§5 A 4.22.3 (de respiratione) Ἡρόφιλος δυνάμεις ἀπολείπει περὶ τὰ σώματα τὰς κινητικὰς ἐν νεύροις ἐν ἀρτηρίαις ἐν μυσί.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

P^B and Q record five doxai, each with a separate name-label. In G all five doxai can be discerned, but there are only four name-labels because the second and third doxai in P have been coalesced into a single lemma as the result of a *saut du même au même*. Ps joins up the chapter heading with that of 5.16. He does not utilize the contents of this chapter, though making interesting comments on its subject matter. S unfortunately records only the chapter heading. Not even the Platonic lemma was preserved by his Byzantine epitomators.

B *Proximate Tradition and Sources*

(1) *Proximate tradition*. Two interesting texts in Clement (*Strom.* 5.1.5 and 8.9.6–9, 13.2–8, cited below) and a further text in the Scholia to a rhetorical work of Hermogenes (476.2–7 Waltz, cited below) show that the nature of the embryo was a standard quaestio for both natural scientists and doctors giving rise to interesting dialectical and philosophical topics. See the discussion at Mansfeld (1990a) 3186–3187 which focuses on the text in Clement *Strom.* Book 8, and Havrda's commentary (2016) ad loc. The latter scholar argues that this book is a series of excerpts on logic that Clement took from a contemporary work, perhaps Galen's treatise *Περὶ ἀποδείξεως* (now lost). The topic was linked to the parallel question regarding the status of plants (cf. ch. 5.26) and illustrated interesting divergences between the Stoa and other schools. The work preserved under the name of Galen, *Εἰ ζῶον τὸ κατὰ γαστρός*, resembles a rhetorical exercise arguing a particular thesis, namely that the fetus is a living being. In addition the treatise *Ad Gaurum*, which though ascribed to Galen in the single surviving manuscript is now universally agreed to have been written by Porphyry, also indicates familiarity with the quaestio and expatiates on it in his *status quaestionis* in §§1–2. This work, however, has as its subject 'On how

embryos are ensouled', which indicates a different approach to the question compared with the chapter in A (this approach is also found in Tertullian *de An.* 25 and in Psellus *Omn. Doctr.* 59, *Phil. Min.* 1 op. 16); texts below section E(a) General texts.

By far the most interesting parallel for our purposes is found at ps.Galen *Def. Med.* 445. After first treating the question of the embryo's nourishment in §444 (the subject of the next chapter in A), it then gives a diaeresis of three opinions, the first two of which are presented anonymously. Firstly there is a diaphonia between those who say it is a ζῷον and those who say it is not. Arguments follow: in favour of the first view is that it moves and perceives; in favour of the second is that it is comparable to a tree or plant. Finally a third compromise view is ascribed to Asclepiades: it is neither a ζῷον nor not a ζῷον, but is to be compared to living beings who are asleep. The method and the content of this section are very similar to what we find in A and are clearly derived from the proximate doxographical tradition. Regrettably Censorinus does not touch on this question in his account of human reproduction. It is to be noted that Philo furnishes a parallel for §4 at *Somn.* 1.31, part of the section with questions on the heaven and the soul/mind that goes back to a version of the *Placita* earlier than A (see ch. 2.11 Commentary B).]

(2) *Sources.* There is little information about early Greek investigations on the subject of embryology apart from the evidence in the *Placita*. Earliest thinkers of whom we know that they developed theories on the subject are Parmenides (cf. A 5.7.2 and the discussion in Mansfeld 2015a, at Mansfeld 2018d, 192) and Alcmaeon (cf. Longrigg 1993, 55–56, 61). For the latter, apart from the references to him at A 5.16.3, 5.17.4, there is a comment at Aristotle *GA* 3.2 752b22–28 (= 24A15 DK) on the formation of the embryo in the eggs of birds. The Hippocratic treatise *De natura pueri* (which is a continuation of the treatise *De semine* and together with *De morbis* IV most likely formed a single work) discusses the early formation of the embryo and famously describes the incident of the singing girl whose induced miscarriage allowed the author to examine a very early fetus (ch. 2). When Aristotle mentions the subject at *GA* 2.3–4 (texts below section E(b) General texts) he makes no reference to previous thinkers. Importantly he links the question of the embryo being a ζῷον to the question of whether the embryo has a soul and concludes, with reference to his own treatment in *de An.*, that it only has the nutritive power of the soul and not yet the others, so that it is in fact only a ζῷον potentially. Additional questions can be discerned here, which will play an important role in the later philosophical tradition. If the embryo is not a ζῷον, when does it actually become so? The obvious answer will be: when it is born and first breathes. This answer plays an important role in A's chapter. But another question that can be asked is: when

does the soul descend into the body? The theme is especially important for Platonists and, as already noted above, gave rise to the treatise *ad Gaur*. But, as its presence in Tertullian indicates, it was also an important question for Christians. Psellus interestingly refers to three books on the subject, of Hippocrates (i.e. *Nat.puer.*), of Galen (i.e. *An.Ut.*) and of Porphyry (i.e. *ad Gaur.*).

It is significant that A does not include a chapter Πῶς ἐμψυχοῦται τὰ ἔμβρυα. The chapters on spermatology and embryology (5.3–18) scarcely contain any references to the soul (only at chs. 5.3.5, 5.4.1, 5.11.3—all on the source of semen). His approach is markedly physiological. Nevertheless the final three doxai might be seen to respond to a similar question, if ψυχή is replaced by πνεῦμα, i.e. Πῶς ἐμπνευματοῦται τὰ ζῶα vel sim.

For a brief history of the topic see Congourdeau (2007) and more general treatment in the collected essays of Brisson & *alii* (2008).

C Chapter Heading

The formula εἰ τὸ δεῖνα ζῶον is parallel to the similar εἰ τὸ δεῖνα σῶμα/ἄσώματος used at 4.3 (soul), 4.20 (voice) and 5.4 (semen). It invites a positive and a negative response, with a compromise view as a third possibility. The same formula is used of plants at ch. 5.26 in the second half of the heading, Πῶς ἡϋξήθη τὰ φυτὰ καὶ εἰ ζῶα; see further our Commentary ad loc., C. The question at the macro-level is implicit in a chapter on the cosmos, 2.3 Εἰ ἔμψυχος ὁ κόσμος καὶ προνοία διοικούμενος, but with the proviso regarding ensoulment that we noted in our remarks above under section B. Ps.Galen's treatise *An animal sit quod est in utero*, whose title uses the same formula, Εἰ ζῶον τὸ κατὰ γαστρός, starts off by drawing an analogy between the question whether the embryo is a ζῶον and the celebrated question of whether the same can be said of the cosmos. The chapter heading recorded in Marc. 521 is derived from ps.Galen *Def.Med.* and is not based on A; see further ch. 5.3 Commentary B.

The heading in S^L is identical to that found in the tradition of P (cf. Wachsmuth 1882, 17). On the chapter headings in S^L see above, ch. 5.4 Commentary C.

D Analysis

a Context

After having treated questions relating to conception, namely the various kinds of living beings produced (chs. 5.7–8, 10), resemblances between parents and progeny (chs. 5.11–12), and why conception sometimes cannot take place (chs. 5.9, 5.13–14), A now turns to the immediate product of conception, the fetus, and devotes the next four chapters to it, chs. 5.15–18, followed—after two chapters which interrupt the sequence—by ch. 5.21.

b Number–Order of Lemmata

With its five lemmata the chapter as preserved in P is reasonably extensive and, as we shall see, has a clear structure. Nevertheless, because as we shall see it does not contain a compromise viewpoint, which ps.Galen *Def.Med.* 445 in the proximate tradition does have, it is quite well possible that it has undergone a process of abridgement by P.

c Rationale–Structure of Chapter

The chapter opens with a direct opposition (diaphonia) between positive and negative responses to the question posed in the chapter heading. As noted above, this is invited by the formulation of the chapter heading in terms of a question starting with εἰ.

(1) Plato is credited with a positive response based on the fact that the embryo moves in the womb and is nourished and grows. The basis for the doxa is found in *Tim.* 91c–d (not 91a as in Mau's and Lachenaud's apparatus), where Plato speaks of ἀδιάπλαστα ζῶα in the womb which are nurtured (ἐκθρέψωνται) until birth. Plato thus explicitly mentions the aspect of nourishment, but not that of movement and growth. It is, however, a reasonable deduction (cf. also the discussion on plants at *Tim.* 77a–c, utilized by A at 5.26.1; see further below section D(d)§1).

(2) The opposite viewpoint is attributed to the Stoics, the only argument being the analogy with plants. The same position and analogy is found in ps.Galen *Def.med.* 445, but is much better argued (τρέφεσθαι and αὔξεσθαι, but no ὀρμή or προαίρεσις). The analogy with plants is standard for this viewpoint and found in many texts (see texts below). For the Stoa ψυχή is what makes something a ζῶον, whereas for a plant it is φύσις; cf. Galen *Hipp.Epid.* VI 5.5 273.2–3 Wenkebach (= *SVF* 2.715) cited by Gourinat (2008) 61. We should note that the Stoa is not cited as saying the embryo is a plant, but rather that it is *part* of the womb, i.e. part of a ζῶον; cf. *ibid.* 68.

The remaining three doxai, as Laks (2008) 186 has pointed out, follow on from the Stoic viewpoint (as is made clear at the beginning of the Empedocles doxa), but deepen it, going further than the plant analogy and attempting to answer how the transition from non-ζῶον to ζῶον takes place. All three focus on the aspect of respiration which has so far not been mentioned.

(3) For Empedocles the embryo does not possess this faculty. In the first part of the doxa the phrase ἄπνουν ὑπάρχειν ἐν τῇ γαστρὶ can be seen as nuancing the unsubtle μέρος τῆς γαστροῦς of the Stoic view. There can be little doubt that Diels was right in reading ἄπνουν with G rather than the ἔπνουν of P^{BQ}, which leads to an unacceptable contradiction with the words immediately following, πρῶτην δ' ἀναπνοὴν κτλ. More interesting is his bracketing of μή in the earlier μή εἶναι μὲν

ζῶον. This would make the doxa a compromise view, as we find in ps.Galen but with a different content. But this view would necessitate making a distinction between Empedocles' doxa and that of Herophilus, who says that embryos do not become ζῶα *until* they take their first breath. Such a distinction is difficult to see. Subsequent editors have rightly rejected Diels' emendation. The remainder of the doxa is almost word for word identical with the first part of A 4.22.1 on respiration, with the difference that the protological viewpoint of the earlier doxa is adapted to the physiological context in Book 5, as noted by Bollack (1965–1969) 3.438. It is difficult to understand why Diels *VS* 174 (repeated in at 31A74 DK) describes the text as 'schlechter' (compared with 4.22.1). It is in fact fuller in relation to the specific subject of the embryo.

(4) The next doxa attributed to Diogenes develops the progression by saying that the embryo is ἄψυχον, i.e. it does not possess ψυχή, but it does possess heat (on the reading see further comment below, section D(d)). This heat is no doubt instrumental for its growth and development. It has long been assumed that the Diogenes in question was Diogenes of Apollonia and the text is discussed at some length by Laks in his monograph on that thinker, (2008, first edn. 1983) 186–188. But Tieleman (1991) demonstrated that there are good grounds for supposing that the name-label refers to Diogenes of Babylonia, a Stoic who is cited as such in A 2.32.9 (this paper was unfortunately overlooked by Laks in the revision of his earlier work). Certainly there are no aspects of the doxa that are specifically reminiscent of Diogenes of Apollonia (e.g. a reference to air). It should be noted, however, that, although his name-label is not otherwise found in Book 5 until ch. 5.20.5, there is a clear reference to him on an embryological subject at Censorinus 9.2. An important part of Tieleman's argument is the collection of parallels on the emergence of ψυχή through the cooling (ψύξις) of air; cf. Philo *Somn.* 1.31, Plutarch *SR* 1052F and other texts at *SVF* 2.804–808 (some cited below section E(a)&(b)); see (1991) 112–114. This aspect of Stoic doctrine is passed over in both §2 and §5. Tieleman did not, however, take into account the passage in the Anonymus Londiniensis 18.15–23 which attributes a very similar doctrine to the Pythagorean Philolaus; on this text see Huffman (1993) 289–292, who regards it as authentic and among 'our most reliable evidence for this thought (292)' (but does not refer to the similar views of Diogenes). This parallel involving a thinker contemporary with Diogenes of Apollonia militates against Tieleman's thesis. Lonie (1981) 152 cites the same parallel in Philolaus, but also argues that 'Aetius might be wrong about Diogenes,' since the purposive and articulatory function of air is what one might expect in (the earlier) Diogenes.

(5) The last doxa attributed to the physician Herophilus returns to the aspect of movement introduced in the first lemma. It deepens the analysis by distinguishing between physical movement, which the fetus clearly possesses (and is

caused by the νεῦρα, tendons), and the movement of an independent ζῶον, for which respiration of the external air is required. It thus amounts to a subtle correction and reformulation of the Platonic position in the first doxa. The opening words of the lemma, 'Ἡρόφιλος κίνησιν ἀπολείπει φυσικὴν τοῖς ἐμβρύοις, οὐ πνευματικὴν, are rather similar to the beginning of the doxa on respiration attributed to the doctor in A 4.22.3, 'Ἡρόφιλος δυνάμεις ἀπολείπει περὶ τὰ σώματα τὰς κινητικὰς ἐν νεύροις ἐν ἀρτηρίαις ἐν μυσί. We recall that there is also a case of reduplication between the two chapters in the case of Empedocles (see above on §3). It is not unlikely that in these two cases A or a predecessor chopped up longer accounts of the psychology and embryology of the two thinkers, adapting the material to the exigencies of the doxographical method.

It may be concluded, therefore, that the chapter has a clear structure, consisting of a diaphonia between the first two doxai, with the remaining three doxai deepening the understanding of the negative answer, but also implicitly answering the question of how the embryo, if it is not a ζῶον, becomes such at the time of birth.

As noted, this structure is introduced by the chapter heading εἰ τὸ ἐμβρυον ζῶον, which invites a positive and a negative answer. But comparison with two similar chapters, 2.3 on whether the cosmos is ensouled and 5.26 on whether plants are ζῶα is revealing, because in both cases A makes very clear that there are compromise answers possible. Such a view is missing in the chapter as we have it, even though it would not be hard to devise and also appears in the proximate tradition (ps.Galen).

d Further Comments *Individual Points*

§1 This viewpoint is not the one defended by the Platonist Porphyry in the treatise *Ad Gaurum*, who argues that for Plato the embryo is not (yet) a ζῶον. He cites the texts *Tim.* 77a–c at §4.4 and 91d at §8.3, but draws different conclusions from them. The argument turns on the meaning of the term ζῶον (4.5): 'For if, on the one hand, someone wishes to call it a ζῶον by reason of its being alive (ζῆν), we shall agree; but we are positive that there is no way that Plato himself agrees that it has the self-moving soul that it has when it is born, rather he thinks it is a ζῶον in the sense that plants are.' (trans. Wilberding)

G adds the words καὶ αὖξεσθαι to the end of the doxa as it appears in P^B and Q. The addition makes perfect sense and may be regarded as one of those cases where G's evidence reveals material originally present in P and thus A. It is confirmed by A 5.27.1 (Empedocles) and esp. ps.Galen *Def.Med.* 445; further support from Arist. *EN* 1.13 1102a.32–b1, Aspasius in *EN* 35.8–9, ps.Gal. *ad Gaur.* 16.3.

§4 In his article on this lemma Tieleman does not consider Diels' emendation ἐνθερμα δέ (probably supported by Q) for ἐν θερμασίᾳ δέ in P^B, which we have taken over in our text. But it in fact strengthens his argument on pp. 119–120, where he argues that to say that children are born 'in heat' is an awkward way of indicating the embryo's characteristic faculty. On p. 109 he does agree with the addition of τὸ ψυχρὸν to P's text based on the reading in G. He cites the evidence of Q to confirm this reading, suggesting that the translation 'air' might be based on the presence of references to air in §3 and §5. However, he is unaware of Nicolaus' translation of G with its reading *aerem*. The reference to cold is important for establishing the Stoic tenor of the doxa, so there is a danger of circularity here.

For the verb in the second half of the doxa P^B has the indicative, P^G the infinitive. Diels and more recent editors opt for the latter. Laks (2008) 188 is right to say that the change is not mandatory. Not only is there much variation between infinitives and indicatives in doxographical texts, as he observes, but more specifically in sentences that follow the conjunction ὅθεν in A about half have the indicative in *oratio recta* and about half the infinitive in *oratio obliqua* (see further on A 5.16.1) Since Q cannot help decide, it is a situation of *non liquet* and we simply have to choose one or the other.

§5 In G's text of this lemma the name-label is followed by a colon and a text in *oratio recta*, a practice which is comparatively rare in A: examples at A 2.5.1 and 5.3.1; see our comments on the latter text at Commentary D(c). However, Nicolaus' translation gives the text in *oratio obliqua* and Jas is justified in emending the text.

e Other Evidence

As we saw above, in the fine parallel text at ps.Galen *Def.Med.* 445 the positive and negative views are presented anonymously. The former goes beyond the Platonic doxa in A in attributing pleasure to the embryo and thus also internal sense-perception. The negative position elaborates on the comparison with plants. The emphasis on ὀρμή and προαίρεσις may indicate a Stoic origin. Von Arnim oddly only includes the first part at *SVF* 2.756 and not the reference to the embryo's lack of προαίρεσις. The compromise view is attributed to Asclepiades, namely that the embryo is neither a ζῶον nor not a ζῶον, but like people who are asleep, i.e. having organs of sense-perception but not using them. This doctor, the latest chronologically to be included in the *Placita*, features on five occasions in Books 4 and 5 (including in the related chapter 4.22), but not here. His name is mentioned in relation to the similar question of the origin of soul in Tertullian, and is also cited on the difference between σπέρμα and γόνον at *Def.Med.* 441 and on the therapeutic powers of music in Censorinus 12.4.

Interestingly this third possibility involving sleep (without name-label) is also mentioned by Clement in his long discussion at *Strom.* 8.11–13 on how the definition of ζῶον must determine the arguments on whether plants and fetuses are ζῶα or not (see 8.13.4, 7). The possibility of sleep is also mentioned by Porphyry in the diaeresis at the beginning of *ad Gaur.*, but he introduces the philosophically more sophisticated notion of potentiality, i.e. that the embryo is a living being δυνάμει μόνον, οὐκ ἐνεργείᾳ (1.2).

E Further Related Texts

a Proximate Tradition

General texts: *ps.Galen Def.Med.* 445, p. 19.451.18–452.17 K. υμε'. τινές μὲν εἶπον ζῶον, τινές δὲ οὐ· ὅσοι μὲν οὖν εἶπον ζῶον ὑπάρχειν αὐτὸ τῇ κινήσει ἐτεκμήραντο ζῶον ὑπάρχειν αὐτό. ἐπειδὴ γὰρ κινεῖται καὶ τὸ ἔμβρυον καὶ ὅτι ἡδεται μὲν ἡδομένης τῆς μητρὸς καὶ εὐφραίνεται, ἀνιωμένης δὲ συστέλλεται καὶ συνάγεται αἰσθανόμενον ὡς ζῶον· ἡ γὰρ αἴσθησις οὐκ ἄλλω τινὶ ἢ ζῳῷ προσφυής· οἱ δὲ μὴ εἶναι ζῶον λέγοντες (i.e. Stoics, *SVF* 2.757) τρέφεσθαι μὲν αὐτὸ καὶ αὔξεσθαι ὥσπερ καὶ τὰ δένδρα, ὁρμὴν δὲ καὶ ἀφορμὴν οὐκ ἔχειν ὥσπερ τὰ ζῳα. οὐ γὰρ αὐτὸ προαιρέτως οὐ μόνον κινεῖται, ἀλλ' οὕτε μετὰ προαιρέσεως, ἀλλ' ὡς τὰ δένδρα καὶ φυτὰ· τοῖς μὲν γὰρ αἴτιος κινήσεως ἄνεμος, ἐμβρύοις δὲ ἡ περὶ αὐτὰ ὑγρότης καὶ ὀλισθος καὶ τὸ σχῆμα τῆς μήτρας, πληρουμένη γὰρ σφαιροποιεῖται, σχῆμα δὲ ἡ σφαῖρα εἰς πᾶσαν κίνησιν εὐφυὲς ἅτε βάσεως ἀπάσης ἅμοιρος. Ἀσκληπιάδης (cf. Vallance *ANRW* 2.37.1, p. 721) δὲ οὕτε ζῶον, οὕτε μὴ ζῶον εἶπεν τὸ ἔμβρυον, ἀλλ' ὅμοιον ἔφησεν αὐτὸ τοῖς κοιμωμένοις· ὅνπερ γὰρ τρόπον ἐκεῖνοι μὲν ἔχουσιν τὰς αἰσθήσεις, οὐ χρώνται δὲ αὐταῖς, οὕτως καὶ τὸ κατὰ γαστρός. *ps.Galen An.Ut.* 1.3–10 Wagner ὅπερ φυσικοῖς καὶ πᾶσι φιλοσόφοις παρέχει μέχρι τῆς τήμερον περὶ τῆς τοῦ παντὸς φύσεως ζητήσιν, τοῦτο τοῖς Ἀσκληπιάδασι καὶ τοῖς τούτων ἐκγόνοις ἢ τοῦ γιγνομένου καὶ συνισταμένου βρέφους ἐν μήτρᾳ ἀμφίβολος ἔννοια. ὡς γὰρ οἱ τοῦ ὅλου τὴν ἔρευναν ποιοῦμενοι οὐδὲν σαφῶς ὥρισαντο πότερον ζῶον ἢ μὴ, τὸν αὐτὸν τρόπον καὶ οἱ τῆς τέχνης τῆς ἱατρικῆς προῖστάμενοι ἀόριστον τὸν ὑπὲρ τοῦ φυομένου παιδίου παρέδωσαν λόγον. **Clement of Alexandria** *Strom.* 5.1.5 ἀλλ' οὐδὲ τὰ ἀντιστρέφοντα (ἀντιστρέφει δὲ ἃ καὶ τοῖς τὸν ἐναντίον χειρίζουσι λόγον ἐπ' ἴσης ἔστιν εἰπεῖν, ὡς τὸ εἰ ζῶον τὸ κατὰ γαστρός ἢ οὐ ζῶον). *Strom.* 8.9.6–13.8, esp. 9.6–9 ἔστιν οὖν ἡ μέθοδος τῆς εὐρέσεως τοιαύτη· ἀρκτέον γὰρ ἐξ αὐτοῦ τοῦ γνωρίζειν τὰ προβλήματα. (7) πολλάκις γοῦν ἐξαπατᾷ τὸ τῆς λέξεως σχῆμα καὶ συγχεῖ καὶ ταράττει τὴν διανοίαν, ὥστε μὴ ῥαδίως εὐρίσκειν ἐκ ποίας ἐστὶ διαφορᾶς, οἷον εἰ (ζῶον ἢ) [suppl. Schwartz] μὴ ζῶον τὸ κούμενον· (8) ἔχοντες γὰρ καὶ ζῳῷ τι νόημα καὶ κουομένου ζητοῦμεν εἰ τῷ κουομένῳ ζῳῷ εἶναι ὑπάρχει, τοῦτο δ' ἐστίν, εἰ τῇ κουομένῃ οὐσίᾳ τό τε κινεῖσθαι δύνασθαι καὶ ἔτι τὸ αἰσθάνεσθαι ὑπάρχει. (9) ὥστε ἐνεργειῶν ἐστὶ καὶ παθῶν ἢ ζητήσις ἐπὶ προγινωσκόμενης οὐσίας. ... and 8.13.2–8 ἐναργῶς γὰρ ἐδείκνυτο τοῦ πράγματος αὐτοῦ τοῦ ζητουμένου, λέγω δὲ τοῦ ἐμβρύου τῆς φύσεως ὅποια τίς ἐστίν. ἕτερον ὑπάρχον πρόβλημα τὸ περὶ τῶν σημαινόμενων ἐκ τοῦ (ζῶον) ὀνόματος. (3) λέγω τοῖνον, εἰ τοῦτο λέγεις ζῶον τὸ δυνάμενον αἰσθῆσθαι τε καὶ κινηθῆναι καθ' ὁρμὴν, ζῶδὲν ἐστὶν οὐχ ἀπλῶς τὸ κινούμενον καθ' ὁρμὴν καὶ αἰσθανόμενον·

(4) δύναται γὰρ καὶ κοιμᾶσθαι ἢ μὴ παρόντων τῶν αἰσθητῶν μὴ αἰσθάνεσθαι ... (6) ἐζήτητο δὲ πότερον ζῶν ἐστὶν ἢ δὴ τὸ ἔμβρυον ἢ φυτὸν ἔτι, κάπειτα μετελήφθη τοῦ ζώου τοῦνομα εἰς λόγον, ἵν' ἢ σαφές. (7) αἰσθήσει δὴ καὶ κινήσει τῇ καθ' ὁρμὴν εὐρόντες αὐτὸ διαφέρον τοῦ μὴ ζώου, πάλιν τοῦτο διωρισάμεθα τῶν παρακειμένων αὐτῷ πραγμάτων ἕτερον μὲν εἶναι φάμενοι τὸ δυνάμει τοιοῦτον, ὃ μήπω μὲν ἐστὶν αἰσθανόμενόν τε καὶ κινούμενον, ἔσται δὲ ποτε τοιοῦτον, ἕτερον δὲ τὸ κατ' ἐνέργειαν ὑπάρχον ἢ δὴ τοιοῦτον, τούτου δὲ τὸ μὲν ἢ δὴ ἐνεργοῦν, τὸ δὲ ἐνεργεῖν μὲν δυνάμενον, ἡσυχάζον δὲ ἢ κοιμώμενον. (8) τοῦτο δὲ ἐστὶ τὸ ζητούμενον. οὐ γὰρ ἐκ τοῦ τρέφεσθαι τὸ ἔμβρυον ζῶν εἶναι λεκτέον, ὃ τῆς οὐσίας ἐστὶν ἀποχωρούντων τοῦ ζητουμένου, τοῖς δ' ἄλλως συμβεβηκόσιν προσεχόντων τὸν νοῦν. cf. also *Ecl. proph.* 50 ἔλεγεν πρεσβύτης ζῶν εἶναι τὸ κατὰ γαστρός. εἰσιούσαν γὰρ τὴν ψυχὴν εἰς τὴν μήτραν ἀπὸ τῆς καθάρσεως ἡτρεπισμένην εἰς σύλληψιν. **Tertullian** *de An.* 25.1–2, 5 *iam nunc regrediar ad causam huius excessus, uti reddam, quomodo animae ex una redundet, quando et ubi et qua ratione sumantur; de qua specie nihil refert, a philosopho an ab haeretico an a vulgo quaestio occurrat.* (2) *nulla interest professoribus veritatis de adversariis eius, maxime tam audacibus quam sunt primo isti, qui praesumunt non in utero concipi animam nec cum carnis figulatione compingi atque produci, sed et effuso iam partu nondum vivo infanti extrinsecus inprimi; ceterum semen ex concubitu muliebribus locis sequestratum motuque naturali vegetatum compinguescere in solam substantiam carnis; eam editam et de uteri fornace fumantem et calore solutam, ut ferrum ignitum et ibidem frigidae immersum, ita aeris rigore percussam et vim animalem rapere et vocalem sonum reddere. hoc Stoici (SVF 2.805) cum Aenesidemo (fr. B27 Polito) et ipse interdum Plato (cf. *Phd.* 70c), cum dicit perinde animam extraneam alias et extorrem uteri prima adspiratione nascentis infantis adduci, sicut expiratione novissima educi. videbimus an ex sententia finxerit. ne ex medicis quidem defuit Hicesius, et naturae et artis suae praevaricator. ...* (5) *hoc* (sc. instrument for abortion) *et Hippocrates* (cf. *Mul.Aff.* 70) *habuit et Asclepiades* (cf. Vallance *ANRW* 2.37.1, p. 727) *et Erasistratus* (—) *et maiorum quoque prosector Herophilus* (T247 Von Staden) *et mitior ipse Soranus* (T18 Podolak), *certi animal esse conceptum atque ita miserti infelicissimae huiusmodi infantiae, ut prius occidatur, ne viva lanietur.* **Porphry** *ad Gaur.* 1.1, p. 33.3–15 *Kalbfleisch ...* κοινῶς μὲν τῶν φυσικῶν καὶ σχεδὸν τῶν ἱατρῶν πάντων ἀπορησάντων, πότερον χρὴ ζῶα ἡγεῖσθαι τὰ ἔμβρυα ἢ φυτικῶς ζῆν αὐτὰ μόνον, τῆς μὲν ἰδιότητος τοῦ ζώου ἐν αἰσθήσει καὶ ὁρμῇ συνισταμένης, τῆς δὲ τῶν φυτῶν ἐν θρεπτικῇ τε καὶ αὐξητικῇ χωρὶς αἰσθήσεώς τε καὶ ὁρμῆς θεωρουμένης· ὅθεν τῶν ἐμβρύων φαντασίας μὲν χωρὶς καὶ ὁρμῆς διεξαχόντων, αὐξητικῶς δὲ καὶ θρεπτικῶς μόνον διοικουμένων—μαρτυρεῖ γὰρ ἄμφω τὰ γινόμενα—φυτὰ μὲν ἢ φυτοῖς ὅμοια συγχωρεῖν, ζῶα δ' ἡγεῖσθαι διὰ τὸ μέλλειν ἐκ γαστρός προελθόντα ζωοῦσθαι μὴ προπετές ἢ καὶ ἀνδρῶν ἀβασανίστως μεμελετηκότων ταῖς τῶν πολλῶν δόξαις συνήκειν· ἰδίᾳ δ' αὖ πάλιν τῶν καὶ ζωικῆς ψυχῆς αὐτὰ μετέχειν ὑπειληφότων ἀμφισβητησάντων, πότερον καὶ ἐνεργεῖα ζῶα χρὴ λογιζεσθαι τὰ ἔμβρυα ἢ δυνάμει μόνον, οὐκ ἐνεργεῖα. **Sopater** *Scholia ad Hermogenis Status* 476.3 Waltz ἔτι δὲ οὐ μόνον τοῦ ῥητορικοῦ ὅρου οἰκεῖός ἐστιν ὁ ὅρος ἀλλὰ καὶ τοῖς φυσικοῖς ἀρμόσει· καὶ γὰρ ὁ ἱατρός ζητῶν πότερον τὸ ἔμβρυον

ζῶν ἐστιν ἡ οὐ. **Psellus** *Omn.Doctr.* 115 τρισὶν ἐνέτυχον μονοβίβλοις περὶ τούτου τοῦ ζητήματος, Ἰπποκράτους (i.e. *Nat.Puer.*), Πορφυρίου (i.e. *ad Gaur.*) καὶ Γαληνοῦ (i.e. *An.Ut.*). ὦν ὁ μὲν Ἰπποκράτης καὶ Γαληνὸς ζῶν αὐτὸ φασιν ἐν τῇ γαστρὶ εἶναι, καὶ κινεῖσθαι ὑπὸ ψυχῆς τὸ μὲν ἄλογον τῆς ἀλόγου, τὸ δὲ λογικὸν τῆς λογικῆς· τρέφεσθαι τε ἐν τῇ μήτρᾳ διὰ τοῦ στόματος, εἶναι γὰρ ἐν ταύτῃ θηλάς τινὰς καὶ στόματα δι' ὧν τρέφεται. ὁ δὲ γε Πορφύριος πολλοῖς λογισμοῖς καὶ ἀποδείξει διατείνεται μὴ εἶναι τὸ ἔμβρυον ζῶν μηδὲ ἐμψυχωμένον, ἀλλὰ δίκην φυτοῦ καταπεφυτεῦσθαι ἐν τῇ μήτρᾳ, καὶ κινεῖσθαι οὐχ' ὑπὸ ψυχῆς, ἀλλ' ὑπὸ φύσεως, ὥσπερ δὴ καὶ τὰ δένδρα καὶ τὰ φυτὰ κινεῖσθαι εἴωθε (see also on ch. 5.16). cf. *Omn.Doctr.* 59 Πότε ἡ ψυχὴ τῷ κυομένῳ ἐνοῦται σώματι. ... τῶν δὲ Ἑλλήνων οἱ πρόκριτοι μετὰ τὴν τελείωσιν τοῦ φυσικοῦ ὄργάνου καὶ τὴν ἀποκύψιν τούτου ἐνσπείρουσι ταύτην τῷ σώματι· πλὴν ὅτε μὲν ἔσωθεν ἡ κατερριζωμένον τὸ ἔμβρυον τὴν φυσικὴν ψυχὴν τοῦτῃ διδῶσιν, ἐξελθόντι δὲ τὴν λογικὴν, καὶ προϊόντι τὴν νοεράν. also *Phil.Min.* 1 op. 16, p. 48.10–19 Duffy Πότε ψυχοῦνται τὰ ἔμβρυα. ... τῶν δὲ γε παρ' Ἑλλήσι σοφῶν οἱ μὲν μορφωθέντα ψυχοῦσι τὰ ἔμβρυα, οἱ δὲ αὐτίκα μέλλοντα κινήσθαι κατὰ γαστρός, οἱ δὲ τῆς μήτρας ἀποσπασθέντα καὶ διατυπωθέντα πρὸς ὄλισθον. οἱ δὲ γε τελεώτεροι τούτων μετὰ τὸν τοκετὸν τὴν λογικὴν ψυχὴν μεταλαμβάνειν φασί, καὶ μεταβάλλειν ἀθρόως ὥσπερ ὑπὸ φωτὸς θείου ἀναπτόμενα ἡ ζῶντα ἔνδοθεν δὲ τῆς μήτρας ζῆν μὲν, ἀλλὰ τὴν φυτικὴν ζωὴν καὶ παντάπασιν ἄλογον, ὥσπερ ἐκ ῥίζης τοῦ ὀμφαλοῦ κατερριζωμένα τῇ μήτρᾳ, τὴν τροφὴν χορηγούμενα, ζῶα δὲ μήτε εἶναι μήτε ὀνομάζεσθαι, ἀτελὴ ὄντα πρὸς μετουσίαν τῆς θειοτέρας ψυχῆς.

Chapter heading: **ps.Galen** *An.Ut.* (title) Εἰ ζῶν τὸ κατὰ γαστρός. cf. **Clement of Alexandria** *Strom.* 8.10.1 ἔστιν οὖν ἡ μέθοδος τῆς εὐρέσεως τοιαύτης· ἀρκτέον γὰρ ἐξ αὐτοῦ τοῦ γνωρίζειν τὰ προβλήματα. πολλάκις γοῦν ἐξαπατᾶ τὸ τῆς λέξεως σχῆμα καὶ συγχεῖ καὶ ταράττει τὴν διάνοιαν, ὥστε μὴ ῥαδίως εὐρίσκειν ἐκ ποίας ἐστὶ διαφορᾶς, οἷον εἰ ζῶν ἢ ζῶν τὸ κυούμενον. **Sopater** *Schol. ad Her-mogenis* Περὶ στάσεως p. 476.2–7 Waltz ἔτι δὲ οὐ μόνον τοῦ ῥητορικοῦ ὅρου οἰκεῖός ἐστιν ὁ ὅρος ἀλλὰ καὶ τοῖς φυσικοῖς ἀρμόσει· καὶ γὰρ ὁ ἱατρός ζητῶν πότερον τὸ ἔμβρυον ζῶν ἐστὶν ἢ οὐ· ἐκλείποντος καὶ τοῦ ὄντος ἐπιχειρεῖ· ὁ μὲν γὰρ λέγων ζῶν αὐτὸ εἶναι, ἐκ τοῦ ὄντος καὶ οἰονεῖ πεπραγμένου ἐπιχειρεῖ· ὁ δὲ λέγων μήπω εἶναι αὐτὸ ζῶν, ἐκ τοῦ λείποντος. cf. **Codex Marcianus** 521 f. 100^r (*DG* p. 233 Diels, from *Def.Med.* 445) εἰ ζῶν τὸ κατὰ γαστρός.

§2 Stoics: see **ps.Galen** *Def.Med.* 445 cited above, General texts.

§4 Diogenes: **Philo of Alexandria** *Somn.* 1.31 (on the νοῦς) γεννώμενον δ' εὐθύς ἢ ἔξωθεν εἰσκρίνεται ἢ ὑπὸ τοῦ περιέχοντος ἀέρος ἡ ἔνθερος ἐν ἡμῖν φύσις οἷα σίδηρος ἐν χαλκῷ πεπυρωμένος ὕδατι ψυχρῷ πρὸς τὸ κραταιότατον στομοῦται· διότι καὶ παρὰ τὴν ψῦξιν ὀνομάσθαι ψυχὴν δοκεῖ. cf. **Hippolytus** *Ref.* 1.21.3 (on the Stoics, *SVF* 2.806) τὴν δὲ ψυχὴν λέγουσι μὲν ἀθάνατον, εἶναι δὲ σῶμα καὶ γενέσθαι ἐκ τῆς περιψύξεως τοῦ ἀέρος τοῦ περιέχοντος· διὸ καὶ καλεῖσθαι ψυχὴν.

§5 Herophilus: see **Tertullian** *de An.* 25.5 cited above under General texts.

b Sources and Other Parallel Texts

General texts: **Corpus Hippocraticum** *Nat.Puer.* 1, p. 7.486.1–8 Littre ἦν ἡ γονὴ μείνη ἀπ' ἀμφοῖν ἐν τῇσι μήτρησι τῆς γυναικὸς, πρῶτον μὲν μίσγεται ὁμοῦ, ἅτε

τῆς γυναικὸς οὐκ ἀτρεμεούσης, καὶ ἀθροίζεται καὶ παχύνεται θερμαινομένη. ἔπειτα πνεῦμα ἴσχει, ἅτε ἐν θερμῷ ἐοῦσα, ἔπειτα τῆς μητρὸς πνεούσης, {ἔπειτα} δὲ τοῦ πνεύματος ὅταν πλησθῇ, ὁδὸν οἱ αὐτὸ ἐωυτῷ ἔξω ποιεῖ καὶ κατὰ μέσον τῆς γονῆς τὸ πνεῦμα ἔξεισιν· ὅταν δὲ ὁδὸς γένηται τῷ πνεύματι ἔξω θερμῷ ἐόντι, αὐθις ἕτερον ψυχρὸν εἰσπνέει ἀπὸ τῆς μητρὸς· καὶ τοῦτο ποιεῖ διὰ παντὸς τοῦ χρόνου. **Aristotle** *GA* 2.3 736a27–b1 διορίσαι δὲ δεῖ πότερον μεταλαμβάνει τὸ συνιστάμενον ἐν τῷ θήλει ἀπὸ τοῦ εἰσελθόντος τι ἢ οὐθέν, καὶ περὶ ψυχῆς καθ' ἣν λέγεται ζῶον (ζῶον δ' ἐστὶ κατὰ τὸ μῦριον τῆς ψυχῆς τὸ αἰσθητικόν) πότερον ἐνυπάρχει τῷ σπέρματι καὶ τῷ κυήματι ἢ οὐ, καὶ πόθεν. οὐτε γὰρ ὡς ἀψυχον ἂν θείη τις τὸ κύημα κατὰ πάντα τρόπον ἐσπερημένον ζωῆς· οὐδὲν γὰρ ἦττον τὰ τε σπέρματα καὶ τὰ κυήματα τῶν ζῶων ζῆ τῶν φυτῶν, καὶ γόνιμα μέχρι τίνος ἐστίν. ὅτι μὲν οὖν τὴν θρεπτικὴν ἔχουσι ψυχὴν φανερόν (δι' ὅτι δὲ ταύτην πρῶτον ἀναγκαῖον ἐστὶ λαβεῖν ἐκ τῶν περὶ ψυχῆς διωρισμένων ἐν ἄλλοις φανερόν) ... *GA* 2.4 740a24–27 ἐπεὶ δὲ δυνάμει μὲν ἤδη ζῶον ἀτελὲς δέ, ἄλλοθεν ἀναγκαῖον λαμβάνειν τὴν τροφήν· διὸ χρήται τῇ ὑστέρᾳ καὶ τῇ ἐχούσῃ ὥσπερ γῇ φυτόν, τοῦ λαμβάνειν τροφήν ἕως ἂν τελεωθῇ πρὸς τὸ εἶναι ἤδη ζῶον δυνάμει πορευτικόν.

Chapter heading: cf. **Aristotle** *GA* 2.3 736a29–32 περὶ ψυχῆς καθ' ἣν λέγεται ζῶον ... πότερον ἐνυπάρχει τῷ σπέρματι καὶ τῷ κυήματι ἢ οὐ.

§1 Plato: **Plato** *Tim.* 91c7–d5 μέχριπερ ἂν ἐκατέρων ἢ ἐπιθυμία καὶ ὁ ἔρως συναγαγόντες, οἷον ἀπὸ δένδρων καρπὸν καταδρέψαντες, ὡς εἰς ἄρουραν τὴν μήτραν ἀόρατα ὑπὸ σμικρότητος καὶ ἀδιάπλαστα ζῶα κατασπείραντες καὶ πάλιν διακρίναντες μεγάλα ἐντὸς ἐκθρέψονται καὶ μετὰ τοῦτο εἰς φῶς ἀγαγόντες ζῶων ἀποτελέσωσι γένεσι. **ps.Galen** *Libellus El* ζῶον τὸ κατὰ γαστρός passim. cf. **Aristotle** *EN* 1.13 1102a32–b1 τοῦ ἀλόγου δὲ τὸ μὲν ἔοικε κοινῷ καὶ φυτικῷ, λέγω δὲ τὸ αἷτιον τοῦ τρέφεσθαι καὶ αὔξεσθαι· τὴν τοιαύτην γὰρ δύνανται τῆς ψυχῆς ἐν ἅπασιν τοῖς τρεφομένοις θείη τις ἂν καὶ ἐν τοῖς ἐμβρύοις, τὴν αὐτὴν δὲ ταύτην καὶ ἐν τοῖς τελείοις. cf. **Aspasius** in *NE* 35.8. but for the contrary view see **Alcinous** *Did.* c. 25, p. 178.33–38 H. also **Tertullian** *An.* 25.2 cited above, and **Porphyry** *ad Gaur.* 2.1, p. 34.11–20 etc.

§2 Stoics: **Philo of Alexandria** *Virt.* 138 (= *SVF* 2.759) εἰ γὰρ τὰ φυτῶν τρόπον ἔτι παραυξανόμενα καὶ μέρη νομιζόμενα τῶν κυόντων ... **Porphyry** *ad Gaur.* 3.1, p. 36.11–16 πρῶτον μὲν οὖν αὐτὴν μαρτυρόμενοι τὴν ἐνάργειαν πρὸ ὀφθαλμῶν θέσθαι ἀξιοῦμεν τὰς εἰδοποιούς διαφορὰς τῶν φυτῶν τε καὶ τῶν ζῶων, εἴθ' οὕτως σκέψασθαι, τίσι μᾶλλον προσχωρεῖ τὰ γινόμενα περὶ τὰ ἔμβρυα· εἰ μὲν γὰρ φαίνοιτο τοῖς ἐπὶ τῶν ζῶων ὄντα παραπλήσια, ζῶον ἀποφαίνειν τὸ κυούμενον, εἰ δὲ τοῖς ἐπὶ τῶν φυτῶν, μὴ θαυμάζειν εἰ τῆς γαστρός προελθὼν ζωοῦται κτλ. **Themistius** in *PN* 5.6.23.22 τρέφεται γὰρ καὶ ἔμβρυον ὃν, ἀλλ' οὐχ ἡ ζῶον, ἀλλ' ἡ φυτόν· ἐπειδὴ δὲ αἰσθησιν λάβῃ, τότε πρῶτον τρέφεται ἡ ζῶον. **John Philoponus** in *de An.* 213.7–11 ἐκ τούτου δὲ συνάγουσιν ὅτι οὐ ζῶον τὸ κατὰ γαστρός· εἰ γὰρ ζῶῃ ἐστὶν ἡ δι' αὐτοῦ τροφή τε καὶ αὔξεις καὶ φθίσις, τοῦτο δ' ἐστὶν ἡ διὰ τῶν οἰκείων ὀργάνων, τὸ δὲ ἔμβρυον οὐ διὰ τῶν οἰκείων τρέφεται ὀργάνων, λέγω δὴ τοῦ στόματος, οὐκ ἄρα ζῶον οὐδὲ ζῶν. *Opif.* 6.23 277.21–25 ἐντεῦθεν καὶ τὸ παρὰ τοῖς φυσικοῖς ὁμολογούμενον διδασκόμεθα, ὅτι μὴ πῶς ζῶν ἐστὶ πρὶν διαπλασθῆναι τὸ κατὰ γαστρός· ἅμα δὲ τῇ διαπλάσει ψυχούται ζῶον γενόμενον· πρὸ τούτου δὲ φυτοῦ ζῶην ἔχει. **Psellus** 1 op. 16,

pp. 47–48 Duffy α' τότε ψυχρύνται τὰ ἔμβρυα. τῶν δέ γε παρ' Ἑλλησι σοφῶν οἱ μὲν μορφωθέντα ψυχροῦσι τὰ ἔμβρυα, οἱ δὲ αὐτίκα μέλλοντα κινήθηναι κατὰ γαστρός, οἱ δὲ τῆς μήτρας ἀποσπασθέντα καὶ διατυπωθέντα πρὸς ὄλισθον. οἱ δέ γε τελεώτεροι τούτων μετὰ τὸν τοκετὸν τὴν λογικὴν ψυχὴν μεταλαμβάνειν φασί, καὶ μεταβάλλειν ἀθρόως ὥσπερ ὑπὸ φωτὸς θεοῦ ἀναπτόμενα ἢ ζωपुरούμενα.

§3 Empedocles: cf. *Corpus Hippocraticum Nat.Puer.* 16, p. 7.528.18–20 Littré φημι γὰρ τὰ ἐν τῇ γῇ φυόμενα πάντα ζῆν ἀπὸ τῆς γῆς τῆς ἰκμάδος, καὶ ὅπως ἂν ἡ γῆ ἔχῃ ἰκμάδος ἐν ἑωυτῇ, οὕτω καὶ τὰ φυόμενα ἔχειν· οὕτω καὶ τὸ παιδίον ζῇ ἀπὸ τῆς μητρὸς ἐν τῇσι μήτρησι, καὶ ὅπως ἂν ἡ μήτηρ ὑγιεῖς ἔχῃ, οὕτω καὶ τὸ παιδίον ἔχει. see further on A 5.26.4.

§4 Diogenes: Anonymus Londiniensis 18.15–23 (Philolaus 44A27 DK) ἐπεὶ δὲ τὸ κατασκευάζ[ον ἀμέ]τοχόν ἐστιν ψυχροῦ καὶ ὁ τόπος (sc. the womb) δέ, ἐν ᾧ ἡ καταβολ[ή], ἀμέτοχός ἐστιν ψυχροῦ, δῆλον [ὅτι καὶ τὸ] κατασκευαζόμενον ζῶιον τοιοῦτο[ν γίνε]ται. εἰς δὲ τούτου τὴν κατασκ[ευὴν ὑ]πομνήσει προσχρήται τοιαύτη· με[τὰ γὰρ] τὴν ἔκτεξιν εὐθέως {τὸ} τὸ ζῶιον ἐπισπᾶται τὸ ἐκτὸς πνεῦμα ψυχρόν ὄν· εἴτα πάλιν καθαπερεὶ χρέος ἐκπέμπει αὐτό. διὰ τοῦτο δὴ καὶ ὄρεξις τοῦ ἐκτὸς πνεύματος, ἵνα τῇ[ι] ἐπ(ε)ισάκτωι τοῦ πνεύματος ὅλκῃ θερμ[ό]τερα ὑπάρχοντα τὰ ἡμέτερα σώματα πρὸς αὐτοῦ καταψύχῃται. **Plutarch SR** 1052F (*SVF* 2.806) τὸ βρέφος ἐν τῇ γαστρὶ φύσει τρέφεσθαι νομίζει καθάπερ φυτόν· ὅταν δὲ τεχθῇ, ψυχόμενον ὑπὸ τοῦ ἀέρος καὶ στομούμενον τὸ πνεῦμα μεταβάλλειν καὶ γίνεσθαι ζῶον· ὅθεν οὐκ ἀπὸ τρόπου τὴν ψυχὴν ὠνομάσθαι παρὰ τὴν ψύξιν. αὐτὸς δὲ πάλιν τὴν ψυχὴν ἀραιότερον πνεῦμα τῆς φύσεως καὶ λεπτομερέστερον ἡγεῖται μαχόμενος αὐτῷ (cf. also 1053C–D). **CN** 1084E (*SVF* 2.806) ἀλλὰ ταῦτα μὲν παρὰ τὰς κοινὰς βιάζονται προλήψεις· ἐκεῖνα δ' ἤδη καὶ παρὰ τὰς ἰδίας, τὸ θερμότατον περιψύξει καὶ πυκνώσει τὸ λεπτομερέστατον γεννῶντες. ἡ γὰρ ψυχὴ θερμότατόν ἐστι δῆπου καὶ λεπτομερέστατον· ποιοῦσι δ' αὐτὴν τῇ περιψύξει καὶ πυκνώσει τοῦ σώματος (coni. σπέρματος Pohlenz) οἷον στομῶσει τὸ πνεῦμα μεταβάλλοντος, ἐκ φυτικού ψυχικὸν γενόμενον.

Liber 5 Caput 16

P^B: ps.Plutarchus *Plac.* 907D–E; pp. 426^a15–427^a2 Diels—**P^G**: ps.Galenus *HPh* c. 120; pp. 643.26–644.3 Diels; pp. 389–394 Jas—**P^Q**: Quṣṭā ibn Lūqā pp. 230–231 Daiber—**P^S**: Psellus *Omn.Doctr.* c. 115.1–13, pp. 62–63 Westerink
S^L: Stobaeus *Ecl.* 1.42.12, p. 1.296.15 Wachsmuth (titulus solus)

Titulus 15'. Πῶς τρέφεται τὰ ἔμβρυα (P,cf.S)

- §1 Δημόκριτος Ἐπικούρος τὸ ἔμβρυον ἐν τῇ μήτρᾳ διὰ τοῦ στόματος τρέφεσθαι· ὅθεν εὐθέως γεννηθὲν ἐπὶ τὸν μαστὸν φέρεσθαι τῷ στόματι· εἶναι γὰρ καὶ ἐν τῇ μήτρᾳ θηλάς τινας καὶ στόματα, δι' ὧν τρέφεσθαι. (P₁)
- §2 οἱ Στωικοὶ διὰ τοῦ χορίου καὶ τοῦ ὀμφαλοῦ· ὅθεν τοῦτον εὐθέως ἀποδεῖν τὰς μαιουμένας καὶ ἀνευρύνειν τὸ στόμα, ἵνα ἐτέρα γένηται ἢ μελέτη τῆς τροφῆς. (P₂)
- §3 Ἀλκμαίων δι' ὅλου τοῦ σώματος τρέφεσθαι· ἀναλαμβάνειν γὰρ αὐτό, ὥσπερ σπογγιά, τὰ ἀπὸ τῆς τροφῆς θρεπτικά. (P₃)

5

10

§1 Democritus 68A144 DK; Epicurus fr. 332 Usener; §2 Stoici *SVF* 2.754; §3 Alcmaeon 24A17 DK

titulus Πῶς] πόθεν **P^{B(III:αE)}** || τρέφεται τὰ ἔμβρυα] τὰ ἔμβρυα τρέφεται **P^{B(II)}** || τὰ ἔμβρυα] τὸ ἔμβρυον **P^{B(III:α)}** (τοῦτο **P^S**) §1 [2] post Δημόκριτος hab. καὶ **P^G** || τὸ ἔμβρυον ἐν τῇ μήτρᾳ] om. **P^G** || [3] μαστὸν **P^B**: μαζὸν **P^G** || φέρεσθαι **P^G** Diels : φέρεται **P^B** Mau Lachenaud || [4] γὰρ καὶ **P^{B(II)G}** : γὰρ τινα καὶ **P^{B(II)}** : γὰρ τινας καὶ **P^{B(III)}** : γὰρ **P^S** || ἐν τῇ μήτρᾳ **P^{BQ}** : ἐν τῷ σώματι **P^G** || τινας] ἐπινενοημένας **P^G**, secl. Jas || στόματα **P^{BQP}** : στόμα **P^G** || τρέφεσθαι **P^G** Diels : τρέφονται **P^B** (τρέφεται corr. **P^{B(II)P}** Mau Lachenaud) §2 [6] τοῦ¹] om. **P^{B(III)}** || τοῦ²] om. **P^G** || εὐθέως] om. **P^Q** || [6–7] ἀποδεῖν ... στόμα **P^B** : ἀποδεῖν **P^G** : *binden die Geburtshelfer ihn (den Nabel) mit einer festen Binde fest* Q (om. καὶ ἀνευρύνειν τὸ στόμα), cf. **P^S** ἀποδεσμοῦσιν αἱ μαῖαι || [7–8] ἵνα ... τροφῆς **P^B** (ἐτέρα post τροφῆς **P^{B(III)}**), cf. *sodaf der Nahrungsweg durch einen anderen Ort verläuft* Q : al. **P^G** ἵνα διὰ τοῦ στόματος αἰσθητῶς τρέφεται, cf. **P^S** ἵνα διὰ τοῦ στόματος τὸ γεννηθὲν τρέφεται §3 non hab. **P^G** || [9] αὐτό **P^{BQ(ut vid.)}** : αὐτῷ Diels || [10] σπογγιά **P^{B(II)}** : σπογγιάν **P^{B(III)Q(ut vid.)}** : σπογγιᾶ Diels

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 120 (~ tit.) Πῶς τρέφεται τὰ ἔμβρυα (text Jas).

120.1 (~ P₁) Δημόκριτος καὶ Ἐπικούρος διὰ τοῦ στόματος τρέφεσθαι· ὅθεν εὐθὺς γεννηθὲν ἐπὶ τὸν μαζὸν φέρεσθαι τῷ στόματι· εἶναι γὰρ καὶ ἐν τῷ σώματι θηλάς {ἐπινενοημένας} καὶ στόμα, δι' ὧν τρέφεσθαι.

120.2 (~ P₂) οἱ Στωικοὶ διὰ τοῦ χορίου καὶ ὀμφαλοῦ· ὅθεν τοῦτον εὐθὺς ἀποδεῖν, ἵνα διὰ τοῦ στόματος αἰσθητῶς τρέφεται.

Psellus *Omn. Doctr.* c. 115 Εἰ τὸ ἔμβρυον ζῶον (~ tit. A 5.15) καὶ πῶς τρέφεται τοῦτο (~ tit. A 5.16)

τρισὶν ἐνέτυχον μονοβίβλοις περὶ τούτου τοῦ ζητήματος, Ἴπποκράτους, Πορφυρίου καὶ Γαληνοῦ. ὧν ὁ μὲν Ἴπποκράτης καὶ Γαληνὸς ζῶον αὐτὸ φασιν ἐν τῇ γαστρὶ εἶναι, καὶ κινεῖσθαι ὑπὸ ψυχῆς τὸ μὲν ἄλογον τῆς ἀλόγου, τὸ δὲ λογικὸν τῆς λογικῆς· τρέφεσθαι τε ἐν τῇ μήτρᾳ διὰ τοῦ στόματος, εἶναι γὰρ ἐν ταύτῃ θηλὰς τινὰς καὶ στόματα δι' ὧν τρέφεται (~ P1)· ὁ δὲ γε Πορφύριος πολλοῖς λογισμοῖς καὶ ἀποδείξεσι διατείνεται μὴ εἶναι τὸ ἔμβρυον ζῶον μηδὲ ἐμψυχωμένον, ἀλλὰ δίκην φυτοῦ καταπεφυτευθῆναι ἐν τῇ μήτρᾳ, καὶ κινεῖσθαι οὐχ' ὑπὸ ψυχῆς, ἀλλ' ὑπὸ φύσεως, ὥσπερ δὴ καὶ τὰ δένδρα καὶ τὰ φυτὰ κινεῖσθαι εἴωθε τρέφεσθαι τε οὐ διὰ τοῦ στόματος, ἀλλὰ διὰ τοῦ χορίου καὶ τοῦ ὀμφαλοῦ· ὅθεν τοῦτον εὐθέως ἀποδεσμοῦσιν αἱ μάϊαι, ἵνα διὰ τοῦ στόματος τὸ γεννηθὲν τρέφηται (~ P2).

Loci Aetiani:

titulus et quaestio cf. A 2.5 Πόθεν τρέφεται ὁ κόσμος. A 2.17 Πόθεν φωτίζονται οἱ ἀστέρες. A 5.18 Διὰ τί ἐπταμηνιαία γόνιμα. A 5.27 Περὶ τροφῆς καὶ αὐξήσεως

§1 A 5.15.1 Πλάτων ζῶον τὸ ἔμβρυον· καὶ γὰρ κινεῖσθαι ἐν τῇ γαστρὶ καὶ τρέφεσθαι. A 5.18.4 (de infantibus in septimo mense natis) ἐὰν δὲ προκύψῃ μὲν μὴ τρέφηται δέ, ἀσθενησάντος τοῦ ὀμφαλοῦ διὰ τὸ ἐπίπονον αὐτῷ γεγενῆσθαι τὸ ἔκκριμα, τότε ἔμβρυον ἄτροφον εἶναι. 5.18.5 (de infantibus in octavo mense natis) ὅταν προκύψῃ μὲν τῆς μήτρας τὸ βρέφος, ἐπὶ πλεῖον δ' ὁ ὀμφαλὸς βασιανισθῇ· ἄτροφον γὰρ γίνεσθαι ὡς τοῦτου τρέφοντος αὐτό.

§3 A 4.18.2 (de gustu) Διογένης τῇ ἀραιότητι τῆς γλώττης καὶ τῇ μαλακότητι καὶ διὰ τὸ συνάπτειν τὰς ἀπὸ τοῦ σώματος εἰς αὐτὴν φλέβας διαχεῖσθαι τοὺς χυμοὺς ἐλκομένους ἐπὶ τὴν αἴσθησιν καὶ τὸ ἡγεμονικὸν καθάπερ ἀπὸ σπογγίως. A 5.3.6 (de substantia seminis) Δημόκριτος ἀφ' ὅλων τῶν σωματῶν καὶ τῶν κυριωτάτων μερῶν, οἷον ὀστέων σαρκῶν ἰνῶν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The Byzantine mss. and Q preserve three doxai. Both G and Psellus abridge the first two and ignore the third, the latter in a chapter which combines the heading of 5.15 and 5.16. S retains only the heading in the ms. S^L.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The two chief proximate texts, Censorinus and ps.Galen *Def. Med.*, both contain recognizable versions of the first two doxai with the order reversed (we note the former's use of the term *opinio*, i.e. doxa). But there

is no correspondence in name-labels. Censorinus has three: Anaxagoras, Diogenes, Hippo, while ps.Galen presents anonymous views only. The two treatises by ps.Galen (*An. Ut.*) and Porphyry on whether the embryo is a living being (see on ch. 5.15) treat the question differently. Ps.Galen follows the Hippocratic view that the embryo receives food from the mother through its mouth (i.e. cf. §1), but does not record the other opinion. Porphyry is only interested in the subject in relation to the interaction of soul and body (see *ad Gaur.* 16.3).

(2) *Sources.* The sources still available to us indicate that the topic was often discussed, with the two main opposed positions prominent, but often supplemented with mention of breast-like pieces of flesh which the embryo can suck on. Aristotle supports the view that the umbilical cord is the conduit of food to the embryo and at *GA* 2.7 746a19–26 attacks the view that it is fed via its mouth by sucking on a *σαρκίδιον*, citing the evidence of animal dissections (ps.Galen *An. Ut.* at §5 14.13–16 may be arguing against this statement when he says that the existence of a membrane around the womb will not stop the supply of food to the embryo). He appears to have Diogenes of Apollonia in mind, rather than the Hippocratic writers, if we are to believe Censorinus and Aristophanes of Byzantium (texts below section E(a)&(b) General texts). The opposition of the first two *doxai* thus goes back at least to the Peripatos. The view recorded for Alcmaeon (24A17 DK) by the second cent. CE medical author Rufus as recorded by Oribasius differs from what is found in §3. Our author makes no mention of the role of milk produced by the mother prior to birth and conveyed to the womb through the vessels connected to the breasts. The role of milk is prominent in accounts of Aristotle *HA* 4.8 776a15–b3 and *Corpus Hippocraticum Nat.Puer.* 10; see Lonie (1981) 204.

C Chapter Heading

The chapter heading is one of 13 in this book introduced by with *πῶς* and the indicative, thus seeking the cause. It occurs in this form elsewhere only in a very late text in Ioannes the physician (seventh cent.) which relates it primarily to the question of whether the fetus is a plant or an animal (cf. ch. 5.15).

The text of heading in *S^L* is identical to the majority reading in the tradition of P (cf. Wachsmuth 1882, 17). On the chapter headings in *S^L* see above, ch. 5.4 Commentary C.

D Analysis

a Context

The topic follows on logically from that of the previous chapter. Whether an embryo is a *ζῷον* or a plant, it grows and for that process it needs nourishment. As noted above, Ps combines the two topics in a single chapter.

b Number–Order of Lemmata

There are three doxai. Given the parallels elsewhere and the fact that the usual diaeresis is well covered, the chapter may be complete, though not including all the names found in the proximate tradition.

c Rationale–Structure of Chapter

The first two doxai are formulated in clear opposition to each other. The cause is indicated through the two prepositional formulas διὰ τοῦ στόματος and διὰ τοῦ χορίου καὶ τοῦ ὀμφαλοῦ. There then follow clauses in each doxa commencing with ὅθεν referring to the time immediately after the birth (both with the adverb εὐθέως) which give evidence for the position taken. The name-labels in both cases are unsupported by other evidence. Censorinus reverses the order of the two views; for the ‘umbilical’ view he cites Anaxagoras and ‘quite a few others’ (both the placement and the formulation of the name-labels may indicate the majority view), for the ‘oral’ view he gives the names of Diogenes and Hippo. As noted above in section B, the mention of Diogenes is reinforced by Aristophanes’ identification with the anonymous thinkers criticized by Aristotle at *GA* 2.7 746a19–20. Psellus identifies the ‘oral’ view with both Hippocrates (probably from *De carnibus*) and Galen (from *An.Ut.*), based on his own wider reading.

The third doxa attributed to Alcmaeon is clearly formulated in opposition to both previous views. Rather than from a particular part, the process of nourishment occurs through the whole body, the embryo taking up the nourishing elements like a sponge. There are no parallels for this third view, which as a theory does seem rather strange. It may have arisen from a misunderstanding of the view that the blood conveys nourishment from the mother’s entire body by means of the umbilical cord, which is attached to the womb through blood-vessels. See the description by Aristotle at *GA* 2.7 745b23–35. Galen often uses the metaphor of the sponge, e.g. *UP* 3.318.4–8 K. on the spleen, but not for the embryo (in *A* also used at 4.18.2 on taste). As we have already seen, a text going back to the physician Rufus associates Alcmaeon with the ‘oral’ view. Lloyd (1991) 178 notes the suggestion by Olivieri that στόματι be emended to σῶματι in order to bring the two texts into line, but there is no evidence to support this move in Oribasius’ text.

This thus may well be a case in the *Placita* where ‘the tail wags the dog’. The desire for a diaeresis of views has led to the unclear formulation of a third view, and it also appears to have received an inappropriate name-label.

d Further Comments

Individual Points

§1 The two further pieces of information that we have regarding atomist views on this subject focus on different roles for the umbilical cord, Aristotle *GA* 2.4 740a33–37 and Plutarch *Am.Prol.* 495E neither confirm nor contradict this view (texts below section E(b)§1). As Morel (1996) 163 notes, Aristotle's report that Democritus believed that the fetus stays in the womb so that it can be moulded after its mother's features does not cohere well with the views that the female has her own semen (A 5.5.1) and that the mother helps to determine the sex of the infant (A 5.7.7).

As in the previous chapter there is variation in our witnesses between indirect speech with verbs in the infinitive and direct speech with verbs in the nominative. Following ὅθεν there are, setting aside this text, three instances with the former (A 2.30.2, 5.5.5, 5.15.4) and three with the latter (A 1.6.1, 3.12.2, 5.7.1). In the present case we have followed Diels in choosing for the infinitives in G as opposed to the indicatives in P. The move to the plural in the final word τρέφονταί as recorded in the mss. of P^B seems particularly dubious.

§2 The final phrase of this doxa is difficult, because all four witnesses record a different text:

- P^B ἵνα ἑτέρα γένηται ἡ μελέτη τῆς τροφῆς
 Q *sodaß der Nahrungsweg durch einen anderen Ort verläuft*
 G ἵνα διὰ τοῦ στόματος αἰσθητῶς τρέφεται
 Ps ἵνα διὰ τοῦ στόματος τὸ γεννηθὲν τρέφηται.

It is evident that these four texts divide into two groups: P^B and Q are similar, while G and Ps closely resemble each other. It has to be said that the reading in G and Ps makes excellent sense in continuing the theme of the mouth (στόμα) from §1. However, the use of the adverb αἰσθητῶς is a little suspect, finding no parallel elsewhere in A. On the other hand the expression ἡ μελέτη τῆς τροφῆς in P^B is also distinctly unusual, with only a distant parallel in the words τῆς φύσεως τοῦ κόσμου οὕτω μεμελετηκυίας in the next chapter, 5.17.1.

It should also be noted that the correspondence between G and Ps indicates that the Byzantine scholar must have had a copy of P (as far as we know he had access neither to A nor to G) which stood closer to G's text on this point. This agreement must be placed against the agreement of P^B and Q. There are no decisive grounds for determining which of these versions originally stood in A. We have decided to retain the text of P^B with its extra detail on the widening of the mouth, which none of the other witnesses have.

e Other Evidence

As noted above in section D(c), Censorinus reverses the two views and seems to indicate with the phrase ‘with several others’ that the ‘umbilical’ view is dominant. Ps.Galen only records the ‘oral’ view as a false alternative. A places his three views side by side and in his usual manner appears happy to have a diversity of opinions.

E Further Related Texts

a Proximate Tradition

General texts: Censorinus *DN* 6.3 *utcumque tamen formatus infans quem ad modum in matris utero alatur, duplex opinio est. Anaxagorae* (59A110 DK) *enim ceterisque conpluribus per umbilicum cibus administrari videtur; at Diogenes* (64A25 DK) *et Hippon* (38A17 DK) *existimarunt esse in alvo prominens quiddam, quod infans ore adprehendat et ex eo alimentum ita trahat, ut, cum editus est, ex matris uberibus.* ps.Galen *Def.Med.* 444, p. 19.451.15–17 K. υμδ’. τρέφεται τὸ ἔμβρυον διὰ τοῦ χορίου λαμβάνον καὶ ἐπισπώμενον. τρέφεται δὲ οὐ διὰ στόματος, ἀλλὰ δι’ ὀμφαλοῦ.

Chapter heading: cf. texts above.

b Sources and Other Parallel Texts

General texts: Aristotle *GA* 2.4 740a24–27 cited on ch. 5.15. *GA* 2.7 745b22–26 ἔχει δὲ τὴν αὐξησιν τὰ ζωτοκούμενα τῶν ἐμβρύων ὥσπερ ἐλέχθη πρότερον διὰ τῆς τοῦ ὀμφαλοῦ προσφύσεως. ἐπεὶ γὰρ ἔνεστιν ἐν τοῖς ζώοις καὶ ἡ θρεπτικὴ δύναμις τῆς ψυχῆς, ἀφήσιν εὐθύς οἷον ρίζαν τὸν ὀμφαλὸν εἰς τὴν ὑστέραν ... *GA* 2.7 746a19–27 οἱ δὲ λέγοντες τρέφεσθαι τὰ παιδία ἐν ταῖς ὑστέραις διὰ τοῦ σαρκιδιόν τι βδάλλειν οὐκ ὀρθῶς λέγουσιν. ἐπὶ τε γὰρ τῶν ἄλλων ζώων ταῦτὸν συνέβαινεν ἄν, νῦν δ’ οὐ φαίνεται (θεωρῆσαι γὰρ τοῦτο ῥᾶδιον διὰ τῶν ἀνατομῶν), καὶ περὶ ἅπαντα τὰ ἔμβρυα καὶ τὰ πτηνὰ καὶ τὰ πλωτὰ καὶ τὰ τῶν πεζῶν ὁμοίως λεπτοὶ περιέχουσιν ὑμένες χωρίζοντες ἀπὸ τε τῆς ὑστέρας καὶ τῶν ἐγγιγνομένων ὑγρῶν ἐν οἷς οὐτ’ αὐτοῖς ἔνεστι τοιοῦτον οὐθέν, οὔτε διὰ τούτων οὐθενὸς ἐνδέχεται ποιεῖσθαι τὴν ἀπόλαυσιν. Aristophanes of Byzantium *Epit.HA* 1.78 διαπίπτειν δὲ (φησι) Διογένην τὸν Ἀπολλωνιάτην (64A25 DK) εἰρηκότα ταῖς κοτυληδόσι ταῖς ἐν τῇ μήτρᾳ τρέφεσθαι τὰ ἔμβρυα· οὐδὲν γὰρ τῶν ἀμφοδόντων κοτυληδόνας ἔχει ἐν τῇ μήτρᾳ, ἔστι δὲ ὁ ἄνθρωπος ἀμφοδούς. *Corpus Hippocraticum Nat.Puer.* 10, p. 7.512.18–20 Littre (on mother’s milk) καὶ ἐς τὰς μήτρας δὲ ὀλίγον ἔρχεται διὰ τῶν αὐτέων φλεβῶν· τείνουσι γὰρ ἐς τοὺς μαζοὺς καὶ ἐς τὰς μήτρας φλέβια ταῦτά τε καὶ παραπλησία ἄλλα. Καὶ ὁκόταν ἀφίκηται ἐς τὰς μήτρας, ἰδέην ἴσχει τοῦ γάλακτος, καὶ τὸ παιδίον ἀπ’ αὐτοῦ ἐπαυρίσκεται ὀλίγον ... Ioannes medicus *Comm. in Nat. pueri* 2.219.22–33 Dietz ζητοῦσι δὲ οἱ ἐξηγηταὶ ἐνταῦθα, πῶς τρέφεται τὸ ἔμβρυον καὶ φασιν, ὅτι πᾶν τρεφόμενον ἢ ὡς φυτὸν ἢ ὡς ζῶον ἢ ὡς ζωόφυτον τρέφεται. οὔτε δὲ ὡς ζῶον τρέφεται, διότι τὸ ζῶον δι’ ὀργανώσεως λαμβάνει τροφήν, οὔτε ὡς φυτὸν, ἐπειδὴ οὐδέποτε ἀπὸ φυτοῦ ζῶον γίνεται· ἀλλ’ οὐδὲ ὡς ζωόφυτον. δῆλον, ὥστε ἄρα τρέφεται ἢ γονὴ ἢ οὐ. φαιμέν ἡμεῖς ὅτι κακῶς ἔλαβον πᾶν τρεφόμενον τρέφεσθαι ἢ ὡς

φυτὸν ἢ ὡς ζωόφυτον ἢ ὡς ζῶον μόνον. ἐγὼ δὲ φημι ὅτι τὸ τρεφόμενον ἤγουν ἢ γονὴ τρέφεται, καθὼς λόγῳ τρέφονται οἱ κόκκοι τοῦ σίτου. εἰ δὲ φῆς ὡς δυνάμει φυτὸν, ὡσαύτως φημι ὅτι ὡς δυνάμει ζῶον τρέφεται ἢ γονή.

Chapter heading: *Ioannes medicus* cited above πῶς τρέφεται τὸ ἔμβρυον. cf. *Aristophanes of Byzantium Epit.HA.* 2.36 περὶ τροφῆς βρέφους (full text cited on ch. 5.8 section E(b)).

§1 Democritus Epicurus: cf. *Aristotle GA* 2.4 740a33–37 αἱ δὲ φλέβες οἶον ρίζαι πρὸς τὴν ὑστέραν συνάπτουσι, δι' ὧν λαμβάνει τὸ κύημα τὴν τροφήν. τοῦτου γὰρ χάριν ἐν ταῖς ὑστέραις μένει τὸ ζῶον, ἀλλ' οὐχ ὡς Δημόκριτός φησιν (fr. 535 Luria) ἵνα διαπλάττηται τὰ μόρια κατὰ τὰ μόρια τῆς ἐχούσης. *Plutarch Am.Prol.* 495E ὅταν δὲ τὴν γονὴν ἀναλάβῃ προσπεσοῦσαν ἢ ὑστέρα καὶ περιστείλῃ ριζώσεως γενομένης ('ὁ γὰρ ὁμφαλὸς πρῶτον ἐν μήτρῃσιν' ὡς φησὶ Δημόκριτος (68B148 DK) 'ἀγκυρηβόλιον σάλου καὶ πλάνης ἐμφύεται, πείσμα καὶ κλῆμα' τῷ γεννωμένῳ καρπῷ καὶ μέλλοντι) ... for the doxa itself cf. *Alcmaeon* in *Rufus at Orib. Coll.med.* 38.9, p. 4.136.30 Raeder οὐχ ὥσπερ Ἀλκμαίων (24A17 DK) οἶεται, ὅτι ἐν ταῖς μήτραις ὃν τὸ παιδίον ἦσθιε στόματι. also *Diogenes of Apollonia* in *Arist.Byz. Epit.* 1.78 cited above under General texts. *Corpus Hippocraticum Carn.* 6, p. 8.592.11–13 Littré τὸ δὲ παιδίον ἐν τῇ γαστρὶ συνέχον τὰ χεῖλαι μύζει ἐκ τῶν μητρῶν τῆς μητρὸς καὶ ἔλκει τὴν τε τροφήν καὶ τὸ πνεῦμα τῇ καρδίῃ εἴσω. 6 p. 594.3–4 οὐδ' ἂν θηλάζειν τὸν μασθὸν ἠπίστατο γεννώμενον αὐτίκα, εἰ μὴ καὶ ἐν τῇ μήτρῃ ἔμυζε. *Soranus Gyn.* 1.14.2 = *Oribasius Coll.Med.* 24.31.24 Διοκλῆς (fr. 23c–d Van der Eijk) δὲ καὶ κοτυληθόνας ἢ πλεκταίνας καὶ κεραίας λεγομένας εἶναι φησιν ἐν τῇ εὐρυχωρίᾳ τῆς ὑστέρας, αἵτινες μαστοειδεῖς ἐκφύσεις ὑπάρχουσι, πλατεῖαι μὲν κατὰ βάσιν, μείουροι δὲ κατὰ τὸ ἄκρον, ἐκατέρωθεν κείμεναι τῶν πλευρῶν, προνοητικῶς ὑπὸ τῆς φύσεως γεγεννημένοι χάριν τοῦ τὸ ἔμβρυον προμελετᾶν τὰς θηλάς τῶν μαστῶν ἐπισπᾶσθαι. *ps.Galen An.Ut.* 3 7.1–6 Wagner καταπίνει τε γὰρ καὶ (πνέει), ὡς Ἱπποκράτει δοκεῖ· τῷ τε γὰρ στόματι καὶ τῇ ῥίνι τὴν πνοὴν ἄνωθεν ποιεῖσθαι φησι. τινὲς δὲ τῶν Ἀσκληπιαδῶν (—) καὶ θηλάζειν αὐτὸ τὰς ἐν τῇ μήτρᾳ κοτυληθόνας λέγουσι καὶ πέττειν, ἔπεσθαι γὰρ ἀνάγκη τοῖς καταποθεῖσι καὶ πέψιν, κἄν ὅτι μάλιστα κατειργασμένην ἤδη παρὰ τῆς μητρὸς λαμβάνῃ τὴν τροφήν. *An.Ut.* 5 14.13–16 καὶ μηδεὶς ἡμᾶς παραγέτω (τῷ) διὰ τὴν τοῦ ἀμνίου ὑμένος περιθesis μὴ δύνασθαι διὰ στόματος τρέφεσθαι τὰ ἔμβρυα, ἱκανὴ γὰρ ἡ φύσις διὰ τῶν πόρων εὐπορίαν παρασχεῖν καὶ ὁδὸν εἰς εὐτροφίαν οὔσαν αὐτάρκη.

§2 Stoics: *Antiphon* at *Poll. Onom.* 2.223 (87B36 DK) καὶ Ἀντιφῶν δ' εἶρηκεν 'ἐν ᾧ τὸ ἔμβρυον αὐξάνεται τε καὶ τρέφεται, καλεῖται χόριον'. cf. *Aristotle GA* 2.4 740b9–11 ἢ μὲν οὖν αὐξήσις τῷ κυήματι γίγνεται διὰ τοῦ ὁμφαλοῦ τὸν αὐτὸν τρόπον ὅνπερ διὰ τῶν ριζῶν τοῖς φυτοῖς. *Stephanus MMG* 165, p. 204.11–15 Dickson χρή γινώσκειν ὅτι περὶ τὸ ἔμβρυον εἰσι τρεῖς ὑμένες, ὁ μὲν καλούμενος ἀμνιὸς, ὁ δὲ ἄλλαντοειδής. ἔστι δὲ καὶ τρίτος ἄλλος, ὃν καλοῦσι χόριον· ὠνόμασται δὲ οὕτως, ἐπειδὴ πολλὰι φλέβες καὶ ἀρτηρίαι κατ' αὐτόν εἰσιν ὥσπερ ἐν χορῷ τινι συνεληλυθυῖαι, καὶ δι' αὐτοῦ τρέφεται τὸ ἔμβρυον.

§3 Alcmaeon: see the reference to Alcmaeon by Rufus cited under §1 above.

Liber 5 Caput 17

P^B: ps.Plutarchus *Plac.* 907E–F; p. 427^a3–14 Diels—**P^G**: ps.Galenus *HPh* c. 121;
p. 644.4–8 Diels—**P^Q**: Qustā ibn Lūqā pp. 230–231 Daiber
S^L: Stobaeus *Ecl.* 1.42.4, 1.295.7–8 Wachsmuth (tituli soli)

Titulus ιζ'. Τί πρῶτον τελεσιουργεῖται ἐν τῇ γαστρί (P,S)

§1 οἱ Στωικοὶ ἅμα ὅλον γίνεσθαι. (P1)

§2 Ἀριστοτέλης πρῶτον τὴν ὀσφὺν ὡς τρόπιν νεώς. (P2)

§3 Ἀλκμαίων τὴν κεφαλὴν, ἐν ᾗ ἔστι τὸ ἡγεμονικόν. (P3)

§4 οἱ ἱατροὶ τὴν καρδίαν, ἐν ᾗ αἱ φλέβες καὶ αἱ ἀρτηρίαι. (P4)

§5 οἱ δὲ τὸν μέγαν δάκτυλον τοῦ ποδός. (P5)

§6 ἄλλοι δὲ τὸν ὀμφαλόν. (P6)

5

§1 Stoici *SVF* 2.755; §2 Aristoteles cf. *GA* 2.1 735a14–15, *Met.* Δ.1 1013a4; §3 Alcmaeon 24A13
DK: §4 medici —; §§5–6 anonymi —

titulus τελεσιουργεῖται ἐν τῇ γαστρί ^{PBQSL-ind2} (verisim. ex P) : τελειοῦται τοῦ βρέφους ^{P^G} :
ἀπὸ ποίου ἄρχεται μορίου μορφοῦσθαι το ἔμβρυον ^{S^L-ind1} §1 [2] ἅμα ὅλον ^{P^GQ} : τοῖς πολλοῖς
^{P^B} || post γίνεσθαι add. νομίζουσιν ^{P^G} §4 [5] αἱ¹ ^{P^B(11)Q} : om. ^{P^B(1,11)} : καὶ ^{P^G} || αἱ² ^{P^B(1,11)Q} :
om. ^{P^B(11)G} §5 [6] μέγαν ^{P^BG} : om. ^{P^Q} §6 [7] ἄλλοι δὲ ^{P^B}, *wieder anderen* Q : οἱ δὲ ^{P^G}

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 121 (~ tit.) Τί πρῶτον τελειοῦται τοῦ βρέφους (text Diels)

121.1 (~ P1) οἱ Στωικοὶ ἅμα ὅλον γίνεσθαι νομίζουσιν.

121.2 (~ P2) Ἀριστοτέλης πρῶτον τὴν ὀσφὺν ὥσπερ τρόπιν νεώς.

121.3 (~ P3) Ἀλκμαίων τὴν κεφαλὴν, ἐν ᾗ ἔστι τὸ ἡγεμονικόν.

121.4 (~ P4) οἱ ἱατροὶ τὴν καρδίαν, ἐν ᾗ καὶ φλέβες καὶ ἀρτηρίαι·

121.5 (~ P5) οἱ δὲ τὸν μέγαν δάκτυλον τοῦ ποδός·

121.6 (~ P6) οἱ δὲ τὸν ὀμφαλόν.

Loci Aetiani:

quaestio A 2.6 Ἀπὸ ποίου πρώτου στοιχείου ἤρξατο κοσμοποιεῖν ὁ θεός. A 5.23 Πότε
καὶ πῶς ἄρχεται ὁ ἄνθρωπος τῆς τελειότητος.

§1 cf. A 5.13.2 οἱ Στωικοὶ ... συνεκρατήθη τὸ κατὰ φύσιν καὶ βρέφος τελεσιουργεῖται.
A 5.21.2 Ἀσκληπιάδης ... τὰ δὲ τῶν ἀλόγων ζώων ὀλοτελῇ (μορφοῦται) παρὰ τὰς
συγκράσεις τῶν στοιχείων.

§2 cf. A 2.5a.4 Φιλόλαος ἐν τῷ μεσαιτάτῳ πυρί, ὅπερ τρόπεως δίκην προϋπεβάλλετο
τῆς τοῦ παντός (σφαίρας) ὁ δημιουργὸς θεός.

§3 cf. A 4.5 Τί τὸ τῆς ψυχῆς ἡγεμονικόν καὶ ἐν τίνι ἐστίν, *praesertim* §§1–3 (sed
Alcmaeon abest).

§4 cf. A 4.5.8 (de principali) Διογένης ἐν τῇ ἀρτηριακῇ κοιλίᾳ τῆς καρδίας. A 4.22.3

(de respiratione) Ἡρόφιλος δυνάμεις ἀπολείπει περὶ τὰ σώματα τὰς κινητικὰς ἐν νεύροις ἐν ἀρτηρίαις ἐν μυσί.

§6 cf. A 5.16.2 (de alimento infantium) οἱ Στωικοὶ διὰ τοῦ χορίου καὶ τοῦ ὀμφαλοῦ.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

In answer to the question posed by the chapter heading P^B preserves a list of six briefly formulated doxai, all of which G retains without any substantial modification.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* By far the most significant doxographical parallel is found in Censorinus. Unlike A he begins with a sceptical position attributed to Alcmaeon: no one can determine *quid primum in infante formetur* ('what is first formed in the baby'). This view is followed by a list of five doxai citing various candidates—heart (cf. A §4), head (cf. A §3), belly and head, brain, flesh—bones—tendons etc. (cf. A §5). Censorinus then continues with the view of the Stoics with which A begins, i.e. that the development of the fetus occurs as a whole. This is the only exact parallel for the name-labels found in this chapter. A attaches different views to the names Aristotle and Alcmaeon compared with Censorinus, and the latter does not have any reference to doctors. The remainder of Censorinus' passage discusses views on how the development of the fetus takes place, whether by nature or pneuma or etherial heat, for which there is no equivalent treatment in A. The other main proximate parallel for the topic of this chapter is ps.Galen, who at *Def.Med.* 452 poses the question but does not record any diversity of opinion, presenting only the dominant medical viewpoint that the first part to form is the umbilical cord.

(2) *Sources.* Aristotle already gives a variety of opinions on this subject in a surprising location, i.e. when in Book Δ of the *Metaphysics* (text below, section E(b) General texts) he discusses the various meanings of the term ἀρχή as used in ordinary language. One of its meanings can be 'internal point of commencement,' i.e. 'that part of a thing from which genesis begins', as paraphrased by Ross (1924) 1.290. The illustrations given are the keel of a boat (cf. A §2), the threshold of a house, while in the case of living beings some people think it is the heart (cf. A §4), others the brain (cf. Anaxagoras in Cen-

sorinus 6.1) or whatever other alternative they come up with. The final two views constitute an early reference to the discussion which is already mentioned in the *Corpus Hippocraticum* at *Morb.Sacr.* 17 (cited on ch. 4.5 section E(b) General texts: do we think with the heart or the brain). In his biological writings, however, he considers only the view that the heart is the first part to be formed (see the various texts collected below in section E(b) General texts). Aristotle thus provides evidence of earlier discussions, but almost no names of earlier thinkers are supplied (only Democritus at *GA* 2.4 740a13). Centuries later Galen also refers to previous research at the beginning of his treatise on the formation of the fetus. Characteristically (and ignoring Aristotle's statement at *Juv.* 3 468b29) he states that philosophers have posed questions on this subject and come to erroneous and conflicting views (note the term διαφωνῆσαι), but this is no wonder, because they did not make use of the available empirical evidence. They should follow the example of Hippocrates, who did not follow 'logical suppositions' (λογικαὶ ὑπόνοιαι), but observed what could be seen in the case of an induced abortion (the famous text in *Nat.Puer.* 2). Even though A cites the view of 'the doctors' (§4), he largely follows the theoretical method of the philosophers. Lactantius attributes to Varro (no doubt his source) and Aristotle the view attributed to the doctors in A; text below E(a)§4.

C Chapter Heading

The witnesses furnish two quite different versions of the chapter heading. In P^{BQ} and G we find Τί πρῶτον τελεσιουργεῖται ἐν τῇ γαστρί. This heading is also found in the pinax recording the contents of the mainly lost ch. 42 of Stobaeus *Ecl.* Book 1; see the text at Wachsmuth (1882) 17, Diels *DG* 271. However, earlier in the same list an alternative heading is found: Ἀπὸ ποίου ἄρχεται μορίου μορφοῦσθαι το ἔμβρυον; see Wachsmuth *ibid.* This heading is very similar to that on the cosmos at A 2.6, Ἀπὸ ποίου πρῶτου στοιχείου ἤρξατο κοσμοποιεῖν ὁ θεός. Elter (1880) 73–74 argued that the earlier heading on the list was based on the heading of ch. 5.22, but this is not so likely given the divergence of the subject matter (the latter chapter does not have a temporal aspect). He concluded on this basis that the second heading Τί πρῶτον κτλ. was interpolated from P. It might be argued that the first heading Ἀπὸ ποίου ἄρχεται μορίου κτλ. suits the contents of the chapter as preserved by P better, which focuses on the part which is the first to be formed (i.e. before the whole embryo is formed). But the second heading, which can be taken to focus on 'initial completions' could also be taken in this sense. Comparison with the contents of ch. 5.21 (and esp. the terminology in 5.21.1) suggests a distinction between 'commencement' (ἄρχεσθαι) and 'completion' (τελειοῦσθαι), so this distinction

would explain what was listed in ch. 5.17. If this is correct, then both headings would suit the chapter's contents. Thus the question of which heading stood in the original text of S must be regarded as a conundrum, which cannot be definitively solved on the basis of the present evidence. It is safest, therefore, to retain the heading in P, even if its presence in S^L may be the result of interpolation. On the chapter headings in S^L see above, ch. 5.4 Commentary C.

The parallel between ch. 2.6 and the current chapter highlights the macrocosm–microcosm relation between the cosmos and, among living beings, the human being in particular. The doxographical tradition takes this over from the tradition of Plato's *Timaeus*, although (despite the heading in ch. 2.6, on which see our Commentary ad loc.) the theological and teleological emphases are much reduced. For the focus on commencement (τί πρῶτον) and completion (τελεσιουργεῖται) compare the related ch. 5.21, Ἐν ποίῳ χρόνῳ μορφοῦται τὰ ζῶα ἐν τῇ γαστρὶ ὄντα, where the heading only speaks of 'shaping', but the doxai themselves mention ἄρχεσθαι once and τελειοῦσθαι three times. We should note too that the Damastes excerpt, on which see ch. 5.18 Commentary D(e), uses the terminology of shaping (μόρφωσις) by implication for the completion of the initial stage of the embryo. The same theme of beginning and completion returns in ch. 5.23, Πότε καὶ πῶς ἄρχεται ὁ ἄνθρωπος τῆς τελειότητος.

D Analysis

a Context

The third of the five chapters on embryology (chs. 15–18, 21) follows on logically from the previous two on the nature and nourishment of the fetus. On receiving nourishment it starts to grow and take shape. One may then ask what is completed first.

b Number–Order of Lemmata

With its six doxai, this is one of the better populated chapters in Book 5, though of course the individual doxai are very brief indeed (compare ch. 5.7 with 5.8 and 5.16 and 5.20, which also have 6). The slightly longer and differing list in Censorinus suggests that P may have abridged.

c Rationale–Structure of Chapter

The formulation of the question with 'what first' invites the presentation of a list, which A readily provides. One might compare the identification of the ἡγεμονικόν in ch. 4.5, where we get a long list of 13 locations organized in two main groups *a capite ad calcem* (see Commentary D(c)). But the list in the present

chapter is decidedly less well organized, as the comparison with the parallel chapter in Censorinus shows.

A commences with the Stoic view that Censorinus places last, that no first part can be identified because all parts are formed simultaneously. This view also appears to be defended by the Hippocratic author of *Regimen* (text below). Galen, however, attributes the Aristotelian view (on which see below under (c)) to 'Chrysippus and many other Stoics' (*Foet. Form.* 4.4). The remaining five doxai all single out a part which is completed first.

(a) For the view that it is the loins we have found no parallels. The attribution to Aristotle is certainly mistaken, since he repeatedly states that the ἀρχή for development of the living being is the heart or its equivalent. The only further detail given is the non-transparent image of the keel of a boat, on which see below, section D(d).

(b) The view that it is the head, which contains the ἡγεμονικόν (cf. ch. 4.5) is attributed to Alcmaeon (cf. to Hippo in Censorinus). The reason is implicit in the reference to the 'directive part', which is thought needed to 'direct' the process of development.

(c) The view, vigorously defended by Aristotle in his biological works, that the heart is the first part formed is attributed to the 'doctors' (cf. to Empedocles and Aristotle in Censorinus). The attribution is curious, since it is the typically 'philosophical' and not 'medical' view. The mention of 'veins' and 'arteries' also points to the source in Aristotle's biological works, where their connection to the heart is mentioned (strictly speaking 'veins' only; veins and arteries together in the paraphrase in Aristophanes of Byzantium; texts below). Censorinus gives as reason for this view that the heart 'most of all contains the life of the human being'. The deliberate parallelism in formulation between §3 and §4, both with clauses commencing with ἐν ᾧ, should be noted. They are meant to be compared, the one view emphasizing the directive element, the other the physical transmission of life (and blood).

(d) The anonymous view that the 'large toe of the foot' is first formed is a curiosity, exactly the kind of view that A, the collector of unusual views, likes to include. It perhaps originates from the misunderstanding of a text, e.g. the view of Diogenes of Apollonia in Censorinus that the flesh is first formed, from which then the bones and other parts develop, or the view in a brief treatise in the Hippocratic tradition edited by Jouanna (2008) 35 that the baby first moves when the fingers/toes (the term δάκτυλος covers both) and nails have taken root (text below section E(b); cf. also *Nat.Puer.* 10, on which see ch. 5.21 Commentary D(d) on §2). Another possibility is that it is based on a parody of Chrysippus' argument that walking is not the *pneuma* transmitted from the *hegemonikon* to the feet (Cleanthes) but the *hegemonikon* itself (Seneca *Ep.* 113.23 = SVF 2.836, text below E(b)§5).

(e) Finally A mentions another anonymous view that the umbilical cord is the part formed first. This is in fact the view that Galen, appealing to the Hippocratic tradition, strongly favours. He claims that it is based on anatomical observation rather than philosophical logic.

The contents, structure and organization of this chapter are disappointing, as we can easily see when they are compared with what is found in Censorinus. It would seem to be illogical to begin with the holistic view, which does not privilege any of the bodily parts (but perhaps it is placed first on an analogy with chapters in which the existence of the phenomenon is first discussed, e.g. chs. 1.7, 1.24, i.e. there is no 'first thing', or that it cannot be known, cf. the doxa of Alcmaeon in Censorinus). The doxa would have been better placed at the end, as in Censorinus. If there is any reasoning behind the ordering of the remaining views, it is difficult to determine what it is (except the opposition between §3 and §4). The first doxa (§2) is quite obscure, while the final one, in spite of its importance, is tacked on at the end (but admittedly is missing entirely in Censorinus, unless it is implied by the Democritean view). The Latin writer also indicates much more clearly what the reasoning is behind the selection of the various options.

d Further Comments

Individual Points

§1 The reading in P^B, οἱ Στωικοὶ τοῖς πολλοῖς γίνεσθαι, is rather strange. All editors since Diels rightly prefer the reading in G and Q, which is reinforced by the parallel in Censorinus. Diels suggests it is the remnant of a scholion, but it could also be the result of corruption. It is yet another indication that errors crept into the Byzantine tradition quite late.

The Stoic position seems to be rejected by Aristotle when stating at the beginning of his discussion in *GA* 2.1 735a14–15 that a first thing must come into being, but it is not clear whether he has any thinker in mind for this position, or whether it is just a theoretical alternative.

§2 The image used here for the loins 'like the keel of a ship' is quite striking. Mansfeld (1990a) 3213 agrees with Diels that it cannot be a coincidence that the same image is used by Aristotle at *Met.* Δ.1 1013a4–7 when giving an example of 'a thing as the result of whose presence something first comes into being' and argues that it has been 'garbled' somehow or other in the tradition. Remarkably the same image is used in ch. 2.5a.4 in a doxa of Philolaus on the ἡγεμονικόν of the cosmos. As noted by Sharples–Van der Eijk (2008) 167, the image is frequently used by Galen for the backbone or spine, e.g. at *Ars Med.* 10.5 Boudon, *UP* 3.3, p. 12.10 Helmreich, and is also found at Lactantius *Op.D.* 5.4 and Nemesius *NH* 28, p. 93.3 Morani. A similar image is found at Porphyry *ad Gaur.* 10.4, but in relation to the entry of the soul as pilot.

§3 For further observations on the links between this chapter and ch. 4.5 on the ἡγεμονικόν see Mansfeld (1990a) 3013, 3212–3216.

e Other Evidence

There can be little doubt that connections exist between the only three lists that we have in answer to this quaestio. Those of A and Censorinus are parallel, though curiously divergent, esp. in their name-labels. That there is also a link with Aristotle's use of the image of the keel at *Met.* Δ 1 1013a4–7 can hardly be doubted. As so often A appears to stand in a rich tradition. This time he might have made better use of it.

There remains to be discussed an intriguing text in Philo, *Leg.* 2.6 (cited below, section E(a)§§2&4). It states that the heart is formed before the rest of the body, i.e. the view of §4 in our chapter. Philo uses two images for this role, the foundation of a house and the keel of a ship, the latter being the same image used in §2 of the loins and by Aristotle of the heart in the text in *Met.* Δ. Philo attributes this view to 'the best of the doctors and natural philosophers', which again recalls §4 and the doctors holding the view on the heart. This last-mentioned name-label would come naturally to someone using *Placita*, as we know that Philo did for his texts on the heavens and the mind; see ch. 2.11 Commentary B, and Wendland (1897). The inference that for this text Philo here recalls material from the *Placita* tradition and that it may have contained the image drawn from Aristotle's works for this very question is very tempting to make. For this reason we have placed this Philonic text among those derived from the proximate tradition.

E Further Related Texts

a Proximate Tradition

General texts: Censorinus *DN* 5.5–6.3 *de conformatione autem partus nihilo minus definite se scire Alcmaeon (24A13 DK) confessus est, ratus neminem posse perspicere, quid primum in infante formetur.* (6.1) *Empedocles (31A84 DK), quem in hoc Aristoteles secutus est, ante omnia cor iudicavit increscere, quod hominis vitam maxime contineat; Hippon (38A15 DK) vero caput, in quo est animi principale; Democritus alvum cum capite, quae plurimum habent ex inani; Anaxagoras (59A108 DK) cerebrum, unde omnes sunt sensus. Diogenes Apolloniates (64A27 DK) ex umore primum carnem fieri existimavit, tum ex carne ossa nervosque et ceteras partes enasci.* (2) *at Stoici (—) una totum infantem figurari dixerunt, ut una nascitur aliturque. sunt qui id opinentur ipsa fieri natura, ut Aristoteles adque Epicurus; sunt qui potentia spiritus semen comitantis, ut Stoici ferme universi; sunt qui aetherium calorem inesse arbitrentur, qui membra disponat, Anaxagoran secuti.* (3) *utcumque tamen formatus infans ...* (for what follows see texts on ch. 5.16). **ps.Galen** *Def.Med.* 452, p. 19.451.14–

18 K. υνβ'. Πρώτον συνίσταται τοῦ ἐμβρύου τὸ χόριον εἶτα τὰ λοιπὰ· τὸ χόριον μὲν συνέστηκεν ἐκ δύο φλεβῶν καὶ δύο ἀρτηριῶν καὶ πέμπτου τοῦ καλουμένου οὐραχοῦ, ἥτοι ἐπειδὴ χώρημά ἐστι τοῦ ἐμβρύου οἶονεὶ χωρίον ἢ ἐπειδὴ χορηγεῖται τὴν τροφήν αὐτῷ.

Chapter heading: cf. *Censorinus* 5.5 *de conformatione ... partus*. also *ps.Galen Def.Med.* 452 Πρώτον συνίσταται τοῦ ἐμβρύου.

§§2 & 4 *Aristotle and doctors: Philo of Alexandria Leg.* 2.6 ὥσπερ κατὰ τοὺς ἀρίστους τῶν ἱατρῶν καὶ φυσικῶν δοκεῖ τοῦ ὅλου σώματος προπλάττεσθαι ἡ καρδία, θεμελίου τρόπον ἢ ὡς ἐν νηὶ τρόπῳ, ἐφ' ἣ οἰκοδομεῖται τὸ ἄλλο σῶμα.

§4 *doctors: Lactantius Op.D.* 12.6 Perrin (follows on from text citing views of Aristotle and Varro quoted on ch. 5.5) *et primum quidem cor hominis effingi, quod in eo sit et vita omnis et sapientia ...*

b Sources and Other Parallel Texts

General texts: *Aristotle Met.* Δ 1 1013a4–7 ἢ δὲ (sc. ἀρχή) ὅθεν πρῶτον γίνε-ται ἐνυπάρχοντος, οἷον ὡς πλοίου τρόπῳ καὶ οἰκίας θεμέλιος, καὶ τῶν ζώων οἱ μὲν καρδίαν οἱ δὲ ἐγκέφαλον οἱ δ' ὅ τι ἂν τύχωσι τοιοῦτον ὑπολαμβάνουσιν. *GA* 2.4 740a13–31 διόπερ ὅσοι λέγουσιν, ὥσπερ Δημόκριτος (68A145 DK), τὰ ἔξω πρῶτον διακρίνεσθαι τῶν ζώων, ὕστερον δὲ τὰ ἐντός, οὐκ ὀρθῶς λέγουσιν, ὥσπερ ξυλίνων ἢ λιθίνων ζώων· τὰ μὲν γὰρ τοιαῦτ' οὐκ ἔχει ἀρχὴν ὅλως, τὰ δὲ ζῶα πάντ' ἔχει καὶ ἐντός ἔχει. διὸ πρῶτον ἡ καρδία φαίνεται διωρισμένη πᾶσι τοῖς ἐναίμοις· ἀρχὴ γὰρ αὕτη καὶ τῶν ὁμοιομερῶν καὶ τῶν ἀνομοιομερῶν. ἡδὴ γὰρ ἀρχὴν ταύτην ἄξιον ἀκοῦσαι τοῦ ζώου καὶ τοῦ συστήματος ὅταν δέηται τροφῆς· τὸ γὰρ δὴ δν αὐξάνεται. τροφὴ δὲ ζώου ἡ ἐσχάτη αἷμα καὶ τὸ ἀνάλογον, τούτων δ' ἀγγεῖον αἱ φλέβες· διὸ ἡ καρδία καὶ τούτων ἀρχή. δῆλον δὲ τοῦτο ἐκ τῶν ἱστοριῶν καὶ τῶν ἀνατομῶν. ... διὸ ἐκ τῆς καρδίας τὰς δύο φλέβας πρῶτας ἡ φύσις ὑπέγραψεν· ἀπὸ δὲ τούτων φλέβια ἀπήρηται πρὸς τὴν ὑστέραν ὁ καλούμενος ὁμφαλός. ἔστι γὰρ ὁ ὁμφαλός φλέψ, τοῖς μὲν μία τοῖς δὲ πλείους τῶν ζώων. *GA* 2.5 741b15–18 γίνεταί δὲ πρῶτον ἡ ἀρχή· αὕτη δ' ἐστὶν ἡ καρδία τοῖς ἐναίμοις, τοῖς δ' ἄλλοις τὸ ἀνάλογον, ὥσπερ εἴρη-ται πολλάκις. καὶ τοῦτο φανερόν οὐ μόνον κατὰ τὴν αἰσθησιν ὅτι γίνεταί πρῶτον ... **Damastes** Περὶ τῶν γονίμων καὶ τελειουμένων (fragment from his Περὶ κυου-σῶν καὶ βρεφῶν θεραπειᾶς), *Laur.* 74.2, fol. 381v, ll. 3–26 (cited below in ch. 5.18 section E(b) General texts). **Galen** *Foet.Form.* 1, p. 4.652 K. περὶ τῆς τῶν κυου-μένων διαπλάσεως ἐπεχείρησαν μὲν τι καὶ φιλόσοφοι γράφειν, μηδεμίαν ἀφορμὴν ὧν λέγουσιν ἐξ ἀνατομῆς περιεχόμενοι. καὶ θαυμαστόν γε οὐδὲν ἐστὶν ἀμαρτεῖν τῆς ἀληθείας αὐτοὺς, διαφωνήσαι τε πρὸς ἀλλήλους. ὅπου γὰρ τοῖς ἀνατεμοῦσιν ἐπιμε-λῶς ἡγνοήθη τινα, πολὺ δήπου μάλλον εἰκὸς ἦν ἀμαρτεῖν, ὅσοι ταῖς ἑαυτῶν ὑπονοίας ἐπίστευσαν ἄνευ τῶν ἐξ ἀνατομῆς φαινομένων. Ἰπποκράτης δὲ (cf. *Corpus Hip-pocraticum Nat.Puer.* 13, p. 7.488.22–500.12 Littré) πρῶτος ὧν ἴσμεν ἔγραψέ τι περὶ διαπλάσεως ἐμβρύων ἀληθῶς, οὐ λογικαῖς ὑπονοίαις τὴν ἀκολουθίαν τῆς ζητή-σεως ἐπιτρέψας, ἀλλ' αἰσθηταῖς διαγνώσεσιν ... κατὰ δὲ τὸ μέσον ἐπέτρεχε λεπτόν, ὃ τί μοι ἐδόκει εἶναι ὁμφαλός, καὶ ἐκέλευε τὴν πνοὴν καὶ ἔξω καὶ ἔσω ποιεῖσθαι τὸ πρῶτον, καὶ ὁ ὕμην ἐξ ἐκείνου ἐτέτατο πᾶς ὁ περιέχων τὴν γονὴν. *Foet.Form.* 4, p. 4.674 K. τί ποτ' οὖν ἔδοξε Χρυσίππῳ καὶ ἄλλοις πολλοῖς φιλοσόφοις Στωϊκοῖς τε

καὶ Περιπατητικοῖς ἀποφύνασθαι περὶ καρδίας, ὡς πρώτη τε φύεται τῶν τοῦ ζώου μορίων, ὑπ' αὐτῆς τε τᾶλλα γίγνοιτο, καὶ ὡς τῷ πρώτῳ διαπλασθέντι καὶ φλεβῶν καὶ νεύρων ἀναγκαῖον ὑπάρχειν ἀρχήν; οὔτε γὰρ πρώτη σαφῶς φαίνεται γινομένη ... *Propr.Plac.* 11, p. 182.16–183.4 Boudon-Millet–Pietrobelli ὅσοι γὰρ οἴονται τὴν αὐτὴν (sc. δύναμιν) εἶναι τῇ τὰ φυτὰ τε γεννώσῃ καὶ διαπλαττούσῃ δοκοῦσι μοι {μη} παρακολουθεῖν τῇ τε {τῇ} τέχνῃ τῆς κατασκευῆς τοῦ σώματος ἡμῶν ἢ ἐν τοῖς Περιχρείας μορίων ἐξηγησάμην. (οὐ) μὴν οὐδὲ τί πρῶτον ἀπάντων μορίων ἐν τῇ κυήσει διαπλάττεται βεβαίως εἰδέναι φημί. νέος μὲν γὰρ ὢν εἰπόμεν ἄνδράσιν ἀξιολόγοις ἡγουμένοις τὴν καρδίαν ἀπάντων διαπλάττεσθαι, προῖων δὲ κατὰ τὴν ἡλικίαν ὑπώπτουσα τὸν λόγον ὡς πιθανὸν μὲν, οὐ μὴν ἀληθές γε, χωρὶς μὲν γὰρ αἵματος ἀδύνατόν ἐστι γεννηθῆναι τὸ σπλάγχνον τοῦτο, παραγίνεται δὲ αἷμα διὰ τῶν κατὰ τὴν μήτραν ἀγγείων ἐξ οὗ τὴν γένεσιν ἔχει τὸ κυούμενον ἀλλὰ τοῦτο τὸ αἷμα φαίνεται διὰ φλεβὸς ἐπὶ τὴν καρδίαν ἀφικνούμενον εἰς ἥπαρ πρότερον ἐμφυομένης. ... **Porphyrus** *ad Gaur.* 3.4, p. 37.2–17 εἰ μὲν οὖν καὶ τὰ ἔμβρυα διὰ τοῦ στόματος ἐτρέφετο, οὐχὶ δὲ διὰ τῆς ἐνούσης δυνάμεως ἐν τῷ σπέρματι, ἢ τὸ φερόμενον αἷμα καὶ περιεχυμένον τῷ σπέρματι ἐντὸς ἐν τῇ μήτρᾳ σπῶσα καθάπερ τὰ φυτὰ ἐκ τῆς γῆς τὴν ἱκμάδα τὸ μὲν κατατάττει εἰς αὐξησίν τε καὶ θρέψιν τοῦ ἐμβρύου, ... ἢ εἴπερ ὁμοίως ὡς μετὰ τὴν ἐκ γαστροῦ πρόοδον διὰ τῶν ῥινῶν ἀνέπνει τὰ ἔμβρυα ἀλλ' οὐχὶ διὰ τοῦ ὀμφαλοῦ, ἀφ' οὗ διη καὶ τὰ μέσα ἡρτημένα ῥίζης τρόπον ἢ μίσχου χορίου ἐξήπται, ... εἰ μὲν οὖν ὥσπερ ἔφην ἡ κατὰ γαστρός τῶν ἐ(μ)βρύων διοίκησις ταῖς τῶν ζώων ὑπῆρχε (π)αραπλησία ἀλλὰ μὴ ἀντικρυς τῇ τῶν φυτῶν, ἐνεχώρει ἂν ἐκ τῶν γιγνομένων τὰς πίστεις λαμβάνοντα συγχωρεῖν τοῖς (ἡ)γουμένοις ζῶα εἶναι τὰ ἔμβρυα.

Chapter heading: cf. Aristotle *GA* 2.1 735a15 διόπερ πρῶτόν τι γίνεταί. **Galen** *Propr.Plac.* 11 182.19 Boudon-Millet–Pietrobelli τί πρῶτον ἀπάντων μορίων ἐν τῇ κυήσει διαπλάττεται.

§1 **Stoics:** cf. *Corpus Hippocraticum Vict.* 1.26, p. 6.498.14–17 Littre διακρίνεται δὲ τὰ μέλεα ἅμα πάντα καὶ αὐξεται, καὶ οὔτε πρότερον οὐδὲν ἕτερον ἐτέρου οὔθ' ὕστερον· τὰ δὲ μέζω φύσει πρότερα φαίνεται τῶν ἐλασσόνων, οὐδὲν πρότερα γινόμενα. note also the view opposed by Aristotle at *GA* 2.1 735a15 οὐχ ἅμα πάντα.

§2 **Aristotle:** in addition to the Aristotelian texts cited above under General texts see Aristotle *GA* 2.1 735a12–16, 23–26 ταύτης (i.e. process of formation) μὲν οὖν οὐθὲν μόριον αἷτιον τῆς γενέσεως ἀλλὰ τὸ πρῶτον κινήσαν ἐξωθεν. οὐθὲν γὰρ αὐτὸ ἑαυτὸ γεννᾷ· ὅταν δὲ γένηται αὐξεῖ ἢ διὰ αὐτὸ ἑαυτὸ. διόπερ πρῶτόν τι γίνεταί καὶ οὐχ ἅμα πάντα. τοῦτο δὲ γίνεσθαι ἀνάγκη πρῶτον δ' αὐξήσεως ἀρχὴν ἔχει ... ὥστ' εἰ ἡ καρδία πρῶτον ἐν τισὶ ζώοις γίνεταί, ἐν δὲ τοῖς μὴ ἔχουσι καρδίαν τὸ ταύτῃ ἀνάλογον, ἐκ ταύτης ἂν εἴῃ ἡ ἀρχὴ τοῖς ἔχουσι, τοῖς δ' ἄλλοις ἐκ τοῦ ἀνάλογον. see also further below on §4 and §6.

§4 **The doctors:** In addition to the Aristotelian texts cited above under General texts see also *Juv.* 3 468b28–469a1 καὶ τῶν ζώων τῶν ἐναίμων ἡ καρδία γίνεται πρῶτον· τοῦτο δὲ δῆλον ἐξ ὧν ἐν τοῖς ἐνδεχομένοις ἔτι γινομένοις ἰδεῖν τεθεωρήκαμεν. ὥστε καὶ ἐν τοῖς ἀναίμοις ἀναγκαῖον τὸ ἀνάλογον τῇ καρδίᾳ γίνεσθαι πρῶτον. ἡ δὲ καρδία ὅτι ἐστὶν ἀρχή, τῶν φλεβῶν ἐν τοῖς περὶ τὰ Πέρην τῶν ζώων εἴρηται πρότερον (*PA* 3.4 665b16) ... further texts in *Somn. Vig.* 2 456a4–7; *Resp.* 17 478b33–479a1. **Pliny** *Nat.* 11.181 (on humans and other animals) *hoc* (sc.

the heart) *primum nascentibus formari in utero tradunt, deinde cerebrum, sicut tardissime oculos, sed hos primum emori, cor novissime*. **Aristophanes of Byzantium** *Epit.HA* 1.77 εἴτα ἐχομένως πρῶτον διατυποῦσθαι πᾶσι τοῖς ἐναίμοις ζώοις καρδίαν κατὰ λόγον φησίν. ὕστατον δὲ φθείρεται καρδία, πρῶτον ἄρα, φησί, γίνεται τοῖς δ' ἀναίμοις ζώοις τὸ ἀνάλογον. ... ἐκ δὲ τῆς καρδίας δύο ἀγγεῖα, ἀρτηρία τε καὶ φλέψ, πρῶται γίνονται, καὶ ἡ μὲν φλέψ τροφῆς χάριν, ἡ δὲ ἀρτηρία φυλακῆς τοῦ συμφύτου πνεύματος. ταῦτα δὲ τὰ ἀγγεῖα πρόσφυσιν ἔχει πρὸς τῇ ὑστέρα, καὶ περὶ ταῦτα γίνεται κέλυσος τὴν δερματικὴν τηρήσεως αὐτῶν καὶ φυλακῆς χάριν. ταῦτα δὲ τὰ ἀγγεῖα τὰ ἀπὸ καρδίας ἐκπεφυκότεα καλεῖται ὀμφαλός· ἔστι γὰρ ὁ λεγόμενος ὀμφαλὸς οὐδὲν ἕτερον ἄλλ' ἢ φλέψ καὶ ἀρτηρία μία ἢ πλείονες ἐν ἐλύτρῳ δερματικῷ. **Alexander the Sophist** *Gen.hom.* 1.2–3 Jouanna πρὸ δὲ πάντων ἡ καρδία πλάττεται καὶ τυποῦται. **Ioannes Lydus** *Mens.* 4.26 οἱ τῶν Ῥωμαίων τὴν φυσικὴν ἱστορίαν συγγράφοντές φασι, σπέρμα τῇ μήτρᾳ καταβαλλόμενον ἐπὶ μὲν τῆς τρίτης ἡμέρας ἀλλοιοῦσθαι εἰς αἷμα, καὶ πρῶτην διαζωγραφεῖν τὴν καρδίαν, ἥτις πρώτη μὲν διαπλάττεσθαι, τελευταία δὲ ἀποθνήσκειν λέγεται.

§5 Others: cf. **Diogenes** at *Cens.* 6.1 (text above). also **Corpus Hippocraticum** *Gen.hom.sem.* 5.1, p. 35 Jouanna ὅταν δὲ τὸ παιδίον τελείως διοζωθῇ καὶ οἱ δάκτυλοι καὶ οἱ ὄνυχες ῥιζωθῶσιν, τότε δὴ καὶ τὴν κίνησιν ποιεῖται. **Seneca** *Ep.* 113.23 (*SVF* 2.836) *inter Cleanthen et discipulum eius Chrysippum non convenit, quid sit ambulatio. Cleanthes ait spiritum esse a principali usque in pedes permissum, Chrysippus ipsum principale*.

§6 Yet others: See the texts of **ps.Galen**, **Aristotle** and **Galen** cited above. **Democritus** at *Plut. Mor.* 495E (68B148 DK) 'ὁ γὰρ ὀμφαλὸς πρῶτον ἐν μήτρῃσιν' ὥς φησι **Δημόκριτος** 'ἀγκυρηβόλιον σάλου καὶ πλάνης ἐμφύεται, πείσμα καὶ κλῆμα' τῷ γεννωμένῳ καρπῷ καὶ μέλλοντι (but a different view recorded by **Aristotle** at *GA* 2.4 740a13–16 cited above under General texts).

Liber 5 Caput 18

P^B: ps.Plutarchus *Plac.* 907F–908C; pp. 427^a15–429^a29 Diels—**P^G**: ps.Galenus *HPh* c. 122; p. 644.9–27 Diels; pp. 394–414 Jas—**P^Q**: Qustā ibn Lūqā pp. 230–235 Daiber
S: Stobaeus *Ecl.* 1.42.13, p. 296.17–25 Wachsmuth (titulus ex S^L)

Titulus ιη'. Διὰ τί τὰ ἐπταμηνιαῖα γόνιμα (P,S)

- §1 Ἐμπεδοκλῆς, ὅτε ἐγεννᾶτο τὸ τῶν ἀνθρώπων γένος ἐκ τῆς γῆς, τοσαύτην γενέσθαι τῷ μήκει τοῦ χρόνου διὰ τὸ βραδυπορεῖν τὸν ἥλιον τὴν ἡμέραν, ὅποση νῦν ἐστίν ἡ δεκάμηνος· προιόντος δὲ τοῦ χρόνου τοσαύτην γενέσθαι τὴν ἡμέραν, ὅποση νῦν ἐστίν ἡ ἐπτάμηνος· διὰ τοῦτο καὶ τὰ δεκάμηνα γόνιμα καὶ τὰ ἐπτάμηνα, τῆς φύσεως τοῦ κόσμου οὔτω μεμελετηκυίας αὖξεσθαι ἐν μιᾷ ἡμέρᾳ τῇ τότε καὶ νυκτὶ τὸ βρέφος. (P1) 5
- §2 Τίμαιος καὶ δωδεκάμηνά φησί τινα κύεσθαι παρὰ τὰς ἐπισχέσεις τῶν μηνιαίων τὰς πρὸ τῆς συλλήψεως· οὔτω καὶ τὰ ἐπτάμηνα νομίζεσθαι, οὐκ ὄντα ἐπτάμηνα· γίνονται γὰρ καὶ μετὰ τὴν σύλληψιν ποσαὶ καθάρσεις. (P2) 10
- §3 Πόλυβος Διοκλῆς οἱ Ἐμπειρικοὶ καὶ τὸν ὄγδοον μῆνα φασὶ γόνιμον, ἄγονώτερον δὲ πῶς τῷ πολλάκις διὰ τὴν ἀτονίαν πολλοὺς φθείρεσθαι·

§1 Empedocles 31A75 DK: §2 Timaeus —; §3 Polybus —; Diocles fr. 48 Van der Eijk; Empirici fr. 133 Deichgräber

titulus ἐπταμηνιαῖα ^{PB(IIID)SL-ind} : ἐπταμηνιαῖα ^{PB(I)} : ἐπτάμηνα ^{PG} §1 non hab. ^{PG} || [2] τὸ ^{PB(IIID)Q} : om. ^{PB(II)} || [4] τὴν ἡμέραν ^{PB} : om. ^{PQ} || ὅποση ^{PB(IIID)Q} : ὅση ^{PB(II)} || [6] γόνιμα ^{PBQ} : del. Diels quod prob. Viték || [7] post ἡμέρᾳ lac. ind. Diels *DG* || τῇ τότε καὶ νυκτὶ con. Reiske prob. Torracca Lachenaud : καὶ νυκτὶ ^{PQ} cf. *an einem Tag und in einer Nacht* Q, Primavesi R² (cf. τε καὶ νυκτὶ Wytttenbach) : ἢ τίθεται νυκτὶ ^{PB} Mau Viték, cruxif. Diels *DG* sed leg. VS et DK ἢ τίκεται {νυκτὶ} (cf. ἢ τίκεται νῦν Xylander) §2 [8] καὶ ... κύεσθαι ^{PG}, *eine Geburt geschieht nach 12 Monaten* Q : δ' οὐ δώδεκα μῆνας φησιν, ἐννέα δὲ νομίζεσθαι ^{PB} Mau (δέξα ^{PB(III)} Lachenaud), post οὐ lac. ind. Diels, οὐ del. Corsinus || τὰς ἐπισχέσεις τὴν (corr. Diels Jas, τε mss.) ἐπίσχεσιν ^{PG} || [9] τὰς πρὸ τῆς συλλήψεως Wytttenbach Lachenaud : τῆς πρώτης συλλήψεως ^{PB} (τὰ ^{PG}, *welche (monatliche Regel) vor der Empfängnis war* Q), τῶν πρὸ τῆς συλλήψεως corr. cod. Voss. || [9–11] τὰ ἐπτάμηνα ... καθάρσεις al. ^{PG} ἐπτάμηνα νομίζεσθαι οὐκ ὄντα προγεγεννημένης τῆς συλλήψεως, δυναμένης δὲ τῆς μήτρας εἰς καταμήνια καὶ μετὰ σύλληψιν || [10] γίνονται dub. Diels, in textu pos. Lachenaud, *es geschieht* Q : ἔγνω τε ^{PB} Mau || [11] καθάρσεις Wytttenbach edd., cf. *eine Menstruation* Q : καθάρσεως ^{PB} §3 [12] Πόλυβος ... Ἐμπειρικοὶ ^{PB}, *Polybos und Diokles, die beiden Ärzte unter den Empirikern* Q : Διοκλῆς καὶ Ἐπίκουρος ^{PG} || post μῆνα add. εἶναι ^{PG} || φασὶ Diels, cf ^{PQ} (*behaup-teten* Q) : ἴσασι ^{PB} Mau Lachenaud, deest in ^{PG} || [13] ἄγονώτερον con. Grensemann, mavult Mau sed non in textu ponit : ἀτονώτερον ^{PBG} Diels Lachenaud, *oft schwach* Q || [13–15] πῶς ... ἀνδρας] desunt in ^{PG} || [13] τῷ om. ^{PQ} || πολλοὺς ^{PB} : πολλὸν ^{PQ}(ut vid.)

- καθολικώτερον δὲ μηδένα βούλεσθαι τὰ ὀκτάμηνα τρέφειν, γεγενῆσθαι
δὲ πολλοὺς ὀκταμηνιαίους ἄνδρας. (P3) 15
- §4 οἱ περὶ τὸν Ἀριστοτελῆ καὶ Ἱπποκράτην φασίν, ἐὰν ἐκπληρωθῇ ἡ μήτρα
ἐν τοῖς ἑπτὰ μηνσί, τότε προκύπτει καὶ γεννᾶσθαι γόνιμα· ἐὰν δὲ προ-
κύψῃ μὲν μὴ τρέφῃται δέ, ἀσθენησάντος τοῦ ὀμφαλοῦ διὰ τὸ ἐπίπονον
αὐτῷ γεγενῆσθαι τὸ ἔκκριμα, τότε ἔμβρυον ἄτροφον εἶναι· ἐὰν δὲ μείνῃ
τοὺς ἑννέα μῆνας ἐν τῇ μήτρᾳ, προκύψαν τότε ὀλόκληρόν ἐστι. (P4,S1) 20
- §5 Πόλυβος ἐν ἑκατὸν ὀγδοήκοντα δύο καὶ ἡμίσει ἡμέραις γίνεσθαι γόνιμα
τὰ ἔμβρυα· εἶναι γὰρ ἑξάμηνα, ὅτι καὶ τὸν ἥλιον ἀπὸ τροπῶν ἐν τοσοῦτῳ
χρόνῳ παραγίνεσθαι· λέγεσθαι δ' ἑπταμηνιαίους διὰ τὸ τὰς ἔλλειπ-
ούσας ἡμέρας τούτου τοῦ μηνὸς ἐν τῷ ἑπτὰ προσλαμβάνεσθαι· τὰ δ'
ὀκταμηνιαῖα μὴ ζῆν, ὅταν προκύψῃ μὲν τῆς μήτρας τὸ βρέφος, ἐπὶ 25
πλεῖον δ' ὁ ὀμφαλὸς βασιανισθῇ· ἄτροφον γὰρ γίνεται, ὥς τοῦ τρέφοντος
αἴτιος ὁ ὀμφαλός. (P5)
- §6 οἱ δὲ μαθηματικοὶ τοὺς ὀκτὼ μῆνας ἀσυνδέτους φασίν εἶναι πάσης
γενέσεως, τοὺς δ' ἑπτὰ συνδετικούς· τὰ δ' ἀσύνδετα ζῶδια ἐστίν, ἐὰν
τῶν οἰκοδεσποτούντων ἀστέρων τυγχάνῃ· ἐὰν γὰρ τις τούτων τὴν ζωὴν 30

§4 Aristoteles *HA* 7.4 584b2; Hippocrates *Oct.*, cf. *Carn.* 19; §5 Polybus, cf. *Oct.* 1–2, 10; §6 mathematici —

[14] μηδένα ... τρέφειν ^{PB} : *denn die in acht Monaten Geborenen bleiben nicht am Leben Q*
§4 [16] οἱ περὶ ... Ἱπποκράτην ^S, Aristoteles, *seine Anhänger und Hippokrates Q* : ὁ δ' Ἀριστο-
τελῆς καὶ Ἱπποκράτης ^{PBG} (sed om. ὁ δ' ^{PG}, add. ὁ ante Ἱπποκράτης ^{PB(1)}) || φασίν ^{PB(1,11,1Aa)} ^S :
φησὶν ^{PB(1,11,11E)} : οἶονται ^{PG} || ἐκπληρωθῇ ^{PB(1,11)S} : πληρωθῇ ^{PB(11)G} || [17] προκύπτειν ^{PGS} :
προκύπτει ^{PB}, corr. edd. || γεννᾶσθαι Diels : γεγενῆσθαι ^{PB} (καὶ γεννᾶσθαι om. ^{PQ}) : al. ^{PG}
τότε γόνιμα γίνεσθαι || [17–19] ἐὰν δὲ ... ἔκκριμα || al. ut vid. ^{PQ} (*Und dann, wenn er sich nach*
unten neigt und nicht herauskommen (kann) Q) || [18] τρέφῃται ^{PBSF} : στρέφεται ^S || ἀσθε-
νησάντος ^{PGS} : ἀσθενούντος ^{PB} || [19] αὐτῷ Diels : αὐτὸν ^{PB(1,11)}, αὐτὴν ^{PB(11)}, αὐτὸ ^S, αὐτὰ ^{PG} ||
γεγενῆσθαι τὸ ἔκκριμα ^{PB(11)} (κρίμα ^{PB(11,111)}, κύημα Xylander Diels) : γένεσθαι τὸ ἔμβρυον ^S :
γίγνεσθαι et lac. propos. Jas ^{PG} || τότε ἔμβρυον ἄτροφον εἶναι ^{PB} (ἄστροφον ^{PB(1)}) : ἄτροφον εἶναι
^S, *bleibt er schwach ernährt Q* || [20] τοὺς ποιεῖ ^{PG}, secl. Diels Jas §5 [21] Πόλυβος ^{PBQ} :
Πολύβιος ^{PG} || [21–22] ἐν ... ἔμβρυα ^{PGQ(ut vid.)} (καὶ ἡμίσει scripsimus, deest in ^{PG}) : ἑκατὸν
ὀγδοήκοντα δύο καὶ ἡμισυ ἡμέρας γίνεσθαι εἰς τὰ γόνιμα ^{PB} (καὶ om. ^{PB(11)}) || [22–24] εἶναι ...
προσλαμβάνεσθαι om. ^{PG} || [22] ἑξάμηνα Diels : ἑξάμηνον ^{PB} || [23] διὰ τὸ corr. cod. Voss. prob.
Lachenaud : ὅταν ^{PB} Mau, ὅτι Diels || [25] ὀκταμηνιαῖα ὀκτάμηνα ^{PG} || τῆς μήτρας τὸ βρέφος ||
inv. ^{PG} || [26] βασιανισθῇ ^{PB} : ἐβασανίσθη διατεινόμενος ^{PG} : *und bleibt hängen Q* || ἄτροφον ^{PG} :
ἄτροφος ^{PB} : al. ^{PQ} (*denn ermangelt er der Nahrung Q*) || γίνεται γίνεσθαι coni. Diels || [26–
27] ὥς ... ὀμφαλός ^{PG} : ὥς τοῦ τρέφοντος αἴτιος ^{PB}, crucif. Diels, ut glossema dub. et ὥς τούτου
τρέφοντος αὐτό propos. Diels : al. ^Q *weil das, was ihn ernährte, sich in seiner Natur bereits*
verändert hat §6 [28] ἀσυνδέτους φασίν (verba inv. ^{PB(1)}) εἶναι ^{PB}, *nicht in irgendeiner Weise*
ein Band haben Q : φασίν ἐστερηθῆναι ^{PG} || [29] ἀσύνδετα ἀσύνθετα ^{PB(1)} || post ζῶδια susp.
lac. Mau Lachenaud || [29–30] ἐστίν ... τυγχάνῃ ^{PB} : ἔχειν τοὺς οἰκοδεσποτούντας φαύλους τῶν
ἀστέρων ^{PG} (verba per haplographiam om. ^Q)

καὶ τὸν βίον κληρώσεται, δυστυχεῖς καὶ ἀχρόνους σημαίνει· ἀσύνδετα δ' ἐστὶ ζῶδια (κατ') ὁκτῶ ἀριθμούμενα, οἷον Κριὸς πρὸς Σκορπίον ἀσύνδετος, Ταύρος πρὸς Τοξότην ἀσύνδετος, Δίδυμοι πρὸς Αἰγόκερων, Καρκίνος πρὸς Ὑδροχόον, Λέων πρὸς Ἰχθύας, Παρθένος πρὸς Κριόν· διὰ τοῦτο καὶ τὰ ἐπτάμηνα ὄντα καὶ δεκάμηνα γόνιμα εἶναι· τὰ δ' ὁκτάμηνα 35 διὰ τὸ ἀσύνδετον τοῦ κόσμου φθεῖρεσθαι. (P6)

[31] κληρώσεται P^B : πληρώσῃ P^G Jas (κληρώσῃ conl. Diels qui in textu P pos.) || καὶ ἀχρόνους P^B : ἔσσεσθαι P^G || [32] (κατ') ὁκτῶ ἀριθμούμενα, οἷον Κριὸς πρὸς Σκορπίον καὶ καρκίνος πρὸς ὕδροχόον, ζυγὸς πρὸς ἰχθύας (et quod restat om.) || [34] post κριὸν rest. ζυγὸς πρὸς ταύρον Diels Mau Lachenaud ex P^G || [34–35] παρθένος ... εἶναι om. P^Q || [36] τοῦ κόσμου P^B : τοῦ κύκλου dub. Diels (τοῦ κόσμου φθεῖρεσθαι om. P^Q)

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 122 (~ tit.) Διὰ τί τὰ ἐπτάμηνα γόνιμα (text Jas)

122.1 (~ P4) Ἀριστοτέλης καὶ Ἱπποκράτης οἴονται, ἐὰν πληρωθῇ ἡ μήτρα ἐν τοῖς ἐπτά μηνσὶ, τότε προκύπτει καὶ τότε γόνιμα γίνεσθαι, ἐὰν δὲ προκύψῃ μὲν μὴ τρέφεται δὲ ἀσθενήσαντος τοῦ ὁμφαλοῦ διὰ τὸ ἐπίπονον αὐτῷ γίνεσθαι [...] τότε ἄτροφον εἶναι, ἐὰν δὲ μείνῃ {ποιεῖ} ἑννέα μῆνας ἐν τῇ μήτρᾳ, προκύψαν τότε ὁλόκληρόν ἐστιν.

122.2 (~ P5) Πολύβιος ἐν ἑκατὸν ὀγδοήκοντα δύο ἡμέραις γίνεσθαι γόνιμα τὰ ἔμβρυα. τὰ δὲ ὁκτάμηνα μὴ ζῆν, οἷον προκύψῃ μὲν τὸ βρέφος τῆς μήτρας, ἐπὶ πλεόν δὲ ὁ ὁμφαλὸς ἐβασανίσθῃ διατεινόμενος· ἄτροφον γὰρ γίνεται τὸ ἔμβρυον· ὡς τοῦ τρέφοντος αἷτιος ὁ ὁμφαλός.

122.3 (~ P6) οἱ δὲ μαθηματικοὶ τοὺς ὁκτῶ μῆνάς φασιν ἑστερηθῆαι πάσης γενέσεως, τοὺς δὲ ἐπτά συνδετικούς. τὰ δὲ ἀσύνδετα ζῶδια ἔχειν τοὺς οἰκοδεσποτοῦντας φαύλους τῶν ἀστέρων· ἂν γάρ τις τούτων τὴν ζωὴν καὶ τὸν βίον πληρώσῃ, δυστυχεῖς ἔσσεσθαι σημαίνει. ἀσύνδετα δὲ ἐστὶ ζῶδια ὁκτῶ ἀριθμούμενα· κριὸς παρθένος, ἀσύνδετοι δὲ δίδυμοι πρὸς σκορπίον καὶ καρκίνος πρὸς ὕδροχόον, ζυγὸς πρὸς ἰχθύας.

122.4 (~ P3) Διοκλῆς καὶ Ἐπίκουρος καὶ τὸν ὄγδοον μῆνα εἶναι γόνιμον, ἄτονώτερον δέ.

122.5 (~ P2) Τίμαιος καὶ δωδεκάμηνά φησὶ τινα κύεσθαι παρὰ τὴν ἐπίσχεσιν τῶν καταμηνίων τὰ πρὸ τῆς συλλήψεως, οὕτω καὶ ἐπτάμηνα νομίζεσθαι οὐκ ὄντα προγεγεννημένης τῆς συλλήψεως, δυναμένης δὲ τῆς μήτρας εἰς καταμήνια καὶ μετὰ σύλληψιν.

Loci Aetiani:

quaestio A 5.21 Ἐν πόσῳ χρόνῳ μορφοῦται τὰ ζῶα ἐν γαστρὶ ὄντα

§1 cf. A 2.24.2 (de diebus longissimis) Ξενοφάνης κατὰ σβέσιν· ἕτερον δὲ πάλιν πρὸς ταῖς ἀνατολαῖς γίνεσθαι· παριστόρηκε δὲ καὶ ἔκλειψιν ἡλείου ἐφ' ὅλον μῆνα καὶ πάλιν ἔκλειψιν ἐντελεῖ, ὥστε τὴν ἡμέραν νύκτα φανῆναι.

§§2, 5 cf. A 5.6 Πῶς αἱ συλλήψεις γίνονται

§6 cf. A 2.19.3 (de signis stellarum) Εὐδοξος Ἄρατος κοινῶς διὰ πάντας τοὺς ἀστέρας, ἐν οἷς φησιν: αὐτὸς γάρ τά γε σήματ' ἐν οὐρανῷ ἐστήριξεν, / ἄστρα διακρίνας· ἐσκέφατο δ' εἰς ἐνιαυτὸν / ἀστέρας, οἳ κε μάλιστα τετυγμένα σημαίνουσιν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

P^B preserves six doxai, all of considerable length, making this chapter by far the longest in the book. Unusually G, though retaining all but the first lemma, alters the order, starting with §§4–6 and ending with §§2–3. It is to be noted that the new edition of Jas deviates in a number of places from the earlier text in Diels *DG*. Taking the translation of Nicolaus into account, she shows that some cases his text is closer to P^B than appears from the text as edited by Diels.

This is the first chapter in Book 5 for which S contributes material apart from the chapter headings. In the mutilated state of his transmission he records §4 on Aristotle and Hippocrates. The chapter heading, however, is found only in the Laurentianus manuscript.

B *Proximate Tradition and Sources*

(1) *Proximate tradition*. As was the case for the previous chapter, by far the most important parallel is found in Censorinus. All in all he devotes no less than five chapters (7–11) to the theme of the length of human gestation. In ch. 7 a compact overview is given of the various views, which can be summarized as follows:

- 7th, 8th, 9th or 10th month—all possible according to Hippo
- 7th month—affirmed by Theano the Pythagorean, Aristotle, Diocles, Euenor, Strato, Empedocles, Epigenes and many others, denied by Euryphon of Cnidos
- 8th month—denied by Epicharmus and by almost all, except Diocles and Aristotle (and Hippo)
- 9th and 10th month—affirmed by most Chaldeans and Aristotle
- 9th month—denied by Epigenes of Byzantium
- 10th month—denied by Hippocrates
- 11th month—denied by all except Aristotle

A long explanation is then given in ch. 8 of the astrological basis of the Chaldean opinion. The remaining chapters focus on the Pythagoreans. They are said to relate physiological phenomena to their views on music and numbers which are set out at some length. Varro's work *Tubero de origine humana* is cited as the source (ch. 9.1). Because Censorinus is treating the birthday theme, he scarcely draws on any physiological doctrines in his account, focusing almost exclusively on arithmological and astrological explanations. The same arithmological considerations are found in brief treatments in ps.Galen *Def.Med.* and Tertullian.

(2) *Sources.* The topic of whether seven- and eight-month-old fetuses are viable is the most frequently discussed of all physiological subjects in not specifically medical Greco-Roman literature. It is quite fitting, therefore, that the late 11th cent. Byzantine commentator Ioannes Doxapatres cites it as his example of a medical quaestio in the form 'why do seven-month-olds live but eight-month-olds not' (text below section E(b) General texts). Censorinus and Aulus Gellius also note it as a much discussed question. Its scope could vary. Aulus Gellius extends it to ten-month-olds, which for him is the limit. In other texts it is extended further to eleven- and even twelve-month-olds. Greek views on the viability of babies also exercised influence on Jewish and early Christian tradition, as statements by the rabbis Huna and Abbahu recorded in *Genesis Rabbah* testify; see Van der Horst (1978) 352, (2018) 113; text below section B(b) General texts. As the same scholar notes, the doctrine was applied to important babies in the biblical tradition, including Moses, Mary and Jesus, emulating similar statements on mythical heroes in Greek tradition; see further Van der Horst (1978).

Investigation goes back to the Hippocratic school. The treatise *De octimestri partu* gives a comprehensive discussion of the subject and other treatises refer to it also. We follow the reconstruction of Joly (1970) for the treatise, in opposition to Grensemann (1968b). It is to be agreed with the latter (1968c), however, that there are good grounds for attributing it to Hippocrates' son-in-law Polybus. The doxographical tradition, including the present chapter (§§3–5), the parallel report in Clement *Strom.* 6.138–139 and the text in the Anon. Brux. 12 (texts below E(b)§4), provide crucial evidence for the attribution; see the detailed analyses in Grensemann (1968b) and our comments below. The attribution is contested, however, by Jouanna (1969), (1999) 387. On ancient references to *Oct.* see further Anastassiou–Irmer (2006) 374–379. The topic is also extensively discussed in various Aristotelian texts, though the discussion promised at *GA* 4.4 772b11 has not survived; see further on the Aristotelian doxa in section D(c) below. Unfortunately texts in other authors such as Diocles and Strato mentioned in doxographical reports have also been lost. In 1999

H.N. Parker published a fragment attributed to a certain Damastes entitled *Περὶ τῶν γονίμων καὶ τελειουμένων* (On those who conceive and complete, i.e. carry to term), from a work *Περὶ κυουσῶν καὶ βρεφῶν θεραπείας* (*On the care of pregnant women and of infants*); see Parker (1999), text and translation on pp. 515–516. In his excellent discussion of this text Parker persuasively argues that it can safely be ascribed to the second century BCE doctor Damastes mentioned by Soranus; see the discussion on pp. 517–518. This text is discussed in more detail in section D(e) below. We note, finally, that the majority of later non-medical texts refer to the subject in an arithmological context.

The challenge is to compare the distinctive material found in A with the remainder of this extensive tradition. Because of the diversity of sub-topics and approaches, it is a complex task to determine to which traditions the copious available parallel texts belong. See further section D(e) below.

C Chapter Heading

The chapter heading once again uses the formula *διὰ τί* to inquire after the cause; see our comments on chs. 5.9 and 5.14. The question posed, relating to seven-month-olds only, has a narrower focus than the contents of the chapter itself, which discusses the entire range from seven-month- to twelve-month-olds. Ps.Galen *Def.Med.*, ps.Alexander and Ioannes Doxapatres all include a reference in their formulation of the quaestio to the non-viability of eight-month-olds. But even this would be too narrow. A has thus retained the traditional compact formulation of the subject, even though the chapter's treatment is much wider. This occurs more often in the doxographical tradition. We might compare ch. 2.4, where the heading asks whether the cosmos is indestructible but the chapter itself treats the themes of both genesis and destruction.

The heading in S^L is identical to that found in the tradition of P (cf. Wachsmuth 1882, 17). On the chapter headings in S^L see above, ch. 5.4 Commentary C.

D Analysis

a Context

The subject follows on well enough from the previous chapter on what is completed first in the womb. However, since it assumes the completion of the development of the fetus preceding birth, it would have been more logical to place ch. 5.21 on the articulation of parts of the body in the developing fetus between chs. 5.17 and 5.18.

b Number–Order of Lemmata

The order of the six lemmata in P must be accepted. The alternative order in G was perhaps motivated by dissatisfaction with P's order, but is hardly an

improvement (and he deletes the first doxa). The more detailed treatment of the various periods in Censorinus suggests that A's chapter may have originally included more doxai, even though the chapter as preserved is already rather long. Because only a single doxa remains in S, he cannot help us with the original order of the lemmata.

At the end of the right (i.e. Stobaeian) column at *DG* 429 Diels added the name-label Εὐρυφῶν ὁ ἰατρός, based on its mention in Photius' list at *Bibl.* 115b and its occurrence in Censorinus' report at ch. 7.5. But it must be agreed with Elter (1880) 65 that this is mistaken. As Diels himself notes ad loc., a saying of the doctor is already recorded at *Ecl.* 1.8.40a, p. 102.14–15 Wachsmuth. But this should have meant that the name was included in Photius' first alphabetical list at 113b (discussed by Elter p. 43), where as Elter suggests it may have dropped out. Its occurrence in the fifth alphabetical list implies that there must have been an excerpt or saying in Book 4 of the *Anthology*, probably at 4.35–37 (Elter p. 65). Diels does not refer to the question in his review of Elter's study (1881).

c Rationale–Structure of Chapter

In order to understand what A has tried to do in this chapter, we must first examine the various doxai individually. The relevant parallel texts are cited below at section E(a) and (b).

(1) Empedocles is cited as having given a cosmological, or more accurately, a protological reason for the viability of ten-month- and seven-month-olds. It is explained by the slower movement of the sun at the beginning of the cosmos' development: fetuses spent but a single very long day in the womb, equivalent now to ten or seven months. The report is confirmed by a text in the Byzantine commentator Tzetzes (the part mentioning the seven-month-olds is missing in 31A66 DK; see further O'Brien 1969, 46–48). (This text is noted by Diels in his *Handexemplar* of *DG*; cf. Oniga Farra 1985.) Proclus also refers to the two favourable lengths of time, and adds that eight-month-olds are not viable according to Empedocles, citing arithmological reasons. Like Tzetzes Censorinus only associates the poet with the viability of seven-month olds. On this doxa see also Parker (1999) 522 n. 31.

(2) In the next doxa A cites the first cent. BCE astrologer Timaeus (called *mathematicus* by Pliny *Nat.* 5.55) on the viability of twelve-month olds (if the identification is correct, he is one of the most recent authors cited in the *Placita*). Timaeus does not raise the possibility of mis-counting in relation to these, but only to the seven-month-olds, which may in fact have been in the womb longer. The possibility of mis-counting is also raised by Aristotle *HA* 7.4 584b20–25 for eleven-month-olds and by Pliny *Nat.* 7.40 in a story about the

purposed birth of a thirteen-month-old fetus. The author of the work in the *Corpus Hippocraticum* entitled *De septimestri partu* (not to be confused with the treatise attributed to Polybus) appears to admit the viability of eleven-month- and twelve-month-olds, but gives no details. It should be noted that Timaeus is not credited with any astrological reasons for his view (in contrast to §6), but mentions only the biological evidence of the female menses. (On the textual difficulties at the beginning of the lemma see below, section D(d) detailed comments. Although the alternative reading in P^B is attractive from a systematic point of view, it does not cohere as well with the remainder of the doxa.)

(3) The third doxa adds the viability of eight-month olds to those of seven, ten and twelve already mentioned. The mention of Diocles is consistent with the report of Censorinus 7.6. But the name-label Polybus sits uneasily with the contents of §5, where the doxa is assigned to him alone. If he is to be identified as the author of *De octimestri partu*, then the use of the name-label in this doxa must be erroneous, since its author emphatically denies the viability of eight-month-olds. This is the view of Grensemann (1968b) 58–59. It is possible that the name-label was later added *per errorem* to this doxa, since to have two contradictory doxai starting with the same name-label in the *Placita* is certainly unusual, if not impossible. G has only Diocles and Epicurus (sic!), but Q supports the Byzantine mss., so the name should be retained. We note that this doxa too gives only physiological and empirical grounds for the assertion. For a useful overview of Greek and particularly Latin texts on the viability of eight-month-old fetuses see Waszink 1947, 428.

(4) The next doxa is attributed to ‘Aristotle and Hippocrates and their followers’, the only mention of the father of medicine in Book 5 (and elsewhere only at 4.5.3 on the ἡγεμονικόν). Its contents—that seven-month-olds are viable, eight-month-olds give difficulty, and nine-month-olds undergo the complete process—is consistent with, and perhaps partly based on, Aristotle’s account in *HA* Book 7, but not with the statements that are found in the Hippocratic corpus, and in particular in *Oct.* Grensemann (1968b) 60 nevertheless suggests that the name-label may be based on the attribution of that work to Hippocrates. In a number of texts Galen records that its authorship was disputed between Hippocrates and Polybus (e.g. at *Hipp.Epid.* 2.3.17; other texts cited in Grensemann 1968b, 47–55). In this text too only biological reasons are given. Mention should also be made of a parallel text in the Anon. Bruxellensis 12. Not only does its information clearly derive from *Oct.*, but there are also interesting parallels to the present doxa in A, including details on the perils that eight-month-olds face in obtaining sufficient nourishment. Grensemann (1968b) 64 postulates that both texts derive from a single source. On Hippocratic speculations on the length of pregnancy see further the discussion in Parker (1999) 524–528.

(5) The fifth doxa, attributed this time to Polybus alone, very clearly takes as its starting point the opening words of *Oct.* (if the reconstructions of Littré and Joly are accepted). Seven-month-olds are viable at 182½ days, which is in fact the period from the one solstice to the other (note that the sun here makes a reappearance after §1). This last detail is an interpretative addition, probably by the original formulator of the doxa, since it does not appear in *Oct.*, as is also the case for the statement that it is a six-month period (the term ἑξάμηνον is also not found there), but immediately indicates that babies of this length of time should be reckoned as seven-month-olds. The statement then follows that eight-month-olds are not viable. The following clause starting with ὅταν gives the reason, namely that the umbilical cord is excessively strained. If the conjunction is translated as ‘whenever’ or ‘on condition that’, the doctrine differs hardly at all from §3 and contradicts the tenor of *Oct.* Grensemann (1968b) 57 proposes the solution that it be translated ‘since’ or ‘because’ and we have taken this suggestion over in our translation. The second half of the doxa on the eight-month-olds is most likely based on the statement in *Oct.* 3, although it requires some extrapolation to do so. The famous statement on eight-month-olds at *Oct.* 12 may also have contributed. On the curious doctrine that eight-month-old fetuses are not viable see further Hanson (1987), who gives a rather unconvincing psychological explanation, i.e. that it is invoked as ‘an automatic and perhaps even comforting response to misfortune’ (p. 601).

Significantly there is a close parallel to this doxa (not utilized by Diels) in Clement of Alexandria. As Grensemann (1968a) 58 notes, in three respects the two reports are strikingly similar: (a) in stating the number of days, both A and Clement replace the words προσεόντος μηνίου by the more exact ἡμῖσι; (b) both sources emphasize the period of six months; (c) both sources mention the role of the solstices, which is absent in *Oct.* It can hardly be doubted that there must be a common source. We cannot be wholly certain that this was a doxographical text. But it is noteworthy that Clement also refers to an Aristotelian discussion in a lost work entitled Περὶ φύσεως. Given the presence of Aristotle in the current chapter, this may be an indication that the common source belonged to the doxographical tradition. As in the previous doxa, the considerations put forward belong to the realm of physiology, with the exception of the reference to the movement of the sun.

(6) The final doxa attributed to the μαθηματικοί (i.e. in this context ‘astrologers’) adopts a wholly different approach, as befits that professional group. Eight-month olds are not viable, in contrast to seven-month- and ten-month-olds because of astrological considerations. The argument appears to be that pairs of zodiacal signs, relating—one presumes—to conception and birth, can be either compatible (συνδευτικός) or incompatible (ἀσύνδετος). In the latter case

they obtain dominant planets which have a malevolent influence on the lives of the newly born infants. For eight-month-olds, we are told, the pair of signs are incompatible. As can be seen from the examples given, these pairs involve two signs separated by six others, e.g. Aries and Scorpio separated by Taurus Gemini Cancer Leo Virgo Libra.

A does not explain why these pairs should be ‘ill-starred’, i.e. obtain malevolent planets. To understand the negativity associated with the conjoined pairs, we are aided by Censorinus’ didactic account of the principles of astrology. He adopts a slightly different approach which does not involve any connections to the planets (though they are briefly mentioned in general terms in ch. 8.2). To understand his explanations, it must first be noted that the calculations in relation to the twelve zodiacal signs work by inclusive reckoning, i.e. the number seven links, for example, the 1st and 7th sign, eight the 1st and 8th, nine the 1st and 9th, ten the 1st and 10th. These various relations are regarded as ‘productive’ or ‘unproductive’ depending on the connections formed, as illustrated when traced as straight connecting lines on the zodiacal circle (useful diagrams at Parker 2007, 14–16). According to Censorinus 8.10 the aspect (*conspetus*) from the seventh sign, connecting with the sign directly opposite, is the fullest and most powerful and brings forth seven-month-old children who are already mature, i.e. viable. Though not noted by Censorinus or A, this connection also includes the two solstices of the sun, i.e. the 4th (Cancer) and the 10th (Capricorn). However, the next aspect from the eighth, just like that from the sixth, is unproductive. In both cases, as Censorinus notes, their lines do not form the sides of a polygon inside the zodiacal circle, as does occur for the aspects from the ninth and tenth (triangle and square respectively). This means that eight-month-olds are not viable, but nine-month and ten-month olds are.

Returning to A, we note that he does not include any of the above astrological details in his doxa, but only gives a list of six pairs of signs that are incompatible, each in the eighth aspect (Aries–Scorpio, Taurus–Sagittarius etc. until he reaches Aries again). He then concludes that seven-month-olds and ten-month-olds—but curiously he does not mention nine-month-olds—are viable, but eight-month-olds are not. It must be assumed that they obtain a planet that is malevolent and for this reason do not survive (on this see further our detailed comments below). The astrological doctrines that he assumes are scarcely intelligible as they stand, unless the reader has been initiated into the subject (or has the assistance of a didactic account similar to that found in Censorinus). The astrological doctrines that Proclus cites in relation to the survival of seven-month-olds in his commentary on the famously obscure Platonic text *Resp.* 546a–c (text below on §1 and §6) are even more obscure and do not help us understand A’s text. Although A often uses the name-label *μαθηματικοί* vel

sim., this is the only occasion that it is associated with astrological doctrines; see further our note to the translation of ch. 2.15.

The succession of six lemmata in A's chapter thus yield the following list of views:

- 7- and 10-month-olds—both viable according to Empedocles
- 12- and 7-month-olds—also viable according to Timaeus (though not in fact 7 month olds)
- 8-month-olds—can be viable according to Polybus Diocles Empiricists
- 7- and 9-month-olds—viable according to Aristotle Hippocrates
- 6- (i.e. 7-) month-olds viable according to Polybus, 8-month-olds not
- 8-month-olds not viable, 7- and 10-month-olds viable—according to the astrologers

The overview shows that—contrary to what we would expect—there is little system to be discovered in the sequence of views. It would be improved if we read 9 instead of 12 in §2, but, as we shall see below in our detailed comment, that reading is unlikely to be correct. It would seem that either A or P have not been able to master the diversity of material available to them. This is also shown by the triple reference to the Hippocratean tradition in §§3–5.

It is also of interest, however, to look at the reasons which A gives for the viability and non-viability of the infants. As we noted in section C above, the formulation of the chapter's heading invites the presentation of aetiologies. These can be summarized as following:

- cosmological/protological reasons—§1, §5, §6 (implicit in astrology)
- biological/physiological reasons—§2, §3, §4, §5
- astrological reasons—§6.

It emerges that, as befits the context in Book 5, priority is given to the empirical facts of biology and physiology, with some cosmological and astrological material added. It is most striking, however, that in none of the doxai are arithmological reasons given. This is also the case, as we shall see, in the related ch. 5.21. It would seem that A regards arithmology as inappropriate for the φυσικός λόγος he wishes to present. An exception is made when introducing the Pythagorean number doctrine in A 1.3.7, no doubt because they belong to the ἀρχαί and not to the φύσις proper. A does have a predilection for numbered lists, e.g. at chs. 2.32 and 4.2–3, but this does not extend to arithmological doctrines. It remains surprising that he did not attempt to order the present set of numbers better. Possibly they have been upset by the incomplete transmission of his chapter.

d Further Comments

Individual Points

§1[6–7] It is strange that Diels both in *DG* and *VS* persisted in thinking that γόνιμα is a later addition from the heading. In fact the reading should be retained particularly because of the heading. The infinitive αὔξεσθαι should be taken as depending on the genetive absolute, so it is best to delete the comma after μεμελετηκυίας.

§2 It is not possible to be wholly certain of the text of the beginning of the lemma. G and Q (12 months) are largely in agreement against P^B (not twelve or ten months) and should be followed, also because their reading makes much better sense in the context of the lemma as a whole (see our analysis above). G may have introduced elements of paraphrase, but nevertheless his text should be adopted.

§3 Q reads the words as standing in apposition to the two names and so converts the two physicians into empiricists!

The word ἀτονώτερον in all three witnesses raises suspicion on account of the repetitive phrase διὰ τὴν ἀτονίαν that follows. Grensemann (1968a) 58 confidently states that the emendation ἀγονώτερον must be correct. As a qualification of γόνιμον it certainly makes excellent sense. Grensemann rightly observes that the mistake could have entered the tradition early. The combined weight of the three witnesses generally makes one reluctant to introduce the emendation into our text, but in this clear case preference should be given to the reading with the better meaning.

§4 We have chosen S's reading for the name-labels as the *lectio difficilior*. P has retained the οἱ περὶ formula in A 1.17.2 and 5.19.2. It is more likely that an author would move to the plain name-labels than the other way around. Moreover, it appears to receive support from Q, though he reads Hippocrates in the nominative.

The verb προκύπτω should be translated 'emerge', 'be delivered'; cf. the usage at Porphyry *ad Gaur.* 12.1, 16.5 (3 times), S.E. *M.* 5.66, and Torraca *ad loc.* 'vengano alla luce'. Lachenaud, perhaps led astray by the parallel text at the Anon.Brux. 12 (*ad inferiora loca descendit*) translates 'prend une position basse'. The verb can mean this (κύπτω = 'bend forward'). It may be the origin of the more technical meaning which developed in the present context of giving birth.

It seems that both S and Q have simplified the text and do not explain why the embryo is malnourished. P^B states that this occurs because the ἔκκριμα has become difficult. In G the noun in the phrase is not transmitted in the text. The reading of the text in P^B would appear to make sense if ἔκκριμα means the secretion of nourishment that is transmitted to the embryo through the umbil-

ical cord. The difficulty is that there is no evidence for the use of this rare term in a similar medical context.

§5 The text of the final part of the lemma in P^B is difficult. The editors have resorted to a crux and suggested that the phrase ὡς τούτου τρέφοντος αἵτιος is a gloss. However, in P^G, with the addition of the final words ὁ ὁμφαλός, it is perfectly comprehensible and we have preferred that text. The passage would be even clearer if we follow G in including the participle διατείνομενος after βασινοῦσθῃ as giving the cause of the failure of the umbilical cord. But it is absent in Q and may be an addition on the part of G.

§6 The second sentence explaining the occurrence of incompatible zodiacal signs is difficult and its text may be corrupt. Mau proposes a lacuna after ζῳδία in l. [29]. But it may be possible to rescue the sentence as translated. It would seem that ἀστέρων must refer to heavenly bodies, i.e. planets, that are connected with the incompatible signs. This would deviate from Censorinus' account, which does not mention any planets. The sentence is, it would seem, paraphrased in G, who takes the ἀστέρες that are dominant to be malevolent, as indeed can be deduced from the following sentence. But it is also possible that G's negative term φαύλους indicates that something has fallen out of P's text. The verb οἰκοδεσποτέω is a technical term in both astronomy and astrology for 'exercising predominant influence' and is used of planets; see LSJ and BAGD s.v.

In l. [32] we have emended the text to read the expression (κατ') ὀκτώ, to be taken with the participle ἀριθμούμενα and meaning 'numbered by eight' (by inclusive reckoning). Previous editors have taken the meaning to be that there are eight incompatible zodiacal sign combinations, but only six are mentioned in the text. Even if the combination Libra with Taurus is introduced, as Diels, Mau and Lachenaud do based on the mention of Libra in G (but there stated as incompatible with Pisces), this still only amounts to seven combinations. Censorinus in his astrological explanations does not give these details—he in fact does not mention individual zodiacal signs at all—, so he cannot help us with this text.

In the final sentence it is tempting to take over Diels' suggestion τοῦ κύκλου, i.e. referring to the zodiacal circle, instead of τοῦ κόσμου. But we should recall that A has already introduced a cosmological perspective in §1, and it is also implicit in §4. He returns to this perspective at the end. The expression at the beginning of the doxa, ἀσυνδέτους πάσης γενέσεως, is also very general.

e Other Evidence

Our analysis has shown two significant differences with the more copious account of the subject in Censorinus. The Latin author orders his sequence

of doxai much more systematically than A (i.e. as found in P). In addition, he focuses less on the question of the seven-month and eight-month olds and gives different reasons for the question of their viability. In his initial presentation in ch. 7 he omits any biological or physiological considerations, and only commences with these when presenting the doctrine of Pythagoras in ch. 9–11. Most of the emphasis, however, is placed on arithmological and astrological details (with some musical aspects added as well). Both other close parallel sources, ps.Galen *Def.Med.* and Clement, also include arithmological considerations (which Clement also links with cosmology). These parallel discussions are a further indication that it must have been a deliberate decision on the part of A to avoid this material, despite its great popularity in philosophical circles at the time (for an overview for the use of arithmological doctrines in relation to human life see Mansfeld (1971) 165–178 and see further on ch. 5.21). Another difference is the inclusion of so much material from the Hippocratic tradition, which diverges from what we find in Censorinus and ps.Galen (though not in Clement). This forms a (welcome) exception to what we find in the remainder of Book 5. It may be hypothesized that A or his source was attracted by a dossier on this subject that had become available to him because the subject was so frequently discussed in the biological and medical literature of his time.

A quite different text, yet one that has a number of points of contact with this chapter (and also chs. 5.17 & 5.21) is the excerpt from Damastes introduced above in section B(2). We cite the text in full in E(b) General texts below. It is a purely medical piece, written in the most sparing prose. Its editor Parker fittingly calls it a calendar. Appended to it is a remarkable table, explicitly called a *διάγραμμα*, which summarises its contents. Four possible lengths of pregnancy are listed, from seven to ten months (the eleven- and twelve-month possibilities are simply ignored), and for each the number of days corresponding to six different stages are given: becoming foam, blood, flesh, taking shape, movement and birth. As already noted in our Commentary on ch. 5.17 section C, the stage of giving shape is associated with a (provisional) completion, which by implication is the completion of the formation of the embryo (cf. ch. 5.21). See further ch. 5.21 Commentary D(e).

E Further Related Texts

a Proximate Tradition

Chapter heading: Censorinus *DN* 7.1–11.2 *superest dicere de temporibus, quibus partus soleant esse ad nascendum maturi; qui locus eo mihi cura maiore tractandus est, quod quaedam necesse est de astrologia musicaque et arithmetica attingere.* (2) *iam primum quoto post conceptionem mense infantes edi soleant, frequenter agitatam inter veteres nondum convenit.* Hippon Metapon-

tinus (38A16 DK) *a septimo ad decimum mensem nasci posse aestimavit: nam septimo partum iam esse maturum eo, quod in omnibus numerus septenarius plurimum possit, siquidem septem formemur mensibus, additisque alteris recti consistere incipiamus, et post septimum mensem dentes nobis innascantur, idemque post septimum cadant annum, quarto decimo autem pubescere soleamus.* (3) *sed hanc a septem mensibus incipientem maturitatem usque ad decem perductam, ideo quod in aliis omnibus haec eadem natura est, ut septem mensibus annisve tres aut menses aut anni ad consummationem accedant:* (4) *nam dentes septem mensum infanti nasci et maxime decimo perfici mense, septimo anno primos eorum excidere, decimo ultimos, post quartum decimum annum nonnullos, sed omnes intra septimum decimum annum pubescere.* (5) *huic opinioni in parte aliqua repugnant alii, in parte consentiunt. nam septimo mense parere mulierem posse plurimi adfirmant, ut Theano Pythagorica (—), Aristoteles Peripateticus (HA 7.4 584b3–7), Diocles (fr. 48d Van der Eijk), Euenor (—), Straton (fr. 96 Wehrli, 72 Sharples), Empedocles (31A83 DK), Epigenes (—) multique praeterea, quorum omnium consensus Euryphonem Cnidium (—) non deterret id ipsum intrepide pernegantem.* (6) *contra eum ferme omnes Epicharmum (23B59 DK) secuti octavo mense nasci negaverunt; Diocles tamen Carystius (fr. 48d Van der Eijk) et Aristoteles Stagiritis (HA 7.4 584b7–14) aliter senserunt. nono autem et decimo mense cum Chaldaei plurimi et idem supra mihi nominatus Aristoteles (HA 7.4 584a36–37) edi posse partum putaverint, neque Epigenes Byzantius (—) non fieri posse contendit, nec Hippocrates Cous decimo.* (7) *ceterum undecimum mensem Aristoteles (HA 7.4 584b1) solus recipit, ceteri universi improbarunt.* (8.1) *sed nunc Chaldaeorum ratio breviter tractanda est, explicandumque, cur septimo mense et nono et decimo tantum modo posse homines nasci arbitrentur.* (2) *ante omnia igitur dicunt actum vitamque nostram stellis tam vagis quam statis esse subiectam, ...* (3) *itaque eum (sc. solem), qui stellas ipsas, quibus movemur, permovet, animam nobis dare, qua regamur, potentissimumque in nos esse moderarique, quando post conceptionem veniamus in lucem ...* (many astrological details now follow). (9.1) *hac Chaldaeorum sententia explicata transeo ad opinionem Pythagoricam Varroni tractatam in libro, qui vocatur Tubero (fr. 3 Riese) et intus subscribitur de origine humana; quae quidem ratio praecipue recipienda ad veritatem proxime videtur accedere. alii enim plerique, cum omnes partus non uno tempore fiant maturi, una tamen eademque tempora omnibus conformandis dederunt ...* (see further on A 5.21). (3) *Pythagoras autem, quod erat credibilis, dixit partus esse genera duo: alterum septem mensum, alterum decem, sed priorem aliis dierum numeris conformari, aliis posteriorem ...* (much material on numbers and music then follows). (11.1) *his expositis forsitan quidem obscure, sed quam potui lucidissime, redeo ad propositum, ut doceam, quid Pythagoras (—) de numero dierum ad partus pertinentium senserit.* (2) *primum, ut supra memoravi generaliter, duos esse partus omnino dixit, alterum minorem, quem vocant septem mestrem, qui decimetducesimo die post conceptionem exeat ab utero, alterum maiorem decem mestrem, qui edatur die ducesimo septua-*

gensimo quarto. quorum prior ac minor senario maxime continetur numero ... (see further on ch. 5.21) **ps.Galen Def.Med.** 450, 19.454.6–10 K. *ὅτι διὰ ποίαν αἰτίαν τῶν ἐπταμήνων γονίμων ὄντων τὰ ὀκτάμηνα ἄγονά ἐστιν; λέγεται οὕτως· ὅτι ὁ ὀκτῶ ἀριθμὸς ἄρτιός ἐστι καὶ συνεζευγμένος μὴ κρίσιμος ὢν· ὁ δὲ ἐπτά ἀριθμὸς περιττός καὶ οὐδὲ συνεζευγμένος καὶ διὰ τοῦτο κρίσιμος.* **Aulus Gellius NA** 3.16.1 *et medici et philosophi inlustres de tempore humani partus quaesiverunt. multa opinio est, eaque iam pro vero recepta, postquam mulieris uterum semen conceperit, gigni hominem septimo rarer, numquam octavo, saepe nono, saepius numero decimo mense, eumque esse hominum gignendi summum finem ...* **Tertullian de An.** 37.4 *sed et cum septimo mense nativitas plena est facilius quam octavo, honorem sabbati agnoscam. ... ideo odoas nos non creat.*

Chapter heading: cf. **ps.Galen Def.Med.** 450 cited above.

§4 Aristotle Hippocrates: Varro at Aul. Gell. 3.16.6–8 *etiam undecimo mense aliquando nasci posse hominem dicit, eiusque sententiae tam de octavo quam de undecimo mense Aristotelem auctorum laudat. sed huius de mense octavo dissensionis causa cognosci potest in libro Hippocratis qui inscriptus est* *Περὶ τροφῆς* (ch. 42 cited below on §5) ... **Ioannes Lydus Mens.** 2.12, p. 35.11–16 *ἐνθεν καὶ τὰ ἐπτάμηνα βρέφη τελειογονεῖσθαι πέφυκεν, ὡς Ἱπποκράτης λέγει· ἡ γὰρ τοῦ ἀριθμοῦ ψυχογονικὴ δύναμις τὰ ἐπτάμηνα τέλεια ἀποφαίνει, διότι τελείας περιόδους σφαιρικῆς ἀριθμῷ τελείῳ καὶ κοσμικῷ, τῷ ψυχοκρατητικῷ καὶ ψυχογονικῷ περιέχεται.*

§5 Polybus: for arithmological texts see below, section E(b)§5.

b Sources and Other Parallel Texts

General texts: **Aristotle GA** 4.4 772b7–12 *τοῖς μὲν γὰρ ἄλλοις εἰς ἐστὶν ὁ χρόνος, τοῖς δ' ἀνθρώποις πλείους· καὶ γὰρ ἐπτάμηνα καὶ δεκάμηνα γεννῶνται καὶ κατὰ τοὺς μεταξὺ χρόνους· καὶ γὰρ τὰ ὀκτάμηνα ζῆ μὲν, ἦρτον δέ. τὸ δ' αἴτιον ἐκ τῶν νῦν λεχθέντων συνίδοι τις ἂν, εἴρηται δὲ περὶ αὐτῶν ἐν τοῖς Προβλήμασιν.* **GA** 4.6 774b36–775a4 *δῆλον δὲ τοῦτο καὶ ἐπὶ τῶν ἐπταμήνων· διὰ γὰρ τὸ ἀτελὲς εἶναι πολυλάκεις ἐν αὐτῶν γίγνεται οὐδὲ τοὺς πόρους ἔχοντά πω διηρθρωμένους, οἷον ὤτων καὶ μυκτήρων, ἀλλ' ἐπαυξανομένοις διαρθροῦται, καὶ βιοῦσι πολλὰ τῶν τοιοῦτων.*

Damastes *Περὶ τῶν γονίμων καὶ τελειομένων* (fragment from Δαμᾶστος *Περὶ κυουσῶν καὶ βρεφῶν θεραπείας*), Laur. 74.2, fol. 381^v, ll. 3–26, ed. Parker (1999):

1. τὸ ἐπταμηνιαῖον· ἀφροῦται μὲν ἐν ἡμέραις ἕξ, αἵματοῦται δὲ ἐν (ἄλλαις) η', σαρκοῦται δὲ ἄλλαις θ', μορφοῦται δὲ ἐν ἄλλαις ιβ'. αἱ τινες συντελεσθεῖσαι ποιοῦσιν ἀριθμὸν λε'. κινεῖται δὲ ἐν διπλασίῳ σι· τῶν τεθέντων ἀποκυῖσκειται δὲ ἐν τριπλασίῳ σι'.
2. τὸ ὀκταμηνιαῖον· ἀφροῦται μὲν ἐν ἡμέραις ζ', αἵματοῦται δὲ ἐν ἄλλαις δέκα, σαρκοῦται δὲ ἄλλαις θ', μορφοῦται δὲ ἐν ἄλλαις ιε'. αἱ τινες συντελεσθεῖσαι ποιοῦσιν ἀριθμὸν μ'. κινεῖται δὲ ἐν διπλασίαις π'· ἀποκυῖσκειται δὲ ἐν τριπλασίαις σμ'.
3. τὸ ἐνναμηνιαῖον· ἀφροῦται μὲν ἐν ἡμέραις ζ', αἵματοῦται δὲ ἐν ἄλλαις δέκα, σαρκοῦται δὲ ἄλλαις ιβ', μορφοῦται δὲ ἐν ἄλλαις ιη'. αἱ τινες συντελεσθεῖσαι

ποιοῦσιν ἀριθμὸν με'. κινεῖται δὲ ἐν διπλασίαις τούτων ρ' ἀποκυῖσκειται δὲ ἐν τριπλασίῳ σο'.

4. τὸ δεκαμηνιαῖον· ἀφροῦται μὲν ἐν ἡμέραις ζ', αἵματοῦται δὲ ἐν ἄλλαις η', σαρκοῦται δὲ ἄλλαις ιβ', μορφοῦται δὲ ἐν ἄλλαις κδ'. αἱ τινες συντελεσθεῖσαι ποιοῦσιν ἀριθμὸν ν'. κινεῖται δὲ ἐν διπλασίαις ρ' ἀποκυῖσκειται δὲ ἐν τριπλασίῳ τ'.

	διάγραμμα			
ἀφρόν	ζ'	ζ'	ζ'	ζ'
αἷμα	η'	ι'	θ'	η'
σάρξ	θ'	θ'	ιβ'	ιβ'
μόρφωσις	ιβ'	ιε'	ιη'	κδ'
κίνησις	ο'	π'	ρ'	ρ'
ἀποκύησις	σι'	σμ'	σο'	τ'

ps.Alexander *Probl.* 2.47 Ideler Διὰ τί τὰ ἐπταμηνιαῖα βρέφη ζώσιμα, τὰ δ' ὀκτωμηνιαῖα οὐκέτι; ὅτι ὁ ἐπτά ἀριθμὸς, τέλειός ἐστι τῇ φύσει, ὡς μαρτυρεῖ Πυθαγόρας (—) καὶ οἱ ἀριθμητικοὶ καὶ οἱ μουσικοί· ὁ δὲ ὀκτώ ἀτελής (cf. Psellus *Phil.Min.* 1 op. 55, p. 271.6 Duffy). **Genesis Rabbah** 14.2 (trans. Freedman) There is a viable birth at nine [months] and a viable birth at seven [months]. R. Huna said: When the foetus is so formed as to be born at seven months, and it is born either at seven or at nine months, it is viable; if born at eight months, it cannot live. When it is formed so as to be born at nine but yet it is born at seven months, it cannot live, and all the more so if it is born at eight months. R. Abbahu was asked: 'How do we know that when the foetus is fully developed at seven months it is viable?' 'From your own [language] I will prove it to you', replied he: 'Live, seven; go [away], eight'. **Ioannes Doxapatres** *Proleg. in Aphth. progymn.* p. 125.14–16 Rabe ἔστι γάρ τινα καὶ ἱατρικὰ ζητήματα, ὡς ὅτε ζητεῖται, διὰ τί τὰ μὲν ἐπτάμηνα βρέφη ζῶσι, τὰ δὲ ὀκτάμηνα οὐ.

Chapter heading: see texts of **ps.Alexander** and **Ioannes Doxapatres** cited under General texts above. cf. also **Oribasius** *Coll.lib.inc.* 10 *CMG* 4.95.9 Raeder Περὶ κηρύσεως ἐπταμήνων. *Coll.lib.inc.* 12 *CMG* 4.99.15 Raeder 'Εκ τῶν Ἀριστοτέλους τοῦ φιλοσόφου Περὶ ὀκταμήνων. cf. **Aristotle** *GA* 4.10 777a 33 οἱ δὲ χρόνοι τῆς κηρύσεως ἐκάστω τῶν ζώων ...

§1 **Empedocles:** **Ioannes Tzetzes** *Exeg. in Iliad.* 42.17–26 Hermann (partly cited at 31A66 DK) κατὰ γὰρ Ἐμπεδοκλέα τὸν φυσικὸν καὶ μετὰ τὸ γῆν φανῆναι καὶ θάλασσαν ἀτάκτως καὶ ἔτι τὰ στοιχεῖα κεκίνητο, ποτὲ μὲν τοῦ πυρὸς ὑπερνεκύντος καὶ καταφλέγοντος, ὅτε δὲ τῆς ὕδατῶδους ὑπερβλυζούσης καὶ κατακλυζούσης ἐπιρροῆς. καὶ τὸν ἥλιον δὲ ὁ αὐτὸς διὰ τὸ ἀτακτὸν φησι τῆς φορᾶς καὶ ἀστήρικτον τοσοῦτον τε τῇ ἡμερησίῳ βραδύνειν πορεῖα ὅσος νῦν καιρὸς ἐστὶν ὁ ἐπτάμηνος. διὰ δὲ τοῦτο φησιν ζωογονεῖσθαι καὶ τῶν βρεφῶν τὰ ἐπτάμηνα. **Proclus** *in Resp.* 2.34.25–28 Kroll ὅτι καὶ ὁ Ἐμπεδοκλῆς (31B6g DK) οἶδεν τὸν διπλοῦν τῶν γεννήσεων χρόνον· διὸ καὶ τὰς γυναῖκας καλεῖ διγόνους, καὶ τὴν ὑπεροχὴν τοῦ πληθους τῶν ἡμερῶν αὐτὸς εἶπεν, καὶ ὅτι τὰ ὀκτάμηνα ἄγονα· καὶ εἰκότως ... (see further on A 5.21.1).

§2 *Timaeus*: cf. *Corpus Hippocraticum Septim.* 124.12 Grensemann οὐδὲ μὲν γὰρ καὶ ἐνδεκάμηνον καὶ δωδεκάμηνον κατὰ τὸν τούτων λόγον ἔστ' ὃ ἂν ζῆ παιδίων. also *Pliny Nat.* 7.40 *cum matrem partum se tredecim mensibus diceret tulisse.*

§3 *Polybus*: on *Polybus*, see below §5. cf. *Pliny Nat.* 7.38–39 *ceteris animantibus statum et pariendi et partus gerendi tempus est; homo toto anno et incerto gignitur spatio, alius septimo mense, alius octavo et usque ad initia undecimi. ante septimum mensem haut umquam vitalis est. septimo non nisi pridie posteroque pleniluni die aut interlunio concepti nascuntur. tralaticium in Aegypto est et octavo gigni, iam quidem et in Italia tales partus esse vitales, contra priscorum opiniones.*

§4 *Aristotle Hippocrates: Corpus Hippocraticum (= Polybus?) Octr.Part.* Joly passim; see below on §5. *Vict.* 1.26.2, p. 6.498.21–22 Littré ὡσαύτως καὶ γόνιμα γίνεται τὰ μὲν θᾶσσον ἐπτάμηνα τελείως, τὰ δὲ βραδύτερον ἐννέα μηνὶ τελείως. *Aristotle HA* 7.4 584a34–b25 τὰ μὲν οὖν ἄλλα ζῶα μοναχῶς ποιεῖται τὴν τοῦ τόκου τελείωσιν· εἰς γὰρ ὥρισται τοῦ τόκου χρόνος πᾶσιν· ἀνθρώπῳ δὲ πολλοὶ μόνῃ τῶν ζῶων· καὶ γὰρ ἐπτάμηνα καὶ ὀκτάμηνα καὶ ἐννεάμηνα γίνεται, καὶ δεκάμηνα τὸ πλείστον· ἔναι δ' ἐπιλαμβάνουσι καὶ τοῦ ἐνδεκάτου μηνός. ὅσα μὲν οὖν γίνεται πρότερα τῶν ἐπτά μηνῶν, οὐδὲν οὐδαμῇ δύναται ζῆν· τὰ δ' ἐπτάμηνα γόνιμα γίνεται πρῶτον, ἀσθενῇ δὲ τὰ πολλὰ (διὸ καὶ σπαργανοῦσιν ἐρίοις αὐτά), πολλὰ δὲ καὶ τῶν πόρων ἐνίους ἔχοντα ἀσχίστους, οἷον ὤτων καὶ μυκτῆρων· ἄλλ' ἐπαυξανομένοις διαρθροῦνται, καὶ βιοῦσι πολλὰ καὶ τῶν τοιούτων. τὰ δ' ὀκτάμηνα περὶ μὲν Αἰγυπτὸν καὶ ἐν ἐνίοις τόποις, ὅπου εὐέκφοροι αἱ γυναῖκες καὶ φέρουσι τε πολλὰ ῥαδίως καὶ τίκτουσι, καὶ γενομένα δύναται ζῆν, καὶν τερατώδῃ γένηται, ἐνταῦθα μὲν ζῇ τὰ ὀκτάμηνα καὶ ἐκτρέφεται, ἐν δὲ τοῖς περὶ τὴν Ἑλλάδα τόποις ὀλίγα ἀμπαπὰν σώζεται, τὰ δὲ πολλὰ ἀπόλλυται· καὶ διὰ τὴν ὑπόληψιν, καὶν σωθῇ τι, νομίζουσιν οὐκ ὀκτάμηνον εἶναι τὸ γεγενημένον, ἀλλὰ λαθεῖν ἑαυτὰς αἱ γυναῖκες συλλαβοῦσαι πρότερον. πονοῦσι δ' αἱ γυναῖκες μάλιστα τὸν μῆνα τὸν τέταρτον καὶ τὸν ὄγδοον, καὶ ἑὰν διαφθεῖρωσι τετάρτῳ ἢ ὀγδόῳ μηνί, διαφθεύονται καὶ αὐταὶ ὡς ἐπὶ τὸ πολὺ, ὥστ' οὐ μόνον τὰ ὀκτάμηνα οὐ ζῇ, ἀλλὰ καὶ διαφθειρομένων αἱ τίκτουσαι κινδυνεύουσιν. τὸν αὐτὸν δὲ τρόπον δοκεῖ λανθάνειν καὶ ὅσα φαίνεται τίκτεσθαι πολυχρονιώτερα τῶν ἐνδεκα μηνῶν· καὶ γὰρ τούτων ἢ τῆς συλλήψεως ἀρχὴ λανθάνει τὰς γυναῖκας· πολλὰ καὶ συλλαβοῦσαι ἐκείνην οἶονται τὴν ἀρχὴν εἶναι τῆς συλλήψεως, δι' ἣν ἐχρήσαντο τοῖς σημείοις ὁμοίοις. Similar views at *Oribasius Coll. lib.inc.* 12 (= fr. 283 Rose³) Περὶ τῶν ὀκταμήνων εἰσὶ τινες οἱ φασιν οὐθὲν ζῆν· τοῦτο δ' ἐστὶ ψεῦδος· ζῇ γὰρ, καὶ τοῦτο μάλιστα μὲν ἐν Αἰγύπτῳ δῆλον διὰ τὸ τρέφειν τε πάντα τὰ γινόμενα τοὺς Αἰγυπτίους ... οὐ μὴν ἀλλὰ καὶ ἐν τῇ Ἑλλάδι τηροῦσιν ἔστιν ἰδεῖν οὕτως ἔχειν, ὥστε τὸ μὲν ἅπαντα τὰ ὀκτάμηνα μὴ ζῆν οὐκ ἀληθές ἐστιν, ὅτι μέντοι ὀλίγα καὶ ἦττον τῶν ἐπτάμηνων τε καὶ τῶν ἐκ τοῦ πλείονος ἀριθμοῦ γενομένων ἀληθές· καὶ γὰρ ἐνδεκάμηνον δοκεῖ γεννᾶσθαι καὶ δεκάμηνον. ὅσα μὲν οὖν γίνεται πρότερον τῶν ἐπτάμηνων, οὐθὲν οὐδαμῇ δύναται ζῆν· τὰ δ' ἐπτάμηνα γόνιμα γίνεται πρῶτον, ἀσθενῇ δὲ τὰ πολλὰ ... briefer statements at *GA* 4.4 772b6–12 et *Probl.* 10.41 895a24–26. *Anonymus Bruxellensis* 12, p. 215.20–216.15 Wellmann *hic de septemmensium causa nas-*

cendi conicit compendiosam foetus perfectionem fieri, quotiens summo temperamento primordiorum confectum semen in matricem venerit. ipsa quoque similiter temperat aut etiam nutrimenta minime insidiosa. etenim nono mense magis partum fieri perfectionis est causa. quae cum forte septimo fuerit mense commota, raro quidem, sed rationabiliter fiet. octavo tamen mense non facile nutribiles sunt, non est (enim) umbilicatus foetus pro ratione ponderis. septimo mense ad inferiora loca descendit ex superioribus spatiis. dehinc, si fuerit perfectus, erumpens membranas nutribiliter excluditur. hinc quassat membranas et totam matricem, qua ex quassatione generatur tumor. rumpere autem cum non potuerit supradictas membranas ac matricem, siquidem nondum conveniens habet pondus ac perfectam fortitudinem, necessario permanens venit in octavum mensem et laborem facit praegnaci, donec tumor quassatione genitus resolvatur. qua desinente nonus mensis rursum veniet levior.

§5 **Polybus: Corpus Hippocraticum** (= Polybus?) *Octr.Part.* 1.1–2.1, p. 164.1–165.8 Joly οἱ δὲ ἐπτάμηνοι γίνονται ἐκ τῶν ἑκατὸν ἡμερέων καὶ ὀγδοήκοντα καὶ δύο καὶ προσέοντος μορίου· ἦν γὰρ τοῦ πρώτου λογίστη μηνὸς πεντεκαίδεκα ἡμέρας, τῶν δὲ πέντε μηνῶν ἑκατὸν καὶ τεσσαράκοντα καὶ ἐπτὰ καὶ ἥμισυ ἡμέρης, ἐν γὰρ ἐξήκοντα μῆσι θεοῦσῃσιν ἡμέρησιν ἐγγύτατα δύο μῆνες ἐκτελεῦνται, οὕτως οὖν τούτων ἐόντων ἐς τὸν ἔβδομον μῆνα περιγίνονται ἡμέραι πλεῖον ἢ εἴκοσιν, ἐς ἥμισυ τοῦ ἐνιαυτοῦ τῆς ἡμέρης μέρος τῷ μέρει ποσοῦ γινομένου. ... καὶ τὰ μὲν πλείστα τούτων ἀπώλλονται· ... ἔστι δὲ ἃ τούτων τῶν ἐπταμήνων καὶ περιγίνονται, ἐκ πολλῶν ὀλίγα ... *Oct.* 3.1–2, p. 165.17–166.12 τὰ δὲ πολλὰ τῶν ἐμβρύων τῶν ἐν ταύτῃ τῇ ἡλικίᾳ τῇ ἐπταμήνῳ, ὅταν οἱ ὑμένες χαλάσωσι, μετεχώρησαν ἐς τὸ ὑπεῖξαν, καὶ ἐνταῦθα τὴν τροφήν ποιέεται· τὰς μὲν τεσσαράκοντα ἡμέρας τὰς πρώτας πονεῦντα τὰ μὲν μάλλον, τὰ δὲ ἥσσον, διὰ τὴν μεταβολὴν ἣν ἐκ τῶν χωρίων τῶν θρεψάντων μετεβάλλετο, καὶ ὅτι τὸν ὀμφαλὸν ἔσπασε καὶ μετεχώρησε, καὶ διὰ τῆς μητρὸς τοὺς πόρους. ... χρῶνται δὲ πᾶσαι (sc. αἱ γυναῖκες) ἐνὶ λόγῳ περὶ τούτου· φασὶ γὰρ τοὺς ὀγδοοὺς τῶν μηνῶν καὶ χαλεπώτατα φέρειν τὰς γαστέρας, ὀρθῶς λέγουσαι. ἔστι δὲ ὀγδοὺς μῆν οὐ μόνον ὁ χρόνος οὗτος, ἀλλ' εἰ καὶ ἡμέρας λάβοι ἀπὸ τε τοῦ ἐβδόμου μηνὸς καὶ τοῦ ἐνάτου. *Oct.* 10.1, p. 174.4–6 περὶ δὲ ὀκταμήνου γενέσιος φημὶ δισσὰς ἐφεξῆς κακοπαθεῖας γενομένας ἀδυνάτους εἶναι ποιέειν φέρειν τὰ παῖδια, καὶ διὰ τοῦτο οὐ περιγίνεσθαι τὰ ὀκτάμηνα. *Carn.* 19, p. 8.612.23–32 Littre ἔστι δὲ καὶ τῷδε τεκμήρασθαι· τὸ παιδίον ἐπτάμηνος γόνος γενόμενον, λόγῳ γεγένηται, καὶ ζῇ, καὶ λόγον ἔχει τοιοῦτον καὶ ἀριθμὸν ἀτρεκέα ἐς τὰς ἐβδομάδας· ὀκτάμηνον δὲ γενόμενον, οὐδὲν βιοῖ πώποτε· ἐννέα δὲ μηνῶν καὶ δέκα ἡμερέων γόνος γίνεταί, καὶ ζῇ, καὶ ἔχει τὸν ἀριθμὸν ἀτρεκέα ἐς τὰς ἐβδομάδας· τέσσαρες δεκάδες ἐβδομάδων ἡμέραι εἰσὶ διηκόσαι ὀγδοήκοντα· ἐς δὲ τὴν δεκάδα τῶν ἐβδομάδων ἐβδομήκοντα ἡμέραι. ἔχει δὲ καὶ τὸ ἐπτάμηνον γενόμενον τρεῖς δεκάδες ἐβδομάδων, ἐς δὲ τὴν δεκάδα ἐκάστην ἐβδομήκοντα ἡμέραι, τρεῖς δεκάδες δὲ ἐβδομάδων αἱ σύμπασαι δέκα καὶ διηκόσαι. *Alim.* 42, p. 8.114.1–4 Littre ἐς τύπωσιν λε' (55) ἥλιοι, ἐς κίνησιν ο' (70), ἐς τελειότητα σι' (210)· ἄλλοι, ἐς ἰδέην με' (45), ἐς κίνησιν ζ' (90), ἐς ἔξοδον σο' (270)· ἄλλοι, ν' (50) ἐς ἰδέην, ἐς πρώτον ἄλμα ρ' (100), ἐς τελειότητα τ' (300)· ἐς διάκρισιν μ' (40), ἐς μετάβασιν π' (80), ἐς ἐκπτώσιν σμ' (240) ... *Soranus Gyn.* 1.55 δέδειχεν γὰρ ἡ ἐνάργεια δὴ καὶ τὰ ἐπτάμηνα γόνιμα τυγχάνειν.

Arithmological texts: Varro at Aulus Gellius NA 3.10.8 (citing the *Hebdomades* fr. 106 Salvatore; see also on A 5.21.1) *illam quoque vim numeri huius observatam refert, quod ante mensem septimum neque mas neque femina salubriter ac secundum naturam nasci potest et quod hi, qui iustissime in utero sunt, post ducentos septuaginta tres dies, postquam sunt concepti, quadragesima denique hebdomade inita nascuntur.* **Philo of Alexandria** *Opif.* 124 καὶ τὰ κατὰ γαστρός βρέφη μῆσιν ἐπτὰ τελειογονεῖσθαι πέφυκεν, ὡς παραδοξότατόν τι συμβαίνει· γίνεται γὰρ τὰ ἐπτάμηνα γόνιμα, τῶν ὀκτωμηνιαίων ὡς ἐπίπαν ζωογονεῖσθαι μὴ δυναμένων. *Leg.* 1.9 τίς γὰρ οὐκ οἶδεν, ὅτι τῶν βρεφῶν τὰ μὲν ἐπτάμηνα γόνιμα, τὰ δὲ πλείω χρόνον προσλαμβάνοντα, ὡς ὀκτὼ μῆνας ἐνδιαιτηθῆναι γαστρί, κατὰ τὸ πλείστον ἄγονα; **Nicomachus** at ps.Iambl. *Theol.Ar.* pp. 46–47, p. 62.8–63.6 De Falco Στράτων δὲ ὁ Περιπατητικὸς (fr. 98 Wehrli, 73A Sharples) καὶ Διοκλῆς ὁ Καρύστιος (fr. 45a Van der Eijk) καὶ πολλοὶ ἕτεροι τῶν ἱατρῶν ... καὶ τοῦτο φασὶ ζ' μῆσι γόνιμον εἶναι, εἰ δ' ἐννέα μέλλει γενήσεσθαι, τῇ ἕκτῃ πάσχει τοῦτο ἐβδομάδι, ἂν θήλυ ᾖ, ἂν δὲ ἄρσεν, τῇ ἐβδόμῃ. τῆς δὲ γονιμότητος αἰτίαν μάλιστα τὴν ἐβδομάδα ὑπάρχειν, δηλοῖ τὸ καὶ τὰ ἐπταμηνιαῖα. δι' αὐτὴν ζῶσιμα οὐκ ἔλαττον τῶν ἐννεαμηνιαίων γίνεσθαι. διαφθεῖρεσθαι δὲ ὑπὸ τῆς φυσικῆς ἀνάγκης τὰ ἀμφοῖν μέσα τεταγμένα ὀκταμηνιαῖα, ὃ διὰ τοιούτου τινὸς ἐπιλογισμοῦ συνεβίβαζον οἱ Πυθαγορικοί, δι' ἀριθμητικῶν λόγων καὶ διαγραμμάτων τὴν ἔφοδον ποιοῦμενοι ... **Clement of Alexandria** *Strom.* 6.138.6–139.1 Stählin ἢ τε ἀπὸ τροπῶν ἐπὶ τροπὰς κίνησις τοῦ ἡλίου ἐν ἕξ συντελεῖται μῆσι, καθ' ἣν πῇ μὲν φυλλορροεῖ, πῇ δὲ βλαστάνει τὰ φυτὰ καὶ αἱ τῶν σπερμάτων γίνονται τελειώσεις. φασὶ δὲ καὶ τὸ ἔμβρυον ἀπαρτίζεσθαι πρὸς ἀκρίβειαν μηνὶ τῷ ἕκτῳ, τουτέστιν ἑκατὸν ἡμέραις καὶ ὀγδοήκοντα πρὸς ταῖς δύο καὶ ἡμίσει, ὡς ἴστωρ εἰ Πόλυβος μὲν ὁ ἱατρὸς ἐν τῷ Περὶ ὀκταμηνίων, Ἀριστοτέλης δὲ ὁ φιλόσοφος ἐν τῷ Περὶ φύσεως (= fr. 282 Rose³). **Theon of Smyrna** *Exp.* 104.4–5 Hiller ἐνιοὶ δὲ φασὶ τὰ ἄρρενα ἐν πέντε ἐβδομάσι τελειοῦσθαι, γόνιμα δὲ γίνεσθαι ἐν ἐπτὰ μῆσι, γενόμενα δὲ ἐν ἐπτὰ μῆσιν (see also on A 5.21.1). **Ioannes Lydus** *Mens.* 2.12, p. 35.11–16 cited above at E(a)§4. *Mens.* 4.162 177.21 ὅτι ὁ τῆς ὀγδοῆδος ἀριθμὸς θήλυς καὶ ἄπειρος καὶ ἀτελής· ... ὅθεν οὐ τελεσφορεῖται τὰ ὀκταμηνιαῖα.

§6 mathematici: cf. Censorinus c. 8 cited above E(a) General texts. **Proclus** in *Resp.* 2.34.25–28 cited above on §1. note also Zoroaster at Procl. in *Resp.* 2.34.18–24 χρῆ τοῦτο τηρεῖν, πότε ἡ σελήνη δύο ποιεῖται σχηματισμούς, οἷον δύο συνόδους ἐν ἐνὶ μηνὶ ἐν τῷ αὐτῷ ζωδίῳ· τότε γὰρ ἐπτάμηνον τὸ γιγνόμενον. ἐν ᾧ γὰρ πρῶτως ἐφάνη τελειοῖ τὸ βρέφος· ὃ δὲ προσελάμβανεν τῷ δρόμῳ τοῦ ἡλίου, τοῦτο ὑπετέμεντο τοῦ ἐν τῇ γαστρί χρόνου.

Liber 5 Caput 19

P^B: ps.Plutarchus *Plac.* 908D–F; pp. 430^a1–431^a13 Diels—**P^G**: ps.Galenus *HPH* c. 123; p. 645.1–7 Diels—**P^Q**: Qustā ibn Lūqā pp. 234–237 Daiber
S^L: Stobaeus *Ecl.* 1.42, p. 294.2 Wachsmuth (titulus solus; sed titulus alter verisim. interpolatus ex P; vid. Elter (1880) 73–74, Wachsmuth (1882) 17); cf. Photius *Bibl.* 167, p. 112b25 Henry (titulus solus)

Titulus 10'. Περὶ ζώων γενέσεως, πῶς ἐγένοντο ζῶα, καὶ εἰ φθαρτά (P,cf.S)

- §1 καθ' οὓς μὲν γενητὸς ὁ κόσμος, γενητὰ τὰ ζῶα καὶ φθαρτά εἰσιν. (P1)
 §2 {οἱ περὶ 'Επίκουρον} καθ' οὓς (δὲ) ἀγέννητος, ἐκ μεταβολῆς τῆς ἀλλήλων γεννάσθαι τὰ ζῶα· μέρη γὰρ εἶναι τοῦ κόσμου ταῦτα. (P2)
 §3 ὥς καὶ Ἀναξαγόρας καὶ Εὐριπίδης·
 'θνήσκει δ' οὐδὲν τῶν γιγνομένων,
 διακρινόμενον δ' ἄλλο πρὸς ἄλλο
 μορφὰς ἐτέρας ἀπέδειξεν.' (P3)
 §4 Ἀναξίμανδρος ἐν ὑγρῷ γεννηθῆναι τὰ πρῶτα ζῶα, φλοιοῖς περιεχόμενα ἀκανθώδεσι· προβαίνουσιν δὲ τῆς ἡλικίας ἀποβαίνειν ἐπὶ τὸ ξηρότερον καὶ περιρρηγνυμένου τοῦ φλοιοῦ ἐπ' ὀλίγον χρόνον μεταβῖναι. (P4)
 §5 Δημόκριτος καὶ Ἐπίκουρος γεγενημένα εἶναι τὰ ζῶα συστάσει εἶδει ἐνδεεστέρων πρῶτον τοῦ ὑγροῦ ζωογονούντος. (P^GQ5)

§§1–2 anonymi —; §3 Anaxagoras 59A112; Euripides fr. 839 Kannicht; §4 Anaximander 12A30 DK: §5 Democritus 68A139, fr. 514 Luria; Epicurus —

titulus Πῶς ... ζῶα **P^BQSL²**: Πῶς ἐγένετο τὰ ζῶα **P^G**: Περὶ τῆς γενέσεως τῶν ζώων **S^{L1}** (γενέσεως post ζώων Phot. 112b25, Wachsmuth) || καὶ εἰ φθαρτά **P^BQ**: καὶ φθαρτά **S^{L2}**: καὶ εἰ φθορά **P^Gms.**, emend. Diels: desunt in **S^{L1}** §1 [2] καθ' οὓς ... εἰσιν **P^BQ**: contraxit §§1 et 2 **P^G**, qui pro καθ' οὓς μὲν γενητὸς hab. Ἐπίκουρος· εἰ ἐγένετο et ante τὰ add. καὶ || post καὶ hab. **P^G** εἰ, secl. Diels || εἰσιν om. **P^G** §2 [3] verba οἱ περὶ Ἐπίκουρον inter εἰσιν (§1) et καθ' οὓς, quae hab. **P^BQ** (cf. Ἐπίκουρος **P^G** §1), ut glossam ad §1 pertinentem delevimus || (δὲ) coniecimus || ἀγέννητος **P^Q** (welche glaubten, daß die Welt kein Werden hat Q) Diels Mau: ἀγέννητα **P^B** Lachenaud || τῆς **P^{B(L,III)G}**: τῶν **P^{B(II)}** || [4] γεννάσθαι τὰ ζῶα **P^B**, cf. das Werden der Lebewesen Q: γίνεσθαι **P^G** || ταῦτα **P^G**: τούτου **P^B** §3 [6] θνήσκει **P^{(L,III)GQ}**: διδάσκει **P^{B(II)}** || δ' οὐδὲν τῶν γιγνομένων **P^{GQ}**: om. **P^B** || [7] διακρινόμενον **P^{G2Q}**: διακρινόμενα **P^{G1}**: μεταμίσγόμενα **P^{B(L,II)}**: μεταμειβόμενα **P^{B(III)}** || [8] μορφὰς ... ἀπέδειξεν Diels sec. **P^G** (sed leg. ἐπέδειξεν): μορφὰς ἔδειξεν **P^B**, cf. sodaß sich seine Form ändert Q §4 [10] ἀποβαίνειν **P^{B(L,III)}**: ἀποβαίνει **P^{B(II)}** §5 non hab. **P^B**, om. edd. (in app. crit. pos. Diels) || [12] Δημόκριτος ... Ἐπίκουρος **P^Q**: Δημόκριτος **P^G** || [12–13] συστάσει ... ζωογονούντα **P^{G1}** (ζωογονούντος emend. Diels): om. **P^{G2}**: al. Q Sie entstanden aus einer warmen Substanz, und das erste, was ihnen Leben verlieh, war das Warme || [12–13] εἶδει ἐνδεεστέρων Luria: εἰδεεαστρον **P^G**: εἰδέων ἀνάνθρωπων propos. Diels VS

§6 Ἐμπεδοκλῆς τὰς πρώτας γενέσεις τῶν ζώων καὶ φυτῶν μηδαμῶς
 ὀλοκλήρους γενέσθαι, ἀσυμφυέσι δὲ τοῖς μορίοις διεzeugμέναις, τὰς δὲ 15
 δευτέρας συμφυομένων τῶν μερῶν εἰδωλοφανεῖς, τὰς δὲ τρίτας τῶν
 ὀλοφυῶν· τὰς δὲ τετάρτας οὐκέτι ἐκ τῶν στοιχείων, οἷον ἐκ γῆς καὶ
 ὕδατος, ἀλλὰ δι' ἀλλήλων ἤδη, τοῖς μὲν πυκνωθείσης (τῆς) τροφῆς, τοῖς
 δὲ καὶ τῆς εὐμορφίας τῶν γυναικῶν ἐπερεθισμὸν τοῦ σπερματικοῦ 20
 κινήματος ἐμποιήσασθαι. τῶν δὲ ζώων πάντων τὰ γένη διακριθῆναι διὰ
 τὰς ποιάς κράσεις· τὰ μὲν ὑγρότερα εἰς τὸ ὕδωρ τὴν ὁρμὴν ἔχειν, τὰ δ'
 εἰς ἀέρα ἀναπτῆναι, ὅσ' ἂν πυρῶδες ἔχῃ τὸ πλεόν, τὰ δὲ βαρύτερα ἐπὶ
 τὴν γῆν, τὰ δ' ἰσόμοιρα τῇ κράσει πᾶσι τοῖς χωρίοις σύμφωνα εἶναι.
 (P6)

§6 Empedocles 31A72 DK

§6 non hab. P^G || [15] τοῖς] om. P^{B(11)} || [17] ὀλοφυῶν Karsten Diels Mansfeld R¹ ex Emp. B62.4 (οὐλοφυεῖς Censor. 4.8 cf. *solidi hominis* coni. Primavesi R²) : ἀλληλοφυῶν P^{BQ} (*ihr einem Teil aus dem andern* Q) Mau Lachenaud Laks–Most || στοιχείων P^Q (*aus den Elementen* Q) dub. iam Diels DG, prob. Primavesi R², cf. Cens. 4.8 *igni simul et umori permixtam* : ὁμοίων P^B Mau Lachenaud Laks–Most (coni. οἰκείων Reiske), ὁμοιομερών dub. Diels VS DK || [17–18] καὶ ὕδατος P^{B(1,111)} : ὕδατος P^{B(11)} : καὶ ἀέρος P^Q (*und Luft* Q) || [18] ἤδη P^{B(1,111)} : εἶδη P^{B(11)} || τοῖς μὲν πυκνωθείσης P^{B(11)} : τῆς μὲν πυκνωθείσης P^{B(111)} : τῆς μὲν πυρῶθείσης P^{B(11)} || (τῆς) τροφῆς Mansfeld R¹ ex P^Q, prob. Primavesi R² Lachenaud : τοῖς δὲ καὶ τοῖς ζώοις τροφῆς P^B (verisim. schol. in marg. ad τοῖς δὲ, sed cf. *sondern durch die Zusammenballung, die Verdichtung und die Nahrungsmenge* Q), crucif. Mau || [21] ὑγρότερα P^Q (*was von ihnen feuchter ist* Q) Primavesi R² (coni. iam Reiske, dub. Diels VS) : οἰκειότερα P^B, (ὑγρὰ) οἰκειότερον Diels DG edd. (sine ὑγρὰ Laks–Most), οἰκειότεραν Diels DK Vitek || ἔχειν corr. Diels : ἔχει P^B || [22] ἀναπτῆναι P^Q (*zu ihnen gehört, was in der Luft fliegt* Q), coni. iam Diels DG, Mansfeld R¹ ex P^Q, prob. Primavesi R² : ἀναπνεῖν P^B, crucif. Mau Lachenaud || ὅσ' ἂν P^Q (*nämlich das, worin* Q), dub. iam Diels DG, Mansfeld R¹ ex P^Q, prob. Primavesi R² : ἕως ἂν P^{B(1,111)} Laks–Most : ὥς ἂν P^{B(11)}, crucif. Mau Lachenaud || [23] χωρίοις σύμφωνα εἶναι P^Q (*ist ebenmäßig an allen Orten* Q), coni. iam Diels DG, prob. Primavesi R² : τοῖς θώραξι πεφωνηθέναι P^B, συμπεφύκεναι coni. Wytenbach prob. Vitek, crucif. Mau Lachenaud Laks–Most

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 123 (~ tit.) Πῶς ἐγένετο τὰ ζῶα καὶ εἰ φθαρτά (text Diels)

123.1 (~ P1–2) Ἐπικούροσ· εἰ ἐγένετο ὁ κόσμος, γενητὰ καὶ τὰ ζῶα καὶ {εἰ} φθαρτά, (εἰ δὲ ἄ)γενητός, ἐκ μεταβολῆς τῆς ἀλλήλων γίνεσθαι. μέρη γὰρ εἶναι τοῦ κόσμου ταῦτα,

123.2 (~ P3) ὥς Ἀναξαγόρας καὶ Εὐριπίδης· 'θνήσκει δ' οὐδὲν τῶν γιγνομένων, διακρινόμενον δὲ ἄλλο πρὸς ἄλλο μορφὰς ἐτέρας ἐπέδειξεν'.

123.3 (~ P5) Δημόκριτος γεγενημένα εἶναι τὰ ζῶα συστάσει † εἰ δὲ ἔν ἄστρον πρῶτον τοῦ ὑγροῦ ζώογονοῦντα.

Loci Aetiani:

quaestio A 2.4 Εἰ ἄφθαρτος ὁ κόσμος. A 5.26 Πῶς ἠϋξήθη τὰ φυτὰ καὶ εἰ ζῶα.

A 1.1.2[2–6] πάντα γὰρ τὰ ὁρώμενα ... φυσικὰ λέγεται καὶ φύσιν ἔχει ἰδίαν· οἷον γῆ πῦρ ὕδωρ ἄλλῃ φυτὰ ζῶα ... καὶ ταῦτα μέντοι, οἷον ζῶα φυτὰ, ἀρχὴν γενέσεως ἔχει. A 2.8.1 Διογένης Ἀναξαγόρας μετὰ τὸ συστήναι τὸν κόσμον καὶ τὰ ζῶα ἐκ τῆς γῆς ἐξαγαγεῖν ἐγκλιθῆναι πῶς τὸν κόσμον ... A 2.30.9 Ξενοφάνης τὸν μὲν ἥλιον χρήσιμον εἶναι πρὸς τὴν τοῦ κόσμου καὶ τὴν τῶν ἐν αὐτῷ ζῶων γένεσιν τε καὶ διοίκησιν, τὴν δὲ σελήνην παρέλκειν.

§1 A 2.4.1 Πυθαγόρας Ἡράκλειτος γενητόν κατ' ἐπίνοιαν τὸν κόσμον, οὐ κατὰ χρόνον.

§§2–3 A 1.24.2–3 Ἐμπεδοκλῆς Ἀναξαγόρας Δημόκριτος Ἐπίκουρος καὶ πάντες, ὅσοι κατὰ συναθροισμὸν τῶν λεπτομερῶν σωμάτων κοσμοποιοῦσι, συγκρίσεις μὲν καὶ διακρίσεις εἰσάγουσι, γενέσεις δὲ καὶ φθοράς οὐ κυρίως· οὐ γὰρ κατὰ τὸ ποιὸν ἐξ ἀλλοιώσεως, κατὰ δὲ τὸ ποσὸν ἐκ συναθροισμοῦ ταύτας γίνεσθαι. Πυθαγόρας καὶ πάντες, ὅσοι παθητὴν τὴν ὕλην ὑποτίθενται, κυρίως γένεσιν καὶ φθορὰν γίνεσθαι· ἐκ γὰρ ἀλλοιώσεως τῶν στοιχείων καὶ τροπῆς καὶ ἀναλύσεως γένεσιν(ι) καὶ φθορ(άν), παράθεσιν καὶ μίξιν, κράσιν τε καὶ σύγχυσιν γίνεσθαι.

§4 cf. A 1.3.1 ὅς ἐξ ὕδατος φησι πάντα εἶναι καὶ εἰς ὕδωρ πάντα ἀναλύεσθαι· στοχάζεται δ' ἐκ τούτου πρῶτον, ὅτι πάντων τῶν ζῶων ἡ γονὴ ἀρχὴ ἐστίν, ὕγρα οὖσα. A 1.3.3 Ἀναξίμενης ... ἀμαρτάνει δὲ καὶ οὗτος ἐξ ἀπλοῦ καὶ μονοειδοῦς ἀέρος καὶ πνεύματος δοκῶν συνεστάναι τὰ ζῶα.

§6 cf. A 4.22.1 Ἐμπεδοκλῆς τὴν πρῶτην ἀναπνοὴν τοῦ πρώτου ζώου γενέσθαι τῆς μὲν ἐν τοῖς βρέφεσιν ὑγρασίας ἀποχώρησιν λαμβανούσης, πρὸς δὲ τὸ παρακνωθὲν ἐπεισόδου {τῆς ἔξωθεν} τοῦ ἐκτὸς αἰρώδους γινομένης εἰς τὰ παρανοιχθέντα τῶν ἀγγείων· τὸ δὲ μετὰ τοῦτο ἡδὴ τοῦ ἐμφύτου θερμοῦ τῇ πρὸς τὸ ἐκτὸς ὁρμῇ τὸ αἰρώδες ὑπαναθλίβοντος, τὴν ἐκπνοὴν, τῇ δ' εἰς τὸ ἐντὸς ἀνθυποχωρήσει τῷ αἰρώδει τὴν ἀντεπίσσοδον παρεχομένου, τὴν εἰσπνοὴν. A 5.18.1 Ἐμπεδοκλῆς, ὅτε ἐγεννᾶτο τὸ τῶν ἀνθρώπων γένος ἐκ τῆς γῆς, τοσαύτην γενέσθαι τῷ μήκει τοῦ χρόνου διὰ τὸ βραδυπορεῖν τὸν ἥλιον τὴν ἡμέραν, ὅποση νῦν ἐστίν ἡ δεκάμηνος ... A 5.22.1 Ἐμπεδοκλῆς τὰς μὲν σάρκας γεννᾶσθαι ἐκ τῆς ἰσοκρατείας τῶν τεττάρων στοιχείων· τὰ δὲ νεύρα ἐκ πυρὸς καὶ γῆς ὕδατος διπλασίονι μίχθέντων· τοὺς δ' ὀνυχας τοῖς ζώοις γεννᾶσθαι τῶν νεύρων καθὸ τῷ ἀέρι συνέτυχε περιψυχθέντων· ὅσα δὲ ἐκ θυεῖν μὲν ὕδατος καὶ τῶν ἴσων γῆς, τεττάρων δὲ πυρὸς, ἔσω γῆς τούτων συγκραθέντων μερῶν· ἰδρώτα δὲ καὶ δάκρυον γίνεσθαι τοῦ αἵματος τηχομένου καὶ παρὰ τὸ λεπτύνεσθαι διαχέομένου. A 5.27.1 Ἐμπεδοκλῆς τρέφεσθαι μὲν τὰ ζῶα διὰ τὴν ὑπόστασιν τοῦ οἰκείου ὑγροῦ, αὔξεσθαι δὲ διὰ τὴν παρουσίαν τοῦ θερμοῦ, μειοῦσθαι δὲ καὶ φθίνειν διὰ τὴν ἔκλειψιν ἐκατέρων· τοὺς δὲ νῦν ἀνθρώπους τοῖς πρώτοις συμβαλλομένους βρεφῶν ἐπέχειν τάξιν.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The complete chapter with six doxai as epitomised by P is found only in the translation of Q. The fifth lemma in Q is missing in P^B, but is also preserved by G, who also includes the first three doxai (with considerable textual problems). S has a chapter Περί τῆς γενέσεως τῶν ζώων, but in its highly abridged form it contains only two extracts, from Plato's *Timaeus* and Hermes Trismegistus. It is likely that it contained many excerpts from book 5, as indicated in the chapter listing in S^L. However, a second heading at the end of the list is in all likelihood interpolated from P^B (cf. Elter 1880, 73–74). See further below section C.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* As so often in Book 5, by far the best parallel in the proximate tradition is to be found in Censorinus, even though there is an essential difference between the subject matter of the two texts. At the outset of his discussion on human life (ch. 4), the Latin author wishes to present the *opinionones* (i.e. δόξαι) that the old thinkers (*veteres*) had on human origins (4.1). He thus does not treat living beings in general, but only the human ζῶον. There is first a *generalis quaestio* whether human beings have always existed, or whether there was a time that humans did not exist. He then goes on to give a long list of supporters of the first view in the Pythagorean, Platonic and Peripatetic tradition. In the remainder of the chapter he gives the views of the other side. Four of the name-labels here correspond with those in A: Anaximander, Empedocles, Democritus, Epicurus. The remaining two, Parmenides and Zeno of Citium, are missing in A. It would seem that Censorinus has adapted a more general doxography on the origin of ζῶα to the specific case of human beings. A clue to this might be a doxa of Archelaus in Hippolytus, in which 'other animals and humans' are placed side by side; see text below section E(a)§3. We note too that in his account of the Empedoclean doctrine Censorinus emphasises the stages of the process (4.8 *primo ... deinde*) just as we find in A, listing the first three but omitting the fourth.

Remnants of the same doxography are found elsewhere, for example in Lucretius and Lactantius. The question of the eternity of animal species will also have been part of the discussion between Theophrastus and opponents famously recorded by Philo in his *De aeternitate mundi*. This report also includes the lines on permanent generation from Euripides' *Chrysippus*. Philo repeats these lines twice more in *Aet.*, including in the opening doxography on whether the cosmos is generated and destructible or not (*Aet.* 4). Even though he supports the opposite view that living beings had a first origin, Lucretius

paraphrases the same lines to show how they adopt various shapes (text below section E(a)§3). He may well have taken the lines from a doxographical source as it is highly unlikely that they were drawn from Epicurus.

(2) *Sources*. Plato's account of the origin of living beings in *Timaeus* differs entirely from the material in A's chapter (and A does not refer to it). Aristotle's treatise *De generatione animalium* has the same title as the first part of our chapter's heading. Convinced of the view that the species are eternal, however, he does not deign to argue in detail against the Presocratic view that they had an origin in the evolution of the earth. There is only a brief reference to the theory of earth-born living beings at 3.11 762b29 (and note also the polemic at 1.18 722b19 and in *Phys.* 2.8 against any kind of 'evolutionary' thinking, with pointed reference to terms from Empedocles' account). Our chapter as we have it thus contains essentially a Presocratic discussion, with Epicurus following his atomist predecessors. For scholarly treatment of early ideas on the origins of life on earth see Guthrie (1962–1981) 2.200–216, 472; Furley (1987) 76–78; Campbell (2003) 330–335 (list of texts on the theme); Naddaf (2005; highly speculative, see the review of the earlier French language edition (1992) by Mansfeld 1997); Wright (2008), esp. 420–427; Betegh (2016).

C Chapter Heading

A long tripartite chapter heading is found in P^B, supported by P^Q. It is not found in the chief mss. of S, but the first part only is listed in S^L. (A second heading in its fuller form is found at the very end of the list, to which we return below.) In contrast, G only preserves the second and third parts. It is thus virtually certain that the long heading is original. The second and third parts are clearly meant to elucidate the first. The second part might be interpreted as follows: everyone agrees that ζῷα have an origin, but what kind of origin is this, a birth in absolute terms or only from members of the same species? This would then correspond to the main diaeresis of the chapter. The final part seems somewhat clumsily attached, but is presumably meant to remind the reader that the topics of generation and destruction are intrinsically linked. We note that in Book 2 A never describes the heavenly bodies as ζῷα, so they are not taken into account in the present chapter; cf. A 2.8.1 where τὰ ζῷα emerge from the earth.

The chapter heading starts off—unusually for Book 5—as the 'umbrella' type with Περὶ and the genitive, but then moves to asking the cause and to the category of quality. We note also that this chapter forms a trio with two others: 1.24 on γένεσις and φθορά in general, 2.4 for the case of the cosmos, and the present chapter for the case of some parts of the cosmos which are seen to be born and perish, i.e. living beings (the question is not asked of plants or minerals, but the development of plants is discussed in ch. 5.26). We have here

the relation between macrocosm and microcosm, so prominent in Plato's *Timaeus*, which plays an important role in the structure of the *Placita* as a whole; see further M–R 2.1.27, 40.

From the formal point of view it can also be noted that the chapter headings of two other chapters in Book 5 contain secondary parts asking a further question introduced by εἰ: ch. 5.20 Πόσα γένη ζώων καὶ εἰ πάντα αἰσθητὰ καὶ λογικά; 5.26 Πῶς ἡῤῥήθη τὰ φυτὰ καὶ εἰ ζῶα. Other chapters have headings in which the main question is introduced by εἰ, i.e. chs. 5.4, 5.5, 5.15. Headings of this type readily welcome a structure in terms of a diaphonia; see further Introduction to Book 5, section 4.

As noted above, in the pinax of S^L at Γ 10 the heading of this chapter is cited twice. The first, Περί τῆς γενέσεως τῶν ζώων, is the main heading of *Ecl.* 1.42, hence its appearance under Γ in the pinax. A similar heading is found in Photius' index. The other heading appears at the very end of the list and is identical to the formulation in P^B. Elter (1880) 74 concluded that, given this redundancy, the second of these headings must have been interpolated from P^B. It is the strongest evidence that such a process of interpolation did indeed take place. On the chapter headings in S^L see further above ch. 5.4 Commentary C.

D Analysis

a Context

The two chapters on living beings in general, 5.19 on their origin and 5.20 on their genera, interrupt the sequence of chapters on fetuses and their development. They would have been better placed at the beginning of the Book, e.g. after 5.2 (compare the general structure of Censorinus' account of the origin of human beings, as noted above in section B).

b Number–Order of Lemmata

Given the more extensive parallel material in Censorinus, it is unlikely that we have the chapter in a complete form. For example, one would expect A to have had an equivalent of the Stoic doxa in Censorinus (4.10).

c Rationale–Structure of Chapter

The chapter begins with two antithetically formulated doxai. Together they present a diaeresis outlining the two main positions held on the chapter's main subject. In both cases a correlation is made with the view held on whether the cosmos in its totality is generated or not. For those who hold that the cosmos is generated, i.e. had a beginning in or of time, it is obvious that living beings will also have had a temporal origin and will at some time in the future perish. This was the view held (in different ways) by various Presocratics, including the

atomists, and by the Stoics (cf. A 2.4.7–8, 11–13) and Epicureans. The terms γενητός and γενητά need not necessarily have this meaning (Platonists for example could give them another meaning, cf. also A 2.4.1), but this is the obvious interpretation.

The text of the second doxa is problematic on two grounds. P^B reads ἀγένητα, i.e. following on from the mention of ζῶα in the previous doxa. This reading, however, completely destroys the symmetry with the first doxa. The reading which must have been present in P^Q, ἀγένητος (sc. ὁ κόσμος), is to be preferred: it is not contradicted by G, who—no doubt distracted by the name-label—completely recasts the doxa, not unintelligently combining the first two doxai. The name-label οἱ περὶ Ἐπίκουρον is also certainly wrong, even though it is recorded by P^B and Q and altered to the simple name by G. Epicurus cannot be associated with this view, as is demonstrated by §5 later in the chapter (cf. also A 2.4.13). It is not entirely impossible that A made an egregious error. It is also quite possible that a scribe changed another name-label, e.g. οἱ περὶ Ἀριστοτέλη. In our view, however, the most likely explanation is that the name-label was originally a gloss on the first doxa, and that it somehow became part of the text of the second. On the text see further below section D(d). The living beings in this view are thus ἀγένητα, not because they do not die, but because the species is preserved through the process of reproduction.

The third doxa, a well-known quote from Euripides here also associated with his teacher Anaxagoras, illustrates the second of the two options. Excellent parallels for the use of a brief poetic quote are found in A 1.30.1 (Empedocles) and 2.19.3. As noted above, Philo cites these lines three times in *Aet.*, twice in arguments supporting the view that the cosmos is ἀφθαρτος. In *Aet.* 5, however, it is cited in conjunction with a quote from Empedocles (31B12 DK) to illustrate that absolute destruction into nothingness cannot occur. In fact the three lines from Euripides could also illustrate the initial doxa (as in Lucretius), but here they more naturally support the second view.

The three remaining doxai in three different ways illustrate the first view in the diaeresis that there was a beginning of γένεσις for living beings on earth (the location is implied in both §4 and §6). There seems little systematic difference between the views of Anaximander in §4 and those of the atomists in §5. Both stress the role of moisture, probably on an analogy of creatures arising out of mud (the theory of spontaneous generation, cf. Aristotle *GA* 3.11 762b12). The Empedoclean doxa in §6, with its four generations of living beings, is much more complex and for this reason comes last. Here too a special role is accorded to the mixture of earth and water, but by the fourth generation they are being born from each other, i.e. the process described in the poetic quote.

In relation to these three doxai the following should be noted:

(1) A at no stage indicates that the primary focus in this chapter is on human beings (as we find in Censorinus, Diodorus Siculus and other parallels). This is in contrast to the anthropological emphasis that is prevalent in most of Book 5. A text in Plutarch *Symp.* 730E (12A30 DK) indicates that for Anaximander it was human beings who were born out of the bark-en clothed fish, but this detail is not included in the *Placita* as it has come down to us.

(2) Also absent is any mention of the role of 'mother earth', which is so prominent in Lucretius, Censorinus and many other texts. In fact A avoids any reference to mythical or theological aspects of the theme.

(3) As so often, A shows his predilection for exotic Presocratic material, differing from the dominant views on the subject held in his own time which he apparently does not include (but may be missing).

(4) The reader is left to infer that the final three doxai illustrate the first position in the initial diaeresis. The connections are much more clearly set out in the more discursive account in Censorinus.

d Further Comments

Individual Points

§2 Although there are some cases of unanswered μέν in A (see above on A 5.12.1–2), in this case it is justified to introduce the usual corresponding δέ, if we are correct that the name-label is an inserted gloss. It would have been dropped because it is not good Greek style to have μέν after five initial words.

§3 An editor must always exercise extreme caution in emending a quote in a text of which the original is still extant or which is known from other sources. The aim is to reproduce the text as included by A (or P), not whatever the original text might have been. However, the text is so damaged in P^B that we cannot use his evidence, whereas the text in G and Q's translation support a version close to what we find elsewhere. But we cannot be certain of the final verb. We follow Diels in restituting ἀπέδειξεν, which is the reading in the four citations in Philo. It is to be noted, however, G has ἐπέδειξεν and this reading is also found in Clement *Strom.* 6.24.4. Unfortunately Q cannot help us here. On the other hand, Valckenaer's metrically correct emendation πρὸς ἄλλου should not be accepted for our text (we also find πρὸς ἄλλο in all of Philo's quotations). On the various versions of the quotation elsewhere see Kannicht (2004) 881.

§5 This doxa has not been included by any previous editors (Diels adds it in the apparatus criticus at the end of the chapter), even though there is incontrovertible evidence in P^Q and G that it was originally present in P. The evidence in P^Q indicates that originally there were two name-labels, of which one was dropped by G (it is unlikely that it was added by Q). The exact text, however,

cannot be determined. It is corrupt in G and quite different in Q. We have printed the text as reconstructed by Luria with little confidence. The two datives in succession are particularly awkward.

§6 It is plain that A has taken over a systematizing account of Empedocles' complex conception of the origin and development of living beings (including humans). How it relates to the two cycles of cosmic change has given rise to much discussion; see Guthrie (1962–1981) 2.200–211, O'Brien (1969) 189–200, 230–233. The extant fragments related to this doxa are 31B60–64. A striking Empedoclean term that A has taken over is *όλοφυνίς* (31B62.4 DK, also selected for emphasis by Aristotle *Phys.* 2.8 199b9). In fact, however, this is an emendation by Karsten and Diels of the *άλληλοφυνών* in P^{BQ}. The emendation is justified in our view because the original reading clearly belongs to the fourth generation (*δι' άλλήλων*), not the third. Another contentious emendation is Diels' suggestion *στοιχείων* for *όμοίων* in line 5, which has been rejected by most scholars. But it is now supported by the reading of P^Q and has been accepted by Primavesi. It not only makes excellent sense, but is also supported by the references to earth and water in A and to fire and moisture at Cens. 4.8. This lemma is a classic illustration of the value of using Q as supported by Censorinus for the constitution of the text (G alas does not retain the doxa). Various emendations were impressively anticipated by Diels and earlier editors, and have also been accepted by Primavesi (following Mansfeld's earlier edition) in his recent edition of the testimonia and fragments; see Mansfeld–Primavesi (2011) 456, 536. The text recently published in Laks–Most 5.494–496 is rather conservative, refusing most suggested emendations and neglecting the evidence of Q. For details see the apparatus criticus above and the comments of Mansfeld (2018f) 529–531.

e Other Evidence

The chapter is an excellent example of how a theme, which was the object of considerable discussion in the early period of Greek philosophy but received less attention in A's own day, has filtered down—via the Peripatos and the Hellenistic schools—to the collection of the *Placita*. Items are missing which we might have expected to be present, e.g. lists of name-labels for the main diaeresis (such as are found in Censorinus) and doxai presenting the views of Plato, Aristotle and the Stoa (and a full account of Epicurean views, such as in Lucretius Book 5). The incomplete state of transmission may be responsible for this. Despite the poor state of the text, the systematics of the main diaeresis and the relation to it of the remaining doxai are easy enough to reconstruct. As noted above, the chapter reveals some interesting features, in particular the lack of attention to human origins (and *a fortiori* questions relating to the

development of human culture, which is regarded as falling outside the φυσικός λόγος) and the usual interest in exotic material dating back to early Presocratic authors. The exceptionally long doxa of Empedocles gives us some idea of the extent of the material collected at some stage of the doxographical tradition. The long doxai attributed to the same thinker which follow at A 5.22.1, 5.26.4 and 5.27.1 are clearly derived from the same kind of summary; see further Introduction to Book 5, section 5. A particularly interesting feature of A's summary is that it so clearly outlines the stages of the zoogony. This is paralleled in Censorinus 4.8 as noted above in section B(a), but not as clearly as in A. Note also the comment on A 1.15.7 Commentary D(d)§7 on the differentiation of the living beings according to the four primary colours. This is attributed to the Pythagoreans, but we argue that it must go back to Empedocles. Finally, we might note that A does not take into account the possibility of spontaneous generation, as articulated in a diaphonia at ps.Aristotle *Probl.* 10.13 892a23–30 and 10.65 898b4–11 (cf. already Aristotle *GA.* 1.1 715a18–25). In the former text the analogy is drawn with the process of generation that occurred at the beginning through the great changes of the cosmos and universe, as described by 'those who write about nature', i.e. the kind of material included in A's chapter. See further Flashar (1991) 512–513, who rightly observes that this analogy from the earliest times is not found in Aristotle.

E Further Related Texts

a Proximate Tradition

General texts: Censorinus 4.1–11 (on the origin of the human race) *quoniam aetas a die natali initium sumit suntque ante hunc diem multa, quae ad hominum pertinent originem non alienum videtur de iis prius dicere, quae sunt natura priora. igitur quae veteribus de origine humana fuerint opiniones, ex his quaedam breviter exponam.* (2) *prima et generalis quaestio inter antiquos sapientiae studiosos versata est, quod, cum constet homines singulos ex parentium seminibus procreatos successione prolis multa saecula propagare, alii semper homines fuisse nec umquam nisi ex hominibus natos adque eorum generi caput exordiumque nullum extitisse arbitrati sunt, alii vero fuisse tempus, cum homines non essent, et his ortum aliquem principiumque natura tributum.* (3) *sed prior illa sententia, qua semper humanum genus fuisse creditur, auctores habet Pythagoran Samium (—) et Ocellum Lucanum (48.2 DK) et Archytan Tarentinum (—) omnesque adeo Pythagoricos (—); sed et Plato Atheniensis et Xenocrates (F 164 Isnardi Parente²) et Dicaearchus Messenius (fr. 47 Wehrli, 53 Mirhardy) itemque antiquae Academiae philosophi non aliud videntur opinati; Aristoteles quoque Stagirites et Theophrastus (fr. 185 FHS&G) multique praeterea non ignobiles Peripatetici idem scripserunt, eiusque rei exemplo dicunt, quod negant omnino posse reperiri, avesne ante an ova generata sint, cum et ovum sine ave et avis sine ovo gigni non possi.* (4) *itaque et omnium, quae in*

sempiterno isto mundo semper fuerunt futuraque sunt, aiunt principium fuisse nullum, sed orbem esse quendam generantium nascentiumque, in quo unius cuiusque geniti initium simul et finis esse videatur. (5) qui autem homines aliquos primigenios divinitus naturave factos crederent, multi fuerunt, sed aliter adque aliter haec existimatione versarunt. (6) nam ut mittam, quod fabulares poetarum historiae ferunt, homines primos aut Promethei molli luto esse formatos aut Deucalionis Pyrrhaeque duris lapidibus enatos, quidam ex ipsis sapientiae professoribus nescio an magis monstruosas, certe non minus incredibiles rationum suarum proferunt opiniones. (7) Anaximander Milesius (12A30 DK) videri sibi ex aqua terraque calefactis exortos esse sive pisces seu piscibus similima animalia; in his homines concrevisse fetusque ad pubertatem intus retentos, tunc demum ruptis illis viros mulieresque, qui iam se alere possent, processisse. Empedocles (31A72 DK) autem egregio suo carmine, quod eiusmodi esse praedicat Lucretius (1.733), 'ut vix humana videatur stirpe creatus', tale quiddam confirmat: (8) primo membra singula ex terra quasi praegnate passim edita, deinde coisse et effecisse solidi hominis materiam igni simul et umori permixtam. cetera quid necesse est persequi, quae non capiant similitudinem veritatis? haec eadem opinio etiam in Parmenide Veliensi (28A51 DK) fuit pauculis exceptis ab Empedocle dissensus. (9) Democrito vero Abderitae (68A139 DK) ex aqua limoque primum visum esse homines procreatos. nec longe secus Epicurus (fr. 333 Usener). is enim credidit limo calefacto uteros nescio quos radicibus terrae cohaerentes primum increvisse et infantibus ex se editis ingenitum lactis umorem natura ministrante prae buisse; quos ita educatos et adultos genus hominum propagasse. (10) Zenon Citieus (SVF 1.124), Stoicae sectae conditor, principium humano generi ex novo mundo constitutum putavit primosque homines ex solo adminiculo divini ignis, id est dei providentia, genitos. (11) denique etiam vulgo creditum est, ut plerique genealogoe auctores sunt, quarundam gentium, quae ex adventicia stirpe non sint, principes terrigenas esse, ut in Attica et Arcadia Thessaliaque, eosque autochthonas vocitari ... Apuleius Apol. 36 ceterum quam ob rem plurimos iam piscis cognoverim ... discat Aemilianus ...; legat veterum philosophorum monumenta, tandem ut intellegat non me primum haec requisisse, sed iam pridem maiores meos, Aristotelen (fr. 295 Gigon) dico et Theophrastum (fr. 351 FHS&G) et Eudemum (fr. 125 Wehrli) et Lyconem (fr. 15 Stork) ceterosque Platonis minores, qui plurimos libros de genitu animalium deque victu deque particulis deque omni differentia reliquerunt. cf. ps.Aristotle Probl. 10.13 892a23–30 Διὰ τί τῶν ζώων τὰ μὲν ἐξ ἀλλήλων γίνεται, τὰ δ' ἔκ τινων συγκρινόμενων ὁμοίως τῆς ἐξ ἀρχῆς γενέσεως αὐτοῖς ὑπαρξάσης; καθάπερ οἱ περὶ φύσεως λέγοντες λέγουσι καὶ τὴν ἐξ ἀρχῆς γένεσιν τῶν ζώων γενέσθαι, διὰ τὰς μεταβολὰς καὶ μετακινήσεις τοῦ κόσμου καὶ τοῦ παντός οὕτω μεγάλας· καὶ νῦν εἴπερ μέλλει πάλιν ἔσσεσθαι, τοιαύτας τινὰς ὑπάρξαι δεῖ κινήσεις; ἡ μὲν γὰρ ἀρχὴ παντός ἔργου μέγιστον· ἡμισυ γάρ· τὸ δὲ σπέρμα ἀρχή ... Probl. 10.65 898a4–11 διὰ τί τὰ μὲν γίνεται τῶν ζώων οὐ μόνον ἐξ ἀλλήλων ἀλλὰ καὶ αὐτόματα, τὰ δ' ἐξ ἀλλήλων μόνον, οἷον ἄνθρωπος καὶ ἵππος; ἡ καὶ εἰ καὶ μὴ δι' ἐτέρας αἰτίας, ἀλλ' ὅτι τοῖς μὲν ὀλίγος ὁ χρόνος τῆς γενέσεως, ὥστε ἡ γεννητικὴ

ώρα ὑπερτείνει καὶ ἐνδέχεται γενέσθαι ἐν τῇ μεταβολῇ τῶν ὥρων, τῶν δὲ πολὺ ἢ γένεσις ὑπερτείνει. ἐνιαύσιοι γὰρ ἢ δεκάμηνοί εἰσιν· ὥστε ἀνάγκη (ἢ μὴ) γίνεσθαι ἢ ἐξ ἀλλήλων γίνεσθαι [coni. Bussemaker; Flashar 1991, 532 proposes (μὴ ἄλλως)].

Chapter heading: see Apuleius *Apol.* 36 cited above. cf. Arnobius *Adv.Nat.* 1.38, p. 33.10 Marchesi *animalium origo quae sit*.

§§1–2 **Anonymi: Lactantius** *Inst.* 2.10.17–18 Heck–Wlosok *Aristoteles* (fr. 22 Rose³, cf. *Cael.* 1.10) *autem labore se ac molestia liberavit dicens 'semper fuisse mundum; itaque et humanum genus et cetera quae in eo sunt initium non habere, sed fuisse semper ac semper fore'. (18) sed cum videamus singula quaeque animalia quae ante non fuerint esse incipere et esse desinere, necesse est totum genus aliquando esse coepisse et aliquando desitutum esse, quia coepit.* see also texts cited on ch. 2.4.

§3 **Anaxagoras Euripides: Anaxagoras** at D.L. 2.9 (59A1 DK) ζῶα γίνεσθαι ἐξ ὕγρου καὶ θερμοῦ καὶ γεώδους, ὕστερον δὲ ἐξ ἀλλήλων. cf. **Archelaus** at Hipp. *Ref.* 1.9.5 (60A4 DK) περὶ δὲ ζῶων φησὶν ὅτι θερμαινομένης τῆς γῆς τὸ πρῶτον ἐν τῷ κάτω μέρει, ὅπου τὸ θερμὸν καὶ τὸ ψυχρὸν ἐμίσγεται, ἀνεφαίνετο τὰ τε ἄλλα ζῶα πολλὰ καὶ οἱ ἄνθρωποι, ἅπαντα τὴν αὐτὴν δαίταν ἔχοντα, ἐκ τῆς ἰλῦος τρεφόμενα—ἦν δὲ ὀλιγοχρόνια—ὕστερον δὲ αὐτοῖς ἢ ἐξ ἀλλήλων γένεσις συνέστη.

Verses from **Euripides Chrysippus** (fr. 839 Kannicht): **Philo Aet.** 5 (on perishing) ὥσπερ γὰρ ἐκ τοῦ μὴ ὄντος οὐδὲν γίνεται, οὐδ' εἰς τὸ μὴ ὄν φθείρεται: ἕκ τε γὰρ οὐδ' ἄμ' ἐόντος ἀμήχανόν ἐστι γενέσθαι {τι} καὶ τ' ἐὸν ἐξαπολέσθαι ἀνήνυστον καὶ ἄπυστον· καὶ ὁ τραγικός· 'θνήσκει δ' οὐδὲν τῶν γιγνομένων, / διακρινόμενον δ' ἄλλο πρὸς ἄλλο / μορφὴν ἑτέραν ἀπέδειξεν.' cf. also *Aet.* 30, 144 (cited below section E(b))§§1–2), *Leg.* 1.7 (on γένεσις and φθορά). **Clement of Alexandria Strom.** 6.24.3–4 (on Greeks plagiarising each other) κάκεινο τὸ 'Εμπεδοκλέους· 'ἤδη γάρ ποτ' ἐγὼ γενόμην κοῦρός τε κόρη τε / θάμνος τ' οἰωνός τε καὶ εἰν ἄλλ' ἔλλοπος ἰχθύς· Εὐριπίδης ἐν Χρυσίππῳ μεταγράφει· 'θνήσκει δὲ οὐδὲν τῶν γιγνομένων, / διακρινόμενον δ' ἄλλο πρὸς ἄλλο / μορφὴν ἑτέραν ἀπέδειξεν.' also alluded to by **Lucretius DRN** 2.1002–1012, esp. 1002–1006 *nec sic interemit mors res ut materiai / corporal conficiat, sed coetum dissipat ollis; / inde aliis aliud coniungit, et efficit omnes / res ita convertant formas mutantque colores / et capiant sensus et puncto tempore reddant*.

§4 **Anaximander:** see **Censorinus** 4.7 above. **Anaximander** at Hipp. *Ref.* 1.6.6 (12A10 DK) τὰ δὲ ζῶα γίνεσθαι (ἐξ ὕγρου) ἐξατμιζομένου ὑπὸ τοῦ ἡλίου. τὸν δὲ ἄνθρωπον ἐτέρῳ ζῳῷ γεγενῆσθαι—τουτέστιν ἰχθύϊ—παραπλήσιον κατ' ἀρχάς. also at **ps.Plutarch Strom.** 2 (fr. 179 Sandbach) ἔτι φησὶν ὅτι κατ' ἀρχὰς ἐξ ἄλλοις δῶν ζῶων ὁ ἄνθρωπος ἐγεννήθη, ἐκ τοῦ τὰ μὲν ἄλλα δι' ἑαυτῶν ταχὺ νέμεσθαι, μόνον δὲ τὸν ἄνθρωπον πολυχρονίῳ δεῖσθαι τιθιγνήσεως· διὸ καὶ κατ' ἀρχὰς οὐκ ἂν ποτε τοιοῦτον ὄντα διασωθῆναι.

§5 **Democritus Epicurus:** see **Censorinus** 4.9 above. **Lactantius Inst.** 7.7.9 Heck–Wlosok *erravit ergo Democritus* (68A139 DK), *qui vermiculorum modo putavit effusus esse de terra nullo auctore nullaue ratione*.

§6 **Empedocles:** see **Censorinus** 4.7–8 above.

b Sources and Other Parallel Texts

General texts: Plato *Tim.* 39e7–40a2 ἦπερ οὖν νοῦς ἐνούσας ἰδέας τῷ δ' ἔστιν ζῶν, οἶαί τε ἔνεισι καὶ ὅσαι, καθορᾶ, τοιαύτας καὶ τοσαύτας διανοήθη δεῖν καὶ τότε σχεῖν. εἰσὶν δὲ τέτταρες, μία μὲν οὐράνιον θεῶν γένος, ἄλλη δὲ πτηνὸν καὶ ἀεροπόρον, τρίτη δὲ ἔνυδρον εἶδος, πεζὸν δὲ καὶ χερσαῖον τέταρτον. cf. *Tim.* 41b–d, 91e–92c. Aristotle *GA* 3.11 762b28–763a4 διὸ καὶ περὶ τῆς τῶν ἀνθρώπων καὶ τετραπόδων γενέσεως ὑπολάβοι τις ἂν, εἴπερ ἐγίγνοντό ποτε γηγενεῖς ὥσπερ φασὶ τινες, δύο τρόπων τούτων γίγνεσθαι τὸν ἕτερον· ἡ γὰρ ὡς σκώληκος συνισταμένου τὸ πρῶτον ἢ ἐξ ὧν ... ὅτι μὲν οὖν, εἴπερ ἦν τις ἀρχὴ τῆς γενέσεως πᾶσι τοῖς ζῴοις, εὐλογον τοῖν δυοῖν τούτοις εἶναι τὴν ἑτέραν φανερόν. *Probl.* 10.13 892a22–29 διὰ τί τῶν ζῶων τὰ μὲν ἐξ ἀλλήλων γίνεται, τὰ δ' ἐκ τινων συγκρινομένων ὁμοίως τῆς ἐξ ἀρχῆς γενέσεως αὐτοῖς ὑπαρξάσης; καθάπερ οἱ περὶ φύσεως λέγοντες λέγουσι καὶ τὴν ἐξ ἀρχῆς γένεσιν τῶν ζῶων γενέσθαι, διὰ τὰς μεταβολὰς καὶ μετακινήσεις τοῦ κόσμου καὶ τοῦ παντός (οὐσας) οὕτω μεγάλας· καὶ νῦν εἴπερ μέλλει πάλιν ἔσεσθαι, τοιαύτας τινὰς ὑπάρξαι δεῖ κινήσεις.

Chapter heading: Aristotle *Περὶ ζῶων γενέσεως* (title of work). cf. *GA* 3.8 758a26 περὶ μὲν οὖν τῶν ἄλλων ζῶων τῆς γενέσεως εἴρηται; 4.1 763b20 περὶ μὲν οὖν γενέσεως τῆς τῶν ζῶων εἴρηται.

§§1–2 *Anonymi: Theophrastus at Philo Aet.* 130 (fr. 184 FHS&G) on those who defend the genesis and destruction of the cosmos τὸν δὲ τέταρτον καὶ λοιπὸν λόγον ἀκριβοτέον ὦδε, φασίν· εἰ ὁ κόσμος αἰδῖος ἦν, ἦν ἂν καὶ τὰ ζῶα αἰδῖα καὶ πολὺ γε μάλλον τὸ τῶν ἀνθρώπων γένος, ὅσῳ καὶ τῶν ἄλλων ἄμεινον. ἀλλὰ καὶ ὁψίγονον φανῆναι τοῖς βουλομένοις ἐρευνᾶν τὰ φύσεως ... *Aet.* 144 εἰ μὲν συλλήβδην ἀπαξάπαντα τὰ στοιχεῖα ὑφ' ἑνα καιρὸν ἠφάνιζετο, φάσκειν ἐνδέχεσθαι τὸν κόσμον φθορὰν ἦν ἀναγκαῖον· εἰ δ' ἔκαστον ἰδίᾳ πρὸς τὴν τοῦ γείτονος μεταβάλλει φύσιν, ἀθανατίζεται μάλλον ἢ φθείρεται κατὰ τὸ φιλοσοφηθὲν ὑπὸ τοῦ τραγικοῦ 'θνήσκει δ' οὐδὲν τῶν γιγνομένων, / διακρινόμενον δ' ἄλλο πρὸς ἄλλο / μορφὴν ἑτέραν ἀπέδειξεν.' Cf. also Lucretius *DRN* 2.1150–1156, 5.783–856. Diodorus Siculus (Democritus 68B5 DK) περὶ τῆς πρώτης τοίνυν γενέσεως τῶν ἀνθρώπων διτταὶ γεγόνασιν ἀποφάσεις παρὰ τοῖς νομιμωτάτοις τῶν τε φυσιολόγων καὶ τῶν ἱστορικῶν· οἱ μὲν γὰρ αὐτῶν ἀγέννητον καὶ ἀφθαρτον ὑποστησάμενοι τὸν κόσμον, ἀπεφῆναντο καὶ τὸ γένος τῶν ἀνθρώπων ἐξ αἰῶνος ὑπάρχειν, μηδέποτε τῆς αὐτῶν τεκνώσεως ἀρχὴν ἐσχηκυίας· οἱ δὲ γεννητὸν καὶ φθαρτὸν εἶναι νομίσαντες ἔφησαν ὁμοίως ἐκεῖνους τοὺς ἀνθρώπους τυχεῖν τῆς πρώτης γενέσεως ὠρισμένοις χρόνοις.

§§4–6 *Anaximander Atomists Empedocles:* cf. Diodorus Siculus 1.7 on the origin of the cosmos, partly cited in ch. 1.4 section B(b)§1.

§4 *Anaximander:* Anaximander at Plut. *Symp.* 730E (12A30 DK) on the Syrians διὸ καὶ σέβονται τὸν ἰχθῦν, ὡς ὁμογενὴ καὶ σύντροφον, ἐπεικέστερον Ἀναξίμανδρου φιλοσοφούντες· οὐ γὰρ ἐν τοῖς αὐτοῖς ἐκεῖνος ἰχθύς καὶ ἀνθρώπους, ἀλλ' ἐν ἰχθύσιν ἐγγενέσθαι τὸ πρῶτον ἀνθρώπους ἀποφαίνεται καὶ τραφέντας ὥσπερ οἱ γαλεοὶ καὶ γενομένους ἱκανοὺς ἑαυτοῖς βοηθεῖν ἐκβῆναι τηνικαῦτα καὶ γῆς λαβέσθαι. καθάπερ οὖν τὸ πῦρ τὴν ὕλην, ἐξ ἧς ἀνήφθη, μητέρα καὶ πατέρ' οὐσαν, ἥσθιεν, ... οὕτως ὁ Ἀναξίμανδρος τῶν ἀνθρώπων πατέρα καὶ μητέρα κοινὸν ἀποφῆνας τὸν ἰχθῦν διέβαλεν πρὸς τὴν βρώσιν.

§5 *Democritus Epicurus*: see *Diodorus Siculus* cited above on §§1–2.

§6 *Empedocles*: cf. *Aristotle Phys.* 2.8 199b7–12 (citing Empedocles, 31B62 DK) ἔτι ἀνάγκη σπέρμα γενέσθαι πρῶτον, ἀλλὰ μὴ εὐθύς τὰ ζῷα· καὶ τὸ ‘οὐλοφυές μὲν πρῶτα’ σπέρμα ἦν. ἔτι καὶ ἐν τοῖς φυτοῖς ἔνεστι τὸ ἔνεκά του, ἦττον δὲ διήρθρωται· πότερον οὖν καὶ ἐν τοῖς φυτοῖς ἐγίγνετο, ὥσπερ τὰ ‘βουγενῇ ἀνδρόπρωρα’, οὕτω καὶ ‘ἀμπελογενῇ ἐλαιόπρωρα’, ἢ οὐ; ἄτοπον γάρ· ἀλλὰ μὴν ἔδει γε, εἶπερ καὶ ἐν τοῖς ζῷοις. see also *GA* 1.18 722b8–22 (partly cited at 31B63 DK).

Liber 5 Caput 20

PP: *Papyrus Antinoopolis* 85 fr. 9 verso p. 80 Barns–Ziliacus—PB: ps.Plutarchus *Plac.* 908F–909A; pp. 432^a1–433^a4 Diels—PG: ps.Galenus *HPh* c. 124; p. 645.8–15 Diels—PQ: Qustā ibn Lūqā pp. 236–237 Daiber
S: Stobaeus *Ecl.* 1.43, p. 297.2–8 Wachsmuth; cf. Photius *Bibl.* 167, p. 112b25 Henry (titulus solus)

Titulus κ'. Πόσα γένη ζῶων καὶ εἰ πάντα αἰσθητὰ καὶ λογικά (P,S)

- §1 Πλάτων καὶ Ἀριστοτέλης τέσσαρα γένη ζῶων· χερσαῖα ἔνυδρα πτηνὰ οὐράνια· καὶ γὰρ τὰ ἄστρα ζῶα λέγεσθαι καὶ τὸν κόσμον καὶ τὸν θεὸν ζῶον λογικὸν ἀθάνατον. (P1,S1)
- §2 Δημόκριτος Ἐπικουρος τὰ οὐράνια (οὐκ ἐγκρίνουσι). (P2) 5
- §3 Ἀναξαγόρας πάντα τὰ ζῶα λόγον ἔχειν τὸν ἐνεργητικόν, τὸν δ' οἶονεῖ νοῦν μὴ ἔχειν τὸν προφορικόν, τὸν λεγόμενον τοῦ νοῦ ἐρμηνέα. (P3)
- §4 Πυθαγόρας Πλάτων λογικὰς μὲν εἶναι καὶ τῶν ἀλόγων ζῶων καλουμένων τὰς ψυχὰς, οὐ μὴν λογικῶς ἐνεργούσας παρὰ τὴν δυσκρασίαν τῶν σωματίων καὶ τῷ μὴ ἔχειν τὸ φραστικόν, ὥσπερ ἐπὶ τῶν πιθήκων καὶ τῶν 10 κυνῶν· νοοῦσι μὲν γὰρ οὗτοι οὐ φράζουσι δέ. (P4)

§1 Plato *Tim.* 40a; Aristoteles cf. *De philosophia* fr. 22 Ross; §2 Democritus fr. 547 Luria; Epicurus fr. 342 Usener; §3 Anaxagoras 59A101 DK; §4 Pythagoras —; Plato —;

titulus Πόσα ... αἰσθητὰ καὶ λογικά P^{BQ} : Πόσα ... λογικά καὶ αἰσθητὰ S : καὶ ... λογικά om.
P^G §1 [2] Πλάτων καὶ (om. καὶ S^F) Ἀριστοτέλης ... ζῶων P^{GQS} (γένη ζῶων S : εἶναι ζῶων γένη λέγουσι P^G, cf. P^Q *glaubten daß* ... Q) : al. P^B ἔστι πραγματεία Ἀριστοτέλους, ἐν ἣ τέσσαρα γένη ζῶων φησί || [3] ἄστρα P^{GQS} : om. P^B, suppl. ex S edd. || λέγεσθαι P^{BS}, cf. *behaupteten* Q : εἶναι P^G || καὶ τὸν κόσμον P^Q(ut vid.)S : καὶ κόσμον P^B : καὶ αὐτὸς ὁ κόσμος P^G || καὶ τὸν θεὸν P^Q (*und die Gottheit* Q) Wytttenbach : καὶ τὸν ἔνθεον S (fort. leg. τὸν ἕνα θεὸν) : καὶ τῶν γηίνων P^{B(I,II)}, καὶ τὴν γήϊνην P^{B(II)}, cruxif. Diels Mau : τὸν κόσμον καὶ τὸν ἔνθεον dub. Diels, τὸν αὐτὸν τὸν θεὸν conl. Lachenaud §§2–5 non hab. S §2 non hab. P^G || [5] οὐκ ἐγκρίνουσι scripsimus, οὐκ ἐγκρίνει dub. Diels, οὐκ ἀποδέχονται ζῶα εἶναι conl. Usener, cf. *daß jenes hinsichtlich der himmlischen Dinge ausgeschlossen ist* Q : lac. hab. P^B §3 non hab. P^G || [7] προφορικόν in text. pon. Lachenaud, dub. Diels Mau : παθητικόν P^{BQ} §4 [8] post Πυθαγόρας add. P^G καὶ || post καὶ add. P^G τὰς, secl. Diels || τῶν ... ζῶων] τῶν ἄλλων ζῶων τῶν ἀλόγων P^G || [8–9] καλουμένων τὰς ψυχὰς] τὰς λεγομένας ψυχὰς P^G (καλουμένων om. P^Q) || λογικῶς ἐνεργούσας] λόγῳ ἐνεργεῖν P^G || [9] παρὰ διὰ P^G || [10] τῷ μὴ ἔχειν P^{B(I,II)} : τὸ μὴ ἔχειν P^{B(III)}, cf. P^G διὰ τὸ μὴ μετέχειν || [11] νοοῦσι P^G Diels, cf. P^Q(ut vid.) (*sie reden* Q) : λαλοῦσι P^{B(I,II)} Mau Lachenaud : λογοῦσι P^{B(II-a,c)} || νοοῦσι ... δέ : al. P^G νοοῦσι μὲν, οὐ δύνανται δὲ φράζειν ἃ νοοῦσιν

§5 Διογένης μετέχειν μὲν αὐτὰ τοῦ νοητοῦ καὶ ἀέρος, διὰ δὲ τὸ τὰ μὲν πυκνότητι τὰ δὲ πλεονασμῷ τῆς ὑγρασίας, μήτε διανοεῖσθαι μήτ' αἰσθάνεσθαι, προσφερῶς δὲ αὐτὰ διακεῖσθαι τοῖς μεμνημένοι, παρεπταικότος τοῦ ἡγεμονικοῦ. (P5)

15

§5 Diogenes 64A30 DK

§5 non hab. P^G || [12] τοῦ ... ἀέρος P^{(BI,III)Q}, prob. Laks–Most : καὶ ἀέρος om. P^{B(II)} : τοῦ νοητικοῦ ἀέρος dub. Wytttenbach Diels Mau Lachenaud || [13] post ὑγρασίας lac. pos. edd., qui ἐμποδιζεσθαι vel χρῆσθαι propos., sed sc. μετέχειν ex [12] || [14–15] παρεπταικότος P^{B(II,III)} : παρεπεπαικότος P^{B(I)}, παραπεπαικότος Bernadakis

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 9 verso = P §§4–5

[ενε]ρ[γουςας

[παρα την δυσκρασιαν των σωμα]των και

[το μη εχειν το φραστικον ωσπερ επι] των πι

[θηκων και των κυνων νοουσι μεν γαρ] ουτοι

5 [ου φραζουσι δε Διογενης μετεχει]ν μεν

[αυτα του νοητου και αερος διο δε] το τα

ps.Galenus *HPh* c. 124 (~ tit.) Πόσα γένη ζώων (text Diels)

124.1 (~ P1) Πλάτων καὶ Ἀριστοτέλης τέσσαρα εἶναι ζώων γένη λέγουσι χερσαῖα ἔνυδρα πτηνὰ οὐράνια· καὶ γὰρ τὰ ἄστρα ζῶα εἶναι· καὶ αὐτὸς ὁ κόσμος ζῶον λογικὸν ἀθάνατον.

124.2 (~ P4) Πυθαγόρας καὶ Πλάτων λογικάς μὲν εἶναι καὶ {τάς} τῶν ἄλλων ζώων τῶν ἀλόγων τὰς λεγομένας ψυχάς, οὐ μὴν λόγῳ ἐνεργεῖν διὰ τὴν δυσκρασίαν τῶν σωμάτων καὶ διὰ τὸ μὴ μετέχειν τοῦ φραστικοῦ λόγου, ὥσπερ ἐπὶ τῶν πιθήκων καὶ κυνῶν· νοοῦσι μὲν, οὐ δύνανται δὲ φράζειν ἃ νοοῦσιν.

Loci Aetiani:

quaestio cf. A 1.proœm. 3[15] ζητεῖ τις εἰ ζῶον ἢ μὴ ζῶον ὁ ἥλιος. A 2.3 Εἰ ἔμψυχος ὁ κόσμος καὶ προνοία διοικούμενος. A 5.15 Εἰ τὸ ἔμβρυον ζῶον. A 5.26 Πῶς ἠϋξήθη τὰ φυτὰ καὶ εἰ ζῶα.

§1 A 1.7.22 (de Platone) τούτου (sc. τοῦ θεοῦ) δὲ πατὴρ καὶ ποιητοῦ τὰ ἄλλα θεῖα ἔκγονα νοητὰ μὲν ..., αἰσθητὰ δὲ τοῦ πρώτου θεοῦ ἔκγονα ἥλιος, σελήνη, ἀστέρες, γῆ καὶ ὁ περιέχων πάντα κόσμος. 1.7.23 Ἀριστοτέλης τὸν μὲν ἀνωτάτω θεὸν εἶδος χωριστὸν ἐπιβεβηκότα τῇ σφαίρᾳ τοῦ παντός, ἥτις ἐστὶν αἰθέριον σῶμα, τὸ πέμπτον ὑπ' αὐτοῦ καλούμενον· διηρημένου δὲ τούτου κατὰ σφαίρας, τῇ μὲν φύσει συναφεῖς τῷ λόγῳ δὲ κεχωρισμένας, ἐκάστην οἶεται τῶν σφαιρῶν ζῶον εἶναι σύνθετον ἐκ σώματος καὶ ψυχῆς, ὧν τὸ μὲν σῶμα ἐστὶν αἰθέριον κινούμενον κυκλοφορικῶς, ἡ ψυχὴ δὲ λόγος ἀκίνητος αἴτιος τῆς κινήσεως κατ' ἐνέργειαν. A 5.19.6[9–13] τῶν δὲ ζώων πάντων τὰ γένη διακρίθηναι διὰ τὰς ποιάς κράσεις·

τὰ μὲν ὑγρότερα εἰς τὸ ὕδωρ τὴν ὁρμὴν ἔχειν, τὰ δ' εἰς ἀέρα ἀναπτῆναι, ὅσ' ἂν πυρώδες ἔχη τὸ πλεόν, τὰ δὲ βαρύτερα ἐπὶ τὴν γῆν, τὰ δ' ἰσόμοιρα τῇ κράσει πάσι τοῖς χωρίοις σύμφωνα εἶναι. A 5.26.2 Ἀριστοτέλης ἔμψυχα μὲν, οὐ μὴν καὶ ζῶα· τὰ γὰρ ζῶα ὁρμητικά εἶναι καὶ αἰσθητικά, ἔνια δὲ καὶ λογικά.

§2 A 2.3.2 Λεούκιππος δὲ καὶ Δημόκριτος καὶ Ἐπίκουρος καὶ ὅσοι τὰ ἄτομα εἰσηγοῦνται καὶ τὸ κενὸν οὐτ' ἔμψυχον (sc. τὸν κόσμον) οὕτε προνοίᾳ διοικεῖσθαι, φύσει δὲ τινι ἀλόγῳ. A 2.4.13 Ἐπίκουρος πλείστοις τρόποις τὸν κόσμον φθείρεσθαι· καὶ γὰρ ὡς ζῶον καὶ ὡς φυτὸν καὶ πολλαχῶς. A 2.13.5 Δημόκριτος πέτρους (sc. τὰ ἄστρα). A 4.5a.2 Παρμενίδης καὶ Ἐμπεδοκλῆς καὶ Δημόκριτος ταῦτ' οὖν καὶ ψυχὴν, καθ' οὗς οὐδὲν ἂν εἴη ζῶον ἄλογον κυρίως.

§3 cf. A 4.11.1[14–18] (de Stoicis) ὁ δὲ λόγος, καθ' ὃν προσαγορευόμεθα λογικοί, ἐκ τῶν προλήψεων συμπληροῦσθαι λέγεται κατὰ τὴν πρώτην ἑβδομάδα. ἔστι δ' ἐννόημα φάντασμα διανοίας λογικοῦ ζῴου· τὸ γὰρ φάντασμα, ἐπειδὴν λογικῇ προσπίπτῃ ψυχῇ, τότε ἐννόημα καλεῖται, εἰληφὸς τοῦνομα παρὰ τοῦ νοῦ. A 4.19.3 κυρίως δὲ φωνὴ ἢ ἑναρθρὸς ἔστιν ὡς φωτίζουσα τὸ νοούμενον.

§4 cf. A 4.19[2–6] Πλάτων τὴν φωνὴν ὀρίζειται πνεῦμα διὰ στόματος ἀπὸ διανοίας ἡγμένον· ... (2) λέγεται δὲ καὶ καταχρηστικῶς ἐπὶ τῶν ἀλόγων ζῴων φωνὴ καὶ τῶν ἀψύχων, ὡς χρεμετισμοὶ καὶ ψόφοι.

§5 A 4.4.8 ὁ δὲ Δημόκριτος πάντα μετέχειν φησὶ ψυχῆς ποιᾶς. A 4.5a.2 cit. supra ad §2

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

P^B and Q record five doxai, of which only two are retained by G. A tiny papyrus snippet confirms the readings of the P tradition for some lines in §§4–5. The remains of S contain the text of §1, preserved because of the name-labels Plato and Aristotle. Differently from the previous chapter *Ecl.* 1.42, the mss. FP also preserve the chapter heading, on which see further below Commentary C.

B Proximate Tradition and Sources

(1) *Proximate tradition.* We have found no relevant texts in this tradition on the number of genera of living beings. An exception might be made for a possible relation of the final doxa to Theophrastus' *De sensibus*; see below, section D(e).

(2) *Sources.* It is remarkably difficult to find any discussion of the number of genera of living beings outside the extant texts of Plato and Aristotle and the literature that is dependent on them. This is in contrast to the numerous discussions on the correlation between the elements (four or five), on the genera of living beings and on their location in the regions of the cosmos (see

texts below section E(b) General texts). Many discussions are found on whether living beings other than humans possess sense-perception (rarely denied) or reason (highly controversial, particularly between Stoics and Academics). The material recorded in the *Placita* is unusual and there are few parallels. The first part of the chapter appears to take Plato's *Timaeus* as its starting-point and is a fine example of the influence of early Middle Platonism on the redaction of the *Placita*. It is well paralleled in the long doxa on Plato's theology at A 1.7.22 (on which see Commentary ad loc.).

C Chapter Heading

The chapter heading has two components and may combine two separate chapters in the anterior tradition (other possible examples of this development at chs. 2.3, 2.19, 4.20, 4.23). The use of πόσος indicates the category of quantity, though no numbers are found in the body of the chapter. It is found in a number of chapters elsewhere in the *Placita*: cf. chs. 3.9 Περί γῆς καὶ τίς ἡ ταύτης οὐσία καὶ πόσαι; 3.14 Περί διαιρέσεως γῆς καὶ πόσαι εἰσὶν αὐτῆς ζῶναι; 4.10 Πόσαι εἰσὶν αἰσθήσεις; also G ch. 6 πόσα μέρη τῆς φιλοσοφίας. The second part of the heading links up with themes in Book 4, esp. chs. 8–11. On headings with εἰ see ch. 1.1 Commentary C and 5.4 Commentary C.

As noted above in section A, the heading of this chapter is preserved in the chief manuscripts of the *Eclogae*. It is also preserved in the pinax of S^L, this time under the number Γ 11, and here too it is followed by the words ἐν ᾧ καὶ ταῦτα, after which the headings of chs. 5.21–23 are cited. Elter (1880) 74–75 argued that these were interpolated from P (their formulation is almost identical to what is found there), and in this he was followed by Wachsmuth in his edition. See further our discussion on the headings in S^L at ch. 5.4 Commentary C, and also section C in the Commentary on chs. 5.21–23.

D Analysis

a Context

The chapter belongs together with the previous chapter, 5.19 on the generation of animals. As noted in our comments on that chapter, they interrupt the sequence of chapters on fetuses and their development and would have been better placed at the beginning of the book, before the chapters on spermatology.

b Number–Order of Lemmata

The number and order of the five doxai must be accepted. It is perhaps surprising that no Stoic views have been preserved, particularly in the second group of doxai, §§3–5. This part of the chapter is very likely to be incomplete.

c Rationale–Structure of Chapter

The chapter is divided into two parts, corresponding to the two subjects combined in the chapter heading.

(1) The first part consists of two doxai presented in a diaphonic opposition. The first doxa, based on the doctrine of Plato's *Timaeus*, lists four genera of living beings. The terminology for these is precisely that which is set out in the key text *Tim.* 39e10–40a2. The doxa adds that the stars are stated to be ζῶα, as are the cosmos and God himself. The inclusion of God (on the text see detailed comments below) is perhaps surprising. Nowhere in the *Timaeus* is the Demiurge called a ζῶον. The same can be said for the World Soul. Only the intelligible world is described as such in *Tim.* 31b1 and 37d1. But we may adduce a similar view in the presentation of Plato's theology in *A* 1.7.22, where the heavenly bodies, earth and entire cosmos are called τοῦ πρώτου θεοῦ ἔκγονα. The equation of the demiurge with the first god is common at the turn of the millennium when the movement of Middle Platonism commences; cf. Opsomer (2005) 53, citing *Plac.* 1.7.31 Diels (i.e. 1.7.22 M–R). The highest god is generally identified as a νοῦς, but sometimes as a ψυχή, i.e. equivalent to the World Soul; cf. Opsomer *ibid.* 63. But identification with a ζῶον is not part of Middle Platonist theology. Perhaps we have here the influence of Aristotelianism and esp. the famous statement at *Met.* Λ.7 1072b28. However, there is quite a difference between the Aristotelian description ζῶον αἰδίων ἄριστον and the phrase ζῶον λογικὸν ἀθάνατον in our text here. The latter in fact suits the World Soul better than the Demiurge, who is intellectual rather than rational and eternal rather than immortal (but he can hardly not be a ζῶον). The subject of whether the heavenly bodies are alive is not treated in Book 2, but it is mentioned in the prooemium of the work; see further our comment at ch. 1.prooem. A(3).

Despite the name-label at the beginning, the tenor of the doxa as a whole is not Aristotelian. The division of animal genera that underlies Aristotle's biological works is quite different, as emerges in *GA.* 2.1 and *HA* 1.1. But in the Aristotelian corpus as we now have it we are missing a more general philosophical account of the kinds of living beings. The present text has been included by Walzer (1934, fr. 22) and Ross (1955, fr. 22) in collections of the fragments of the lost *De philosophia*, presumably because of resemblances to Cicero *ND* 2.42–44 which they both include as well (none of these texts were included by Rose in his collections; Mansfeld 2016a, 300 argues against Walzer's inclusion). One would expect, given the Platonic precedent, that Aristotle with his doctrine of five elements would have five genera of animals rather than Plato's four. Cf. Baltes (1978), who treats a similar problem in the Stoa, namely five senses divided over four elements.

The second doxa attributed to the atomists Democritus and Epicurus introduces an opposition to the last part of the previous doxa on the heavenly bodies. It is denied that they are animate, a doctrine consistent with the atomist view that they are hot rocks; cf. ch. 2.13.5 and the explicit denial that the heavenly bodies have mind, feeling and life in Lucretius *DRN* 5.110–145.

(2) The second part of the chapter is more difficult. It treats the question whether all living beings possess sense-perception and reason (*logos*). But the three doxai cover the subject only very partially and it is hard to see clear lines of argument in the positions disclosed. Diels and later Kranz despaired of finding sense in the text of §3, followed by Curd (2007) 122. If we accept the emendation to *πορφορικόν* (on which see the further comment below), this would mean that all living beings have a *logos* which enables them to act, but they lack articulate expression to indicate the motivation of the action. But this interpretation makes it rather similar to the following doxa, §4. The subject is now confined to irrational living beings, i.e. animals, and the view is attributed to Pythagoras and Plato that living beings (apart from human beings, one presumes) are rational, but cannot offer articulate speech because of their bodily composition. Burkert (1972) 75 argues that this view cannot go back to early Pythagoreanism, perhaps rightly. But the two philosophers are connected by their views on reincarnation and one wonders whether this doxa might not be a fanciful extrapolation from Plato's myth at *Laws* 620a–d, where the soul of Thersites takes on the body of a monkey (on the absence of the doctrine of reincarnation in A see further ch. 5.25 Commentary B). One would expect a Stoic doxa to be opposed to this view, because the Stoics took the view that animals did not possess *logos*, as opposed to human beings; cf. *SVF* 2.725 ff. Because of the lack of clear opposition between §3 and §4, it is likely in our view that the text of the former has been corrupted at some stage.

The final doxa, §5, implicitly attributes virtually the same doctrine to Diogenes of Apollonia. Animals share in the substance of air which enables thought, but because of bodily interference (through density, i.e. earthiness, or moisture, i.e. water) their faculty of thought cannot function properly. The statement that they do not think or perceive seems extreme, since sense-perception is one of the main characteristics that distinguishes animals from plants (cf. for example 5.26.2). Laks (2008) 169, citing Ritter, attempts to rescue the meaning by regarding the statement as qualified by what follows, i.e. they are like madmen, and so cannot think or perceive *properly*, i.e. as humans do: '... on doit en conclure que si les animaux et les personnes prises de folie peuvent être considérés comme dépourvus des facultés cognitives, c'est par rapport à l'exercice normal de ces fonctions chez l'homme. Ne pas bien percevoir, c'est ne pas percevoir du tout.' Laks goes on to suggest the absolute 'negation' of

thought and perception can be explained in the context of the entire chapter as representing a position that is diametrically opposed to that of Plato and Aristotle (namely in §1) who posit the existence of eminently rational living beings, i.e. the stars and the cosmos. However, the subject αὐτά follows on from the καὶ τῶν ἀλόγων ζώων in the previous lemma (§4), so a direct contrast with the more general treatment of living beings in the first lemma cannot be intended.

The three doxai thus do not give clear positions on the question at issue and certainly do not yield an illuminating diaeresis. They are most definitely unsuitable for giving an overview of the rich philosophical debates on whether animals possess reason or articulate communication, such as we find in Philo *De animalibus*, Plutarch and Sextus Empiricus (some illustrative texts cited below section E(b)§§3–4); on these debates see Boys-Stones (2018) 298; on Plutarch against the Stoics, Newmyer (2015) 226–231.

d Further Comments

Individual Points

§1 The agreement of P^{GQ} with S makes the reading Πλάτων καὶ Ἀριστοτέλης quite certain. It is an indication of a mistaken fixation on P^B that Mau and Lachenaud (but not Diels, even in his left column) retain the corrupted reading ἔστι πραγματεία Ἀριστοτέλους ἐν ᾗ. The final part of the doxa has also been corrupted. A reference to ‘God’ is missing in P^{BG}, but it is preserved in P^Q. The mss. of S only speak of the ‘divine’ (ἐνθεον). The question is whether there are two entities described as a ζῶν here, i.e. the cosmos and God, or that originally only one was meant, i.e. the cosmos. Diels thought the latter and conjectured καὶ τὸν ἐνθεον. However, in all four texts καὶ occurs after τὸν κόσμον, so the balance of probability is that the text refers to two entities. One wonders too whether a text influenced by Middle Platonism would call the cosmos a ζῶν λογικὸν ἀθάνατον. We therefore follow the text in P^Q and already conjectured by Wyttenbach. Lachenaud proposes to read καὶ αὐτὸν τὸν θεόν, but αὐτὸν is unnecessary and not supported by the mss.

§2 Diels’ proposed conjecture, which he did not place in his text, was inspired; cf. A 5.1.1, 5.1.3; also 1.3.7, 1.8.3. But the verb should be in the plural, as at A 5.1.1.

§3 The text in P^{BQ} suggests an antithesis between the λόγος ἐνεργητικός and the λόγος παθητικός, but it is difficult to see what it denotes. It is surely no coincidence that this is the usual terminology for ‘active’ and ‘passive’ verbs in Greek grammar. We have found no references to the former term in a philosophical context. The emendation to προφορικόν is justified by the final phrase τὸν λεγόμενον τοῦ νοῦ ἐρμηνεία. But to change the former term to ἐνδιάθετον (based on the usual Stoic antithesis, cf. *SVF* 2.135, 223 etc.) is altogether too bold. We take

οίονει νοῦν to be the subject of μὴ ἔχειν rather than its object, as understood by Lachenaud. Torraca (1961) 460 n. 175 proposes the more drastic emendation τὸν δὲ λόγον μὴ ἔχειν τὸν παθητικόν.

§4 Diels' decision to follow the text in P^G νοοῦσι makes better sense of the text (*pace* our view in M–R 1.148) than the reading λαλοῦσι in P^B's text and also fits the spacing in P^P slightly better. Daiber translates *sie reden*, which also seems closer to νοοῦσι, but in his apparatus he states that P^Q's text reads λαλοῦσι.

§5 We follow the text as defended and interpreted by Laks (2008) 168–170. It has a sound basis in the manuscripts. See his comments *ad loc.*

e Other Evidence

The dependence of the final doxa on Theophrastus' treatise *De sensibus*, whether direct or indirect, is important evidence of the connection of the *Placita* with the Peripatetic school. The view on thinking would seem to derive, perhaps not directly, from the report on Diogenes' doctrine in *Sens.* 44 (text below section E(a)§5). But the negative comment with regard to sense-perception, for example, is not found in Theophrastus' work, where Diogenes is recorded as noting that some animals have senses that are better than those of humans (§41). We note too that there are no direct linguistic correspondences (ἰκμάς, for example, becomes ὑγρασία). This example of *Placita* material derived, however indirectly, from the Theophrastean work was one of the very few missed by Baltussen (1993) 264–265.

E Further Related Texts

b Sources and Other Parallel Texts

General texts: on the correspondence between living beings, elements and locations in the cosmos see Aristotle (*De phil.* 21 Walzer/Ross) cited at Cicero *ND* 2.42 *cum igitur aliorum animantium ortus in terra sit, aliorum in aqua, in aere aliorum, absurdum esse Aristoteli videtur in ea parte quae sit ad gignenda animantia aptissima animal gigni nullum putare. sidera autem aetherium locum obtinent ...* cf. Philo *Gig.* 7–8 ἀνάγκη γὰρ ὅλον δι' ὅλων τὸν κόσμον ἐψυχῶσθαι, τῶν πρώτων καὶ στοιχειωδῶν μερῶν ἐκάστου τὰ οἰκεία καὶ πρόσφορα ζῶα περιέχοντος, γῆς μὲν τὰ χερσαία, θαλάττης δὲ καὶ ποταμῶν τὰ ἔνυδρα, πυρὸς δὲ τὰ πυρίγονα—λόγος δὲ ἔχει ταῦτα κατὰ Μακεδονίαν μάλιστα γίνεσθαι—, οὐρανοῦ δὲ τοὺς ἀστέρας. (8) καὶ γὰρ οὗτοι ψυχὰι ὅλαι δι' ὅλων ἀκήρατοι τε καὶ θείαι, παρὸ καὶ κύκλῳ κινούνται τὴν συγγενεστάτην νῶ κίνησιν· νοὺς γὰρ ἕκαστος αὐτῶν ἀκραιφνεστάτος. ἔστιν οὖν ἀναγκαῖον καὶ τὸν ἀέρα ζῶων πεπληρῶσθαι. also *Plant.* 12; *Somn.* 1.135; *Sextus Empiricus M.* 9.86–87; *Apuleius Soc.* 8. *Nemesius NH* 2, p. 34.5–9 καὶ ζῆν μὲν πάντα, μὴ πάντα δὲ εἶναι ζῶα διακρίνουσι γὰρ ἀπὸ μὲν τῶν ἀψύχων τὰ φυτὰ τῷ αὖξεσθαι καὶ τρέφεσθαι, τουτέστι τῇ θρεπτικῇ καὶ φυτικῇ δυνάμει, τὰ δὲ ἄλογα ζῶα ἀπὸ τῶν φυτῶν τῇ αἰσθήσει, τὰ δὲ λογικὰ ἀπὸ τῶν ἀλό-

γων τῷ λογικῷ· καὶ οὕτω πάντα ζῆν λέγοντες διαστέλλουσι τὴν ἐκάστου φύσιν. On sense-perception as characteristic of living beings see **Aristotle** *Sens.* 1 436a7–11 φαίνεται δὲ τὰ μέγιστα, καὶ τὰ κοινὰ καὶ τὰ ἴδια τῶν ζώων, κοινὰ τῆς τε ψυχῆς ὄντα καὶ τοῦ σώματος, οἷον αἴσθησις καὶ μνήμη καὶ θυμὸς καὶ ἐπιθυμία καὶ ὅλως ὄρεξις, καὶ πρὸς τοῦτοις ἡδονὴ καὶ λύπη· καὶ γὰρ ταῦτα σχεδὸν ὑπάρχει πᾶσι τοῖς ζώοις. **Cicero** *ND* 2.34 (the Stoic Balbus as spokesperson) *bestiis autem sensum et motum dedit (sc. natura) et cum quodam appetitu accessum ad res salutare a pestiferis recessum; hoc homini amplius quod addidit rationem, qua regerentur animi appetitus, qui tum remitterentur tum continerentur.* also *ND* 2.122.

Chapter heading: —

§1 Plato Aristotle: **Plato** *Tim.* 39e7–40a2 cited on A 5.19 section E(b) General texts. cf. also *Tim.* 30b7–8 οὕτως οὖν δὴ κατὰ λόγον τὸν εἰκότα δεῖ λέγειν τόνδε τὸν κόσμον ζῶν ἐμψυχον ἔννουν τε τῇ ἀληθείᾳ διὰ τὴν τοῦ θεοῦ γενέσθαι πρόνοιαν. *Tim.* 38e5 (of the heavenly bodies) δεσμοῖς τε ἐμψύχοις σώματα δεθέντα ζῶα ἐγεννήθη. 92c6 θνητὰ γὰρ καὶ ἀθάνατα ζῶα λαβὼν καὶ συμπληρωθεὶς ὁδε ὁ κόσμος οὕτω, ζῶν ὁρατὸν τὰ ὁρατὰπεριέχον etc. **Aristotle** (on the typology of animals) *GA* 2.1 732a25–29 τῶν δὲ ζώων τὰ μὲν τελεσιουργεῖ καὶ ἐκπέμπει θύραζε ὁμοιον ἑαυτῷ, οἷον ὅσα ζωοτοκεῖ εἰς τοῦμφανές, τὰ δὲ ἀδιάρθρων ἐκτίκτει καὶ οὐκ ἀπειληφὸς τὴν αὐτοῦ μορφὴν. τῶν δὲ τοιούτων τὰ μὲν ἔναιμα ὠτοτοκεῖ, τὰ δ' ἄναιμα σκωληκοτοκεῖ. *HA* 1.1 487a11–14 αἱ δὲ διαφοραὶ τῶν ζώων εἰσι κατὰ τε τοὺς βίους καὶ τὰς πράξεις καὶ τὰ ἦθη καὶ τὰ μόρια, περὶ ὧν τύπῳ μὲν εἴπωμεν πρῶτον, ὕστερον δὲ περὶ ἕκαστον γένος ἐπιστήσαντες ἐροῦμεν ... *Met.* A.7 1072b26–30 (on God as first mover), esp. 28 φαμὲν δὴ τὸν θεὸν εἶναι ζῶν ἀίδιον ἄριστον.

§2 Democritus Epicurus: cf. **Epicureans** at **Plut.** *Col.* (fr. 342 Usener) 1123A οἱ ... φάσκοντες μηδὲ τὸν ἥλιον ἐμψυχον εἶναι μηδὲ τὴν σεληνὴν ... **Lucretius** *DRN* 5.122–125 (on the heavenly beings) *quae procul usque adeo divino a numine dissent, / inque deum numero quae sint indigna videri, / notitiam potius praeberere ut posse putentur / quod sit vitali motu sensuque remotum.* *DRN* 144–145 *haud igitur constant divino praedita sensu, / quandoquidem nequeunt vitaliter esse animata.*

§§3–4 Anaxagoras Pythagoras Plato: **Philo** *Anim.* 44 (on animals, Alexander using academic arguments) ‘Although they are unable to express their mental conceptions because of their inarticulate tongues, they conduct themselves with such abundant wisdom that they exhibit many characteristics of speech’ (trans. Terian); cf. 98 (Philo’s refutation using Stoic arguments) ‘We must next consider the uttered. Although blackbirds, crows, parrots, and all the like *can* produce different kinds of utterances, they cannot produce an articulated voice in any manner whatever (trans. Terian).’ **Plutarch** *Brut. Anim.* 991F–992A ἂν γὰρ εἴπῃς, ὅπερ ἀληθές ἐστι, τούτων διδάσκαλον εἶναι τὴν φύσιν, εἰς τὴν κυριωτάτην καὶ σοφωτάτην ἀρχὴν ἀναφέρεις τὴν τῶν θηρίων φρόνησιν· ἢν εἰ μὴ λόγον οἴεσθε δεῖν μηδὲ φρόνησιν καλεῖν, ὥρα σκοπεῖν ὄνομα κάλλιον αὐτῇ καὶ τιμιώτερον, ὥσπερ ἀμέλει καὶ δι’ ἔργων ἀμείνονα καὶ θαυμασιωτέραν παρέχεται τὴν δύναμιν· οὐκ ἀμαθὴς οὐδ’ ἀπαίδευτος, αὐτομαθὴς δὲ τις μᾶλλον οὐσα καὶ ἀπροσδεῆς ... ὅσα γοῦν ἄνθρωποι τρυφῶντες ἢ παίζοντες εἰς τὸ μανθάνειν καὶ

μελετᾶν ἄγουσι, τούτων ἡ διάνοια καὶ παρὰ φύσιν τοῦ σώματος περιουσίᾳ συνέσεως ἀναλαμβάνει τὰς μαθήσεις. ἐὼ γὰρ ἰχνεύειν σκύλακας καὶ βαδίζειν ἐν ῥυθμῷ πώλους μελετῶντας, ἀλλὰ κόρακας διαλέγεσθαι καὶ κύνας ἄλλεσθαι διὰ τροχῶν περιφερομένων. **Sextus Empiricus** *P.* 1.62–63 καὶ συγκρίνομεν τὰ ἄλογα καλούμενα ζῶα τοῖς ἀνθρώποις κατὰ φαντασίαν· καὶ γὰρ καταπαίζειν τῶν δογματικῶν τετυφωμένων καὶ περιουτολογούντων οὐκ ἀποδοκιμάζομεν μετὰ τοὺς πρακτικοὺς τῶν λόγων. οἱ μὲν οὖν ἡμέτεροι τὸ πλῆθος τῶν ἀλόγων ζώων ἀπλῶς εἰώθασι συγκρίνειν τῷ ἀνθρώπῳ· ἐπεὶ δὲ εὐρεσιλογούντες οἱ δογματικοὶ ἄνισον εἶναί φασι τὴν σύγκρισιν, ἡμεῖς ἐκ πολλοῦ τοῦ περιόντος ἐπὶ πλεόν παίζοντες ἐπὶ ἐνὸς ζώου στήσομεν τὸν λόγον, οἷον ἐπὶ κυνός, εἰ δοκεῖ, τοῦ εὐτελεστάτου δοκοῦντος εἶναι. εὐρήσομεν γὰρ καὶ οὕτω μὴ λειπόμενα ἡμῶν τὰ ζῶα, περὶ ὧν ὁ λόγος, ὡς πρὸς τὴν πίστιν τῶν φαινομένων. cf. also *P.* 1.74–76. *M.* 8.270 καίτοι τί περὶ ἀνθρώπων λέγομεν, ὅτε καὶ τοῖς ἀλόγοις ζώοις τινές (*Stoics SVF* 2.727) αὐτῶν μεταδεδώκασι τῆς τοῦ σημείου νοήσεως; καὶ γὰρ ὁ κύων ὅτε ἐκ τοῦ ἵχνους στιβεύει τὸ θηρίον σημειοῦται· ἀλλ’ οὐ διὰ τοῦτο ἀξιώματος ἔλκει φαντασίαν τοῦ ‘εἵπερ ἵχνος ἐστὶ τοῦτο, θηρίον ἔστιν ἐνθάδε’. in terms of the opposition of the λόγος προφορικός and the λόγος ἐνδιάθετος see e.g. *M.* 8.275 (*SVF* 2.135, 223) φασὶν (sc. οἱ δογματικοὶ) ὅτι ἄνθρωπος οὐχὶ τῷ προφορικῷ λόγῳ διαφέρει τῶν ἀλόγων ζώων (καὶ γὰρ κόρακες καὶ ψιττακοὶ καὶ κίτται ἐνάρθρους προφέρονται φωνάς) ἀλλὰ τῷ ἐνδιαθέτῳ ...

§5 Diogenes: Theophrastus *Sens.* 44 (on Diogenes, 64A19 DK) φρονεῖν δ’, ὥσπερ ἐλέχθη, τῷ ἀέρι καθαρῷ καὶ ξηρῷ· κωλύειν γὰρ τὴν ἱκμάδα τὸν νοῦν· διὸ καὶ ἐν τοῖς ὕπνοις καὶ ἐν ταῖς μέθαις καὶ ἐν ταῖς πλησμοναῖς ἦττον φρονεῖν. ὅτι δὲ ἡ ὑγρότης ἀφαιρεῖται τὸν νοῦν, σημεῖον, διότι τὰ ἄλλα ζῶα χεῖρω τὴν διάνοιαν· ἀναπνεῖν τε γὰρ τὸν ἀπὸ τῆς γῆς ἀέρα καὶ τροφὴν ὑγροτέραν προσφέρεισθαι.

Liber 5 Caput 21

- PP:** *Papyrus Antinoopolis* 85 fr. 9a recto, p. 182 Barns–Zilliaceus (1967)—**PB:** ps.Plutarchus *Plac.* 909A–B; p. 433^a5–22 Diels—**PG:** ps.Galenus *HPH* c. 125; p. 645.16–22 Diels—**PQ:** Qustā ibn Lūqā pp. 236–239 Daiber—**PPs:** *Omn.Doctr.* 117.7–11, p. 63 Westerink
- SL:** Stobaeus *Ecl.* 1.43, p. 1.295.5 Wachsmuth (titulus solus); iteratur titulus **SL** Index capitum Γ 11, sed verisim. interpolatus ex P, cf. Elter (1880) 74–75, adn. p. 295 ed. Wachsmuth

Titulus κα'. Ἐν πόσῳ χρόνῳ μορφοῦται τὰ ζῶα ἐν γαστρὶ ὄντα (P,cf.S)

- §1 Ἐμπεδοκλῆς ἐπὶ μὲν τῶν ἀνθρώπων ἄρχεσθαι τῆς διαρθρώσεως ἀπὸ ἔκτης καὶ τριακοστῆς, τελειοῦσθαι δὲ τοῖς μορίοις ἀπὸ πεντηκοστῆς μιᾶς δεούσης. (P₁)
- §2 Ἀσκληπιάδης ἐπὶ μὲν τῶν ἀρρένων διὰ τὸ θερμότερα εἶναι τὴν διάρθρω- 5
σιν γίνεσθαι ἀπὸ ἔκτης καὶ εἰκοστῆς, πολλάκις δὲ καὶ ἐνδοτέρω·
πληροῦσθαι δ' ἐντὸς τῆς πεντηκοστῆς (τοῖς) μορίοις· ἐπὶ δὲ τῶν θηλυ-
κῶν ἐν διμήνῳ διαρθροῦσθαι, ἐν τετραμήνῳ δὲ τελειοῦσθαι διὰ τὸ ἐνδεῖν
τοῦ θερμοῦ· τὰ δὲ τῶν ἀλόγων ζώων ὀλοτελῇ παρὰ τὰς συγκράσεις τῶν
στοιχείων. (P₂)

10

§1 Empedocles 31A83 DK; §2 Asclepiades cf. Vallance *ANRW* 2.37.1, pp. 721, 725

titulus μορφοῦται ... ὄντα **PBQ**, cf. **PPs** et **SL-ind2** : μορφοῦνται τὰ βρέφη **PG(A)** : ζωογούνται τὰ βρέφη καὶ μορφοῦνται **PG(BCNiC)** : διαρθροῦται τὸ ἔμβρυον **SL-ind1** §1 [2] μὲν τῆς **PG**, emend. Diels || ἀνθρώπων] ἀρρένων **PB(II)** || ἀπὸ **PB(II,III)Ps** : ἀπὸ τῆς **PB(II)GQ(ut vid.)** || [3] ἀπὸ] ἐπὶ leg. fort. **PQ**, conl. Usener || [3–4] πεντηκοστῆς μιᾶς δεούσης **PBQ** : om. δεούσης **PG** : τῆς ν' **PPs** §2 [5] Ἀσκληπιάδης **PBQ** : Ἀσκληπιάδης δὲ **PG** : Ἰπποκράτης δὲ **PPs** || ἐπὶ] εἴπει **PP** || θερμότερα **PG** Diels Mau Lachenaud : θερμότερα εἶναι **PBPs** : cf. *was in ihnen an Wärme ist* Q || post εἶναι add. τὴν κράσιν **PG** (cf. [10]) || [6] πολλάκις **PB(II)Q** : πολλάς **PB(II,III)** || πολλάκις ... ἐνδοτέρω] om. **PGPs** || [7] πληροῦσθαι **PBG** : τελειοῦσθαι conl. Diels conl. §1[3] et §2[8] Mau Lachenaud, cf. *vollendet* Q || ἐντὸς Reiske edd., *vor Ablauf von* Q : ἐν τοῖς **PB** : ἀπὸ **PG** || τοῖς add. Reiske Diels conl. §1 || [7–8] ἐπὶ ... θηλυκῶν **PB** : τῶν δὲ θηλείων **PG** || [8] διμήνῳ **PBPs** : δίμηνα **PG(A)**, corr. Diels : τετάρτῳ μηνὶ **PG(BCNiC)** || post διμήνῳ hab. **PPs** μὲν || διαρθροῦσθαι **PBPs** : τὴν διάρθρωσιν γίνεσθαι **PG** || ἐνδεῖν **PB** : ἐνδεῆς **PG** || [9–10] τὰ δὲ ... στοιχείων om. **PG** || [9] ὀλοτελῇ **PB** : *unterschiedlich* Q || παρὰ **PB(II,III)** : πρὸς **PB(II)**

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 9a recto = P §§1–2

πε]γτη[κ]οστῆ[ς
 Ασκληπιαδῆ]ς ἐπει με[ν
 θερμότερ]α εἶναι τ[ὴν
]...[

ps.Galenus *HPh* c. 125 (~ tit.) Ἐν πόσῳ χρόνῳ μορφοῦνται τὰ βρέφη (text Diels)

125.1 (~ P1) Ἐμπεδοκλῆς ἐπὶ μὲν τῶν ἀνθρώπων ἄρχεσθαι τῆς διαρθρώσεως ἀπὸ τῆς ἑκτῆς τριακοστῆς ἡμέρας, τελειοῦσθαι δὲ τοῖς μορίοις ἀπὸ πεντηκοστῆς μιάς.

125.2 (~ P2) Ἀσκληπιαδῆς δὲ ἐπὶ μὲν τῶν ἀρρένων διὰ τὸ θερμότεραν εἶναι τὴν κράσιν, τὴν διάρθρωσιν γίνεσθαι ἀπὸ ἑκτῆς καὶ εἰκοστῆς, πληροῦσθαι δὲ ἀπὸ τῆς πεντηκοστῆς. τῶν δὲ θηλείων ἐν διμήνῳ γίνεσθαι τὴν διάρθρωσιν διὰ τὸ ἐνδεές τοῦ θερμοῦ.

Psellus *Omn.Doctr.* c. 117.7–11 (Περὶ ὑγείας καὶ νόσου καὶ γήρωος = tit. c. 5.30)

... μορφοῦται δὲ τὰ ζῶα ἐν γαστρὶ ὄντα ἀπὸ 5' καὶ λ' ἡμέρας, τελειοῦται δὲ τοῖς μορίοις ἀπὸ τῆς ν' (~ P1). Ἱπποκράτης δὲ ἐπὶ μὲν τῶν ἀρρένων διὰ τὸ θερμότερα εἶναι τὴν διάρθρωσιν γίνεσθαι ἀπὸ τῆς 5' καὶ κ', ἐπὶ δὲ τῶν θηλυκῶν ἐν διμήνῳ μὲν διαρθροῦσθαι, ἐν τετραμήνῳ δὲ τελειοῦσθαι (~ P2).

Loci Aetiani:

quaestio cf. A 5.17 Τὶ πρῶτον τελεσιουργεῖται ἐν γαστρὶ. A 5.18 Διὰ τί ἐπαμηνιαία γόνιμα. A 5.23 Πότε καὶ πῶς ἄρχεται ὁ ἄνθρωπος τῆς τελειότητος.

§§1–2 A 5.15.1 Πλάτων ζῶον τὸ ἔμβρυον· καὶ γὰρ κινεῖσθαι ἐν τῇ γαστρὶ καὶ τρέφεσθαι. A 5.15.3 Ἐμπεδοκλῆς μὴ εἶναι μὲν ζῶον τὸ ἔμβρυον ἀλλ' ἄπουν ὑπάρχειν ἐν τῇ γαστρὶ.

§2 A 5.7.1 Ἐμπεδοκλῆς ἄρρενα καὶ θήλεα γίνεσθαι παρὰ θερμότητα καὶ ψυχρότητα. A 5.26.4 (Empedocles de plantis) αὔξεσθαι δ' ἀπὸ τοῦ ἐν τῇ γῇ θερμοῦ διαιρουμένου, ὥστε γῆς εἶναι μέρη, καθάπερ καὶ τὰ ἔμβρυα τὰ ἐν τῇ γαστρὶ τῆς μήτρας μέρη.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

Two lemmata only are found in P^B, G and Q. Oddly Ps cites the part of the Asclepiadean doxa on human males and females at the end of his chapter 117 on health and disease and old age (= A 5.30), attributing the view to Hippocrates instead of Asclepiades. Most likely there is a lacuna in his text. The lines would

have been better placed after §115. S supplies us with no more than a quite different heading, but it is an indication that he did excerpt the chapter. The papyrus snippet published by Barns in part III of the Antinoopolis Papyri (1967) contains the last letter of Asclepiades' name-label and also a misspelling (επει for επι).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* For the subject of this chapter there are interesting but limited correspondences with the doxography in Censorinus. Having in ch. 7 discussed the various lengths of completed pregnancies (cf. A 5.18) he briefly turns at §9.1 to the subject of the time of the embryo's complete formation, i.e. possessing all the features that it will have when it is born. Many philosophers, he writes, have just one set of numbers, as illustrated by the doxai of Diogenes of Apollonia and Hippo. But Pythagoras does it better by having two sets of numbers, one for seven-month olds, the other for ten-month olds (274 days, so really nine-month olds). Articulation occurs in 35 days for the former (very close to the number 36 in A's first doxa), 40 days for the latter. Censorinus explicitly states his source, Varro's book *Tubero de origine humana*; on this work see above, Introduction to Book 5, section 5, and ch. 5.3 Commentary B. Some pages later at §11.7 he explains these figures as part of an elaborate arithmological account. The phrase *infans membratur* is used to describe the process of articulation (cf. διαρθρωσις and διαρθρωθῆναι in the present chapter). No further doxai are given, but it is reasonable to deduce that the theme had been treated in the doxographical tradition before the time of his source Varro. A text in Aulus Gellius in an arithmological context also refers to the subject and mentions Varro (but this time his work the *Hebdomades*), but without reference to any particular philosophers or doctors. The appearance in various reports in Galen and elsewhere of the names Empedocles, Strato and Diocles, all of whom are prominent in Book 5, also suggests that a doxographical treatment of the subject was part of the tradition.

(2) *Sources.* The most important early text on this specific subject which is still extant is found in the work *De natura pueri* under the name of Hippocrates. It is part of the section (ch. 6–10) which Lonie (1981) 176 describes as 'the first coherent theory in Western science of the articulation and development of the embryo'. See further his commentary at 176–186, 190–194, which points out the author's debt to Empedocles and Democritus. In ch. 7 this text gives figures for the articulation of the female and male fetus (42 and 30 days respectively). This would appear to be the figure for the beginning of the process, and is based on observation of miscarriages and aborted pregnancies. The cause of the differentiation between male and female is given at the end of the chapter (7.504.24

Litré), namely that the female congeals and becomes articulated later because its seed is weaker and moister. Lonie p. 190 interprets this to imply a theory of the role of heat in the process which goes back to Empedocles (cf. A 5.7.1 and our comments ad loc.). We note that both these features, differentiation of male and female and the role of heat return in the second doxa attributed to Asclepiades, though the numbers mostly differ (see further below Commentary D(c)). This Hippocratean passage remained influential and its figures are cited by a number of later authors such as Galen and Porphyry (texts below section E(b) General texts).

Aristotle in his discussion of the development of the embryo at *GA* 2.4 does not touch on the specific subject of this chapter, but he does mention it when discussing deformed embryos in *GA* 4.6 775a9–14. He too privileges the role of heat, stating that the difference is caused by the fact (as he thinks) that females have less heat. In *HA* 7.3 583b10–24 he makes some brief observations in his account of human pregnancy. He notes that male embryos aborted before the fortieth day show differentiation, but for females this is not found in embryos up to three months and differentiation does not occur until the fourth month. This is the same figure that is attributed to Asclepiades in §2 in the present chapter. Difference of heat is not mentioned in this second account. These Aristotelian texts are cited below in section E(b) §2. The view attributed to ‘Aristotle and Varro’ in Lactantius is divergent, giving only the number 40 without distinguishing between the sexes; text at section E(a) §1. This report is likely to be derived from Varro himself.

Additional material is found in divergent reports on the views of Empedocles (cf. §1), which are found in a text derived from the first cent. BCE or CE medical writer Athenaeus of Attalia (with exactly the same number 36 expressed as four enneads) and in another arithmological passage in Theon of Smyrna (seven weeks, but according to others five weeks for males). These parallels are not very close to what we find in A, but again indicate a broader range of treatment of the subject than what has come down to us in A’s doxography. On the similarities and differences with the embryological calendar of Damastes see further below section D(e).

C Chapter Heading

The formulation of this chapter heading, asking for a time span within which, i.e. relating to the category of time, is unique in A. The closest parallel is on the year and the times of the revolutions of the planets at ch. 2.32, esp. its phrase πόσος ἐκάστου τῶν πλανητῶν χρόνος. The key verb μορφοῦται recalls the chapter heading of Athenaeus of Attalia recorded in Oribasius (text below section E(b) §1), Περὶ διαμορφώσεως. From the contents of the doxai, however, it is clear that

the question asked is the length of time from the first visible articulation (διάρ-θρωσις) to the complete articulation of the parts of the fetus.

The heading is found in two different formulations in the pinax of S^L, the former under *Ecl.* 1.42, the latter under 1.43. We follow the view of Elter that the former goes back to S, whereas the latter is interpolated from the tradition of P. See further chs. 5.4 Commentary C and 5.20 Commentary C.

D *Analysis*

a Context

The chapter is the final one devoted to questions of embryology. It might have been better placed if it had followed ch. 18 because the main focus is on human embryos. However, the second doxa does mention the formation of the embryos of irrational living beings, so this may be the reason that it was placed after to the two chapters on living beings in general, chs. 5.19 and 5.20. As noted above, Censorinus sees a link between the subjects of chs. 18 and 21, but this link is not exploited by our author. A connection can also be made with ch. 5.17, since the distinction between articulation and completion amounts to the difference between the two questions that the chapters pose, the former asking what part of the embryo is formed first, the latter when is the embryo's formation completed; see also our comments at ch. 5.17 Commentary C.

b Number–Order of Lemmata

There are only two doxai. Given the incompleteness of the presentation and the amount of parallel material elsewhere, as noted above in section B, it is likely that what we find in P has been considerably truncated.

c Rationale–Structure of Chapter

The two doxai differ considerably in scope and detail.

(1) The doxa attributed to Empedocles specifies that the answer given to the question relates to human beings (the chapter heading merely speaks about 'living beings', i.e. fetuses), making no distinction between males and females. Articulation begins at 36 days and is completed at 49 days. No comments are made about the numbers and no causes are given. If we consult three parallel texts referring to Empedoclean doctrine we see that none confirm both numbers exactly, though some come quite close. In the excerpt from Athenaeus we read that the whole body is articulated first in 36 days and then complete articulation follows at 40. In Theon of Smyrna the fetus becomes complete in seven hebdomads, i.e. 49 days, though others say five weeks, i.e. 35 days. In Proclus 35 is the figure for seven-month olds. The number 35 for the formation of the embryo is also found in an arithmological text of ps.lamblichus in which Strato,

Diocles and ‘many other doctors’ are cited. In a text in Aulus Gellius based on Varro the numbers are 28 and 49, the latter figure thus agreeing with A’s doxa (3.10.7, but there is no mention of Empedocles). With these numbers there is much room for arithmological speculation ($28 = 4 \times 7$, $35 = 5 \times 7$, $36 = 6 \times 6$, $49 = 7 \times 7$), as is often noted in our sources (esp. Censorinus and Theon; see Mansfeld 1971, 167–168; Lonie 1981, 194 also notes a musical theory in Aristoxenus in which the numbers 30 and 42 are significant). In our text, however, just as in ch. 5.18, A completely avoids any reference to numerical speculation. Athenaeus also reports that Empedocles discriminated between males and females, males being faster because of their greater heat (and their place on the right side of the womb was also hotter). This view is consistent with his theory on the differentiation of males and females through heat and lack of heat in ch. 5.7.1 and the view on the formation of the embryo in 5.21.1, but is not stated in the present doxa. As was noted above in section B, the same view is held by the author of the Hippocratic *De natura pueri*, who may have been influenced by the Empedoclean theory. This aspect too is not mentioned by our doxographer.

(2) The second doxa attributed to Asclepiades (on this doctor in the *Placita* see M–R 1.320, 3.208) is much fuller, differing from the first in three respects: (i) it does distinguish between males and females; (ii) it gives a cause for the difference; (iii) it also reports a view on the subject for living beings other than humans. The numbers for the process of articulation—26 and 50 days for males, two and four months for females—is not exactly paralleled elsewhere. The doxa does not define what completion means in this context. The same four months is the time span that the author of the *De natura pueri* reckons for the onset of movement in the womb in the case of females (text below). In specifying heat as the cause of the difference between males and females Asclepiades continues the tradition initiated (it seems) by Empedocles and the Hippocratic author. See the remarks on the first doxa above.

In this chapter there is thus implicitly a double contrast between the two doxai which it preserves: (1) between human beings (§1) and males and females (§2); and (2) between human beings (§1) and other living beings (§2). It is quite unsatisfactory that the second doxa utilises a theory that goes back to the thinker whose name-label is associated with the first doxa. There is a high likelihood that the information is at the very least incomplete, but probably also inaccurate. We may be fairly certain that the chapter is incomplete compared with its original in A, and quite certain that it is incomplete compared with the fuller tradition. However, because of a lack of evidence (the paucity of parallel material in Censorinus is a handicap) we are unable to estimate what further contrasts it might have had in a fuller form. It is to be suspected that the numbers themselves were not of great importance for our doxographer. He

just wanted to emphasize that there were differing views in differing respects. See further our comment in the next section.

d Further Comments

Individual Points

§1 In the phrase ἐπὶ μὲν τῶν ἀνθρώπων the particle μὲν appears to introduce a contrast between human beings and something else (e.g. the ἄλογα ζῷα in §2), but this does not happen. It could be a case of μὲν *solitarium*, when ‘the antithetical clause is to be supplied in thought’ (Smyth 1956, §2896). As the lemma stands, however, it would be better placed after ἄρχεσθαι, where it would introduce a contrast with τελειοῦσθαι δέ later on. Perhaps this was the intention, but it has somehow been clumsily moved forward. Emendation, however, would not be justified.

§2 Diels (followed by Mau and Lachenaud) was surely not correct in changing the unanimous reading in the witnesses πληροῦσθαι to τελειοῦσθαι in order to conform with the infinitive used twice elsewhere in the doxa. It is natural for the author to strive for some *variatio*. Thus for the beginning of the process of articulation he uses three different phrases—ἄρχεσθαι τῆς διαρθρώσεως, τὴν διάρθρωσιν γίνεσθαι, διαρθροῦσθαι—though admittedly each one uses the same verbal root. For the final verb G again reads τὴν διάρθρωσιν γίνεσθαι, but Ps supports the reading διαρθροῦσθαι in P^B.

The author of *Nat.Puer.* at the beginning of §10 appears to conflate the time that articulation is complete (nails and hair have taken root) and the first movement of the fetus, giving the times at which this occurs as three months for the male and four months for the female. The latter number is the same as given for the completion of articulation for females in the doxa ascribed to Asclepiades. Similar figures, without discrimination between males and females are found in *Vict.* 1.26 (texts below section E(b)§2). As we saw above in section B(2), in the text at *HA* 7.3 583b2–24 Aristotle gives the figures of 40 days for males and ninety days for females in relation to both first movement and articulation of the fetus, but he does not coalesce the two topics. The term he uses for first articulation is σχίζεσθαι (b10), for completion τελείωσις (b24).

e Other Evidence

As noted above in ch. 5.18 Commentary D(e), the recently edited excerpt from the second cent. BCE medical author Damastes gives an extended schema of numbers of days for the development of pregnancy. The question asked about commencement and completion of the embryo’s formation in the present chapter appears to correlate with two of the stages in Damastes’ calendar. But the numbers given in the two doxai, 36 & 49 days, and 26 & 50 and 2 & 4 months

do not cohere well with his numbers: only the number 50 is found in Damastes for the formation of the ten-month old baby. As already noted in ch. 5.18 D(d), Damastes does not mention authorities, and he also does make any distinction between male and female embryos as Asclepiades is reported as doing.

E Further Related Texts

a Proximate Tradition

General texts: Censorinus 9.1–2 *hac Chaldaeorum sententia explicata transeo ad opinionem Pythagoricam Varroni tractatam in libro, qui vocatur 'Tubero' et intus subscribitur 'de origine humana'. quae quidem ratio praecipue recipienda ad veritatem proxime videtur accedere. alii enim plerique, cum omnes partus non uno tempore fiant maturi, una tamen eademque tempora omnibus conformandis dederunt; ut Diogenes Apolloniates (64A26 DK, but contrast Galen Hipp.Epid. VI 2.47 cited below), qui masculis corpus ait quattuor mensibus formari et feminis quinque, vel Hippon (38A16a DK), qui diebus LX infantem scribit formari, et quarto mense carnem fieri concretam, quinto unguis capillumve nasci, septimo iam hominem esse perfectum. Pythagoras autem ... 11.7 itaque ut alterius partus origo in sex est diebus, post quos semen in sanguinem vertitur, ita huius in septem; et ut ibi quinque et triginta diebus infans membratur, ita hic pro portione diebus fere quadraginta; quare in Graecia dies habent quadragensimos insignes. namque praegnans ante diem quadragensimum non prodit in fanum, et post partum quadraginta diebus pleraeque fetae graviiores sunt nec sanguinem interdum continent, et parvoli ferme per hos et morbidi sine risu nec sine periculo sunt. ob quam causam, cum is dies praeteriit, diem festum solent agitare, quod tempus appellant τεσσαρακοστήν.*

Chapter heading: —

§1 **Empedocles:** Varro at Aulus Gellius NA 3.10.7 (citing the *Hebdomades* fr. 106 Salvatore, for continuation see on A 5.18.5) *ad homines quoque nascendos vim numeri istius (i.e. seven) porrigi pertinereque ait: 'nam cum in uterum,' inquit, 'mulieris genitale semen datum est, primis septem diebus conglobatur coagulaturque fitque ad capiendam figuram idoneum. post deinde quarta hebdomade, quod eius virile secus futurum est, caput et spina, quae est in dorso, informatur. septima autem fere hebdomade, id est nono et quadregesimo die, totus' inquit 'homo in utero absolvitur.'* Lactantius Op.D. 12.6 (from Varro, continuing text cited at ch. 5.17 E(a)§4) *denique totum opus quadregesimo die consummari.*

b Sources and Other Parallel Texts

General texts: *Corpus Hippocraticum* Nat.Puer. 7 7, p. 498.27–500.4 Littré καὶ γέγονεν ἡδὴ παιδίον καὶ ἐς τοῦτο ἀφικνέεται, τὸ μὲν θῆλυ ἐν τεσσαράκοντα ἡμέρησι καὶ δύο τὸ μακρότατον, τὸ δὲ ἄρσεν ἐν τριήκοντα ἡμέρησι τὸ μακρότατον· ὥς γὰρ ἐπιπολὺ συμβαίνει ἐν τούτῳ τῷ χρόνῳ ἢ ὀλίγῳ μείονι ἢ ὀλίγῳ πλείονι ταῦτα διαρθροῦσθαι. cited by Porphyry ad Gaur. 2 τοῦ δ' ὅταν πλασθῇ πρῶτον τὴν εἰσκρισιν τιθέντος τοῦ μὲν ἄρρενος ἐν λ' ἡμέραις, τῆς δὲ θηλείας ἐν δύο καὶ μ' διαρθρουμένης,

καθάπερ ἱστορεῖ ὁ Ἱπποκράτης. also referred to by Galen *Hipp.Epid. VI 2.47* καὶ μέντοι καὶ ὠμολόγηται σχεδὸν ἅπασιν τοῖς ἰατροῖς οὐ μόνον διαπλάττεσθαι θάπτον, ἀλλὰ καὶ κινεῖσθαι τὸ ἄρρεν τοῦ θήλεος. εἴρηται δὲ περὶ τούτων σαφῶς κἀν τῷ Περὶ φύσεως παιδίου, ὥσπερ γε καὶ παρὰ Διοκλεῖ κατὰ τὰ Περὶ γυναικείων συγγράμματα (fr. 47 Van der Eijk). 'Ρούφος δὲ φησι Διογένη τὸν Ἀπολλωνιάτην (64B9 DK) μόνον ἐναντίως ἀποφύνασθαι κατὰ τὸ Περὶ φύσεως δεύτερον· ἐγὼ δὲ οὐκ ἐνέτυχον τῷ βιβλίῳ. **ps.Iamblichus Theol.Ar.** 46–47 Στράτων δὲ ὁ Περιπατητικὸς (fr. 98 Wehrli, Sharples 73A) καὶ Διοκλῆς ὁ Καρύστιος (fr. 45a Van der Eijk) καὶ πολλοὶ ἕτεροι τῶν ἰατρῶν ... ἐν δὲ τῇ ε' κατὰ τὴν λ' μάλιστα καὶ πέμπτην ἡμέραν διαπλάττεσθαι ἐν μέσῳ αὐτοῦ μελίττης μὲν μεγέθει ἑοικὸς τὸ βρέφος, διατετρανωμένον δὲ ὅμως, ὥστε κεφαλὴν καὶ αὐχένα καὶ θώρακα καὶ κῶλα ὀλοσχερέστερον φαντάζεσθαι ἐν αὐτῷ καὶ τοῦτό φασι ζ' μηνὶ γόνιμον εἶναι, εἰ δ' ἐννέα μέλλει γενήσεσθαι, τῇ ἕκτῃ πάσχει τοῦτο ἐβδομάδι, ἂν θῆλυ ᾖ, ἂν δὲ ἄρρεν, τῇ ἐβδόμῃ (this text is adapted by **Macrobius in Scip.** 1.6.65). **Alexander Sophistes Gen.Hom.** 1.3–4 Jouanna καὶ τὸ μὲν ἄρρην ποιεῖται τὴν πλάσιν διὰ ἡμερῶν τριάκοντα, τὸ δὲ θῆλυ διὰ τεσσαράκοντα δύο. **Aristotle GA** 4.6 775a4–15 γίγνεται δὲ ἀνάπηρα μᾶλλον ἐν τοῖς ἀνθρώποις τὰ ἄρρενα τῶν θηλέων, ἐν δὲ τοῖς ἄλλοις οὐθὲν μᾶλλον. αἴτιον δ' ὅτι ἐν τοῖς ἀνθρώποις πολὺ διαφέρει τὸ ἄρρεν τοῦ θήλεος τῇ θερμότητι τῆς φύσεως, διὸ κινήτικώτερα ἐστὶ κυούμενα τὰ ἄρρενα τῶν θηλέων· ... διὰ τὴν αὐτὴν δὲ ταύτην αἰτίαν καὶ τελειοῦται τὰ θήλεα τοῖς ἄρρεσιν οὐχ ὁμοίως· (αἱ γὰρ ὑστέραι αὐτῶν οὐχ ὁμοίως ἔχουσιν· ἐν δὲ τοῖς ἄλλοις ζῷοις ὁμοίως τελειοῦται· οὐδὲν γὰρ ὑστερεῖ τὰ θήλεα τῶν ἄρρεων ὥσπερ **suppl. Peck**) ἐν δὲ ταῖς γυναιξίν· ἐν μὲν γὰρ τῇ μητρὶ ἐν πλείονι χρόνῳ διακρίνεται τὸ θῆλυ τοῦ ἄρρενος, ἐξελθοῦσι (**prop. Peck**) δὲ πάντα πρότερον ἐπιτελεῖται οἷον ἥβη καὶ ἀκμὴ καὶ γῆρας τοῖς θήλεσιν ἢ τοῖς ἄρρεσιν· ἀσθενέστερα γὰρ ἐστὶ καὶ ψυχρότερα τὰ θήλεα τὴν φύσιν ... **HA** 7.3 583b2–23 Balme ἐπὶ μὲν οὖν τῶν ἄρρένων ὡς ἐπὶ τὸ πολὺ ἐν τῷ δεξιῷ μᾶλλον περὶ τὰς τετταράκοντα γίνεσθαι ἡ κίνησις, τῶν δὲ θηλείων ἐν τῷ ἀριστερῷ περὶ ἐνενηκόνθ' ἡμέρας. οὐ μὴν ἀλλ' ἀκρίβειάν γε τούτων οὐδεμίαν ὑποληπτέον· πολλαῖς γὰρ θηλυτοκούσαις ἡ κίνησις ἐν τῷ δεξιῷ γίνεται, καὶ ταῖς ἐν τῷ ἀριστερῷ ἄρρεν· ἀλλὰ καὶ ταῦτα καὶ τὰ τοιαῦτα πάντα διαφέρει ὡς ἐπὶ τὸ πολὺ καὶ τῷ μᾶλλον καὶ ἥττον. ... τὸ μὲν οὖν ἄρρεν ὅταν ἐξέλθῃ τετταρακοσταῖον ... τὰ τε μέρη δῆλα τὰ τε ἄλλα πάντα καὶ τὸ αἰδοῖον καὶ οἱ ὀφθαλμοὶ καθάπερ ἐπὶ τῶν ἄλλων ζώων μέγιστοι. τὸ δὲ θῆλυ, ὅ τι μὲν ἂν διαφθορῇ ἐντὸς τῶν τριῶν μηνῶν, ἀδιάρθρωτον ὡς ἐπὶ τὸ πολὺ φαίνεται· ὅ τι δ' ἂν ἐπιλάβῃ τοῦ τετάρτου μηνός, γίνεται ἐσχισμένον καὶ διὰ ταχέων λαμβάνει τὴν ἄλλην διάρθρωσιν. ἕως μὲν οὖν πᾶσαν τὴν τελείωσιν τῶν μορίων βραδύτερον ἀπολαμβάνει τὸ θῆλυ τοῦ ἄρρενος, καὶ δεκάμηναν γίνεται μᾶλλον τῶν ἄρρένων (cf. ch. 5.18) ... **Damastes** Περὶ τῶν γονίμων καὶ τελειουμένων see above, ch. 5.18 E(b) General texts. **Pliny Nat.** 7.6.41 *melior color marem ferenti et facilius partus, motus in utero quadragensimo die. contraria omnia in altero sexu, ingestabile onus, crurum et inguinis levis tumor, primus autem XC die motus.*

Chapter heading: cf. **Athenaeus of Attaleia** Περὶ διαμορφώσεως cited below.

§1 **Empedocles:** **Athenaeus of Attaleia** at **Orib. Coll.med. libr.inc.** 16, **CMG** 6.2.2, p. 105.25–106.7 **Raeder** Ἐκ τῶν Ἀθηναίου. Περὶ διαμορφώσεως. ἡ δὲ πρώτη

διαμόρφωσις τῶν ἐμβρύων διασημαίνει περὶ τὰς τεσσαράκοντα ἡμέρας· ἕως μὲν γὰρ θ' ἡμερῶν οἶον γραμμαὶ τινες αἱματώδεις ὑποφέρονται· περὶ δὲ τὰς ὀκτωκαίδεκα θρόμβοι σαρκώδεις καὶ ἰνώδη τινὰ διασημαίνεται, καὶ σφυγμὸς ἐν αὐτοῖς εὐρίσκεται ὁ τῆς καρδίας. περὶ δὲ τὰς τρεῖς ἐννεάδας, ὡς φησιν ὁ Διοκλῆς (fr. 44 Van der Eijk), ἐν ὑμένι μυξώδει γίνεται φανερώς ἀμυδρὸς ὁ τύπος τῆς ῥάχews καὶ ὁ τῆς κεφαλῆς. περὶ δὲ τὰς τέσσαρας ἐννεάδας ὁράται πρῶτον διακεκριμένον ὅλον τὸ σῶμα ἢ τὸ τελευταῖον, μιᾶς προστεθείσης τετράδος, περὶ τὴν τεσσαρακοντάδα. συμφωνεῖ δὲ τοῖς χρόνοις τῆς παντελοῦς τῶν ἐμβρύων διακρίσεως καὶ ὁ φυσικὸς Ἐμπεδοκλῆς (31A83 DK), καὶ φησιν ὅτι θάσσον διαμορφοῦται τὸ ἄρρεν τοῦ θήλεος, καὶ τὰ ἐν τοῖς δεξιοῖς τῶν ἐν τοῖς εὐωνύμοις. **Theon of Smyrna** *Exp.* p. 104.1–5 Hiller αἱ τε αὐξήσεις καθ' ἑβδομάδα. τὸ γοῦν βρέφος δοκεῖ τελειοῦσθαι ἐν ἑπτὰ ἑβδομάσιν, ὡς Ἐμπεδοκλῆς (31B153a DK) αἰνίττεται ἐν τοῖς Καθαρμοῖς. ἔνιοι δὲ φασὶ τὰ ἄρρενα ἐν πέντε ἑβδομάσι τελειοῦσθαι, γόνιμα δὲ γίνεσθαι ἐν ἑπτὰ μηνί, γενόμενα δὲ ἐν ἑπτὰ μηνσὶν ... cf. **Proclus** *in Resp.* 2.34.28–35.4 (31B69 DK, continuation of text cited on A 5.18.1) τῶν μὲν γὰρ ἑπταμήνων ὁ πρῶτος ἀριθμὸς ὁ λε' ἐν ἀριθμοῖς ἐστὶν ς' ἢ θ' ἢ β', ὧν οἱ ἄκροι τὸν διπλάσιον ἔχουσιν λόγον καὶ τὴν διὰ πασῶν· τῶν δὲ ἐννεαμήνων ὁ πρῶτος ἀριθμὸς ἐν ἀριθμοῖς συμφώνοις ς' θ' ἢ β' ἢ ιη', ὧν οἱ ἄκροι τριπλάσιον ἔχουσιν λόγον. μετὰξὺ δὲ τούτων σύμφωνος ἄλλος οὐκ ἔστι λόγος, ὥστ' εἰκότως συμφωνίας οὐκ οὔσης ἄγωνα τὰ ὀκτάμηνα.

§2 **Asclepiades**: see General texts above. cf. also **Corpus Hippocraticum** *Nat.Puer.* 10 7, p. 510.19–22 Littré (cited by Porphyry *ad Gaur.* 2.2) ὅταν δὲ δὴ τὰ ἄκρα τοῦ σώματος τοῦ παιδίου ὀζωθῇ ἔξω, καὶ οἱ ὀνυχες καὶ αἱ τρίχες ῥιζώθῃωσαν, τότε δὴ καὶ κινέεται, καὶ ὁ χρόνος ἐς τοῦτο γίνεται τῷ μὲν ἄρρενι τρεῖς μῆνες, τῇ δὲ θηλείῃ τέσσαρες· ὧδε γὰρ ὡς ἐπὶ τὸ πλεῖστον συμβαίνει· ἔστι δ' ἂ καὶ πρόσθεν τῶν παιδίων τούτου τοῦ χρόνου κινέεται. similarly *Vict.* 1.26.2, p. 6.498.16–20 Littré οὐκ ἐν ἴσῳ δὲ χρόνῳ πάντα (sc. in the development of the fetus) διακοσμέεται, ἀλλὰ τὰ μὲν θάσσον, τὰ δὲ βραδύτερον, ὅπως ἂν καὶ τοῦ πυρὸς ἕκαστα τύχη καὶ τῆς τροφῆς· τὰ μὲν οὖν ἐν τεσσαράκοντα ἡμέρησιν ἴσχει πάντα φανερά, τὰ δ' ἐν δύο μηνσὶ, τὰ δ' ἐν τρισὶ, τὰ δ' ἐν τετραμήνῳ.

Liber 5 Caput 22

P^B: ps.Plutarchus *Plac.* 909B–C; p. 434^a1–15 Diels—**P^G**: ps.Galenus *HPH* c. 126; p. 645.23–646.3 Diels—**P^Q**: Qustā ibn Lūqā pp. 238–239 Daiber
S^L: ms. Stobaei, titulus solus verisim. ex P interpolatus; cf. Elter (1880) 75, Wachsmuth (1882) 77.

Titulus κβ'. Ἐκ ποίων συνίσταται στοιχείων ἕκαστον τῶν ἐν ἡμῖν γενικῶν μορίων (P)

§1 Ἐμπεδοκλῆς τὰς μὲν σάρκας γεννᾶσθαι ἐκ τῶν ἴσων τῇ κράσει τεττάρων στοιχείων· τὰ δὲ νεῦρα ἐκ πυρὸς καὶ γῆς ὕδατι διπλασίονι μιχθέντων· τοὺς δ' ὄνυχας τοῖς ζώοις γεννᾶσθαι τῶν νεύρων καθ' ὃ τῷ ἀέρι συνέτυχε περιψυχθέντων· ὅστ' ἐκ δυνεῖν μὲν ὕδατος καὶ τῶν ἴσων γῆς, τεττάρων δὲ πυρὸς, (ἔσω γῆς) τούτων συγκραθέντων μερῶν· ἰδρώτα δὲ καὶ δάκρυον γίνεσθαι τοῦ αἵματος τηκομένου καὶ παρὰ τὸ λεπτύνεσθαι διαχωρόμενου. (P1)

§1 Empedocles 31A78 DK

titulus συνίσταται στοιχείων ἕκαστον **P^B** : στοιχείων ante συνίσταται **P^G** : συνίσταται post ἕκαστον **S^L**-ind || γενικῶν **P^BQ^S^L** : om. **P^G** || [2] μορίων] μερῶν **S^L** §1 [3] γεννᾶσθαι **P^B**, cf. *erzeugt wird* Q : γίνεσθαι **P^G** || τῶν ἴσων conl. Wytttenbach edd., *gleichmässig* Q, τῆς ἰσοκρατείας **P^G** (emend. Diels) : τῶν ἔσω **P^B(I,III) prob. Vitek : τῶν αἰμάτων **P^B(II) || [4] ante τεττάρων add. **P^G** τῶν || ἐκ πυρὸς καὶ γῆς **P^GQ** Diels : πυρὸς γῆς **P^B** || [4–5] ὕδατι διπλασίονι μιχθέντων Bernadakis Diels VS Primavesi R² Laks–Most, cf. ὕδατος διπλασίονι μιχθέντων **P^G** (emend. Diels) : τὰ διπλασίονα (conl. (κα)τὰ διπλάσιον Mau Lachenaud) ἐμμιχθέντα **P^B** : *in welcher* (sc. *Mischung*) von der Erde das Doppelte dessen vorhanden ist, was in ihr vom Feuer da ist Q || [5] γεννᾶσθαι **P^B**, cf. *werden ... erzeugt* Q : γίνεσθαι **P^G** (qui post ὄνυχας pon.) || ante τῶν νεύρων hab. **P^G** ἐκ, cf. *aus den Nerven erzeugt* Q || [6] περιψυχθέντων **P^B(I,III) : περιψυγθέντων **P^B(II) : ψυχθέντων **P^G** || [6–7] ὅστ' ... μερῶν om. **P^G** || [6] ἐκ δυνεῖν **P^Q** (*aus zwei Teilen Wasser* Q), iam conl. Wytttenbach (sine ἐκ), etiam Diels Vitek Primavesi R² : δοκεῖ **P^B**, crucif. Mau || [6–7] τῶν ἴσων γῆς **P^Q** (*ebenso [viel] an Erde* Q) Diels *DG* (καὶ γῆς Diels VS, DK Primavesi R²) : τῆς ἔσω γῆς **P^B** Vitek || [7] ἔσω γῆς (cf. **P^B** I.[7 Mau]) ante τούτων conl. Diels VS prob. Primavesi R² non prob. Laks–Most : γῆς **P^B** Vitek, crucif. Diels *DG* Lachenaud, (καὶ) γῆς conl. Mau || τούτων **P^B** Diels Primavesi R² : τοσούτων conl. Wytttenbach Mau Lachenaud Laks–Most || [8] δὲ **P^G** Diels : om. **P^B** Laks–Most || [8–9] τοῦ αἵματος τηκομένου ... διαχωρόμενου rest. Diels conl. **P^G** Laks–Most (sed τηκομένου τοῦ αἵματος ... mavult Primavesi ex **P^G**, cf. **P^Q** (*werden aus der Auflösung des Blutes erzeugt und infolge seines Fließens wegen der Düntheit, welche sich bei ihm durch die Auflösung einstellt* Q) : τοῦ σωματικοῦ οὕτως et lac. **P^B** Vitek, crucif. Mau Lachenaud********

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 126 (~ tit.) Ἐκ ποίων στοιχείων συνίσταται ἕκαστον τῶν ἐν ἡμῖν μορίων (text Diels)

126.1 (~ P1) Ἐμπεδοκλῆς τὰς μὲν σάρκας γίνεσθαι τῇ ἰσοκρατείᾳ τῶν τεττάρων στοιχείων. τὰ δὲ νεύρα ἐκ πυρός καὶ γῆς ὕδατος διπλασίων μιχθέντων. τοὺς δὲ ὄνυχας γίνεσθαι τοῖς ζώοις ἐκ τῶν νεύρων, καθ' ὃ τῷ ἀέρι συνέτυχε ψυχθέντων τῶν λοιπῶν στοιχείων. ἰδρώτα δὲ καὶ δάκρυον γίνεσθαι τηκομένου τοῦ αἵματος καὶ παρὰ τὸ λεπτύνεσθαι διαχεομένου.

Loci Aetiani:

quaestio cf. 2.6 Ἀπὸ ποίου πρώτου στοιχείου ἤρξατο κοσμοποιεῖν ὁ θεός, et in marg. P^{B(III:α)} πόθεν ἄρχεται ὁ κόσμος καὶ ἐκ ποίων στοιχείων. titulus 5.17 in S^L ἀπὸ ποίου ἄρχεται μορίου μορφοῦσθαι το ἔμβρυον.

§1 A 1.3.19 Ἐμπεδοκλῆς Μέτῳνος Ἀκραγαντίνος τέσσαρα μὲν λέγει στοιχεῖα, πῦρ ἀέρα ὕδωρ γῆν, δύο δ' ἀρχικὰς δυνάμεις, φιλίαν τε καὶ νεῖκος· ὧν ἡ μὲν ἐστὶν ἐνωτική τὸ δὲ διαιρετικήν. A 5.19.6 ... τὰς δὲ τετάρτας (sc. γενέσεις τῶν ζώων) οὐκέτι ἐκ τῶν στοιχείων, οἷον ἐκ γῆς καὶ ὕδατος, ἀλλὰ δι' ἀλλήλων ἤδη ...

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The single doxa is preserved in the three witnesses to the P tradition, P^B, Q and G (slightly abridged). For the evidence in S see section C below. The text as found in P^B is in terrible shape, but can be reconstructed with a fair degree of probability with the assistance of Q and G. See the further comments below in section D(d). The archetype from which the Byzantine mss. of P derived must have suffered considerable corruption towards its end. The chapters from now onwards give rise to many textual problems and, in the almost total absence of S, the means of correcting them through the assistance of other witnesses is limited.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There are no treatments of this subject in the authors of the proximate tradition whose writings we have regularly cited for Book 5 (including Censorinus and ps.Galen *Def.Med*). On the medical doxography of the Anonymus Londiniensis see our discussion below under section B(b).

(2) *Sources.* The formulation and treatment of the subject appear to derive from the Peripatetic tradition. The composition of the parts of the bodies of living beings, including humans, is discussed in both Aristotle's *De partibus animalium* and his *De generatione animalium* (but in the latter only in relation to embryonic development). In both works the Stagirite is very conscious

of his Presocratic predecessors, and in particular Empedocles and Democritus. In a passage at *PA* 1.1 640b4–29 (text below section E(b)§1) he states that the ἀρχαῖοι καὶ πρῶτοι who philosophised about nature were occupied with discovering the material principle and how the universe was formed out of it, and also what set the process in motion in the assumption that the underlying material by necessity had a definite nature, e.g. fire was hot and earth was cold. The bodies of humans and other animals are said to be composed of such substances (note how implicitly Aristotle moves from the macrocosm to the microcosm here). However, he goes on to say, it is necessary to take into account parts such as flesh and bone and blood, and in order to describe them one must include discussion of the shape and form (ἰδέα). A few pages later in the same chapter (*PA* 1.1 642a18–22, text also below) he pays Empedocles a back-handed compliment by saying that when discussing the composition of bone, even he had to talk of its structure (λόγος) and not only of the elements out of which it was composed. He himself recognizes that the four prime elements play a role in the composition of bodily parts, but prefers to speak of δυνάμεις such as the moist and dry etc. rather than στοιχεῖα. In the *De anima* too Aristotle criticizes Empedocles' theory of elemental mixture in relation to the nature of the soul, using the examples of flesh and bone (1.4 408a13–20, 1.5 409b30–410a6, texts below section E(b)§1). Some of the original passages on which these descriptions of Empedocles' doctrine—and also the report found in A's lemma—are based are preserved by Simplicius (31B96, 98 DK; texts below *ibid.*).

But we need to take into account an earlier highly influential account of the origin and composition of the human body and its parts. When Plato in the *Timaeus* describes the origin of bone, flesh and sinews in 73b–74e, he gives the elements a prominent role, starting with the composition of the marrow which is mixed from the finest examples of the four different kinds. It is generally recognized that Plato's account must be read against the background of fifth cent. scientific and medical ideas, and that he was at least partly indebted to Empedoclean ideas in describing the structure of the human frame and its fleshly covering; cf. already Taylor (1928) 523–526.

Plato's account of the human body and its diseases plays a dominant role in the earliest medical doxography that we possess, the *Iatrika* of the text of an unknown author dubbed the Anonymus Londiniensis. This quite long papyrus text of 39 columns was first edited by Diels (1893a) and has been recently brilliantly re-edited by Daniela Manetti (2011; see also her analysis of the work, 1999). The central part of the text is taken up by a long doxography on the causes of diseases with twenty name-labels, the first part of which is devoted to theories based on the residues (περιττώματα) of digestion, and the second part to theories focusing on the constitutive elements (στοιχεῖα) of the body. The lat-

ter section commences with a very long analysis of Plato's doctrine, followed by shorter accounts on the views of five other theorists, including Philolaus and Polybus (cf. ch. 5.18) but not Empedocles and Democritus. In each case the author briefly outlines their views on the role of the elements and the accompanying powers (δυνάμεις) before turning to their explanations of diseases. As can be readily seen in the selection of passages cited below at section E(a) General texts, there is a frequent use of the two main opening formulas found in A (συνιστάναι ἐκ and γεννᾶσθαι). In the explanation of the role of the elements the reports do not focus on their direct relation to the formation of bodily parts to the extent that we find it in our chapter, but they feature frequently in the aetiology of disease.

On the basis of her research Manetti argues that the papyrus is an 'auto-graphous text', in which the author makes use of material from a medical work entitled Ἰατρικὴ συναγωγή circulating in the time of Galen under the name of Aristotle, though it was assumed at that time that it had been written by his pupil Meno. We cannot be certain that this work was written by him or by a later editor of Peripatetic material (see Manetti 1999, 97–99). The possibility that the original author of the doxography was working in tandem with Theophrastus and others in the early Peripatetic period cannot be excluded and that there may thus be a link with what remains of the doxography on this topic in A. Manetti has demonstrated in the above-cited article that the methodology of the work is dialectical, just as is the case for the *Placita*.

An echo of Aristotle's critique is found in ch. 7 of Galen's treatise *De constitutione artis medicae*. For the student, after having learnt from anatomy what all the parts of the body are, the task is then to learn of these what the primary and simplest parts are by nature. Taking flesh as an example, it is impossible for its primary part of be of a single kind, such as the atomists posit, or to consist of the four unchangeable elements as Empedocles wished. Galen uses hypothetical syllogisms to demonstrate his case. If flesh consists of impassible elements, then it cannot feel pain; but it does feel pain, so its constituent elements cannot be impassible, i.e. the elementary bodies as postulated by the atomists or Empedocles. See text cited below section E(b)§1.

C Chapter Heading

The formulation of the chapter heading with ἐκ is unique in the *Placita* (unless we take into account the alternative heading noted in the margin of 2.6 in ms. PB^(III:α) (Ambr. 859), πόθεν ἄρχεται ὁ κόσμος καὶ ἐκ ποίων στοιχείων). The elements are mentioned in a chapter heading elsewhere only in ch. 2.6 on the generation of the universe (not including ch. 1.2 which relates to first principles). There are, however, three chapters which speak of how something is 'composed' (συνέ-

σπηχε vel sim.), namely 1.4 (cosmos), 2.13 (heavenly bodies), 3.16 (sea). Certainly the relation of macrocosm and microcosm plays a role in the background here. The term *ποίων* in the heading points to a quaestio in the category of quality, but the subject of elements means that quantity also comes into the picture, as we see in l. 4. The same heading (but with *μερών* instead of *μορίων*) is found in the listing in the Laurentian ms. of S, but Elter (1880) 74 is no doubt correct in postulating that it has been interpolated from P. This means there is no certainty that S included material from this chapter in his ch. 43 on the generation of living beings. On the chapter headings in *S^L* see above, ch. 5.4 Commentary C.

A possible very slight clue to the direct influence of the Aristotelian texts discussed above in section B is the use of the word *ἕκαστον* in the chapter heading. It occurs but rarely in the *Placita* (an example at A 2.13.14 on ‘each of the heavenly bodies’) and never elsewhere in a chapter heading. Aristotle’s formulation at *GA* 2.6 745b21 which speaks about how ‘each of the parts are composed’ (*ἕκαστον συνίσταται τῶν μορίων*) is highly reminiscent of the expression used in the heading of this chapter. This may well not be a coincidence.

D *Analysis*

a Context

Although the chapter heading speaks of ‘in us’ and not ‘in the womb’, as in the previous chapter, its subject can be seen as continuing the subjects discussed in the embryological chapters 14–18 and 21, since both the developed embryo and the mature human being have for the most part the same bodily parts. It is worth noting that the final doxa in the previous chapter 5.21 speaks both of *μόρια* (in relation to human males) and *στοιχεῖα* (in relation to the irrational animals).

b Number–Order of Lemmata

The single lemma would appear to point to a considerably abridged chapter. But see also the comments in the following sub-section.

c Rationale–Structure of Chapter

The single Empedoclean doxa gives the elemental composition of six parts of the human body—flesh, sinews, nails, bones, sweat and tears. The first four consist of the four primary elements only; the last two are derived from blood (for its composition, an even mixture of the four elements see Theophr. *Sens.* 10 = 31A86 DK). The details have clearly been derived from Empedocles’ poem, though in a somewhat literal and mechanical way. The two verbatim quotes from this part of the poem (31B96 and B98 DK) speak of bones, blood and flesh

with reference to the elements (which are given theophoric names), but the texts do not form the immediate basis of the doxographical report.

The incomplete evidence gives rise to a conundrum. On the one hand it seems almost as if the chapter with its heading has been tailor-made to accommodate the doxa of Empedocles, since, as we saw, later philosophers such as Aristotle scarcely speak in such 'elemental' terms about the bodily parts. On the other hand, the method of the *Placita* scarcely admits a single doxa which is not contrasted with other views. A possible inclusion in this chapter may have been a Platonic doxa based on the *Timaeus*. It remains likely, however, that the doxai would have for the most part presented Presocratic views, such as is the case for preceding chapters 5.19–21.

The relation between macrocosm and microcosm that we observed in the background of this chapter above in sections B and C deserves further consideration. It is implicit in the treatment of the elements in both Plato's *Timaeus* and in Aristotle's biological works. It is also present in the macro-structure of the *Placita* (already noted at M–R 2.40). When the author moves to the ἀποτέλεσματα in the preface to Book 2, he sees various parallels in the questions that can be asked of the heavenly bodies (and also some features of the earth) and of τὰ κατὰ μέρος (introduced in the proem of Book 4), mainly the living beings and plants present on the earth. We noted above the language of 'composition' in various chapter headings: the introductory ch. 1.4, then 2.13 (cf. also 2.6), 3.16, now 5.22. This language is undeniably used by Aristotle. Aside from the terminology of 'composition' noted above, he speaks at *PA* 1.1 640b11 of the philosophers 'generating' the cosmos, the same verb (γεννάω) used in ch. 5.22 of Empedocles 'generating' flesh from the elements. As noted above in section B, this language is also found in the Anonymus Londiniensis. The intriguing question is whether we have to do with Aristotelian influence exerted on the early *Placita* tradition, perhaps via Theophrastus, as we think likely, or whether it is the result of later developments resulting from the revival of interest in Platonism and the *Timaeus* in the first cent. BCE. A similar question can be asked of the use of the term κοσμοποιεῖν in the chapter heading of 2.6; see our Commentary D(e) ad loc.

d Further Comments *Individual Points*

§1 As noted above in section A, the text of the Empedocles doxa as it is found in P^B is highly corrupt but can be reconstructed with a fair degree of probability with the assistance of Q and G. Our text is in general agreement with that of Primavesi in his text in the Reclam edition, which takes over various suggestions by previous editors but goes further in making use of the evidence of

G and Q. It would be possible to go even further in taking over readings from G, e.g. for the fleshy parts in l. 1–2 (ἐκ) τῆς ἰσοκρατείας τῶν τεττάρων στοιχείων and for the tendons in l. 2–3 ὕδατος διπλασίονι μιχθέντων, but in the absence of clear support from Q we have not done this. Other recent editors such as Mau, Lachenaud, Viték, and Laks–Most have been far too conservative in not emending the hopeless text in P^B when the assistance of Q and G is available.

e Other Evidence

It is quite remarkable that a doxa attributed to Empedocles appears in every chapter of 5.18–28 except 5.21 and 5.24, a total of nine doxai in all (six of them stand first in the chapter or are the only doxa that remains). The only parallel for all these doxai in Censorinus is his view on seven-month-olds cited in ch. 7.2. The doxai are based on a ‘doctrinal’ reading of his poem, as is clear from the doxa in the present chapter. How can we explain this extraordinary predilection for the Presocratic poet? To start with, P must have favoured his doxai as shown by the fact that they survived the process of epitomization so remarkably well. Going back a step further, it is likely that A introduced much Empedoclean material. He may have been attracted to doing so because the poet was thought to be a Pythagorean; see for example Theophrastus *Phys.Op.* fr. 3 Diels, FHS&G 227A; Diogenes Laertius *V.P.* 8.54; Hippolytus *Ref.* 6.26.2–3. But from where did he obtain it? There are at least three possibilities: (i) from a direct reading of the poems; (ii) from a summary of Empedoclean doctrine which he divided into doxai and inserted in the various chapters; (iii) from an anterior source which had already included much Empedoclean material that he himself rearranged to suit his own purposes. We know far too little about how A compiled his work, but the third alternative seems to us the most likely. It is worth recalling that Empedocles was already an important source for Lucretius, but in his case he will certainly have read the original, as well as drawing on secondary treatments.

E Further Related Texts

a Proximate Tradition

General texts: *Anonymus Londinensis Iatr.* col. xiv.6–16 Manetti ἴ[δ]ωμεν δὲ καὶ | τ[οὺς ἀπὸ τῆς φύσε]ως τ[ῶν σω]μάτων καὶ | δια[θέσεως αἱ]τιολ[ο]γούντας τὰς | νόσ[ους καὶ τοὺς ἀπὸ τῆς τῶν στοιχείων] συστ[τάσε]ως οἰομένους συνεστ[άν]αι τὰ | ἡμέ[τερ]α σώματα. καὶ πρῶτον ἀπὸ | Πλά[τω]νος. [ο]ὗτος γάρ φησιν τὰ ἡμέ- | τερα [σώματα συ]νεστάναι ἐκ τῶν | τεσσά[ρω]ν στοιχείων [χα]τὰ [σ]ύ[μφθ]αρσιν ὅτι καὶ τὰ ἐν κόσ- | μῳ γίνεται [...]α. διαφέρειν δὲ ταῦτα· | σύμφθ[αρσιν], μῆξιν, κράσιν. ... *Iatr.* col. xviii.7–15 καὶ ἡ μὲν τοῦ Πλάτωνος | δόξα πε[ρὶ νόσων] ἐν τοῦ- | τοις. Φιλόλαος | δὲ ὁ Κροτ[ωνιά]της συνεστάναι φησὶν τὰ ἡμέ- | τερα σώμ[ατα ἐκ] θερμοῦ. ἀμέτοχα γὰρ αὐτὰ εἶναι | ψυχροῦ, [ὑπομι]μνήσκων ἀπὸ τινων τοιούτων· |

τὸ σπέρμ[α εἶναι θερμ]όν, κατασκευαστικὸν δὲ | τοῦτο τ[οῦ ζώου]· καὶ ὁ τόπος δέ, εἰς δν | ἡ καταβολ[ή—μήτρ]α δὲ αὕτη—ἐστὶν θερμότερα | καὶ εἰσικ[υία ἐκ]εῖναι· ... *Iatr. col. xix.1–11* [...] ὁ δὲ] | Πόλυβος ἐξ ἐνὸς μ[έν στοιχείου οὐ λέγει] | τὰ ἡμέτερα σώμ[ατα συνεστάναι ἀλλὰ πολλῶν τήν] | αὐτὴν φύσιν ἐχόν[των—ἐξ ὑγροῦ τε καὶ ξηροῦ,] | ψυχροῦ τε καὶ θερμ[οῦ—, οὐ χωρὶς ὄντων τ]ούτων | ἀλλὰ κεκραμένων αὐ[τῶν μετρίως, ὑπερ-] | βαλὼν δὲ θάτερον θατ[έρου, νόσους ἀπο-] | τελεῖν. δευτέρ[ον δὲ λέγει τήν] | τῶν σωμάτων μί[ξιν ἀπὸ αἵματος τε] καὶ φλέγματος καὶ χ[ολῆς ξανθῆς τε] | καὶ μελαίνης. ... *Iatr. col. xix.18–26* Μενεκράτ[η]ς δὲ ὁ Ζε[ῦ]ς ἐπι- | κληθεὶς ἐν Ἱατρικῇ δ[ε]ῖξιτιν τι[ν]α τῶν | σωμάτων ἐκτιθέμενος οὕτως αἰτιολογεῖ | τὰ πάθη, πρότερον περὶ τῶν πο[ιοτ]ή[τ]ων | πολυπραγμονῶν τῶν σωμάτων, συνεστάναι γ[άρ] | λέγει τὰ σώματα ἐκ τῶν τεσσάρων | στοιχείων, β' μὲν θερμῶν, β' δὲ ψυχρῶν | θερμῶν μὲν αἵματος χολῆς, ψυχρῶν | δὲ πνεύματος [κ]αὶ φλέγματος. ... *Iatr. col. xx.1* ὁ δὲ Αἰ[γινήτης] | Πέτρων συνεστάναι φησὶν τὰ ἡ[μέτερα] | σώματα ἐκ δισσο[ῶν] στοιχείων, ψυχροῦ | τε καὶ θερμοῦ, ἐκατέρω δὲ τούτ[ων] | ἀπολείπει τι ἀντίστοιχον, τῷ μ[έν] | θερμῷ τὸ ξηρόν, τῷ δὲ ψυχρῷ [τὸ ὑγρόν.] | καὶ ἐκ μὲν δὴ τούτων συνεστάναι τὰ σώ[ματα]. ... *Iatr. col. xx.25–30* Φιλιστίων δ' οἶται ἐκ δ' ἰδεῶν συνεστά- | ναι ἡμᾶς, τοῦτ' ἔστιν ἐκ δ' στοιχείων· πυρός, | ἄερος, ὕδατος, γῆς. εἶναι δὲ καὶ ἐκάστου δυνάμεις | τοῦ μὲν πυρὸς τὸ θερμόν, τοῦ δὲ ἄερος | τὸ ψυχρόν, τοῦ δὲ ὕδατος τὸ ὑγρόν, | τῆς δὲ γῆς τὸ ξηρόν.

Chapter heading: —

b Sources and Other Parallel Texts

General texts: cf. Aristotle *PA* 1.1 640a10–12 δεῖ δὲ μὴ λεληθῆναι καὶ πότερον προσήκει λέγειν, ὥσπερ οἱ πρότερον ἐποιοῦντο τὴν θεωρίαν, πῶς ἕκαστον γίγνεσθαι πέφυκε μάλλον ἢ πῶς ἔστιν. οὐ γάρ τι μικρὸν διαφέρει τοῦτο ἐκείνου. 2.1 646a12–15 τριῶν δ' οὐσῶν τῶν συνθέσεων πρῶτην μὲν ἂν τις θεῖη τὴν ἐκ τῶν καλουμένων ὑπὸ τινῶν στοιχείων, οἷον γῆς ἄερος ὕδατος πυρός. ἔτι δὲ βέλτιον ἴσως ἐκ τῶν δυνάμεων λέγειν ... (similar remarks at *GA* 1.1 715a9–11). see also *GA* 2.6 745b21–22 πῶς μὲν οὖν ἕκαστον συνίσταται τῶν μορίων εἴρηται, καὶ τί τῆς γενέσεως αἴτιον.

Chapter heading: cf. Aristotle *PA* 1.1 640a11 πῶς ἕκαστον γίγνεσθαι πέφυκε. *GA* 2.6 745b21 πῶς μὲν οὖν ἕκαστον συνίσταται τῶν μορίων εἴρηται.

§1 *Empedocles*: Empedocles fr. 31B96 at Simp. in *Phys.* 300.19–26 καὶ γὰρ λόγῳ τινὶ ποιεῖ σάρκα καὶ ὅσπου καὶ τῶν ἄλλων ἕκαστον. λέγει γοῦν ἐν τῷ πρώτῳ τῶν Φυσικῶν· 'ἡ δὲ χθὼν ἐπιήρως ἐν εὐστέροισι χρόανοισι / τῷ δύο τῶν ὀκτῶ μερέων λάχε Νήστιδος αἰγλῆς, / τέσσαρα δ' Ἐφαίστοιο· τὰ δ' ὅσπερ λευκὰ γέγοντο / Ἀρμονίης κόλλησιν ἀρηρότα θεσπέσιγεν·' τοῦτέστιν ἀπὸ τῶν θείων αἰτίων καὶ μάλιστα τῆς Φιλίας ἢ τοῦ Ἀρμονίας· ταῖς γὰρ ταύτης κόλλαις ἀρμόζεται. fr. 31B98 at Simp. in *Phys.* 331.3–9 (lines also quoted at 32.6–10) καὶ τὰ μόρια τῶν ζῶων ἀπὸ τύχης γενέσθαι τὰ πλεῖστα φησὶν ὡς ὅταν λέγῃ 'ἡ δὲ χθὼν τούτοις ἴση συνέκρυσσε μάλιστα, / Ἐφαίστωι τ' ὄμβρῳ τε καὶ αἰθέρι παμφανώνντι, / Κύπριδος ὀρμισθεῖσα τελείους ἐν λιμένεσσιν, / εἴτ' ὀλίγον μείζων εἴτε πλεόνεσσιν ἐλάσσω·' ἐκ τῶν αἰμάτων τε γέγοντο καὶ ἄλλης εἶδεα σαρκός.' Plato *Tim.* 73b–c τὸ δὲ ὅστων καὶ σαρκῶν καὶ τῆς τοιαύτης φύσεως περὶ πάσης ὧδε ἔσχεν. τούτοις σύμπασι ἀρχὴ μὲν ἡ τοῦ μυελοῦ γένεσις· οἱ γὰρ τοῦ βίου δεσμοί, τῆς ψυχῆς τῷ σώματι συνδουμένης, ἐν τούτῳ διαδούμενοι κατερρίζουν τὸ θνητὸν γένος· αὐτὸς δὲ ὁ μυελὸς γέγονεν ἐξ ἄλλων. τῶν γὰρ τριγῶνων

ὅσα πρῶτα ἀστραβὴ καὶ λεία ὄντα πῦρ τε καὶ ὕδωρ καὶ ἀέρα καὶ γῆν δι' ἀκριβείας μάλιστα ἦν παρασχεῖν δυνατά, ταῦτα ὁ θεὸς ἀπὸ τῶν ἑαυτῶν ἕκαστα γενῶν χωρὶς (c) ἀποκρίνων, μειγνὺς δὲ ἀλλήλοις σύμμετρα, πανσπερμίαν παντὶ θνητῷ γένει μηχανώμενος, τὸν μυελὸν ἐξ αὐτῶν ἀπηργάσατο ... *Tim.* 73e τὸ δὲ ὅσπου συνίστησιν ᾧδε. γῆν διαττήσας καθαρὰν καὶ λείαν ἐφύρασε καὶ ἔδευσε μυελῷ, καὶ μετὰ τοῦτο εἰς πῦρ αὐτὸ ἐντίθησιν, μετ' ἐκεῖνο δὲ εἰς ὕδωρ βάπτει, πάλιν δὲ εἰς πῦρ, αὐθὶς τε εἰς ὕδωρ· μεταφέρων δ' οὕτω πολλακίς εἰς ἑκάτερον ὑπ' ἀμφοῖν ἄτηκτον ἀπηργάσατο. ... *Tim.* 74d–e τὴν δὲ τῶν νεύρων φύσιν ἐξ ὅσπου καὶ σαρκὸς ἀζύμου κράσεως μίαν ἐξ ἀμφοῖν μέσῃ δυνάμει συνεκεράσατο, ξανθῷ χρώματι προσχρώμενος. ὅθεν συντονωτέραν μὲν καὶ γλίσχροτέραν σαρκῶν, μαλακωτέραν δὲ ὁστῶν ὑγροτέραν τε ἐκτῆσατο δυνάμιν νεύρα· οἷς συμπεριλαβὼν ὁ θεὸς ὅσα καὶ μυελόν, δῆσας πρὸς ἀλλήλα νεύροις, μετὰ ταῦτα σαρξὶν πάντα αὐτὰ κατεσχίασεν ἄνωθεν. **Aristotle** *PA* 1.1 640b4–29 οἱ μὲν οὖν ἀρχαῖοι καὶ πρῶτοι φιλοσοφῆσαντες περὶ φύσεως περὶ τῆς ὕλικῆς ἀρχῆς καὶ τῆς τοιαύτης αἰτίας ἐσκόπουν ... ὁμοίως δὲ καὶ περὶ τὴν τῶν ζώων καὶ τῶν φυτῶν γένεσιν λέγουσιν, οἷον ὅτι ἐν τῷ σώματι ῥέοντος μὲν τοῦ ὕδατος κοιλίαν γενέσθαι καὶ πᾶσαν ὑποδοχὴν τῆς τε τροφῆς καὶ τοῦ περιττώματος, τοῦ δὲ πνεύματος διαπορευθέντος τοὺς μυκτῆρας ἀναρραγῆναι. ὁ δ' ἄρ' καὶ τὸ ὕδωρ ὕλη τῶν σωμάτων ἐστίν· ἐκ τῶν τοιούτων γὰρ σωμάτων συνιστάσι τὴν φύσιν πάντες, εἰ δ' ἔστιν ὁ ἄνθρωπος καὶ τὰ ζῶα φύσει καὶ τὰ μόρια αὐτῶν, λεκτέον ἂν περὶ σαρκὸς εἶη καὶ ὅσπου καὶ αἱματος καὶ τῶν ὁμοιομερῶν ἀπάντων. ὁμοίως δὲ καὶ τῶν ἀνομοιομερῶν, οἷον προσώπου, χειρὸς, ποδός, ἥ τε τοιοῦτον ἕκαστόν ἐστιν αὐτῶν καὶ κατὰ ποῖαν δύνανται. οὐ γὰρ ἰκανὸν τὸ ἐκ τίνων ἐστίν, οἷον πυρὸς ἢ γῆς, ὥσπερ κἂν εἰ περὶ κλίνης ἐλέγμεν ἢ τινος ἄλλου τῶν τοιούτων, ἐπειρώμεθα μάλλον ἂν διορίζειν τὸ εἶδος αὐτῆς ἢ τὴν ὕλην, οἷον τὸν χαλκὸν ἢ τὸ ξύλον· εἰ δὲ μή, τὴν γε τοῦ συνόλου· κλίνη γὰρ τότε ἐν τῷδε ἢ τότε τοῖόνδε, ὥστε κἂν περὶ τοῦ σχήματος εἶη λεκτέον, καὶ ποῖον τὴν ιδέαν. ἢ γὰρ κατὰ τὴν μορφήν φύσις κυριωτέρα τῆς ὕλικῆς φύσεως. also *PA* 1.1 642a16–24 ὅτι πάντες οἱ τοῦτο μὴ λέγοντες (sc. about the two modes of causation) οὐδὲν ὡς εἰπεῖν περὶ φύσεως λέγουσιν· ἀρχὴ γὰρ ἢ φύσις μάλλον τῆς ὕλης ἐνιαχοῦ δὲ που αὕτη καὶ Ἐμπεδοκλῆς (31A78 DK) περιίπτει, ἀγόμενος ὑπ' αὐτῆς τῆς ἀληθείας, καὶ τὴν οὐσίαν καὶ τὴν φύσιν ἀναγκάζεται φάναι τὸν λόγον εἶναι, οἷον ὅσπου ἀποδιδούς τί ἐστιν· οὔτε γὰρ ἓν τι τῶν στοιχείων λέγει αὐτὸ οὔτε δύο ἢ τρία οὔτε πάντα, ἀλλὰ λόγον τῆς μίξεως αὐτῶν. δηλὸν τοίνυν ὅτι καὶ ἡ σὰρξ τὸν αὐτὸν τρόπον ἐστί, καὶ τῶν ἄλλων τῶν τοιούτων μορίων ἕκαστον. *de An.* 1.5 409b30–410a6 ἐξ ὧν μὲν οὖν ἐστιν ἕκαστον τούτων, ἔστω γινώσκων τὴν ψυχὴν καὶ αἰσθάνεσθαι· ἀλλὰ τὸ σύνολον τίτιν γνωρίει ἢ αἰσθῆσεται, οἷον τί θεὸς ἢ ἄνθρωπος ἢ σὰρξ ἢ ὅσπου; ὁμοίως δὲ καὶ ἄλλο ὅτιον τῶν συνθέτων· οὐ γὰρ ὅπως οὖν ἔχοντα τὰ στοιχεῖα τούτων ἕκαστον, ἀλλὰ λόγῳ τινὶ καὶ συνθέσει, καθάπερ φησὶ καὶ Ἐμπεδοκλῆς (31B96 DK) τὸ ὅσπου ἢ δὲ χθὼν ἐπίηρος ἐν εὐστέροισι χρόνοις / τῷ δύο τῶν ὀκτῶ μερῶν λάχε νῆστιδος αἰγλῆς, / τέσσαρα δ' Ἡφαίστοιο· τὰ δ' ὅσπερ λευκὰ γέγοντο. cf. also *de An.* 1.4 408a13–20 (31A78 DK) ὁμοίως δὲ ἄτοπον καὶ τὸ τὸν λόγον τῆς μίξεως εἶναι τὴν ψυχὴν· οὐ γὰρ τὸν αὐτὸν ἔχει λόγον ἢ μίξις τῶν στοιχείων καθ' ἣν σὰρξ καὶ καθ' ἣν ὅσπου. συμβῆσεται οὖν πολλὰς τε ψυχὰς ἔχειν καὶ κατὰ πᾶν τὸ σῶμα, εἴπερ πάντα μὲν ἐκ τῶν στοιχείων μειγμένων, ὁ δὲ τῆς μίξεως λόγος ἀρμονία καὶ ψυχὴ. ἀπαιτήσεται δ' ἂν τις τοῦτό γε καὶ παρ' Ἐμπεδοκλέους· ἕκαστον γὰρ αὐτῶν

λόγῳ τινί φησιν εἶναι. **Plutarch** *Aet. Phys.* 917A ἔνιοι δὲ φασιν, ὥσπερ γάλακτος ὀρρόν τοῦ αἵματος παραχθέντος ἐκκρούεσθαι τὸ δάκρυον, ὡς Ἐμπεδοκλῆς (31A78 DK). **Galen** *CAM* 7, p. 1.247.17–248.15 K. ἐπεὶ δ' ὑπέκειτο περὶ σαρκὸς ποιεῖσθαι τὸν λόγον, ἐπ' ἐκείνης ἐξεταζέσθω. εἰ ἐν ἡν τῷ εἶδει τὸ τῆς σαρκὸς στοιχεῖον, οὐδέποτε ἡ σὰρξ ὀδυνήσεται· ἀλλὰ μὴν ὀδυνᾶται· οὐκ ἄρα ἐν ἐστὶ τῷ εἶδει τὸ τῆς σαρκὸς στοιχεῖον. ὁ δ' αὐτὸς λόγος καὶ καθ' ἕτερον ἐρωτηθήσεται τρόπον. εἰ ἀπαθὲς ἐστὶ τὸ τῆς σαρκὸς στοιχεῖον, οὐκ ὀδυνηθήσεται· ἀλλὰ μὴν ὀδυνᾶται· οὐκ ἄρα ἐστὶν ἀπαθὲς. εἰ δὲ καὶ πλείω λέγοι τις εἶναι τὰ στοιχεῖα, μὴ μέντοι γε ἀλλοιούμενα, καὶ ἐπ' ἐκείνων ὁ αὐτὸς λόγος ἐρωτηθήσεται κατὰ τὸν αὐτὸν τρόπον. εἰ ἀπαθὴ τῆς σαρκὸς ἐστὶ τὰ στοιχεῖα, οὐκ ἀλγήσει· ἀλλὰ μὴν ἀλγεί· οὐκ ἄρα ἐστὶν ἀπαθὴ τὰ τῆς σαρκὸς στοιχεῖα. ὁ μὲν οὖν πρότερος λόγος ἀνατρέπει τὴν τε τῶν ἀτόμων, καὶ τὴν τῶν ἀνόρμων, καὶ τὴν τῶν ἐλαχίστων ὑπόθεσιν. κατὰ δὲ τὸν δεύτερον ἢ τε τῶν ὁμοιομερειῶν ἀναιρεῖται δόξα, καὶ ἡ Ἐμπεδοκλέους (—). καὶ γὰρ οὗτος ἐκ τῶν τεσσάρων στοιχείων βούλεται συνίστασθαι τὰ σώματα, μὴ μεταβαλλόντων εἰς ἄλλα. **Alexander of Aphrodisias** in *Met.* 829.21–28 (on N.6 1092b26–28) ὡς οὖν ἐπὶ τοῦ μελικράτου, οὕτω καὶ ἐπὶ τῶν φυσικῶν σωμάτων ῥητέον ψεῦδος εἶναι τὸ λέγειν τὴν γένεσιν αὐτῶν εἶναι ὡς ὁ Ἐμπεδοκλῆς, καὶ ἄλλος τις Πυθαγόρειος οὕτω λέγει, βούλεται. ὁ γὰρ Ἐμπεδοκλῆς φησὶ τὰ ὅσα καὶ τὸ εὖ αὐτοῖς γίνεσθαι, ὅταν ἡ μίξις τῶν στοιχείων οὕτως γένηται ὥστε ἔχειν τὸ πῦρ πρὸς τὴν γῆν λόγον ὃν ἄρτιος ἀριθμὸς πρὸς ἄρτιον, τουτέστιν ὃν ὁ δ' πρὸς τὸν β', καὶ τὸ εὖ τῶν ὁστών ἐστὶ τὸ ἔχειν τὸ ἐν αὐτοῖς πῦρ καὶ τὴν γῆν, ὃν ἄρτιος ἀριθμὸς πρὸς ἄρτιον. ὅπερ ψεῦδος ...

Liber 5 Caput 23

PP: *Papyrus Antinoopolis* 85 fr. 9 recto, p. 8o Barns–Zilliacus; **PB**: ps.Plutarchus *Plac.* 909C–D; pp. 434^a16–435^a9 Diels—**PG**: ps.Galenus *HPh* c. 127; p. 646.4–10 Diels; pp. 415–423 Jas—**PQ**: Qusṭā ibn Lūqā pp. 238–239 Daiber
SL: ms. Stobaei, titulus solus verisim. ex P interpolatus; cf. Elter (1880) 74–75, Wachsmuth (1882) 77.

Titulus κγ'. Πότε ἄρχεται ὁ ἄνθρωπος τῆς τελειότητος (P)

- §1 Ἡράκλειτος καὶ οἱ Στωικοὶ ἄρχεσθαι τοὺς ἀνθρώπους τῆς τελειότητος περὶ τὴν δευτέραν ἐβδομάδα, περὶ ἣν ὁ σπερματικὸς κινεῖται ὁρρός· τὰ γὰρ δένδρα τότε τελειοῦται, ὅταν ἄρχηται γεννᾶν τὰ σπέρματα, ἀτελῆ δ' ἐστὶ καὶ ἄωρα καὶ ἄκαρπα ὄντα. (P₁)
- §2 Ἀριστοτέλης δὲ κατὰ τὴν πρώτην ἐβδομάδα, καθ' ἣν ἔννοια γίνεται καλῶν τε καὶ αἰσchrῶν καὶ τῆς διδασκαλίας ἀρχή. (P₂)
- §3 〈ἄλλοι〉 δὲ τελειοῦσθαι ἡμᾶς τῇ τρίτῃ ἐβδομάδι, ὅταν καὶ γένεια σχῶμεν καὶ τῇ ἰσχύι χρώμεθα. (P_{G3})

5

§1 Heraclitus 22A18 DK; Stoici *SVF* 2.764; §2 Aristoteles, cf. *Pol.* 7.17; §3 anonymi, cf. Solon fr. 27.5–6 West, Arist. *HA* 7.1 582a33–34

titulus Πότε P^{GSL} Diels : Πότε καὶ πῶς P^B : Πῶς P^Q (*wie* Q) || ὁ] om. S^{L-ind} || τῆς τελειότητος ante ὁ ἄνθρωπος P^G §1 [2] τοὺς ἀνθρώπους P^B, cf. *der Mensch* Q : ἡμᾶς P^G || τῆς P^{B(IG)} : om. P^{B(II,III)} || post τελειότητος exhib. P^{GINic} φασι, om. P^{G2} || [3] κινεῖται P^G Diels Mau Lachenaud : κρίνεται P^B : *entsteht* Q || ὁρρός P^B : ὁρός P^{B(I-a.c.)} : πόρος P^G (et ed. Diels, corr. Jas) || [3–4] τὰ γὰρ P^{BQ(ut vid.)} : καὶ τὰ γὰρ P^G Diels || [4] τότε τελειοῦται scripsimus, cf. *werden dan vollendet* Q : τελειοῦται P^G : ἄρχεται τότε τελειότητος P^B || [4–5] ὅταν ... ὄντα P^B, cf. *wenn sie mit der Erzeugung beginnen. Vorher werden sie nicht vollendet, nicht reif und sind unfruchtbar* Q, secl. Diels sed exhib. P^P : brevius P^G ὅταν ἄρχηται καρπὸν φέρειν || [5] καὶ ἄωρα P^{B(II,III)Q} : ἄγωνα P^{B(II)} || ὄντα P^B : om. P^Q ut vid. || post ὄντα continuat §2 sine nomine Aristotelis P^{BQ} Diels Mau Lachenaud §2 [6] Ἀριστοτέλης δὲ P^G : τέλειος οὖν τότε ἄνθρωπος P^B, cf. *Der Mensch wird ... vollendet* Q, τελι[ς] P^P || κατὰ τὴν ... καθ' ἣν P^G : περὶ τὴν δευτέραν ἐβδομάδα P^B, cf. *in der zweite Woche seines Lebensalter* Q, | ραν [P^P : περὶ ... (περὶ ἣν) Marcovich (1966) 121 || [7] καλῶν ... αἰσchrῶν P^G : καλοῦ τε καὶ κακοῦ P^B Marcovich, cf. *zum Verständnis des Guten und Bösen* Q || καὶ ... ἀρχή P^G Marcovich : καὶ διδασκαλίας αὐτῶν P^B, cf. *zu Scharfsinn und Bildung gelangt* Q : post αὐτῶν suppl. ex P^G ἀρχή Lachenaud §3 lemma deest in P^{BQ}, non hab. Diels *DG* edd. || [8] ἄλλοι scripsimus : ἔτεροι P^G || σχῶμεν P^{GNic} Diels Jas : ἀσχοῦμεν P^{G2}

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 9 recto = P §1

τελε[ιοτης οταν αρχηται γενναν τα σπερμα]

τα ατ[ελη δε εστι αωρα και ακαρπα οντα]

τελιο[ς ουν τοτε ανθρωπος περι δε την δευτε]

ραν [

5 ναγ[

ps.Galenus c. 127 (~ tit.) Πότε αρχεται τῆς τελειότητος ὁ ἄνθρωπος (text Jas)

127.1 (~ P1) Ἡράκλειτος καὶ οἱ Στωικοὶ ἀρχεσθαι ἡμᾶς τῆς τελειότητος φασι περὶ τὴν δευτέραν ἐβδομάδα, περὶ ἣν ὁ σπερματικὸς κινεῖται ὁρὸς· καὶ γὰρ τὰ δένδρα τελειοῦται, ὅταν ἀρχηται καρπὸν φέρειν.

127.2 (cf. P1) Ἀριστοτέλης δὲ κατὰ τὴν πρώτην ἐβδομάδα, καθ' ἣν ἔννοια γίνεται καλῶν τε καὶ αἰσχυρῶν καὶ διδασκαλίας ἀρχή.

127.3 (deest in P^{BQ}) ἔτεροι δὲ νομίζουσι τελειοῦσθαι ἡμᾶς τῇ τρίτῃ ἐβδομάδι, ὅταν καὶ γένεια σχῶμεν καὶ τῇ ἰσχύι χρώμεθα.

Loci Aetiani:

quaestio cf. A 2.6 Ἀπὸ ποίου πρώτου στοιχείου ἤρξατο κοσμοποιεῖν ὁ θεός (v.l. in marg. πόθεν ἀρχεται ὁ κόσμος καὶ ἐκ ποίων στοιχείων); titulus 5.17 in S^L ἀπὸ ποίου ἀρχεται μορίου μορφοῦσθαι το ἔμβρυον. A 1.5.3 (contra Platonem de mundo) οὐδὲ γὰρ <εἰ> πάντα περιέχει· καὶ γὰρ ὁ ἄνθρωπός ἐστι τέλειος, ἀλλ' οὐ πάντα περιέχει.

§2 A 4.11[10–15] τῶν δ' ἔννοιῶν αἱ μὲν φυσικῶς γίνονται κατὰ τοὺς εἰρημένους τρόπους καὶ ἀνεπιτεχνητῶς, αἱ δ' ἤδη δι' ἡμετέρας διδασκαλίας καὶ ἐπιμελείας· αὗται μὲν οὖν ἔννοιαι καλοῦνται μόνον, ἐκείναι δὲ καὶ προλήψεις. ὁ δὲ λόγος, καθ' ὃν προσαγορευόμεθα λογικοί, ἐκ τῶν προλήψεων συμπληροῦσθαι λέγεται κατὰ τὴν πρώτην ἐβδομάδα.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A Witnesses

The only evidence is found in the tradition of P (the heading in S^L is most likely interpolated from that tradition, see below, section C). P^B and Q record but a single doxa. Most interestingly, however, P^G breaks this doxa into two and supplies a name-label for the second part. He then adds an anonymous third doxa to the previous two. Given the poor state of preservation of the P tradition for the final part of Book 5, it is not unlikely that G's text is superior. But this will have to be confirmed by the analysis below.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* For this chapter too the most significant parallel is found in the treatise of Censorinus. The link between hebdomads and the development of human beings is treated, first briefly in ch. 7, then at considerable length in ch. 14 (the latter text not noted by Diels). He gives a doxography of the various schemes, attributing them to Varro (his source), then Hippocrates, Solon and Staseas the Peripatetic. It may be surmised, therefore, that A found his material in the doxographical tradition, though there is little specific evidence in the proximate tradition elsewhere. Tertullian's reference to the view of the doctor Asclepiades will have been derived from Soranus' book on the soul, as assumed by Waszink (1947) 433. There is also a strong link to the copious material found on the hebdomad in arithmological literature, which has its own tradition; on this see further Mansfeld (1971) 156–184 and Runia (2001) 278–281, 301–304. It is significant that an arithmological text in Philo *Leg.* 1.10 uses the same terminology of 'completion' as is found in the heading of A's chapter and moreover just like A proceeds only to the third hebdomad. See further the discussions in sections C and D(c) below. See also ch. 5.25 Commentary B on Philo's use of the theme of the ages of life in *Cher.* 114.

(2) *Sources.* In the anterior sources we have found no exact equivalents for the formulation of the question posed in this chapter. However, a number of parallels in the works of Aristotle indicate that it was raised in the earlier tradition. In *HA* at the beginning of 7.1 he introduces the subject of the human being's γένεσις from the womb to old age and emphasizes a little later on the importance of periods of seven years (texts below section E(b)§2). At 582a29 he notes that women are fully ripe for child-bearing at 'three times seven years', but men's reproductive powers still increase after that. In *Politics* 7.17 1336b38–1337a3 he mentions the two hebdomadic periods of human life in which education needs to occur, from seven to twenty-one and adds in characteristic fashion that 'those who divide the ages (sc. of human beings) speak for the most part not badly, but it is necessary to follow the division supplied by nature, for every skill and educative process wishes to supply what nature leaves to be done'. This is a general reference to earlier traditions going back at least to Solon's famous poem (fr. 27 West) and very likely including Heraclitus. No direct quotation on this topic is extant, but it can hardly be doubted that the Ephesian discussed it, together with his views on human generation (fr. 22A19 DK).

C *Chapter Heading*

The witnesses are divided on the first part of the chapter heading. P^B records the composite phrase Πότε καὶ πῶς, which is unique in the *Placita*. The latter interrogative particle asking for the cause is of course common, but surpris-

ingly the former occurs only here, although there is nothing remarkable about a heading addressing the category of time (cf. 5.21 ἐν πόσῳ χρόνῳ). The other witnesses have only one of the two, P^G the former and P^Q the latter. However, the text in S^L supports reading only Πότε. Since this chapter heading is in all likelihood interpolated from P, it tips the scale in favour of that reading. Moreover it is supported by the contents of the chapter, which do not address the aspect of the cause.

As for the remainder of the heading, a text in an arithmological passage in Philo (*Leg.* 1.10, text below section E(a) General texts) speaks of how a human being (ἄνθρωπος) reaches full maturity (ἄκρως τελειοῦσθαι) at the second hebdomad and then explains this τελείωσις in the following sentence. The phrase in the heading ‘commence maturity’ is perhaps a little unusual. Its meaning becomes clear in the first doxa, where it refers to the time that maturity commences as indicated by the beginning of the production of semen. This is illustrated by the case of plants when they start to bear fruit and so produce seeds. (There are a number of texts in Aristotle’s biological works which use the verb ἄρχεται in relation to the process of human development; see references below in section E(b) Chapter heading.) The only other chapter heading which speaks of the beginning of a process is 2.6, Ἀπὸ ποίου πρώτου στοιχείου ἦρξατο κοσμοποιεῖν ὁ θεός, where one of the manuscripts of P records the alternative πόθεν ἄρχεται ὁ κόσμος καὶ ἐκ ποίων στοιχείων. See further our comments ad loc. Finally we note that it is the only chapter heading that explicitly refers to the ‘human being’. The focus of Book 5 on human physiology has already often been noted (see for example our comments on 5.14), but here it is made explicit.

As was the case for ch. 5.22, it is very probably that the heading preserved in the pinax located in S^L is interpolated from P. There is no further evidence that S included the material from this chapter in his Anthology. On the chapter headings in S^L see above, ch. 5.4 Commentary C.

D Analysis

a Context

The subject follows on well from the chapters on embryology and birth in chs. 5.15–19, 21–22 and is the final chapter on the whole process of human reproduction and development. Both ch. 5.17 Τί πρῶτον τελεσιουργεῖται ἐν γαστρὶ and ch. 5.21 Ἐν ποίῳ χρόνῳ μορφοῦται τὰ ζῶα ἐν τῇ γαστρὶ ὄντα can be considered parallel chapters in the embryological context (note the verb τελειοῦσθαι twice in A 5.21.1–2). The subject is approached primarily from this reproductive context and does not touch on the theme of the ‘ages of humankind’ in general. The next chapter 5.24, however, does move on to the subject of death.

b Number–Order of Lemmata

P^B and Q record only a single extended lemma. G divides it into two with two separate name-labels and adds a third. As our analysis below will show, there is a chance that the chapter is complete.

c Rationale–Structure of Chapter

According to P^B and Q the question posed by the chapter heading is given a double answer. The view attributed to Heraclitus and the Stoics is firstly that maturity commences when human beings begin to produce semen at the age of fourteen. The connection between the beginning of human semen production and the double hebdomad is standard in various biological and arithmological texts; see the detailed analysis in Mansfeld (1971) 168–178. Aristotle emphasizes it at the beginning of Book 7 of his *Historia animalium*, where the comparison with plants is also found (cf. also the Stoic comparison of the embryo's growth with plants in A 5.15.2). It is also attributed to Hippocrates by the pseudonymous *De hebdomadibus* and Philo (texts below, section E(a) General texts). On the attribution of the doxa to Heraclitus see section B above. The Stoics pronounced on the question, but they place the emphasis on the development of speech and intellectual skills as couched in the characteristic phrases λόγος προφορικός and λόγος ἐνδιάθετος (cf. 4.11.5, D.L. 7.55, where the verb τελειοῦται is particularly to be noted; cf. our detailed comment on §1 below); see further Mansfeld loc. cit. The arithmological text in Nicomachus seeks to combine various strands in a somewhat confused way and should not be regarded as presenting purely Stoic doctrine.

The text in P^B and Q next rather pointlessly summarizes the doxa so far with the words τέλειος οὖν τότε ἄνθρωπος, the word τότε being repeated from two lines previously. The final part of the doxa then gives an additional development that takes place at (or in) the second hebdomad, awareness of morality. We have found no parallel for this view in the biological and arithmological literature.

The text in G makes much better sense, although no editor (not even Diels) has preferred to take over his version for P (it is included by Marcovich and Mouraviev in their editions of Heraclitus' fragments). Instead of the brief summarizing sentence cited above he just gives the name-label Ἀριστοτέλης. It is likely in our view that a defective ms. tradition caused the sentence to be substituted for the name, i.e. -τέλης → τέλειος. This is at least as likely as that it occurred the other way around. There are two other arguments in favour of G's text. The second view focusing on the first hebdomad forms an attractive diaeresis with the earlier view on the second hebdomad, whereas to have two differing doxai on the second hebdomad is somewhat otiose and one might

expect more than the connecting (or adversative) particle *δέ*, e.g. *ἔτι δέ* as at A 1.1.2, 3.5.3. In addition, the doxa aligns well with Aristotle's discussion in *Pol.* 7.17 which argues that the process of physical and moral education commences at seven years of age when the child ventures outside the home (see 1336b1). The reading *διδασκαλίας ἀρχή* is particularly apposite in the light of this text. As was noted above in section B, at 1336b37 he agrees that division into hebdomads corresponds well to the development of young people and that it goes in two stages, from 7 to 14 and from 14 to 21. Education outside the home begins at 7 and includes moral education from the outset; for this interpretation of the passage see Kraut (1997) 166–168. It might seem implausible that maturity should commence at such an early age, but the view is not impossible if the emphasis is placed on the time of commencement, as additionally indicated by the last word in the doxa, *ἀρχή*. Tertullian's report, which links maturity with the knowledge of good and evil, as happened to Adam and Eve in paradise, supports the connection with moral education, but it is ascribed to the doctor Asclepiades. On the text of this lemma and the fact that the papyrus does not support G, see below, section D(d)§2.

An objection to the above reconstruction of §2 might be the passage at ch. 4.11.1[14–15] in which the view is attributed to the Stoics that the development of the *ἡγεμονικόν* resulting in the acquisition of *logos* is completed at the first hebdomad. As we note in our Commentary on that passage (Commentary D(d) General points (3) and on §1[15]), this does not contradict the view here that maturity occurs with the seminal fluid at the second hebdomad, since that concerns *logos* in the productive sense. The acquisition of *logos*, of course, enables the instillation of moral education. The fact that this view is here attributed to Aristotle should not concern us too much, given the looseness of A's application of name-labels, esp. on a more general topic such as this one.

G then adds a third doxa, of which no trace remains in P^B and Q. But it too makes excellent sense. The identification of maturity with the growth of the beard is taken directly from the already mentioned celebrated poem on the ages of humankind by Solon and is referred to by numerous authors. Aristotle at *HA* 7.1 582a32–33 mentions it in a biological context, but only for a discussion on human development, not maturity. Philo in an arithmological context defines the attainment of the third hebdomad as the *ἀκμή* of human development (*Leg.* 1.10). However, the reference to strength in the final phrase of the doxa is probably taken from Solon's couplet on the fourth hebdomad and so may involve a conflation on the part of the doxographer or his source. Aristotle in the above-mentioned text indicates that male strength develops further after the third hebdomad.

If, therefore, the text is based on the version in G with three doxai, the chapter as a whole makes excellent sense, presenting a diaeresis of three views, one for each of the first three periods of seven years in a human life. The first doxa gives the mainstream view, the other two supplementary and divergent positions. Because of this neat composition, it is tempting to think it complete, but this can only be regarded as a surmisal. Censorinus speaks of the views of doctors and philosophers on hebdomads but doctors are missing in our chapter. Tertullian notes the view (no doubt via Soranus) of Asclepiades which is similar to what we read in §2 (text below section E(a)§2).

Finally, it should be emphasised that, although this chapter contains numbers in the form of the three hebdomads, its emphasis is firmly biological. The periods of seven years are taken as facts of natural development, as witnessed by the production of semen and the comparison with trees. No explanations in terms of the properties of the number seven, which are prominent in arithmological literature are given and also no comparison with other examples of hebdomads. The comparison with the doxography in Censorinus is instructive. The Latin author affirms that of all the thinkers he has cited, those who measure our human life in hebdomads appear to have come closest to nature (§14.7). But he also, as we just noted, adds a long section on ‘the many facts about these hebdomads which doctors and philosophers have entrusted to their books’ (§14.9). None of this is found in the *Placita*. Our doxographer is a good pupil of Aristotle, as he indicates at the outset in ch. 1.1; see there our Commentary D(c), esp. (3).

d Further Comments

Individual Points

§1 The reading ὀρρός or ὀρός is clearly the *lectio difficilior*, because it appears to be only used of milk or blood, not semen. For the latter meaning this text is the single instance given by LSJ. It is retained, however, by all editors. G’s πῶρος provides an alternative, but may well have arisen from a desire to regularize the text (there is an intriguing parallel at Ptolemy *Tetr.* 4.10.8, but it relates to a different arithmological schema of decads which aligns the ages of humankind to the seven planets).

It is worth noting that the combination οὖν τότε appears nowhere else in P^B, which should make us all the more suspicious regarding the short sentence in which it occurs (see above, Analysis D.(c)).

The notion of perfection or completeness (τελειότης) which is central to this chapter is often present in arithmological discussions of the hebdomad. It occurs twice in Solon’s poem (lines 3 and 17). Philo uses the poetic epithet τελέσφορος (literally ‘completion-bringer’) of the hebdomad at *Opif.* 102; note

too the verb *τελειογονεῖσθαι* of infants viable in the seventh and ninth month in §124, also used in *Plac.* 5.17. These terms hints at connections between doxographical and arithmological traditions that are present below the surface, though we cannot be sure of their origin and extent.

§2 The discrepancies between P^B and G are tricky and it is not possible to establish a text that is in any way certain. Because of our conviction that G supplies the better text, we have taken it over integrally in this lemma. Q is not a support for the primacy of P^B, because it clearly depends on the same defective text. But it must be noted that the suggested text is not supported by the papyrus, which clearly reads *τέλειος* and *δευτέραν* as in the transmitted by P^B and witnessed by Q. So his text would not have contained the name-label Aristotle. But a further complication occurs because the letters *ναγ* that survive of the following line cannot be linked up to P^B's text (Barns 1960, 83 in his notes ingeniously suggests *δευτε||ραν [εννοια γινεται του καλου και του ε||ναγ[τιου*, but this is only a guess). If G represents P's (and thus A's) text, the divergence from the mainstream of P's transmission must have occurred quite early.

Marcovich (1966) in a brief note agrees that we should follow G in including the name-label of Aristotle and emending to *πρώτην*, but prefers to adhere to P for the preposition *περί* (twice) and the phrase *καλοῦ τε καὶ κακοῦ*.

§3 If G's additional doxa is accepted, then we have to remove any tell-tale signs of his modifications. *ἔτεροι* is not certainly found as an anonymous name-label in A. At 1.18.3 it is a Stobaeian addition, and this may also be the case at 4.3.10. It is safer to emend to *ἄλλοι*, which is the usual label (cf. 2.32.10, 5.17.6, both with *δέ* as the final lemma). The reading *ἡμᾶς* also gives rise to doubt because of the substitution that G made in the first lemma (replacing *τοὺς ἀνθρώπους*). But it must be noted that the inclusion of the first person is common elsewhere (4.17.2, 4.20.2 etc.). It should be retained here because of the first person plurals in the following line.

e Other Evidence

It has emerged that the themes of this chapter can be traced, to a greater or lesser extent, in other texts, both biological and arithmological. The connections with Solon's poem and the ps.Hippocratean *De hebdomadibus* are particularly noteworthy. But two aspects set the treatment in A apart. His specific emphasis on the reaching of maturity is scarcely paralleled (only weakly in Aristotle *HA* 7.1). In addition, as we previously saw in ch. 5.18, he places no particular emphasis on the special role of the number seven, which is so prominent in the arithmological literature. For him it is merely a useful way of ordering the material and corresponds to common practice in the biological literature.

E Further Related Texts

a Proximate Tradition

General texts: Censorinus 14.1–9 *igitur expositis iis, quae ante diem natalem sunt, nunc ut κλιμακτηρικοί anni noscantur, quid de gradibus aetatis humanae sensum sit, dicam.* (2) Varro (cf. fr. 107 Salvatore) *quinque gradus aetatis aequabiliter putat esse divisos ...* (3) Hippocrates medicus (Hebd. 5) *in septem gradus aetates distribuit, finem primae putavit esse septimum annum, secundae quartum decimum, tertiae duodevicesimum ...* (4) Solon (fr. 27 West) *autem decem partes fecit ...* (5) Staseas Peripateticus (—) *ad has Solonis decem hebdomadas addidit duas ...* (7) *sed ex eis omnibus proxime videntur adaccessisse naturam, qui hebdomadibus humanam vitam emensi sunt. fere enim post septimum quemque annum articulos quosdam et in his aliquid novi natura ostendit, ut et in elegia Solonis cognoscere datur. ait enim in prima hebdomade dentes homini cadere, in secunda pubem apparere, in tertia barbam nasci, in quarta vires, in quinta maturitatem ad stirpem reliquendam, in sexta cupiditatibus temperari, in septima prudentiam linguamque consummari, in octava eadem manere—in qua alii dixerunt oculos albescere—in nona omnia fieri languidiora, in decima hominem morti fieri maturum.* [lacuna on the first hebdomad] *tamen in secunda hebdomade vel incipiente tertia vocem crassiorem et inaequabilem fieri, quod Aristoteles appellat τραγίζειν* (HA 7.1 581.19–21, GA 5.7 787b33–788a1), ... (9) *praeterea multa sunt de his hebdomadibus, quae medici ac philosophi libris mandaverunt ...* cf. also 7.1 *superest dicere de temporibus, quibus partus soleant esse ad nascendum maturi; qui locus eo mihi cura maiore tractandus est, quod quaedam necesse est de astrologia musicaque et arithmetica attingere ...* (for the remainder of this chapter that expatiates on the role of seven in pregnancy see on ch. A 5.18).

On the ages of man see *Corpus Hippocraticum* Hebd. 5 West ἐπ' ἀνθρώπου φύσιος ἑπτὰ εἰσιν ὥραι, ἃς ἡλικίας καλέομεν, παιδίον, παῖς, μαιράκιον, νεηνίσκος, ἀνήρ, πρεσβύτης, γέρων. καὶ παιδίον μὲν ἐστὶν ἄχρις ἑπτὰ ἐτέων (καὶ) ὀδόντων ἐκβολῆς· παῖς δ' ἄχρι γονῆς ἐκφύσιος ἐς τὰ δις ἑπτὰ· μαιράκιον δ' ἄχρι γενείου λαχνώσιος ἐς τὰ τρίς ἑπτὰ ... (cf. Philo Opif. 105; Anatolius Περὶ δέκαδος 37.23–38.5 Heiberg). Philo of Alexandria Opif. 103 δῖχα δὲ τῶν εἰρημένων ἑναργέστατα παριστάσι τὴν τελεσφόρον δύναμιν ἐβδομάδος καὶ αἱ ἐκ βρέφους ἄχρι γήρωος ἀνθρώπων ἡλικίαι μετρούμεναι ταύτῃ· κατὰ μὲν οὖν τὴν πρώτην ἑπταετίαν ἔκφυσις ὀδόντων ἐστὶ· κατὰ δὲ τὴν δευτέραν καιρὸς τοῦ δύνασθαι προῖεσθαι σπέρμα γόνιμον· τρίτῃ δὲ γενεῖναι αὐξήσις ... Leg. 1.10 λογικὸν τέ φασιν ἄνθρωπον κατὰ τὴν πρώτην ἑπταετίαν γίνεσθαι, ὅτε ἤδη ἱκανὸς ἐστὶν ἐρμηνεύς εἶναι τῶν συνήθων ὀνομάτων καὶ ῥημάτων τὴν λογικὴν ἔξιν περιπεποιημένος, κατὰ δὲ τὴν δευτέραν ἑπταετίαν ἄκρως τελειοῦσθαι· τελείωσις δὲ ἐστὶ δύναμις τῆς τοῦ ὁμοίου σποράς· περὶ γὰρ τὴν τετταρεσκαίδεκαετὴ ἡλικίαν τὸ ὅμοιον γεννᾶν δυνάμεθα· τρίτῃ πάλιν ἑπταετία πέρας ἐστὶν αὐξήσεως· ἄχρι γὰρ ἑνὸς καὶ εἴκοσιν ἐτῶν ἐπιδίδωσιν εἰς μέγεθος ἄνθρωπος, καὶ καλεῖται παρὰ πολλοῖς ὁ χρόνος οὗτος ἀκμή. Also at Cher. 114, cited on ch. 5.25 section E(a) General texts. Censorinus 14.3 cited above.

Chapter heading: cf. Philo of Alexandria *Leg.* 1.10 φασιν ἄνθρωπον ... ἄκρως τελειοῦσθαι.

§1 Heraclitus Stoics: Philo of Alexandria *QG* 2.5, pp. 160.7–162.4 Paramelle (cf. 22A19 DK, T 343 Mouraviev) ὅθεν οὐκ ἀπὸ σκοποῦ Ἡράκλειτος τὸν τριακοστὸν γενεὰν καλεῖ, φάσκων ἐν τῇ τριακονταετίᾳ τὸν ἄνθρωπον δύνασθαι πάππον γενέσθαι, ἡβὰν μὲν (γάρ) περὶ τὴν τεσσαρεσκαίδεκάτην, ἡλικίαν ἐν ᾗ σπεῖρειν δυνατὸν, τὸ δὲ σπαρὲν ἐντὸς ἐνιαυτοῦ γενόμενον πάλιν πεντεκαίδεκαετίαν τὸ ὅμοιον ἐαυτῷ γεννᾶν. **Diogenes Laertius** *V.P.* 7.55 (on the Stoics) ζῶου μὲν ἐστὶ φωνὴ ἄῃρ ὑπὸ ὀρμῆς πεπληγμένος, ἀνθρώπου δ' ἔστιν ἔναρθρος καὶ ἀπὸ διανοίας ἐκπεμπομένη, ὡς ὁ Διογένης (of Babylon *SVF* 3 Diog. 17) φησὶν, ἥτις ἀπὸ δεκατεσσάρων ἐτῶν τελειοῦται. **Nicomachus** at ps.Iambl. *Theol.Ar.* 65.8–15 De Falco ἐπτά δὲ ἔτεσιν ἀποβάλλει τοὺς φυσικοὺς ὁδόντας καὶ ἀναφύει τοὺς πρὸς τὴν σκληρὰν τροφὴν ἐπιτηδεῖους, δις δὲ ἐπτά ἡβάσκει καὶ ὥσπερ διηρθρωμένως ἔτυχε τοῦ παντὸς προφορικοῦ λόγου ἐν τῇ προτέρᾳ τῶν ἐτῶν ἑβδομάδι, ... οὕτως ἄρχεται ταῖς τοῦ ἐνδιαθέτου ἐπιβάλλειν διαρθρώσεσιν, καθὼ λογικὸν ἤδη ὑπάρχει ζῶον (sic). **Ptolemy** *Tetr.* 4.10.8 ὁ δὲ τῆς Ἀφροδίτης τὴν μειρακιώδη καὶ τρίτην ἡλικίαν παραλαβὼν ἐπὶ τὴν ἐξῆς ὀκταετίαν κατὰ τὸν ἴσον ἀριθμὸν τῆς ἰδίας περιόδου, κίνησιν εἰκότως τῶν σπερματικῶν πόρων ἐμποιεῖν ἄρχεται κατὰ τὴν πλήρωσιν αὐτῶν καὶ ὀρμὴν ἐπὶ τὴν τῶν ἀφροδισίων συνέλευσιν ... **Calcidius** c. 37 *item quoque secunda hebdomade pubertatem affert utrique sexui gignendique et pariendi maturitatem*. **Macrobius** in *Somn* 1.6.71 *post annos autem bis septem ipsa aetatis necessitate pubescit. tunc enim moveri incipit vis generationis in masculis et purgatio feminarum*.

§2 Aristotle: **Tertullian** *de An.* 38.1–2 (from **Soranus**, T23 Podolak) ... *omnia naturalia animae ipsi substantiae inesse pertinentia ad sensum et intellectum ex ingenito animae censu, sed paulatim per aetatis spatia procedere et varie per accidentia evadere pro artibus, pro institutis, pro locis, pro dominatricibus potestatibus, quod tamen faciat ad carnis animaeque propositam nunc societatem, pubertatem quoque animale cum carnali dicimus convenire pariterque et illam suggestu sensuum et istam processu membrorum exsurgere a quarto decimo fere anno, non quia Asclepiades* (cf. Vallance *ANRW* 2.37.1, p. 727) *inde sapientiam supputat, nec quia iura civilia abhinc agendis rebus attemperant, sed quoniam et haec a primordio ratio est.* (2) *si enim Adam et Eva ex agnitione boni et mali pudenda tegere senserunt, ex quo id ipsum sentimus, agnitionem boni et mali profiteamur. ab his autem annis et suffusior et vestitior sexus est, et concupiscentia oculis arbitris utitur et communicat placitum et intellegit quae sint et fines suos ad instar ficulneae contagionis prurigine accingit et hominem de paradiso integritatis educit ...*

§3 Anonymi see *Corpus Hippocraticum*, Philo, Anatolius cited above under General texts.

b Sources and Other Parallel Texts

General texts: **Aristotle** *Pol.* 7.17 1336b35–1337b3 διελθόντων δὲ τῶν πέντε ἐτῶν τὰ δύο μέχρι τῶν ἐπτά δεῖ θεωροῦς ἢ διὰ γίνεσθαι τῶν μαθήσεων ὥς δεήσει μανθάνειν αὐτούς. δύο δ' εἰσὶν ἡλικίαι πρὸς ὥς ἀναγκαῖον διηρῆσθαι τὴν παιδείαν, πρὸς

τὴν ἀπὸ τῶν ἑπτὰ μέχρι ἡβης καὶ πάλιν πρὸς τὴν ἀφ' ἡβης μέχρι τῶν ἑνὸς καὶ εἴκοσιν ἐτῶν. οἱ γὰρ ταῖς ἐβδομάσι διαιροῦντες τὰς ἡλικίας ὡς ἐπὶ τὸ πολὺ λέγουσιν οὐ κακῶς, δεῖ δὲ τῇ διαιρέσει τῆς φύσεως ἐπακολουθεῖν· πᾶσα γὰρ τέχνη καὶ παιδεία τὸ προσλείπον βούλεται τῆς φύσεως ἀναπληροῦν. *Scholia in Platonem Alc.* 121e, p. 99 Greene = pp. 152–153 Cufalo δις ἑπτὰ· τότε γὰρ ὁ τέλειος ἐν ἡμῖν ἀποφάνεται λόγος, ὡς Ἀριστοτέλης (cf. *Pol.* 7.17 above) καὶ Ζήνων (SVF 1.149) καὶ Ἀλκμαίων ὁ Πυθαγόριος (*sic*—cf. Arist. *HA* 9.1 581a16 cited below §2, who does not call him a Pythagorean) φασίν.

Chapter heading: for ἄρχεται cf. Aristotle *HA* 5.14 544b13, 25; 7.1 589a13, 15; *GA* 1.19 727a6. cf. also Pliny *Nat.* 1 Index Liber VII *de spatiis vitae longissimis*.

§1 Heraclitus Stoics: Heraclitus see in addition to Philo *QG* 2.5 cited above Plutarch *Def.* 415E, Censorinus 17.2 (on a generation of thirty years; both texts at 22A19 DK). Zeno see above, General texts. cf. Iamblichus *de An.* at Stob. *Ecl.* 1.48.8 (SVF 1.149) πάλιν τοῖνυν περὶ τοῦ νοῦ καὶ πασῶν τῶν κρειττόνων δυνάμεων τῆς ψυχῆς οἱ μὲν Στωικοὶ λέγουσι μὴ εὐθὺς ἐμφύεσθαι τὸν λόγον, ὕστερον δὲ συναθροίζεσθαι ἀπὸ τῶν αἰσθήσεων καὶ φαντασιῶν περὶ δεκατέσσαρα ἔτη. Diogenes of Babylon at D.L. 7.55 (SVF 3 Diog. 17) ζῶου μὲν ἐστὶ φωνὴ ἀήρ ὑπὸ ὀρμῆς πεπληγμένος, ἀνθρώπου δ' ἐστὶν ἔναρθρος καὶ ἀπὸ διανοίας ἐκπεμπομένη, ὡς ὁ Διογένης φησίν, ἥτις ἀπὸ δεκατεσσάρων ἐτῶν τελειοῦται.

§2 Aristotle: Aristotle *HA* 7.1 581a9–18 περὶ δ' ἀνθρώπου γενέσεως τῆς τε πρώτης τῆς ἐν τῷ θήλει καὶ τῆς ὕστερον μέχρι γήρως, ὅσα συμβαίνει διὰ τὴν φύσιν τὴν οἰκείαν, τὸν δ' ἔχει τὸν τρόπον. ... φέρειν δὲ σπέρμα πρῶτον ἄρχεται τὸ ἄρρεν ὡς ἐπὶ τὸ πολὺ ἐν τοῖς ἔτεσι τοῖς δις ἑπτὰ τετελεσμένοις· ἅμα δὲ καὶ ἡ τρίχωσις τῆς ἡβης ἄρχεται, καθάπερ καὶ τὰ φυτὰ μέλλοντα σπέρμα φέρειν ἀνθεῖν πρῶτον Ἀλκμαίων φησίν ὁ Κροτωνιάτης (24A15 DK). cf. *HA* 5.14 544b25–27 (on human beings) ἄρχεται δὲ φέρειν τὸ σπέρμα περὶ τὰ δις ἑπτὰ ἔτη, γεννητικὸς δὲ περὶ τὰ τρις ἑπτὰ.

§3 Anonymi: Solon fr. 27.5–8 West τῇ τριτάτῃ δὲ γένειον ἀεξομένων ἔτι γυῖων / λαχνοῦται, χροίης ἀνθος ἀμειβομένης. / τῇ δὲ τετάρτῃ πᾶς τις ἐν ἐβδομάδι μέγ' ἄριστος / ἰσχύν, ἥ τ' ἄνδρες πείρατ' ἔχουσ' ἀρετῆς (verses cited at Philo of Alexandria *Opif.* 104–105, Clement of Alexandria *Strom.* 6.145 etc.). Aristotle *HA* 7.1 582a27–33 μετὰ δὲ τὰ τρις ἑπτὰ ἔτη αἱ μὲν γυναῖκες πρὸς τὰς τεκνοποιίας ἤδη εὐκαίρως ἔχουσιν, οἱ δ' ἄνδρες ἔτι ἔχουσιν ἐπίδοσιν. ... καὶ γενεῖου δὲ τρίχως συμβαίνει τοῖς ἄρρεσι περὶ τὴν ἡλικίαν ταύτην (also at *HA* 7.1 581a13–15 cited above under General texts).

Liber 5 Caput 24

- PP:** *Papyrus Antinoopolis* 85 fr. 9b verso, p. 182 Barns–Zilliacus (1967)—**PB:** ps.Plutarchus *Plac.* 909D–F; pp. 435^a10–436^a16 Diels—**PG:** ps.Galenus *HPh* c. 128; p. 646.11–17 Diels; pp. 423–432 Jas—**PQ:** Qustā ibn Lūqā pp. 238–241 Daiber
- S: Stobaeus *Ecl.* 1.44, p. 1.297.10 Wachsmuth, titulus solus ex Phot. *Bibl.* 167, p. 112b27 Henry

Titulus κδ'. Πῶς ὕπνος γίνεται καὶ θάνατος (P,S)

- §1 Ἀλκμαίων ἀναχωρήσει τοῦ αἵματος εἰς τὰς αἰμόρρους φλέβας ὕπνον
γίνεσθαι φησι, τὴν δ' ἐξέγερσιν διάχυσιν, τὴν δὲ παντελῇ ἀναχωρήσιν
θάνατον. (P₁)
- §2 Ἐμπεδοκλῆς τὸν μὲν ὕπνον κατὰ ψύξιν τοῦ ἐν τῷ αἵματι θερμοῦ 5
σύμμετρον γίνεσθαι, κατὰ δὲ ἀσύμμετρον καὶ παντελῇ ἐπαγγέλλειν
θάνατον. (P₂)
- §3 Διογένης, εἰ ἐπὶ πᾶν τὸ αἷμα διαχεόμενον πληρώσει μὲν τὰς φλέβας τὸν
δ' ἐν αὐταῖς περιεχόμενον ἀέρα ὥσει εἰς τὰ στέρνα καὶ τὴν ὑποκειμένην
γαστέρα, ὕπνον γεγενῆσθαι καὶ θερμότερον ὑπάρχειν τὸν θώρακα· ἐάν 10
δ' ἅπαν τὸ ἀερῶδες ἐκ τῶν φλεβῶν ἐκλίπη, θάνατον συντυγχάνειν. (P₃)
- §4 Στράτων οἱ Στωικοὶ τὸν μὲν ὕπνον γίνεσθαι ἀνέσει τοῦ αἰσθητικοῦ
πνεύματος οὐ κατ' ἀναχαλασμόν, καθάπερ ἐπὶ τῆς (μέθ)ης, φερομένου

§1 Alcmaeon 24A18 DK; §2 Empedocles 31A85 DK; §3 Diogenes 64A29 DK; §4 Strato fr. 128 Wehrli, 66 Sharples; Stoici *SVF* 2.767

titulus Πῶς ... καὶ θάνατος ^{PB(II)G}: Πῶς ... ἡ θάνατος τῆς ψυχῆς ἡ (καὶ ^{PQ(ut vid.)}) σώματος ^{PB(I,III)} (dittographia e 5.25) || Περὶ ὕπνου καὶ θανάτου ^{S^{Phot}} §1 [2] αἰμόρρους ^{PQ} (*die es* (*das Blut*) *transportierende* Q) Reiske Diels, cf. ^{PG} αἰμορροούσας : ὁμόρρους ^{PB(III)}, ὁμόρους ^{PB(I,II)} || [3] φησι ... διάχυσιν om. ^{PG} || [3–4] ἀναχωρήσιν θάνατον ^{PB^Q}: al. ^{PG} ἀναχωρήσιν διὰ τῆς ψύξεως θάνατον φέρειν §2 [5] κατὰ ψύξιν ^{PB(II)GQ(ut vid.)} Mau Lachenaud : κατὰψύξιν ^{PB(III)} Diels *DG* : καταψύξει ^{PB(II)Q(?)} Xylander Diels *VS Vitek* || [6] σύμμετρον ^{PG^Q} Diels *DG* Mau Lachenaud Laks–Most : συμμέτρῳ ^{PB(II)} Xylander Diels *VS Vitek* : τὸν ὕπνον συμμέτρῳ ^{PB(I,III)} || [6] κατὰ ... ἐπαγγέλλειν *scripsimus*, cf. τὴν δὲ ἀσύμμετρον ἐπαγγέλλειν ^{PG} : τῇ δὲ ἀσύμμετρῳ καὶ παντελεῖ ^{PB(II)} : τὴν δὲ παντελῇ ^{PQ(ut vid.)} Diels *DG* (κατὰ δὲ παντελῇ Mau Lachenaud Laks–Most) : ἡ παντελεῖ ^{PB(I,III)} (τῇ δὲ παντελεῖ Diels *VS Vitek*) §3 non hab. ^{PG} || [8] ἐπὶ πᾶν ^{PB} : om. ^{PQ} || [9] αὐταῖς Beck edd. : αὐτοῖς ^{PB} || ὑποκειμένην ^{PB} : om. ^{PQ} || [10–11] ἐάν ... ἐκλίπη ^{PB(III)Q} : ἐάν ... ἐκλείπη ^{PB(II)} : εἰ ... ἐκλείπει ^{PB(II)} || [11] συντυγχάνειν ^{PB(I,II)} : τυγχάνειν ^{PB(III)} §4 [12] Στράτων Corsinus Elter Wehrli Sharples, cf. 4.5.2, 5.2.2 et Tertulianus : Πλάτων P, ret. edd. ab Arnim Laks (2015) 31, 35 || [13–14] οὐ ... μεσόφρυν om. ^{PG} || [13] ἐπὶ τῆς (μέθ)ης *scripsimus*, dub. Diels : ἐπὶ τῆς γῆς ^{PB}, cf. *wie es beim Lehm geschieht* Q (et interp. addidit), crucif. edd., ἐπὶ τῆς γη(ράνσεω)ς dub. Mau, prob. Sharples, Ἐπιγένης coni. Usener conl. 3.2.6 || φερομένου ^{PB(II)Q} : φερόμενος ^{PB(I,III)}

δ' ὡς ἐπὶ τὸ ἡγεμονικὸν <ῆ> μεσόφρυνον· ὅταν δὲ παντελὴς γένηται ἡ
ἀνεσις τοῦ αἰσθητικοῦ πνεύματος, τότε γεγενῆσθαι θάνατον. (P4)

15

[14] ὡς ^{PB(IIII)} : om. ^{PB(II)Q(ut vid.)} || <ῆ> con. Corsinus, sed verbum μεσόφρυνον fort. glossa, cf. opinio Stratonis supra 4.5.3 ἐν μεσοφρύῳ : μεσόφρυνον ^{PB}, cf. *dessen Stelle zwischen den beiden Augenbrauen ist* Q : ret. Sharples, dub. ab Arnim qui prop. ἔσωτέρῳ ὄν || παντελὴς ^{PGQ(ut vid.)} : παντελῶς ^{PB} || [15] τότε ^{PB} : om. ^{PGQ(ut vid.)} || γεγενῆσθαι ^{PB} Mau Lachenaud : γίγνεσθαι Diels ab Arnim : συμβαίνειν ^{PG} (post θάνατον)

Testes primi:

Traditio ps.Plutarchi:

Papyrus Antinoopolis 85 fr. 9b verso = P §§2–3

γινεσθ]αι [
 Δι]ογενης ει [
 πλη]ρωσει μ[εν
 περ]ιε[χομενον

ps.Galenus HPh c. 128 (~ tit.) Πῶς ὕπνος γίνεται καὶ θάνατος (text Jas)

128.1 (~ P1) Ἀλκμαίων ἀναχωρήσει τοῦ αἵματος εἰς τὰς αἰμορροούσας φλέβας ὕπνον γίγνεσθαι, τὴν δὲ παντελὴ ἀναχώρησιν διὰ τῆς ψύξεως θάνατον φέρειν.

128.2 (~ P2) Ἐμπεδοκλῆς τὸν μὲν ὕπνον κατὰ ψύξιν τοῦ ἐν τῷ αἵματι θερμοῦ σύμμετρον, τὴν δὲ ἀσύμμετρον ἐπαγγέλλειν θάνατον.

128.3 (~ P4) Πλάτων καὶ οἱ Στωικοὶ τὸν μὲν ὕπνον γίγνεσθαι ἀνέσει τοῦ αἰσθητικοῦ πνεύματος, ὅταν δὲ παντελὴς γίγνηται ἡ ἀνεσις τοῦ αἰσθητικοῦ πνεύματος, θάνατον συμβαίνειν.

Loci Aetiani:

quaestio A 5.25 Ὅποτέρου ἐστὶν ὕπνος καὶ θάνατος, ψυχῆς ἢ σώματος. A 5.2 Πῶς ὄνειροι γίνονται. cf. A 1.7.1[52–54] αἰώνιος γὰρ ὕπνος ὁ θάνατός ἐστιν· ἀλλ' οὐδὲ δεκτικὸς ὕπνου θεός, τὸ γὰρ ἀθάνατον τοῦ θεοῦ καὶ τὸ ἐγγὺς θανάτου πολὺ κεχώρισται.

§1 cf. A 5.30.2 Ἡρόφιλος τὰς νόσους συμπίπτειν ὡς μὲν ὑφ' οὗ ὑπερβολὴ θερμότητος ἢ ψυχρότητος· ὡς δ' ἐξ οὗ διὰ πλῆθος τροφῆς ἢ ἔνδειαν· ὡς δ' ἐν οἷς, ἢ αἷμα ἢ μυελὸν ἢ ἐγκέφαλον· γίνεσθαι δέ ποτε καὶ ὑπὸ τῶν ἔξωθεν αἰτιῶν, ὑδάτων ποιῶν ἢ χώρας ἢ κόπων ἢ ἀνάγκης ἢ τῶν τούτοις παραπλησίων· τὴν δὲ ὑγείαν τὴν σύμμετρον τῶν ποιῶν κράσιν.

§4 A 4.5.3 (de loco τοῦ ἡγεμονικοῦ) Στράτων ἐν μεσοφρύῳ. A 5.2.2 Στράτων ἀλόγῳ φῶσει τῆς διανοίας ἐν τοῖς ὕπνοις αἰσθητικωτέρας μὲν τῆς ψυχῆς γινομένης, παρ' αὐτὸ δὲ τοῦτο τῷ γνωστικῷ κινουμένης.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

P^B and Q preserve four doxai of moderate length, of which G takes over all but the third. That S had a chapter on this subject can only be deduced from Photius' index (this is not indicated by Wachsmuth in his edition). Not even its chapter heading survives in the manuscripts. The heading given by Photius, Περὶ ὕπνου καὶ θανάτου, strongly suggests that S combined material from this and the following ch. 5.25 in his Anthology.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* Now that the long section on conception, birth and human development has come to an end, the doxographical parallels in Censorinus dry up completely. A compact doxography is still found in *Def. Med.*, albeit in a different location in that collection. In contrast to our chapter, the soul plays a prominent role in the first two definitions and is implicit in the third (which speaks of 'ruling parts' in the plural). The explanation of the cause, however, is given in purely physiological and material terms. By far the most illuminating parallel text, however, is the doxography on sleep found in Tertullian *de An.* 43. This text shares the emphasis on physiological factors—as opposed to psychological—which is the chief feature of A's presentation in this chapter (the soul makes its appearance in the next chapter 5.25). The church father's text contains the names of eight philosophers, three of whom are found in A (Stoics, Empedocles, Strato). His doxai are more compact than those of A, but the common elements (e.g. for Empedocles κατὰ ψύξιν ~ *refrigerationem*; for the Stoics ἀνέσει τοῦ αἰσθητικοῦ πνεύματος ~ *resolutionem sensualis vigoris*) indicate a shared tradition, the other representative of which has been identified as Soranus *De anima* (fr. 25 Podolak). We note, however, that Tertullian does not make the connection with the subject of death, which is dealt with quite differently at *de An.* 52.

In the Stoic doxography in Diogenes Laertius, sleep is described as occurring when the 'sensitive tension around the ruling part' is loosened (text below section E(a)§4). This resembles §4, but A gives more emphasis to physiological factors. In the scholion interspersed at Epicurus *Ep. Hdt.* 66 sleep is attributed to the collision of soul atoms scattered through the body. This differs from the explanation in Tertullian, *deminutio spiritus animalis* (cf. *indigentia spiritus* for Democritus). The atomist explanation is missing in our chapter.

(2) *Sources.* Earlier parallel material that can illuminate A's doxai and the features of his approach (physiological factors, connection between sleep and

death) is available in Aristotle's *Parva naturalia*, where sleep is associated with sensitive part of the soul (later developed by the Stoa) and particularly the role of blood in nutrition (cf. A 5.27). There is no dialectical discussion.

The connection between sleep and death was traditional in Greek thought, going back to Homer and Hesiod, as Laks (2015) has noted in his valuable article on 'sommeils présocratiques'. Galen in his treatise on the causes of pulses alludes to the Homeric theme of sleep as the brother of death (Hom. *Il.* 16.682, text below section E(b) General texts). Laks notes the remark attributed to Anaxagoras, 'there are two teachings for (understanding) death, the time before birth and sleep'. S cites the proverbial saying at *Flor.* 4.52b39 Hense (= 59A34 DK). But it is not the kind of material generally used by A. For a wide-ranging survey on the subject of sleep in Greek literature see Wöhrle (1995) 63–77 (but without any reference to our text).

C Chapter Heading

The chapter heading again uses the formula πῶς + the verb γίγνομαι which is so very common in Book 5; see above on ch. 5.2. The chapter thus investigates the cause, rather than giving a definition of sleep (i.e. the question type τί ἐστὶ) as we find in Tertullian and *Def.Med.* For the combination of two (or more) separate but closely related topics cf. chs. 5.27 Περὶ τροφῆς καὶ αὐξήσεως and 5.30 Περὶ ὑγείας καὶ νόσου καὶ γήρωος.

D Analysis

a Context

A now turns to the subject of sleep, which through the subject of dreams forms a link with ch. 5.2, the last chapter before he begins the long section on conception, birth and human development (chs. 5.3–23). We argued there that the chapter might better have been placed in Book 4 on psychology. Sleep is now discussed in a physiological context, with no reference to the soul (this does occur in the next chapter 5.25). The theme of death is brought in because the process of dying is seen as similar to that of sleeping. It does follow on to a limited degree from ch. 5.23 on the human being's attaining of maturity, since death is the final completion of a life. But such a context is not alluded to in the present chapter and it might be argued that a better place for a treatment of the subject of death would have been after ch. 5.30 on health and disease and old age. As we saw above in section B, however, the conjunction of sleep and death was traditional.

This and the related next chapter are the first in the series of chapters that round off the work. On the macro-structural aspect see the Introduction to Book 5, section 3, where we suggest that these chapters can be regarded

as a kind of appendix to the book, as was already suggested in Mansfeld (1990a) 3189 and n. 638.

b Number–Order of Lemmata

The four doxai as preserved in the tradition of P form a tight diaeretically organized structure, as will become clear below. It is not possible to determine whether this is the work of A or of P, both of whom favour the diaeresis. The evidence of Tertullian suggests that the earlier doxographical tradition preserved a broader range of views on sleep (and perhaps on death). These may have been present in A, but given the tight structure, it is perhaps more likely that he selected from them.

c Rationale–Structure of Chapter

In his commentary of the fragments of Diogenes of Apollonia (2008², 174–175), and also in a separate article (2015), Laks gives a valuable analysis of this chapter, which brings to light the key factors for understanding the chapter as a whole. We disagree, however, with his reluctance to accept Corsinus' emendation to Στρώτων for the final doxa (see n. 24).

The doxography commences with Alcmaeon, who has already been prominent in Book 5 (see A 5.3.3, 5.14.1, 5.17.3). He is an φυσικός, i.e. natural philosopher, but one with interests in the physiological sphere (see ch. 5.3 Commentary D(d) on §3, and Introduction to Book 5, section 6). His doxa, together with the following one attributed to Empedocles, form an opposed pair. In both cases the key factor is the blood in the body. For Alcmaeon it is the withdrawal of the blood to the veins that causes sleep. Opposed to this doxa is the Empedoclean view that sleep is caused by the cooling off of the heat conveyed in the blood. Both views can find some echoes in Aristotle's theories on the subject. For the former we recall that for Aristotle it is the role of the blood to convey food, and it is certainly an empirical observation that living beings feel sleepy after having food (see *Somn. Vig.* 3 456a30–b2). For the latter view we recall that Aristotle explains sleep through the evaporation of food, which causes heat to rise in the body (cf. *Somn. Vig.* 3 456b22–29). This appears to be the opposite of Empedocles' theory which attributed sleep to cooling off (cf. also the ultra-brief doxa attributed to Empedocles and Parmenides in Tertullian: sleep is *refrigeratio*). In another brief Aristotelian treatise death is linked, quite predictably, with extinction of the vital heat (*Juv.* 4 469b17–20), but the context there is life and death, not sleep and death as in A. Another contrast, pointed out by Laks, is that for Alcmaeon sleep is caused by the diffusion of blood as a principle of life, whereas for Empedocles it is its condition, i.e. whether it is heated or cooled.

The second pair of doxai focus on the role of air/*pneuma*. As Laks has pointed out, the third doxa stands in a double dialectical relationship to the previous two. On the one hand, whereas in the first pair blood is the principle of life and its flow allows the living being to wake from sleep, for Diogenes it acts as an impediment to the distribution of the vital air/*pneuma*, causing it to concentrate in the midriff and so inducing sleep. On the other hand, for Diogenes, as in the case of the Empedoclean doxa, there are two contrary forces at work, air and blood (as compared with the hot and the cold in Empedocles). In contrast to the second doxa, however, these two agents have to work together rather than be simply opposed to each other.

The final doxa must be attributed to Strato and the Stoics (on the first name-label see next section D(d) below). Its focus on the role of the 'sensory spirit' follows on from the previous doxa. Unlike in that doxa, but similar to the first Alcmaeon view, there is only a single explanatory factor, i.e. the *pneuma* which is concentrated between the brows in the head (and so causes dreams, cf. the view of Strato in 5.2.2). Another reason for placing this view at the end is that it is the only doxa that does not involve the movement of blood.

Following Laks, therefore, we can determine the chapter's structure in terms of two separate binary oppositions: (1) blood (§§1–2) versus air/*pneuma* (§§3–4); (2) single principle (§1, §4) versus twin principles (§2, §3). In addition, the differing role of blood in §3 forms a connection between the first and the second opposition. Laks further argues persuasively that there is a movement in the chapter towards the final doxa—what he calls a 'construction «vectorialisée»' (2015, 35; cf. also ch. 2.1 Commentary D(c))—, in which the reference to a sensory factor seems to anticipate the view of Aristotle involving the common sense (*Somn.Vig.* 2 455a26). Aristotle's absence is certainly striking. His view commences the following chapter, but from a different perspective.

In the case of all four doxai the process of death is explained as an intensification of the same process that causes sleep. In §§1, 2 and 4 the same term παντελής (complete) is used with three nouns (ἀναχώρησις, ψύξις, ἀνεσις) to explain how death is caused (cf. also A 5.25.1). In §3 it is when all (ἅπαν) the airy substance leaves the veins that death occurs. One might compare the definition of death in ps.Plutarch *Aquane an ignis utilior* (*Mor.* 757E): θάνατος δ' οὐκ ἄλλο τι πλὴν ἔκλειψις θερμοῦ παντελῆς.

Finally we should again emphasise that the approach of the chapter is purely physiological, without any mention of psychological factors. Hence the role of blood and air/*pneuma*, and the locations in the veins, the midriff and the brow. Only in the final doxa is there mention of psychic functions when it speaks of

the 'sensory spirit' and the 'regent part', but the term *ψυχή* is no doubt deliberately avoided. This is in contrast to the following chapter, 5.25, where the discrimination between soul and body is at the heart of the question posed by the chapter.

d Further Comments

Individual Points

§2 For the second half of the doxa we follow Jas' fine analysis. She argues persuasively that G's text shows that the original text in P must have been fuller than what previous editors had assumed. This concerns two elements of the second half. (1) The text in P^{B(II)} proves that the adjective *ἀσύμμετρος* as found in G must have been present, in apposition to *σύμμετρος* in the first half. (2) It is likely that it contained a verb, as represented by *ἐπαγγέλλειν* in G's text (cf. the ending of §3 and §4). This also solves the problem in Mau's emendation to *κατὰ δὲ παντελῇ θάνατον*, where the juxtaposition of the two accusatives, with the former qualifying *ψύξιν* and not the noun following, is very awkward. Jas is also right to argue that it is not so likely that *ἐπαγγέλλειν* is derived from *δὲ παντελῇ*.

§3 The double use of the future tense in the long conditional clause is unusual (the usual construction is with the optative) and it is difficult to determine what the motivation for it is here. We follow Laks in ignoring it in our translation.

§4 Although all the witnesses record the first name-label as *Πλάτων*, there can be little doubt that the correct reading is *Στράτων*. As already noted by Diels in his apparatus, the parallel doxa in Tertullian's doxography and the reference to the *μεσόφρυον* (space between the eyebrows) in 4.5.2, to which can be added parallels in 4.23.3 and 5.2.2, make the emendation first suggested by Corsinus in our view quite certain. It is a fine example of wrong-headed conservatism that Diels and the two recent editors Mau and Lachenaud retain the reading in P. Wehrli and Sharples rightly include the text in their collection of Strato's fragments, although the latter still qualifies it as a *dubium*. See also ch. 5.8 Commentary D(d)§2 on the same mistake in L (but not in P).

The emendation of the obviously wrong *ἐπὶ τῆς γῆς* is more problematic. Mau's suggestion in his apparatus *ἐπὶ τῆς γῆ(ρᾶνσεως)* is paleographically attractive, but it is not supported by any parallel passages. For Diels' *ἐπὶ τῆς μέθης*, on the other hand, references to an abnormal state can be paralleled in A 5.20.5 and Theophrastus *Sens.* 44 (*ἐν ταῖς μέθαις*; both doxai attributed to Diogenes). Nevertheless the emendation must be considered far from certain (Laks prefers to retain the crucifix without comment). Another possibility might be *ἐπὶ τῆς συγκοπῆς* (loss of strength), with Π taken as Γ and the letters *συγκο* deleted because not understood.

Another puzzling phrase in the mss. is ἐπὶ τὸ ἡγεμονικὸν μεσόφρυον, since τὸ ἡγεμονικὸν is common as an adjectival substantive and μεσόφρυον is also always a noun, so that the two appear to be in apposition. Lachenaud translates ‘vers la partie gouvernante, l’espace compris entre les sourcils’, Sharples ‘towards the ruling [principle in] the space between the eyebrows’. We have adopted the solution of Corsinus, to introduce ἥ between the two components of the phrase, since τὸ ἡγεμονικὸν is Stoic and μεσόφρυον is Strato’s view as indicated in the doxa at A 4.5.3 ἐν μεσοφρύῳ. Von Arnim states in his app. crit. that μεσόφρυον is corrupt and implausibly suggests ἐσωτέρῳ ὄν. Another possibility is that the word is a gloss imported from the earlier chapter.

E Further Related Texts

a Proximate Tradition

General texts: *Tertullian de An.* 43.1–2 (Soranus *de An.* fr. 25 Podolak) *de somno prius disputemus, post, mortem qualiter anima decurrat. non utique extranaturale est somnus, ut quibusdam philosophis placet, cum ex his eum deputant causis quae praeter naturam haberi videntur.* (2) *Stoici* (SVF 2.768) *somnum resolutionem sensus affirmant, Epicurei* (fr. 325 Usener) *deminutionem spiritus animalis, Anaxagoras cum Xenophane* (21A51 DK) *defetiscentiam, Empedocles* (T567 Bollack) *et Parmenides* (28A46b DK) *refrigerationem, Strato* (fr. 129 Wehrli, 67 Sharples) *segregationem consati spiritus, Democritus* (fr. 512 Luria) *indigentiam spiritus, Aristoteles marcorem circumcordialis caloris.* see further on ch. 5.25. **ps.Galen** *Def. Med.* 127, p. 19.381.14–382.3 K. ρκζ'. ὕπνος ἐστὶν ἀνεσις ψυχῆς κατὰ φύσιν ἀπὸ τῶν περάτων ἐπὶ τὸ ἡγεμονικόν. οἱ δὲ οὕτως. ὕπνος ἐστὶν ἡ ψυχῆς καταφορά κατὰ φύσιν ἀπὸ τῶν περάτων ἐπὶ τὴν ἀρχήν. ἄλλως. ὕπνος ἐστὶν ἡσυχία καὶ παύλα τῶν ἡγεμονικῶν. τίς ποιητικὴ αἰτία τοῦ ὕπνου; ἡ ἐν ἐγκεφάλῳ χρηστὴ ὕλη. ἡ ὑπνόποιός ἐστὶν ἡ χρηστὴ ὕλη ἀπὸ τοῦ στομάχου εἰς τὸν ἐγκέφαλον ἀναφερομένη καὶ ἡ μᾶλλον ὑγροτέρα καὶ μετρίως θερμότερα ἐστὶ. **Anonymus Londiniensis** *Iatr.* col. xxiii.42–24.9 Manetti τοὺς γε ὕπνους, ὥς φησιν ὁ Ἀρισ(το)τέλης, | ἀποτελεῖσθαι τοῦτον τὸν τρόπον· τῆς | γὰρ καρδίας φύσει θερμῆς ὑπαρχούσης | καὶ ἐξ αὐτῆς ἀνηρημένου τοῦ θερμοῦ, | τοῦ δ' ἐνκεφάλου ψυχροῦ, συμβέβηκεν | περὶ τῷ ἐνκεφάλῳ συνίστασθαι | ὑγρότητα τὴν ἀναφερομένην ὑπὸ | [τ]ῆς θερμότητος ἀπὸ καρδίας, | [ἥ]ν δὲ συνισταμένην κ(ατα)ψύχεσθαι | [κ]αὶ ἐκ τοῦ κα[τάρρου] πάλιν καταφέρεσθαι, | [μὴ] δυναμένην διὰ τὸ βᾶρος ἐπιμέ- | [νειν] ἐν τοῖς τόποις, εἰς [δὲ] τὴν καρδίαν (xxiv) [lines missing] καὶ τῇ μίξει τὸ θερμόν. [ὦ]δε τὸ[ν] ὕπ[ον] γίνεσθαι, | τὴν δὲ ἐγρήγορσιν ἀποτελεῖσθαι ἀν[α]λου- μέν[ης] | τῆς ὑγρότητος ἀπάσης τῆς περὶ τῷ ἐγκεφ[άλῳ], | ἔπειτα τοῦ θερμοῦ πάνυ πλεονάζοντ[ος]. | τοι γε ἑαυτὸν ἐπ[αι]νεῖ ὁ Ἀριστοτέλης, ὅτι π[α]ρὰ [τοὺς] | ἄλλους καὶ τὸν ὕ[π]νον καὶ τὴν ἐγρήγορσιν α[ι]τι[ο]- | λογεῖ, ἐκείνων αὐτὸν [μό]νον τὸν ὕπνον α[ι]τι[ο]λογούντων, μηκέτι δὲ καὶ τὴν ἐγρήγορσιν. **Scholía in Epicurum** at *Ep.Hdt.* 66 text cited on ch. 5.2 under section E(a) General texts.

Chapter heading: cf. **Anonymus Londiniensis** *Iatr.col.* xxiv.7–9 Manetti (on Aristotle and his predecessors) καὶ τὸν ὕ[π]νον καὶ τὴν ἐγρήγορσιν α[ι]τι[ο]- |

λογεῖ, ἐκείνων αὐτὸν [μό]νον τὸν ὕπνον α[ιτιο]λογούντων also cited above under General texts.

§2 *Empedocles*: see *Tertullian de An.* 43.2 cited above.

§4 *Strato Stoics*: see *Tertullian de An.* 43.2 cited above. **Diogenes Laertius** *V.P.* 7.158 (on the Stoics, *SVF* 2.766) τὸν δὲ ὕπνον γίνεσθαι ἐκλυομένου τοῦ αἰσθητικοῦ τόνου περὶ τὸ ἡγεμονικόν. **Cicero** *Div.* 2.119 *similis est error in somniis ... contrahi autem animum Zeno (SVF 1.130) et quas labi putat atque concidere, et id ipsum esse dormire.* see further texts on ch. 5.25.

b Sources and Other Parallel Texts

General texts: **Aristotle** *Somn. Vig.* 1 453b11 περὶ δὲ ὕπνου καὶ ἐγρηγόρσεως ἐπισκεπτέον τίνα τε τυγχάνει ὄντα, καὶ πότερον ἴδια τῆς ψυχῆς ἢ τοῦ σώματος ἢ κοινά, καὶ εἰ κοινά, τίνος μορίου τῆς ψυχῆς ἢ τοῦ σώματος, καὶ διὰ τίν' αἰτίαν ὑπάρχει τοῖς ζώοις κτλ. *Somn. Vig.* 3 456a30–35 ἐχόμενον δὲ τῶν εἰρημένων ἐστὶν ἐπελθεῖν τίνων γιγνομένων καὶ πόθεν ἢ ἀρχὴ τοῦ πάθους γίγνεται, τοῦ τ' ἐγρηγορέναι καὶ τοῦ καθεύδειν. φανερόν δὴ ὅτι ἐπεὶ ἀναγκαῖον τῷ ζῳῷ, ὅταν αἰσθησιν ἔχῃ, τότε πρῶτον τροφήν τε λαμβάνειν καὶ αὔξησιν· τροφή δ' ἐστὶ πᾶσιν ἢ ἐσχάτῃ τοῖς μὲν ἐναίμοις ἢ τοῦ αἵματος φύσις ... 456b17–29 οὐκ ἔστιν ὁ ὕπνος ἀδυναμία πᾶσα τοῦ αἰσθητικοῦ, ἀλλ' ἐκ τῆς περὶ τὴν τροφήν ἀναθυμιάσεως γίγνεται τὸ πάθος τοῦτο· ἀνάγκη γάρ τὸ ἀναθυμιάμενον μέχρι τοῦ ὠθεῖσθαι, εἴτ' ἀντιστρέφειν καὶ μεταβάλλειν καθάπερ εὐριπον. τὸ δὲ θερμόν ἐκάστου τῶν ζώων πρὸς τὸ ἄνω πέφυκε φέρεσθαι· ὅταν δ' ἐν τοῖς ἄνω τόποις γένηται, ἀθρόον πάλιν ἀντιστρέφει καὶ καταφέρεται. διὸ μάλιστα γίγνονται ὕπνοι ἀπὸ τῆς τροφῆς· ἀθρόον γάρ πολὺ τό τε ὕγρὸν καὶ τὸ σωματώδες ἀναφέρεται. ἰστάμενον μὲν οὖν βαρύνει καὶ ποιεῖ νυστάζειν· ὅταν δὲ ῥέψῃ κάτω καὶ ἀντιστρέψαν ἀπώσῃ τὸ θερμόν, τότε γίγνεται ὁ ὕπνος καὶ τὸ ζῶον καθεύδει. *Juv.* 1 467b10 Περὶ δὲ νεότητος καὶ γήρως καὶ περὶ ζωῆς καὶ θανάτου λεκτέον νῦν. see also *PA* 2.2 648a36–b11 cited on ch. 5.25. **Lucretius** *DRN* 4.916–920 *principio somnus fit ubi est distracta per artus / vis animae partimque foras eiecta recessit / et partim contrusa magis concessit in altum; / dissolvuntur enim tum demum membra fluuntque.* **Galen** *Caus. Puls.* 3.9, p. 9.137.17 K. ὕπνος γάρ, ὡς καὶ τῶν ποιητῶν ἔστιν ἀκοῦσαι λεγόντων (cf. *Hom. Il.* 16.682), ἀδελφός ἐστι θανάτου. **Clement of Alexandria** *Protr.* 102.3 οὐκ οὐκ οὐκ ἔτ' ἂν εἰκότως ὕπνος καὶ θάνατος θεῶ διδυμάονε παρ' ὁμῖν νομίζονται, πάθη ταῦτα περὶ τὰ ζῶα συμβαίνοντα φυσικῶς.

Chapter heading: cf. **Aristotle** περὶ ὕπνου καὶ ἐγρηγόρσεως *Somn. Vig.* 1 453b11. **Theophrastus** in catalogue of writings at D.L. 5.45 Περὶ ὕπνου καὶ ἐνυπνίων α' (fr. 328.11a FHS&G); cf. *De somno et somniis* at **Priscianus Lydus** *Solutiones ad Chosroem*, proem., Suppl. *Arist.* 1.2, p. 42.6. **Strato** in catalogue of writings at D.L. 5.59 Περὶ ὕπνου (fr. 18 Wehrli, 1 Sharples).

§2 *Empedocles*: cf. *Corpus Hippocraticum Flat.* 14 ὅταν γάρ ἐπέλθῃ τῷ σώματι ὁ ὕπνος, τότε τὸ αἶμα ψύχεται, φύσει γάρ πέφυκεν ὁ ὕπνος ψύχειν· ψυχθέντι δὲ τῷ αἵματι νωθρότεροι γίνονται αἱ διέξοδοι. also **Aristotle** *Somn. Vig.* 3 456b22–29 see above under General texts. *Juv.* 4 469b17–20 ἀνάγκη τοῖνον ἄμα τό τε ζῆν ὑπάρχειν καὶ τὴν τοῦ θερμοῦ τούτου σωτηρίαν, καὶ τὸν καλούμενον θάνατον εἶναι τὴν τούτου φθοράν.

§3 *Diogenes*: **Theophrastus** *Sens.* 44 (**Diogenes** 64A19 DK) see text cited at A 5.20.5.

Liber 5 Caput 25

PB: ps.Plutarchus *Plac.* 909E–910B; pp. 436^a17–438^a3 Diels—PG: ps.Galenus *HPh* c. 129; p. 646.18–24 Diels—PQ: Qustā ibn Lūqā pp. 240–243 Daiber
S: Stobaeus *Ecl.* 1.44, p. 1.297.10 Wachsmuth, titulus solus ex Phot. *Bibl.* 167, p. 112b27 Henry

Titulus κε'. 'Οποτέρου ἐστὶν ὕπνος καὶ θάνατος, ψυχῆς ἢ σώματος (P,S)

- §1 Ἀριστοτέλης κοινὸν μὲν τὸν ὕπνον σώματος καὶ ψυχῆς· αἴτιον δὲ αὐτοῦ τὸ ἀναθυμιαθὲν ὑγρὸν ἀπὸ τοῦ θώρακος εἰς τοὺς περὶ τὴν κεφαλὴν τόπους ἐκ τῆς ὑποκειμένης τροφῆς ἢ τὸ ἐν τῇ καρδίᾳ περιψυχθὲν θερμόν· τὸν δὲ θάνατον εἶναι παντελῆ κατὰψυξιν· θάνατον δ' εἶναι μόνου τοῦ σώματος οὐ ψυχῆς· ταύτης γὰρ οὐχ ὑπάρχει θάνατος. (P1) 5
- §2 Ἀναξαγόρας κατὰ κόπον τῆς σωματικῆς ἐνεργείας γίνεσθαι τὸν ὕπνον· σωματικὸν γὰρ εἶναι τὸ πάθος οὐ ψυχικόν· εἶναι δὲ καὶ ψυχῆς θάνατον τὸν διαχωρισμόν. (P2)
- §3 Λεύκιππος οὐ μόνον κόπῳ σώματος γίνεσθαι, ἀλλὰ ἐκκρίσει τοῦ λεπτομεροῦς πλείονι τῆς εἰσκρίσεως τοῦ ψυχικοῦ θερμοῦ, καὶ τὸν πλεονασμὸν αἴτιον θανάτου· ταῦτα δ' εἶναι πάθη σώματος οὐ ψυχῆς. (P3) 10

§1 Aristoteles cf. *Somn.Vig.* 1 454a8–11, 3 456b17–29; *Juv.* 4 469b13–20; §2 Anaxagoras 59A103 DK; §3 Leucippus 67A34 DK

titulus 'Οποτέρου PB^(I,III) Mau Lachenaud : Ποτέρου PB^(II) Diels : Πότερον PG^Q || ἐστίν] om. PG || ὕπνος PB : ὁ ὕπνος PG^Q(ut vid.) || καὶ θάνατος PQ^(ut vid.) (*und der Tod* Q) et coni. Diels : ἢ θάνατος PB : om. PG || ψυχῆς ἢ σώματος PB^Q, cf. *der Seele oder dem Körper* Q : τοῦ σώματος ἢ τῆς ψυχῆς PG || cf. Περὶ ὕπνου καὶ θανάτου S^{Phot} §1 [2] σώματος εἶναι καὶ ψυχῆς] inv. PQ || post σώματος add. εἶναι PG || αἴτιον δὲ PG^Q (δ' Diels) : ἔστι δὲ αἴτιον PB^(II) : ἔστι δὲ PB^(I,III) || αὐτοῦ PB^Q Diels : αὐτῷ edd. Mau Lachenaud || [3] εἰς PB^{(II)GQ} : καὶ PB^(I,III) || περὶ] παρὰ PB^(II) || [4] ἐκ PB^{(II)GQ} : καὶ PB^(I,III) || ὑποκειμένης PB^G : συγκειμένης PQ (*zusammengesetzt* Q) || περιψυχθὲν PB^(II) : παραψυχθὲν PB^(I,III) (καταψυχθὲν Diels) : al. Q *daß durch die Abbiegung dieses Dampfes die natürliche Wärme des Herzens ein wenig abkühlt* || [4–6] ἢ ... θάνατος al. PG θάνατον δὲ γίνεσθαι διὰ τῆς παντελοῦς καταψύξεως et om. reliqua || [6] τοῦ secl. Diels || ταύτης ... θάνατος secl. Diels non recte §2 [7] post Ἀναξαγόρας hab. PB^(II) δὲ || κατὰ κόπον PG Diels Mau Lachenaud : om. PB : PQ κατὰ κοινὸν (*etwas Gemeinsames* Q) || [8] τὸ om. PB^(II) || [9] τὸν διαχωρισμόν PB^Q(ut vid.) : κατὰ χωρισμόν PG §§3–4 non hab. PG §3 [10] οὐ μόνον κόπῳ scripsimus, cf. *daß es jenen [Schlaf] nicht gibt* (i.e. leg. οὐ); *vielmehr entsteht er nur durch die Ermüdung des Körpers* Q, οὐ κόπῳ Reiske : οὐ μόνον PB prob. Laks (2015) 47, crucif. Diels (dub. τὸν ὕπνον) Mau Lachenaud || ἐκκρίσει Diels DG (dub. ἀποκρίσει VS) Lachenaud : κρᾶσει PB^Q, Mau Laks || εἰσκρίσεως Diels prob. Laks (ἐκκρίσεως Laks-Most) : ἐκκράσεως PB^(I,III), τῆς κρᾶσεως PB^(II) : om. Q || [11] καὶ PQ^(ut vid.) : non hab. PB, δὲ post πλεονασμὸν add. Diels || πλεονασμὸν, sc. τῆς εἰσκρίσεως sec. Diels DG (sed <ῆς> sc. ἀποκρίσεως VS), cf. *davon* Q

- §4 Ἐμπεδοκλῆς τὸν θάνατον γεγενῆσθαι διαχωρισμὸν τοῦ (γεώδους καὶ ὑδατῶδους καὶ ἀερῶδους καὶ) πυρώδους, ἐξ ὧν ἡ σύγκρισις τῷ ἀνθρώπῳ συνεστάθη· ὥστε κατὰ τοῦτο κοινὸν εἶναι τὸν θάνατον σώματος καὶ ψυχῆς· ὕπνον δὲ γίνεσθαι διαχωρισμὸν τοῦ πυρώδους. (P4) 15

§4 Empedocles 31A85 DK

§4 [13] γεγενῆσθαι] γίγνεσθαι emend. Diels Viték || διαχωρισμὸν P^B Diels DG Mau Lachenaud : leg. P^Q aut διὰ χωρισμὸν (mavult Bollack) aut διαχωρισμῷ (malunt Bernadakis Diels VS Viték) || [13–14] γεώδους ... καὶ³ addidimus, cf. Diels VS qui post πυρώδους prop. καὶ ἀερῶδους καὶ ὑδατῶδους καὶ γεώδους, prob. O'Brien (1969) 166 (καὶ γεώδους solum Reiske) et cf. 4.3.12 : verba desunt in P^{BQ} (διὰ χωρισμὸν τοῦ πυρώδους prop. Bollack prob. Laks, ἀπὸ τῶν στοιχείων add. Guthrie Viték) || [14] ὧν P^{B(II,III)} : οὐ P^{B(II)Q(ut vid.)} Bollack || [14–15] τῷ ἀνθρώπῳ P^{B(III)} : τῶν ἄνω P^{B(I)} : om. P^{B(II)} : sed P^Q fort. τῶν ζώων (*die Lebewesen* Q) || [15] τοῦτο P^{BQ} : τοῦτον dub. Diels || τὸν] om. P^{B(II)} || [16] σώματος καὶ ψυχῆς] inv. Q || ὕπνον ... πυρώδους P^B : al. P^Q (*Der Schlaf aber tritt ein, wenn die Trennung (noch) nicht eingetreten ist. Indessen stellt sich der Schlaf bei der Abbiegung der feurigen Substanz ein Q*) || διαχωρισμὸν P^B Diels DG Mau Lachenaud (διὰ χωρισμὸν P^{B(III:α)}) : διαχωρισμῷ Bernadakis Diels VS Viték, cf. *bei der Abbiegung* Q

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 129 (~ tit.) Πότερον ὁ ὕπνος τοῦ σώματος ἢ τῆς ψυχῆς (text Diels)

129.1 (~ P1) Ἀριστοτέλης τὸν ὕπνον σώματος εἶναι καὶ ψυχῆς· αἴτιον δὲ αὐτοῦ τὸ ἀναθυμαθῆν ἀπὸ τοῦ θώρακος ὑγρὸν εἰς τοὺς περὶ κεφαλὴν τόπους ἐκ τῆς υποκειμένης τροφῆς. θάνατον δὲ γίγνεσθαι διὰ τῆς παντελοῦς καταψύξεως.

129.2 (~ P2) Ἀναξαγόρας κατὰ κόπον τῆς σωματικῆς ἐνεργείας γίγνεσθαι τὸν ὕπνον· σωματικὸν γὰρ εἶναι τὸ πάθος· εἶναι δὲ καὶ τῆς ψυχῆς θάνατον κατὰ χωρισμὸν.

Loci Aetiani:

quaestio A 5.24 Πῶς ὕπνος γίνεται καὶ θάνατος. cf. A 4.3 Εἰ σῶμα ἢ ψυχὴ καὶ τίς ἡ οὐσία αὐτῆς; A 4.7 Περὶ ἀφθαρσίας ψυχῆς; A 4.23 Περὶ παθῶν σωματικῶν καὶ εἰ συναλγεί αὐτοῖς ἢ ψυχῇ.

§1 A 4.7.4 (de anima) Δημόκριτος Ἐπίκουρος Ἀριστοτέλης φθαρτὴν τῷ σώματι συνδιαφθειρομένην.

A 5.1.4 (de divinatione) Ἀριστοτέλης καὶ Δικαίαρχος τὸ κατ' ἐνθουσιασμὸν μόνον παρεισάγουσι καὶ τοὺς ὀνείρους, ἀθάνατον μὲν εἶναι οὐ νομίζοντες τὴν ψυχὴν, θεοῦ δὲ τινος μετέχειν αὐτήν.

§2 A 4.7.1 Πυθαγόρας Ἀναξαγόρας Διογένης Πλάτων Ἐμπεδοκλῆς Ξενοκράτης ἀφθαρτον εἶναι τὴν ψυχὴν. A 4.23 Περὶ παθῶν σωματικῶν καὶ εἰ συναλγεί αὐτοῖς ἢ ψυχῇ.

§3 A 4.3.7 Λεύκιππος ἐκ πυρὸς εἶναι τὴν ψυχὴν. A 4.7.4 cit. supra ad §1 de Democrito. cf. A 4.13.1 Λεύκιππος Δημόκριτος Ἐπίκουρος κατὰ εἰδῶλων εἰσκρισιν οἶοντα τὸ ὁρατικὸν συμβαίνειν πάθος. {καὶ κατὰ τινων ἀκτίνων εἰσκρισιν μετὰ τὴν πρὸς τὸ ὑποκείμενον ἔνστασιν ἀλλιν ὑποστρεφουσάν πρὸς τὴν ὄψιν}.

§4 cf. A 1.24.2 Εμπεδοκλῆς ... καὶ πάντες, ὅσοι κατὰ συναθροισμὸν τῶν λεπτομερῶν σωμάτων κοσμοποιοῦσι, συγκρίσεις μὲν καὶ διακρίσεις εἰσάγουσι, γενέσεις δὲ καὶ φθοράς οὐ κυρίως. A 4.3.12 (de anima) 'Εμπεδοκλῆς μίγμα ἐξ αἰθερώδους καὶ ἀερώδους (καὶ ὕδατῶδους καὶ γεώδους) οὐσίας. A 4.7.1 cit. supra ad §2.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

P^B and Q preserve four doxai of medium length. Only the first two are retained in P^G, of which the former is abridged by leaving out the final part on death pertaining to the body only. No material or even reference to this chapter is preserved in the mss. of S, but the heading preserved by Photius, Περὶ ὕπνου καὶ θανάτου, suggests that he combined it with doxai from the previous chapter 5.24 on sleep.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* On doxographical material relating to the subject of sleep see our Commentary on the twin chapter 5.24.

On the subject of death in relation to the human composite of soul and body, the standard view is that death constitutes the separation of the two components (see §2, the doxa of Anaxagoras). This formulation goes back at least to Plato's *Phd.* 67d. It forms the starting point of discussions on death in a number of authors (texts below section E(a)§2). Cicero in *Tusc.* 1.18 gives a brief doxography of views relating to death without name-labels as follows:

- A Death as separation of soul from body
 - a. soul disperses immediately
 - b. soul survives for a considerable time
 - c. soul survives forever, i.e. is immortal
- B Death as extinction of both soul and body.

He then immediately connects this diaeresis with views on the nature of the soul; see chs. 4.2–3 and our Commentary *ad loc.*, and for the views relating to death esp. ch. 4.7, the Ciceronian texts cited there, and Commentary B. The same scheme is partially preserved by Philo at *Somn.* 1.31 from the viewpoint of the soul only (i.e. a–b–c only, not A&B). This is part of the set of excerpts

which go back to a version of the *Placita* earlier than A (see ch. 2.11 Commentary B, 5.15 Commentary B; also Mansfeld 1990a, 3124). As Mansfeld *ibid.* 3146 notes, comparable schemata underlie Lucretius' repeated views on the nature of death in *DRN* Book 3. A similar dialectical schema, but less clearly set out, underlies Tertullian's treatment of death in *de An.* 51.

Such schemes play no role in A's chapter, however, since A in the physiological context of Book 5 is not interested in the fate of the soul (except his surprising final remark on Aristotle's view). He has in fact dealt with the subject in ch. 4.7, where the contents of doxai attributed to Aristotle, Empedocles and Anaxagoras do not cohere well with those in this chapter. A's approach in the present chapter, with its schematic analysis of death in terms of the characteristics of both body and soul (whether corporeal or incorporeal), would appear to be without precise parallel in ancient sources.

Another intriguing Philonic text *Cher.* 114 deserves our attention. It is part of a religiously coloured text in which God as sovereign is said to give us human beings the use and enjoyment of ourselves. It presents in the first person a compact description of who we are, where we come from and where we are heading towards. Central to the passage is the distinction between soul and body, followed in §116 by the intellect (νοῦς). Various themes are reminiscent of the above-mentioned passage *Somn.* 1.30–32, which uses material from the *Placita* tradition to show how little we know about the intellect and the soul. When describing the body, emphasis is placed on the process of development from baby to full-grown man involving the various stages of life, reminiscent of the topic of ch. 5.23. What is striking in comparison with what we find in A is the presence of distinctively Platonic themes, not just the strong soul-body dualism, but also references to life after death in the incorporeal realm followed by rebirth (παλιγγενεσία, i.e. reincarnation). These are the kind of themes that are missing in our doxography, with its emphasis on physiological aspects and processes. It is striking, in fact, how infrequently Platonic doxai are to be found in Book 5, with after ch. 5.4 only three examples (A 5.15.1, 5.20.4 and 5.26.1, not including 5.24.4 where the name-label must be emended to Strato). On this Philonic text and its likely reference to the doctrine of reincarnation see further Yli-Karjanmaa (2015) 150–167.

(2) *Sources.* On the question of whether sleep and waking belong to the soul or the body or are κοινά, Aristotle in his brief treatise on the subject (*Somn. Vig.* 1 454a8–11, text below section E(b)§1) gives the answer recorded here; see the discussion below section D(c). His treatise contains no dialectical discussions. Given this Aristotelian background, however, it may be surmised that the material in this chapter on sleep derives from the Peripatetic tradition, which surveyed views developed by earlier authors.

On the subject of death in relation to the human composite of soul and body and the key role played by Plato's statement at *Phd.* 67d, see above (a) on the Proximate tradition.

C Chapter Heading

The formulation with ὁποτέρου (literally 'of whichever of the two', simplified to πότερον in G and Q) is unique among the chapter headings in A. But effectively it asks an εἰ question, i.e. whether a phenomenon belongs to the soul or the body, and so is reminiscent of a number of other chapters which focus on corporeality or incorporeality (4.3 on whether soul is corporeal; 4.17 on whether voice is incorporeal; 4.23 on bodily affections and whether the soul is also affected; 5.4 on whether semen is corporeal). The question is well-suited to the schematic and diaeretic method of the *Placita*; see further M–R 2.1.57–58, 147. Following on from the previous ch. 5.24, it again invites investigation of the cause.

D Analysis

a Context

The chapter forms a twin with the previous one. As in ch. 5.24 sleep and death are regarded as closely related phenomena, for which parallel explanatory factors are utilized. However, whereas ch. 5.24 makes no reference to the soul per se (there is only a mention of the αἰσθητικὸν πνεῦμα and the ἡγεμονικόν in §4), in ch. 5.25 the focus is squarely on how the explanations given relate to the two components of the living being, soul and body. Although the reader will probably assume that it is the *human* soul and body that is being referred to, this is not made explicit until the final doxa which speaks of the elemental components of the ἄνθρωπος (but note Q speaks of *Lebewesen*, i.e. 'living beings', in his translation).

b Number–Order of Lemmata

The chapter has four lemmata, the same number as its twin 5.24. Given the lack of exact parallels, it is not possible to gauge whether the chapter has been abridged. One might have expected a doxa of Plato to be included, but see our remarks above in section B.

c Rationale–Structure of Chapter

Each of the four doxai addresses the subject of the chapter in a reasonably comprehensive manner, outlining how sleep and death occur in relation to both soul and body. The chapter continues the main insight of its twin 5.24, namely that death is the intensification of the process that leads to sleep. This is explicit

in the first and third doxa, less clear in the other two. However, in the absence of comparative material it is difficult to determine the exact meaning of the doxai and the intended structure of the chapter. As was already noted above, the views on the soul do not cohere very well with what we read in Book 4, and particularly with ch. 4.7 on the soul's immortality.

(1) The first doxa setting out Aristotelian doctrine immediately answers that sleep is a joint activity of both body and soul. The doxa is taken directly from his treatise *De somno et vigilia*, where both the question and the answer are given in ch. 1, with further details (including the role of food) in ch. 3. The explanation of death follows the same pattern as in 5.24, including the use of the adjective παντελής to indicate intensification of the process of cooling resulting in death (cf. §1 Alcmaeon, §3 Empedocles). For this doctrine the doxographical tradition appears to have made a link between the above text and *De juventute* 4, where death is explained as the destruction of the heat in the heart (but there is no mention of this organ here). It is difficult to determine the source of the final part of the doxa in which it is denied that there is death of the soul. It is perhaps a deduction from the above-mentioned text in *De juventute*. It does not agree with the conventional way of reading the *De anima*, where only the νοῦς does not perish (*de An.* 1.4 408b19; we recall that at A 4.7.4 Aristotle is conjoined with the atomists in saying that the soul perishes together with the body). There is a strong tradition that Aristotle defended the immortality of the soul in his exoteric treatises (esp. the *Eudemus*), but it is highly unlikely that this background is relevant to the present doxa. Another way to rescue the doxa, advocated by Laks (2015) 36–37, is to postulate that the doxographer has the νοῦς in mind here.

(2) The second doxa attributed to Anaxagoras is diametrically opposed to that of Aristotle, i.e. the two views form a diaphonia. (a) Sleep is not a joint phenomenon but pertains to the body only, i.e. as the result of weariness caused by bodily activity. In contrast to the other doxai in the chapter, no precise physiological explanation is given. (b) Death is described as occurring through 'the separation of the soul (sc. from the body)', using a widespread definition best known from Plato's *Phaedo*. It is not indicated what this means for the soul. At A 4.3.2 Anaxagoras is among those who hold that the soul is 'air-like' and is a body. This would imply here that the death involves the destruction of the soul. In A 4.7.1, however, Anaxagoras is credited with the doctrine of the soul's immortality. It is generally agreed that this tenet is difficult to reconcile with what we know about his views on generation and destruction (see for example Guthrie 1962–1981, 2.317) and is likely to be a mistake.

(3) The next doxa of Leucippus follows on from the previous one but adds a physiological explanation, the details of which are rather obscure (there may

be a connection with Aristotle's report on Democritus' views in *Resp.* 4 471b3–16, where life and death are caused by the influx and efflux of 'shapes'). With regard to sleep the view is the opposite of that of Anaxagoras, and so returns to the Aristotelian position. However, the reader is probably meant to recall that for the atomists soul is corporeal. This would explain the final phrase, that these are 'affections of the body and not of the soul'. As in ch. 5.24 and §1, death is the intensification of the process of sleep.

(4) The final Empedoclean doxa differs from the previous three in that death is explained first. Here too textual problems bedevil an understanding of the doxa. The explanations of death and sleep appear to be given in terms of the elemental components of the human body (and not blood as in 5.24.2). Our text follows Diels in restoring all four elements, of which the separation of the 'fiery' is death. But one would also expect a reference to cooling, as found in 5.24.2. Guthrie has proposed emending to διαχωρισμόν τοῦ πυρώδους (ἀπὸ τῶν στοιχείων) ἐξ ᾧν ... (1962–1981, 2.226 n. 1). But this does not explain how death and sleep differ. Death is 'common' to body and soul just as sleep was for Aristotle at the chapter's beginning. If this means that both body and soul dissolve, then it contradicts Empedocles' widely recognised doctrine of the immortality of the soul, as stated in A 4.7.1. But such a conclusion is perhaps not necessary.

Despite a reasonable amount of detail, this chapter remains one of the more obscure in the collection. One suspects that originally behind the various formulations a complex diaeresis may lie hidden, which would be clearer if we could be sure what was exactly meant by the genitives ψυχῆς and σώματος. As an approximate schema we might suggest the following (where B = of body, S = of soul):

Aristotle	sleep B and S (non-corporeal)	death B not S
Anaxagoras	sleep B not S	death B and S
Leucippus	sleep B and S (corporeal)	death B and S
Empedocles	death B and S (complete)	sleep B and S (partial)

This is somewhat reminiscent of the kind of schemata found in the early chapters of Book 2 on the cosmos (cf. M–R 2.313, 340, 355, also above ch. 2.1 Commentary B). But the exact details of the schematism are far from clear, particularly in the case of the final Empedoclean doxa.

Laks (2015) 37 has usefully pointed out that the placement of Aristotle at the beginning of the chapter reflects the fact that 'il formule la problématique qui guide rétrospectivement la lecture des trois notices (présocratiques) qui suivent, mais aussi parce qu'il livre d'emblée la position attendue, conforme aux exigences d'un vague horizon platonicien'. This means that the movement

of the chapter is the reverse of the previous one, not moving towards a dominant view as in 5.24, but starting with such a view and then moving through a number of more idiosyncratic earlier theories. This is again similar to some of the cosmological chapters in Book 2, e.g. 2.14, 2.24, 2.27.

d Further Comments

Individual Points

§1 In the second explanation of sleep it is tempting to read with Diels καταψυχθέν instead of the mss. περιψυχθέν or παραψυχθέν. But the *lectio difficilior* should be retained. A may have wished to have some variation with the noun καταψυξις in the next line. Q paraphrases (*natürliche* may translate κατὰ φύσιν). Diels definitely errs in bracketing the final clause because of the change to *oratio recta*. Such changes are common in A; for examples in this Book see chs. 5.4.3, 5.4.1, 5.8.1, 5.20.4 etc.

§3 The addition of κόπῳ is perhaps not necessary. But it appears to have been in Q's text, as acutely seen by Daiber, who explains the wayward translation by suggesting that Q read a colon after οὐ following the name-label. It should be noted that the nouns ἐκκρίσει and εἰσκρίσεως are both suggestions by Diels based on terminology used in A 4.13.1 and 4.17.2.

§4 The conjecture of the three additional elements in the second line must of course remain somewhat speculative (for ἀερώδης in Empedoclean doxai see A 4.3.12 (where we take over Diels' conjecture), 4.22.1, 5.15.3). All three adjectives are commonly found in A. We have rearranged the three adjectives before ἀερώδους to make the scribal error (*saut du même au même*) more plausible.

E Further Related Texts

a Proximate Tradition

General texts: Cicero *Tusc.* 1.18 *mors igitur ipsa, quae videtur notissima res esse, quid sit primum est videndum. sunt enim qui discessum animi a corpore putent esse mortem: sunt qui nullum censeant fieri discessum, sed una animum et corpus occidere animumque in corpore exstingui. qui discedere animum censent, alii statim dissipari, alii diu permanere, alii semper.* 1.24 *nam si cor aut sanguis aut cerebrum est animus, certe, quoniam est corpus, interibit cum reliquo corpore; si anima est, fortasse dissipabitur; si ignis, exstinguetur ...* (cf. ch. 4.3). 1.92 *quam qui leviores faciunt, somni simillimam volunt esse ... habes somnum imaginem mortis eamque cotidie induis ...* 1.117 *magna tamen eloquentia est utendum ... ut homines mortem vel optare incipiant vel certe timere desistant. nam si supremus ille dies non extinctionem, sed commutationem adfert loci, quid optabilius? sin autem perimit ac delet omnino, quid melius quam in mediis vitae laboribus obdormiscere et ita coniventum somno consopiri sempiterno?*
Philo of Alexandria *Somn.* 1.31 τί δέ; τελευτώντων σβέννυται καὶ συμφθίρεται

τοῖς σώμασιν ἢ πλείστον ἐπιχρόνον ἢ κατὰ τὸ παντελὲς ἄφθαρτόν ἐστι; cf. *Cher.* 113–114 ἐγὼ γοῦν ἐκ ψυχῆς καὶ σώματος συνεστῶς, νοῦν λόγον αἰσθησιν ἔχειν δοκῶν, οὐδὲν αὐτῶν ἴδιον εὐρίσκω (114) ποῦ γάρ μου τὸ σῶμα πρὸ γενέσεως ἦν; ποῖ δὲ καὶ χωρήσει μεταστάντος (μου); ποῦ δὲ καὶ τοῦ δοκοῦντος ὑφεστάναι τῶν ἡλικιῶν αἱ διαφοραὶ; ποῦ τὸ βρέφος, ποῦ ὁ παῖς, ποῦ (ὁ) ἀντίπαις, ποῦ ὁ ἄρτι ἡβῶν, ποῦ τὸ μεिरάκιον, ὁ πρωτογένειος, ὁ νεανίας, ὁ τέλειος ἀνὴρ; πόθεν δὲ ἦλθεν ἡ ψυχή, ποῖ δὲ χωρήσει, πόσον δὲ χρόνον ἡμῖν ὁμοδαίτος ἔσται; τίς δὲ ἐστι τὴν οὐσίαν, ἔχομεν εἰπεῖν; πότε δὲ καὶ ἐκτρησάμεθα αὐτήν; πρὸ γενέσεως; ἀλλ' οὐχ ὑπάρχον· μετὰ τὸν θάνατον; ἀλλ' οὐκ ἐσόμεθα οἱ μετὰ σωμάτων σύγκριτοι ποιοί, ἀλλ' εἰς παλιγγενεσίαν ὁρμήσομεν οἱ μετὰ ἀσωμάτων σύγκριτοι ποιοί. **Tertullian** *de An.* 50.1 *satis de speculo mortis, id est de somno, cum etiam de negotiis somni, id est de somniis; nunc ad originem huius excessus, id est ad ordinem mortis, quia nec ipsam sine quaestionibus, licet finem omnium quaestionum.* 51.1 *opus autem mortis in medio est, descretio corporis animaeque. sed quidam ad immortalitatem animae ... ita argumentationes emendicant, ut velint credi etiam post mortem quasdam animas adherere corporibus.* **Clement of Alexandria** *Strom.* 4.141.1 ὅσα δ' αὖ περὶ ὕπνου λέγουσι, τὰ αὐτὰ χρή καὶ περὶ θανάτου ἐξακούειν. ἑκάτερος γάρ δηλοῖ τὴν ἀπόστασιν τῆς ψυχῆς, ὃ μὲν μᾶλλον, ὃ δὲ ἥττον ...

Chapter heading: cf. **Clement of Alexandria** *Strom.* 4.141.1 cited above.

§2 **Anaxagoras:** cf. **Chrysippus** (*SVF* 2.790) at **Nemesius** *NH* 2, p. 22.3 Χρύσιππος δὲ φησιν· ὁ θάνατός ἐστι χωρισμός ψυχῆς ἀπὸ σώματος· οὐδὲν δὲ ἀσώματον ἀπὸ σώματος χωρίζεται· οὐδὲ γὰρ ἐφάπτεται σώματος ἀσώματον· ἡ δὲ ψυχή καὶ ἐφάπτεται καὶ χωρίζεται τοῦ σώματος· οὐκ ἄρα ἀσώματος ἡ ψυχή. cf. at **Plutarch** *SR* 1052C (*SVF* 2.604). **Philo of Alexandria** *Leg.* 1.104 ὅτι διττός ἐστι θάνατος, ὁ μὲν ἀνθρώπου, ὁ δὲ ψυχῆς ἴδιος· ὁ μὲν οὖν ἀνθρώπου χωρισμός ἐστι ψυχῆς ἀπὸ σώματος, ὁ δὲ ψυχῆς θάνατος ἀρετῆς μὲν φθορά ἐστι, κακίας δὲ ἀνάληψις. *Abr.* 258 (Abraham on the death of his wife Sarah) τὸ πενθεῖν ἐπὶ πλέον, ὡς ἔοικεν, ἀλλότρινον ἡγησάμενος σοφίας, ὅφ' ἥς ἀνεδιδάχθη τὸν θάνατον νομίζειν μὴ σβέειν ψυχῆς, ἀλλὰ χωρισμὸν καὶ διάζευξιν ἀπὸ σώματος, ὅθεν ἦλθεν ἀπιούσης ... **Sex-tus Empiricus** *M.* 7.234 ὅταν γὰρ εἴπωμεν συνεστάναι τὸν ἄνθρωπον ἐκ ψυχῆς καὶ σώματος, ἢ τὸν θάνατον εἶναι χωρισμὸν ψυχῆς ἀπὸ σώματος, ἰδίως καλοῦμεν τὸ ἡγεμονικόν. **Epiphanius** *Haer.* 2, p. 448.6 **Holl** οὐδὲν γὰρ ἄλλο ὁ θάνατος ἢ διάκρισις καὶ διαχωρισμός ψυχῆς ἀπὸ σώματος.

b Sources and Other Parallel Texts

Chapter heading: cf. **Aristotle** *Somn. Vig.* 1 453b11–14 Περὶ δὲ ὕπνου καὶ ἐγρηγόρσεως ἐπισκεπτέον τίνα τε τυγχάνει ὄντα, καὶ πότερον ἴδια τῆς ψυχῆς ἢ τοῦ σώματος ἢ κοινά, καὶ εἰ κοινά, τίνος μορίου τῆς ψυχῆς ἢ τοῦ σώματος, καὶ διὰ τίν' αἰτίαν ὑπάρχει τοῖς ζώοις. *Juv.* 1 467b10 Περὶ δὲ νεότητος καὶ γήρως καὶ περὶ ζωῆς καὶ θανάτου λεκτέον νῦν. **Philodemus** Περὶ θανάτου. *Writings* Περὶ θανάτου listed for **Xenocrates** (D.L. 4.12); **Diogenes the Cynic** (D.L. 6.80); **Sphaerus the Stoic** (D.L. 7.178). **Iamblichus** *de An.* fr. 36 **Finamore-Dillon** at **Stob.** *Ecl.* 1.383.15. also **Pliny** *Nat.* 1 *Index Liber VII de morte.*

§1 Aristotle: *Aristotle Somn. Vig.* 1 454a8–11 ἐπεὶ δὲ οὔτε τῆς ψυχῆς ἴδιον τὸ αἰσθάνεσθαι οὔτε τοῦ σώματος (οὐ γὰρ ἡ δύναμις, τούτου καὶ ἡ ἐνέργεια· ἡ δὲ λεγόμενη αἰσθησις ὡς ἐνέργεια κινήσις τις διὰ τοῦ σώματος τῆς ψυχῆς ἐστὶ), φανερόν ὡς οὔτε τῆς ψυχῆς τὸ πάθος ἴδιον, οὔτ' ἀψυχον σῶμα δυνατόν αἰσθάνεσθαι. also *Somn. Vig.* 3 456b17–29 cited on ch. 5.24 section E(b) General texts. *Juv.* 4 469b13–20 διὸ τῶν μὲν ἄλλων μορίων ψυχομένων ὑπομένει τὸ ζῆν, τοῦ δ' ἐν ταύτῃ (sc. καρδίᾳ) φθείρεται πάμπαν, διὰ τὸ τὴν ἀρχὴν ἐντεῦθεν τῆς θερμότητος ἡρτῆσθαι πᾶσι, καὶ τῆς ψυχῆς ὥσπερ ἐμπεπυρευμένης ἐν τοῖς μορίοις τούτοις, τῶν μὲν ἀναίμων ἐν τῷ ἀνάλογον, ἐν δὲ τῇ καρδίᾳ τῶν ἐναίμων. ἀνάγκη τοίνυν ἅμα τὸ τε ζῆν ὑπάρχειν καὶ τὴν τοῦ θερμοῦ τούτου σωτηρίαν, καὶ τὸν καλούμενον θάνατον εἶναι τὴν τούτου φθοράν. cf. *PA* 2.2 648b2–10 διὸ δεῖ μὴ λανθάνειν πῶς δεῖ τῶν φύσει συνεστώτων τὰ μὲν θερμὰ λέγειν τὰ δὲ ψυχρὰ καὶ τὰ μὲν ξηρὰ τὰ δ' ὑγρὰ, ἐπεὶ ὅτι γ' αἷτια ταῦτα σχεδὸν καὶ θανάτου καὶ ζωῆς ἔοικεν εἶναι φανερόν, ἔτι δ' ὕπνου καὶ ἐγρηγόρσεως καὶ ἀκμῆς καὶ γήρως καὶ νόσου καὶ ὑγιείας, ... καὶ τοῦτ' εὐλόγως συμβέβηκεν· καθάπερ γὰρ ἐντέροις εἴρηται πρότερον, ἀρχαὶ τῶν φυσικῶν στοιχείων αὐταὶ εἰσι, θερμόν καὶ ψυχρόν καὶ ξηρόν καὶ ὑγρόν. *de An.* 1.1 403a15–16 (on the relationship between soul and body) ἀχώριστον γάρ, εἴπερ αἰετὰ μετὰ σώματος τινος ἐστίν. cf. **Alexander of Aphrodisias** *de An.* 21.21–24 οὕσα δὲ ἡ ψυχὴ εἶδος τοῦ σώματος ... τῷ ἀχώριστον εἶναι τοῦ σώματος τὸ τοιοῦτον εἶδος καὶ συμφθείροιτο ἂν τῷ σώματι, ὅση γε αὐτῆς φθορὰ τοῦ σώματος εἶδος ἐστίν. **Proclus** in *Tim.* 3.323.31 Diehl (citing Arist. *Eud.* fr. 4 Ross) ὁ δὲ (sc. Plato's discussion on the relation between the soul and the body in *Phd.*) καὶ Ἀριστοτέλης ζηλώσας ἐν τῇ Περὶ ψυχῆς πραγματείᾳ φυσικῶς αὐτὴν μεταχειριζόμενος οὔτε περὶ καθόδων ψυχῆς οὔτε περὶ λήξεων ἐμνημόνευσεν, ἀλλ' ἐν τοῖς Διαλόγοις χωρὶς ἐπραγματεύσατο περὶ αὐτῶν καὶ τὸν προηγούμενον κατεβέβαλετο λόγον.

§2 Anaxagoras: cf. **Plato** *Phd.* 67d οὐκοῦν τοῦτό γε θάνατος ὀνομάζεται, λύσις καὶ χωρισμός ψυχῆς ἀπὸ σώματος. *Gorg.* 524b ὁ θάνατος τυγχάνει ὦν, ὡς ἐμοὶ δοκεῖ, οὐδὲν ἄλλο ἢ δυοῖν πραγμάτων διάλυσις, τῆς ψυχῆς καὶ τοῦ σώματος, ἀπ' ἀλλήλοιν. **Iamblichus** *Protr.* 115.9 ἀποδημία μὲν γὰρ μετὰστασις τόπου, θάνατος δὲ ὁ τῆς ψυχῆς χωρισμός ἀπὸ τοῦ σώματος, οὗτος δὲ τὸ φιλοσοφεῖν ... **David Prol. Phil.** 31.15–16 φυσικὸς δὲ θάνατός ἐστιν ὁ διαχωρισμός τῆς ψυχῆς ἐκ τοῦ σώματος, καθ' ὃν ἅπαντες τελευτῶμεν etc.

§3 Leucippus: cf. **Democritus** at Arist. *Resp.* 4 471b3–16, esp. 14–16 (68A106 DK) εἶναι γὰρ τὸν θάνατον τὴν τῶν τοιούτων σχημάτων ἐκ τοῦ σώματος ἔξοδον ἐκ τῆς τοῦ περιέχοντος ἐκθλίψεως. differently **Scholias in Epicurum** at *Ep. Hdt.* 66 ὕπνον τε γίνεσθαι τῶν τῆς ψυχῆς μερῶν τῶν παρ' ὅλην τὴν σύγκρισιν παρεσπαρμένων ἐγκατεχομένων ἢ διαφορουμένων, εἴτα συμπιπτόντων τοῖς ἐπεραιοῖς. also at **Hippolytus Ref.** 1.22.5 (on Epicurus) τὰς δὲ ψυχὰς τῶν ἀνθρώπων λύεσθαι ἅμα τοῖς σώμασιν, ὥσπερ καὶ συγγενῆσθαι αὐτοῖς τίθεται· αἷμα γὰρ αὐτὰς εἶναι, οὗ ἔξελεθόντος ἢ τραπέντος ἀπόλλυσθαι ὅλον τὸν ἄνθρωπον.

Liber 5 Caput 26

- P^B**: ps.Plutarchus *Plac.* 910B–D; pp. 438^a4–440^a2 Diels—**P^G**: ps.Galenus *HPh* c. 130; pp. 646.25–647.14 Diels; pp. 423–450 Jas—**P^Q**: Qusṭā ibn Lūqā pp. 242–245 Daiber—**P^{Tz}**: Ioannes Tzetzes *Exeg. in Hes.* p. 66.7–8 ed. Aa.Vv. (1542), cf. Gaisford (1823) 2.113.9–10
- S**: Stobaeus *Ecl.* 1.45.1–2, pp. 297.13–298.2 Wachsmuth (et iteratur supra post c. 41, vid. adn. Wachsmuth ad pp. 293.24, 297.13); cf. Phot. *Bibl.* 167 p. 112.27 Henry (titulus solus)
- Cf. **T**: Theodoretus *CAG* 5.24–25, p. 129.4–11 Raeder

Titulus κς'. Πῶς ηὐξήθη τὰ φυτὰ καὶ εἰ ζῶα (P,S)

- §1 Πλάτων Θαλῆς καὶ τὰ φυτὰ ἔμψυχα ζῶα· φανερόν δὲ καὶ ἀπὸ τοῦ σαλεύεσθαι καὶ ἐντεταμένους ἔχειν τοὺς κλάδους καὶ ἐν ταῖς ἐπαναγωγαῖς εἴκειν καὶ πάλιν σφοδρῶς ἀναχαλᾶσθαι, ὥστε καὶ συνέλκειν βάρη. (P₁,S₁)
- §2 Ἀριστοτέλης ἔμψυχα μέν, οὐ μὴν ζῶα· τὰ γὰρ ζῶα ὀρμητικὰ εἶναι καὶ αἰσθητικὰ, ἔνια δὲ καὶ λογικά. (P₂,S₂)
- §3 οἱ Στωικοὶ δὲ καὶ Ἐπικούρειοι οὐκ ἔμψυχα· τινὰ γὰρ ψυχῆς ὀρμητικῆς εἶναι καὶ ἐπιθυμητικῆς, τινὰ δὲ καὶ λογικῆς· τὰ δὲ φυτὰ αὐτομάτως πῶς κεκινήσθαι οὐ διὰ ψυχῆς. (P₃)

5

10

§1 Plato cf. *Tim.* 77a–c; Thales fr. 359, 405 Wöhrlé; §2 Aristoteles cf. *de An.* 2.2 413a21–b10; §3 Stoici *SVF* 2.708; Epicurei fr. 309 Usener

titulus ηὐξήθη **P^{BQS}** : αὐξεται **P^G** || post c. 41 hab. **S^{FP}** tit. Περὶ φυτῶν, quod etiam leg. Phot (vid. Wachsmuth adn. ad 297.13 et comm. infra) §1 [2] Πλάτων Θαλῆς **S** Diels : Θαλῆς καὶ Πλάτων **P^G** : Πλάτων Ἐμπεδοκλῆς **P^{BQ}** Mau Lachenaud || καὶ **P^B** : om. **P^{GQ}** (ut vid.) || ἔμψυχα ζῶα **P^{GS}** Diels Lachenaud : ἔμψυχα καὶ ζῶα **P^B**, secl. Mau, cf. ζῶα καὶ ἔμψυχα **P^Q** (*daß die Pflanzen Lebewesen und daß diese Lebewesen beseelt sind* Q) || δὲ || om. **P^{B(II)}** || [2–3] ἀπὸ ... καὶ¹ lac. hab. **P^G** || [3–4] ἐπαναγωγαῖς **P^B** : ἐπαγωγαῖς **S** : συναγωγαῖς **P^G** || [4] post συναγωγαῖς hab. **P^G** μετὰ βίας, ret. Diels, ut glossema secl. Jas || εἴκειν **P^{B(II)G(Nic)Q}** (ut vid.) **S** : ἤκειν **P^{B(I,II)G2}** || σφοδρῶς ἀναχαλᾶσθαι **P^{GQS}** : σπονδιδὸς ἀναχαλασθέν **P^B**, corr. edd. || συνέλκειν **P^{GQ}** (ut vid.) Diels edd. : συνανέλκειν **S** : συντελεῖν **P^B** || [5] βάρη || om. **P^B** §2 [6] καὶ ante ζῶα **P^{B(I,II)}** ret. Mau Lachenaud || [7] ἔνια || om. **P^B** || λογικά || om. **P^{B(II)}** : ante λογικά hab. **P^G** post lac. ἔμψυχα et continuat πᾶσαν γὰρ ψυχὴν ὀρμητικὴν εἶναι [...] αὐτομάτως γεγενῆσθαι δίχρα ψυχῆς (cf. §3) §§3–4 non hab. **S** §3 [8] Ἐπικούρειοι **P^B** (οἱ Ἐπικούρειοι **P^{B(III)E}**) : Ἐπικούρος **P^Q** || [10] κεκινήσθαι conl. Gassendi prob. Mau Lachenaud (κινεῖσθαι Diels) : γεγενῆσθαι **P^{BGQ}** || οὐ διὰ || δίχρα **P^G**

§4 Ἐμπεδοκλῆς πρῶτα τὰ δένδρα τῶν ζώων ἐκ γῆς ἀναφύναί φησι, πρὶν τὸν ἥλιον περιπλωθῆναι καὶ πρὶν ἡμέραν καὶ νύκτα διακριθῆναι· διὰ δὲ συμμετρίαν τῆς κράσεως τὸν τοῦ ἄρρενος καὶ τοῦ θήλεος περιέχειν λόγον· αὕξεσθαι δ' ἀπὸ τοῦ ἐν τῇ γῇ θερμοῦ διαιρουμένου, ὥστε γῆς εἶναι μέρη, καθάπερ καὶ τὰ ἔμβρυα τὰ ἐν τῇ γαστρὶ τῆς μητрас μέρη· τοὺς δὲ καρποὺς περιττεύματα εἶναι τοῦ ἐν τοῖς φυτοῖς ὕδατος καὶ πυρός· καὶ τὰ μὲν ἑλλίπες ἔχοντα τὸ ὑγρόν, ἐξικμαζομένου αὐτοῦ τῷ θέρει, φυλλορροεῖν, τὰ δὲ πλείον παραμένειν αἰεὶ φύλλοις τεθηλότα, ὥσπερ ἐπὶ τῆς δάφνης καὶ τῆς ἐλαίας καὶ τοῦ φοίνικος· τὰς δὲ διαφορὰς τῶν χυμῶν παραλλαγὰς τῆς (γῆς) πολυμερείας καὶ τῶν φυτῶν γίνεσθαι, διαφόρους ἐλκόντων τὰς ἀπὸ τοῦ τρέφοντος ὁμοιομερείας, ὥσπερ ἐπὶ τῶν ἀμπέλων· οὐ γὰρ αἱ διαφοραὶ τούτων χρηστικὸν οἶνον ποιοῦσιν, ἀλλ' αἱ τοῦ τρέφοντος ἐδάφους. (P4)

§4 Empedocles 31A70 DK

§4 [11] πρῶτα τὰ δένδρα P^B : inv. ord. P^G || πρῶτα ... ζώων al. P^Q (*die Bäume vor den Lebewesen* Q) || ἀναφύναί P^GQ Diels Vitek Primavesi Reclam² : ἀναδύναί P^B Mau Lachenaud || [11–12] πρὶν ... διακριθῆναι] paraphr. P^G ὀλίγον περιπολεῖν || [12] περιπλωθῆναι] ἀπλωθῆναι P^{Tz} || διὰ δὲ P^{B(I,III)} : καὶ διὰ P^{B(II)} || [13] συμμετρίαν P^Q (cf. ἀμετρίαν P^G) Diels DG (sed dub. ἀσυμμετρίαν) Mau Lachenaud : συμμετρίας P^B Diels VS Vitek Primavesi Reclam² || [14] ἀπὸ ... διαιρουμένου P^B (ἀραιουμένου P^{B(II)}), cf. *durch die in die Erde befindliche Wärme und durch seine Verteilung* Q : ὑπὸ ... διαιρούμενα P^G Diels || [15] καθάπερ καὶ P^{BQ} : καὶ γὰρ P^G || [16] περιττεύματα P^B Mau Lachenaud : περιττώματα P^G Diels || τοῦ P^G Diels Mau Lachenaud : om. P^{BQ}(ut vid.) || [18] φυλλορροεῖν] φυλλορροεῖ P^G || πλείον Wyttenbach edd. (P^G(mss.) τέλειον, emend. Jas), *reichlich vorhanden ist* Q : πλείονα P^B || παραμένειν] παραμένει P^G || αἰεὶ φύλλοις τεθηλότα P^G, cf. *immer frisch erscheinen* Q : om. P^B || [19] καὶ τοῦ φοίνικος om. P^G, postea add. *und was dem gleicht* Q || [20] παραλλαγὰς τῆς (γῆς) coni. Mau Lachenaud sec. Diels VS, cf. *der Länder und Zeiten* Q : παραλλαγὰς τῆς P^{BG}, crucif. Diels DG : (παρὰ) παραλλαγὰς τῆς (γῆς) Diels VS Vitek || post παραλλαγὰς hab. P^G γίνεσθαι || φυτῶν P^G Diels : χυμῶν P^{B(I,III)} : αἰτίων P^{B(II)} || [21] διαφόρους Beck Mau Lachenaud : διαφορὰς P^B Diels DG : διαφόρους P^G Diels VS || ἐλκόντων P^G Diels VS Mau Lachenaud : ἐχόντων P^B Diels DG || [22] χρηστικὸν P^B : χρηστὸν τὸν Diels (*der guten Wein* Q) : al. P^G ποιοῦσι τὸν οἶνον διαλάττειν || [23] αἱ τοῦ τρέφοντος Wyttenbach Diels et P^Q(ut vid.), cf. τοῦ τρέφοντος P^G (prob. Bollack) : ἐκ τοῦ τρέφεσθαι P^B || [23] αἱ om. P^G || ἐδάφους P^G Diels : ἐδάφοις P^{B(II,III)}, ἐδάφνοις P^{B(II)}

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus HPh c. 130 (~ tit.) Πῶς αὖξεται τὰ φυτὰ καὶ εἰ ζῶα (text Jas)

130.1 (~ P1) Θαλῆς καὶ Πλάτων τὰ φυτὰ ἔμψυχα ζῶα· φανερόν δὲ ἐκ τοῦ σαλεύεσθαι καὶ [...] ἐν ταῖς συναγωγαῖς εἶκειν {μετὰ βίας} καὶ πάλιν σφοδρῶς ἀναχαλᾶσθαι, ὥστε καὶ συνέλκειν βάρη.

130.2 (~ P2–3) Ἀριστοτέλης ἔμψυχα μέν, οὖν ζῶα [...] ὁρμητικὰ εἶναι καὶ αἰσθητικά, ἔνια δὲ [...] ἔμψυχα. πᾶσαν γὰρ ψυχὴν ὁρμητικὴν εἶναι [...] αὐτομάτως γεγενῆσθαι δίχα ψυχῆς.

130.3 (~ P4) Ἐμπεδοκλῆς τὰ δένδρα πρῶτα τῶν ζῶων ἐκ τῆς γῆς ἀναφῦναι, ὀλίγον περιπολεῖν, διὰ δὲ ἀμετρίαν τῆς κράσεως τὸν τοῦ ἄρρενος καὶ θήλεος περιέχειν λόγον. αὐξέσθαι δὲ ὑπὸ τοῦ ἐν τῇ γῇ θερμοῦ διαιρούμενου, ὥστε γῆς εἶναι μέρη· καὶ γὰρ τὰ ἔμβρυα τὰ ἐν τῇ γαστρὶ τῆς μήτρας εἶναι μέρη. τοὺς δὲ καρποὺς περιττώματα εἶναι τοῦ ἐν τοῖς φυτοῖς ὕδατος καὶ πυρός. καὶ τὰ μὲν ἑλλίπεις ἔχοντα τὸ ὑγρὸν ἐξικμαζόμενου τούτου τῷ θέρει φυλλοροεῖ, τὰ δὲ πλεῖον παραμένει ἀεὶ φύλλοις τεθηλότα ὥσπερ ἐπὶ τῆς δάφνης καὶ τῆς ἐλαίας. τὰς διαφορὰς τῶν χυμῶν παραλλαγὰς γίνεσθαι τῆς πολυμερείας καὶ τῶν φυτῶν διαφόρως ἐλκόντων τὰς ἀπὸ τοῦ τρέφοντος ὁμοιομερείας ὥσπερ ἐπὶ τῶν ἀμπέλων· οὐ γὰρ αἱ διαφοραὶ τούτων ποιοῦσι τὸν οἶνον διαλλάττειν, ἀλλὰ τοῦ τρέφοντος ἐδάφους.

Ioannes Tzetzes *Exeg. in Hes.* p. 66.7–8 καὶ Ἐμπεδοκλῆς καὶ πρὸ τοῦ ἀπλωθῆναι τὸν ἥλιον φησι φυτὰ γενέσθαι καὶ ζῶα (~ tit., §4)

Testes secundi:

Theodoretus *CAG* 5.24–25 καὶ ὁ μὲν Πλάτων καὶ τὰ φυτὰ κέκληκε, τοῦ τρίτου γε τῆς ψυχῆς εἶδους, τοῦ ἐπιθυμητικοῦ, μόνου μετέχοντα (~ §1)· ὁ δὲ γε Ἀριστοτέλης ζῶα μὲν αὐτὰ εἶπεν οὐκ ἠνέσχετο—τὸ γὰρ διὰ τῆς αἰσθητικῆς μετέχον ψυχῆς τοῦτο καλεῖσθαι ζῶον ἠξίωσε—τῆς φυτικῆς μέντοι καὶ θρεπτικῆς ψυχῆς μετέχειν ὑπέλαβε τὰ φυτὰ (~ §2). (25) ἀλλὰ τοῦτόν γε τὸν λόγον οἱ τῆς Ποικίλης οὐ προσεδέξαντο· τὴν γὰρ τοι φυτικὴν δύναμιν καλεῖν ψυχὴν οὐκ ἠνέσχοντο (~ §3) (sequitur AD fr. 39 Diels—a Theodoreto Numenio tributum—ex Eus. *PE* 15.20.1 & 20.6).

Loci Aetiani:

quaestio A 1.1.2 πάντα γὰρ τὰ ὁρώμενα, ὅσα μήτε ὑπὸ τύχης μήτε ὑπ' ἀνάγκης μήτ' ἐστὶ θεῖα μήτε τοιαύτην αἰτίαν ἔχει, φυσικὰ λέγεται καὶ φύσιν ἔχει ἰδίαν· οἷον γῆ πῦρ ὕδωρ ἀήρ φυτὰ ζῶα· ... ταῦτα γὰρ ἔχει ἀρχὴν τινα· οὐ γὰρ ἐξ αἰῶνος ἕκαστον τούτων ἐστὶν ἀλλ' ἀπὸ τινος ἀρχῆς γίνεται· καὶ ταῦτα μέντοι, οἷον ζῶα φυτὰ, ἀρχὴν γενέσεως ἔχει. A 5.15 Εἰ τὸ ἔμβρυον ζῶον, praesertim §2 infra cit. ad §4. A 5.20 Πόσα γένη ζῶων καὶ εἰ πάντα αἰσθητικὰ καὶ λογικὰ.

§1 A 5.15.1 Πλάτων ζῶον τὸ ἔμβρυον· καὶ γὰρ κινεῖσθαι ἐν τῇ γαστρὶ καὶ τρέφεσθαι. A 5.20.1 Πλάτων καὶ Ἀριστοτέλης τέσσαρα γένη ζῶων· χερσαῖα ἔνδρα πτηνὰ οὐράνια· καὶ γὰρ τὰ ἄστρα ζῶα λέγεσθαι καὶ τὸν κόσμον καὶ τὸν θεὸν ζῶον λογικὸν ἀθάνατον. A 1.3.1 Θαλῆς ὁ Μιλήσιος ἀρχὴν τῶν ὄντων ἀπεφάνητο τὸ ὕδωρ ... στοχάζεται δ' ἐκ τούτου πρῶτον δεύτερον, ὅτι πάντα τὰ φυτὰ ὑγρῷ τρέφεται καὶ καρποφορεῖ, ἀμοιροῦντα δὲ ξηραίνεται. cf. A 1.7.11 τὸ πᾶν ἔμψυχον ἅμα καὶ δαιμόνων πλήρες. A 4.2.1 Θαλῆς ἀπεφάνητο πρῶτος τὴν ψυχὴν φύσιν ἀεικίνητον ἢ αὐτοκίνητον.

§2 A 4.4.3 (de partibus animae) Ἀριστοτέλης πέντε ἐνεργείας, τὴν ὀρεκτικὴν, τὴν θρεπτικὴν, τὴν αἰσθητικὴν, τὴν μεταβατικὴν, τὴν διανοητικὴν. etiam A 5.20.1 supra cit. ad §1.

§3 A 4.4.4 (de partibus animae) οἱ Στωικοὶ ἐξ ὀκτώ μερῶν φασὶ συνεστάναι, πέντε μὲν τῶν αἰσθητικῶν, ὁρατικοῦ ἀκουστικοῦ ὁσφρητικοῦ γευστικοῦ ἀπτικού, ἔκτου

δὲ φωνητικοῦ, ἐβδόμου δὲ σπερματικοῦ, ὀγδόου δ' αὐτοῦ τοῦ ἡγεμονικοῦ, ἀφ' οὗ ταῦτα πάντα ἐπιτέταται διὰ τῶν οἰκείων ὀργάνων ... A 5.15.2 (de fetu) οἱ Στωικοὶ μέρος εἶναι αὐτὸ τῆς γαστρὸς οὐ ζῶον· ὥσπερ γὰρ τοὺς καρποὺς μέρη τῶν φυτῶν ὄντας πεπαινομένους ἀπορρεῖν, οὕτω καὶ τὸ ἔμβρυον.

§4 A 2.20.13 Ἐμπεδοκλῆς δύο ἡλίους, τὸν μὲν ἀρχέτυπον, πῦρ ἐν τῷ ἐτέρῳ ἡμισφαίριῳ τοῦ κόσμου πεπληρωκὸς τὸ ἡμισφαίριον, αἰεὶ κατ' ἀντικρὺ τῇ ἀνταυγείᾳ ἑαυτοῦ τεταγμένον. A 5.7.1 Ἐμπεδοκλῆς ἄρρενα καὶ θήλεα γίνεσθαι παρὰ θερμότητα καὶ ψυχρότητα· ὅθεν ἱστορεῖται τοὺς μὲν πρῶτους ἄρρενας πρὸς ἀνατολῇ καὶ μεσημβρίᾳ γεγενῆσθαι μᾶλλον ἐκ τῆς γῆς, τὰς δὲ θηλείας πρὸς ταῖς ἄρκτοις. A 5.15.3 Ἐμπεδοκλῆς μὴ εἶναι μὲν ζῶον τὸ ἔμβρυον ἀλλ' ἄπνουν ὑπάρχειν ἐν τῇ γαστρὶ ... A 5.17.1 Ἐμπεδοκλῆς, ὅτε ἐγεννᾶτο τὸ τῶν ἀνθρώπων γένος ἐκ τῆς γῆς ... A 5.19.4 Ἐμπεδοκλῆς τὰς πρῶτας γενέσεις τῶν ζῴων καὶ φυτῶν ...

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

In P^B and Q three doxai of modest length are followed by a very long extract from a summary of Empedoclean cosmogony, similar in length and approach to the long lemmata elsewhere, e.g. at A 2.6.3, 2.20.13, 4.22.2, 5.19.4. G writes out the entire chapter, including almost all of the long lemma, but through a scribal error the second and third doxa have been coalesced (see below, section D(d) on §3). In one of the rare surviving extracts from Book 5 S preserves the first two doxai with the name-labels Plato (together with Thales) and Aristotle (cf. 5.18.4 and 5.20.1). The similar text in T is not taken from A, but based on a passage in Clement of Alexandria; see section D(e) below.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* There is an excellent and precise parallel, as already noted by Mansfeld (1990a) 3184–3190, in Book 8 of Clement of Alexandria's *Stromateis* for the diaeresis presented in the first three doxai. Clement raises the present question as part of the dialectical discussion on whether an embryo is an animal (cf. ch. 5.15). Its presence in that work, with its scholastic dialectical contents (on which see above, ch. 5.15 section B(a), where we note Havrda's recent suggested attribution to Galen), demonstrates that the quaestio was traditional. On T's appropriation of this text see further below section D(d). There are no precise parallels in the further proximate tradition. At the beginning of Nemesius' book on human nature (ch. 2, p. 34.5–9, cited below section E(a) General texts) we find a different kind of diaeresis on the kinds of living beings,

resembling Porphyry's tree, which does show some resemblance to our chapter and esp. the second doxa. But it does not present doctrinal alternatives with name-labels as occurs in A.

A significant parallel for the quaestio and its doxographical treatment is found in the treatise *Περὶ φυτῶν* which is part of the Aristotelian corpus. The transmission of this work is uniquely complex. The Greek text is a retroversion of a 12th cent. Latin translation of an Arabic translation based on a Syriac *Vorlage*, which in turn was based on the original Greek text. The work itself was written by the first cent. BCE Greek author Nicolaus of Damascus and may have been based on a work by Aristotle or by someone in his school. On this work see Drossaart Lulofs (1957) and the splendid edition of the five translations in Drossaart Lulofs–Poortman (1989); for a discussion of its transmission and contents see Moraux (1973–1984) 1.487–514, with also a useful overview at Wolfsdorf (2009) 40. As the extracts cited below at section E(b) General texts show, the first chapter discusses the same question as our chapter but only considers the first two positions (but note in 1.5 and 2.1 the allusion to Empedocles' view on the bisexual nature of plants as also found in the final doxa). The doxographical reports on Plato, Anaxagoras, Empedocles and Democritus describe the view in A's first doxa (with all but Plato in some respects going further, as indicated in 1.10). The views reported by Nicolaus may thus go back to the Peripatos, but are not used by A (the name-label Empedocles is shared with P^B in §1, but it was not originally present in A; see further section D(c) below). The Aristotelian view in the second doxa is precisely that taken in Nicolaus' treatise. It is basically consistent with the views of Aristotle himself, though closer to his psychological than his biological works (see texts cited below section E(b)§2). In denying that plants can be called ζῷα but granting that they are ἔμψυχα Nicolaus is effectively arguing against the third position in A's diaeresis. But he does not refer to any Hellenistic views.

It is surprising that so little dialectical and doxographical material finds its way into the proximate tradition. Consistent with this is the fact that the subject of the nature of plants is not discussed in any of the major doxographies in Diogenes Laertius and similar sources, with the single exception of a brief mention that plants are ζῷα in Alexander Polyhistor's account of Pythagoras' doctrines at D.L. 8.28.

(2) *Sources*. On the basis of the above evidence, discussion of the question thus goes back to the Presocratics, with Plato taking over the view of Empedocles and Anaxagoras in his brief reference to plants as ζῷα at *Tim.* 77b5–c3 (text below section E(a)§1). As so often in Book 5, however, the basic question as treated by the doxographer goes back to Aristotle's psychological and biological

works, with at least half a dozen passages discussing whether plants should be regarded as ζῶα on the basis of whether they possess the appropriate characteristics of soul, with a particular emphasis on sense-perception (see texts below section E(b)§2).

C *Chapter Heading*

Like the previous chapters on living beings, chs. 5.19 and 5.20, this chapter has a multiple heading, but this time the focus is on plants. Like the heading of ch. 5.19 it has a verb in the aorist, pointing to a past event, i.e. the cosmogony, as emerges in the doxai of Anaxagoras at ch. 5.19.3 and Empedocles at ch. 5.19.4 and §4 in the present chapter (cf. also 5.7.1 and 5.18.1). A similar aorist also occurs in ch. 2.6 Ἀπὸ ποίου πρώτου στοιχείου ἤρξατο κοσμοποιεῖν ὁ θεός, which also has a (shorter) report on Empedocles' cosmological doctrine. We note too that like 5.19 and 5.20 the heading also contains a question using the formula εἰ x (sc. ἐστί), asking a question in the category of substance and inviting a dialectical response; see also chs. 1.5, 2.3–4, 4.3, 9, 15, 20, 23, and in this book chs. 5.4, 5, 15 and 29. The formula is used by Clement in the text discussed above in section B: εἰ καὶ τὰ φυτὰ νομίζει (sc. ὁ προβαλόν, i.e. the dialectician) ζῶα.

We now retract an earlier suggestion at Mansfeld (1990a) 3190 that this chapter has combined what were originally two chapters in A. This ignores the evidence of S, whose first two doxa show that both parts were present in the work excerpted by the anthologist.

D *Analysis*

a Context

The chapter follows on from the two living beings in chs. 5.19–20, with some links to 5.15 because according to some philosophers the embryo was like a plant. It might have seemed that the interposed chapters 5.21–25 on the development of the human being had been rounded off with the theme of death. After this chapter the sequence continues with chapters on nutrition–growth and appetite–pleasure, in which general references are made to ‘living beings’ (ζῶα), before returning to disease and old age which appears to focus on human beings again. A has clearly had difficulty in including more general chapters on animals and plants in a book which is devoted primarily to human physiology.

b Number–Order of Lemmata

The order of the two doxai in S matches what we find in the tradition of P. Although, as we shall see in the next section, the order of the four doxai in P does not correspond to the chapter heading, there are no grounds for making any changes to it. It is not possible to say whether A's original chapter contained

more doxai, but the evidence in Nicolaus suggests there may have been more Presocratic material.

c Rationale–Structure of Chapter

The chapter divides into two sections, corresponding to the two distinct parts of the chapter heading, but with their order reversed.

The first section consists of three doxai answering the question whether plants are living beings (ζῷα). In the first doxa the first position is given that plants are living beings with soul (ἔμψυχα ζῷα). The other two doxai then provide two further positions in opposition to the first. The schema can be summarised as follows:

- (1) plants are ἔμψυχα ζῷα (both A and B)
- (2) plants are ἔμψυχα, but not ζῷα (A but not B)
- (3) plants are not ἔμψυχα, and by implication not ζῷα (neither A nor B).

The simple dialectical scheme is reminiscent of similar schemes in chs. 2.1 and 2.3–4 on the cosmos where the combinations of two attributes are explored through attachment to single doxai. We note that one of the four theoretical options is not represented, i.e. that plants are ζῷα but not ἔμψυχα, for the good reason that it is a scarcely tenable view. This is parallel to the case of ch. 2.4 that the cosmos is not generated but nevertheless destructible. We find the diaeresis simply and explicitly set out in a text in Themistius' paraphrase of Aristotle's *De anima* (text below section E(b)§2), where Aristotle is said to be μέσος Πλάτωνος καὶ τῶν ἀπὸ τῆς Στοᾶς.

In the first doxa there can be little doubt that the name-labels are the unusual combination of Plato and Thales in that order. The evidence of S and G clearly outweighs that of P^B, and Q, who both replace Thales with Empedocles. *Pace* Drossaart Lulofs (1987) 11, the references to Empedocles' views in Nicolaus (perhaps going back to Aristotle) are not enough to rescue the name-label in P^BQ, particularly since its content does not show any similarities (text below). It has to be said, however, that this the only time that Thales appears in Book 5 (and only twice in Book 4). The attribution would appear to be an extrapolation from his well-known view that the lodestone has a soul since it imparts movement to iron. This is first mentioned by Hippias at D.L. 1.24 (86B7 DK), reported by Aristotle in *De anima* 1.2 and repeated in many other texts. Perhaps the view that the world is full of gods (cf. Arist. *de An.* 1.5 411a7–8) may have contributed as well. See further on A 1.7.11 and 1.8.2 (where the name-labels Thales and Plato also occur, augmented with those of Pythagoras and the Stoics). We have not found any parallels, however, for the unusual evidence given in support of the

doxa, which is quite different from the reasoning given by Plato himself at *Tim.* 77a–c; see the comments at Boys-Stones (2018) 294.

The second doxa presents a position consistent with Aristotelian doctrine from which it is derived, though the terminology has been modernized (see below, section D(d) on §2). Plants can be called ensouled because they possess the nutritive part of the soul (not mentioned, however, by A), but they are not ζῷα because they lack the defining characteristics of sense-perception and impulse. The third doxa, attributed to the Stoics and Epicureans, then goes the final step and denies that plants are ensouled, asserting that they move ‘spontaneously somehow’. The difference between the two doxai is not made sufficiently clear. The Stoic view that the structure (*logos*) of plants is determined by not ψυχή but by φύσις (cf. texts in Galen and ps.Alexander cited below) is not mentioned. There is no evidence elsewhere to determine the correctness of adding the name-label of the Epicurean school to this doxa.

The diaeresis of the first three doxai is thus dominated by the name-labels representing the four main Hellenistic schools, with the addition of Thales in the first doxa. It thus shows the influence of what might be called the ‘Hellenistic philosophical agenda’ (cf. M–R 2.1.15, 92, 139–153). But added to this first section is the remaining part of the chapter, the very long Empedoclean doxa §4, which has quite a different background.

The link with the chapter’s first part is that Empedocles is recorded as regarding plants as a kind of ‘living being’, indeed the first of the ζῷα to spring from the earth. Their bisexual nature, which continues to this day, means they can be regarded as a kind of ‘living fossil’ (cf. Guthrie 1962–1981, 2.208; O’Brien 1969, 206, 233). As parts of the earth, they share characteristics of an embryo (cf. A 5.15.2–3, where both the Stoics and Empedocles are said to reject the view that the embryo is a ζῷον). The doxa thus reveals the same cosmogonic background found in earlier doxai at A 2.6.3, 2.20.13, 5.7.1, 5.18.1, and especially 5.19.4 where the first generation of plants is explicitly mentioned. Traces of the original verses that inspired this summary may be found at 31B77–78 DK (see further below D(d) on §4). Lucretius’ description of the first emergence of plants ‘in the beginning’ (*DRN* 5.783–791) is no doubt indebted to Empedocles’ account. The final part of the doxa, with its discussion of kinds of trees and flavours of fruits goes far beyond the requirements of the doxography and is clearly a remnant of much fuller earlier summaries.

The final doxa thus has a different origin from the first three, with a link through the theme of plants as ζῷα. Its contents have led to the subject Πῶς ἡβύξῃθη τὰ φυτὰ being first indicated in the chapter heading, even though the doxa describing their growth comes last in the chapter itself. As noted above in section C, the aorist tense is linked to the cosmogonic description.

d Further Comments

Individual Points

§2 The term ὁρμητικός scarcely occurs in the Aristotelian corpus, being used for sexual impulse in the *Historia animalium* (e.g. 6.18 572a8) and the *Problemata*. It occurs only rarely before the first cent. CE, but is found in Arius Didymus (e.g. on touch at *Stob. Ecl.* 1.56, p. 496.20), on the parts of ethics (Eudorus) at S 2.7.2, p. 42.23, in the Stoic doxography on impulse to movement at *Stob. Ecl.* 2.9, p. 86.18 (= *SVF* 3.169), and in the Aristotelian doxography on the parts of the soul at S 2.9.13, p. 117.12. By the time of Alexander of Aphrodisias' *De anima* it is extremely common. It is thus indicative of terminological developments in the later Hellenistic period.

§3 If the text in G is read as <οἱ Στωικοὶ δὲ καὶ Ἐπικούρειοι οὐκ> ἔμψυχα· πάσαν γὰρ ψυχὴν ὁρμητικὴν εἶναι· <τὰ δὲ φυτὰ> αὐτομάτως γεγενῆσθαι δίχρα ψυχῆς, it actually makes excellent sense, particularly if ὁρμητικός is used in a sexual sense. But there is too much missing compared with P^{BQ} and so our text should retain the majority reading. Gassendi's emendation of γεγενῆσθαι to κενεῖσθαι is accepted by modern editors (Diels preferred κινεῖσθαι followed by Usener), but in the light of G's evidence it cannot be considered certain.

§4[11] There is little to choose between the reading ἀναδῦναι in P^B and that of ἀναφῦναι in P^{GQ}. The latter gives a link to the theme of plants (φυτὰ), the former—as noted by Bollack (1965–1969) 3.2.502—is perhaps suited to the cosmogonic context better than ἀναφῦναι in P^{GQ}. We follow Jas (2018b) 144–145, who argues that the evidence of P^Q tips the scales in favour of ἀναφῦναι. See her article further for discussion of how the evidence of G and Q shows up the deficiencies of the Byzantine text for this lemma.

§4[17–19] It is noteworthy that the passage on deciduous and non-deciduous trees in Plutarch *Quaest. Conv.* 3.2 649D (text below section E(b)§4), which names Empedocles and cites a word from his poem, contains two verbs in common with the report in A (φυλλορροεῖν, παραμένειν). But the explanation given for the falling of the leaves differs (A cites heat, Plutarch narrowness of passages and lack of food).

e Other Evidence

At CAG 5.24–25, p. 129.4–11 T records three doxai on the status of plants which have some of the same name-labels as in A (Plato, Aristotle, Stoics) and show considerable resemblance in terms of contents. This text follows upon the extensive excerpts from A 4.2–7 which T records in CAG 5.17–24. It emerges, however, that he has not derived these three doxai from A, but has paraphrased the text at Clement *Strom.* 8.10.3–4, as clearly demonstrated by the parallel columns set out at Mansfeld (1990a) 3188. Scholten's query (2015, 367 n. 37) as

to whether T might have derived this material directly from A rather than via Clement is misguided. T has in fact not used any material from Book 5 at all. Diels *DG* 367 was apparently unaware of the Clementine origin and included these doxai as part of his text of A 4.7 on the immortality of the soul, printing them at the bottom of the page under the usual heading of *aliorum ex Aetio excerpta*; see Mansfeld (1990a) 3189 and our Commentary on A 4.7 at D(b) and on A 4.7a at D(a). Havrda (2016) 184 in his commentary of the Clementine text fails to note the parallel in A.

E Further Related Texts

a Proximate Tradition

General texts: *Nemesius NH* 2, p. 34.5–9 καὶ ζῆν μὲν πάντα, μὴ πάντα δὲ εἶναι ζῶα· διακρίνουσι γὰρ ἀπὸ μὲν τῶν ἀψύχων τὰ φυτὰ τῷ αὖξεσθαι καὶ τρέφεσθαι, τουτέστι τῇ θρεπτικῇ καὶ φυτικῇ δυνάμει, τὰ δὲ ἄλογα ζῶα ἀπὸ τῶν φυτῶν τῇ αἰσθήσει, τὰ δὲ λογικὰ ἀπὸ τῶν ἀλόγων τῷ λογικῷ· καὶ οὕτω πάντα ζῆν λέγοντες διαστέλλουσι τὴν ἐκάστου φύσιν. **Clement of Alexandria Str.** 8.10.2–11.1 πάλιν αὖ προσανερωτήσομεν εἰ καὶ τὰ φυτὰ νομίζει ζῶα, καὶ πεῖτα φάντος μὲν οὕτως ἐπιδεικνύειν ἤδη χρῆ{τι} τὸ κυούμενον (ἀυξανόμενον) τε καὶ τρεφόμενον. (3) Πλάτων γὰρ καὶ τὰ φυτὰ ζῶα καλεῖ ‘τοῦ τρίτου τῆς ψυχῆς εἶδους’, τοῦ ἐπιθυμητικοῦ, μόνου μετέχοντα, Ἀριστοτέλης δὲ τῆς φυτικῆς τε καὶ θρεπτικῆς ψυχῆς μετέχειν οἶεται τὰ φυτὰ, ζῶα δ’ ἤδη προσαγορεύειν οὐκ ἀξιοῖ· τὸ γὰρ δὴ τῆς ἐτέρας ψυχῆς τῆς αἰσθητικῆς μετέχον τοῦτο μόνον ἀξιοῖ καλεῖσθαι ζῶον. (4) οὐ μὴν οἷ γε Στωϊκοὶ τὴν φυτικὴν δύναμιν ἤδη ψυχὴν ὀνομάζουσιν. (5) ἀποφῆσαντος δὲ τοῦ προβαλόντος εἶναι ζῶα καὶ τὰ φυτὰ, δεῖξομεν ἑαυτῷ μαχόμενα λέγειν. ... (7) κατὰ μὲν γὰρ Πλάτωνα τὸ φυτὸν ἔμψυχόν τε καὶ ζῶον, κατὰ δὲ Ἀριστοτέλη ζῶον μὲν οὕτω, λείπει γὰρ αὐτῷ τὸ αἰσθητικόν, ἔμψυχον δὲ ἤδη· ἔστι γοῦν αὐτῷ τὸ ζῶον οὐσία ἔμψυχος αἰσθητικῆς· (8) κατὰ δὲ τοὺς Στωϊκοὺς οὐτε ἔμψυχον οὐτε ζῶον ἔστι τὸ φυτόν· ἔμψυχος γὰρ οὐσία τὸ ζῶον. (11.1) εἰ τοίνυν ἔμψυχον τὸ ζῶον, ἡ ψυχὴ δὲ φύσις αἰσθητικῆς, δῆλον ὡς αἰσθητικὸν ἤδη τὸ ζῶον [ms. ἔμψυχον, emend. Havrda]. **Theodoret CAG** 5.24 see above, *testes secundi*.

Chapter heading: *Clement of Alexandria Strom.* 8.10.2 εἰ καὶ τὰ φυτὰ νομίζει ζῶα.

§1 Plato Thales: Pythagorica Hypomnemata at Alex. Polyh. fr. 9 Giannatasio Andria (Pythagorei 58Bia DK) at D.L. 8.30 καὶ ζῆν μὲν πάνθ’ ὅσα μετέχει τοῦ θερμοῦ· διὸ καὶ τὰ φυτὰ ζῶα εἶναι· ψυχὴν μέντοι μὴ ἔχειν πάντα.

§2 Aristotle: Tertullian An. 19.2–3 *denique arbores vivere nec tamen sapere secundum Aristotelen ...*

§3 Stoics Epicureans: cf. *Diogenes Laertius V.P.* 7.86 (Stoic doxography, = *SVF* 3.178, Posidonius fr. 426 Theiler) οὐδὲν τε, φασί, διήλλαξεν ἡ φύσις ἐπὶ τῶν φυτῶν καὶ ἐπὶ τῶν ζῴων, ὅτι χωρὶς ὁρμῆς καὶ αἰσθήσεως κάκεῖνα οἰκονομεῖ καὶ ἐφ’ ἡμῶν τινα φυτοειδῶς γίνεταί.

b Sources and Other Parallel Texts

General texts: cf. Aristotle *de An.* 2.2 41321–22 λέγομεν οὖν, ἀρχὴν λαβόντες τῆς σκέψεως, διωρίσθαι τὸ ἔμψυχον τοῦ ἀψύχου τῷ ζῆν. πλεοναχῶς δὲ τοῦ ζῆν λεγομένου, κὰν ἔν τι τούτων ἐνυπάρχη μόνον, ζῆν αὐτό φαμεν, οἷον νοῦς, αἴσθησις, κίνησις καὶ στάσις ἢ κατὰ τόπον, ἔτι κίνησις ἢ κατὰ τροπὴν καὶ φθίσις τε καὶ αὔξεισις.

Nicolaus of Damascus *De plantis* 1.1–27 in the Arabic translation of Ishāq ibn Ḥunayn, translated by Drossaart Lulofs–Poortman, later retranslation into Greek in the Aristotelian corpus at 815a10–816b6: ‘Life is found in animals and plants; but the life of animals it is manifest and clear, whereas the life of plants is hidden and concealed. An inquiry and an investigation are needed in order to find the way of truth in these matters. (2) I wish I knew whether plants possess a soul and its faculties, such as the desiring faculty and the faculty that distinguishes between pain and pleasure—or whether they have nothing of the kind. (3) Now, Anaxagoras and Empedocles assert that plants have desire and sensation, pain and pleasure, and Anaxagoras naively asserts that they are animals and that they feel joy and sadness and he cites as proof the shedding of their leaves in due season, and Empedocles asserts that their males and females are mingled together. (4) Plato, however, says that plants have the faculty of desire only on account of their need of nutriment. But if plants really had the faculty of desire, they should have pleasure and pain, and sensation as well. (5) Again, I wish I knew whether plants have sleep and awakening, and whether they breathe and have males and females, or something in which male and female are combined, as Empedocles maintains—, or whether they do not possess a soul? (6) Now, the great diversity of opinion existing on the soul of plants asks for a long investigation into all its conditions. The best course is to settle the issue and to remove our doubt about this point, in order that we shall not need a long inquiry into the other things. (7) Some people have said that plants possess a soul, because they had observed their generation, nutrition and growth, and their youth and old age, since none of the inanimate things is found to share any of these things with plants. And if these characteristics are necessary for plants, they should have desire as well. (8) Our first task, then, is to discuss the obvious characteristics; thereupon we will discuss the hidden ones. (9) Now, he says (cf. some people in §7 above) that a thing which is nourished has desire, and will find pleasure in satiety and pain with hunger, and these dispositions are only concomitant with sensation. It is certainly true that the opinion who said that plants have sensation and desire is most remarkable. (10) On the other hand, Anaxagoras, Empedocles and Democritus maintained that plants possess reason and understanding. But we must refrain from this abominable nonsense and begin with a sound statement: (11) plants have neither sensation nor desire, for desire can only go with sensation, and the aim of its pursuits depends on the latter. ... (13) It is true that with the part of nutrition and growth they possess only one of the parts of the soul. And so, if we find an indication that plants have one of the parts of the soul, but are destitute of sensation, we ought not to contend

that they have sensation. ... Perhaps someone will say: 'If a plant is endowed with life, it is an animal'—and it certainly would be difficult for us, if a plant was found to have a principle different from the principle of life of an animal. ... (26) The plant, then is not deprived of a soul, since it possesses one of its parts—but neither is it an animal, since it has no sensation. It passes gradually from life to its privation, just as in other things. (27) And so we must declare the plant to be animate in a different way, and not to be inanimate, since it possesses a soul {and sensation}. For a thing that is nourished is not without a soul.' **ps.Alexander** see below on §3. **Porphry ad Gaur.** 3.1 Kalbfleisch πρῶτον μὲν οὖν αὐτὴν μαρτυροῦμενοι τὴν ἐνάργειαν πρὸ ὀφθαλμῶν θέσθαι ἀξιόμην τὰς εἰδοποιούς διαφορὰς τῶν φυτῶν τε καὶ τῶν ζώων. cf. *ad Gaur.* 1.1 τῆς μὲν ἰδιότητος τοῦ ζώου ἐν αἰσθήσει καὶ ὁρμῇ συνισταμένης, τῆς δὲ τῶν φυτῶν ἐν θρεπτικῇ τε καὶ αὐξητικῇ χωρὶς αἰσθήσεως τε καὶ ὁρμῆς θεωρουμένης.

Chapter heading: cf. **Aristotle** *GA* 1.23 731a29 ἀλλὰ περὶ μὲν φύτων ἐν ἑτέροις ἐπέσκεπται.

§1 Plato: **Plato** *Tim.* 77a5–c5, ὥσθ' ἕτερον ζῶον εἶναι, φυτεύουσιν ἃ δὴ νῦν ἡμεῖς δένδρα καὶ φυτὰ καὶ σπέρματα παιδευθέντα ὑπὸ γεωργίας τιθασὺς πρὸς ἡμᾶς ἔσχεν, πρὶν δὲ ἦν μόνα τὰ τῶν ἀγρίων γένη, πρεσβύτερα τῶν ἡμέρων ὄντα. πᾶν γὰρ οὖν ὅτι περ ἂν μετὰ σῃ τοῦ ζῆν, ζῶον μὲν ἂν ἐν δίκῃ λέγοιτο ὀρθότατα ... διὸ δὴ ζῆ (sc. τὸ φύτον) μὲν ἔστιν τε οὐχ ἕτερον ζῶον, μόνιμον δὲ καὶ κατερριζωμένον πέπηγεν διὰ τὸ τῆς ὑφ' ἑαυτοῦ κινήσεως ἐστερῆσθαι. **Plutarch** *QPhys.* 911D ζῶον γὰρ ἔγγαιον τὸ φυτὸν εἶναι οἱ περὶ Πλάτωνος καὶ Ἀναξαγόραν καὶ Δημόκριτον οἴονται. **Themistius** see below on §2. **Porphry ad Gaur.** 4.2–3 οὐδὲ τοῦ Πλάτωνος ὅπως μέρος τὸ φυτικὸν τοῦ ἐπιθυμητικοῦ λέγει ξυνιέντες (sc. other Platonists) οὐδὲ δι' ἣν αἰτίαν ζῶα τὰ φυτὰ λέγειν οὐκ ἀπαξιοῖ γινώματι σπουδάσαντες. (3) Πλάτων γὰρ οὐχ ὥσπερ οἱ ἄλλοι τὸ ζῶον τοῦ μὴ ζώου αἰσθήσει καὶ ὁρμῇ διακρίνουσιν, οὕτως καὶ αὐτοὶ τοῦτοις τῶν μὴ ζώων ἀξιοῖ διαφέρειν τὰ ζῶα, ζωῆς δὲ καὶ ἀζωίας τὸ διάφορον ποιοῦμενος εἰκότως καὶ τὰ φυτὰ ὡς ἂν ἤδη ζῶντα συμπεριλαμβάνει τοῖς ζώοις, ἀλλ' ὅμως ἄχρι τῆς προσηγορίας τὸ κοινὸν δίδωσι πρὸς τὰ ἰδίως καλούμενα ζῶα καὶ τῆς αὐτοκινήτου ψυχῆς μετεσχηκότα.

Thales: **Aristotle** *de An.* 1.2.405a19–21 (11A22 DK) εἰκοι δὲ καὶ Θαλῆς ἐξ ὧν ἀπομνημονεύουσι κινήτικόν τι τὴν ψυχὴν ὑπολαβεῖν, εἴπερ τὴν λίθον ἔφη ψυχὴν ἔχειν. *de An.* 1.5 411a7–8 (Thales fr. 32 Wöhrle) καὶ ἐν τῷ ὅλῳ δὴ τινες αὐτὴν (sc. τὴν ψυχὴν) μεμῖχθαι φασιν, ὅθεν ἴσως καὶ Θαλῆς ψῆθη πάντα πλήρη θεῶν εἶναι. **John Philoponus** *in de An.* 188.13–17 (Thales fr. 443 Wöhrle) ἑτέραν δόξαν ἐκτίθεται (sc. Aristotle) περὶ ψυχῆς. ὑπενόησαν, φησί, τινὲς ψυχὴν ἐν παντὶ σώματι μεμῖχθαι, ὡς πᾶν εἶναι σῶμα ἐμψυχον· ἐκ δὲ τῆς τοιαύτης δόξης καὶ τὸν Θαλῆν νομίσαι πάντα πλήρη θεῶν εἶναι ...

§2 Aristotle: **Aristotle** *De an.* 2.2 413a26–b10 (follows on from text cited above under General texts) διὸ καὶ τὰ φυόμενα πάντα δοκεῖ ζῆν· φαίνεται γὰρ ἐν αὐτοῖς ἔχοντα δύναμιν καὶ ἀρχὴν τοιαύτην, δι' ἣς αὐξησὶν τε καὶ φθίσιν λαμβάνουσι κατὰ τοὺς ἐναντίους τόπους· ... οὐδεμία γὰρ αὐτοῖς ὑπάρχει δύναμις ἄλλη (b1) ψυχῆς. τὸ μὲν οὖν ζῆν διὰ τὴν ἀρχὴν ταύτην ὑπάρχει τοῖς ζώοις, τὸ δὲ ζῶον διὰ τὴν αἰσθησιν πρῶτως· καὶ γὰρ τὰ μὴ κινούμενα μὴ δ' ἀλλάττοντα τόπον, ἔχοντα δ' αἰσθη-

σιν, ζῶα λέγομεν καὶ οὐ ζῆν μόνον. αἰσθήσεως δὲ πρῶτον ὑπάρχει πᾶσιν ἀφή· ὥσπερ δὲ τὸ θρεπτικὸν δύναται χωρίζεσθαι τῆς ἀφῆς καὶ πάσης αἰσθήσεως, οὕτως ἡ ἀφή τῶν ἄλλων αἰσθήσεων (θρεπτικὸν δὲ λέγομεν τὸ τοιοῦτον μόνον τῆς ψυχῆς οὐ καὶ τὰ φύομενα μετέχει), τὰ δὲ ζῶα πάντα φαίνεται τὴν ἀπτικήν αἰσθησιν ἔχοντα ... *Jun.* 1 467b23–26 τὸ μὲν γὰρ ζῶον ἢ ζῶον ἀδύνατον μὴ ζῆν· ἢ δὲ ζῆν, ταύτη ζῶον ὑπάρχειν οὐκ ἀναγκαῖον· τὰ γὰρ φυτὰ ζῆ μὲν, οὐκ ἔχει δ' αἰσθησιν, τῷ δ' αἰσθάνεσθαι τὸ ζῶον πρὸς τὸ μὴ ζῶον διορίζομεν. *GA* 2.5 741a9 αἴτιον δ' ὅτι διαφέρει τὸ ζῶον τοῦ φυτοῦ αἰσθήσει. *HA* 7.1 588b4–10 οὕτω δ' ἐκ τῶν ἀψύχων εἰς τὰ ζῶα μεταβαίνει κατὰ μικρὸν ἢ φύσις, ὥστε τῇ συνεχείᾳ λανθάνει τὸ μεθόριον αὐτῶν καὶ τὸ μέσον ποτέρων ἐστίν. μετὰ γὰρ τὸ τῶν ἀψύχων γένος τὸ τῶν φυτῶν πρῶτον ἐστίν· καὶ τούτων ἕτερον πρὸς ἕτερον διαφέρει τῷ μᾶλλον δοκεῖν μετέχειν ζωῆς, ὅλον δὲ τὸ γένος πρὸς μὲν τὰλλα σώματα φαίνεται σχεδὸν ὥσπερ ἔμψυχον, πρὸς δὲ τὸ τῶν ζῶων ἄψυχον (cf. also *PA* 4.5 681a12–15). *GA* 1.23 731a24–b8 καὶ ταῦτα πάντα εὐλόγως ἢ φύσις δημιουργεῖ. τῆς μὲν γὰρ τῶν φυτῶν οὐσίας οὐθὲν ἐστὶν ἄλλο ἔργον οὐδὲ πράξις οὐδεμία πλὴν ἢ τοῦ σπέρματος γένεσις, ὥστ' ἐπεὶ τοῦτο διὰ τοῦ θήλεος γίγνεται καὶ τοῦ ἄρρενος συνδευασμένων, μίξασα ταῦτα διέθηκε μετ' ἀλλήλων· διὸ ἐν τοῖς φυτοῖς ἀχώριστον τὸ θῆλυ καὶ τὸ ἄρρεν. ἀλλὰ περὶ μὲν φύτων ἐν ἑτέροις ἐπέσκεπται, τοῦ δὲ ζῴου οὐ μόνον τὸ γεννῆσαι ἔργον (τοῦτο μὲν γὰρ κοῖνον τῶν ζῶωντων πάντων), ἀλλὰ καὶ γνώσεώς τινος πάντα μετέχουσι, τὰ μὲν πλείονος τὰ δ' ἐλάττω· τὰ δὲ πᾶμπαν μικρᾶς. αἰσθησιν γὰρ ἔχουσιν, ἢ δ' αἰσθησις γνώσις τις. ταύτης δὲ τὸ τίμιον καὶ ἄτιμον πολὺ διαφέρει σκοποῦσι πρὸς φρόνησιν καὶ πρὸς τὸ τῶν ἀψύχων γένος. πρὸς (b1) μὲν γὰρ τὸ φρονεῖν ὥσπερ οὐδὲν εἶναι δοκεῖ τὸ κοινωνεῖν ἀφῆς καὶ γεύσεως μόνον, πρὸς δὲ φυτὸν ἢ λίθον θαυμάσιον· ἀγαπητὸν γὰρ ἂν δόξειε καὶ ταύτης τυχεῖν τῆς γνώσεως ἀλλὰ μὴ κείσθαι τεθνεὸς καὶ μὴ ὄν. διαφέρει δ' αἰσθήσει τὰ ζῶα τῶν ζῶωντων μόνον. ἐπεὶ δ' ἀνάγκη καὶ ζῆν, ἐὰν ἢ ζῶον, ὅταν δεῖσῃ ἀποτελεῖν τὸ τοῦ ζῶντος ἔργον, τότε συνδυάζεται καὶ μίγνυται καὶ γίγνεται ὥσπερ ἂν εἰ φυτὸν, καθάπερ εἶπομεν. **Nicolaus Damascenus** *De plantis* 1.1 cited above, General texts. **Themistius** *in de An.* 2.2, p. 45.11–18 ῥητέον τοίνυν καὶ τὰ φυτὰ ψυχῆς μόνον ἔχοντα καὶ ζῆν καὶ ἔμψυχα εἶναι, ζῶα δὲ οὐκέτι. καὶ τούτου λόγον οὐκ ἀπαιτητέον διὰ τί ζῶντα οὐ ζῶα λέγεται, ἀλλ' ἐπικλητέον τὴν κοινήν συνήθειαν μόνον, ὅτι ζῆν μὲν τὰ φυτὰ λέγομεν, ζῶα δὲ μὴ εἶναι· οὐδὲ γὰρ τὸν τρέχοντα πάντα δρομέα, οὐδὲ τὸν παλαιόντα παλαιστήν, ἀλλὰ τῆς τελειότερας τοῦ πράγματος ἕξεως ταῦτα ὀνόματα. μέσος τοίνυν Πλάτωνος καὶ τῶν ἀπὸ τῆς στοᾶς Ἀριστοτέλης, ἔμψυχα μὲν τὰ φυτὰ λέγων, ζῶα δὲ μὴ· ἐκείνων δὲ ὁ μὲν ἄμφοι, οἱ δὲ οὐδέτερον.

§3 Stoics Epicureans: Themistius see above on §2 (*SVF* 2.709). **Galen** *PHP* 6.3.8 (*SVF* 2.7110) οἱ δὲ Στωϊκοὶ οὐδὲ ψυχὴν ὅλως ὀνομάζουσι τὴν τὰ φυτὰ διοικοῦσαν, ἀλλὰ φύσιν. **Alexander of Aphrodisias**(?) *An.Mant.* 118.12–15 (*SVF* 2.711) ὅτι γὰρ τὸ φυτικὸν ψυχὴ ἐστὶ καὶ ψυχῆς μέρος καὶ δύναμις, οὐ μόνον τὸ θρεπτικὸν καὶ τὸ αὐξητικὸν καὶ γεννητικὸν, ἀλλὰ οὐχ, ὥς τινες φασιν, φύσις, δεῖξομεν ἕκ τε τοῦ μὴ πάντα τὰ φύσιν ἔχοντα καὶ κατὰ φύσιν ὄντα ἔχειν τὰς δυνάμεις ταύτας.

§4 Empedocles: cf. *Corpus Hippocraticum Nat.Puer.* 16, p. 7.528.18–20 Littré cited on A 5.15.3. **Aristotle** *de An.* 2.4 415b27–416a2 οὐδὲν γὰρ φθίνει οὐδ' αὖξεται φυσικῶς μὴ τρεφόμενον, τρέφεται δ' οὐθὲν ὁ μὴ κοινωνεῖν ζωῆς. Ἐμπεδοκλῆς (31A70 DK) δ' οὐ καλῶς εἶρηκε τοῦτο προστιθείς, τὴν αὖξιν συμβαίνειν τοῖς

φυτοῖς κάτω μὲν συρριζομένοις διὰ τὸ τὴν γῆν οὕτω φέρεσθαι κατὰ φύσιν, ἄνω δὲ διὰ τὸ τὸ πῦρ ὡσαύτως. **Plutarch** *QConv.* 3.2 649C–D (on the ivy plant, citing Empedocles 31B77 DK) τὸ δ' αἰιθαλὲς τοῦτο καὶ ὥς φησιν Ἐμπεδοκλῆς ἔμπεδοφύλλον' οὐκ ἔστι θερμότητος· οὐδὲ γὰρ ψυχρότητος τὸ φυλλορροεῖν ... ἔνιοι μὲν οὖν ὁμαλότητι κράσεως οἶονται παραμένειν τὸ φύλλον· Ἐμπεδοκλῆς δὲ πρὸς τοῦτω καὶ πόρων τινὰ συμμετρίαν αἰτιάται, τεταγμένως καὶ ὁμαλῶς τὴν τροφὴν διέντων, ὥστ' ἀρκούντως ἐπιρρεῖν. τοῖς δὲ φυλλορροοῦσιν οὐκ ἔστι διὰ μανότητα τῶν ἄνω καὶ στενότητα τῶν κάτω πόρων, ὅταν οἱ μὲν μὴ ἐπιπέμπωσιν οἱ δὲ (μὴ) φυλάττωσιν ἀλλ' ὀλίγον λαβόντες ἄθρου ἐκχέωσιν, ὥσπερ ἐν ἀνδῆροις τισὶν οὐχ ὁμαλοῖς· τὰ δ' ὑδρευόμεν' αἰεὶ τὴν τροφὴν διαρκῆ καὶ σύμμετρον ἀντέχει καὶ παραμένει ἀγῆρω καὶ χλοερά. also **Lucretius** *DRN* 5,783–791 *principio genus herbarum viridemque nitorem / terra dedit circum collis camposque per omnis ...* **Nicolaus of Damascus** *De plantis* 36–37, 57–58 Drossaart Lulofs–Poortman 'The most pertinent object of investigation in this branch of science is the question raised by Empedocles, whether plants have males and females, or a kind of combination of male and female, as he asserts. (37) For it is characteristic of the male to engender offspring in another and of the female to engender from another while each of the two is separate from the other. But in plants no such thing is found, (and every kind of plant makes fruit in itself, not in another) ... (57) Empedocles was right in saying that plants were generated when the world was incomplete and its perfection had not yet been attained, whereas animals were generated after it had been perfected and completed. (58) Nevertheless, he did not say the right word, for the world as a whole is eternal and everlasting, and has not ceased to produce animals and plants in all the varieties of their species.' see also Greek text based on the Arabo-Latin translation of Alfred of Sareshel in the corpus Aristotelicum *De plantis* 2 816b40–817a6, b35–40.

Liber 5 Caput 27

P^B: ps.Plutarchus *Plac.* 910D; p. 440^a3–11 Diels—P^Q: Qustā ibn Lūqā pp. 244–245 Daiber

S: Stobaeus *Ecl.* 1.46, p. 298.4 Wachsmuth, titulus solus e Phot. *Bibl.* 167, p. 112b27–28 Henry

Titulus κζ'. Περὶ τροφῆς καὶ αὐξήσεως (P,S)

§1 Ἐμπεδοκλῆς τρέφεσθαι μὲν τὰ ζῶα διὰ τὴν ὑπόστασιν τοῦ ὕγρου, αὖξεσθαι δὲ διὰ τὴν παρουσίαν τοῦ θερμοῦ, μειοῦσθαι δὲ καὶ φθίνειν διὰ τὴν ἔκλειψιν ἐκατέρων· τοὺς δὲ νῦν ἀνθρώπους τοῖς πρώτοις συμβαλλομένους βρεφῶν ἐπέχειν τάξιν. (P1)

5

§2 Ἀναξαγόρας *glaubte: die Lebewesen* μὲν werden durch die Feuchtigkeit τρέφεσθαι, welche jedes ihrer Organe durch das Verzehren und in der Ernährung herbeizieht. Sie wachsen, wenn zu ihnen viel Nahrung gelangt, werden aber schwach und siechen dahin, wenn das, was von ihnen zerfällt, viel ist. (P^{BQ2})

10

§1 Empedocles 31A77 DK, cf. B62 DK; §2 Anaxagoras fr. 78 Gemelli Marciano

cap. non hab. P^G titulus Περὶ ... αὐξήσεως P^{BQ} (Περὶ τοῦ πῶς τρέφονται τὰ ζῶα in marg. P^{B(II:2)}) : Περὶ τροφῆς καὶ ὀρέξεως τῶν ζῶων S^{Phot} (cf. c. 5.28) §1 [2] ὕγρου P^Q (*der Feuchtigkeit* Q) con. olim Diels VS, prob. Wolfsdorf (2009) 36 n. 34 : οἰχείου P^B Diels DG DK Mau Lachenaud Viték (οἰχείου ὕγρου con. Usener) || [4–5] vid. infra ad §2 §2 [6] Ἀναξαγόρας μὲν τρέφεσθαι hab. solum P^{B(II,1D)} et postea lacunam 1¾ lin. : verba et lac. non hab. P^{B(III)} || [6–10] verba reliqua solum in P^Q ut initium capituli; post placitum Anaxagorae sequuntur in P^Q primum verba τοὺς ... τάξιν (= §1[4–5]), tum Ἐμπεδοκλῆς ... ἐκατέρων (= §1[2–4])

Loci Aetiani:

quaestio cf. A 5.16 Πῶς τρέφεται τὰ ἔμβρυα. A 5.26 Πῶς ἡυξήθη τὰ φυτὰ καὶ εἰ ζῶα

§1 A 5.28.1–2 Ἐμπεδοκλῆς τὰς μὲν ὀρέξεις γίνεσθαι τοῖς ζῴοις κατὰ τὰς ἐλλείψεις τῶν ἀποτελούντων ἕκαστα στοιχείων ... Παρμενίδης Ἐμπεδοκλῆς ἐλλείψει τροφῆς τὴν ὄρεξιν. A 5.30.2 Ἡρόφιλος τὰς νόσους συμπίπτειν ὡς μὲν ὕφ' οὐ ὑπερβολῇ θερμότητος ἢ ψυχρότητος· ὡς δ' ἐξ οὗ διὰ πλῆθος τροφῆς ἢ ἔνδειαν ... A 5.30.4 Ἐρασίστρατος τὰς νόσους διὰ πλῆθος τροφῆς καὶ δι' ἀπεψίας καὶ φθορᾶς ...

§2 A 1.3.4 (de Anaxagora) καὶ ἐκ ταύτης τῆς τροφῆς τρέφεται θριξ φλέψ ἀρτηρία νεῦρα ὅσα καὶ τὰ λοιπὰ μόρια. τούτων οὖν γινομένων ὁμολογητέον ἐστὶν ὅτι ἐν τῇ τροφῇ τῇ προσφερομένῃ πάντα ἐστὶ τὰ ὄντα καὶ ἐκ τῶν ὄντων πάντα αὖξεσθαι καὶ ἐν ἐκείνῃ ἐστὶ τῇ τροφῇ μόρια αἵματος γεννητικὰ καὶ νεύρων καὶ ὁστέων καὶ τῶν ἄλλων· ἃ ἦν λόγῳ θεωρητὰ μόρια. cf. A 5.15.1 (Plato de fetu) καὶ γὰρ κινεῖσθαι ἐν τῇ γαστρὶ καὶ τρέφεσθαι (καὶ αὖξεσθαι add. P^G).

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

P^B has only the first lemma and the first three words of the second, after which there is a lacuna of 1¾ lines in the mss. Mosq. 339 and Marc. 501, indicating that the archetype must have become illegible at some stage in the transmission. The chapter is missing altogether in P^G. Q deviates considerably from what has been transmitted in P^B. He commences with a full lemma devoted to Anaxagoras' view. Then he follows with the final sentence of the Empedoclean lemma as found in P^B, followed by the rest. The only collection of Presocratic fragments to include this new testimonium of Anaxagoras so far is that of Gemelli Marciano (2007–2010, 3.94–95); it is absent in that of Laks and Most. The lemma is also discussed as part of a lengthy analysis of chs. 5.27–28 in Wolfsdorf (2009) 34–39.

There is no mention of this chapter in the mss. of S, but a heading is preserved in Photius' index. Because it refers to the subjects of nutrition and desire relating to living beings, it is likely that S combined the material of ch. 5.27 and 5.28 in a single chapter and coalesced the headings. Given the proximity of the two subjects (desire here means appetite), this was a logical thing to do.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* In the proximate tradition the main witness is ps.Galen *Def.Med.*, who gives a compact doxography stating the views of Hippocrates (digestion of food through innate heat), Erasistratus (mechanical action), Empedocles (putrefaction) and Asclepiades (no cause mentioned). It remains puzzling, however, that there is no place in the extant doxography for the Aristotelian view of nutrition via concoction (πέψις). Two very similar doxographies on digestion are found in Celsus and ps.Soranus (texts below section E(a)), but Empedocles is not mentioned (unless Van der Eijk 2000–2001, 2.72 is correct in thinking that in the latter text Empedocles should be read instead of Diocles). These are all three medical texts, and so differ in emphasis from what we find in A.

(2) *Sources.* As the mutilated contents of the chapter indicate, discussions on these subjects commenced in the Presocratic period, with a particularly important contribution made by Empedocles' theory of putrefaction leading to absorption in and distribution via the blood (a 'remarkably economical' theory, Longrigg 1993, 73). In his famous account of Socrates' early interest in natural

philosophy Plato gives as his first example of generation and destruction a reference to hot and cold producing putrefaction, with which living beings are nourished (or sustained, συντρέφεται). There may be a cosmogonical reference here, e.g. to Archelaus as reported by Hippolytus *Ref.* 1.9.5 (60A4 DK), but this is disputed (cf. Mansfeld 2000a, 7). A work in the Hippocratic corpus has the title Περὶ τροφῆς (Littre 9.98–120), consisting of 55 aphorisms, many of which have an impressive philosophical (and Heraclitean) bent. According to this author it is moisture which carries nutrition and enables its δύνάμις to reach the parts of the body. However, this work is likely to be post-Hippocratic and may show the influence of Stoicism (Jouanna 1999, 401). In the Hippocratic writings themselves the process of digestion is understood in vague and metaphorical terms (Jouanna 1999, 314). Works devoted to the subject of nourishment and growth were produced in the Peripatos by Aristotle (see the discussion of his various references to such a work at Wolfsdorf 2009, 22) and Strato (see below), but they have not survived.

C Chapter Heading

The chapter heading reverts back to the usual umbrella formula Περὶ x, which is used in only a minority of chapters in Book 5. Apart from the Hippocratic work mentioned above, there is also a work entitled Περὶ τροφῆς recorded for the Hellenistic doctor Phylotimus. Exactly the same title Περὶ τροφῆς καὶ αὐξησεως is found in the list of works of the Peripatetic philosopher Strato in Diogenes Laertius. On the heading preserved in Photius' index of S see above, section A.

D Analysis

a Context

After the chapter partly devoted to the growth of plants (5.26), a connection is made with nutrition and growth in animals (ζῷα are explicitly mentioned at the beginning of the first doxa). It is the first of four final chapters in the book dealing with purely physiological subjects. There is also a clear connection between nutrition/growth and sleep which Aristotle develops at *Somn. Vig.* 3 456a30–35; see on ch. 5.24 section E(b) General texts. This connection is obscured by the interposition of ch. 5.26.

b Number–Order of Lemmata

As noted above in section A, the order of the text of the chapter differs in the two witnesses that record it. Q places the Anaxagoras doxa first in the chapter and then writes out the second sentence of the Empedocles doxa separately without a name-label, before presenting the main part of the doxa. Wolfsdorf (2009) 38–39, wishing to defend his thesis that the two doxai present views that

originally referred to nourishment and growth in plants rather than in animals, argues that Q has the right order. The sentence on human beings is ‘not consistent with any of the testimonies or fragments of Empedocles or Anaxagoras’ and thus ‘it seems likely that it belongs to another philosopher and that it is indeed misplaced in both the Greek and the Arabic traditions’. This claim is misguided, because in fact the view on the different early development of human beings fits in very well with the Empedocles doxa at A 5.18.1, which derives features of present-day human biology from earlier stages of his cosmology (cf. also 5.19.6 which gives various stages of the development of living beings and briefly refers to presumably human ‘women’). So it is very likely that this sentence refers to Empedoclean cosmology (cf. O’Brien 1969, 52 n. 8). There is in fact a good continuity with the cosmological material at the end of the previous chapter, where the Empedocles’ lemma 5.26.4 speaks of both ζῷα and φυτά. We thus retain the order in P^B, and have added the extra material found in Q to the second doxa as it appears in the Greek mss. Moreover, the theory of nutrition recorded is not incompatible with what we know about Empedocles’ theory of digestion, although as we shall see, it is not complete.

It is probable that the chapter was originally longer, as is suggested by the additional name-labels recorded by ps.Galen *Def.Med* and Celsus, which belong to both the earlier and the Hellenistic period of Greek medicine. The inclusion of doxai of Plato (cf. *Tim.* 77c) and Aristotle, which are both not present in ps.Galen, is also quite possible.

c Rationale–Structure of Chapter

Both doxai emphasize the role of moisture in the process of nourishment. They differ in their explanations of growth and wasting away. For Empedocles this involves the role of heat and the wasting away that occurs when both moisture and heat fail. There is no mention, however, of the crucial role that putrefication (σῆψις) plays in the process. For Anaxagoras growth is explained through the amount of nourishment, wasting away through excessive decomposition (or digestion). The chapter thus has the form of a weak diaeresis, with the two views having similar and dissimilar elements.

As we have seen, the final sentence of the first doxa continues the cosmogonic themes that occur frequently in Books 2 and 5; see Introduction to Book 5, section 5. It also introduces a shift from ‘living beings’ at the beginning of the doxa to the more specific ‘human beings’. The implication may be that the first humans came out of the earth as whole-natured forms, whereas human beings now go through the whole process of growth from an embryo onwards, including sex differentiation (cf. A 5.15.3, 5.18.1, 5.19.6). We recall the fantastical doctrine explaining the viability of seven and ten month old fetuses

in ch. 5.18.1. It is possible that the specific doctrine on growth may be a straight deduction from verses cited by Simplicius (31B62.4–5 DK; full text below section E(b)§1): ‘Whole-natured forms first sprang up from the earth, having a part of both water and warmth.’ This may also explain why the doxa only conveys part of Empedocles’ theory.

The presence of the Anaxagorean doxa may have been encouraged by the prominence of τροφή in the explanation of his doctrine of first principles (the so-called ὁμοιομερείαι); see the detailed report at A 1.3.4 and our Commentary ad loc. In contrast to the first doxa, however, the explanation given in the text is purely physiological, with no reference to possible cosmogonic aspects. This in turn is in contrast to the doxographical fragments in D.L. 2.9 and Hippolytus *Ref.* 1.8.12, which do speak of the initial growth of living beings.

On the view of Wolfsdorf that the views in this chapter and the next originally referred to the nourishments of plants rather than animals, but were transferred to the latter by A or his source, see our discussion above, section D(b), and on ch. 5.28 at Commentary D(e).

d Further Comments

Individual Points

§1[2] Wolfsdorf (2009) 34 n. 79 is right in translating the term ὑπόστασις with ‘settling down’, i.e. describing the process of digestion and food distribution in the body. It is also to be agreed that in [2] the reading of P^Q τοῦ ὑγροῦ is to be preferred above that of P^B τοῦ οἰχείου, since it is more natural to have ἑκατέρων in the next line refer to an elemental component. Usener’s conjecture τοῦ οἰχείου ὑγροῦ preserves both readings, but a reference to ‘its own moisture’ is less likely in the context of nourishment and growth (unless we translate ‘appropriate moisture’, referring to the process of ‘like to like’, in which case it would be more persuasive).

§2 ‘... but they become weak and sickly when there is much in them which decomposes.’ This may allude to a process of excessive digestion. The text on digestion in ps.Galen refers to ‘rubbing’ (Erasistratus) or ‘rotting’ (Empedocles), but there is no mention of what happens when this process goes wrong.

E Further Related Texts

a Proximate Tradition

General texts: ps.Galen *Def.Med.* 99, p. 19.372.14–373.3 K. 5θ’. πῶς Ἰπποκράτης καὶ Ἐρασίστρατος (fr. 119 Garofalo) καὶ Ἐμπεδοκλῆς (31A77 DK) καὶ Ἀσκληπιάδης (cf. Vallance *ANRW* 2.37.1, p. 721) τὰς πέψεις τῆς τροφῆς φασι γίνεσθαι; τὰς πέψεις τῆς τροφῆς Ἰπποκράτης μὲν ὑπὸ τοῦ ἐμφύτου θερμοῦ φησι γίνεσθαι, Ἐρασίστρατος δὲ τρίψει καὶ λειώσει καὶ περιστολῇ τῆς γαστρὸς καὶ ἐπικτήτου πνεύ-

ματος ιδιότητι. Ἐμπεδοκλῆς δὲ σήψει· οἱ δὲ ἐξ ὧμῶν ἔφασαν τὰς ἀναδόσεις γίνεσθαι, ὥσπερ καὶ Ἀσκληπιάδης ὁ Βιθυνός. cf. *Celsus Med.* 1 *proaem.* 20 *ex quibus quia maxime pertinere ad rem concoctio videtur, huic potissimum insistent; et, duce alii Erasistrato* (fr. 121 Garofalo), *teri cibum in ventre contendunt; alii, Plis-tonico Praxagorae discipulo* (fr. 1 Steckerl), *putrescere; alii credunt Hippocrati* (—), *per calorem cibos concoqui: acceduntque Asclepiadis aemuli* (cf. Vallance *ANRW* 2.37.1, p. 714), *qui, omnia ista vana et supervacua esse, proponunt: nihil enim concoqui, sed crudam materiam, sicut assumpta est, in corpus omne diduci.* *ps.Soranus Quaest.Med.* 61, p. 225.27–31 *Rose quomodo Hippocrates* (—) *et Erasistratus* (fr. 120 Garofalo) *et Diocles* (fr. 35 Van der Eijk, but he suggests the name may be a corruption of Empedocles) *et Genoetas (?) et Asclepiades* (cf. Vallance *ANRW* 2.37.1, p. 714) *philosophi digestionem cibi et potus fieri dixerunt? Hippocrates ab innato in nobis calore fieri digestionem dixit, Erasistratus vero teri et solvi, Diocles autem putrescere, Genoetas a natura elimari, Asclepiades autem per exercitationem corporis fieri dixit.*

Chapter heading: cf. *Dionysius of Aegae* at *Phot. Bibl.* 185 (cf. 211) 129b19–27 ε' ὅτι ἡ πέψις θερμασίᾳ γίνεται, ζ' ὅτι καὶ ἡ πέψις οὐ γίνεται θερμασίᾳ· ζ' ὅτι τρίψει ἡ πέψις, η' καὶ ὅτι οὐ τρίψει ἡ πέψις· θ' ὅτι ιδιότητι πνεύματος ἡ πέψις, ι' καὶ ὅτι οὐκ ιδιότητι πνεύματος ἡ πέψις· ια' ὅτι σήψει ἡ πέψις, ιβ' καὶ ὅτι οὐ σήψει ἡ πέψις· ιγ' ὅτι θερμασίας ιδιότητι ἡ πέψις, ιδ' καὶ ὅτι οὐ χυμῶν ιδιότητι ἡ πέψις· ιε' ὅτι διαφέρει τὸ θερμὸν ποιότητι, ις' ὅτι οὐ διαφέρει τὸ θερμὸν ποιότητι (quaestiones).

§1 *Empedocles:* see *Def.Med.* 99 cited above.

§2 *Anaxagoras:* cf. *Diogenes Laertius V.P.* 2.9 (on Anaxagoras, 59A1 DK) ζῶα γίνεσθαι ἐξ ὑγροῦ καὶ θερμοῦ καὶ γεώδους, ὅστερον δὲ ἐξ ἀλλήλων. *Hippolytus Ref.* 1.8.12 (on Anaxagoras, 59A42 DK) ζῶα δὲ τὴν μὲν ἀρχὴν ἐν ὑγροῦ γίνεσθαι, μετὰ ταῦτα δὲ ἐξ ἀλλήλων.

b Sources and Other Parallel Texts

General texts: *Aristotle de An.* 2.4 415a22–27 ὥστε πρῶτον περὶ τροφῆς καὶ γεννήσεως λεκτέον· ἡ γὰρ θρεπτικὴ ψυχὴ καὶ τοῖς ἄλλοις ὑπάρχει, καὶ πρώτη καὶ κοινοτάτη δυνάμις ἐστὶ ψυχῆς, καθ' ἣν ὑπάρχει τὸ ζῆν ἅπασιν. ἥς ἐστὶν ἔργα γεννήσασαι καὶ τροφή χρησθαι· φυσικώτατον γὰρ τῶν ἔργων τοῖς ζώσιν ... *de An.* 415b25–28 ὁμοίως δὲ καὶ περὶ αὐξήσεως τε καὶ φθίσεως ἔχει· οὐδὲν γὰρ φθίνει οὐδ' αὖξεται φυσικῶς μὴ τρεφόμενον, τρέφεται δ' οὐθὲν ὁ μὴ κοινωνεῖ ζωῆς. *de An.* 416b28–31 πᾶσαν δ' ἀναγκαῖον τροφήν δύνασθαι πέττεσθαι, ἐργάζεται δὲ τὴν πέψιν τὸ θερμόν· διὸ πᾶν ἔμψυχον ἔχει θερμότητα. τύπῳ μὲν οὖν ἡ τροφή τί ἐστὶν εἴρηται· διασαφητέον δ' ἐστὶν ὅστερον περὶ αὐτῆς ἐν τοῖς οἰκείοις λόγοις. *PA* 2.3 650a2–7 ἐπεὶ δ' ἀνάγκη πᾶν τὸ αὐξανόμενον λαμβάνειν τροφήν, ἡ δὲ τροφή πᾶσιν ἐξ ὑγροῦ καὶ ξηροῦ, καὶ τούτων ἡ πέψις γίνεται καὶ ἡ μεταβολὴ διὰ τῆς τοῦ θερμοῦ δυνάμεως, καὶ τὰ ζῶα πάντα καὶ τὰ φυτά, κἂν εἰ μὴ δι' ἄλλην αἰτίαν, ἀλλὰ διὰ ταύτην ἀναγκαῖον ἔχειν ἀρχὴν θερμοῦ φυσικῆς. *PA* 2.3 650b9–11 ἔτι δὲ περὶ τροφῆς ὅλως, ἐν τοῖς περὶ γενέσεως καὶ ἐν ἑτέροις οἰκειότερόν ἐστι διελθεῖν.

Chapter heading: *Corpus Hippocraticum* Περὶ τροφῆς (extant). *Phylotimus* Περὶ τροφῆς (no longer extant). cf. *Aristotle Somn. Vig.* 2 456b5–6 εἴρη-

ται δὲ περὶ τούτων ἐν τοῖς περὶ τροφῆς. GA 5.4 784a34–b3 δεῖ δὲ νοῆσαι τὴν εἰς ἕκαστον μόριον ἀφικνουμένην τροφήν ὅτι πέττει μὲν ἢ ἐν ἐκάστῳ οἰκεία θερμότης, ἀδυνατούσης δὲ φθείρεται καὶ πῆρωσις γίγνεται ἢ νόσος. ἀκριβέστερον δὲ περὶ τῆς τοιαύτης αἰτίας ὕστερον λεκτέον ἐν τοῖς περὶ αὐξήσεως καὶ τροφῆς. cf. also *de An.* 2.4 415a23, 415b25–26, 416b30–31, *PA* 2.3 650b9–10 cited above under General texts. **Diogenes Laertius** *V.P.* 5.59 (list of Strato's books, fr. 18 Wehrli, 1 Sharples) *Περὶ τροφῆς καὶ αὐξήσεως*.

§1 **Empedocles**: cf. *Corpus Hippocraticum Alim.* passim, esp. 2, p. 9.98.5–7 Littré αὖξει δὲ καὶ ῥώννυσι καὶ σαρκοὶ καὶ ὁμοιοὶ καὶ ἀνομοιοὶ τὰ ἐν ἐκάστοις κατὰ φύσιν τὴν ἐκάστου καὶ τὴν ἐξ ἀρχῆς δύναμιν. *Alim.* 5, p. 9.100.6–8 καὶ τὴν μὲν ἰδίην ἰδέην ἐξεβλάστησε· (μεταβάλλει τε τὴν ἀρχαίαν, καὶ καταφέρεται· τρέφει δὲ πεττομένη·) [added by Littré from Galen] τὴν δὲ προτέρην ἰδέην ἐξαλλάττει ἔστιν ὅτε καὶ τὰς προτέρας ἐξημαύρωσεν. *Alim.* 54, p. 9.120.2 δύναμις πάντα αὖξει καὶ τρέφει καὶ βλαστάνει. *Alim.* 55, p. 9.120.3 ὕγρασίη τροφῆς ὄχημα. (= **Polybus**?) *Morb.* 4.39, p. 7.558.24–560.5 Littré cited below on ch. 5.28 section E(b) General texts. **Plato** *Phd.* 96a–b ἐγὼ γάρ ... νέος ὦν θαυμαστώως ὡς ἐπεθύμησα ταύτης τῆς σοφίας ἣν δὴ καλοῦσι περὶ φύσεως ἱστορίαν· ὑπερῆφανος γάρ μοι ἐδόκει εἶναι, εἰδέναι τὰς αἰτίας ἐκάστου, διὰ τί γίγνεται ἕκαστον καὶ διὰ τί ἀπόλλυται καὶ διὰ τί ἔστι. καὶ πολλὰκις (b) ἐμαυτὸν ἄνω κάτω μετέβαλλον σκοπῶν πρῶτον τὰ τοιάδε· ‘ἄρ’ ἐπειδὴν τὸ θερμὸν καὶ τὸ ψυχρὸν σηπεδόνά τινά λάβη, ὡς τινες ἔλεγον, τότε δὴ τὰ ζῶα συντρέφεται; ...’ (for continuation see text cited on ch. 4.5 section E(b) General texts). **Aristotle** *de An.* 2.4 416a10–14 δοκεῖ δὲ τισιν ἢ τοῦ πυρὸς φύσις ἀπλῶς αἰτία τῆς τροφῆς καὶ τῆς αὐξήσεως εἶναι· καὶ γὰρ αὐτὸ φαίνεται μόνον τῶν σωμάτων ἢ τῶν στοιχείων τρεφόμενον καὶ αὐξόμενον, διὸ καὶ ἐν τοῖς φυτοῖς καὶ ἐν τοῖς ζῴοις ὑπολάβοι τις ἂν τοῦτο εἶναι τὸ ἐργαζόμενον. **Simplicius** *in Phys.* 381.29–390.5 εἰπόντος δὲ τοῦ Ἐμπεδοκλέους (31B62 DK) ἐν τῷ δευτέρῳ τῶν Φυσικῶν πρὸς τῶν ἀνδρείων καὶ γυναικείων σωμάτων διαρθρώσεως ταυτὶ τὰ ἔπη· ‘νὺν δ’ ἄγ’, ὅπως ἀνδρῶν τε πολυκλαύτων τε γυναικῶν / ἐννυχίου ὄρπηκας ἀνήγαγε κρινόμενον πῦρ, / τῶνδε κλύ· οὐ γὰρ μῦθος ἀπόσκοπος οὐδ’ ἀδαήμων. / οὐλοφύεις μὲν πρῶτα τύποι χθονὸς ἐξανέτελλον / ἀμφοτέρων ὕδατος τε καὶ εἴδους αἴσαν ἔχοντες, / τοὺς μὲν πῦρ ἀνέπεμπε θέλον πρὸς ὁμοῖον ἰκέσθαι, / οὔτε τί πω μελέων ἐρατὸν δέμας ἐμφαίνοντας, / οὔτ’ ἐνοπὴν οἶόν τ’ ἐπιχώριον ἀνδράσι γυῖον’. ταῦτα οὖν εἰπόντος τοῦ Ἐμπεδοκλέους ἐφίστησιν (sc. Aristotle), ὅτι καὶ αὐτὸς ὡς ἔοικε σπέρμα πρὸ τῶν ζῴων γεγενῆσθαι φησί.

§2 **Anaxagoras**: cf. **Simplicius** *in Phys.* 460.10–19 (on *Phys.* 3.4 203a19) ἀλλ’ εἰς μὲν τὴν τοιαύτην ἔννοιαν ὁ Ἀναξαγόρας (59A45 DK) ἦλθεν ἡγούμενος μηδὲν ἐκ τοῦ μὴ ὄντος γίνεσθαι καὶ πᾶν ὑπὸ ὁμοίου τρέφεσθαι. ὁρῶν οὖν πᾶν ἐκ παντός γινόμενον, εἰ καὶ μὴ ἀμέσως ἀλλὰ κατὰ τάξιν (καὶ γὰρ ἐκ πυρὸς ἀήρ καὶ ἐξ ἀέρος ὕδωρ καὶ ἐξ ὕδατος γῆ καὶ ἐκ γῆς λίθος καὶ ἐκ λίθου πάλιν πῦρ), καὶ τροφῆς δὲ τῆς αὐτῆς προσφερομένης οἷον ἄρτου πολλὰ καὶ ἀνόμοια γίνεται, σάρκες ὅσα φλέβες νεῦρα τρίχες δυνυχες καὶ πτερὰ δὲ εἰ οὕτω τύχοι καὶ κέρατα, αὖξεται δὲ τὸ ὅμοιον τῷ ὁμοίῳ· διὸ ταῦτα ἐν τῇ τροφῇ ὑπέλαβεν εἶναι καὶ ἐν τῷ ὕδατι, εἰ τούτῳ τρέφοιτο τὰ δένδρα, ξύλον καὶ φλοιὸν καὶ φύλλα καὶ καρπὸν.

Liber 5 Caput 28

P^B: ps.Plutarchus *Plac.* 910D–E; p. 440^a14–22 Diels—P^Q: Qustā ibn Lūqā pp. 244–245 Daiber

S: titulus *Ecl.* 1.46 p. 298.4 Wachsmuth ex Phot. *Bibl.* 167, p. 112b27–28 Henry (titulus solus); etiam 1.50.25 p. 1.476.9–10 Wachsmuth

Titulus κη'. Πόθεν αἱ ὀρέξεις γίνονται τοῖς ζώοις καὶ αἱ ἡδοναί (P,S)

§1 Ἐμπεδοκλῆς τὰς μὲν ὀρέξεις γίνεσθαι τοῖς ζώοις κατὰ τὰς ἐλλείψεις τῶν ἀποτελούντων ἕκαστα στοιχείων, τὰς δ' ἡδονὰς ἐξ ὑγροῦ κατὰ τὰς τῆς αὐξήσεως τῶν γένει ὁμοίων κινήσεις, τὰς δ' ὀχλήσεις κατὰ τὰς τῶν ἐναντίων συγκρίσεις καὶ κράσεις. (P₁)

§2 Παρμενίδης Ἐμπεδοκλῆς ἐλλείψει τροφῆς τὴν ὄρεξιν. (S₁)

5

§1 Empedocles 31A95 DK; §2 Parmenides 28A50 DK; Empedocles cf. 31A95 DK

titulus Πόθεν ... ἡδοναί P^{BQ}: Περί τροφῆς καὶ ὀρέξεως τῶν ζῴων S^{Phot} (cf. c. 5.27) §1 lemma non hab. P^{B(1)G} || [3] ἕκαστα P^B, om. P^Q: ἕκαστον Diels || ἐξ ὑγροῦ P^{BQ}: ante ὑγροῦ crucem pos. Diels *DG* (quem secuti Mau Lachenaud), in notis prop. ἐξ οἰκείου, quod in *VS* in textu pos. || [3–4] κατὰ ... κινήσει scripsimus, cf. *infolge der in der Art sich gleichenden Wachstumsbewegungen* Q (aut *infolge der Bewegungen des in der Art sich gleichenden Wachstums*) et Wolfsdorf (2009) 31: καὶ τὰς τῶν κινδύνων καὶ ὁμοίων κινήσεις P^B prob. Bollack, prop. in notis Diels *DG* κατὰ τὰς τῶν συγγενῶν καὶ ὁμοίων κινήσεις, quod in *VS* in textu pos. || [4–5] κατὰ ... κράσεις prop. Wolfsdorf (2009) 31, cf. *infolge der im Berühren und Zusammentreffen im Widerspruch stehende Dinge* Q et 4.9.15: καὶ τὰς P^B (et lac. 1 ½ lin. hab. P^{B(II,III,E)}), ἀλγηδόνας ἐξ ἀνοικείου suppl. Diels *VS* DK §2 [6] de hoc lemmate vid. comm. infra

Loci Aetiani:

§1 A 4.9.15 Ἐμπεδοκλῆς τὰς ἡδονὰς γίνεσθαι τοῖς μὲν ὁμοίοις ἐκ τῶν ὁμοίων κατὰ δὲ τὸ ἐλλείπον πρὸς τὴν ἀναπλήρωσιν, ὥστε τῷ ἐλλείποντι ἡ ὄρεξις τοῦ ὁμοίου· τὰς δ' ἀλγηδόνας τοῖς ἐναντίοις, ἡλλοτριῶσθαι γὰρ πρὸς ἄλληλα ὅσα διαφέρει κατὰ τὴν σύγκρισιν καὶ τὴν τῶν στοιχείων κράσιν. cf. A 4.9.12 Ἐπικούρος τῶν αἰσθητῶν (τὰς) ἡδονὰς ἦδη καὶ τὰς λύπας. A 4.9.13 οἱ Περιπατητικοὶ τῶν νοητῶν· οὐ γὰρ πᾶσι φαίνεται τὰ αὐτὰ ἡδέα τε καὶ λυπηρὰ καθάπερ λευκὰ τε καὶ μέλανα. A 4.9.14 Χρύσιππος τὸ μὲν γενικὸν ἡδὺ νοητόν, τὸ δὲ εἰδικὸν καὶ προσπίπτον ἦδη αἰσθητόν. A 4.9.16 Ἀναξαγόρας πᾶσαν αἴσθησιν μετὰ πόνου. A 4.9.17 (οἱ) ἄλλοι ἐπιγίγνεσθαι ἥτοι ἡδονὴν ἢ πόνον οὐδὲ συμπεφυκέναι.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

For this chapter only a single lemma is preserved in the tradition of P. Like in the previous chapter the name-label is again Empedocles. In P^B its final part is mutilated. As also occurs in A 5.27.2 and 5.29.1–3, Q has a fuller text. Clearly the final part of the archetype of the Byzantine mss. of P was defective.

A lemma with the name-labels Parmenides and Empedocles which contains an abridged but very similar doxa on the theme of ὄρεξις (in the singular) is found among the doxai of ch. 4.9 on sense-perception in S ch. 50 Περί αἰσθήσεως καὶ αἰσθητῶν καὶ εἰ ἀληθεῖς αἰ αἰσθήσεις (preserved only in the ms. L). Diels retained it in ch. 4.9 without comment, adding three asterisks to indicate that it was incomplete. The interpretation of this fragment is fraught with difficulties. See further the analysis below in section D(c).

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The only text that we can relate to this tradition is at ps.Galen *Def.Med.* 99, but its definition of ὄρεξις refers to food (and drink) without any reference to physiological processes (or to doxographical material).

(2) *Sources.* Although Empedocles is cited quite often in Aristotle's writings on the soul and its phenomena, this does not occur in relation to the themes of desire, pleasure or pain. On the other hand, Theophrastus' account of his views in the opusculum *De sensibus* (§§7–24) contains three passages in which pleasure and pain (as well as knowing and not knowing) are explained through the categories of the similar and the dissimilar (texts below section E(b) §1). These recur in the second half of the doxa in explaining pleasures and annoyances. However, the physiological aspect emphasized by A is not found in this text. See further our discussion of the reconstruction of the sources of the chapter by Wolfsdorf (2009) in section D(e) below. A similar account of craving for food and drink involving the deficiency of moisture (so only one of the elements) is found in a treatise in the Hippocratic corpus (by the same author who wrote *Genit.* and *Nat.Puer.*), namely *Morb.* 4.39, text below section E(b) General texts.

C *Chapter Heading*

For chapter headings containing πόθεν plus γίγνομαι indicating the psychological, biological or physiological source, i.e. the cause, of a phenomenon see ch. 4.21 Πόθεν αἰσθητικὴ γίνεται ἢ ψυχὴ καὶ τί αὐτῆς τὸ ἡγεμονικόν and ch. 5.11 Πόθεν γίνονται τῶν γονέων αἰ ὁμοιώσεις ἢ τῶν προγόνων. It should be noted that the heading explicitly refers to τὰ ζῶα, continuing the broader scope of the previous

chapter. As we have continually noted throughout Book 5, the doxography prevaricates on whether it focuses on living beings in general or more particularly on human beings.

D Analysis

a Context

The subject follows on logically from the previous chapter. The crucial role of nourishment for the growth of living beings entails that they must have a process whereby they feel the impulse to take in such nourishment, and this is provided by desire (or more specifically appetite, the usual term in relation to food), which in turn is linked to feelings of pleasure (i.e. enjoying one's food, satiety) and annoyance (i.e. hunger). The subject of appetite is not discussed elsewhere in the *Placita* (incidental references at A 4.22.3[25] on breathing and 5.5.1 on female desire for sex). But the subject of pleasure and pain was briefly dealt with at A 4.9.12–17 as part of the chapter on whether sensations and impressions are true (since pleasure and pain involve αἰσθησις, i.e. *internal* perception). The doxa on Empedocles at A 4.9.15 differs from the one in this chapter in being quite general, i.e. not focused on nourishment, as is the implication of the context here, and also articulating the principle of like by like more explicitly. The parallel doxa in ps.Galen *Def.Med.* focuses explicitly on appetite for food and drink.

b Number–Order of Lemmata

The tradition of P has only the single lemma. But the original version in A, we may safely assume, will have had further views which have been lost in P's abridged version. The second lemma furnished by S points in this direction. It appears to be a compact summary of the first, but with two essential differences: (a) it has the additional name-label Parmenides; (b) it relates the lack that causes appetite explicitly to nourishment (τροφή). Parmenides' view must have been coupled with that of Empedocles in the original version of the chapter, or was a very similar doxa which S coalesced. We note that Theophrastus *Sens.* 1 names Parmenides, Empedocles and Plato together as explaining sensation through similarity (as opposed to dissimilarity).

The second doxa can thus best be regarded as for the most part a doublet of the first, doubtless deriving from S's version of the chapters 5.27 & 28. But because it contains extra information, it must be included in our text.

c Rationale–Structure of Chapter

There is little further to be said about this truncated chapter with (effectively) its single lemma except to emphasise that, by mentioning the role of the ele-

ments in appetite and privileging the role of moisture in pleasure, A continues the physiological emphasis of Book 5. The role of the elements is central to Aristotle's critique of Empedocles' psychology at *de An.* 1.5 410a22–b16. In the parallel passage on Empedocles at A 4.9.15 there is no mention of the moist, but the mixture of the elements is mentioned to explain pains.

d Further Comments

Individual Points

§1 The text of the second half of the doxa on pleasures and pains is very uncertain. In P^B *pace* Bollack (1965–1969) 3.468 it is clearly corrupt. The reference to 'dangers' is inappropriate in the context. Diels and earlier scholars attempted to restore it in the light of the parallel text A 4.9.15, a very understandable step to take; see *DG* app. to 440a19. However, they did not have access to the evidence in Q. Instead of τὰς τῶν κινδύνων ... κινήσεις, Q refers to *Wachstumsbewegungen*, i.e. τὰς τῆς αὐξήσεως ... κινήσεις. The genitive τῶν ὁμοίων would appear to be dependent on τῆς αὐξήσεως. It is qualified by the phrase *in der Art* which can be rendered γένει (but there are no good parallels in A). In our text we have printed a retranslation from Q, bearing in mind that here his text is better preserved than in the Greek mss. As for the final phrase explaining the occurrence of 'annoyances' (ὀχλήσεις as a synonym for 'pains' (λύπαι), cf. ἀλγηδónας in ch. 4.9.15), we have to determine what Q's *im Berühren und Zusammentreffen* will have rendered. In our text we follow the suggestion of Wolfsdorf (2009) 31 to base the reconstruction of the final phrase on the parallel text in A 4.9.15, changing σύγκρισιν and κράσιν to the plural to correlate with the article τὰς in the Greek mss. and the plural nouns in Q.

e Other Evidence

In his detailed analysis of this chapter Wolfsdorf (2009) makes three claims regarding its relation to earlier traditions (see esp. p. 34 and the stemma on p. 43):

(1) A has combined separate anterior traditions for the topic of desire and for the topic of pleasure and pain.

(2) The latter is clearly derived ultimately from Theophrastus' *Sens.* and before him Aristotle's *de An.* The former has a different source trajectory via Aristotle's lost *Plant.* and *Eth.Nic.*, and prior to these works, Plato's *Lysis*.

(3) His report on Empedocles' views on desire and pleasure was derived from doxographical material on plants rather than on animals, even if he himself may have placed them in a chapter that refers to these subjects in animals (or living beings in general).

These interpretations make too much of the very limited evidence and can by no means be regarded as certain. The role of Theophrastus *Sens.* is not in dispute. However, for the topic of desire Wolfsdorf himself admits (p. 19) that the doxographical record is defective. Although we have printed the texts he cites below in section E(b) under §1, it is apparent that they are not specific enough to be regarded as sources for A's doxa on ὄρεξις, leaving aside the problem that the doxa itself (i.e. its first part) makes no reference to what is similar or dissimilar. It is true that Nicolaus of Damascus' doxography on plants states that they are influenced by desire and also experience pleasure, but it is a mighty leap to conclude that it is this text that inspired A, who consequently transferred this contents to living beings in general. Wolfsdorf p. 45 notes that there may have been intermediate sources involved, but nevertheless maintains that ultimately the view comes from Aristotle's *Plant.* He ends his analysis of the doxographical tradition with some valuable remarks on the role of diaeresis, which is clearly present in the passage from Plato's *Lysis* which he cites. Of course it must be recognised that the role of the diaeresis is crucial for the method that A uses throughout his work. But for a diaeresis at least two opinions are required, and this is precisely what we do not have in this effectively monolemmatic chapter.

E Further Related Texts

a Proximate Tradition

General texts: ps.Galen *Def.Med.* 97, p. 19.372.3–4 K. ζζ'. ὄρεξις ἐστὶ πόθος καὶ ἐπιζήτησις τροφῆς καὶ πότου.

b Sources and Other Parallel Texts

General texts: *Corpus Hippocraticum Morb.* 4.39, p. 7.558.24–560.5 Littré εἰ δὲ βρωτῶν καὶ ποτῶν ἐνδεήσεται τῶν πηγέων τις, κατὰ τοῦτο καὶ τὸ σῶμα ἐλκύσει ἀπ' αὐτέων τέως καὶ τὸ ὑγρὸν ἔλασσον τοῦ καιροῦ γένηται· τότε ἰμείρεται ὁ ἄνθρωπος ἢ φαγέειν ἢ πιεῖν τοιοῦτον, ὅτι τὴν μοίρην ἐκείνην ἐπιπλήσει καὶ ἰσώσει τῆσιν ἄλλῃσι· καὶ διὰ τοῦτο βεβρωκότες πολλὰ ἢ πεπωκότες, ἔστιν ὅτε ἰμειρόμεθα ἢ βρωτοῦ ἢ ποτοῦ, καὶ ἄλλο οὐδὲν ἂν ἡδέως φάγοιμεν, εἰ μὴ ὅ τι ἰμειρόμεθα· ἐπὶ δὲ φάγωμεν καὶ ἰσωθῇ ἡ ἱκμάς κατὰ τὰ ἀνυστὰ ἐν τῇσι πηγῇσι καὶ ἐν τῷ σώματι, τότε οἱ πέπνυται ὁ ἥμερος.

Chapter heading: —

§1 *Empedocles:* On desire: Plato *Lys.* 214b2–5 οὐκοῦν καὶ τοῖς τῶν σοφωτάτων συγγράμμασιν ἐντετύχηκας ταῦτα αὐτὰ λέγουσιν, ὅτι τὸ ὅμοιον τῷ ὁμοίῳ ἀνάγκη αἰεὶ φίλον εἶναι; εἰσὶν δὲ πού οὗτοι οἱ περὶ φύσεώς τε καὶ τοῦ ὅλου διαλεγόμενοι καὶ γράφοντες. ... *Lys.* 215e1–216a1 καὶ δὴ καὶ ἔτι ἐπεξῆει τῷ λόγῳ μεγαλοπρεπέστερον, λέγων ὡς ἄρα παντὸς δέοι τὸ ὅμοιον τῷ ὁμοίῳ φίλον εἶναι, ἀλλ' αὐτὸ τὸ ἐναντίον εἶη τούτου· τὸ γὰρ ἐναντιώτατον τῷ ἐναντιωτάτῳ εἶναι μάλιστα φίλον. ἐπιθυμῆν γὰρ τοῦ τοιοῦτου ἕκαστον, ἀλλ' οὐ τοῦ ὁμοίου· τὸ μὲν γὰρ ξηρὸν ὑγροῦ, τὸ δὲ

ψυχρὸν θερμού, τὸ δὲ πικρὸν γλυκέος, τὸ δὲ ὀξύ ἀμβλέος, τὸ δὲ κενὸν πληρώσεως, καὶ τὸ πλήρες δὲ κενώσεως, καὶ τὰλλα οὕτω κατὰ τὸν αὐτὸν λόγον. τροφήν γὰρ εἶναι τὸ ἐναντίον τῷ ἐναντίῳ· τὸ γὰρ ὅμοιον τοῦ ὁμοίου οὐδὲν ἂν ἀπολαύσαι. **Aristotle** *EN* 8.2 1155a32–b8 διαμφισβητεῖται δὲ περὶ αὐτῆς οὐκ ὀλίγα. οἱ μὲν γὰρ ὁμοιότητά τινα τιθέασιν αὐτὴν καὶ τοὺς ὁμοίους φίλους ... Εὐριπίδης (fr. 898 Nauck) μὲν φάσκων ἐρᾶν μὲν ὕμβρου γαῖαν ξηρανθεῖσαν, ἐρᾶν δὲ σεμνὸν οὐρανὸν πληρούμενον ὕμβρου πεσεῖν ἐς γαῖαν, καὶ Ἡράκλειτος (fr. 27d¹ Marcovich) τὸ ἀντίξουν συμφέρον καὶ ἐκ τῶν διαφερόντων καλλίστην ἁρμονίαν καὶ πάντα κατ' ἔριν γίνεσθαι· ἐξ ἐναντίας δὲ τούτοις ἄλλοι τε καὶ Ἐμπεδοκλῆς (not in DK)· τὸ γὰρ ὅμοιον τοῦ ὁμοίου ἐφίεσθαι.

On pleasure and pain: **Aristotle** *de An.* 1.2 404b8–12 ὅσοι μὲν οὖν ἐπὶ τὸ κινεῖσθαι τὸ ἔμψυχον ἀπέβλεψαν, οὗτοι τὸ κινήτικώτατον ὑπέλαβον τὴν ψυχὴν· ὅσοι δ' ἐπὶ τὸ γινώσκειν καὶ τὸ αἰσθάνεσθαι τῶν ὄντων, οὗτοι δὲ λέγουσι τὴν ψυχὴν τὰς ἀρχάς, οἱ μὲν πλείους ποιοῦντες, ταύτας οἱ δὲ μίαν, ταύτην, ὥσπερ Ἐμπεδοκλῆς μὲν ἐκ τῶν στοιχείων πάντων, εἶναι δὲ καὶ ἕκαστον ψυχὴν τούτων, λέγων οὕτως ... (then cites fr. 31B109 DK). **Theophrastus** *Sens.* 1–2 Περί δ' αἰσθήσεως αἱ μὲν πολλαὶ καὶ καθόλου δόξαί δὲ εἰσὶν· οἱ μὲν γὰρ τῷ ὁμοίῳ ποιοῦσιν, οἱ δὲ τῷ ἐναντίῳ. Παρμενίδης μὲν καὶ Ἐμπεδοκλῆς (31A86 DK) καὶ Πλάτων τῷ ὁμοίῳ, οἱ δὲ περὶ Ἀναξαγόραν καὶ Ἡράκλειτον τῷ ἐναντίῳ. *Sens.* 7 Ἐμπεδοκλῆς δὲ περὶ ἀπασῶν ὁμοίως λέγει καὶ φησὶ τῷ ἐναρμόττειν εἰς τοὺς πόρους τοὺς ἐκάστης αἰσθάνεσθαι ... *Sens.* 9 ἡδεσθαι δὲ τοῖς ὁμοίοις κατὰ τε (τὰ) μόρια καὶ τὴν κρᾶσιν, λυπεῖσθαι δὲ τοῖς ἐναντίοις. *Sens.* 10 ὡσαύτως δὲ λέγει καὶ περὶ φρονήσεως καὶ ἀγνοίας. τὸ μὲν γὰρ φρονεῖν εἶναι τοῖς ὁμοίοις, τὸ δ' ἀγνοεῖν τοῖς ἀνομοίοις, ὡς ἡ ταῦτόν ἢ παραπλήσιον δὴν τῇ αἰσθήσει τὴν φρόνησιν. διαριθμησάμενος γὰρ ὡς ἕκαστον ἐκάστῳ γνωρίζομεν (cf. 31B109 DK) ἐπὶ τέλει προσέθηκεν ὡς (31B107 DK) 'ἐκ τούτων (γὰρ) πάντα πεπηγάσιν ἁρμοσθέντα / καὶ τούτοις φρονέουσι καὶ ἡδονὴν ἢ δ' ἀνιώνται.' *Sens.* 16–17 ἀλλὰ μὴν οὐδὲ τὴν ἡδονὴν καὶ λύπην ὁμολογουμένως ἀποδίδωσιν ἡδεσθαι μὲν ποιῶν τοῖς ὁμοίοις, λυπεῖσθαι δὲ τοῖς ἐναντίοις. ... αἰσθήσεις γὰρ τινὰς ἢ μετ' αἰσθήσεως ποιοῦσι τὴν ἡδονὴν καὶ τὴν λύπην, ὥστε οὐχ ἅπασα γίνεται τοῖς ὁμοίοις. ἔτι εἰ τὰ συγγενῆ μάλιστα ποιεῖ τὴν ἡδονὴν ἐν τῇ ἀφῇ, καθάπερ φησί, τὰ σύμφυτα μάλιστ' ἂν ἡδοίτο καὶ ὅλως αἰσθάνοιτο· διὰ τῶν αὐτῶν γὰρ ποιεῖ τὴν αἴσθησιν καὶ τὴν ἡδονὴν. (17) καίτοι πολλὰκις αἰσθανόμενοι λυπούμεθα κατ' αὐτὴν τὴν αἴσθησιν, ὡς (δ') Ἀναξαγόρας (59A92 DK) φησὶν, αἰεὶ· πᾶσαν γὰρ αἴσθησιν εἶναι μετὰ λύπης. *Sens.* 23–24 καὶ συμβαίνει ταῦτό εἶναι τὸ φρονεῖν καὶ αἰσθάνεσθαι καὶ ἡδεσθαι καὶ (τὸ) λυπεῖσθαι καὶ {τὸ} ἀγνοεῖν· ἄμφω γὰρ ποιεῖ τοῖς ἀνομοίοις. ὥστ' ἅμα τῷ μὲν ἀγνοεῖν ἔδει γίνεσθαι λύπην, τῷ δὲ φρονεῖν ἡδονὴν. (24) ἄτοπον δὲ καὶ τὸ τὰς δυνάμεις ἐκάστοις ἐγγίνεσθαι διὰ τὴν ἐν τοῖς μορίοις τοῦ αἵματος σύγκρασιν, ὡς ἡ τὴν γλώτταν αἰτίαν τοῦ εὖ λέγειν (οὐσαν ἢ) τὰς χεῖρας τοῦ δημιουργεῖν, ἀλλ' οὐκ ὄργάνου τάξιν ἔχοντα. διὸ καὶ μάλλον ἂν τις ἀποδοίῃ τῇ μορφῇ τὴν αἰτίαν ἢ τῇ κρᾶσει τοῦ αἵματος, ἢ χωρὶς διανοία ἐστίν· οὕτως γὰρ ἔχει καὶ ἐπὶ τῶν ἄλλων ζώων. Ἐμπεδοκλῆς μὲν οὖν ἔοικεν ἐν πολλοῖς διαμαρτάνειν. **Nicolaus Damascenus** cf. *De plantis* 1.2, Arabic translation of Ishāq ibn Hunayn cited above on ch. 5.26 section E(b) General texts.

Liber 5 Caput 29

P^B: ps.Plutarchus *Plac.* 910E–F; p. 441^a1–24 Diels—P^G: ps.Galenus *HPh* c. 131; p. 647.15–20 Diels—P^Q: Qusṭā ibn Lūqā pp. 244–247 Daiber

Titulus κθ'. Πὼς γίνεται πυρετὸς καὶ εἰ ἐπιγέννημά ἐστι (P)

- §1 Ἐρασίστρατος ὀρίζειται τὸν πυρετὸν οὕτως· πυρετὸς ἐστὶ κίνημα αἵματος παρεμπεπτωκότος εἰς τὰ τοῦ πνεύματος ἀγγεῖα ἀπροαιρέτως γινόμενον· καθάπερ γὰρ ἐπὶ τῆς θαλάττης, ὅταν μὴδὲν αὐτὴν κινή, ἡρεμεῖ, ἀνέμου δ' ἐμπνέοντος βιαίου παρὰ φύσιν, τότε ἐξ ὅλης κυκᾶται, οὕτω καὶ ἐν τῷ σώματι ὅταν κινήθῃ τὸ αἷμα, τότε ἐμπίπτει μὲν εἰς τὰ ἀγγεῖα τοῦ πνεύματος, πυρούμενον δὲ θερμαίνει τὸ ὅλον σῶμα. ἀρέσκει δ' αὐτῷ καὶ ἐπιγέννημα εἶναι τὸν πυρετόν, *denn es entsteht aus einer Geschwulst, welche in den Werkzeugen des Pneumas zusammen mit der Nahrung erscheint, die zu ihnen fließt.* (P^{BQ1})
- §2 Διοκλῆς δὲ φησιν· ὅψις ἀδήλων τὰ φαινόμενα· ἔστι δέ, οἷς φαινομένοις ὁρᾶται ἐπιγενόμενος ὁ πυρετός, τραύματα καὶ φλεγμοναὶ καὶ βουβῶνες. *Folglich muß man unbedingt sagen, daß das Fieber aus (irgendwelchen) Dingen entsteht, auch wenn sie verborgen sind, nämlich (aus) einer Geschwulst oder einer Nahrung oder einem anderen heißen Körper.* (P^{BQ2})
- §3 *Herophilus widerlegte das und glaubte, daß die heiße Geschwulst nicht dem Fieber vorangeht, sondern das Fieber geht ihr voran. In dieser (Weise) entsteht das Fieber meistens. Häufig tritt es ein, ohne daß in ihm eine Ursache deutlich ist. Seine Ursache löst die*

§1 Erasistratus fr. 195 Garofalo; §2 Diocles fr. 56 Van der Eijk; §3 Herophilus fr. 217 Von Staden

titulus πυρετὸς P^{B(IIDG)} : ὁ πυρετὸς P^{B(IIDQ)(ut vid.)} || εἰ ἐπιγέννημά ἐστι P^{BQ} : ἐπιγίνεται P^G
 §1 [2] οὕτως· πυρετὸς ἐστὶ om. P^G (et οὕτως om P^{B(III:E)}) || [3] παρεμπεπτωκότος P^{GQ} Diels Lachenaud : παρεμπεπτωκός P^B Mau || [4] post κινή add. P^G πνεῦμα || [5–10] ἀνέμου usque ad fin. lemm. om. P^G || [5] κυκᾶται Lachenaud, dub. Diels : κυκλεῖται P^B Mau || [6] ἐμπίπτει P^{B(I,III)} : πίπτει P^{B(II)} || [7] τοῦ πνεύματος Garofalo : τῶν πνευμάτων P^B || [8] τὸν πυρετόν corr. Diels Lachenaud : ὁ πυρετὸς P^{BQ} Mau, tum lac. 1½ lin. hab P^{B(I)}, 7 litt. P^{B(II)} || [8–10] *denn ... fließt* Q : desunt in P^B §2 [11–12] δὲ φησι ... ὁρᾶται om. P^G et cetera usque ad βουβῶνες paraphr. || [11] ὅψις P^{B(I,II)} : ὅψεις P^{B(IIDQ)} || ἔστι δέ, οἷς corr. Reiske edd. Diels (ἐστὶ Mau Lachenaud) : ἐπὶ δὲ τοῖς P^{BQ} || [12] post βουβῶνες hab. lac. 1 lin. P^{B(I)}, 2/3 lin. P^{B(II)} || [13–16] *Folglich ... Körper* Q : desunt in P^B §3 [17–22] *Herophilus ... aus* Q : desunt in P^B : al. (et fortiter reducta) P^G || [17] *Herophilus* P^Q : Ἡρόδοτος P^G || [18–20] cf. ἐνίοτε μὴδεμῖς αἰτίας προηγησαμένης πυρέττειν τινὰς P^G

Bewegungen der chronischen (?) Krankheiten und die Erzeugung der heißen Geschwüre aus. (P^{Q3})

[21] *chronischen* Q : dub. Daiber

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 131 (~ tit.) Πῶς γίνεται πυρετός καὶ ἐπιγίνεται (text Diels)

131.1 (~ P1) Ἐρασίστρατος ὀρίζει τὸν πυρετὸν κίνημα αἵματος παρεμπεπτωκός
εἰς τὰ τοῦ πνεύματος ἀγγελία ἀπροαιρέτως γινόμενον καθάπερ ἐπὶ τῆς θαλάττης,
ὅταν μὴδὲν αὐτὴν κινήῃ πνεῦμα, ἡρεμεῖ.

131.2 (~ P2) Διοκλῆς ἐπιγένημα εἶναι τὸν πυρετόν· ἐπιγίνεται δὲ τραύματι καὶ βου-
βῶνι.

131.3 (~ P3) Ἡρόδοτός [sic] φησιν ἐνίοτε μηδεμιᾶς αἰτίας προηγησαμένης πυρέττειν
τινάς.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The evidence for this chapter is confined to the tradition of P. It would appear that S did not include any material from it in his anthology. P^B only has two lemmata, of which the first and longer one is truncated at the end. As is apparent from the other chapters at the end of Book 5, the archetype of this Byzantine tradition must have been damaged towards the end of the manuscript. The evidence of Q is particularly important for this chapter. The Arabic translation completes the truncated first lemma, adds a second half to the second lemma, and adds a complete third lemma with the name-label Herophilus (completely missing in P^B). Q's evidence is complemented by that of G. He includes the third doxa attributed to Herophilus (although the name-label that is transmitted in his text is Herodotus), thereby confirming Q's evidence. However, all three of his doxai are considerably abridged in comparison to what we find in Q. In addition his versions for the second and third lemma differ in terms of content from the longer versions in Q. As in previous chapters (and in ch. 5.30) G and Q supply material at the end of the work that later became missing in the mss. tradition of P. This material is completely missing in the texts of Mau and Lachenaud, who apparently failed to realise that these texts complement the Byzantine mss. of P.

B Proximate Tradition and Sources

(1) *Proximate tradition.* The contents of this chapter, with its focus on fourth and third century physicians has some parallels in other doxographical works. The three definitions for fever found in ps.Galen's compendium of medical definitions are quite different from that of Erasistratus with which the chapter opens. He does, however, use the distinctive term ἐπιγένημα in his definition of σύμπτωμα (see texts below section E(a) Definitions). In the second or third cent. CE ps.Galenic treatise *Introductio sive medicus* ch. 13 the view that fever is an affection (πάθος, cf. 4.23) is attributed to 'the ancients' and is contrasted in sound doxographical style with the view of 'Erasistratus and some younger (doctors)' that fever is an ἐπιγένημα. But the account and definition of fever attributed to them, which focus on the role of heat, bear no resemblance to A's explanation. A little-known definition-cum-doxography is found in a small treatise on fevers under the name of 'the doctor' Alexander of Aphrodisias, attributing the definition to 'Empedocles, Zeno and the majority of the Hippocrateans.' Though not calling fever a πάθος, the content resembles the various definitions in ps.Galen *Def.Med.*, but the mention of the names of philosophers suggests a doxographical origin. Another interesting text is found in ps.Soranus *Quaestiones medicinales*, in a section only preserved in the ms. Carnotensis 62; see Van der Eijk (2000–2001) 2.128, who notes: 'It is almost certain that the present report is derived from a tradition of *quaestiones* or *definitiones* literature, although the present section is not preserved in Pseudo-Galen's *Definitiones medicae*.' The quaestio asked is 'what different causes of fevers did the ancients state?' The views of no less than 10 authors or groups are cited, although not all of them specifically mention fevers; see the text below section E(a) General texts. The view of Erasistratus given there is a more compact version of what we find in A.

As the evidence of the Anon. Londiniensis and the Anon. Parisinus shows, there were extensive doxographies on medical subjects; on this background see further Runia (1999a) 237–245. It is probable that A or the tradition he draws on has made use of such material and incorporated a very small amount of it in his treatment of physiological subjects. On ancient medical doxography in general see further the essays collected in Van der Eijk (1999a).

(2) *Sources.* Fever as a widely occurring physiological phenomenon attracted the interest of early Greek *physiologi*. A treatise on fever is recorded among the 'technical' writings of Democritus (68A33 XIII 7 DK). As noted above, some philosophers—Empedocles, Democritus, Strato, Zeno—are briefly mentioned in medical doxographies in ps.Soranus and ps.Alexander; see texts below section E(a). But there was little, it seems, for later doxographers to make use of. In Plato it is briefly explained in terms of elemental excesses in *Tim.* 86a, for

which he is mildly criticized by Galen *PHP* 8.4.18 because he ignored the true cause, i.e. the role of the humours; see further Taylor (1928) 607–610. In the Aristotelian corpus discussions on aspects of fever are confined to the *Problemata*. It is doubtless not a coincidence that this is the only chapter in A's compendium to consist solely of doxai attributed to physicians. On fevers in ancient medicine see Pellegrin (1988), Nutton (2004) 31–32; a wide-ranging overview of the place of fever in ancient culture is given in Horn (1969).

C Chapter Heading

The chapter heading combines two subjects in relation to the theme of fever, firstly its cause, and secondly whether it is an 'after-symptom', i.e. supervenient upon the affection (and thus not its cause). The first part uses the familiar $\pi\omega\varsigma \gamma\acute{\iota}\nu\epsilon\tau\alpha\iota$ x formula, on which see further ch. 5.2 Commentary C. The second part again turns to the $\epsilon\acute{\iota}$ x (sc. $\acute{\epsilon}\sigma\tau\acute{\iota}$) formula, which was also used in chs. 5.4–5, 19, 20 and 26 (see further ch. 5.26 Commentary C). It invites a response in terms of affirmation or negation, as indeed occurs in this chapter.

D Analysis

a Context

As noted above, this is the only chapter in the work that has a specifically medical subject. Its inclusion is perhaps not as surprising as its position, since it precedes the discussion of health and disease in the final chapter 5.30.

b Number–Order of Lemmata

Only three doxai are preserved. It could be argued that there might have been a fuller list on account of the absence of any Presocratic theories. But see our comments above in section B(b). The second question posed in the heading invites either a positive or a negative answer (or perhaps a compromise), so a limited number of doxai might be expected (cf. for example chs. 5.4 and 5.5 also with three doxai each).

c Rationale–Structure of Chapter

The three doxai are linked together in a tight structure. In the first doxa attributed to Erasistratus we are explicitly told that a definition of fever has been formulated. For similar use of the verbs $\acute{o}\rho\acute{\iota}\zeta\epsilon\tau\alpha\iota$ / $\acute{o}\rho\acute{\iota}\zeta\omicron\nu\tau\alpha\iota$ see A 1.6.1, 4.8.1 (both *oratio recta* as here), 4.19.1 (*oratio obliqua*), and in general on definition in the *Placita* ch. 1.9 Commentary D(d) General points. All three parallels occur at the beginning of the chapter (as is also the case for definitions that are not formally introduced, e.g. at chs. 1.9–12, 1.14–15, 1.23). The definition is specific, so does not introduce the subject, but already explains how fever occurs, i.e. the

first question raised in the chapter. The second part of the doxa then provides an answer to the second topic, i.e. whether fever is an after-symptom, which Erasistratus answers in the affirmative. His view is introduced with the phrase ἀρέσκει δ' αὐτῷ, which occurs in A elsewhere only at 1.7.21[101] (on Xenocrates, also towards the end of a long lemma), but is very common in the fragments of Arius Didymus (see M–R 1.250, 3.323). To judge by the Arabic translation, a swelling caused by the accumulation of *pneuma* in its vessels (ἄγγεια; this is what *Werkzeugen* must refer to), exacerbated by what nourishes it, gives rise to the fever. The reason for the opinion thus refers back to the earlier definition.

The second doxa attributed to Diocles amounts to an additional affirmation of the view of Erasistratus that fever is an ἐπιγένημα. Diocles is recorded as quoting the well-known apophthegm ‘the appearances are the sight of what is unclear’. This saying is recorded as having been used by Anaxagoras and (it seems) Democritus; see S.E. *M.* 7.140 (text below Section E(b)§2), Diller (1932) 16, 37. As Van der Eijk (2000–2001, 2.123) remarks, there is no *a priori* reason to doubt the assertion that Diocles cited the saying (he is known to have written a book on fevers, cf. fr. 73 Van der Eijk). However, as the same scholar notes, it is not easy to understand the exact purport of the addition in the Arabic translation, since a swelling is surely a visible element (as opposed to nourishment or an invisible hot body). The reduced doxa in G, which does not include the saying, is much more straightforward: fever is after-symptom of the visible symptoms of injuries or sickness in the form of wounds and swellings. It is likely that Q is mistaken here, but we have decided to include his text as evidence of the damaged text.

The third lemma has the name-label Herophilus and survives in full (it would seem) only in Q. Fever is not an ἐπιγένημα but rather precedes the observed phenomena of swellings and boils. Its own cause, however, may not be clear. Herophilus’ doxa thus takes the opposed view in the diaphonia in response to the ἐἰ question in the chapter heading: fever is not an ἐπιγένημα but precedes the visible symptoms. Its response to the first part of the chapter’s subject is that the cause is not apparent. As Von Staden (1989, 302) notes, in this statement ‘Herophilus’ cautious, sceptical strain breaks through’. It should be observed that here too the version of G differs from Q: *sometimes* no cause precedes the fever. Again it appears to be a simplification of what originally stood in A.

We conclude, therefore, that the chapter thus focuses more on the second part of its double subject than the first. It has a simple dialectical structure *pro et contra*, with §1 affirming the thesis (supported by §2) and §3 opposing it. As often in Book 5, the doxai have been extended in length in order to include physiological aspects of the subject. Due to the imperfect transmission, however, the exact meaning is not fully clear. Finally it is to be noted that the

most common aetiology of fever in antiquity, i.e. the mismanagement of the bodily humours (cf. Pellegrin 1988) is absent in our chapter.

d Further Comments

General Points

Diocles' doxa in both P^B and G shows how the technical term ἐπιγέννημα is developed from the verb ἐπιγίγνομαι. The term itself appears to have been first developed in philosophical contexts. It occurs in the Stoic doxography at D.L. 7.86 to describe pleasure (ἡδονή) as supervenient upon what nature has supplied to a creature for its constitution (cf. also 7.94, 95). In Philo *Det.* 124 joy is an after-product of wisdom. In medical authors it does not occur in extant texts before Galen, where however it is found only four times (three in *De symptomatum differentiis liber*; see below, section E(b) General texts for one example). So it is not likely that the physicians cited in this chapter would have used the term. The doxographer, as he often does, is using later terminology in order to clarify (and simplify) earlier doctrine.

Individual Points

§1 In the analogy between wind at sea and blood in the body, the word order means that the expression παρὰ φύσιν is more naturally taken with the previous phrase than the one that follows (in the latter case it would normally follow τότε). So on the basis of the analogy, it is the action of the blood that is 'contrary to nature', not the fever. This is consistent with the statement that it is an after-symptom. Lachenaud errs, therefore, in placing the comma after βιαίου.

§2 Although δέ is often a strong adversative introducing an opposed opinion, it does not do so in this case. The view of Diocles supports that of Erasistratus. So we should translate 'and'.

§3 The erroneous name-label Herodotus in G is strange, because it is correctly transmitted in §§103, 106 and 119 and the context is clearly medical. It is almost certainly a scribal error based on an incorrect interpretation of an abbreviation. The name-label Herodotus occurs in §89 (= A 4.1) where it is obviously correct.

E Further Related Texts

a Proximate Tradition

General texts: ps.Soranus *Quaest.Med.* codex Carnotensis 61 fol. 10^r Fischer *quas causas febrium diversas veteres adsecebant. nam Erasistratus (—) quidem transfusionem sanguinis in arterias et tumorem causam febrium esse dicebat; Asclepiades (cf. Vallance ANRW 2.37.1, p. 724) autem, cum impedimenta quaedam habuerint vel constricti erint qui ratione sola comprehenduntur meatus cor-*

poris, febrem fieri voluit; Diocles vero Carystius (fr. 59 Van der Eijk) corrumpi ait sanguinem qui in concava vena est et ita effici morbos; Praxagoras (—) autem comprehensionem et corruptelam recentium novarum et veterum causabatur et ita dicebat morbos effici; Platon autem philosophus igniti elementi abundantiam causam esse dicebat morborum. verum Democrito (—) placet causam febrium esse cum cibi qui sumuntur transierint ad non proprium locum. Straton (—) autem qui de natura scripsit (i.e. ὁ φυσικός) (ait) cum imus calor ad superficiem venerit; clausis enim meatibus includitur calor en inclusus maior efficitur (et ita morbi generantur). Methodici autem stricturam et fluxum generaliter necnon etiam complexionem causantur {esse febres}. Empirici vero consequens est causam febrium non inquirere nec quemadmodum fiant, sed observata natura ad historiam transire et similia quaerere, ut de ipsis aliquid utilitatis capiatur. Hippocrates autem ait febrem fieri, cum aut solida pars (corrumpitur) aut humor aut spiritus convertitur contra naturalem modum. Nam in libro quae de cibis scripti ita ait Hippocrates ... (quotes Alim. 23).

Chapter heading: cf. **Diogenes Laertius** *V.P.* 9.49 (list of Democritus' writings, 68a33 DK) Περί πυρετοῦ καὶ τῶν ἀπὸ νόσου βησόντων.

Definitions: cf. **ps.Galen** *Def.Med.* 170, p. 19.395 K. ρο'. σύμπτωμά ἐστι τοῦ πάθους ἐπιγέννημα. *Def.Med.* 185, p. 19.398.5–15 K. ρπε'. πυρετός ἐστιν ἡ τοῦ ἐμφύτου θερμοῦ εἰς τὸ παρὰ φύσιν ἐκτροπὴ τῶν σφυγμῶν σφοδρότερων τε καὶ πυκνωτέρων γενομένων. ἡ πυρετός ἐστι θερμότης παρὰ φύσιν καρδίας καὶ ἀρτηριῶν βλάπτουσα τὸν ζωτικὸν γόνον ἀναφερομένη τε ἐκ βάθους προσπίπτουσα τῇ ἀφῇ καὶ μάλιστα τις ἀταξία κατὰ τὸ εἶδος τοῦ πυρετοῦ προγίνεται τοῖς σφυγμοῖς. οἱ δὲ οὕτω. πυρετός ἐστι πλεονασμός θερμασίας νοσώδους καὶ μάλιστα τῆς ἐκ βάθους ἀναφερομένης μετὰ παραλλαγῆς σφυγμῶν ἐπὶ τὸ πυκνότερον καὶ σφοδρότερον. οἱ δὲ οὕτως. πυρετός ἐστι δυσκρασία τοῦ φυσικοῦ πνεύματος ἐπὶ τὸ θερμότερον καὶ ξηρότερον. **ps.Alexander** *Febr.* 2.1 Ideler πυρετὸν τοῖνον, 'ἵν' ἐντεῦθεν τοῦ λόγου ἄρξωμαι, ἄλλοι μὲν ἄλλως ὥρισαντο, Ἐμπεδοκλῆς (—) δὲ καὶ Ζήνων (—) καὶ τῶν Ἱπποκρατείων οἱ πλείους (—) θερμασίαν παρὰ φύσιν, ἀπὸ καρδίας μὲν ἀρχομένην, προϊούσαν δὲ ἐκ ταύτης δι' ἀρτηριῶν καὶ φλεβῶν ἐφ' ἅπαν τὸ σῶμα, καὶ τὰς φυσικὰς αἰσθητῶς βλάπτουσαν ἐνεργείας, ἔφασαν εἶναι· καὶ εἰκότως.

§1 Erasistratus: cf. **ps.Soranus** *Quaest.Med.* 61 cited above.

b Sources and Other Parallel Texts

General texts: **Galen** *Symp.Diff.* 1, p. 7.42.8 K. ἅπαντα γὰρ οὖν διαθέσεις σώματος ἐξισταμένη τοῦ κατὰ φύσιν ἥτοι νόσημά ἐστιν, ἡ αἰτία νοσήματος, ἡ σύμπτωμα νοσήματος. ὅπερ ἔνιοι τῶν ἱατρῶν ἐπιγέννημα καλοῦσιν.

Chapter heading: cf. **Galen** *Diff.Puls.* 4.17, p. 8.760.10 K. (on pulsation) αὐτὸς γὰρ ὁ Ἐρασίστρατος (Garofalo fr. 205) ἐν τοῖς περὶ πυρετῶν ἀπεφῆναιτο σαφῶς. **Caelius Aurelianus** on Diocles cited below on §2.

Definitions: **ps.Galen** *Caus.Affect.* p. 9.4 Helmreich οὐκ οὖν πυρετός ἐστι κατὰ τὸν Ἱπποκράτην τροπὴ τοῦ κατὰ φύσιν θερμοῦ εἰς τὸ παρὰ φύσιν. **Aëtius medicus** *Iatr.* 5.7.1 Τί ἐστι πυρετός. πυρετός ἐστι θερμότης παρὰ φύσιν καρδίας καὶ ἀρτηριῶν βλάπτουσα τὸν ζωτικὸν τόνον ... **Anonymi medici** Περί τῆς τῶν

πυρετῶν διαφορὰς p. 603.5–15 Daremberg–Ruelle ἐροῦμεν πάλιν ὅτι πυρετός ἐστι θερμασία παρὰ φύσιν ἐν ὧ τῷ σώματι γινομένη καὶ βλάπτει τὰς ἐνεργείας. ... συμβεβηκώς πυρετός ἐστιν ὃς γίνεται καὶ ἀπογίνεται χωρὶς τῆς τοῦ ὑποκειμένου φθορᾶς.

§1 Erasistratus: ps.Galen Int. 13.5, p. 48.2–15 Petit (chapter heading Περί φυσικῶν ἐνεργειῶν τε καὶ χυμῶν) τὸν μὲν οὖν πυρετὸν οἱ παλαιοὶ πάθος, αὐτὸν καθ' αὐτὸν ἡγούνται. Ἐρασίστρατος (—) δὲ καὶ τῶν νεωτέρων τινὲς ἐπιγέννημα. πυρετός δὲ ἐστὶ τροπὴ ἐμφύτου θερμοῦ ἐπὶ τὸ καυσωδέστερον, διὰ τὸ εἰς τὸ ἔνδον ἀποστρέφεσθαι καὶ ἐμποδιζεσθαι διαπνεῖν. σημειούμεθα δὲ τοὺς πυρεττόντας ἐκ τε τῆς θερμῆς τῆς ἐπιτεταμένης καὶ ἀπροΐτου οὔσης καὶ τῶν σφυγμῶν ἐν ἀρχῇ μὲν εἰσβολῆς ἀμυδρᾶς καὶ ἀνωμάλου κινήσεως μετὰ πυκνότητος, ἐν ἀκμῇ δὲ σφοδροτάτης μετὰ ἐπάρσεως καὶ τάχους ὑπερβάλλοντος. κατὰ δὲ τοὺς νεωτέρους ἢ ἐκ βάθους ἀναφερομένη θερμασία πλείων τῆς κατὰ φύσιν, σακνώδης καὶ δριμεία καὶ ἐπίμονος, μετὰ τῆς τῶν σφυγμῶν πυκνότητός τε καὶ σκληρότητος οὔσα, τὸν πυρετὸν ἀφορίζει.

§2 Diocles: Caelius Aurelianus Cel.Pass. 1.11.99 *Diocles* (fr. 73 Van der Eijk) *vero libro quem de febris scripsit*. **Sextus Empiricus M.** 7.140 Διότιμος δὲ τρία κατ' αὐτὸν ἔλεγεν εἶναι κριτήρια, τῆς μὲν τῶν ἀδήλων καταλήψεως τὰ φαινόμενα— ὅψις γὰρ τῶν ἀδήλων τὰ φαινόμενα, ὡς φησιν Ἀναξαγόρας (59B21 DK), ὃν ἐπὶ τούτῳ Δημόκριτος (68A111 DK) ἐπαινεῖ. **Anonymus Parisinus Morb.Acut.** 18, pp. 112.18–114.2 Garofalo Μανίας αἰτία. Πραξαγόρας (fr. 72 Steckerl) τὴν μανίαν γίνεσθαι φησὶ κατ' οἴδησιν τῆς καρδίας, οὐπερ καὶ τὸ φρονεῖν εἶναι δεδόξακε· μὴ ἐπιγίνεσθαι δὲ αὐτῇ πυρετοὺς διὰ τὸ μὴδὲ τὰ ἐκτὸς οἰδήματα ποιεῖν πυρώσεις. ὁ δὲ Διοκλῆς (fr. 74 Van der Eijk) ζέσιν τοῦ ἐν τῇ καρδίᾳ αἵματός φησιν εἶναι χωρὶς ἐμφράξεως γινομένην, διὰ τοῦτο γὰρ μὴδὲ πυρετοὺς ἔπεσθαι· ὅτι δὲ ἐπὶ ζέσει γίνεται τοῦ αἵματος δηλοῖ ἢ συνήθεια, τοὺς γὰρ μανιώδεις τεθερμάνθαι φαμέν. Ἱπποκράτης δὲ ...

Liber 5 Caput 30

P^B: ps.Plutarchus *Plac.* 91A–C; pp. 442^{a1}–444^{a8} Diels—**P^G**: ps.Galenus *HPh* c. 132–133; pp. 647.21–648.7 Diels—**P^Q**: Qustā ibn Lūqā pp. 246–249 Daiber—**P^{Ps}**: Psellus *Omn.Doctr.* 117, p. 63 Westerink; *Epi.* p. 66.18–67.15 Boissonade
S: *Flor.* 4.36.29–31, pp. 874.18–875.12 + 37.2, pp. 877.8–878.2 + 4.50.30, p. 1032.19–20 Hense

Titulus λ'. Περὶ ὑγείας καὶ νόσου καὶ γήρωος (P,S)

- §1 Ἀλκμαίων τῆς μὲν ὑγείας εἶναι συνεκτικὴν τὴν ἰσονομίαν τῶν δυνάμεων, ὑγροῦ ξηροῦ ψυχροῦ θερμοῦ πικροῦ γλυκέος καὶ τῶν λοιπῶν· τὴν δ' ἐν αὐτοῖς μοναρχίαν νόσου ποιητικὴν· φθοροποιὸν γὰρ ἑκατέρου μοναρχία. (P1a,S4)
- §2 Ἡρόφιλος τὰς νόσους συμπίπτειν ὥς μὲν ὕφ' οὗ ὑπερβολῇ θερμότητος ἢ ψυχρότητος· ὥς δ' ἐξ οὗ διὰ πλήθος τροφῆς ἢ ἔνδειαν· ὥς δ' ἐν οἷς ἢ αἷμα ἢ μυελὸν ἢ ἐγκέφαλον· γίνεσθαι δέ ποτε καὶ ὑπὸ τῶν ἔξωθεν αἰτιῶν, ὑδάτων ποιῶν ἢ χώρας ἢ κόπων ἢ ἀνάγκης ἢ τῶν τούτοις παραπλησίων· τὴν δὲ ὑγείαν τὴν σύμμετρον τῶν ποιῶν κράσιν. (P1b,S1)

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§1 Alcmaeon 24B4 DK; §2 Herophilus cf. Leith (2014) 604

titulus Περὶ ... γήρωος **P^{BQ}**: in duo capitula dividit **P^G** cum tit. Περὶ νόσων et Περὶ γήρωος: tria capitula hab. S cum tit. Περὶ νόσου καὶ τῆς τῶν κατ' αὐτὴν ἀνιάρων λύσεως, Περὶ ὑγείας καὶ τῆς περὶ τὴν διαμονὴν αὐτῆς προνοίας, Περὶ γήρωος ὅτι οὐ φαῦλον §1–2 non hab. **P^G** §1 [2] τὴν] om. **P^B** || [3] ὑγροῦ ξηροῦ ψυχροῦ θερμοῦ **P^{QPs(Epi)}** Diels: ὑγροῦ θερμοῦ ξηροῦ ψυχροῦ **P^B** Mau Lachenaud: ὑγροῦ ξηροῦ ψυχροῦ S: θερμότητος, ψυχρότητος, ὑγρότητος, ξηρότητος **P^{Ps(Omn)}** || [4] ποιητικὴν] παρασκευαστικὴν εἶναι S || φθοροποιὸν ... μοναρχία deest in S || μοναρχία **P^B**: μοναρχίαν **P^{Ps(Epi)}** Diels §2 [6] Ἡρόφιλος **P^Q**, om. **P^{BS}** || τὰς νόσους συμπίπτειν scripsimus, cf. S qui λέγει δὲ anteposit, porro **P^Q**(ut vid.) (*die Krankheiten werden entweder infolge der Ursache Q*): καὶ νόσων αἰτία **P^B** (continuat §1a): al. **P^{Ps(Epi)}** μοναρχίαν (§1a) καὶ νόσον συμπίπτειν **P^{Ps(Epi)}** Diels || ὕφ' οὗ **S^{PQ}** Diels Lachenaud: ὑφέξω **P^B**, ὕφ' ἔξεως Mau: ὑφέξιν **P^{Ps(Epi)}** || ὑπερβολῇ Diels Mau: ὑπερβολῇ **P^{B(I,III:E)Ps(Epi)}**: ὑπερβολῇ **P^{B(I)}**: δι' ὑπερβολὴν S, *durch das Übermaß* Q || [7] ἢ¹] καὶ **P^{Ps(Epi)}** || ἐξ οὗ S Diels: ἐξ ἧς **P^B**, ἐξ ἧς Mau: ἔξις **P^{Ps(Epi)}** || τροφῆς ἢ ἔνδειαν **P^{QS}**: ἢ ἔνδεια **P^B** (τροφῆς ante ἢ suppl. Mau Lachenaud): ὅσον ἢ ἔνδεια **P^{Ps(Epi)}** || [8] ἢ αἷμα **P^{BPs(Epi)}**: <δι'> αἷμα S coni. Kalbfleisch Hense, ἢ (περὶ) αἷμα Diels VS in app. || ἢ μυελὸν S Diels: ἐνδὸν **P^{BPs(Epi)}** Mau Lachenaud || ἐγκέφαλον **P^{Ps(Epi)}** S Diels: ἐγκέφαλος **P^B** || [8–9] al. Q *das Blut oder im Gehirn, denn in diesen beiden sind die Ausgangspunkte der Krankheiten* || [8–10] γίνεσθαι ... παραπλησίων **S^{PQ}** (*aber sie entstehen gar oft aus den äußeren Ursachen, das heißt den Flüssigkeiten, dem Eiter, der Eiterflüssigkeit und was dem gleicht Q*): non exhib. **P^B**: al. **P^{Ps(Epi)}** (in textu P pos. Diels et crucif.) ἐν γὰρ τούτοις ποτε καὶ τῶν ἔσωθεν ἔτι (ἔξωθεν αἰτιῶν Diels) ὑδάτων φυτῶν ἢ χώρας ἢ τῶν (ἢ Diels) ἀνάγκης ἢ τῶν τούτοις παραπλησίων || [10] τὴν¹ ... κράσιν] deest in S

- §3 Διοκλῆς τὰς πλείστας τῶν νόσων δι' ἄνωμαλίαν γίνεσθαι τῶν ἐν τῷ σώματι στοιχείων καὶ τοῦ καταστήματος ἄερος. (P₂,S₂)
- §4 Ἑρασίστρατος τὰς νόσους διὰ πλήθος τροφῆς καὶ δι' ἀπειρίας καὶ φθορᾶς, τὴν δ' εὐταξίαν καὶ αὐτάρκειαν εἶναι ὑγίαν. (P₃,S₃)
- §5 Παρμενίδης γήρας γίνεσθαι παρὰ τὴν τοῦ θερμοῦ ὑπόλειψιν. (S₅) 15
- §6 οἱ Στωικοὶ καὶ οἱ ἰατροὶ συμφώνως τὸ γήρας γεγενῆσθαι διὰ τὴν τοῦ θερμοῦ ἔλλειψιν· οἱ γὰρ {αὐτοὶ} πλέον τὸ θερμὸν ἔχοντες ἐπὶ πλείον γηρώσιν. (P₄)
- §7 Ἀσκληπιάδης Αἰθιοπὰς φησι ταχέως γηράσκειν ἐτῶν τριάκοντα διὰ τὸ ὑπερθερμαίνεσθαι τὰ σώματα ὑπὸ τοῦ ἡλίου διαφλεχθέντας· ἐν Βρεττανίᾳ ἑκατὸν εἴκοσιν ἐτῶν γηρᾶν διὰ τὸ κατεψύχθαι μὲν τοὺς τόπους, ἐν 20 ἑαυτοῖς δὲ στέγειν τὸ πυρῶδες· τὰ μὲν γὰρ τῶν Αἰθιοπῶν σώματά εἰσιν ἀραιότερα διὰ τὸ ἀναχαλᾶσθαι ὑπὸ τοῦ ἡλίου, τὰ δ' ὑπὸ τῶν ἄρκτων πυκνά, διὰ τοῦτο οὖν καὶ πολυχρόνια. (P₅)

§3 Diocles fr. 51 Van der Eijk; §4 Erasistratus fr. 168 Garofalo; §5 Parmenides 28A46a DK; §6 Stoici *SVF* 2.769; medici—; §7 Asclepiades cf. Vallance *ANRW* 2.37.1, p. 725

§3 [11] post Διοκλῆς add. δέ P^{B(111)} || τὰς S : αἰτίας P^G, om. P^{BPs(Epi)} || γίνεσθαι P^{GS} Van der Eijk : om. P^{BPs(Epi)} || δι' ἄνωμαλίαν γίνεσθαι P^{GS} (qui addit ἔφη) : γίνεσθαι δι' ἄνωμαλίαν P^B : δι' ἄνωμαλίαν P^{BPs(Epi)} || [11–12] τῶν ... καταστήματος P^{BQPs(Epi)} : non hab. S qui add. ἔφη || [11] τῷ om. P^{B(111)} || [12] ἄερος P^{GQ} Van der Eijk : om. P^{BPs(Epi)} Diels Mau Lachenaud §4 [13] Ἑρασίστρατος Στράτων P^G || δι' P^{Ps(Omn,Epi)} Bernadakis Mau Lachenaud : om. P^B Diels Garofalo (sc. ἀπειρίας acc. plur.) || [13–14] al. S πλήθος καὶ διαφθορὰ τάνωτάτω αἵτια || [14] φθορᾶς P^{BPs(Omn,Epi)} Mau Lachenaud : φθοράν Usener Diels Garofalo || ὑγίαν P^B : ὑγείας περιποιητικά P^{Ps(Omn)} Diels (τὴν ... ὑγίαν deest in S) Garofalo : τροφῆς P^{Ps(Epi)} per errorem librarii §5 lemma hab. solus S §6 lemma non hab. S || [16] καὶ οἱ ἰατροὶ P^{GQ} : deest in P^{BPs(Epi)} || γεγενῆσθαι P^{BPs} : γίγνεσθαι Diels || συμφώνως post γεγενῆσθαι hab. P^{Ps(Epi)}, deest in P^G || [16–17] διὰ ... ἔλλειψιν παρὰ ... ὑπονόστησιν P^G || [17] αὐτοὶ seclusimus : αὐτὸ P^{Q(ut vid.)}, conl. Diels qui τὸ θερμὸν secl. : αὐτοὶ hab. P^{BPs(Epi)}, conl. αὐτῶν ab Arnim, ἄνθρωποι Mau Lachenaud §7 lemma non hab. S || [19] Αἰθιοπὰς φησι || δέ φησι τοὺς Αἰθιοπὰς λέγειν (λ' ἐτῶν conl. Diels) P^G || ἐτῶν τριάκοντα corr. Diels conl. l. 4 : ἔτη τριάκοντα P^{B(1,11)Ps(Epi)} : ἔτει τριακοστῷ P^{B(111)} || [20] ὑπερθερμαίνεσθαι ψύχεσθαι P^G perperam, corr. Diels || διαφλεχθέντας P^{BPs(Epi)} : διαφλεγόμενα P^{GQ} || [21–22] ἐν ... πυρῶδες P^{BPs(Epi)} : al. P^G διὰ τὸ στέγειν ἐν αὐτοῖς τὸ πυρῶδες || [22–23] τῶν Αἰθιοπῶν ... ἀραιότερα Diels Mau Lachenaud ex P^G : εἰσιν ἀραιότερα τῶν Αἰθιοπῶν σώματα P^{BPs(Epi)} || [23] ὑπὸ (ἀπὸ P^{Ps(Epi)}) τῶν ἄρκτων P^B : ὑπὸ τὴν ἄρκτον P^G || [24] post πυκνά add. ἢ ἐστεγανωμένα P^{Ps(Epi)} (verb. Byzant.)

Testes primi:

Traditio ps.Plutarchi:

ps.Galenus *HPh* c. 132 (~ tit.) Περὶ νόσων (text Diels)

132.1 (~ P₃) Διοκλῆς αἰτίας πλείστας τῶν νόσων δι' ἄνωμαλίαν γίνεσθαι τῶν ἐν τῷ σώματι στοιχείων καὶ τοῦ καταστήματος ἄερος.

132.2 (~ P₄) Στράτων διὰ πλήθος τροφῆς γίνεσθαι τὰς νόσους.

ps.Galenus *HPh* c. 133 (~ tit.) *Περὶ γήρωος* (text Diels)

133.1 (~ P6) οἱ Στωικοὶ καὶ οἱ ἰατροὶ παρὰ τὴν τοῦ θερμοῦ ὑπονόστησιν.

133.2 (~ P7) Ἀσκληπιάδης δὲ φησι τοὺς Αἰθίοπας λέγειν γηρᾶναι διὰ τὸ (ὑπερθερμαίνεσθαι) τὰ σώματα ὑπὸ τοῦ ἡλίου διαφλεγόμενα, τοὺς δὲ ἐν τῇ Βρετανίᾳ ἑκατὸν εἴκοσιν ἑτῶν γηρᾶν διὰ τὸ στέγειν ἐν αὐτοῖς τὸ πυρῶδες. τὰ μὲν γὰρ τῶν Αἰθίοπων σώματα ἀραιότερα διὰ τὸ κεχαλάσθαι ὑπὸ τοῦ ἡλίου, τὰ δὲ ὑπὸ τὴν ἄρκτον πεπυκνωσθαι καὶ διὰ τοῦτο πολυχρόνια.

Psellus *Omn.Doctr.* c. 117.1–7 *Περὶ ὑγείας καὶ νόσου καὶ γήρωος* (~ tit.). ὑγείας αἴτιον συνεκτικὸν ἢ τῶν δυνάμεων ἰσονομία, θερμότητος, ψυχρότητος, ὑγρότητος, ξηρότητος· ὅταν δὲ τούτων ἐν καταδυναστεύσει τῶν ἄλλων, ἡ νόσος γίνεται (~ P1). αἱ δὲ πλείσται τῶν νόσων δι' ἀνωμαλίαν τῶν ἐν τῷ σώματι στοιχείων γίνονται (~ P3). ἐπιεσάγονται δὲ αἱ νόσοι τῷ σώματι καὶ διὰ πλήθος τροφῆς καὶ διὰ ἀπειψίας καὶ φθοράς· ἡ δὲ εὐταξία καὶ ἡ αὐτάρκεια ὑγείας περιποιητικά (~ P4).

Epi. pp. 66.18–67.15 Boissonade (sine titulo) Ἀλκμαίων τῆς μὲν ὑγείας εἶναι συνεκτικὴν τὴν ἰσονομίαν τῶν δυνάμεων ὑγροῦ, ξηροῦ, θερμοῦ, ψυχροῦ, πικροῦ, γλυκέος, καὶ τῶν λοιπῶν· τὴν δ' ἐν αὐτοῖς μοναρχίαν νόσου ποιητικὴν· φθοροποιὸν γὰρ ἑκατέρου (~ P1), μοναρχίαν καὶ νόσον συμπίπτειν· ὥς μὲν ὕφ' ἕξιν ὑπερβολὴ θερμότητος καὶ ψυχρότητος· ὥς δὲ ἕξις διὰ πλήθος, οἷον ἡ ἔνδεια· ὥς δ' ἐν οἷς, ἡ αἷμα ἐνδέον ἢ ἐγκεφάλων· ἐν γὰρ τούτοις ποτὲ καὶ τῶν ἔσωθεν ἔτι ὑδάτων, φυτῶν, ἢ χώρας ἢ τόπων ἀνάγκης, ἢ τῶν τούτοις παραπλησίων· τὴν δὲ ὑγείαν τὴν σύμμετρον τῶν ποιῶν κράσιν (~ P2). Διοκλῆς πλείστας τῶν νόσων δι' ἀνωμαλίαν τῶν ἐν τῷ σώματι στοιχείων καὶ τοῦ καταστήματος (~ P3). Ἐρασίστρατος τὰς νόσους διὰ πλήθος τροφῆς καὶ δι' ἀπειψίας καὶ φθοράς, τὴν δὲ εὐταξίαν καὶ αὐτάρκειαν εἶναι τροφῆς (~ P4). οἱ Στωικοὶ τὸ γήρας γεγενῆσθαι συμφώνως διὰ τὴν τοῦ θερμοῦ ἔλλειψιν· οἱ γὰρ αὐτοὶ πλέον ἔχοντες τὸ θερμὸν ἐπὶ πλείον γηρώσιν (~ P6). Ἀσκληπιάδης Αἰθιοπίας φησι ταχέως γηράσκειν ἔτη τριάκοντα διὰ τὸ ὑπερθερμαίνεσθαι τὰ σώματα, ὑπὸ τοῦ ἡλίου διαφλεχθέντας· ἐν Βρετανίᾳ δὲ ἑτῶν ἑκατὸν εἴκοσιν γηρᾶν, διὰ τὸ κατεψύχθαι μὲν τοὺς τόπους, ἐν ἑαυτοῖς δὲ στέγειν τὸ πυρῶδες· τὰ μὲν γὰρ εἰσιν τῶν Αἰθίοπων σώματά εἰσιν ἀραιότερα διὰ τὸ ἀναχαλάσθαι ὑπὸ τοῦ ἡλίου, τὰ δὲ τῶν Βρετανῶν ἀπὸ τῶν ἄρκτων πυκνὰ ἢ ἐστεγανωμένα, διὰ τοῦτο καὶ πολυχρόνια (~ P7).

Loci Aetiani:

quaestio cf. A 5.23 Πότε ἄρχεται ὁ ἄνθρωπος τῆς τελειότητος. A 5.24 Πῶς ὕπνος γίνεται καὶ θάνατος.

§5 cf. A 5.28.2 Παρμενίδης Ἐμπεδοκλῆς ἐλλείψει τροφῆς τὴν ὄρεξιν.

§6 cf. A 5.27.1 Ἐμπεδοκλῆς τρέφεσθαι μὲν τὰ ζῶα διὰ τὴν ὑπόστασιν τοῦ ὑγροῦ, αὔξεσθαι δὲ διὰ τὴν παρουσίαν τοῦ θερμοῦ, μειοῦσθαι δὲ καὶ φθίνειν διὰ τὴν ἔλλειψιν ἑκατέρων.

For an English translation of the Aëtian text see Volume 5.4

Commentary

A *Witnesses*

The final chapter of the work is preserved in more witnesses than is usual for the contents of Book 5.

(1) P^B appears to preserve five lemmata, but Q has an extra name-label for the second part of P^B's first doxa and so has six lemmata. This divergence of attribution will be scrutinised in section D(b) below. The final four lemmata are retained by G, but he divides the chapter into two separate chapters—two doxai in a chapter on diseases and the remaining two in a chapter on old age. Ps paraphrases the contents of the first three doxai in *De omnifaria doctrina*, removing the name-labels. But in a little known text published by Boissonade in 1838 (missing in the *TLG*) he copies out verbatim the entire chapter as he found it in P. The text resembles P^B and does not have the additional name-label in §2 as supplied by Q (Herophilus) and in §6 (καὶ οἱ ἱατροὶ συμ-φώνως).

(2) Five lemmata from this chapter are also found scattered in S, one of which has the name-label Parmenides and is missing in P. Remarkably these texts are found not in the *Eclogae* but in the *Florilegium*, where they are located in the chapters on disease (4.36), health (4.37) and old age (4.50). P^B's first lemma on Alcmaeon (i.e. §§1–2) is split in two, with the first part at 4.37.2 (i.e. §1), the second part (i.e. §2) in the previous chapter at 4.36.29. The Diocles doxa is recorded at 4.36.30 in an abridged form, while the lemma on Erasistratus does not reproduce the doxa as found in P but seemingly gives a brief statement which provides the gist of his view. The remaining doxa at 4.50.30 has the name-label Parmenides and is suspiciously similar to the doxa of the Stoics and doctors (§5) in P but missing in S. These five lemmata constitute the only material from A found in the second half of S's mighty anthology (see M–R 1.198). The additional doxa compared with the tradition of P shows, if proof were needed, that this material was not drawn from P. Perhaps the fact that this material is used in a different context in the *Anthology* explains the cavalier way that S has made use of it.

B *Proximate Tradition and Sources*

(1) *Proximate tradition.* The material in this chapter bears a generic resemblance to definitions of health, disease and old age in ps.Galen's *Def.Med.* (note in his first definition of health the term δυνάμεις and the prominent role of the four bodily 'elements' heat cold moisture and dryness). Its contents correspond to generally held doctrines held on these subjects in antiquity, e.g. that health is caused by the balance or symmetry of the elements or qualities of the body,

whereas disease results from their imbalance, and that old age is caused by the deficit of heat and moisture in favour of cold and dryness.

The only significant doxographical parallels citing early thinkers are found in the Anonymus Londiniensis, which has as its main subject the causes of disease (on this text see further above ch. 5.22 Commentary B). At the outset it is stated that there is conflict (στάσις) on the subject of disease, some saying it comes from the ‘residues of food’, others from the elements (of the body) (4.26–28). Thereafter a number of reports of early physicians such as Hippocrates, Petron of Aegina and Philistion record the views on health and disease (text below section E(a) General texts). But there are no direct connections with the doxai in A. It does not refer at all to Alcmaeon or Diocles, and the various references to Erasistratus do not deal with this subject (fr. 58–60, 83, 87 Garofalo, now available with an improved text in the edition of the papyrus by Manetti 2011).

(2) *Sources*. The subjects of this chapter are less specifically medical than that of the previous one. There would have been little difficulty for doxographers to locate material in the writings of the Presocratics, though little has filtered down to A (only §5 in what remains in P). Plato in the *Timaeus* provides a theory explaining old age (82d) and allots an important section to bodily disease (81e–86b) and to health involving both body and soul (87c–89c). Aristotle gives a medical definition of health at *Top.* 145b8, but does not devote a specific discussion to it (the promised treatises *Περὶ νόσου καὶ ὑγείας*, if written, did not survive, as noted by Alexander, text below section E(b) Chapter heading). In the *Parva naturalia*, however, there are separate brief treatises on youth and old age. Treatises on old age are recorded for three Peripatetic authors, Theophrastus, Demetrius of Phalerum and Aristo of Ceos, but surprisingly there is no trace of Stoic treatises on the subject (cf. §6). However, a text of Chrysippus quoted verbatim by Galen shows that the Stoa too made use of general ideas on health and disease as outlined above. Another interesting text from the same author (*PHP* 5.3.18) points out that the definition of health involving *συμμετρία* is used by various philosophers, even though they have quite different ideas about what it is a symmetry of. The list starts with Asclepiades and his doctrine of masses and pores (cf. §7). Cicero’s celebrated work *De senectute*, though referring to the treatise of Aristo, does not discuss the physiological aspects of the topic, but rather presents a debate on the advantages and disadvantages of becoming old (the same method adopted by Stobaeus in *Flor.* 4.50).

C Chapter Heading

The chapter headings are of the simple umbrella type, corresponding to the titles of works or treatments of the subjects in the earlier tradition as was noted above. P^B, Q and Ps (in *Omn. Doctr.* only) agree on the heading with three terms,

Περὶ ὑγείας καὶ νόσου καὶ γήρωος. G deviates by dividing the chapter into two and giving the former the chapter heading Περὶ νόσων (note the plural), the latter Περὶ γήρωος. On this division, which we do not follow, see further below section D(b). S uses the three headings and expands them in each case (listed in the app. crit. above).

D Analysis

a Context

The general treatment of health and disease follows on from the chapters on animal and human physiology, the same sequence that also occurs in Plato's *Timaeus*. It might have been more logical to place it before the chapter on fevers, which is clearly a medical subject. However, placement after the chapter on fevers can be understood if that topic is still regarded as part of physiology, whereas health and disease are in a sense meta-subjects that discuss when physiological processes go right or wrong, i.e. κατὰ φύσιν or παρὰ φύσιν.

The final topic of old age is linked to that of health and disease, because the process used to explain it, involving the balance of the heat and cold, is similar. It is the final stage of the ages of the human being introduced in ch. 5.23. It brings the work to a fitting close, though an alternative might have been to have a chapter on death (already treated in chs. 5.24–25).

Aristotle at the beginning of *De sensu*, which follows on from *De anima* in the *Parva naturalia*, makes the following observation (1 436a17–b1): 'It is the task of the natural scientist to study the first principles of health and disease, for neither health nor disease can occur in things deprived of life. Hence it can be said of the majority of natural philosophers and of those doctors who adopt a more philosophical approach to their art, that the former end with a discussion on medical subjects, while the latter begin their medical discourse with the principles of natural science.' The same point is made at greater length in the final paragraph of the *Parva naturalia* at *Resp.* 21 480b21–30. As Mansfeld (1990a) 3059 notes, this observation is very pertinent to the structure of Book 5 of the *Placita*, which ends with a treatment of health and disease and of old age. Old age of course shares some of the characteristics of ill-health and leads inexorably to death. A parallel can be drawn with the poem of Lucretius, which ends with the dramatic occurrence of the plague and the many deaths that accompanied it.

b Number–Order of Lemmata

The transmission of this chapter by the four witnesses of the P tradition and by S give rise to a number of thorny questions, not all of which can be fully resolved.

(1) The single chapter in P^B and Q has been divided into two chapters in G and spread out over three chapters in S's *Florilegium*. It is plain that the subjects of health and disease belong together because they are treated as such in §§1–4. The topic of old age is treated separately in §§5–7, with no specific reference to health or disease. G's move to separate the doxai on old age is very understandable, since the connection with the first half of the chapter is not strong (but does exist, as we shall see below). Since the textual transmission of the final chapters is poor, it might be argued that G preserves the original chapter division of P (and therefore of A). Elsewhere (e.g. chs. 2.32, 4.20–21), A does sometimes combine related subjects. But since there are no decisive arguments either way, we have retained the single chapter as found in P^{BQ} and Ps.

(2) In the Byzantine mss. and Ps the chapter commences with a single long doxa attributed to Alcmaeon only. But as we have seen, it is split in two in Q's translation, with the name-label Herophilus attached to the second part. S also splits it in two, but in the mss. the name Alcmaeon is attached to both, allowing us to assume that (like P^B) he did not have the name of Herophilus in his text of A. A further difficulty arises when we try to determine the original text in A for the beginning of the second half of the doxa. The variants are as follows (G does not have this lemma):

- P^B καὶ νόσων αἰτία
 Q *Herophilos glaubte, die Krankheiten werden entweder (infolge der Ursache) welche 'dadurch' genannt wird ...*
 Ps καὶ νόσον συμπίπτειν
 S λέγει δὲ τὰς νόσους συμπίπτειν

There is strong convergence between Q and S (the words λέγει δέ will have been added by the latter), so that the reading τὰς νόσους συμπίπτειν can hardly be doubted (and that of P^B must be rejected). The additional convergence of Ps and S is remarkable and difficult to explain, unless the learned Ps also had access to S. However, as we have seen, only Q has the name-label Herophilus. Daiber ad loc. suggests the name may have been a 'Randnotiz' of a scribe that found its way into the text. From the formal point of view, there are certainly arguments for retaining the single name-label. However, this does not take into account the content of the text, to which we return in section D(c).

(3) The extra lemma in S with the name-label Parmenides is very similar to the fifth in P and may well rouse suspicion, i.e. that S and P between them have separated out a single doxa. This depends on how one interprets the adverb συμφώνως. But the grounds for coalescing the two lemmata are insufficient. See

further below, section D(a) under detailed comments. The lemma can only be located where Diels placed it, i.e. before the first doxa in P on old age attributed to the Stoics (and the physicians in G).

(4) It is impossible to determine whether the chapter is complete as it has come down to us. One might have expected a summary of Plato's distinctive views on all three subjects. If such views were present in A, one would have expected S to include them. But two extracts from such passages are found at *Flor.* 4.37.26 (on health) and 4.50.21 and these may have displaced material from A.

c Rationale–Structure of Chapter

As already noted, the chapter divides into two parts, the former treating the subject of health and disease, the latter that of old age.

The first part commences with a doxa attributed to Alcmaeon. As a purported Pythagorean philosopher with psychological and physiological interests (but not a doctor) he is prominent in both books 4 and 5 (A 4.2.2, 4.16.2, 4.17.1, 4.18.1, 5.3.3, 5.14.1, 5.17.3, 5.24.1, 5.30.1). The doxa commences with the causes of health first (αἰτία to be understood with συνεκτική), followed by those of disease. The aetiology in terms of equilibrium (ισονομία) and predominance (μοναρχία), both overtly political terms, is noteworthy and has been the subject of much scholarly discussion. See now the full discussion in Mansfeld (2013c). He shows that the idea of a balance (or lack thereof) of forces is found in the Hippocratic corpus and that the concept of a good blending or symmetry of elements in the body is common in both philosophical (Aristotle, the Stoa) and medical sources (Anon. Londiniensis, ps.Galen); we give a selection of texts below section E(a)&(b)). But these two terms in the doxa are unusual. Mansfeld argues that they reflect the influence of the celebrated discussion on the best political constitution in Herodotus 3.80–83. He does not rule out that the terms might be based on a quote from Alcmaeon's original book, but thinks it more likely that they derive from a later period. The prominence given to the four qualities (moist, dry, cold, hot), here called δυνάμεις, should be noted. In many texts they are regarded as the prime explanatory factors of health. The text adds 'bitter and sweet', but unlike the first definition in ps.Galen, does not mention the primary humours (χυμοί).

The next doxa (assuming as we do that it is separate) treats diseases first at some length and follows at the end with a definition of health. Its formulation is more overtly philosophical and also more wide-ranging, covering not only qualities (heat and cold are mentioned), but also material factors and places where disease may occur. What is particularly striking is the use of prepositional phrases to indicate causal and other factors (ὅφ' οὐ, ἐξ οὐ, ἐν οἷς). These

are reminiscent of ‘prepositional metaphysics’ (on this see A 1.11, where they dominate the discussion on causes; see Commentary C, D(d) on §2). Though the extensive use of these formulas commences from the first cent. CE onwards (see Runia 1986, 171–174), they certainly go back to Aristotle and the Peripatos, e.g. at *Met. Z.7* 1032a16–20. That Alcmaeon would have used these formulas is of course out of the question.

In his monumental edition of the remains of Herophilus’ writings Von Staden (1989) does not make any reference to this text, of which he seems to have been unaware. But recently Leith (2014) in an article on causality in Didorus Cronus and Herophilus argues strongly in favour of the attribution to the Alexandrian doctor (cf. also Leith 2015, 486–487). He offers three arguments:

- (1) The contents of the second part correspond precisely with a quotation from Herophilus in Galen (T59a Von Staden) which refers to heating, cooling and being filled with food and drink in the context of the causation of disease. This parallelism (already noted at M–R 1.157) supports authenticity.
- (2) Given that the views on causation in the two parts are very different, it is very unlikely that the Arabic translator would have introduced an obscure name such as Herophilus if it was not already in the Greek text before him.
- (3) The Peripatetic flavour of the second part is particularly appropriate to Herophilus, since the Peripatos was the dominant philosophical influence on early Alexandria. The distinction between efficient and material cause is Aristotelian. This schema is quite different from that which became dominant from the first cent. BCE onwards, which was based on a Stoic inspired distinction between ‘cohesive’ (συνεκτικαί, used in the Alcmaeon doxa), ‘preceding’ (προηγούμεναι) and ‘antecedent’ (προκαταρκτικαί) causes. In addition, the candidates given for the causes (excess of hot and cold) cohere well with Aristotelian views regarding intake and digestion of food as leading factors in the causation of disease.

We regard these arguments as persuasive. When added to our comments at M–R 1.157 (but from which Runia 1999, 249–250 = M–R 3.574–575 deviates) and to Mansfeld (2013c) 79 n. 6 = (2018d) 264 n. 6, they tip the scales against the formal considerations discussed above. The name-label should be accepted as authentic.

The remaining two lemmata in the first part are attributed to the physicians Diocles and Erasistratus. The Diocles doxa focuses on disease only, but in its content does not differ a great deal from the previous ones. ἀνωμαλία is now given as the opposite to ἰσονομία or συμμετρία, στοιχεῖα replace δυνάμεις and ποιὰ, and an additional factor of the air (as source of contagion?) is added. The last factor recalls a diaeresis attributed to Philistion in the Anon. Londiniensis,

where it is stated that diseases can come from the elements, from the disposition of bodies, or from external factors (text below, section E(a) General texts). As Van der Eijk (2000–2001) 2.112 notes, the phrase ‘most diseases’ indicates there could be other causes, but these are not elaborated.

The final lemma on disease and health, representing the view of Erasistratus, does not refer to bodily constituents, but privileges the role of excessive food in causing disease and can be linked to the earlier mention of *πλήθος τροφῆς* as the *ἐξ οὗ* factor in Herophilus. The causes given for health, *εὐταξία* and *αὐτάρχεια*, are very general, without any reference to elements or other factors. Taken all together the four doxai amount to a list of similar pronouncements, covering a variety of factors, prime among which are qualities, elements and food. Mansfeld (2013c) 83 argues for a diaeresis between natural forces and ways of behaving, as found at Anon.Lond. col. iv.25–28 Manetti, but this is undercut by the combination of both factors in the doxa of Herophilus.

The second part also lacks effective contrasts. The doxa attributed to Parmenides (supplied by S) gives the simplest of explanations for the ageing process, i.e. the deficiency of heat, not mentioning the role that could be played by the other qualities, e.g. the prevalence of cold and dryness. The next doxa, §5, attributed to the Stoics and physicians in general, does little more than repeat the previous view, as indicated by the adverb *συμφώνως*, which we take to refer back to the previous lemma (see detailed comment below).

The final lemma gives an interesting comparison between the short life of Ethiopians (30 years) and the longevity of Britons (120 years). The link with the two previous doxai is obvious, with a neat interplay between the role of heat (from an internal source conducive to having a long life, from an external source destructive of it) and of cold (from an external source conducive to a long life, internal cold not mentioned). A does not cite geographical material very often (chs. 3.17 and 4.1 are obvious exceptions). This is in contrast to a work such as ps.Arist. *De mundo*, which has a lengthy section (ch. 3) devoted to geography (but no detailed discussion of psychology or physiology at all).

The connection between the two parts of the chapter is furnished by the theme of deficiency of heat (and by implication the onset of cold) causing old age. Heat is one of the factors cited as the cause of health (if balanced with other elements) or of disease (if it gets the upper hand, cf. also fever in ch. 5.29). Old age thus shares some features that characterise disease, though it is not explicitly identified as being such. We should recall the prominence of heat and cold in the explanations of sleep and death in chs. 5.24–25 (esp. A 5.24.2, 5.25.4 Empedocles, 5.25.1 Aristotle, 5.25.3 Leucippus). However, A makes no connections with the subject of death in this chapter, even though it might have made an even more fitting end to the work as a whole than the subject of old age.

Our text therefore preserves the six lemmata as found in P^BQ and Ps, complemented by the additional lemma in S, which can only be located where Diels placed it, i.e. before the first doxa in P on old age attributed to the Stoics (and the physicians in G).

d Further Comments

Individual Points

§1 The term συνεκτικός in the context of causality is originally Stoic, as noted by Mansfeld (2013c) 79 and Leith (2014) 605. In the light of the definition given by Clement of Alexandria *Strom.* 8.9 (*SVF* 2.351), συνεκτικὸν δὲ ἐστὶν αἴτιον, οὗ παρόντος μένει τὸ ἀποτέλεσμα καὶ αἰρομένου αἵρεται, we prefer the translation ‘sustaining’ to ‘cohesive’ (Leith), i.e. if the balance of the powers is not maintained, then health cannot continue.

§3 The convergence of G and Q supports the inclusion of the mention of air in the text, despite its absence in P^B and S, and is rightly supported by Van der Eijk in his text and commentary. He notes (2000–2001, 2.112) that Diocles is quoted by Galen as emphasizing the role of the climatic and environmental forces in the occurrence of certain diseases (fr. 55ab).

§4 In his edition of the fragments of Erasistratus, Garofalo (1988) 123 understandably quotes the text of the doxa in a double column and for S places the words after ἔλεγε in inverted commas, presumably regarding it as a quotation. But it is unlikely that S could have had access to more information beyond what stood in A, so these words must be taken as a loose paraphrase.

§6 The adverb συμφώνως is ambiguous in the various forms in which the text has been transmitted. In P^B it must refer to the Stoics only. P^Q and G agree that the name-label was originally ‘the Stoics and the physicians’, but the adverb is not retained by G. So for P^Q it must refer to the two groups of thinkers together. If, however, the additional doxa from S is taken to precede P’s fourth lemma, then the adverb may be taken to refer to agreement between the thinkers mentioned in both lemmata. This is how Von Arnim interprets it at *SVF* 2.769. But in the only other passage where the adverb occurs, at A 2.29.7 it refers to a large group of philosophers, supporting the interpretation of P^Q, and that is how we have rendered the text in our translation. In any case, if we translate ‘are in agreement’, a backward reference to the previous doxa is not ruled out.

E Further Related Texts

a Proximate Tradition

§§1–4 **General texts:** *Anonymus Londiniensis* *Iatr.* col. iv.26–28 Manetti στάσις δὲ περὶ τοῦ ἐκκειμένου (sc. the cause of diseases) | οἱ μὲν γὰρ εἶπον γίνεσθαι νόσους παρὰ τὰ περισσώ- | ματα τὰ γινόμενα ἀπὸ τῆς τροφῆς, | οἱ δὲ παρὰ τὰ στοι-

χειά. *Iatr. col. v.35–vi.18* Ἴπποκράτης δέ φησιν αἰτίας εἶναι τῆς νόσου τὰς φύσας, καθὼς διείληφεν περὶ αὐτοῦ | Ἀριστοτέλης. ὁ γὰρ Ἴπποκράτης λέγει | τὰς νόσους ἀποτελεῖσθαι κατὰ λόγον | τοιοῦτον· ἢ παρὰ τὸ πλῆθος τῶν | προσφερομένων ἢ παρὰ τὴν ποικιλίαν | ἢ παρὰ τὸ ἰσχυρὰ καὶ δυσκατέργαστα εἶναι | τὰ προσφερόμενα συμβαίνει περισ- | σώματα ἀπογεννᾶσθαι ... (vi.13) ταῦτα δὲ ἔφησεν ἀνὴρ | κι[ν]ηθεὶς δόγματι τοιοῦτῳ· τὸ γὰρ πνεῦμα | ἀναγκαιότατον καὶ κυριώτατον ἀπο- | λείπει τῶν ἐν ἡμῖν, ἐπειδὴ γε παρὰ τὴν τού- | του εὐροῖαν ὑγίεια γίνεται, παρὰ δὲ τὴν δύσροῖαν | νόσοι. **ps.Galen** *Def.Med.* 129, p. 19.382.6–12 K. ρκθ'. Ὑγίειά ἐστι τῶν πρώτων κατὰ φύσιν ἢ εὐκρασία τῶν ἐν ἡμῖν χυμῶν ἢ τῶν φυσικῶν δυνάμεων ἀπαραπόδοτος ἐνέργεια. ἢ ὑγίειά ἐστιν εὐκρασία τῶν τεσσάρων πρώτων στοιχείων ἐξ ὧν τὸ σῶμα συνέστηκε, θερμοῦ, ψυχροῦ, ὑγροῦ, ξηροῦ· οἱ δὲ οὕτως. ἀρμονία τῶν συνιστάντων τὸν ἄνθρωπον θερμῶν τε καὶ ψυχρῶν ὑγρῶν τε καὶ ξηρῶν. *Def.Med.* 133, 19.386.6–12 K. ρλγ'. Νόσος ἐστὶ δυσκρασία τῶν πρώτων κατὰ φύσιν ἢ δυσκρασία τῶν ἐν ἡμῖν χυμῶν. ἢ τῶν φυσικῶν δυνάμεων παραποδισμός. ἢ ἐκτροπὴ τοῦ σώματος ἐκ τοῦ κατὰ φύσιν εἰς τὸ παρὰ φύσιν. ἢ νόσος ἐστὶ δυσκρασία τῶν πρώτων καθ' ἣν ἐπικρατεῖ τὸ ξηρόν καὶ τὸ ψυχρόν ἢ τὸ θερμόν ἢ τὸ ὑγρόν. αἱ νοσώδεις κατασκευαὶ τῶν σωμάτων ἐξ ἐναντίων τῇ κράσει σύγκεινται μορίων, ὥσπερ αἱ ἄριστα κατασκευαὶ τῶν σωμάτων συνεστήκασιν ἐκ συμμέτρων μὲν τῶν ὀργανικῶν, ἐξ εὐκρασίας δὲ τῶν ὁμοιομερῶν.

Chapter heading: cf. **Arnobius** *Adv.Nat.* 2.7, p. 72.19 *Marchesi ipse denique animus ... cur in aegris aeger sit, in infantibus stolidus, in senectute defessus delira effutiat et insana?*

§2 **Alcmaeon:** see **ps.Galen** *Def.Med.* 129 cited above under General texts.

§3 **Diocles:** **Anonymus Londiniensis** *Iatr. col. xx.8–14* Manetti (Petron of Aegina, not in DK) φησιν δὲ γίνεσθαι τὰς νόσους ... (12) ἢ ἀπὸ τῶν | στοιχείων τῶν προειρημένων, ὅταν ἄνω- | μαλα ἦι, νόσους ἀπεργάζεται. 20.25–50 (Philistion, fr. 4 Wellmann) Φιλιστίων δ' οἶεται ἐκ δ' ἰδεῶν συνεστᾶ- | ναι ἡμᾶς, τοῦτ' ἔστιν ἐκ δ' στοιχείων πυρός, | ἄερος, ὕδατος, γῆς. εἶναι δὲ καὶ ἐκάστου δυνάμεις, | τοῦ μὲν πυρὸς τὸ θερμόν, τοῦ δὲ ἄερος | τὸ ψυχρόν, τοῦ δὲ ὕδατος τὸ ὑγρόν, | τῆς δὲ γῆς τὸ ξηρόν. τὰς δὲ νόσους γίνεσθαι | πολυτρόπως κατ' αὐτόν, ὡς δὲ τύπῳ | καὶ γενικώτερον εἰπεῖν τριχῶς· ἢ γὰρ παρὰ | τὰ στοιχεῖα ἢ παρὰ τὴν τῶν σωμάτων διά- | θεσιν ἢ παρὰ τὰ ἐκτός. παρὰ μὲν οὖν τὰ | στοιχεῖα, ἐπειδὴν πλεονάσῃ τὸ θερμόν | καὶ τὸ ὑγρόν, ἢ ἐπειδὴν μείον γένηται | καὶ ἄμαυρόν τὸ θερμόν ...

§§5–7 **General texts:** **ps.Galen** *Def.Med.* 107 19.375.14 K. ρζ'. γῆράς ἐστιν ἡλικία καθ' ἣν ὑπομειοῦται καὶ ὑπολείπει τὸ ζῶον ἐλαττόνων ἐν αὐτῷ γινομένων τοῦ θερμοῦ καὶ τοῦ ὑγροῦ· καὶ πλείονων δὲ ἐν αὐτῷ γινομένων τοῦ ψυχροῦ καὶ τοῦ ξηροῦ.

b Sources and Other Parallel Texts

§§1–4 **General texts:** **Aristotle** *Sens.* 1 436a17–b1 φυσικοῦ δὲ καὶ περὶ ὑγείας καὶ νόσου τὰς πρώτας ἰδεῖν ἀρχάς· οὔτε γὰρ ὑγίειαν οὔτε νόσον οἶδν τε γίγνεσθαι τοῖς ἐστερημένοις ζωῆς. διὸ σχεδὸν τῶν περὶ φύσεως οἱ πλείστοι καὶ τῶν ἱατρῶν οἱ φιλοσοφωτέρως τὴν τέχνην μετιόντες, οἱ μὲν τελευτῶσιν εἰς τὰ περὶ ἱατρικῆς, οἱ δ' ἐκ τῶν περὶ φύσεως ἀρχονται περὶ τῆς ἱατρικῆς. *Resp.* 21 480b21–30 περὶ μὲν οὖν ζωῆς καὶ θανάτου καὶ τῶν συγγενῶν ταύτης τῆς σκέψεως σχεδὸν εἴρηται περὶ πάντων. περὶ δὲ ὑγείας καὶ νόσου οὐ μόνον ἐστὶν ἱατροῦ ἀλλὰ καὶ τοῦ φυσικοῦ μέχρι

του τὰς αἰτίας εἰπεῖν. ἥ δὲ διαφέρουσι καὶ ἡ διαφέροντα θεωροῦσιν, οὐ δεῖ λανθάνειν, ἐπεὶ ὅτι γε σύνορος ἢ πραγματεία μέχρι τινός ἐστι, μαρτυρεῖ τὸ γινόμενον· τῶν τε γὰρ ἱατρῶν ὅσοι κομποὶ καὶ περιεργοὶ λέγουσιν τι περὶ φύσεως καὶ τὰς ἀρχὰς ἐκείθεν ἀξιούσι λαμβάνειν, καὶ τῶν περὶ φύσεως πραγματευθέντων οἱ χαριέστατοι σχεδὸν τελευτῶσιν εἰς τὰς ἀρχὰς τὰς ἱατρικάς. **Anonymus Londiniensis** *latr.* col. iv.25–28 Manetti cited above section E(a) General texts. **Galen** *PHP* 5.3.18 εἴτε γὰρ ἐξ ὄγκων καὶ πόρων ὡς Ἀσκληπιάδης (cf. Vallance *ANRW* 2.37.1, p. 712) ὑπέθετο τὰ τῶν ζώων σύγκειται σώματα, συμμετρία τούτων ἐστὶν ἡ ὑγίεια· εἴτ' ἐξ ἀτόμων ὡς Ἐπίκουρος εἴτ' ἐξ ὁμοιομερῶν ὡς Ἀναξαγόρας εἴτ' ἐκ θερμοῦ καὶ ψυχροῦ καὶ ξηροῦ καὶ ὕγρου καθάπερ ὁ τε Χρύσιππος δοξάζει καὶ πάντες οἱ Στωϊκοὶ καὶ πρὸ αὐτῶν Ἀριστοτέλης καὶ Θεόφραστος καὶ πρὸ τούτων ἔτι Πλάτων καὶ Ἱπποκράτης, ἡ τῶν στοιχείων κατὰ πάντας συμμετρία τὴν ὑγίειαν ἐργάζεται. also *Adv. Jul.* 4, p. 18A.259 K. (= *SVF* 2.770) τοσοῦτον μόνον εἰπόντες ὑπὲρ τῶν ἐκ τοῦ Περιπάτου τε καὶ τῆς Στοᾶς τῶν φιλοσόφων ἀπαλλάξομεν. οὐδὲν γὰρ ἂν εὖροις οὗτ' Ἀριστοτέλους οὐτε Θεοφράστου βιβλίον, ἐν ᾧ περὶ νοσημάτων ἀναγκασθέντες εἰπεῖν τι χωρὶς τοῦ θερμοῦ καὶ ξηροῦ καὶ ψυχροῦ καὶ ὕγρου μνημονεύσαι διήλθον τὸν λόγον ... οὐ μὴν οὐδὲ Χρύσιππος ἐτέρως. **Alexander of Aphrodisias** in *Sens.* 6.9–13 λέγει (sc. Aristotle in passage cited above) δὲ φυσικοῦ εἶναι τὸ (περὶ ὑγείας καὶ νόσου τὰς πρώτας ἰδεῖν ἀρχάς,) τούτεστιν ἐκ τίνων πρώτων ἀρχῶν τε καὶ ἐν τίσι πρώτοις ἡ ὑγίεια καὶ ἡ νόσος, ὅτι ἐν συμμετρίᾳ τῶν πρώτων δυνάμεων, ξηρῶν ὑγρῶν, θερμῶν ψυχρῶν. *Sens.* 6.26–30 ὅτι δὲ τὸ περὶ ὑγείας τε καὶ νόσου τὰς πρώτας ἀρχὰς ἐπισκέψασθαι, τίνες εἰσὶ, τοῦ φυσικοῦ καὶ φιλοσόφου, συνίστησι καὶ ἐκ τοῦ τῶν τε φυσικῶν τοὺς πλείστους περὶ αὐτῶν πεποιήσθαι λόγον καὶ ἐν τούτοις παύεσθαι τὴν φυσικὴν θεωρίαν καὶ τῶν ἱατρῶν τοὺς χαριστάτους ἀπὸ τούτων τὴν ἀρχὴν τῆς τῶν ἱατρικῶν θεωρίας ποιείσθαι ὡς φυσικῶν ὄντων.

Chapter heading: Aristotle *Sens.* 1 436b17–18 φυσικοῦ δὲ καὶ περὶ ὑγείας καὶ νόσου τὰς πρώτας ἰδεῖν ἀρχάς. *Long.* 1 464b31–33 περὶ δὲ ζωῆς καὶ θανάτου λεκτέον ὕστερον, ὁμοίως δὲ καὶ περὶ νόσου καὶ ὑγείας, ὅσον ἐπιβάλλει τῇ φυσικῇ φιλοσοφίᾳ. **Galen** *Adv. Jul.* 4 περὶ νοσημάτων cited above, General texts. **Alexander of Aphrodisias** in *Sens.* 6.16–20 Περὶ μὲν οὖν τῶν τεττάρων συζυγιῶν ὧν προεῖρηκε φέρεται ἐν τῇ πραγματείᾳ τῇ Φυσικῇ αὐτοῦ βιβλία, δι' ὧν περὶ αὐτῶν ἐπραγματεύσατο, λέγω δὲ Περὶ ἐγρηγόρσεως καὶ ὕπνου καὶ νεότητος καὶ γήρως καὶ ἀναπνοῆς καὶ ζωῆς καὶ θανάτου· τὰ δὲ Περὶ ὑγείας καὶ νόσου, εἰ ἐγένετο, οὐ σφάζεται. also *In Sens.* 6.26 cited above, General texts.

§1 **Alcmaeon**: cf. **Herodotus** 3.80 (Otanēs addressing the Persian noblemen) πλήθος δὲ ἄρχον πρώτα μὲν οὕνομα πάντων κάλλιστον ἔχει, ἰσονομίην. δευτέρα δὲ τούτων τῶν ὁ μούναρχος ποιεῖ οὐδέν· πάλω μὲν γὰρ ἀρχὰς ἄρχει, ὑπεύθυνον δὲ ἀρχὴν ἔχει, βουλευμάτα δὲ πάντα ἐς τὸ κοινὸν ἀναφέρει. τίθεται ὧν γνώμην μετέντας ἡμέας μουναρχίην τὸ πλήθος ἀέξειν· ἐν γὰρ τῷ πολλῷ ἔνι τὰ πάντα. **Corpus Hippocraticum** *Aër.* 12.3, p. 2.52.18–54.3 Littré τὸ δὲ αἶτιον τούτων (the beauty of Asia) ἡ κρήσις τῶν ὠρέων, ... ὁκόταν μὴδὲν ἢ ἐπικρατέον βιαίως, ἀλλὰ παντὸς ἰσομοιρίῃ δυναστεύῃ. *Vict.* 3.69, p. 6.606.7–9 Littré ἀπὸ μὲν γὰρ τοῦ κρατέεσθαι ὁκοτερονοῦν νοῦσοι ἐγγίνονται· ἀπὸ δὲ τοῦ ἰσάζειν πρὸς ἄλληλα ὑγείῃ πρόσσεστιν. **Plato** *Resp.* 444d ἐστὶ δὲ τὸ μὲν ὑγίειαν ποιεῖν τὰ ἐν τῷ σώματι κατὰ φύσιν καθι-

στάναι κρατεῖν τε καὶ κρατεῖσθαι ὑπ' ἀλλήλων, τὸ δὲ νόσον παρὰ φύσιν ἄρχειν τε καὶ ἄρχεσθαι ἄλλο ὑπ' ἄλλου. *Smp.* 186d–e (Eryximachus the doctor) δεῖ γὰρ δὴ τὰ ἔχθιστα ὄντα ἐν τῷ σώματι φίλα οἶόν τ' εἶναι ποιεῖν καὶ ἐρᾶν ἀλλήλων. ἔστι δὲ ἔχθιστα τὰ ἐναντιώτατα, ψυχρὸν θερμῷ, πικρὸν γλυκεῖ, ξηρὸν ὑγρῷ, πάντα τὰ τοιαῦτα· τούτοις ἐπιστηθεὶς ἔρωτα ἐμποιεῖσαι καὶ ὁμόνοιαν ὁ ἡμέτερος πρόγονος Ἀσκληπιός, ὥς φασιν οἶδε οἱ ποιηταὶ καὶ ἐγὼ πείθομαι, συνέστησεν τὴν ἡμετέραν τέχνην. *Phlb.* 25e. ἄρα οὐκ ἐν μὲν νόσοις ἢ τούτων ὀρθὴ κοινωνία τὴν ὑγείας φύσιν ἐγέννησεν; *Tim.* 81e–86b τὸ δὲ τῶν νόσων ὅθεν συνίσταται, δῆλόν που καὶ παντί. τεττάρων γὰρ ὄντων γενῶν ἐξ ὧν συμπέπηγεν τὸ σῶμα, γῆς πυρὸς ὕδατος τε καὶ ἀέρος, τούτων ἢ παρὰ φύσιν πλεονεξία καὶ ἔνδεια καὶ τῆς χώρας μετάστασις ἐξ οἰκείας ἐπ' ἄλλοτριαν γιγνομένη, πυρὸς τε αὐτὴ καὶ τῶν ἐτέρων ἐπειδὴ γένη πλείονα ἐνός ὄντα τυγχάνει, τὸ μὴ προσήκον ἕκαστον ἑαυτῷ προσλαμβάνειν, καὶ πάνθ' ὅσα τοιαῦτα, στάσεις καὶ νόσους παρέχει. ...

§2 *Herophilus: Aristotle Phys.* 7.3 246b4–6 τὰς μὲν γὰρ τοῦ σώματος, οἶον ὑγίαιαν καὶ εὐεξίαν, ἐν κράσει καὶ συμμετρίᾳ θερμῶν καὶ ψυχρῶν τίθεμεν. *Top.* 6.6 145b8 τοιοῦτος δὲ καὶ ὁ τῆς ὑγείας ὁρισμός, εἴπερ 'συμμετρία θερμῶν καὶ ψυχρῶν' ἐστίν (also 6.2 139b20–21). *Chrysippus* at *Gal. PHP* 5.2.31 De Lacy (= *SVF* 3.471, quoting him verbatim) '... λέγεται δὲ εἶναι σώματος νόσος ἢ ἀσυμμετρία τῶν ἐν αὐτῷ, θερμοῦ καὶ ψυχροῦ, ξηροῦ καὶ ὑγροῦ.' καὶ μετ' ὀλίγα, 'ἢ δ' ἐν τῷ σώματι ὑγίαια εὐκρασία τις καὶ συμμετρία τῶν διειρημένων.' also *PHP* 5.3.14 (= *SVF* 3.472) ἐπὶ μὲν γὰρ τοῦ σώματος ἀκριβῶς αὐτὰ διωρίσατο (sc. *Chrysippus*) τὴν μὲν ὑγίαιαν ἐν τῇ τῶν στοιχείων συμμετρίᾳ θέμενος. *Galen CP* 198 *quid igitur ait* (sc. *Herophilus*, T59a Von Staden) 'causa vero, utrum sit vel non, natura quidem non est invenibilis, existimatione autem puto infrigidari, estuari, cibo et potibus repleri.'

§3 *Diocles*: cf. *Galen Med.Nam.* 18.29–19.5 Meyerhof–Schacht (translated from the Arabic) 'When the fever is very strong, they do not hesitate to call it, for example, 'fire', just as Hippocrates calls it 'fire' ... Similarly Diocles (fr. 58 Van der Eijk), too, says that in cases of fever, what prevails in the body is the fire, and Empedocles (—) and Philistion (—) say the same ...'

§§5–7 Chapter heading: *Aristotle Juv.* 1 467b10 Περὶ δὲ νεότητος καὶ γήρωος καὶ περὶ ζωῆς καὶ θανάτου λεκτέον νῦν. *Diogenes Laertius VP.* 5.43 (list of Theophrastus' writings, fr. 436.18 FHS&G) Περὶ γήρωος α'. *VP.* 5.81 (list of Demetrius of Phalerum's writings, fr. 82 Wehrli, fr. 1 Stork–Van Ophuijsen–Dorandi) Περὶ γήρωος α'. *Cicero Cato Maior De senectute* 3 *omnem autem sermonem tribuimus non Tithono, ut Aristo Ceus* (fr. 7, 18 Stork–Dorandi–Fortenbaugh–Van Ophuijsen) ...

§§5–6 *Parmenides Stoics Doctors*: cf. *Aristotle Long.* 5 466a18–22 δεῖ γὰρ λαβεῖν ὅτι τὸ ζῶν ἐστὶ φύσει ὑγρὸν καὶ θερμὸν, καὶ τὸ ζῆν τοιοῦτον, τὸ δὲ γήρας ξηρὸν καὶ ψυχρὸν, καὶ τὸ τεθηγκός· φαίνεται γὰρ οὕτως. ὕλη δὲ τῶν σωμάτων τοῖς ζώοις ταῦτα, τὸ θερμὸν καὶ τὸ ψυχρὸν, καὶ τὸ ξηρὸν καὶ τὸ ὑγρὸν. ἀνάγκη τοῖσιν γηράσκοντα ξηραίνεσθαι. *GA* 5.3 783b7–8 καὶ τὸ γήρας ἐστὶ κατὰ τοῦνομα γεγηρὸν διὰ τὸ ἀπολείπειν τὸ θερμὸν καὶ μετ' αὐτοῦ τὸ ὑγρὸν. *Long.* 5.4 784a31–34 ἢ δὲ δι' ἡλικίαν τῶν τριχῶν πολιοτῆς γίγνεται δι' ἀσθένειαν καὶ ἔνδειαν θερμότητος. καὶ γὰρ ἡλικία πάσα ῥέπει ἀποκλίνοντος τοῦ σώματος ἐν τῷ γήραϊ ἐπὶ ψύξιν· τὸ γὰρ γήρας

ψυχρόν καὶ ξηρόν ἐστιν. *Juv.* 4–5 469b18–24 ἀνάγκη τοίνυν ἅμα τό τε ζῆν ὑπάρχειν καὶ τὴν τοῦ θερμοῦ τούτου σωτηρίαν, καὶ τὸν καλούμενον θάνατον εἶναι τὴν τούτου φθοράν. ἀλλὰ μὴν πυρός γε δύο ὀρώμεν φθοράς, μάρανσιν τε καὶ σβέσιν. καλούμεν δὲ τὴν μὲν ὑφ' αὐτοῦ μάρανσιν, τὴν δ' ὑπὸ τῶν ἐναντίων σβέσιν, τὴν μὲν γῆρας, τὴν δὲ βίαιον, συμβαίνει δ' ἀμφοτέρας διὰ ταῦτό γίνεσθαι τὰς φθοράς. **Theophrastus** *CP* 6.17.4 τὸ μὲν γὰρ νέον ἅτε πλείω τροφὴν ἐπισπώμενον οὐ πέττει τὸ δὲ γεγηρακὸς ἐξασθενεῖ δι' ἔνδειαν θερμότητος. **Galen** *Temp.* 2.2, p. 42.10 Helmreich ὅτι μὲν δὴ ξηρότατον ὡς ἐν ἡλικίαις τὸ γῆρας, ἐκ τῶν εἰρημένων εὐδηλον· ὅτι δὲ καὶ ψυχρότατον ἐστιν, ἔτ' ἐναρέστερον. *Marc.* 7.676.6 K. ἀληθὲς μὲν ἐστὶ τὸ διὰ τὴν ἔμφυτον θερμότητα γηράσκειν τε τὰ σώματα καὶ τελευτώντα διαφθείρεσθαι κτλ.

§7 **Asclepiades**: cf. **Sextus Empiricus** *M.* 7.323 ἐνιοὶ μὲν γάρ, ὧν ἐστὶ καὶ Ἀσκληπιάδης ὁ ἰατρός (cf. Vallance *ANRW* 2.37.1, p. 726), διαρρήδην ἔλεξαν πολλῶν λείπεσθαι τῆς περὶ τοὺς νέους συνέσεως καὶ ἀγχινοίας τοὺς πρεσβύτας, παρὰ δὲ τὴν τῶν πολλῶν καὶ εἰκαιτέρων ψευδοδοξίαν ἐναντίως ἔχειν ὑπελήφθη τὸ πρᾶγμα. διὰ γὰρ τὸ πολυπείρον τῶν πρεσβυτῶν ἔδοξαν οἱ νεώτεροι λείπεσθαι κατὰ σύνεσιν, τοῦ πράγματος ἐναντίως ἔχοντος· πολυπειρότεροι μὲν γάρ, ὡς ἔφην, εἰσὶν οἱ γεγηρακότες, οὐ συνετώτεροι δὲ παρὰ τοὺς νέους.

Aëtiana v

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Bibliography

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Contents

PART 1

Preface IX

Sigla and Abbreviations XII

General Introduction 1

BOOK 1 The Principles of Nature: Text and Commentary 101

PART 2

Sigla and Abbreviations IX

User's Guide to the Edition and Commentary 719

BOOK 2 Cosmology: Text and Commentary 727

BOOK 3 Meteorology and the Earth: Text and Commentary 1129

PART 3

Sigla and Abbreviations IX

User's Guide to the Edition and Commentary 1347

BOOK 4 Psychology: Text and Commentary 1355

BOOK 5 Physiology: Text and Commentary 1739

PART 4

English Translation of the *Placita* 2059

User's Guide to the English Translation 2061

BOOK 1 The Principles of Nature 2063

BOOK 2	Cosmology	2089
BOOK 3	Meteorology and the Earth	2108
BOOK 4	Psychology	2120
BOOK 5	Physiology	2137

Appendix: List of Chapter Headings in the Translation of Qusṭā ibn

Lūqā	2153
Bibliography	2158
Index of Primary and Secondary Witnesses	2283
Index of Name-Labels and Other Names	2291
Index of Fragment Collections and Extant Sources	2296
Index of Ancient and Modern Names	2309

Aetius Placita
English Translation



User's Guide to the English Translation

The aim of this user's guide is to assist the reader who wishes to consult and make use of the English translation of the *Placita* that we have prepared. It essentially repeats what was said in section 6.6 of the General Introduction.

As we explained in the General Introduction, section 6.1, it was not possible on practical grounds to place the translation beside the Greek text of the edition. We decided to place it in Volume Four, which has two advantages, (1) that it can be collected together, and (2) that it can be consulted while the text and its apparatuses are being studied.

The translation aims to give an accurate picture of the original Greek. It thus tends towards the literal side, while trying to avoid veering towards language that is artificial or unidiomatic. It is important that users of the translation note the following conventions and practices:

(1) Words and phrases that have to be supplied in the Greek, when translated, are placed in parentheses.

(2) Name-labels are rendered in the usual Latinate forms of the names. For collective names, e.g. schools and groups, we aim at a uniform translation. A footnote will be added when this is not possible. Note the following translations of standard Greek phrases:

οἱ ἀπό τινος	the successors of X
τις καὶ οἱ ἀπ' αὐτοῦ	X and his successors
οἱ περὶ τινά	X and his followers.

For multiple name-labels we follow the Greek and preserve all cases of *asundereta*, i.e. not using commas and only translating conjunctions when present in the original. This of course is quite unnatural in English, but helpfully conveys the telegram style of the *Placita*.

(3) Conjectural additions to the transmitted text, when translated, are placed in angle brackets (just like in the text itself). Braces are also taken over from the text, indicating that we suspect that the text is not authentic or uncertain. An obelus (†) indicates a crux in the text, three asterisks a lacuna.

(4) Although we aim as far as possible to achieve consistent one for one renderings of Greek terms in English, this is not always possible because of the polyvalent meanings of certain words in both languages. Occasionally we add an asterisked footnote to explain a particular case.

(5) On some occasions it is best to use a transliterated equivalent of the Greek term. In such cases an English rendering of the term is added in parentheses, unless this is not needed, as in the case of the term *pneuma*.

(6) Only on rare occasions are alternative renderings supplied. These are placed in square brackets.

(7) Similarly, transliterated equivalents of Greek terms, indicated in parentheses, are usually only given for etymologies or plays on words.

(8) Greek adjectives with the suffix *-ειδής* are usually translated by the phrase 'like a' or with the suffix '-like', e.g. *σφαίροειδής* 'like a ball', *πυροειδής* 'fire-like'.

(9) Passages which are only preserved in the Arabic translation of Qusṭā ibn Lūqā are printed in italics. These are confined to chs. 1.21.2α and 5.27 & 29.

As announced in the General Introduction, section 6.7, the authors are committed to producing an *editio minor* of the new reconstructed text as soon as will be practically possible. Its main feature will be the Greek text and English translation on facing pages, allowing quick and convenient consultation.

Book 1 The Principles of Nature

AËTIUS
ON THE VIEWS (OF THE PHILOSOPHERS)

BOOK 1
in which the following chapter headings (are found):

- [Proem]
1. What 'nature' is
 2. In what way a principle and elements differ
 3. On principles, what they are
 4. How the cosmos was constituted
 5. Whether the All is unique
 6. From where human beings obtained a conception of gods
 7. Who the deity (is)
 8. On demons and heroes
 9. On matter
 10. On (the) idea
 11. On causes
 12. On bodies
 13. On minimal bodies
 14. On shapes
 15. On colours
 16. On cutting of bodies
 17. On mixing and blending
 18. On void
 19. On place
 20. On space
 21. On time
 22. On the substance of time
 23. On movement
 24. On coming to be and passing away
 25. On necessity
 26. On the substance of necessity
 27. On fate
 28. On the substance of fate
 29. On chance
 30. On nature

[Proem]

§1 Since our objective is to teach [or: hand down] the physical theory [or: theory of physics, account of nature], we believe it to be necessary to divide up the discipline of philosophy directly at the beginning, so that we may know what philosophy is and where in the order of its parts the detailed account of physics comes. (P₁)

§2 Now the Stoics said that wisdom is the knowledge of divine and human matters, while philosophy is the practice of an appropriate technique. There is (they say) just one virtue that is appropriate and supreme, while (below this) there are three virtues that are most generic, namely physical, ethical and logical (virtue). For this reason philosophy too consists of three parts: physics, ethics and logic. Physics is when we do research on the cosmos and the things within the cosmos, while ethics is the part that is thoroughly occupied with human life, and logic is the part concerned with discourse (*logos*), which they also call dialectic. (P₂)

§3 Aristotle and Theophrastus and almost all the Peripatetics divided philosophy as follows: the perfect man [or: complete human being] should both theorise about the things that are and perform the acts that must be done. This can also be understood from these considerations as well: when research takes place on whether the sun is a living being or not a living being, whether it is (fire, whether it is just as large) as it is seen to be, the person who does this research is theorising, for what is theorised about is nothing more than what is. Similarly research is done on whether the cosmos is infinite and whether there is anything outside the cosmos, for all these subjects are theoretical. On the other hand research is done on how one should live one's life and look after one's children and how to rule and how to legislate. All these matters are researched with a view to conduct, and the person who does this is a man of action. (P₃)

1.1 What 'Nature' Is (P)

§1 Since our proposal is to study what belongs to nature, I consider it necessary to make clear what in fact nature is. For it is absurd to attempt to speak on the subject of nature but not to know this very thing, the meaning of 'nature'. (P₁)

§2 Now according to Aristotle nature is the principle (*arche*) of movement and rest for the object in which it exists primarily and not incidentally. For all things that are visible, which are not the result of chance or necessity, are not divine and do not have such a (sc. divine) cause, are called 'natural' and have their own particular nature. Examples are earth, fire, water, air, plants, living beings. In addition there are also these occurrences: rains, hailstorms, thun-

derclaps, tornadoes, winds. These phenomena have a certain origin (*arche*), for each of them does not exist from everlasting, but comes to be from a certain origin (*arche*). They too, just like living beings and plants, have a beginning (*arche*) of generation. In these objects, therefore, nature is the principle (*archê*) (and) what is primary (*proton*). It is the principle (*arche*) of movement, and not only of movement, but also of rest, for all objects that have obtained a beginning (*arche*) of movement can also obtain an end. For this reason, therefore, nature is the principle (*arche*) of movement and of rest. (P2)

1.2 In What Way a Principle and Elements Differ (P,S)

§1 Aristotle and Plato and their followers believe that a principle and elements differ (from each other). (P1,S1)

§2 Thales of Miletus regards a principle and elements as the same thing. But there is an enormous difference between the two. For we say that the elements are composite, but that the principles are neither composites nor products. For example, we apply the term elements to earth, water, air and fire. But we speak of principles for this reason, (namely) that there is nothing prior (to them) from which they originate, since not this would then be a principle, but that from which it had originated. In the case of earth and water there is something from which they come to be, namely matter which is without shape or form, and also form which we call 'entelechy' and 'privation'. Thales is therefore mistaken when he says that water is (both) an element and a principle. (P2,S2)

1.3 On Principles, What They Are (P,cf.S)

§1 Thales the Milesian declared water to be (the) principle of the things that exist—this man appears to have commenced (the pursuit of) philosophy and from him the Ionic school of thought took its name, for there have been quite a number of Successions of philosophy; after practising philosophy in Egypt, he came to Miletus as a senior person—; he is the one who says that all things take their existence from water and all things are dissolved into water. He supposes this firstly from the fact that semen is the principle of all living beings and is moist. Hence it is likely that all things also have their principle from what is moist. Secondly (he supposes this) because it is by moisture that all the plants are nourished and bear fruit, while if they lack moisture they dry out. Thirdly

* On the translation of multiple name-labels see the User's guide to the translation.

(he supposes this) because the fire of the sun itself and of the heavenly bodies is also nourished by the exhalations of the waters, and this applies to the cosmos too. For this reason Homer too assumes this view on (the subject of) water (when he writes)

Ocean, who was (the) origin for all things. (P1,S2)

§2 Anaximander, the son of Praxiades, the Milesian says that the unlimited is the principle of the things that exist. For from this all things come into being and (back) to this all things perish. For this reason unlimited worlds are begotten and again perish (back) to that from which they originate. He also states the reason why it is without limit, namely that the underlying (process of) generation will never fail. He goes astray, therefore, when he declares matter (to be the principle), but neglects the efficient cause. For the unlimited is nothing else than matter. But the matter cannot be in a state of being actualised, unless the efficient (cause) has been postulated. (P2,S3)

§3 Anaximenes, the son of Eurystratus, the Milesian declared air to be (the) principle of the things that exist, for from this all things come to be and (back) to it they are dissolved again. 'Just as', he says, 'our soul, which is air, holds us together and dominates us, so also *pneuma* and air contain the entire cosmos'. (Air and *pneuma* are used synonymously). But this man too goes astray when he appears to compose the living beings out of simple and uniform air and *pneuma*, for it is impossible for matter to subsist as the single principle of the things that exist. Rather it is necessary also to postulate the efficient cause. For example, silver is not sufficient for the generation of the drinking cup, unless there is also the efficient (cause), namely the silversmith. And similarly in the case of bronze and wood and other (kinds of) matter. (P3,S6)

§4 Anaxagoras, the son of Hegesibulus, from Clazomenae declared the *homoiomereiai* ('things with like parts', 'uniform parts') to be principles of the things that exist. For it seemed to him most puzzling how anything could come to be from the non-existent and perish (back) to the non-existent. For instance, we consume simple and uniform food such as the bread of Demeter, and when we drink water. From this food the nourishment occurs of hair, veins, arteries, flesh, tendons, bones and the remaining parts (of the body). Since this (nourishment) occurs, it must be agreed that all the things (that result) are (already) present in the food we consume; and from the things that are present all things will grow and in that food there are particles that generate blood and tendons and bones and the other (parts), particles that are (only) observable by reason. For it is not necessary to refer everything to sense-perception in saying that bread and water produce these things, but in them the particles observable by reason are present. Therefore from the presence in the food of particles

similar to what is produced he called them *homoiomereiai* ('things with like parts') and declared them to be the principles of the things that exist. And the *homoiomereiai* are matter, while the efficient cause is the Intellect which brought all things to order. He begins (his treatise) as follows: 'Together were all things, but Intellect divided and ordered them', by 'things' meaning the realities (that exist). It must be admitted, therefore, that he coupled the artificer with the matter. (P4,S7)

§5 Archelaus, the son of Apollodorus, the Athenian (says the principle of the things that exist) is unlimited air and the density and rarefaction associated with it; of these the one is fire and the other water. (P5,S8)

§6 These are the men, therefore, who followed each other and comprised the above-mentioned Ionic philosophy (starting) from Thales. (P6,cf.S9)

§7 We next have another beginning: Pythagoras son of Mnesarchus from Samos, the first to call philosophy by this name, (declared) that the numbers and the relationships between them, which he also calls harmonies, are the principles, while the compounds from each of these, the so-called geometricals, are the elements.

[54] On the other hand (he places) the Monad and the Undeterminate Dyad among the principles. Of his principles, the one strives towards the efficient and formal cause, which is God the Intellect, the other towards the passive and material (cause), which is the visible cosmos.

[62] As for the nature of number, (he says) it is the decad; for all the Greeks and all the barbarians count up to the ten, and when they reach it they return back to the monad. And again, as for the number ten, he says, its power consists in the four and the tetrad. The cause is that, if one departing from the monad were to posit the numbers by addition, by advancing to the four one completes the number ten. (If, however, one goes beyond the number of the tetrad, one will also fall outside the ten.) For instance, if one were to posit one and two and to add three, and four to those, one will complete the number ten. The result is that number according to the Monad (is located) within the ten, but according to its (generative) power within the four. For this reason the Pythagoreans made the following pronouncement, regarding the tetrad as their strongest oath:

No, by him, who bestows on our soul the *tetraktys*,
possessing the fount of ever-flowing nature and its root.

[74] Our soul too, he says, is composed of the tetrad. For there are intellect, knowledge, opinion and sense-perception; from these every skill and every science originates, and (through them) we ourselves are rational. Now Intellect is

the Monad. Intellect contemplates in terms of the Monad. For example, if you take the numerous human beings, the individuals cannot (all) be perceived or grasped and are unlimited (in number), but this very thing is what we intelligize, the single human being only, which no one (fully) resembles. Similarly we intelligize the single horse only, but the individual (horses) are unlimited (in number). All of these are the forms and genera in accordance with the monads. Hence in the case of each of these, they also formulate the definition and speak of a rational living being or a living being that neighs. For this reason, therefore, the Intellect, by which we intelligize these things, is the Monad, and the Indeterminate Dyad is knowledge, and this is quite likely. After all, every demonstration and every proof involving knowledge, and in addition every syllogism, deduces what is in dispute and effortlessly demonstrates something else from agreed premises. Knowledge is the understanding of these (factors) and so could be (equated with) the Dyad. Opinion, taking its starting point from understanding, is the triad, and this is quite reasonable too, because opinion deals with multiplicity. The triad is plurality, as in the case of the 'thrice-blessed Danaans'. For this reason, therefore, he includes the triad. *** (P7,S12)

§8 The school of thought of these men has been named 'Italic' because Pythagoras taught in Italy, for he moved away from his native land Samos after he became displeased with the tyranny of Polycrates. (P14)

§9 Heraclitus and Hippasus from Metapontum (say that the) principle of all things is fire, for they state that all things originate from fire and all things terminate in fire; and when it is quenched, all things are formed into the cosmos. First its densest part is concentrated and becomes earth; then the earth is loosened by fire and naturally produces water, which (in turn) evaporates and becomes air. And then the cosmos and all the bodies (within it) are consumed again by fire in the conflagration. Principle (of the things that exist) therefore is fire, because all things (originate) from it; and it is the end as well, because all things are dissolved into it. (P8,S13)

§10 But Diogenes of Apollonia (says that the principle of the things that exist) is unlimited air. (S15)

§11 Xenophanes (says that the) principle of all things is the earth; for he writes in the work *On Nature*:

From earth all things (come) and in earth all things terminate. (S5)

§12 Philolaus the Pythagorean (says that the principles of the things that exist) are the limit and the unlimited. (S10)

§13 Leucippus the Milesian (says that the) principles and elements (of the things that exist) are the full and the void. (S17)

§14 Democritus (says that the principles of the things that exist) are the solids and the void. (S18,Tiv)

§15 Metrodorus, the son of Theocritus, from Chios (says that the principles of the things that exist) are the undivisibles and the void. (S14,Tv)

§16 Epicurus, the son of Neocles, the Athenian, who philosophised in the line of Democritus, said that the principles of the things that exist are bodies that are observable by reason, not containing any void, ungenerated, indestructible, unable to be crushed or have its parts modified or be qualitatively altered. These bodies are observable by reason; and they move with the void and throughout the void. The void itself is unlimited (in size), and the bodies are unlimited (in number). The bodies possess these three (characteristics), shape, size, weight. Democritus stated that there were two, size and shape, but Epicurus added to these a third, weight. 'For it is necessary', he says, 'that the bodies are moved by the blow caused by weight, since they will not be moved (sc. otherwise)'. The shapes of the atoms are incomprehensibly many, but not unlimited in number. They cannot have the form of a hook or a trident or a bracelet, for these shapes are easily crushed, whereas atoms are impassible and unable to be crushed. They have their individual shapes, which are observable by reason. The term 'atom' is used, not because it is a smallest particle, but because it cannot be cut, being as it is impassible and not containing any void. As a result, when he speaks of an atom, he means what is uncrushable and impassible, not containing any void. That there is such a thing as an atom is clear. For there are elements that always exist, that is to say figures (without void), and the unit. (Pg,S19, cf. Tvi)

§17 Ecphantus of Syracuse, one of the Pythagoreans, (says that the principles) of all things are the indivisible bodies and the void, for this man was the first to declare that the Pythagorean monads were corporeal. (S20,Tvii)

§18 Diodorus, with the surname Cronus, (says that the principles are) the unlimited partless bodies, those that are also called the least in size. They are unlimited in number, but bounded in size. (S23)

§19 Empedocles, the son of Meton, from Agrigentum says that (there are) four elements, fire air water earth, and two principal powers, Love and Strife, of which the former is unifying, the latter divisive. He speaks as follows:

Hear first about the four foundational roots of all things,
clear-bright Zeus and life-bearing Hera and Aidoneus,
and Nestis, who with her tears dampens the mortal wellspring.

By 'Zeus' he means the seething heat and the ether, by 'life-bearing Hera' the air, by 'Aidoneus' the earth, and by 'Nestis' and the 'mortal wellspring' for example semen and water. (P10,cf.S1)

§20 Socrates, the son of Sophroniscus, the Athenian and Plato, the son of Aristo, the Athenian—after all, the opinions of each of them are the same on every matter—say that there are three principles: god, matter, idea, (these being equivalent to) by whom, out of which, towards which. The god is the Intellect of the cosmos, matter the primary substrate for generation and destruction, while (the) idea is an incorporeal substance in the conceptions and the perceptions of the god. (P₁₁,S₂₁,Tviii)

§21 But Aristotle, the son of Nicomachus, from Stagira (says that the) principles are *entelecheia* or form, matter, privation, and the elements are four, but there is (also) a fifth which is an ethereal and unchangeable body. The elements of generated things are, in terms of their qualities, hot, cold, wet, dry, while in terms of their essential natures, in which and concerning which these qualities exist, they are the four (sc. above-mentioned). (P₁₂,S₂₂,Tix)

§22 Xenocrates (says that) the universe is constituted from the One and the ever-flowing [or: 'negating unity'], with (the term) ever-flowing hinting at matter on account of its multiplicity. (S₄,Tx)

§23 Zeno, the son of Mnaseas, from Citium (says that the) principles are the god and matter, of which the former is the cause of action, the latter of passivity, while (the) elements are four (in number). (P₁₃,S₁₆,Txi)

§24 Strato says (the) elements are <(the) hot> and (the) cold. (S₁₁)

1.4 How the Cosmos Was Constituted (P)

§1 The cosmos therefore was constituted, configured with a curved shape, in the following manner. Since the indivisible bodies have a non-providential and random movement and are continually and at great speed moving towards the same place, many bodies manifesting a diversity of both shapes and sizes were for this reason collected together. As these bodies gathered together in the same place, those that were larger and heaviest settled down completely. But those that were small and round and smooth and mobile were squeezed out as the bodies collided and were carried upwards to the higher region. As then the force of the shock that had lifted them upwards lessened, the shock no longer bore them towards the higher region, but they were prevented from moving downwards and were pushed towards the places that were able to receive them. These places were on the periphery and it was against them that the mass of bodies were bent around. Entangling with each other in accordance with this bending, they gave rise to the heaven. The indivisibles that had the same nature were diverse, as has been said, and on being pushed out towards the higher region they produced the nature of the heav-

only bodies. But the mass of bodies that rose up in exhalations struck the air and compressed it. This then through its motion turned into wind and, taking up the heavenly bodies it led them along in its course, thereby preserving their present revolution on high. Then from the bodies that sunk downwards the earth arose, while from those that rose upwards the heaven, fire and air were formed. Since a considerable amount of matter was still contained within the earth and it was compacted by the pounding of the winds and the fiery rays (emanating) from the stars, the entire configuration of this matter with its small particles was compressed and produced the nature that is moist. Being in a fluid state, this matter travelled down to the places that were hollow and able to contain and hold it, or the water, deposited on its own, hollowed out the areas beneath it. (P₁)

§2 In this manner the most important parts of the cosmos were produced. (P₂)

1.5 Whether the All Is Unique (P,S)

§1 The (philosophers) from the Stoa declared the cosmos to be unique, which, they said, is also (to be identified with) the All that is corporeal. (P₁,S₂)

§2 Empedocles (says that) the cosmos is unique; (he says), however, that the cosmos is not all (that is material), but a small part of this 'All', the remainder being unworked matter. (P₂,S₁)

§3 Plato bases his belief that the cosmos and the All are unique on three considerations: (1) from the fact that it would not be complete, if it did not contain all things (within itself); (2) from the fact that it would not be similar to the model, if it were not alone in its sort; (3) from the fact that it would not be indestructible, if there were anything exterior to it. But against Plato it must be stated (1) that the cosmos is not complete, and it need not be so even if it did contain all things; after all, the human being is complete (i.e. full-grown), but he does not contain all things. There are moreover many models, as in the case of statues and buildings and paintings. (2) How could he say 'there is nothing outside it', for (if that were the case) it could not be whirling around? (3) Moreover, it is not indestructible and cannot be so, since it has come into being. (P₃,S₄)

§4 Metrodorus, the teacher of Epicurus, says that it is (equally) absurd that a single stalk should have sprung up on a large plain and that a single cosmos should have done the same in the Infinite. That the kosmoi are infinite in their multiplicity is clear from the fact that the causes are infinite in number. For if the cosmos is limited, while all the causes from which the cosmos originated are infinitely many, then necessarily (the kosmoi) are infinitely many. After all,

where the causes are without limit, there the products [or: effects] are (infinite in number or without limit) also. (These) causes are either the atoms or the elements. (P4,S3)

1.6 From Where Did Human Beings Obtain a Conception of Gods (P)

§1 The Stoics define the substance of the divine as follows: it is an intelligent and fiery breath, which does not have a (specific) form, but changes to whatever things it wishes and assimilates itself to all things.

[5] They obtained a conception of this (divine being) in the first place by taking as their starting-point the beauty of what becomes visible (in it). For nothing that is beautiful originates at random and by chance, but with the aid of a skill that works as a craftsman. The heaven is beautiful. This is evident from its shape, its colour, its size, and the variety of the heavenly bodies that adorn it. For heaven is spherical, (a shape) which takes the first place among all shapes, for it alone corresponds to its own parts, since it is round and so are its parts. (This is the reason according to Plato that the most sacred component (sc. of the human being), the intellect, has been established in the head.) Its (sc. the heaven's) colour is beautiful too, for it has been coloured with blueness, which is darker than purple but still has the quality of brightness, and it is for this reason that with its intense colour it traverses so great a body of air and is visible at such large distances. It is also beautiful because of its size, for with all entities of a same species what surpasses them is beautiful, as with a living being or a plant. The following visible signs also contribute to bringing the beauty of the sky to perfection, for the ecliptic circle in heaven is decorated with a variety of graphic pictures [i.e. constellations]:

In it there is Cancer, followed by Leo, and after it
Virgo, and then the Claws and (after it) Scorpio himself,
and Sagittarius and Capricorn, and after Capricorn
Aquarius, and following him the two starry Pisces,
and after them Aries, and next Taurus and Gemini.

Countless other features he has created corresponding to similar twistings of the cosmos. Hence Euripides too says:

and the star-faced brilliance of heaven,
a beautiful embroidery of time, (the work) of a wise builder.

[29] We also obtained a conception of God from the following: it is not the case that the sun and the moon and the remaining heavenly bodies, after pursuing their course under the earth, fail to rise again with the same colours, not varying in their sizes, in the same places, and at the same times.

[33] Hence those people who have transmitted reverence for the gods have done so by means of three kinds of exposition, firstly through that of natural philosophy, secondly through the mythical (kind), and thirdly through the kind that takes its evidence from the laws [or: customs]. Natural philosophy is taught by the philosophers, the mythical kind by the poets, while what is lawful [or: customary] is established each time by the particular city.

[38] The entire teaching (on the gods) is divided into seven kinds. The first is based on the visible signs and heavenly occurrences. They obtained a conception of God from the visible heavenly bodies, observing that these are the cause of a mighty harmony and have brought about the ordered state of day and night and winter and summer, risings and settings, as well as the births of living beings and plants produced by the earth. Hence it seemed to them that heaven had the role of father and earth that of mother. The former was father through the outpourings of rain that had the role of seeds, while the earth was mother by receiving these (seeds) and giving birth. When they saw that the heavenly bodies always followed their courses (*aei theontas*) and that the sun and moon were the cause of our ability to contemplate (*theôrein*), they called them 'gods' (*theous*). They divided the gods into a second and third category, namely that which harms and that which assists. Those who assist are Zeus, Hera, Hermes and Demeter, while those who cause harm are the Avengers, the Erinyes and Ares, whom they regard as holy even though they are responsible for hardship and violence. The fourth and fifth kinds they applied to states of affairs and feelings, such as (for the former) Eros, Aphrodite and Desire, and for states of affairs Hope [*sic*], Justice and Good Order. As a sixth category were added the fictions of the poets. For example, Hesiod wanted to create gods as fathers of the beings that came into existence and so introduced the following as their begetters,

Coeus and Crius and Hyperion and Iapetus.

[57] For this reason the category is also called 'mythical'. The seventh and final kind (of gods) was the one which was especially honoured for the beneficent contributions to the public good, but was born in human form, such as Heracles, such as the Dioscuri and such as Dionysus. The reason that they said that these (gods) were of human form is that the divine is the most excellent of all beings and the human being the most beautiful of living beings, and,

adorned as he is with virtue especially through the formation of his intellect, also the most capable. Similarly they thought, therefore, that it was good (to attribute the greatest beauty) to those who excelled with the highest ability. (P1)

1.7 Who the Deity Is (P,S)

§1 Some of the philosophers, such as Diagoras of Melos and Theodore of Cyrene and Euhemerus of Tegea say that the gods do not exist at all. Euhemerus is also hinted at by Callimachus of Cyrene when he writes in his *Iambi*:

Come hither to the temple in front of the wall,
where the old man who fabricated the ancient bronze Zan
scribbles his unrighteous books like the charlatan he is.

These (books) are the ones on the subject that the gods do not exist. Euripides too, the tragic poet, though he did not wish to disclose this view for fear of the Areopagus, did make his position known in the following way. He introduced the character of Sisyphus as defender of this opinion, and so pleaded his cause by means of this man's judgment:

For there was a time, he says, when human life was disordered,
beast-like, and at the mercy of violence.

Then, he says, the lawlessness was dissolved through the introduction of laws. Since, however, the law was able to curb overt acts of injustice but many people continued to practise them in secret, at that point a wise man ordained that it was necessary 'to blind the truth with a false account' and persuade mankind

how there is a deity flourishing with imperishable life,
who hears and sees and takes good note of these (deeds).

Let such poetic nonsense be done away with, he says, together with the words of Callimachus:

if you recognize God,
be aware that for the deity it is possible to achieve everything.

For not even God can do everything. If the divinity indeed exists, let him then make snow black, fire cold, what is sedentary upright and vice versa.

[27] And when the grandiloquent Plato says that 'God formed the cosmos by looking at himself as model', he reeks of archaic moonstruck nonsense, to use the language of the ancient comic poets. For how did he create while looking to himself? And how can he (Plato) say the deity is spherical in shape, humbler in status than man? Anaxagoras says that at the beginning the bodies were at rest, but the Intellect of God gave them an orderly arrangement, and brought about the births of all things. Plato on the other hand supposed that the primary bodies were not at rest, but moving in a disorderly fashion. Therefore, he says, the deity, ordaining that order is better than disorder, gave them an orderly arrangement. Both thinkers thus have this mistake in common, namely that they made the deity pay attention to human affairs or even have him create the cosmos for this reason. After all, the blessed and indestructible living being, who is replete with all good things and not receptive of any evil, being wholly focused on the maintenance of his felicity and indestructibility, is not involved with human concerns, for otherwise he would be wretched in the manner of a workman and a builder, burdened with care and fretting about the construction of the cosmos.

[47] Another argument is that the god of whom they speak either did not exist in the previous age when the bodies were either at rest or in disorderly movement, or he was asleep or he was awake, or neither of these. The first option is unacceptable, for the deity is eternal. The second too is unacceptable. If God were sleeping from eternity, he would be dead, since eternal sleep is (tantamount to) death. But God is also not receptive of sleep, for God's immortality and a state close to death are separated by a great distance. If, however, God was awake, either there was a deficiency in his felicity or he was wholly fulfilled in his blessedness. But neither according to the first option is he blessed, because a deficiency in felicity is incompatible with blessedness, nor (is he blessed) according to the second option, because then, though in no way deficient in happiness, he would embark on deeds that were to no purpose.

[52] How does it happen then, if the deity indeed does exist and human affairs are administered through his forethought, that what is fraudulent flourishes and what is noble suffers the opposite fate?

Agamemnon, for example, was
both an excellent king and a mighty warrior,

but he was overpowered and murdered by an adulterer and an adulteress. And this man's relative, Heracles, who had cleaned up many of the evils that infest human life, fell prey to the sorcery of Deïanira and was murdered. (P1,T:bits from P)

§2 Thales (says that) the deity is the Intellect of the cosmos, and that the universe is ensouled and at the same time full of demons. In addition the divine power also pervades the elementary moist (substance) and causes it to move. (P₂,S₁)

§3 Anaximander (says that) the unlimited [or: infinitely many] heavens are gods. (P₃,S₂)

§4 Anaximenes (says that the deity is) the air. Statements such as these [sc. as those of Anaximenes] should be understood as referring to the powers that pervade through all parts of the elements or the bodies. (S₃)

§5 Archelaus (says that) the deity is air and Intellect, but the Intellect does not make the cosmos. (S₄)

§6 Anaxagoras (says that) the deity is an Intellect that makes the cosmos. (S₅)

§7 Democritus (says that) the deity is an Intellect that resides in fire with spherical form. (P₄,S₆)

§8 Diogenes and Cleanthes and Oenopides (say that the deity is) the soul of the cosmos. (S₇)

§9 Pythagoras (says that) of the principles, the Monad is the deity and the Good, which is the nature of the One and identical to the Intellect, but the Undetermined Dyad is a daemon and what is evil, around which the plurality of matter resides, and is also the visible cosmos. (P₅,S₈)

§10 Posidonius (says that the deity is) an intelligent and fiery Spirit, which does not have (a single) form, but changes into what it wishes and assimilates itself to all things. (S₉)

§11 Speusippus (says that the deity is) the Intellect, which is not identical to either the One or the Good, but has a nature of its own. (S₁₀)

§12 Critolaus and Diodorus of Tyre (say that the deity is) an Intellect (derived) from impassive ether. (S₁₁)

§13 Heraclitus (says that the deity is) the (eternally) recurrent everlasting fire, while fate is reason (*logos*), producer of the things that exist by turning in contrary directions. (S₁₂)

§14 Zeno the Stoic (says that the deity is the) fiery Intellect of the cosmos. (S₁₃)

§15 Mnesarchus (says that the deity is) the cosmos, which derives its primary existence from spirit. (S₁₄)

§16 Boethus (says that) the ether is God. (S₁₅)

§17 Parmenides (says that the deity is) the unmoved and limited spherical (being). (S₁₆)

§18 Melissus and Zeno (say that the deity is) the One and All and solely everlasting and unlimited. (S₁₇)

§19 ⟨Empedocles (says that) the elements and the principles and) the One (are gods), and that the One is necessity, but that its matter is the four elements, while its forms are Strife and Love. He also calls the elements gods, and the mixture of these the ⟨Sphere⟩, and (says that) the ⟨cosmos⟩ will be dissolved into this uniform entity. He also thinks that the souls are divine, and that those ‘pure ones’ who share in them ‘purely’ are divine as well. (S18)

§20 Polemon (says that) the cosmos is God. (S19)

§21 Xenocrates the son of Agathenor from Chalcedon (says that) the Monad and the Dyad are gods, the former as male having the rank of Father and ruling in heaven, which he also calls Zan and odd and Intellect, who for him is the first god, the latter as female having the role of Mother of the gods, presiding over the region under the heaven, who for him is the soul of the universe [?]. He says too that the heaven is a god and that the fiery stars are Olympian gods, as well as other sublunary demons, which are invisible. It is also his view that there are divine powers, and that these penetrate the material elements. Of these the one which passes through the invisible (*aeides*) air he calls ‘Hades’, the one which passes through the moist (substance) ‘Poseidon’, and the one that passes through the earth ‘plant-sowing Demeter’. These doctrines he bequeathed to the Stoics, but the views (described) earlier he took from Plato and reformulated. (S20)

§22 Socrates and Plato (say that the deity is) the One, the single-natured, the monadic, the true Being, the Good. All such names immediately refer to the Intellect. The deity, then, is an Intellect, (that is,) a separate Form; by ‘separate’ let that be understood which is free of all matter, not entwined with any of the bodily entities, and also not sharing affection with anything in nature that is passible [or: subject to affection]. Of this (God) as Father and Maker the other intelligible divine beings (the so-called intelligible cosmos) are the descendants, and they are the models for the visible cosmos. In addition to these there are ethereal powers (these are incorporeal *logoi*), and powers that inhere both in air and in water, as well as the sense-perceptible descendants of the first god, sun, moon, stars, earth and the all-embracing heaven. (P6,S21)

§23 Aristotle (says that) the highest god is a separate form, mounted on the sphere of the universe, which is the ethereal body, also called by him the fifth (element). This body is divided into spheres that are contiguous in reality but separated by reason. Each of these spheres he regards as a living being composed of body and soul. Of these the body is ethereal and moves in a circular fashion, whereas the soul is unmoved reason and cause of movement in actuality. (P7,S22)

§24 The Stoics declare that God is intelligent, a designing fire which proceeds methodically to the generation of the cosmos, encompassing all the seminal *logoi* according to which each thing comes to be in accordance with fate. It

is also a Spirit which pervades the whole cosmos, taking on the names that correspond to the alterations of the matter through which it has passed. In addition (they regard as) gods the cosmos, the heavenly beings, and the earth, and the Intellect in the aether at the summit of everything is a god, too. (P8,S23)

§25 Epicurus (says that) the gods are human in form, and are all observable by reason (only) because of the fine particles of which the nature of their images consists. The same (philosopher says there are) four other classes of natures that are indestructible: the indivisibles, the void, the infinite, and the similarities; these (natures) are called *homoiomereiai* ('having similar parts') and elements. (P9,S24)

1.8 On Demons and Heroes (P)

§1 Appended to the account 'On the gods' we must record the one 'On demons and heroes'. (P1)

§2 Thales Pythagoras Plato the Stoics (say that) demons are psychic beings; (they also say that) the heroes too are souls that have been separated from their bodies; and they (sc. the demons) are good if (the souls are) good, but wicked if (the souls are) wicked. (P2)

§3 But Epicurus admits none of these (as demonic). (P3)

1.9 On Matter (P,S)

§1 Matter is the substrate for all generation and destruction and the other (kinds of) changes. (P1,S1)

§2 The successors of Thales and Pythagoras, I mean those [sc. philosophers] going down to the Stoics together with Heraclitus, (say that) matter is wholly and completely changeable and alterable and mutable and fluid. (P2,S2,T1)

§3 The successors of Democritus (say that) the first things are impassible, i.e. the atom and the incorporeal void. (P3,S3,T2)

§4 Plato (says that) matter is body-like, without figure, 'without form', fully shapeless, without quality as far as its own nature is concerned, but by receiving the forms it became like a 'nurse' and a 'mould' and a 'mother'. (P4,S4,T3)

§5 But Aristotle (says that it is) corporeal. (P4,T4)

§6 But those who state that matter is water or fire or air or earth no longer regard it as without figure, but as body, (P5,S5)

§7 whereas those who say it is the partless (particles) and the atoms (say that it is) without figure. (P6,S6)

§8 (But) the Stoics declare matter to be body. (S7,T5)

1.10 On (the) Idea (P,S)

§1 The idea is an incorporeal substance. It is itself the cause that makes things (to be) such as they are and the model of the existence of the natural sense-perceptibles. It exists by itself, but makes the formless materials into images (of itself) and becomes a cause of their arrangement, occupying a father's position towards the sense-perceptibles. (P₁,S₁)

§2 Socrates and Plato understand the ideas as substances separate from matter, existing in the conceptions and perceptions of God, that is to say, the intellect. (P₂)

§3 Pythagoras placed the so-called forms and the ideas in the numbers and their harmonies and what are named the geometricals, (regarding them as) inseparable from the bodies. (S₂)

§4 Aristotle preserved the forms and ideas, but as not in fact separated from matter, (thereby) placing himself outside (the view that they) are (put into matter) by God. (P₃)

§5 The Stoics who were the successors of Zeno (say) that the ideas are our own conceptions. (P₄)

1.11 On Causes (P,S)

§1 A cause is (that) through which the effect (is completed) or through which something occurs; for a descriptive definition suffices. (P₁,S₁)

§2 Plato (understands) the cause in three ways, for he says 'by which', 'out of which', 'towards which'. But more properly (he regards) the 'by which' (as the cause). This is the agent, i.e. Intellect. (P₂,S₂)

§3 Pythagoras Aristotle (say that) that there are first causes which are incorporeal, and there are causes by participation in or as property of the corporeal subsistence, with the result that the cosmos is body. (P₃,S₃)

§4 The Peripatetics (say that) of the causes some are sensible and others intelligible. (S₆)

§5 The Stoics (say that) all the causes are corporeal, for they are *pneumata* [i.e. currents of warm air]. (P₄)

§6 Thales and his successors declared that the first cause is unmoved/unchanging. (S₄)

§7 The Stoics defined the first cause as movable/changing. (S₅)

1.12 On Bodies (P,S)

§1 A body is that which extends in three directions, width, depth and length. Or it is a mass that of itself is resistant. Or it is that which occupies a place. (P₁,S₁)

§2 Plato (says that body) is something neither heavy nor light by nature when it in fact exists in the place proper to it. But when it has come to be in an alien place, then it obtains inclination, and from this inclination there is a turning either to heaviness or lightness. (P₂,S₂)

§3 Aristotle (says that) earth is the heaviest (body) in absolute terms, and fire is the lightest, while air and water differ (in weight) according to circumstances. (He also says that) fire by nature never moves in a circular fashion, but (that) only the fifth body (does this). (P₃,S₃)

§4 The Stoics (say that) two of the four elements are light, fire and air, and that two are heavy, water and earth. For light by nature is that which inclines away from the own centre (sc. of the cosmos), whereas heavy is that which moves to (the) centre. In addition the light (sc. of the sun etc.) on earth moves in a straight line, whereas the etherial (variety) moves in a circle. (P₄,S₄)

§5 Epicurus (says that) the bodies are inconceivably many [or: inconceivable (in number)], and that the first (bodies), which are simple, as well as all the bodies that are composites of these, possess heaviness. (He also says that) the atoms at one time move perpendicularly, at another time with a swerve. But (the bodies that) move upwards do so through impact or rebounding. (P₅,S₅)

§6 Democritus says that the first bodies (these are the solid bodies) do not have heaviness, but move by reciprocal impact in the infinite (space). (He also says that) it is possible that an atom of cosmic proportions exists [or: (that) it is (absurd) that one of cosmic proportions exists]. (S₆)

§7 Strato (says that) natural heaviness attaches to bodies, and that the lighter ones float on the surface of the heavier ones, like stones (in fruit) that are squeezed out. (S₇)

1.13 On Minimal Bodies (P,S)

§1 Empedocles (says that) prior to the four elements (there are) minimal fragments, like elements before elements, (which elements are) *homoiomere* (i.e. things with similar parts), i.e. 'round'. (P₁,S₁)

§2 Heraclitus, as some believe, introduces little filings prior to the one (sc. element). (P₂,S₂)

§3 Xenocrates and Diodorus defined the minima as partless (entities). (S₃)

§4 (But) Heraclides (defined them as) fragments. (S₄)

1.14 On Shapes (P,S)

§1 A shape is a surface and an outline and a limit of a body. (P₁,S₁)

§2 Pythagoras and his followers (say that) the shapes of the four elements are spherical, and that only the very highest (element,) fire, is cone-like. (P₂,S₂)

§3 Anaxagoras (says that) the *homoiomere* ('things with like parts') are of many shapes. (S₃)

§4 The successors of Leucippus (say that) the atoms are of many shapes. (S₄)

§5 Cleanthes alone of the Stoics declared that the (element) fire is cone-like. (S₅)

1.15 On Colours (P,S)

§1 Colour is the quality of a body that is primarily visible. (P₁,S₁)

§2 The Pythagoreans called colour the surface of the body. (P₂,S_{2a})

§3 Empedocles declared colour to be what is fitting for the passages of sight. And there are four, equal in number to the elements: white, black, red, ochre [i.e. yellow]. (P₃,S₃)

§4 Plato (says that colour is) a flame (emanating) from the bodies, which has particles commensurate with (the organ of) sight. (P₄,S₄)

§5 Aristarchus of Samos the astronomer, disciple of Strato, (says that) colour is light falling on what it falls upon. (S₅)

§6 Zeno the Stoic (says that) the colours are first configurations of matter. (P₅,S₆)

§7 The successors of Pythagoras (say that) the kinds of the colours are white and black, red, ochre [i.e. yellow]. The differences between the colours (come) from the qualitative blendings of the elements, and those of the living beings from the variations of the foodstuffs and the airs (they breathe). (P₆,S_{2b})

§8 Democritus (says that) no colour exists by nature, for the elements are without quality, being the solids [i.e., atoms] and the void. But the compounds formed from these are coloured by 'inter-contact', by 'rhythm' and by 'turning', of which the first results in order, the next shape and the last position. For it is on the basis of these that the impressions (on the senses arise). Of these col-

ours that relate to the impression (on the senses) there are four differentiations: white, black, red, ochre [i.e. yellow]. (S7)

§9 Epicurus and Aristarchus (say that) the bodies in the dark do not have colour. (S8)

§10 Aristotle (says that colour is) a limit in bounded transparency, that the transparent is filtered matter that is pure and unmixed, and that colour exists as that which moves this (matter). In the dark bodies have colour potentially, but never actually. There is, however, a great difference between not having (colour) and (colour) not being seen. (S9)

§11 Other (thinkers say that) the elements are naturally coloured, (S10)

§12 others (say) that the primary *homoiomere* ('things with like parts') participate in quality, (S11)

§13 and yet others (say) that all the atoms taken together are without colour, and they indicate that the visible qualities arise from (entities) without quality that are observable by reason. (S12)

1.16 On Cutting of Bodies (P,S)

§1 The successors of Thales and Pythagoras (say that) the bodies are passible and divisible to infinity. And all (of the following) are continuous: line, surface, solid [i.e. three-dimensional] body, place, time. (P1,S3)

§2 Those thinkers who introduce the atoms (say that) the cutting stops at the partless (entities) and that there is no cutting to infinity. (P2,S2)

§3 Aristotle (says that the cutting of bodies occurs) potentially to infinity, but in actuality never. (P3,S1)

1.17 On Mixing and Blending (P,S)

§1 Thales and those following him (say that) the mixings of the elements occur through alteration. (P1,S1)

§2 Anaxagoras and Democritus and their successors (say that they occur) through juxtaposition. (P2,S2)

§3 Empedocles and Xenocrates combine the elements out of smaller masses, which are least in size and as it were elements of elements. (P3,S3)

§4 Plato (says that) the three bodies—for he does not wish them to be or be called elements in the proper sense—are convertible to each other, namely fire, air and water, but that earth cannot be changed to any of these. (P4,S4)

1.18 On Void (P,S)

§1 All physicists from Thales up to and including Plato rejected the void in the real sense of the word. (P₁,S₁)

§2 Empedocles: 'and of the All nothing is empty or superfluous'. (P₂,S₂,T₂)

§3 Leucippus Democritus Demetrius Metrodorus Epicurus (say that) the atoms are infinite in number, and the void infinite in size. (P₃,S₃,T₁)

§4 Strato (says that) there is no void outside the cosmos, but that it is possible for it to occur inside. (S₄,T₄)

§5 Zeno and his successors (say that) inside the cosmos there is no void at all, but outside it (sc. the cosmos) it is infinite. (P₄,S₆,T₃)

§6 Aristotle (says that) that the void outside the cosmos is exactly large enough for the heavens to breathe into it; for inside there is a fiery place. (P₅, cf.S₅)

1.19 On Place (P,S)

§1 Plato (says place is) what partakes of the forms, like a sort of 'wet-nurse' and 'recipient'. (By this) he has metaphorically denoted matter. (P₁,S₂)

§2 Aristotle (says it is) the outermost of what surrounds that connects with what is surrounded. (P₂)

§3 Strato (says it is) the interval between what surrounds and what is surrounded. (S₁)

1.20 On Space (P,S)

§1 Zeno and his successors (say) that void, place (and) space differ; thus void is vacancy of body, place what is occupied by a body, space what is partially occupied, as in the case of a jar of wine. (P₁,S₁)

§2 Epicurus (says that) all these terms are to be used interchangeably: void, place, space. (S₂)

1.21 On Time (P,S)

§1 Pythagoras (says that time is) the sphere of that which encompasses. (P₁,S₁)

§2 Plato (says that time is) a moving image of eternity, or the dimension of the motion of the cosmos. (P₂,S₃)

§2 α Aristotle (says that time is) the number of the motion of the heavenly sphere. (P Q_3)

§3 Eratosthenes (says that time is) the course of the sun. (P $_3$,S $_2$)

1.22 On the Substance of Time (P,S)

§1 Plato (says that the) substance of time is the motion of the heaven. (P $_1$,S $_9$)

§2 The Stoics (say that it is) motion itself. (P $_2$,S $_1$)

§3 Xenocrates (says it is) a measure of what is generated, and (also) everlasting motion. (S $_3$)

§4 Hestiaeus of Perinthus, the natural philosopher, (says it is the) motion of the heavenly bodies in relation to each other. (S $_4$)

§5 Strato (says it is) the quantitative in motion and rest. (S $_5$)

§6 Epicurus (says it is) a concomitant, that is an accompaniment of motions [or: changes]. (S $_6$)

§7 Antiphon and Critolaus (say that) time is a concept or measure, and not something that exists on its own. (S $_7$)

§8 And the majority (of philosophers say that) time is ungenerated, (P $_3$,S $_2$)

§9 But Plato (says that it is) generated in thought. (P $_4$,S $_8$)

1.23 On Motion (P,S)

§1 Pythagoras Plato: motion is a difference or alteration in matter *qua* matter. This is the shared definition of every (form of) motion. (P $_1$,S $_1$)

§2 Aristotle: (motion is) entelechy of the movable. (P $_2$,S $_{10}$)

§3 Democritus: (there is) one kind of motion, that which (occurs) through vibration. (P $_3$,S $_2$)

§4 Epicurus (says there are) two kinds of motion, that which (occurs) perpendicularly and that which (occurs) through deviation. (P $_4$,S $_3$)

[a lemma on three kinds of motion seems to have fallen out]

§5 But there are some who introduce a fourth kind, that which (occurs) substantially, i.e. that which (occurs) in terms of coming to be. (S $_4$)

§6 Yet others add intellectual (motion) as well, so in fact they have advanced up to the (number) five. (S $_5$)

§7 Diodorus Cronus (says that) things have moved to some extent, but that nothing is moving (sc. in actuality). (S $_6$)

§8 Heraclitus removed rest and standing still from the whole of things, for this belongs to corpses; to everlasting things he assigned everlasting motion and to perishable things (he assigned) perishable (motion). (P $_6$,S $_7$)

§9 Herophilus (says that there is) motion that is observable by reason and (there is) motion that is sense-perceptible. (P5,S8)

§10 (But) Asclepiades declared that all motion is sense-perceptible. (S9)

1.24 On Coming To Be and Passing Away (P,S)

§1 Parmenides Melissus Zeno abolished coming to be and passing away because they held that the All is unmoved. (P1,S1)

§2 Empedocles Anaxagoras Democritus Epicurus and all those who make a cosmos through aggregation of bodies composed of fine particles introduce combinations and separations, but not comings to be and perishings in the true sense. For these do not come to be according to quality from alteration, but according to quantity from aggregation. (P2,S2)

§3 Pythagoras and all those who assume that matter is passive (say that) coming to be and passing away occur in the true sense. For through (qualitative) alteration of the elements and (their) turning and dissolution there takes place coming to be and passing away, juxtaposition and mixing, blending and fusion. (P3,S3)

1.25 On Necessity (P,S)

§1 Thales: necessity is the strongest (of all things), for it rules over the universe. (P1,S1)

§2 Pythagoras said that necessity embraces the cosmos. (P2,S2,T2)

§3 Parmenides and Democritus (say that) all things (happen) in accordance with necessity and that it is the same as fate and justice and providence and that which makes the cosmos. (P3,S3,T1,3)

§4 Leucippus (says that) all things (happen) in accordance with necessity and that it is the same as fate. For he states in the *On Intellect*, 'nothing happens at random, but all things (happen) both for a reason and by necessity.' (S4)

§5 Plato ascribes some things to providence, other things to necessity. (P4,S5b)

1.26 On the Substance of Necessity (P)

§1 Empedocles (says that) the substance of necessity (is) a cause that is able to make use of the principles and the elements. (P1, S2)

§2 Democritus (says that the substance of necessity is) the resistance and motion and blow of matter. (P₂)

§3 Plato (says that the substance of necessity is) sometimes matter and sometimes the disposition of the maker towards matter. (P₃,S₁)

1.27 On Fate (P,S)

§1 Heraclitus (says that) all things (occur) in accordance with fate, and that it (fate) and necessity are the same. Indeed he writes, 'for it (sc. necessity) is fate in every respect'. (P₁,S_{2b},T₁)

§2 Plato recognises (the role of) fate in relation to human souls and lives, but along with it he also introduces the cause that relates to us. (P₂)

§3 The Stoics, agreeing with Plato, say that necessity is an invincible and compelling cause, while fate is an ordered nexus of causes. In this nexus there is also the element that relates to us, so that some things are fated (for us) and others not fated. (P₃)

§4 Chrysippus (says that) what has been necessitated does not differ from is fated, and that is an everlasting, continuous and ordered movement in accordance with an articulated nexus of its parts. (S₁,T₂)

§5 Zeno the Stoic (says) in his *On Nature* (that fate is) a force that moves matter in the same respect and in the same way. It makes no difference (he adds) to call it providence and nature. (S₅,T₃)

§6 Antipater the Stoic declared that fate is a god. (S₆)

1.28 On the Substance of Fate (P)

§1 Heraclitus (says that) the substance of fate is the *logos* that passes through the being of the All. It is the etherial body, seed of the coming-to-be of the All and measure of (its) ordered revolution. (P₁,S_{2a})

§2 Plato (says that it is) everlasting *logos* and everlasting law of the nature of the All. (P₂,S₃)

§3 Chrysippus (says that it is) a pneumatic force that is administrative for the ordering of the All. And again in *On Definitions*: 'fate is the *logos* of the cosmos, or *logos* of what is administered by providence in the cosmos, or *logos* in accordance with which what has happened happened, what is happening happens, and what will happen will happen'. (P₃,S₇,T₄)

§4 The other Stoics (say that it is) a concatenation of causes, that is an inviolable ordering and linking together. (P₄,T₅)

§5 Posidonius (says that it is) third in line from Zeus; for first (he says there is) is Zeus, second (there is nature), third (there is) fate. (P5,S4)

1.29 On Chance (P,S)

§1 Plato (says that chance is) an accidental cause in the realm of the voluntary, as well as an adventitious consequence and fortuitous event, and it is a substituted attitude of the voluntary with regard to the envisaged purpose. (P1,S2,T1)

§2 Aristotle (says that chance is) an accidental cause that is unclear and unstable in the realm of what occurs according to an impulse towards some end.—There is a difference, (he says) between chance and the spontaneous. For what occurs by chance and (also) spontaneously are (both) certainly in the realm of action, but what is spontaneous (only) does not occur by chance, for it is in the realm outside action. In addition chance belongs to rational beings (only), whereas the spontaneous occurs in the case of rational and irrational living beings and unsouled bodies. Also chance occurs through the exercise of will, the spontaneous without it; and the former occurs when there is somebody (who has decided), but the latter (occurs) without the intervention of reason, without anything having been decided externally. (P2,S3–S1,T2)

§3 Epicurus (says that chance is) a cause that is unstable in relation to persons, times and places, (and that all things occur) by necessity, through choice, and by chance. (P3,S4–S5)

§4 Anaxagoras and Democritus and the Stoics (says that chance is) a cause that is unclear to human reasoning. For (they say) there are things (that occur) by necessity, (that occur) by fate, (that occur) by chance and (that occur) spontaneously. (P4,S6,T3)

1.30 On Nature (P,cf.S)

§1 Empedocles (says that) there is no such thing as nature (*physis*), but (only) mixing and separation of the elements. For in the first book of the *Physics* [i.e. physical poem] he writes as follows:

But I shall tell you something more: there is no nature of all
that is mortal, nor is there an end consisting of wretched death,
but only mixing and separation of what has been mixed,
and 'nature' is what it is called by human beings. (P1)

§2 In the same way Anaxagoras (says that) nature is a combination and separation, which is coming-to-be and passing away. (P2)

Book 2 Cosmology

AËTIUS
ON THE VIEWS (OF THE PHILOSOPHERS)

BOOK 2
in which the following headings (are found):

[Proem]

1. On the cosmos
2. On the shape of the cosmos
3. Whether the cosmos is ensouled and administered by providence
4. Whether the cosmos is indestructible
5. Where the cosmos obtains its nourishment from
- 5a. Where the cosmos has its regent part)
6. From what kind of first element the god began to make the cosmos
7. On the order of the cosmos
8. What the cause of the cosmos having been tilted is
9. On what is outside the cosmos, whether there is a void
10. What the right (parts) of the cosmos are and what the left
11. On the heaven, what its substance is
12. On the division of heaven, into how many circles it is divided
13. What the substance of the heavenly bodies is, (both) planets and fixed stars
14. On the shapes of the stars
15. On the ordering of the heavenly bodies
16. On the conveyance and movement of the heavenly bodies
17. From where the heavenly bodies obtain their illumination
18. On the stars called the Dioscuri
19. On signs of the seasons produced by the heavenly bodies
20. On the substance of the sun
21. On the size of the sun
22. On the shape of the sun
23. On the turnings of the sun
24. On the eclipse of the sun
25. On the substance of the moon
26. On the size of the moon
27. On the shape of the moon
28. On the illuminations of the moon

29. On the eclipse of the moon
30. On its appearance and why it appears (to be) earthy
31. On the distances of the moon
32. On the year, how great the time of (the revolution of) each of the planets is, and what the Great year is

[Proem]

Having thus completed my account of the principles and elements and what is closely associated with them, I shall turn to the account concerned with the products, starting with the most comprehensive of all things. (P)

2.1 On the Cosmos (P,S)

§1 Pythagoras was the first to call the container of all things 'cosmos' on the basis of the order present in it. (P₁,S₅)

§2 Thales Pythagoras Empedocles Ecphantus Parmenides Melissus Heraclitus Anaxagoras Plato Aristotle Zeno (say that) the cosmos is unique. (P₂,S₆,T₁)

§3 Anaximander Anaximenes Archelaus Xenophanes Diogenes Leucippus Democritus Epicurus and his teacher Metrodorus (say that there are) infinite kosmoi in the infinite space throughout the entire surrounding area. (P₃,S₇,T₂)

§4 Of those that declare there to be infinite kosmoi, Anaximander (says that) they are at an equal distance from each other, (S₈)

§5 whereas Epicurus (says that) the distance between the kosmoi is unequal. (S₉)

§6 Empedocles (says that) the revolution of the sun is the perimeter of the cosmos' limit. (P₄,S₁)

§7 Seleucus from the Red Sea and Heraclides from Pontus (say that) the cosmos is infinite. (P₅,S₂)

§8 Diogenes and Melissus (say that) the universe is infinite, but the cosmos is limited. (P₆,S₃)

§9 The Stoics (say that) the universe and the whole differ, for the universe is the cosmos together with the infinite void, whereas the whole is the cosmos apart from the void; as a result the whole and the cosmos amount to the same. (P₇,S₄)

* On the translation of multiple name-labels see the User's guide to the translation.

2.2 On the Shape of the Cosmos (P,cf.S)

- §1 The Stoics (say that) the cosmos is like a ball [i.e. spherical], (P₁,S₁,T₁)
 §2 but others (say that it is) like a cone, (P₂,cf.T₂)
 §3 while yet others (say that it is) like an egg [i.e. ovoid]. (P₃,cf.T₂)
 §4 Leucippus and Democritus (say that) the cosmos is like a ball. (S₂,T₂)
 §5 Epicurus, however, (says that) it is possible that the kosmoi are like a ball, but that it is possible that they make use of other shapes as well. (P₄)

2.3 Whether the Cosmos Is Ensouled and Administered by Providence (P,S)

- §1 All other (philosophers say that) the cosmos is ensouled and administered by providence. (P₁,S₁,T₁)
 §2 But Leucippus and Democritus and Epicurus (say that) it is constituted out of atoms by an unreasoning natural force. (P₂,S₂,T₂)
 §3 Ecphantus (says that) the cosmos is constituted out of atoms, but is (nevertheless) administered by providence. (S₃)
 §4 Aristotle (says that the cosmos is) neither ensouled through and through, nor is it endowed with sense-perception or rational or intellectual or administered by providence. For the heavenly realm shares in all these (characteristics), as it contains ensouled spheres which are endowed with life. The earthly realm, however, shares in none of them, but shares in its well-ordered state contingently, not primarily. (P₃,S₄)

2.4 Whether the Cosmos Is Indestructible (P)

- §1 Pythagoras Heraclitus (say that) the cosmos is generated in thought, but not in time. (S₁₀–11,T₁)
 §2 The Stoics (say that) (the cosmos has come into being) through the agency of God. (P₁)
 §3 Epidicus (says that) the cosmos has come into being through the agency of nature. (S₁₂)
 §4 Archelaus (says that) the cosmos was constituted through the agency of warmth and ensoulment. (S₁₃)
 §5 Xenophanes Parmenides Melissus (say that) the cosmos is ungenerated and everlasting and indestructible. (P₃,S₃,T₂,4)
 §6 But there are those who say that its ordering is eternal, yet (also) say that there are periodic times in accordance with which all things come into being in

exactly the same way and preserve the same disposition and ordering of the cosmos. (S₄)

§7 Anaximander Anaximenes Anaxagoras Archelaus Diogenes Leucippus (say that) the cosmos is destructible. (S₅,T₃)

§8 The Stoics too (say that) the cosmos is destructible, but (this occurs) in the conflagration. (S₆,cf.P₁)

§9 Plato (says that) the cosmos is destructible as far as its nature is concerned, for it is sense-perceptible—since it is also corporeal—, but that through the providence and supervision of God it will certainly not be destroyed. (P₁,S₁)

§10 Aristotle (says that) the part of the cosmos below the moon is passible, in which also the things on earth perish. (P₄,S₂)

§11 Empedocles (says that) the cosmos is destroyed in accordance with the successive dominance of Strife and Love. (S₇)

§12 Democritus (says that) the cosmos is destroyed when the larger (one) overcomes the smaller one. (S₈)

§13 Epicurus (says that) the cosmos is destroyed in a multitude of ways, for example as an animal and as a plant and in numerous other ways. (P₂,S₉)

2.5 Where the Cosmos Obtains Its Nourishment from (P,S)

§1 Aristotle: if the cosmos obtains nourishment, it will also be subject to destruction; but it is certainly not in need of any nourishment; for this reason it is everlasting as well. (P₁,S₂)

§2 Plato (says that) the cosmos itself provides nourishment for itself from that which perishes through transformation. (P₂)

§3 Philolaus (says that) there is a double (form of) destruction, in the one case from heavenly fire that has rushed (down), in the other case from moon-water that has been poured forth by the conversion of the air; and the exhalations of these are nourishment for the cosmos. (P₃,S_{1,3})

⟨2.5a Where the Cosmos Has Its Ruling Part⟩ (S)

§1 Plato (says) the ruling part of the cosmos in the heaven. (S₁)

§2 Cleanthes the Stoic (says it is) in the sun. (S₃)

§3 Archdemus (says it is) in the earth. (S₄)

§4 Philolaus (says it is) in the innermost fire, which the craftsman god first set under the sphere of the universe like a keel. (S₂)

2.6 From What Kind of First Element the God Began to Make the Cosmos (P)

§1 The physicists and the Stoics (say that) the genesis of the cosmos started from the earth as from the centre; the starting-point of a sphere is (its) centre. (P₁,S₁)

§2 Pythagoras (says that the genesis of the cosmos started) from fire and the fifth element. (P₂,S₂)

§3 Empedocles (says that) first the ether was separated out, second fire and after it the earth. When the earth was excessively constricted by the rush of its revolution, water spouted forth. From it the air was exhaled and the heaven came into being from the ether, the sun from fire, while the earthly regions were condensed from the other (elements). (P₃)

§4 Plato (says that) the visible cosmos came into being in relation to the model of the intelligible cosmos. But of the visible cosmos the soul is prior, and after it there is the corporeal part, consisting of fire and earth first, of water and air second. (P₄,S₄)

§5 Pythagoras says that, since there are five solid shapes, which are also called 'mathematical,' the earth came into being from the cube, fire from the pyramid, air from the octahedron, water from the icosahedron, and the sphere of the universe from the dodecahedron. (P₅,S₃)

§6 Plato pythagorizes in these matters too. (P₆)

2.7 On the Order of the Cosmos (P,S)

§1 Parmenides says there are bands interwoven one around another, the one made up of the rare, the other of the dense, while others between these are mixed from light and darkness. And that which surrounds them all is solid in the manner of a wall, below which there is a fiery band. And the most central (part) is also (solid), around which there is again a fiery band. Of the mixed bands the most central is both the ⟨origin⟩ and the ⟨cause⟩ of all motion and coming into being for all the others, which he also calls 'governing *daimon*', 'holder of the lots', 'Justice' and 'Necessity'. And air is a secretion from the earth which is vaporized through the earth's stronger condensation, while the sun and the Milky Way are the exhalation of fire. The moon is a mixture of both air and fire. The ether encircles above everything else, below which the fiery (part) which we call heaven is disposed, and below it again the earthly regions have their place. (P₁,S₂)

§2 Leucippus and Democritus stretch around the cosmos in a circle a cloak and a membrane woven together by means of hook-shaped atoms. (P₂,S₅)

§3 Epicurus (says that) of some kosmoi the limit is rare but of others it is dense, and of these (limits) some are in motion, while others are unmoved. (P3,S6)

§4 Plato (says that there is) first fire, then ether, followed by air, after which there is water, and earth is last. But sometimes he connects ether with fire. (P4)

§5 Aristotle (says that) impassible ether is first, which is indeed a fifth body. After it (follow) the passible (elements) fire, air, water, and earth is last. And of these circular motion is given to the heavenly (regions), whereas in the case of the (elements) below them, upward (motion is given) to the light ones and downward (motion) to the heavy ones. (P5,S3)

§6 Philolaus (says that there is) fire in the middle around the centre, which he calls the universe's hearth and Zeus' house and the gods' mother, altar and continuity, and measure of nature. And again there is another highest fire, that which surrounds (the universe). The centre is first by nature, and around this ten divine bodies dance: the heaven, the (five) planets, after them the sun, under it the moon, under it the earth, under it the counter-earth, and after all of them there is fire, which has the position of the hearth in relation to the centres. Moreover, he calls the highest part of the surrounding (region) Olympus, in which he says the purity of the elements exists, while the (region) under the orbit of Olympus, in which the five planets together with the sun and the moon are positioned, (he calls) Kosmos. The sublunary and earthly part below these, in which the (realm) of change-loving generation (is located), (he calls) Heaven. In addition, (he says that) wisdom arises concerning what is ordered in the regions on high, whereas virtue arises concerning the disorder of what comes into being, the former being complete, but the latter incomplete. (S4)

§7 Empedocles (says that) the locations of the elements are not completely fixed or determined, but all share in the locations of each other. (P6,S1)

2.8 What the Cause of the Cosmos Having Been Tilted Is (P)

§1 Diogenes Anaxagoras (say that) after the cosmos had been formed and had produced the animals from the earth, the cosmos somehow of its own accord was tilted towards its mid-day region; (this occurred) perhaps through the agency of providence, so that some of the cosmos' parts are uninhabitable but others are habitable in virtue of chilling and excessive heating and a temperate climate. (P1,S1)

§2 Empedocles (says that), when the air gave way through the onrush of the sun, the (north and south) poles were tilted, and the northern parts were lifted

up but the southern parts were lowered, in accordance with which the entire cosmos was tilted as well. (P₂,S₂)

2.9 On What Is Outside the Cosmos, Whether There Is a Void (P)

§1 Pythagoras and his successors (say that) there exists a void outside the cosmos, into which and from which the cosmos breathes. (P₁,S₁)

§2 But the Stoics (say that) there exists a void into which the cosmos dissolves at the conflagration, (and it is) infinite. (P₂,S₂)

§3 Posidonius (says that it is) not infinite, but (is present only) to the extent (that is) sufficient for the (cosmos') dissolution. (P₃,S₃)

§4 Plato Aristotle (say that) there is no void either outside the cosmos or inside it. (P^{EQ}₄,S₄)

2.10 What the Right (Parts) of the Cosmos Are and What the Left (P)

§1 Pythagoras Plato Aristotle (say that) the right parts of the cosmos are the eastern regions, from which the movement has its origin, while the western regions are its left parts. {But they say that the cosmos has neither height nor depth in the sense that height is said to be the dimension upwards from below and depth is the dimension downwards from above. For, (they say), none of the dimensions understood in this way are relevant to the cosmos because it is established around its own centre, from which it is the same (distance) to every (part) and towards which it is the same from every (part).} (P₁,S₂)

§2 Empedocles (says that) the regions at the summer solstice are the right parts (of the cosmos), whereas the regions at the winter solstice are the left parts. (P₂,S₁)

2.11 On Heaven, What Its Substance Is (P,S)

§1 Anaximenes and Parmenides (say that) the outermost periphery is of earth. (P₁,S₁)

§2 Empedocles (says that) the heaven is solid, consisting of air that has been compacted together by fire in crystalline fashion, containing the fiery (element) and the airy (element) in each of the hemispheres. (P₂,S₂)

§3 Anaximander (says that the heaven consists) of a hot and cold mixture. (P₃,S₃)

§4 Parmenides Heraclitus Strato Zeno (say) that the heaven is fiery. (P₃,S₄)

§5 Aristotle (says that the heaven consists) of a fifth body. (P₃,S₅)

2.12 On the Division of Heaven, into How Many Zones It Is Divided (P,S)

§1 Thales, Pythagoras and his successors (say that) the sphere of the entire heaven has been divided into five circles, to which they give the name 'zones'. Of these (the first) is called 'the arctic and always appearing', (the second) 'the summer tropic', (the third) 'the equatorial', (the fourth) 'the winter tropic', and (the last) 'the antarctic and invisible'. In relation to the three middle (circles) the so-called zodiac (circle) has been placed as a diagonal, touching the three of them. But the meridian cuts all of them at right angles from the arctic (regions) to its opposite. (P₁,S₁)

§2 Pythagoras is said to have been the first to have recognized the tilting of the zodiac circle, which Oenopides of Chios appropriates as his own idea. (P₂,S₂)

2.13 What the Substance of the Heavenly Bodies Is, (Both) Planets and Fixed Stars (P,S)

§1 Thales (says that) the heavenly bodies are earthy but inflamed. (P₁,S₁,T₁)

§2 Empedocles (says that they are) fiery, (made) from fire-like (material), which the air enfolded within itself and squeezed out in the first separation. (P₂,S_{2a})

§3 Anaxagoras (says that) the surrounding ether is fiery in substance, but through the vigour of the whirling movement it snatched up rocks from the earth, ignited these and made them into heavenly bodies. (P₃,S₃,T₂)

§4 Diogenes (says that) the heavenly bodies are sponge-like, and he considers them to be the respiratory vents of the cosmos; they are also inflamed. (P_{4a},S_{4a},T₄)

§5 Democritus (says that they are) rocks. (S₅,T₃)

§6 Archelaus (says that they are) clumps of iron, but inflamed. (S₆)

§7 Anaximander (says that they are) wheel-like condensations of air, filled with fire, partly expelling flames from vents. (S₇,T₅)

§8 Parmenides and Heraclitus (says that they are) condensations of fire. (S₈)

§9 Anaximenes (says that) the nature of the heavenly bodies is fiery, but that it also includes some earthy bodies which are borne around with these and are invisible. (S9)

§10 Diogenes, however, (says that) stones that are invisible and in addition nameless are borne around together with the visible heavenly bodies, but that often they fall to the earth and are quenched, just as in the case of the heavenly body in the form of a rock (i.e. meteorite) that descended in a fire-like manner at Aegospotami. (P4b,S4b,T6)

§11 Empedocles (says that) the fixed heavenly bodies were stuck to the crystalline (heaven), but the planets were released. (P5,S2b)

§12 Plato (says that the heavenly bodies are) for the most part fiery, but also partake in the other elements in the manner of glue. (P6,S10,T7)

§13 Aristotle (says that they are made) from the fifth body. (S11,T8)

§14 Xenophanes (says that they consist) of incandescent clouds, and that every day they are extinguished and (then) flare up again at night, just like coals; for the risings and settings (of the heavenly bodies) are (in fact) kindlings and quenchings. (P7,S12,T9)

§15 Heraclides and the Pythagoreans (say that) each of the heavenly bodies exists as a cosmos which includes an earth, air and ether in the unlimited ether. These doctrines are reported in the Orphic (writings), for they (too) make each of the heavenly bodies into a cosmos. (P8,S13,T10)

§16 Epicurus does not reject any of these (views), holding fast to what is possible. (P9,S14)

2.14 On the Shapes of the Stars (P,S)

§1 The Stoics (say that) the stars are spherical, just like the cosmos, the sun and the moon. (P1,S2,T1)

§2 Cleanthes (says that they are) like a cone. (P2,S3,T2)

§3 Anaximenes (says that they) have been affixed to the crystalline (heaven) in the manner of studs. (P3,S1)

§4 But some (say that they) are fiery leaves, like pictures. (P4)

2.15 On the Order of the Heavenly Bodies (P)

§1 Xenocrates thinks that the stars lie on a single plane. (P1,S5)

§2 But the others, the Stoics, (say that) the ones are placed in front of the others in height and depth. (P2,S6)

§3 Democritus (orders) the fixed stars first, then after them the planets, followed by the sun, the light-bringer (i.e. Venus) and the moon. (P3,S1)

§4 Plato after the placement of the fixed stars (arranges) first the star of Kronos called 'the Shining one,' second the star of Zeus (called) 'the Radiant one,' third the star of Ares (called) 'the Fiery one,' fourth the star of Aphrodite (called) 'Dawn-bringer,' fifth the star of Hermes (called) the 'Gleaming one,' sixth the sun, and seventh the moon. (P4,S4)

§5 Of the astronomers* some (order the heavenly bodies) as Plato does, others (place) the sun in the middle of all (the planets). (P5,S7)

§6 Anaximander and Metrodorus of Chios and Crates (say that) the sun has been ordered highest of all (the heavenly bodies), but after it the moon, and below them the fixed stars and the planets. (P6,S2–3)

§7 Parmenides orders the Dawn-star, which is considered by him to be identical with the Evening-star, as first in the ether; after it the sun, beneath which he places the heavenly bodies [i.e. stars] in the fiery region, which he calls 'heaven.' (S8)

2.16 On the Conveyance and Movement of the Heavenly Bodies (P,cf.S)

§1 Anaxagoras Democritus Cleanthes (say that) all the heavenly bodies are borne from east to west. (P1,S1)

§2 Alcmaeon and the astronomers* (say that) the planets are borne in an opposite direction to the fixed stars from west to east. (P2,S4)

§3 Aristotle (says that the heavenly bodies are borne) by the spheres on which each of them is situated, (S5)

§4 Anaximander (says that the heavenly bodies) are borne by the circles and the spheres on which each of them has mounted. (P3,S6)

§5 Anaximenes (says that) the heavenly bodies whirl not beneath the earth but around it. (P4,S2)

§6 Plato and the astronomers* (say that) the 'gleamer' [i.e. Mercury] experiences the same as the 'dawn-bringer' [i.e. Venus], and that they run a course equal to the sun and revolve together with it; and at one time it [i.e. Venus] appears when rising as the 'dawn-bringer,' while at another time when setting it is called the 'evening (star)'. (P5,S3)

§7 Apollodorus in the second (book) of his *On the Gods* (says that) the view that the 'light-bringer' and the 'evening (star)' are the same (heavenly body) is Pythagorean. (S7)

* The term here is *μαθηματικοί*, which can also be translated as 'mathematicians' or 'scientists' depending on the context; also in chs. 2.16, 2.29–31.

2.17 From Where the Heavenly Bodies Obtain Their Illumination (P)

§1 Metrodorus (says that) all the fixed stars are shone upon by the sun. (P1,S4)

§2 Strato too (says that) the stars are illuminated by the sun. (S5)

§3 Diotimus of Tyre, the follower of Democritus, introduced the same opinion as these men. (P2,S1)

§4 Heraclitus and the Stoics (say that) the heavenly bodies are nourished from the earthly exhalation. (P2,S1)

§5 Aristotle (says that) the heavenly beings have no need of nourishment, for they are not perishable but everlasting. (P3,S3)

§6 Plato (says that) the whole cosmos and the stars jointly obtain their nourishment from themselves. (P4,S2)

2.18 On the Stars Called the Dioscuri (P)

§1 Xenophanes (says that) that the star-like appearances on ships are cloudlets that light up according to the kind of movement that they have. (P1,S1)

§2 Metrodorus (says that) they (i.e. the Dioscuri) are the flashing of eyes that gaze with fear and consternation. (P2)

2.19 On Signs of the Seasons Produced by the Heavenly Bodies (P,S)

§1 Plato (says that) the signs relating to winter and summer occur in accordance with the risings and settings of the heavenly bodies, namely the sun and the moon and the other planets and fixed stars. (P1,S2)

§2 Anaximenes, however, (says that) through these (other heavenly bodies) none of these (signs occur), but through the sun only. (P2,S1)

§3 Eudoxus Aratus (say that they occur) jointly through all the heavenly bodies, in (the verses in) which he (i.e. the latter) says:

For he himself (i.e. Zeus) fixed the signs in heaven, marking out the constellations; and for the year he devised (those) heavenly bodies which especially would indicate the happenings ahead. (P3S3)

2.20 On the Substance of the Sun (P,S)

§1 Anaximander (says there) is a circle twenty-eight times the earth, similar to a chariot wheel with a hollow rim, filled with fire, revealing the fire in a particular part through an opening as through a blowtorch, and this is the sun. (P1,S3)

§2 Xenophanes (says that the sun is formed) from incandescent clouds. (S1,T1,cf.P2b)

§3 Anaximenes Parmenides (say that the substance of the sun is) fiery. (S4+5)

§4 Antiphon (says that it is) fire encroaching on the moist air around the earth, and producing sunrises and sunsets by continually leaving the burning air (behind it) and in turn clamping onto the slightly dampened air (before it). (S6)

§5 Xenophanes, (as) Theophrastus has written in his *Physics*, (says that it is formed) from firelets that are gathered together out of the moist exhalation and so gather together the sun. (P2,S2)

§6 Heraclitus Hecataeus Cleanthes (say that the sun is) an intelligent ignited mass (formed) from the sea. (P3,S7+16)

§7 Plato (says that it consists) of fire for the most part, but also has a share of the other elements. (P4,T6)

§8 Anaxagoras, Democritus and Metrodorus (say that it is) an fiery clump or rock. (P5,S8+15(+4),T2)

§9 Thales (says that it is) earthy. (S9,T3)

§10 Diogenes (says that it is) pumice-like, and that rays from the ether fix themselves into it. (S10,T4)

§11 Aristotle (says that it is) a sphere (made up) of the fifth body. (P6,T5)

§12 Philolaus the Pythagorean (says that it is) glass-like, on the one hand receiving the reflection of the fire in the cosmos, on the other hand pushing the light and the heat through towards us, so that in a way there are two suns, both the fiery one in the heaven and the one derived from it which is fire-like through being mirror-like, unless someone will say that there is also a third, the beam spread out towards us from the mirror through reflection; for it is this which we call the sun, like an image of an image. (P7,S11,T7)

§13 Empedocles (says that there are) two suns: (one) the original, which is fire in the one hemisphere of the cosmos and fills the hemisphere, always stationed opposite its own reflection; (the other) the visible sun, which is its reflection in the other hemisphere, namely the one filled with air mixed with heat, arising from the circular earth through a reflection onto the crystal-like Olympus [i.e. heaven], and revolving together with the motion of the fiery (element); to sum up briefly, the sun is a reflection of the fire around the earth. (P8,S12)

§14 Epicurus (says that it is) an earthy concentration inflamed by the fire in its cavities in the manner of a pumice-stone or sponge. (P₉,S₁₃)

§15 Heraclitus (says that it is) an ignited mass, which is kindled in the east and extinguished in the west. (P^G₇)

§16 Parmenides (says that) the sun and the moon have been separated off from the circle of the Milky Way, the former from the more rarefied mixture which is hot, the latter from the denser (mixture) which is cold. (S₁₄)

2.21 On the Size of the Sun (P,S,T)

§1 Anaximander (says that) the sun is equal to the earth (in size), and that the circle from which it has its vent and by which it is moved, is twenty-seven times the earth. (P₁,S₁,T₁)

§2 But Empedocles (says that it), namely the (sun) that appears in virtue of the reflection, (is) equal to the earth (in size). (S₁,Tb₂)

§3 Anaxagoras (says that it is) many times (the size of) the Peloponnese. (P₂,Ta_{2b3})

§4 Heraclitus (says that it is) the breadth of a human foot. (P₃,S₂,Ta_{3b4})

§5 Epicurus (says that it is) the size that it appears, or a just little larger or smaller. (P₄,S₄)

2.22 On the Shape of the Sun (P,S,T)

§1 Anaximenes and Alcmaeon (say that) the sun is flat, like a leaf. (P₁,S₁,₃)

§2 Heraclitus (says that it is) bowl-like, somewhat convex. (P₂,S₂,T₂)

§3 The Pythagoreans (and) the Stoics (say that it is) like a ball, like the cosmos and the stars. (P₃,S₄,T₁)

§4 Epicurus (says that) all the above-mentioned (shapes) are possible. (P₄)

2.23 On the Turnings of the Sun (P,S)

§1 Anaximenes (says that) the heavenly bodies are pushed off course by condensed and resistant air. (P₁,S₁)

§2 Anaxagoras (says that the turnings are caused) by the repulsion of the northern air, which it (the sun) by pushing makes strong as the result of the condensation (that occurs). (P₂,S₂)

§3 Diogenes (says that) the sun is quenched by the cold that collides with the heat. (P4,S3)

§4 Empedocles (says that the turnings are caused) by the sphere that surrounds it (the sun) and prevents it from continuing its course in a straight line, and by the solstitial circles. (P3,S4)

§5 Democritus (says that they are caused) as the result of the whirling that carries it (the sun) around. (S5)

§6 The Stoics (say that) the sun's course is determined by the distance covered in accordance with the food available to it. This is the ocean or the earth, from which it consumes the exhalation. And (they say) the sun as it moves produces a concomitant spiral on the sphere, from the equinoctial (circle) to both the northern and the southern (tropics), which are the limits of the spiral. (P5,S6)

§7 But others (say) that its movement makes a spiral in a straight line by doing this not on a sphere, but on a cylinder. (S7)

§8 Plato Pythagoras Aristotle (say that they result) from the tilting of the zodiac circle, through which the sun moves with an oblique course, and in accordance with the guardianship of the solstitial circles. All these matters the sphere also demonstrates. (P6)

2.24 On the Eclipse of the Sun (P,S)

§1 Thales was the first to say that the sun undergoes an eclipse when the moon with its earthy nature proceeds perpendicularly in between (it and the earth); this is visible by means of reflection when the disc (of a mirror) is placed beneath. (P1,S5)

§2 The Pythagoreans Empedocles (hold a similar view). (S4,6)

§3 Anaximander (says that the sun is eclipsed) when the mouth through which the outpouring of fire occurs is blocked. (P2,S2)

§4 Heraclitus (says that it undergoes an eclipse) in accordance with the turning of its bowl-like shape, so that the hollow aspect faces upwards and the convex aspect faces downwards in the direction of our vision. (P3,S3)

§5 Xenophanes (says that it undergoes an eclipse) through quenching. And another sun occurs in the east. He has also recounted that there was an eclipse [i.e. failure] of the sun for an entire month, and moreover that a total eclipse took place, so that the day appeared as night. (P4,S1)

§6 Some (thinkers say that it is) a concentration of clouds invisibly passing in front of the (sun's) disk. (P5)

§7 Aristarchus makes the sun stand still together with the fixed stars, while he moves the earth in the circle of the sun and (says that) it (the sun) is cast in shadow in accordance with the tiltings of this body [i.e. the earth]. (P6,S7)

§8 Xenophanes says that there are many suns and moons in accordance with the latitudes of the earth and its sections and zones. But at a certain moment the (sun's) disk falls into a section of the earth that is not inhabited by us, and in this way, as if treading on emptiness, discloses an eclipse. The same (thinker) says that the sun advances indefinitely, but seems to go in a circle because of the distance (away from us). (P7,S8)

2.25 On the Substance of the Moon (P,S)

§1 Anaximander (says that the moon is) a circle nineteen times the earth, resembling a chariot wheel, having a hollow rim and full of fire, like the (circle) of the sun, lying tilted, as that one [i.e. circle] does too, with a single blowhole, like a blowtorch; and it undergoes eclipse in accordance with the turnings of the wheel. (P1,S1)

§2 Anaximenes Parmenides Heraclitus (say that) the moon is fiery. (S2–3,T3)

§3 Xenophanes (says that it is) an incandescent compressed cloud, (P2,S4,T1)

§4 but Cleanthes (says that it is) fire-like. (P3,S14)

§5 Posidonius and most of the Stoics, however, (say that it is) mixed out of fire and air. (S15)

§6 Empedocles (says that it is) cloud-like compacted air, fixed by fire so that it forms a compound. (S12)

§7 Plato (says that it is formed) for the most part from the fiery (material). (P4,S13)

§8 Aristotle (says that it is formed) (from the fifth body). (cf. S13a)

§9 Thales (says that it is) earthy. (S5,T2)

§10 Anaxagoras Democritus (say that it is) an inflamed solid mass, which has in it plains and mountains and ravines. (P5,S6,T4)

§11 Diogenes (says that it is) a sponge-like ignited mass. (S7)

§12 Ion (says that it is) a body that is partly glass-like and transparent, partly opaque. (S8)

§13 Berossus (says that it is) a half-inflamed sphere. (S9)

§14 Heraclides and Ocellus (say that it is) earth surrounded by mist. (P6,S10,T6)

§15 Pythagoras (says that it is) a mirror-like body. (P7,S11,T5)

2.26 On the Size of the Moon (P,S)

§1 The Stoics (say that the moon is) larger than the earth, as the sun is also. (P₁,S₃,T₁)

§2 Parmenides (says that it is) equal to the sun (in size), and indeed that it is illuminated by it. (P₂,S₁,T₂)

§3 Aristotle (says that it is) smaller (in size) than the earth, (S₂,T₃)

§4 But others (say that it) has the diameter of a span. (T₄)

2.27 On the Shape of the Moon (P,S)

§1 The Stoics (say that the moon) is like a ball [i.e. spherical], just like the sun. (P₁,S₅)

§2 And it is shaped in many different ways, for it becomes full-moon and half-moon and gibbous and moon-like [i.e. crescent-shaped]. (S₆)

§3 Heraclitus (says that it is) bowl-like. (P₂,S₁)

§4 Cleanthes (says that it is) hat-like. (S₄)

§5 Empedocles (says that it is) disc-like. (P₃,S₂)

§6 But others (say that it is) cylinder-like. (P₄,S₃)

2.28 On the Illuminations of the Moon (P,S)

§1 Anaximander Xenophanes Berossus (say that) the moon has its own light. (P₁,S₁)

§2 Aristotle (says that it has) its own (light), but it is somewhat thinner. (S₂)

§3 The Stoics (say that its light is) dim in appearance, for it is air-like. (S₃)

§4 Antiphon (says that) the moon has its own gleam, and the gleam that is hidden around it is dimmed by the approach of the sun, since it is natural for the stronger fire to make the weaker one dim, which indeed also occurs in the case of the other heavenly bodies. (P₂,S₄)

§5 Thales was the first to say that it is illuminated by the sun. (P₃,S₅)

§6 Pythagoras Parmenides Empedocles Anaxagoras Metrodorus (say) likewise. (S₆)

§7 Heraclitus (says that) the sun and the moon undergo the same experience: since they are heavenly bodies that are bowl-like in their shapes and receive their radiance from the moist exhalation, they light up in their appear-

ance (towards us), the sun doing so more brightly because it moves in air that is purer, whereas the moon moves in murkier (air) and for this reason appears dimmer. (P4,S7)

2.29 On the Eclipse of the Moon (P,S,T)

§1 Anaximander (says that the moon is eclipsed) when the orifice on the wheel (of fire) is obstructed. (P1,S1)

§2 Berossus (says that it is eclipsed) in accordance with the turning of the uninflamed part (of the moon) towards us. (P2,S2)

§3 Alcmaeon Heraclitus Antiphon (say that it is eclipsed) in accordance with the turning of the bowl-like (shape of the moon) and its lateral motions. (P3,S3)

§4 Some of the Pythagoreans according to the research of Aristotle and the assertion of Philip of Opus (say that it is eclipsed) through reflection and obstruction, sometimes of the earth and sometimes of the counter-earth. (P4,S4)

§5 But among more recent thinkers there are some who are of the opinion (that an eclipse takes place) in accordance with the dissemination of a flame that slowly catches alight in an orderly manner until it produces the complete full moon, and (then) analogously diminishes again until the conjunction (with the sun), when it is completely extinguished. (P5,S5)

§6 Xenophanes (says that) the monthly concealment too (takes place) by quenching. (S6)

§7 Thales Anaxagoras Plato Aristotle the Stoics (and) the astronomers* agree in unison that it (the moon) produces the monthly concealments by travelling together with the sun and being illuminated by it, whereas it produces the eclipses by descending into the shadow of the earth which interposes itself between the two heavenly bodies, or rather when the moon is obstructed (by the earth). (P6,S7)

§8 Anaxagoras, as Theophrastus says, (says that it is eclipsed) also when it happens that bodies (in the space) below the moon interpose themselves. (S8)

* On the term *μαθηματικοί* see the note to the translation of ch. 2.15.

2.30 On Its Appearance and Why It Appears (To Be) Earthy (P,S)

§1 Some of the Pythagoreans, of whom Philolaus is one, (say that) its earthy appearance is caused by the fact that the moon is inhabited, just like our earth, (but) with animals and plants that are larger and more beautiful. For (they say that) the animals on it are fifteen-fold in power and do not discharge any excrement, and that the day is the same in length [i.e. fifteen-fold]. (P₁,S₁)

§2 But others (say that) the appearance in the moon is a reflection of the sea inhabited by us (which is located) beyond the circle of the Torrid zone. (S₂)

§3 Anaxagoras (says that it is caused by) unevenness of its composition on account of cold being mixed in together with the earthy (component), the moon having some parts that are high, others that are low, and others that are hollow. {Moreover, (he says that) the dark (component) has been mixed in with the fire-like (component), the effect of which causes the shadowy (colouring) to appear; for this reason the heavenly body is called 'falsely appearing'.} (P₂,S₃)

§4 Democritus (says that it is caused by) the shadow effects of the high areas in it; for it has glens and vales. (S₄)

§5 Parmenides (says that it occurs) on account of the dark (component) having been mixed in with the fire-like (component) in it; for this reason the heavenly body is called 'falsely appearing'. (S₅)

§6 The Stoics (say that) on account of the air mixed in the substance its composition is not unblemished. (P₃,S₆)

§7 Aristotle (says that) its composition is not unblemished because the ether, which he calls the fifth body, becomes aerated close to the earth. (S₇)

§8 The successors of the astronomers* regard its compositional unevenness as the cause. Just as in the case of clouds illuminated by the sun the thinner parts are brighter and the thicker parts are darker, so it happens in the case of the moon, which resembles a cloud-like compressed body and is illuminated by the sun. (S₈)

§9 Xenophanes (says that) the sun is useful for the generation and administration of the cosmos and the living beings in it, but the moon is redundant. (S₉)

2.31 On the Distances of the Moon (P,S,cf.T)

§1 Empedocles (says that) the moon is double the distance from the sun that it is from the earth. (P₁,S₁,T₁)

§2 But the successors of the astronomers* (say that it is) eighteen times. (P2,S2)

§3 Eratosthenes (says that) the sun is distant four hundred and eight myriads of stades from the earth, and that the moon is distant seventy-eight myriads of stades from the earth. (P3,S3,T2)

§4 Empedocles (says that) the distension (of the heaven) in its breadth is greater than the height from the earth to heaven, which is its extension from us, the increased extent of the heaven having occurred for the reason that the cosmos is lying (on its side) in the manner similar to an egg. (S4)

§5 But Boethus understands the extent as a matter of appearance, not of reality. (S5)

2.32 On the Year, How Great the Time of (the Revolution of) Each of the Planets Is, and What the Great Year Is (P,cf.S)

§1 A year for Saturn is a period of thirty years, for Jupiter it is twelve (years), for Mars two (years), for the Sun twelve months; and the same (months are the period) for Mercury and Venus, for they move at the same speed. (The period) of the moon is thirty days, for this is the complete month from its appearance to the conjunction (with the sun). (P1,S1)

§2 But (they say that) the so-called Great year occurs whenever (the planets) reach the (same) locations from which they commenced their motion. (S2)

§3 But as far as the Great year is concerned, some (thinkers) place it in the eighth year, (P2,S3)

§4 others in the nineteenth year, (P3,S4)

§5 others in the years that are a fourfold [i.e. in the 76th year], (S5)

§6 yet others in the 60th year minus one, among whom are Oenopides and Pythagoras. (P4,S6)

§7 But there are others who place it in the so-called starting-point of time, and this is the return of the seven planets on the same day of their movement from the beginning. (S7)

§8 Heraclitus (says that the Great year consists) of 18000 solar years. (P5,S8)

§9 Diogenes the Stoic (says that the Great year consists) of 365 years times what the (Great) year was according to Heraclitus. (P6,S9)

§10 But others (say that the Great year occurs) every 7777 (years). (P7)

* On the term *μαθηματικοί* see the note to the previous chapter.

Book 3 Meteorology and the Earth

AËTIUS
ON THE VIEWS (OF THE PHILOSOPHERS)

BOOK 3
in which the following chapter headings (are found):

[Proem]

1. On the circle of the Milky Way
2. On comets and shooting stars and beams
3. On thunders, lightnings, thunderbolts, firewinds and typhoons
4. On clouds, mist, rains, dew, snow, hoar-frost, hail
5. On the rainbow
- 5a. [formerly 18] On the halo
6. On rods
7. On winds
8. On winter and summer
9. On the earth, and what its substance is and how many there are
10. On the shape of the earth
11. On the location of the earth
12. On the inclination of the earth
13. Whether the earth is at rest or moves
14. On the division of the earth, how many zones there are
15. On earthquakes
16. On the sea, how it came to be and how bitter it is
17. How low and high tides occur

[Proem]

§1 Having in the previous (Books) systematically and by way of an epitome gone through the account of the things in the heavens—of which the moon is the boundary—, I shall turn in the third (Book) to the things on high. These are situated from the orbit of the moon down to the position of the earth, which they believe to occupy the place of the centre in the circumference of the sphere. I shall begin from there [i.e. from the circumference]. (P)

3.1 On the Circle of the Milky Way (P,S)

§1 It is a cloud-like circle in the air, continually visible, called Milky Way because of its white colour. (P1,S1)

§2 Some of the Pythagoreans said (that it) is the (result of the) scorching by a heavenly body which departed from its proper place, and the region through which it moved, this it burned in a circle at the time of the conflagration caused by Phaethon. (P2,S2)

§3 But others (of the Pythagoreans) said that originally the sun's orbit followed this route. (S3)

§4 Some say, however, that it is an appearance, as in a mirror, of the sun, which bends back [i.e. reflects] its rays against the heaven, just as what happens both in the case of the rainbow and in that of the clouds. (S4)

§5 Metrodorus (says that it occurred) through the passage of the sun, for this is the circle of the sun. (P3,S5)

§6 Parmenides (says that) the whitish colour is the result of the mixture of the dense and the rare (element). (P4,S6)

§7 Anaxagoras (says) that the shadow of the earth rests upon this section of the heaven (namely, where the Milky Way is visible), when the sun, having arrived under the earth, no longer illuminates everything. (P5,S7)

§8 Democritus (says it is) the combined illumination of numerous and small and contiguous stars giving off light together, because of the density. (P4,S6)

§9 Aristotle (says it is) an ignition of a large and continuous (portion) of the dry exhalation; thus (we have) a head of hair [i.e. the tail of a comet] (consisting) of fire, underneath the aether, lower than the planets. (P7,S9)

§10 The Stoics (say it is) a loose-textured form of the aetherial fire, higher than the planets. (P^G7)

§11 Posidonius (says it is) a solid structure (consisting) of a fire that is rarer than a star but denser than the brightest light. (P8,S10)

3.2 On Comets and Shooting Stars and Beams (P,S)

§1 Some of the successors of Pythagoras* say that the comet is one of those stars which are not always visible, but at a certain time they periodically appear above the horizon. (P1,S1)

§2 But other (successors of Pythagoras say that) it is the reflection of our vision upon the sun, similar to the images that are reflected in mirrors. (P2,S2)

§3 Anaxagoras Democritus (say that) it is a conjunction of two or even more stars according to their giving off light together. (P3,S3)

§4 Aristotle (says that) it is a fiery structure consisting of the dry exhalation from the earth. (P4,S4)

§5 Strato (says that) it is the light of a star enclosed in a compact cloud, as is the case (with fire) in lanterns. (P5,S5)

§6 Heraclides of Pontus (says that) it is a cloud high in the sky illuminated by a light high in the sky. He provides the same causal explanation for bearded star, halo, beam, pillar, and their ilk, just as of course all the Peripatetics do, namely that these (phenomena) arise according to the configurations of the clouds. (P6,S6)

§7 Epigenes (says that) it is the ascent of inflamed pneuma mixed with earth. (P7,S7)

§8 Boethus (says that) it is an appearance of ignited air. (P8,S8)

§9 Diogenes (says that) the comets are stars. (P9,S9)

§10 Anaxagoras (says) that the (phenomena) called shooting stars fall down from the aether like sparks, which is why they are also immediately extinguished. (P10,S10)

§11 Metrodorus (says that) that a violent immission into the clouds of (the light of) the sun in the manner of a projectile often causes the emission of sparks. (P11,S11)

§12 Xenophanes (says that) that all these (phenomena) are combinations or movements of ignited clouds. (P12,S12)

3.3 On Thunders, Lightnings, Thunderbolts, Firewinds (*Presteres*) and Typhoons (P,S)

§1 Anaximander (says that) all these [sc. five] result from the *pneuma*. For when air surrounded by a thick cloud bursts out, having forced its way owing to its being constituted of small particles and of its lightness, then the breaking forth produces the noise and the contrast with the blackness of the cloud the piercing brightness. (P1,S1)

§2 Anaximenes agrees with him, citing in addition what occurs in the case of the sea, which flashes when split by the oars. (S2)

§3 Metrodorus (says that) when *pneuma* falls upon a cloud, which has become frozen through its density, it produces the noise by breaking it up, flashes

* On the translation of multiple name-labels see the User's guide to the translation.

through the impact and the splitting, and throws off a thunderbolt through the velocity of its movement, also making use of the sun's heat. But if the (resultant) thunderbolt is weak, it converts it into a firewind (*prester*). (P2,S3)

§4 Anaxagoras (says that) when the hot falls onto the cold (that is, an aetherial portion into an air-like one), it produces thunder by its noise and lighting by its colour as set off against the blackness of the cloud; by the mass and size of its light (it produces) the thunderbolt; by fire containing a greater multitude of corpuscles the *typhon*; by fire mingled with a cloud the firewind. (P3,S4)

§5 Archelaus says the same, citing in addition the effect of inflamed stones being submerged in cold water. (S5)

§6 Xenophanes (says that) lightning arises when clouds start to shine forth because of their movement. (S6)

§7 Empedocles (speaks of) light falling upon a cloud, shutting out the resisting air. Its quenching and destruction produce the crash and its flash the lightning. The thunderbolt is the lightning's intensity. (S7)

§8 Diogenes (speaks of) fire falling upon a wet cloud. By its quenching it produces thunder, by its flashing lightning. He also adduces the *pneuma* as an accessory cause. (S8)

§9 Heraclitus (says that) thunder (results) from gatherings of winds and clouds and impacts of *pneumata* upon the clouds, lightnings when what is evaporated catches fire, and firewinds through the burnings and quenches of clouds. (S9)

§10 Leucippus (says that) the powerful escape of fire cut off inside very dense clouds produces thunder. (S10)

§11 Democritus (says that) thunder results from a compound of uneven composition, which forces its way out of the cloud containing it in a downward motion. Lightning is a collision of clouds because of which the fire-engendering particles are filtered through their quite empty interstices and are pushed through together while rubbing against each other. A thunderbolt occurs whenever the motion forces its way that is generated from fire-engendering particles that are purer and finer, more even and 'close-fitted', as he writes himself. A firewind arises whenever compounds of fire containing much void, detained in quite empty places, assume a bodily form in the envelopes of their own membranes, and being composed of many ingredients acquire an impulse towards heaviness. (S11)

§12 Chrysippus (says) lightning is the ignition of clouds being rubbed and ruptured by *pneuma*, and thunder is the sound of these. Thunder and lightning both arise in the air at the same time, but we apprehend the lightning sooner on account of vision being sharper than hearing. Whenever the *pneuma*'s motion becomes stronger and fiery, a thunderbolt is produced; whenever the *pneuma*

escapes all together and is less inflamed, a firewind arises; and whenever the *pneuma* is even is less inflamed, a *typhon*. (S12)

§13 Aristotle (says) that such things too result from the dry exhalation. When it encounters the moist (exhalation), it forces its way out, and the noise of the thunder is produced by the friction and the bursting, while the ignition of the dry (ingredient) brings about the lightning flash. (P5a,S13)

§14 Strato (says that such things occur) whenever hot yields to cold, when it happens that it is forced out: thunder through the bursting out, the lightning flash through the light, the thunderbolt through the speed, firewinds and *typhons* through the excessive quantity of matter which each of them draws to itself, hotter (matter) in the case of the firewind, denser in that of the *typhon*. (P5b,S14)

§15 The Stoics (say that) thunder (is a) collision of clouds, lightning an ignition through friction, thunderbolt a stronger flash, firewind a slower one. (P4, S15)

3.4 On Clouds, Mist, Rains, Dew, Snow, Hoar-Frost, Hail (P,S)

§1 Anaximenes (says that) clouds occur when air becomes more condensed, and (that) the rains are squeezed out when it becomes even more compacted; and hail (occurs) when water freezes during its downward course, and snow when a pneumatic ingredient is amalgamated with the moisture. (P1,S1)

§2 Anaxagoras (says that) clouds and snow occur similarly (sc. as according to Anaximenes), but (that) hail is formed whenever some particles are ejected from the frozen clouds towards the earth, which form into balls as they become cold in their downward movement. (S2)

§3 Metrodorus (says that) clouds are formed by the air from the watery updraught. (P2,S3)

§4 Xenophanes (says that) atmospheric phenomena result from the heat of the sun as the preliminary cause. For when moisture is drawn up from the sea and its fresh part is separated off because of its fine-grained consistency, clouds accumulate as it becomes misty, rain is shed owing to condensation, and winds arise owing to evaporation. For he literally writes 'source of water is the sea.' (S4)

§5 Epicurus (says that they accumulate) from atoms; and that hail is formed in round figures and rain gradually acquires its form in its lengthy descent. (P3,S5)

§6 *** and that it (?) produces a *pneuma* by pushing the clouds to one side, rain by liquefying (them), hail by compressing (them), and snow by incorporating a bit of airy substance. (S6)

3.5 On the Rainbow (P,S)

§1 Meteorological phenomena are of two sorts. Some, such as rain and hail, have a real subsistence, others (exist) only in appearance and do not have a separate subsistence. To give an example: when we are sailing the land appears to be in motion. The rainbow thus exists in appearance only. (P₁,S₁)

§2 Plato says that human beings provided the rainbow with a descent from Thaumais, because they admired (*thaumaisai*) it. Homer: 'as he extends for mortals a lurid rainbow'. For this reason some also told the story that it has a head like a bull, by which it swallows up rivers. (P₂,S₂)

§3 How, then, does the rainbow occur? We in fact look along lines that are straight or that are bent or that are refracted, lines that are hidden and (only) visible to reason and incorporeal. Looking along straight lines we see what is in the air and (what can be seen through) transparent stones and horn, for all these bodies have very fine particles. Bent lines we see occurring in water, for the visual ray is bent because the matter of water is denser. This is of course why from afar we see the oar bending in the sea. The third way of seeing (involves) what is reflected, such as images in mirrors. (P₃,S₃)

§4 Well, the condition of the rainbow is of the last-mentioned sort. We should assume that the moist exhalation changes into a cloud, and in a short time from this (cloud) into small and moist droplets. When the sun is in the west, it will necessarily follow that the rainbow appears opposite to the sun, when the visual ray, impacting upon the droplets, is reflected, so that the rainbow occurs. (P₄,S₄)

§5 The droplets are forms not of shape but of colour. The first (part) has a dark red, the second a sea-violet and purple, the third a dark blue and light green (colour). Possibly this dark red colour (comes about) because the splendor of the sun, falling upon (these droplets), and the sudden refraction of its brilliance produce the colour red and dark red. The second part, becoming turbid and more loosened from the brilliance because of the droplets, becomes sea-violet, for this is a looser form of the (colour) red. The outer (part), becoming even more turbid, changes into the (colour) green. (P₅,S₅)

§6 Now this can be tested by experiment. If one, standing opposite the sun, takes water in one's mouth and spits it out, and the droplets take on a reflection towards the sun, he will find that a rainbow occurs. Patients suffering from ophthalmitis have the same experience when they look into the lamplight. (P₆,S₆)

§7 Anaximenes (says that) the rainbow occurs through the mirroring of the sun's light upon a dense, thick, and black cloud, on account of the inability of the rays to collect together and penetrate to the other side. (P₇)

§8 Anaxagoras (says that the rainbow is) a reflection of the sun's radiance from a dense cloud, and that it is situated directly opposite to the heavenly body that shows itself as in a mirror. He gives a similar causal explanation of the so-called mock-suns (*parhelia*), which occur around the Black Sea. (P8)

§9 Metrodorus (says that) when the sun shines through the clouds the cloud becomes bluish-grey and the beams turn red. (P9)

3.5a [Formerly 18] On the Halo (P,S)

§1 The halo is produced in the following way: between the moon or another heavenly body and (our organ of) vision there is situated a thick and misty (mass of) air. Then, when our vision is refracted and broadened in this (air) and next in this condition falls upon the orb of the heavenly body at its outer circumference, a circle seems to appear around the heavenly body (this apparent circle is called 'halo' because it resembles a '*halos*' ('round threshing-floor')); the apparition seems to come to be in the place where the modification of our vision happened to occur. (P1)

3.6 On Rods (P,S)

§1 The phenomena that happen in the case of rods and counter-suns exist through a mixture of real subsistence and mere appearance, because what is seen are really clouds, not however with their own colour but with another one that shines forth through reflection. With all phenomena of this kind the properties (are) similar, both those that are according to nature and those that are acquired. (P1)

3.7 On Winds (P,S)

§1 Anaximander (says that) wind is a flow of air, the sun putting into motion or melting its subtlest and moistest parts. (P1)

§2 The Stoics (say that) each draught (*pneuma*) is a flow of air, which however changes its appellation according to the differences of the places (from which it blows). Thus the *Zephyr* is named from the darkness and the west, the *Apeliotes* from the east and the sun, the *Boreas* from the north, and the *Lips* from the southern regions. (P2)

§3 Metrodorus (says that) from a moist exhalation heated by the sun an onset of summer winds occurs. And the Etesian winds blow when the air that is more compacted in the north flows together with the sun when it recedes at the summer solstice. (P₃)

§4 Aristotle (says that) wind is the first updraught of the dry exhalation. There sometimes occurs a mixing of the dry exhalation with the wet. (S₁)

3.8 On Winter and Summer (P)

§1 Empedocles and the Stoics (say) that winter occurs when the air prevails by its thickness and presses the sun upwards; and summer-time because fire (prevails), when it presses the sun downwards. (P₁, S₁)

§2 Now I have described the things on high, the account will proceed to the things on earth. (P₂)

3.9 On the Earth, and What Its Substance Is and How Many There Are (P, S)

§1 Thales and his successors (say) there is (only) one earth. (P₁)

§2 Hicetas the Pythagorean (says that) there are two, this one and the counter-earth. (P₂)

§3 The Stoics (say that) there is one earth, and that it is finite. (P₃)

§4 Xenophanes (says that) it is rooted 'towards infinity' on its nether part; and that it has been compounded from air and fire. (P₄)

§5 Metrodorus (says that) the earth is a sediment and dregs of the water, but the sun (is the same) of the air. (P₅)

3.10 On the Shape of the Earth (P, S)

§1 Thales and the Stoics (say that) the earth is like a ball [i.e. spherical]. (P₁)

§2 Anaximander (says that) the earth resembles a column drum, (with curved surfaces).

§3 Anaximenes (says that it is) like a slab. (P₃)

§4 Leucippus (says that it is) like a (kettle-)drum. (P₄)

§5 Democritus (says that it is) like a disk in breadth, but hollow at the centre. (P₅)

3.11 On the Placement of the Earth (P,S)

§1 The successors of Thales (say) the earth (is) in the middle. (P₁)

§2 Xenophanes (says it is) first, for it is rooted in infinity. (P₂)

§3 Philolaus the Pythagorean (says that) the fire is in the middle (for this is the 'hearth' of the universe), that the counter-earth is second, and third the earth we inhabit, situated opposite the counter-earth and circulating along with it, which is why those in that one are not seen by those in this one. (P₃)

3.12 On the Tilting of the Earth (P)

§1 Leucippus (says that) the earth slopes down towards the southern parts because of the loose texture in its southern (parts), since the northern (parts) are congealed because refrigerated by the frost, whereas the opposite (parts) have been ignited. (P₁)

§2 Democritus (says that) because the southern part of what is around it is weaker the earth becomes larger and is tilted in that direction; for the north is unmixed while the south is mixed; for this reason (the earth) has become heavy in that direction, where there is more of it because of the fruits (of the earth) and their increase. (P₂)

3.13 Whether the Earth Is at Rest or Moves (P,S)

§1 The others (say that) the earth is at rest. (P₁)

§2 But Philolaus the Pythagorean (says that) it moves about the fire in an oblique circle in the same [or: a similar] way as sun and moon. (P₂)

§3 Heraclides of Pontus and Ecphantus the Pythagorean cause the earth to move, though not from one place to another, but by revolution in the manner of a wheel upon an axle, from west to east about its own centre. (P₃)

§4 Democritus (says that) the earth originally wandered around because of its small size and lightness, but having become denser and heavier in time it came to a halt. (P₄)

3.14 On the Division of the Earth, How Many Are Its Zones (P)

§1 Pythagoras (says that) the earth, in analogy to the sphere of the {whole} heaven, is divided into five zones: artic, antarctic, summer (tropic), winter

(tropic), equatorial, of which that in between the summer and winter (zone) delimits the middle (part) of the earth, which for that reason [sc. because it occupies the middle section] is called scorched (zone); the inhabitable (zone) is (the summer (tropic)), which is one that is temperate. (P₁)

§2 Parmenides was the first to define the inhabited zones of the earth under the two tropic zones. (P₂ = P_{3.11.4})

3.15 On Earthquakes (P,S)

§1 Thales and Democritus assign the cause of earthquakes to water, (P₁)

§2 whereas the Stoics say an earthquake is the moisture in the earth that is separated and bursts out into the air. (P₂)

§3 Anaximenes (says that) the dryness and wetness of the earth are the cause of earthquakes, the former of which is produced by droughts, the latter by heavy rains. (P₃)

§4 Anaxagoras (says that they are caused) by the striving of the air to get out, which when it hits the compactness of the surface is not able find a way out and so shakes what surrounds it with a tremor. (P₄)

§5 Aristotle (says that they are caused) by the enclosing from all sides (of the hot) by the cold, which presses on it both from below and from above; for the hot strives to get higher up, as it is light; for this reason, the dry exhalation, having become imprisoned, is agitated because of the obstruction and the convolutions. (P₅)

§6 Metrodorus (says that) no body which is in its proper place moves, unless one actually pushes it forward or drags it down; therefore the earth does not (move) either, as it is located in its natural place, though some places are collapsing because of the trembling. (P₆)

§7 Parmenides Democritus (say that the earth) remains in equilibrium because it is equidistant on all sides (sc. from the surrounding heavens); it has no ground for moving this way rather than that; because of this it is merely shaken, but it does not move. (P₇)

§8 Anaximenes (says it does not move) because of its broad surface being carried upon the air. (P₈)

§9 Others believe (that it is carried) upon the water, as boards and broad planks on waters [i.e. watery surfaces], and for this reason it moves. (P₉)

§10 Plato (says that) there are six directions of motion in all: up and down, to the right and to the left, forwards and backwards; it is not possible that the earth should be moved in any of these modes, for it is located at the most equal distance (sc. from the surrounding heavens); it remains immobile, since it does

not have any preference causing it to incline in any direction more (than in any other); but it has places that shake because of its thinness. (P10,S1)

§11 Epicurus (says) that it is possible that the earth moves when it is thrown upwards and as it were struck from beneath by thick and humid air that lies beneath it; but it is also possible that, as it is full of holes in its nether parts, it is shaken by the wind which is dispersed through its cavernous hollows. (P11)

3.16 On the Sea, How It Came To Be and How Bitter It Is (P,S)

§1 Anaximander says that the sea is the remainder of the primal moisture; the greatest part of which the fire dried up, and what is left altered its quality [i.e. became bitter] because of the great heat. (P1)

§2 Anaxagoras (says that), when in the beginning water existed as a standing pool, it was scorched by the movement of the sun about it and the fattish part of the water was exhaled, (then) what was left turned to saltiness and bitterness. (P2)

§3 Empedocles (says that the sea is) 'sweat of the earth' heated by the sun because of the greater compression [or: its closeness to the surface]. (P3)

§4 Antiphon (says that the sea is) sweat of the hot, from which the moist remainder was separated, becoming salty by drying out, as happens with all sweat. (P4)

§5 Metrodorus (says that the sea) by being strained through the earth acquired some part of its density, just as is the case with what is filtered through ashes. (P5)

§6 The successors of Plato (say that) of the elemental water the part that comes together by cooling from air becomes sweet, but (the part) that is exhaled from the earth through heating and burning (becomes) salty. (P6)

3.17 How Do Low and High Tides Occur (P,S)

§1 Aristotle Heraclides (say the tides are caused) by the sun, which moves the majority of the winds and whirls them about; as these throw themselves upon the Atlantic sea, this is thrust forward and swells and produces the high tide; when they are ceasing the sea pulls back and subsides, which is the low tide. (P1,S1)

§2 (Dicaearchus) of Messene, too, attributes the cause to the sun, which instigates flooding in whatever regions of the earth it reaches, but gradually

draws them away with itself in whatever regions it happens to recede from. These events take place in relation to the morning and afternoon shifts. (S2)

§3 Pytheas of Marseille (says that) the high tides occur through the waxing of the moon, the low tides through its waning. (P2,S3)

§4 Posidonius (says) the winds are moved by the moon, and the seas in turn by these (winds), in which [i.e. the seas] the aforesaid effects [i.e. the tides] take place. (S4)

§5 Plato attributes them to the oscillation of the waters. For there is a sort of natural oscillation that through a tunnel in the earth moves the reflux hither and thither; and by this reflux the seas surge back. (P3,S5)

§6 Timaeus of Taormina gives as the cause those rivers that fall from the mountains of Celtic Gaul into the Atlantic. Upon their entering upon that sea, they violently press upon it, and so cause the high tide; but when they withdraw by their resting they produce the low tides as well. (P4,S6)

§7 Crates the grammarian gives as the cause the reciprocal push and pull of the sea. (S7)

§8 Apollodorus of Corcyra (gives as the cause) the refluxes from the Ocean. (S8)

§9 Seleucus the astronomer*, who wrote against Crates (and) who, too, moves the earth, says that the revolution of the moon hinders its rotation (i.e. of the earth); as the wind between these two bodies (the earth and the moon) withdraws from or falls upon the Atlantic Ocean, correspondingly the sea produces its waves. (P5,S9)

* On the term μαθηματικός here see the note to the translation of ch. 2.15.

Book 4 Psychology

AËTIUS
ON THE VIEWS (OF THE PHILOSOPHERS)

BOOK 4
in which the following chapter headings (are found):

- [Proem]
1. On the rising of the Nile
 2. On the soul
 3. Whether the soul is a body and what its substance is
 4. On the parts of soul
 5. On the regent part and in which (part of the body) it is found
 6. On the motion of soul
 7. On the indestructibility of soul
 - ⟨7a. On intellect⟩
 8. On sensation and sense-objects
 9. Whether sensations and impressions are true
 10. How many senses there are
 11. How the sensation and the conception and the reason [or: speech] that is internally placed occur
 12. In what respect impression, impressor, imagination, figment are different
 13. On sight, how we see
 14. On reflections in mirrors
 15. Whether darkness is visible
 16. On hearing
 17. On smelling
 18. On tasting
 19. On voice
 20. Whether voice is incorporeal and how echo occurs
 21. How the soul comes to be sentient and what its regent part is
 22. On respiration
 23. On bodily affections and whether the soul experiences pain along with these

[Proem]

§1 The parts of the cosmos having now been treated systematically, I shall continue in the direction of the particular phenomena. (P)

4.1 On the Rising of the Nile (P)

§1 Thales believes that the Etesian (i.e., north-west) winds blowing opposite Egypt swell the volume of the Nile because its outflows are beaten back by the swelling of the sea that outflanks it. (P1)

§2 Euthymenes of Massilia (is of the opinion) that the river is filled from the Ocean and from the outer sea, which according to him is sweet. (P2)

§3 Anaxagoras (believes it is filled) from the snow in Aethiopia, which melts in summer but cools in winter. (P3)

§4 Democritus (believes that), when the snow in the northern parts (of the earth) melts and dissolves at the times of the summer solstice, clouds are formed by compression from the (moist) vapours; and that these, when driven towards the south and †Egypt† by the Etesian winds, produce torrential rains, by which the pools and the river Nile are filled. (P4)

§5 Herodotus the prose writer (says that the river) is borne from its springs in equal measure in winter and in summer, but seems to be less in winter because in that season the sun comes closer to Egypt and draws the streams up as vapour. (P5)

§6 Ephorus the historian says that in the summer the whole of Egypt grows slack and as it were is sweating out the large stream. Arabia and Libya also contribute because of their loose-textured and rather sandy nature. (P6)

§7 Eudoxus says that the priests state that (the cause of the flood is) rain-water corresponding to the reciprocal change of the seasons. For when it is summer for us who live under the summer solstice, then it is winter for those who live on the other side of the meridian under the winter solstice, which is from where the floodwater rushes down. (P7)

4.2 On the Soul (P,S,T)

§1 Thales was the first to declare that the soul is a nature that is ever-moving, or rather self-moved. (P1,S1,T1)

§2 Alcmaeon (says that it is) a nature that is self-moved according to everlasting motion, and for this reason he assumes that it is immortal and resembles the divine beings. (S4,T2)

§3 Pythagoras (says that it is) a number moving itself; he takes number as denoting Intellect, (P2,S2,T3)

§4 and similarly Xenocrates (says this) as well. (S3,T4)

§5 Plato (says that it is) an intelligible substance, moved of itself, in motion according to a numerical harmony. (P3,T5)

§6 Aristotle (says that it is) the first entelechy [i.e. 'actuality'] of a body that is natural, organic, and potentially possessing life; and this entelechy must be understood to denote form and activity. (P4,S7,T6)

§7 Dicaearchus (says that it is) a harmony of the four elements. (P5,S5,T7)

§8 Asclepiades the doctor (says that it is) a common exercising of the senses. (P6,S6)

4.3 Whether the Soul Is a Body and What Its Substance Is (P)

§1 All those arrayed previously assume that the soul is incorporeal, saying that it is self-moved, and an intelligible substance, and the actuality of the natural organic (entity) which has life. (P1)

§2 Anaximenes Anaximander Anaxagoras Archelaus Diogenes said that it is air-like and a body. (P2,S1,T1)

§3 The Stoics (say that) it is an intelligent warm *pneuma*. (P3,S2,T2)

§4 Parmenides and Hippasus and Heraclitus (say that) it is fire-like. (S3,T3)

§5 Democritus (say that) it is a fiery compound of things which are observable by reason, having forms that are spherical but with the potency of fire; which is a body. (P4,S4)

§6 Heraclides defined the soul as light-like. (S5,T5)

§7 Leucippus (says that) the soul (consists) of fire. (S6)

§8 Diogenes of Apollonia (says that) the soul (consists) of air. (S7)

§9 Hippo (says that) the soul (consists) of water. (S8)

§10 Xenarchus the Peripatetic and certain others of the same School (say that it is) the completion and entelechy [i.e. actuality] with respect to the form, existing *per se* while simultaneously being conjoined with the body. (S9)

§11 Epicurus (says that it is) a mixture of four ingredients, (namely) of a fiery quality, an aerial quality, a pneumatic quality, and of a fourth quality that is nameless; this (last-mentioned), for him, is the perceptive part. Of these the *pneuma* brings about movement, the air rest, the warm (component) the per-

* On the translation of multiple name-labels see the User's guide to the translation.

ceptible warmth of the body, while the anonymous (component) brings about the perception in us (humans), for perception is not present in any of the elements that have names. (P₅,S₁₀,T₅)

§12 Empedocles (says that it is) a blend of an aetherial and an aerial (and a watery and an earthy) substance. (T₆)

§13 Critias said that it is (a blend) of blood and [or: that is,] of moisture. (T₇)

§14 Heraclitus (says that) the Soul of the cosmos (is) an exhalation from the moistures (that are) in it (sc. in the cosmos), and (that) the soul in living beings (derives) from the exterior exhalation as well as from that which is within them (sc. the living beings), (and is) of the same kind. (P₆)

4.4 On the Parts of Soul (P,S)

§1 Pythagoras Plato according to their most general definition (say that) the soul is bipartite, for it has a rational (part) on the one hand and an irrational on the other. But according to what is proximate and precise it is tripartite, for they divide the irrational into the spirited and the concupiscible. (P₁,T₁)

§2 Xenocrates (says that) one (part) of the soul is perceiving, and the other rational. (T₂)

§3 Aristotle (said) there are five activities (of soul), the appetitive, the nurturing, the perceiving, the locomotive, the cogitating. (T₃)

§4 The Stoics say the soul consists of eight parts: five perceiving parts, (viz.) seeing, hearing, smelling, tasting, touching; as sixth the speaking (part); as seventh the seminal (part); as eighth the regent (part) itself, from which all these (other parts) are extended through their own organs, similarly to the tentacles of an octopus. (P₂,T₄)

§5 Apollonphanes (says that the soul consists of nine parts). (S₁)

§6 The Successors of Pythagoras, positing that the body is a blend of five elements—for to the four they added the aetherial (element)—, said the powers of the soul too are in respect of this accession [or: addition] equal in number, and these they called intelligence and understanding and knowledge and opinion and sensation. (T₅)

§7 Democritus Epicurus (say) that the soul is bipartite, having the rational (part) established in the breast, and the irrational (part) diffused through the whole compound of the body. (P₃)

§8 But Democritus says that all things participate in a sort of soul, even dead bodies, because they patently continue to participate in something warm and perceptive, though most (of this) is expired out of them. (P₄,S₂)

4.5 What Is the Regent Part and in Which (Part of the Body) Is It Found (P,T)

§1 Plato Democritus (say it is) in the whole head. (P₁,T_{1b})

§2 Hippocrates (says it is) in the brain. (T_{1a})

§3 Strato (says it is) in the part of the forehead between the eyebrows. (P₂,T₂)

§4 Erasistratus (says it is) in the membrane enveloping the brain, which he calls *epikranis* ('on the skull'). (P₃,T₃)

§5 Herophilus (says it is) in the ventricle of the brain, which is also its *basis* ('base'). (P₄,T₄)

§6 Parmenides (says it is) in the whole chest; as also does Epicurus. (P₅,T₅)

§7 Aristotle (and) all the Stoics (say it is) in the whole heart, or in the *pneuma* about the heart. (P₆,T₆)

§8 Diogenes (says it is) in the arterial ventricle of the heart, which is pneumatic. (P₇,T₇)

§9 Empedocles (says it is) in the compound of the blood. (P₈,T₆)

§10 Some people (say it is) in the neck of the heart, (P₉)

§11 But others in the pericardium, (P₁₀,T₈)

§12 And yet others in the midriff. (P₁₁,T₉)

§13 Some of the later thinkers (say) that it extends from the head to the midriff. (P₁₂)

§14 Pythagoras (says that) the life-sustaining (part is) in the region of the heart, the rational and intelligent in the region of the head. (P₁₃)

4.6 On the Motion of Soul (P,S)

§1 Plato (says that) the soul is ever-moving, but that the mind is unmoved with regard to locomotion. (P₁,S₂)

§2 Aristotle (says that) the soul is unmoved because it is prior to all motion, but it does partake of accidental motion, just as do the shapes and boundaries and absolutely all the formal aspects that relate to bodies. (P₂,S₁)

4.7 On the Indestructibility of Soul (P,S)

§1 Pythagoras Anaxagoras Diogenes Plato Empedocles Xenocrates (say that) the soul is indestructible. (P_{1a},S₁,T₁)

§2 Heraclitus (says that) on departing from the body it returns to the Soul of the universe, i.e. to what is of the same kind. (P1b,T2)

§3 The Stoics (say that) on departing from the bodies it is not yet destroyed; the weaker (soul), that is, that of the uneducated, (is destroyed) together with the compounds; but the stronger, such as the one attributable to the wise, lasts right up to the total conflagration of the universe. (P2,T3)

§4 Epicurus Democritus Aristotle (say that) the soul is mortal, perishing together with the body. (P3,T4)

§5 Plato Pythagoras (say that) the rational part is indestructible; for though the soul is not a god, it is the product of the everlasting God; but the irrational part is destructible. (P4,T5)

4.7a On Intellect (S)

§1 Pythagoras Anaxagoras Plato Xenocrates Cleanthes (say that) the intellect enters from outside [sc. as a separate component]. (S1,T1)

§2 Parmenides and Empedocles and Democritus (say that) intellect and soul are the same thing. According to them no living being could be without reason in the true sense of the word. (S2)

4.8 On Sensation and Sense-Objects (P,S)

§1 The Stoics define sensation as follows: 'sensation is perception or cognition via a sensor (sense organ)'—'sensation' is spoken of in several senses, for it is a condition as well as a faculty and an activity—; and the cognitive impression occurs via a sensor in the regent part; moreover, sensors also denote the intellectual breaths, stretched from the regent part from which they arise to the organs. (P1,S1)

§2 Epicurus: 'sense/sensation is the (bodily) part which is the faculty, and the sensory recognition which is the activity'; so it is spoken of by him in two ways: sense as the faculty, sensory recognition as the activity. (P2,S2)

§3 Plato declares (that) sensation is the commonality of soul and body with regard to what is outside; for the faculty belongs to the soul, the organ to the body; together they are capable of apprehending what is outside via impression. (P3,S3)

§4 According to the Peripatetics (sensation occurs) in four ways: from which is the regent part, through which the organ, that is, sense-organ, according to which the activity, and because of which the sense-object. (S4)

§5 Leucippus and Democritus (say) that the sensations and the thought-processes are alterations of the body. (S5)

§6 Aristotle (says) that sensation is an alteration of the sensing (part of the soul), and a mean (between the extreme properties) (of the sense-object); the *sensus communis* is the judge of the compounded forms. Towards it all the simple (senses) each (on its own) contribute their particular (impressions); (the *sensus communis*) in which (is located) the changeover from one form to the other, such as of shape and movement of a body; (which is) in between the rational and the non-rational, partaking of memory and intellect, extending even toward the non-rational animals insofar as these possess a certain amount of what is analogous to understanding. Common to sight and touch are: form, to sight and hearing: distance, and to all: motion and size and number. (S6)

§7 (The) Stoics call this *sensus communis* 'inner touch', according to which we also perceive ourselves. (S7)

§8 The Stoics (say) that sensations are of bodies. (S11)

§9 The successors of the ancients (say that sensations are) of the incorporeal *logoi* about the bodies, which they at the same time call shapes. (S12)

§10 Leucippus Democritus Epicurus (say) that sensation and thought arise from images that approach from outside, for neither of these can occur to anyone without the image falling upon him. (P4, S13)

§11 Others (say that sensation and thought arise) through alteration of forms or shapes, or through imprinting in the soul; in any case through effluences rather than through images. (S14)

§12 The Stoics (say) that each sensation is an assent and a cognition. (S15)

§13 (The) Academics (say) that the sensations are neither cognitions nor assents. (S16)

§14 The Peripatetics (say) that the sensations are not without assent, but are themselves not assents. (S17)

4.9 Whether Sensations and Impressions Are True (P,S)

§1 Pythagoras Empedocles Xenophanes Parmenides Zeno Melissus Anaxagoras Democritus Metrodorus Protagoras Plato (say that) the sensations are false. (S1)

§2 The successors of the Academy (say) that (the sensations) are sound, because they believe that by means of them they grasp true impressions, though these are not precise. (S2)

§3 Aristotle (says) that sensation does not err with regard to its proper object, but (it does err) with regard to what is incidental. (S3)

§4 The Stoics (say) that the sensations are true, but that of the impressions some are true and some false. (P1,S4)

§5 Epicurus (says) that every sensation and every impression is true, but of the opinions some are true and some false; and the sensation gives us a false picture in one respect only, namely with regard to objects of thought; but the impression does so in two respects, for there is impression of both sense objects and objects of thought. (P2,S5)

§6 Parmenides Empedocles Anaxagoras Democritus Epicurus Heraclides (say) that the particular sensations of their particular object occur in accordance with the matching-sizes of the pores, each of the sense objects corresponding to each sense. (P3,S6)

§7 The Peripatetics (say that the particular sensations of their own objects come about) in relation to the faculties of the sense organs. (S7)

§8 The others say that sense objects exist by nature. (S8)

§9 But Leucippus Democritus Diogenes (say that they exist) by convention, that is because of our opinion and conditions; that nothing is real/true or cognitive apart from the primary elements, i.e. the atoms and the void; for only these exist by nature, and those things which derive from them, differing from each other in position and order and shape, are incidental. (S9)

§10 Those (who posit) the atoms and those (who posit) the *homoiomere* ('things with like parts') and those (who posit) the things without parts and those (who posit) the infinitesimals (say) that all sense objects are mixed in all (others), and that none of these (objects) exists in a pure state, and that they are called such or such in relation to what predominates and to the varieties of glittering. (S10)

§11 Pythagoras Plato (say) that each of the sense objects proceeding (to us) from each element is pure [i.e., unmixed]. The aetherial is attuned to sight, and the pneumatic to hearing, and the fiery to smell, and the wet to taste, and the earthy to touch. (S11)

§12 Epicurus (says) that the pleasures and pains actually belong with the sense objects. (S12)

§13 The Peripatetics (say) that they belong with the objects of thought; for the same things do not appear pleasant or painful to all people the way that white and black things do. (S13)

§14 Chrysippus (says) that the generic pleasant is an object of thought, but the individual and experienced is in fact a sense object. (S14)

§15 Empedocles (says) that the pleasures come about for what is similar from what is similar, but in accordance with what is lacking for the fulfilment, so that the desire for the similar comes about through what is lacking; the pains

come about through what is dissimilar, for foreign to each other is what is different as to composition and the blend of the elements. (S15)

§16 Anaxagoras (says) that each sensation occurs accompanied by stress. (S16)

§17 <The> others (say) that pleasure, or stress, are supervenient and do not come about together (with the sensation). (S17)

§18 The Stoics (say) the wise man can be grasped by sensation from his individual appearance by way of inference from a sign, (S18)

§19 the Academics (that he) is knowable by reason, (S19)

§20 Epicurus that the wise man (is knowable only) to (another) wise man. (S20)

4.10 How Many Senses Are There? (P,S)

§1 The Stoics (say) that there are five individual senses: sight hearing smell taste touch. (P1,S4)

§2 Aristotle does not speak of a sixth (sense), but (mentions) the *sensus communis*, (which is) the judge of the compounded forms, (the *sensus communis*) towards which all the simple (sensations) each assemble their particular impressions; (the *sensus communis*) in which the act of moving from one to the other, as with shape and motion (occurs). (P2,S5)

§3 †Pelles (says) that there are more (sc. than five) senses among the non-rational animals.† (S1)

§4 Democritus (says) that there are more (sc. than five) senses among the non-rational animals and among the wise and among the gods. (P3, S6)

§5 Democritus (says) that there are more senses than (kinds of) sense objects, but that this is hidden because the (number of the) sense objects fails to correspond with the greater number (of the senses). (S2)

§6 But the others say that (the senses are) equally balanced (in number to the sense objects). (S6)

4.11 How the Sensation and the Conception and the Reason [or: Speech] That Is Internally Placed Occurs (P)

§1 The Stoics say: when a man is born he has the regent part of his soul like a sheet of papyrus well-prepared for making a transcript. On this he transcribes for himself each single one of his conceptions.

[6] The first [or: primary] manner of registration is through the senses. Suppose it is of a white something; when it has gone away, they have a memory of it.

[8] But when many memories of the same sort have occurred, then we say that they have an experience. For an experience is nothing but the multitude of impressions of the same sort.

[10] Some of these conceptions arise naturally in the aforesaid ways, and without technical elaboration; others are in the end produced by our teaching and instruction. The latter are just called conceptions, the former also preconceptions.

[14] And [sc. interior] reason [or: speech], which entitles us to be called rational, is said to be completed from preconceptions at the age of seven years.

[16] A conception is an apparition (*phantasma*) in the thinking faculty of a rational animal; for the apparition is only then called a conception (*ennoëma*) when it occurs in a rational soul, deriving its name from the mind (*nous*).

[19] Accordingly, all the apparitions that occur to non-rational animals (are merely apparitions). But those that occur to the gods and to us are apparitions as to genus and conceptions as to species. Just as denarii and staters, if you consider them in themselves, are simply denarii and staters. But if you use them to pay for a boat trip they are not only called denarii, but a 'boat fare' as well. (P1)

4.12 In What Respect Impression, Impressor, Imagination, Figment Are Different (P,cf.S)

§1 Chrysippus says that these four are different from one another. An impression is an affection coming about in the soul, which within itself reveals also what produced it (i.e. its cause). Like when through sight we observe something white, the affection is what has come about in the soul through seeing; and it is (on account of) this affection that we are able to say that there is a white object that affects us. And similarly (when we are affected) through touch and smell.

[9] The word impression (*pha-ntasia*) derives from 'light' (*pha-os/phôs*); just as light reveals itself and all the other things that are embraced in it, so too the impression reveals itself and what produced it [i.e. its cause].

[12] An impressor is what causes [or: produces] the impression, like the white or the cold or whatever is capable of affecting the soul, this is an impressor.

[14] Imagination is an empty reflex, an affection in the soul that does not arise from any impressor, as when someone shadow-boxes or strikes his hand against thin air; for an impression has some impressor as its object, but the imagination has none.

[18] A figment is that to which we are attracted in an empty reflex of the imagination; it occurs in people who are melancholic and mad.

When the tragic hero Orestes says

Mother, I beg you, don't urge upon me
Those bloody-faced, snakelike maidens!
Here they come leaping toward me,

he says this because he is mad, and he sees nothing but only believes (that he does). That is why Electra also says to him

Poor man, keep still in your bed!
You don't actually see anything you think you see!

[28] Just as Theoclymenus in Homer. (P₁)

4.13 On Vision, How We See (P,S)

§1 Leucippus Democritus Epicurus believe that the visual sensation is the result of the penetration of images. (P₁,S₁)

§2 Timagoras, one of those who debased the Epicurean school on many issues, employs effluences instead of images. (S₂)

§3 Strato (says that) that colours travel from bodies and give their colour to the intermediate air. (S₃)

§4 Aristarchus (says that it is) shapes which (travel from bodies and) somehow give the air the same form as themselves. (S₄)

§5 Hipparchus (says that) rays stretching from each of the eyes deliver apprehension of external bodies to the visual faculty by fastening onto them with their extremities like the touch of hands. (P₃,S₅)

§6 Some ascribe this doxa to Pythagoras as well, since he is an authority for mathematics, and in addition to him to Parmenides who shows this through his verses. (S₆)

§7 Plato (says that we see) through co-illumination, the light from the eyes streaming out over a certain distance into the congeneric air, while the light travelling from bodies is borne in the contrary direction, and the light in the air in between, which (sc. air) is easily diffused and flexible, extends itself together with the fiery element of vision. This is called Platonic co-illumination. (P₄,S₇)

§8 Alcmaeon (says that we see) through the perception of the transparent. (S₈)

§9 Aristotle (says) that we see according to the movement of what is actually transparent. (S9)

§10 Some of the Academics (say that we see) through the effusion of certain (rays) that turn around again to the visual faculty after their contact with the underlying object. (S10)

§11 Posidonius calls it (sc. this manner of seeing) a natural fusion of light rays. (S11)

§12 Empedocles provides evidence both with regard to (the view that we see) through rays and with regard to (the view that we see) through images; but more in relation to the latter, for he accepts the effluences. (P2a,S12)

§13 Hestiaeus of Perinthos combined the rays with the images, calling the result by synthesis 'ray-image'. (P2b,S13)

4.14 On Reflections in Mirrors (P,S)

§1 Empedocles (says they come about) by the effluences that come together on the surface of the mirror and are compacted by the fiery stuff discharged from the mirror, which transports across with itself the air lying before it towards which the streams travel. (P1,S1)

§2 Leucippus Democritus Epicurus (say) the reflections in mirrors come about through the manifestations of the images, which move away from us but come to be on the mirror which sends them back. (P2,S2)

§3 The successors of Pythagoras and of the mathematicians* (say they come about) by backwards reflections of vision. For (they say that) the visual beam is carried along and extends towards the bronze (mirror), but turns back on itself when it encounters a dense and smooth object and is repulsed, undergoing something akin to one's stretching out a hand and then bending it back to the shoulder. (P3,S3)

§4 One can apply all these summary statements to the question of how we see. (P4,S4)

4.15 Whether Darkness Is Visible (P)

§1 Sphaerus the Stoic (says that) darkness is visible, since a sort of beam of light is poured into it from the visual faculty. And the visual faculty does not

* Here in contrast to elsewhere, e.g. in ch. 2.15, the term *μαθηματικός* should be translated 'mathematician' or perhaps 'scientist'.

err, for in very truth it is seen that there is darkness. Misty rays proceed from the organ of vision; darkness somehow compacts and compresses and dulls our sight, while light delates our sight and guides it through the (intervening) air that is in between towards the things that are seen. This is why we do not see in the dark but only darkness itself. (P1,S1+G2)

§2 Chrysippus (says) we see by the tension of the intervening air, when it is pierced by the visual *pneuma* that extends from the regent part to the pupil, and through projection towards the surrounding air stretches it (sc. the visual *pneuma*) in the shape of a cone, whenever the air is of the same kind as it. Fiery rays are poured forth from the visual faculty, not black and misty ones; which is why darkness is visible. (P2,S3)

4.16 On Hearing (P,S)

§1 Empedocles (says that) hearing occurs when *pneuma* falls against the cartilaginous body which he says is suspended inside the ear, and hangs and is struck in the manner of a 'bell'. (P1,S1)

§2 Alcmaeon (says) that we hear by means of the empty space which is inside the ear. For this is what reverberates when *pneuma* enters; for all hollow spaces reverberate. (P2,S2)

§3 Diogenes (says that we hear) when the air in the head is struck and moved by the sound. (P3,S3)

§4 Plato and his successors (say that) the air in the head receives a blow, and this (air) is reflected [i.e. bent back] onto the ruling parts, and so the perception of hearing arises. (P4,S4)

4.17 On Smelling (P,S)

§1 Alcmaeon (says that) the ruling part is in the brain; one then smells with this part when it draws in the odours through inhalation. (P1,S1)

§2 Empedocles (says that) the odour is introduced together with the inhalations of the lung. But when breathing becomes heavy, one no longer smells due to hoarseness, as happens in the case of those who have colds. (P2,S2)

4.18 On Tasting (P,S)

§1 Alcmaeon (says) the flavours are distinguished by the moisture and warmth in the tongue as well as by its softness. (P1)

§2 Diogenes (of Apollonia says that) through the porousness of the tongue and its softness, and because the veins from the body are connected to it the flavours are diffused and attracted to the perceptive faculty and [or: i.e.] the ruling part, as from a sponge. (P2)

4.19 On Voice (P,S)

§1 Plato defines voice/sound as a *pneuma* (breath) directed from the intellect through the mouth, and as a blow by air through ears and brain and blood as far as the soul. (P1a,S1a)

§2 The word 'voice' is used analogically of animals without reason and inanimate things, designating for example neighs and noises. (P1b,S1b)

§3 But in its proper sense it is articulate (voice), as it illuminates what is thought. (P1c,S1c)

§4 Epicurus (says) voice/sound is a stream sent out from things which speak, reverberate, or make noises. This stream is broken up into small particles of the same shape. Globular figures are called 'of the same shape' as globular figures, and irregular and triangular figures as figures of the same kind. When these fall upon the ears, the perception of voice results. This is clear from (a comparison with) the skins that let out (water) and the fullers who blow air into in garments. (P2)

§5 Democritus says that the air too is broken up into corpuscles of the same shape, and these roll along with the small particles of voice/sound, 'for jackdaw sits beside jackdaw' and 'God always brings like to like.' Thus on beaches the same pebbles are seen in the same spots, the round ones in one place and the long ones in another. Also in the case of people using sieves similarly shaped things gather together to the same place, so that beans and lentils are separate.—But one could say in response to those (who hold this opinion): how do a few particles of breath fill a theatre that seats tens of thousands of men? (P3)

§6 The Stoics say that the air is not composed of small particles but, having no empty space, is wholly continuous. Whenever it is struck by breath, it undulates endlessly in concentric circles until it fills the surrounding air, as when a diving-pool is struck by a stone. However, the diving-pool moves in circles whereas the air moves in spheres. (P4)

§7 Anaxagoras (says) voice/sound occurs when breath encounters solid air and, reverberating because of the impact, is carried to the ears; in this manner the so-called echo also occurs. (P5)

4.20 Whether Voice Is Incorporeal and How Echo Occurs (P,S)

§1 Pythagoras Plato Aristotle (say voice/sound is) incorporeal. For not the air but the shape around the air and its surface becomes voice/sound through a certain sort of striking. Every surface is incorporeal, for it moves together with the bodies, though it itself remains wholly incorporeal, just as when a cane is bent the surface is not affected, but it is the matter that is bent. (P1)

§2 The Stoics say voice/sound is body. For everything that acts and causes is corporeal and the voice/sound causes and acts. For we hear it and perceive it hitting our hearing and moulding it like a ring (pressed) into wax. Moreover, everything that moves [sc. something else] and distresses is body, and good music moves us while bad music distresses us. Again, everything that is moved is body; the voice is moved and when encountering smooth places reverberates, like a ball thrown against a wall. Indeed in the pyramids in Egypt a single voice/sound released inside produces four to five echoes. (P2)

4.21 How the Soul Comes To Be Sentient and What Is Its Regent Part (P,S)

§1 The Stoics say that the soul's highest part is its regent part, that which causes impressions, agreements, sensations and impulses, and this they call the power of reasoning. The soul has seven [sc. further] parts, which grow from the ruling part and stretch out towards the body like tentacles from an octopus. Of the seven parts of the soul five are sense organs: sight, hearing, smell, taste, and touch;

[9] of these sight is *pneuma* extending from the ruling part to the eyes, hearing *pneuma* extending from the ruling part to the ears, smell *pneuma* extending from the ruling part to the nostrils, taste *pneuma* extending from the ruling part to the tongue, and touch *pneuma* extending from the ruling part to the (body's) surface for sensitive touching of things which encounter it.

[15] Of the remaining parts one is called seminal, which is itself also *pneuma* stretching from the ruling part to the testicles; the other, called the 'vocal' (part) by Zeno and which they also call speaking (part), is *pneuma* stretching from the ruling part to the trachea and tongue and its appropriate organs.

[20] The ruling part itself, just as (the god in the spherical) heaven, dwells in our spherical head. (P1)

4.22 On Respiration (P,S)

§1 Empedocles (says that) the first breath of the first living being took place as the moisture that is in newborns was excreted and the outside air entered into the (slightly) opened vessels to fill the void. Right after this, as the innate heat squeezed up the air from below by rushing to the outside, the exhalation (took place), and its corresponding returning inside provided a complementary entrance to the air, the inhalation. As for the breathing that prevails now, when the blood moves towards the surface and forces the air up through the nostrils by its influxes, the exhalation occurs through the departure of the air, and when (the blood) runs back and the air enters in turn into the gaps left by it, the inhalation. He illustrates this in the passage with the example of the clepsydra ('water clock'). (P1)

§2 Asclepiades constructs the lung in the manner of a funnel. He supposes that the cause of respiration is the filter in the chest, towards which air flows in from outside, and which is cleaned because it is thick. It is pushed back again when the chest is unable to receive more or to sustain it. A small amount of fineness always remains in the chest (for it is not all excreted) and it is towards this, which remains inside, that (the) weighty mass from outside is brought back in again. He likens the process to what happens with cupping-glasses. Voluntary respiration he says takes place when the finest pores in the lung are contracted and the bronchial passages narrowed. For these obey our will. (P2)

§3 Herophilus admits motor capacities for bodies in the nerves, arteries and muscles. He thus thinks that only the lung has a natural tendency for dilation and contraction, and the other parts (have this tendency) as a consequence. The drawing in of *pneuma* from outside, he says, is accordingly the activity of the lung, and it draws it in through the filling process, which occurs from without. Next, because of a second (natural) tendency, the thorax diverts the breath to itself, and when it is full and can no longer draw it in, it lets the excess flow back again into the lung, through which what is excreted passes outwards. The parts of the body are thus affected inversely to one another [i.e. one accepts air as the other emits it]. For now a dilation, (then a contraction) of the lung occurs, since filling up and emptying occur through reciprocal exchange, so that there are in fact four movements that occur in the lung: the first is the one by which it accepts air from outside, the second that by which the *pneuma*, which it has received from outside, changes its flow internally towards the thorax; the third that by which it receives again into itself the contracted *pneuma* from the thorax, the fourth the one by which it evacuates to the outside that which is in it after the turn-around. Of these motions, he says, two are dilations, one from the outside and one from the thorax, and two contractions,

namely one when the thorax draws the pneumatic substance to itself, the other when the lung itself excretes (*pneuma*) into the external air. Only two motions, you see, occur in the thorax: dilation when it draws in (*pneuma*) from the lung, contraction when it delivers it back again to the lung. (P₃)

4.23 On Bodily Affections and Whether the Soul Experiences Pain along with These (P,S)

§1 The Stoics (say that) the affections (are) in the places that have been affected, but the sensations (of them) are in the ruling part. (P₁)

§2 Epicurus (says that) both the affections and the sensations are in the places that have been affected, for the ruling part is free from affection. (P₂)

§3 Strato (says that) both the affections and the sensations exist together in the ruling part, not in the affected places. For in this place steadfastness is situated, just as in the case of terrible and painful circumstances, and just as in the case of brave and cowardly actions. (P₃)

Book 5 Physiology

AËTIUS
ON THE VIEWS (OF THE PHILOSOPHERS)

BOOK 5

in which the following chapter headings (are found):

1. On divination
2. How dreams occur
3. What the substance of the semen is
4. Whether the semen is a body
5. Whether females too release semen
6. How the conceptions occur
7. How males and females are engendered
8. How monstrosities occur
9. Why a woman, although frequently having intercourse, does not conceive
10. How twins and triplets occur
11. Where resemblances to parents or ancestors come from
12. How it occurs that those who are born resemble others and not their parents
13. How it happens that women are infertile and men without offspring
14. Why female mules are infertile
15. Whether the embryo is a living being
16. How embryos are nourished
17. What is fully formed first in the womb
18. Why seven-month babies are viable
19. On the birth of living beings, how they were born as living beings and whether they are perishable
20. How many kinds of living beings there are and whether they all possess sense-perception and reason
21. In what length of time living beings are formed when they are in the womb
22. Out of what elements each of the generic parts in us consists
23. When and how a human being commences maturity
24. How sleep and death occur
25. Whether sleep and death pertain to the soul or the body
26. How plants grew and whether they are living beings
27. On nourishment and growth
28. From where the appetites arise in living beings, and also pleasures

- 29. How fever occurs and whether it is an after-symptom
- 30. On health and disease and old age

5.1 On Divination (P)

§1 Plato and the Stoics admit divination in that it is sent by a god, which is its visionary (i.e. prophetic) element, and also because of the divinity of the soul, which is the element of divine possession; they also admit the interpretation of dreams, the divination of the stars, the inspection of birds and the inspection of sacrificial victims. These (latter thinkers [i.e. Stoics]) include the most parts of divination. (P₁)

§2 Xenophanes and Epicurus reject divination. (P₂)

§3 But Pythagoras excludes only the sacrificial aspect (as part of divination). (P₃)

§4 Aristotle and Dicaearchus introduce only the aspect of divine possession and dreams (as parts of divination), not regarding the soul as immortal, but as sharing in something of the divine. (P₄)

5.2 How Dreams Occur (P)

§1 Democritus (says that) dreams occur through the manifestations of *eidola* (images). (P₁)

§2 Strato (says that they occur) by an irrational nature in the mind when during sleep it somehow becomes more sensitive, and through this very fact is affected by the cognitive element. (P₂)

§3 Herophilus (says that) of the (various kinds of) dreams those that are divinely inspired occur of necessity, whereas those that are natural occur when the soul forms an image of what is advantageous for itself and will subsequently happen, but those that are mixed occur spontaneously through the impact of images, whenever we see what we wish, as occurs in the case of those who see their lovers while sleeping. (P₃)

5.3 What Is the Substance of the Semen (P)

§1 Aristotle: semen is that which is able within itself to move to the production of such a thing as that from which it was itself secreted. (P₁)

§2 Pythagoras (says that) the semen is foam from the most useful (kind of) blood, a residue of food, like blood and marrow. (P₂)

§3 Alcmaeon (says that it is) a part of the brain. (P₃)

§4 Plato (says that it is) an effluence from the marrow in the backbone. (P₄)

§5 Epicurus (says that it is) a fragment of soul and body. (P₅)

§6 Democritus (says that) it comes from the bodies in their entirety and their most important parts, such as bones, tissues and sinews. (P₆)

5.4 Whether the Semen Is a Body (P)

§1 Leucippus and Zeno (say that it is) a body, for (they say) it is a fragment of soul. (P₁)

§2 Pythagoras Plato Aristotle (say that) the power of the semen is incorporeal just like the mind that sets it in motion, but that the matter that is ejaculated is corporeal. (P₂)

§3 Strato and Democritus (say that) the power (of the semen) is a body as well, for it is pneumatic. (P₃)

5.5 Whether Females Too Release Semen (P)

§1 Pythagoras and Epicurus and Democritus (say that) the female releases semen as well (as the male), for she has concealed testicles. For this reason she too has desire for sexual intercourse. (P₁)

§2 Aristotle and Zeno (say that) she releases moist matter just like sweat from doing exercise, but not semen that results from concoction. (P₂)

§3 Hippo (says that) females release semen no less than males. However, (he says), this (semen) does not contribute to conception of life because it falls outside the womb. Hence some females often release seed apart from males, and it is especially widows who do this. (P_{3a})

§4 *** and the bones derive from the male but the flesh from the female. (P_{3b})

5.6 How the Conceptions Occur (P,cf.S)

§1 Aristotle (says that) the conceptions occur when the womb has been drawn forward through the (process of) purification [i.e. menstruation], and the men-

* On the translation of multiple name-labels see the User's guide to the translation.

ses have brought along from the entire mass (of the body) a part consisting of pure blood, which the male seed (then) encounters. But (he says that) pregnancies fail to occur from the lack of purification of the womb [i.e. cessation of menstruation] or its inflation or fear or pain or through weakness of the women or through lack of condition of the men. (P1)

5.7 How Males and Females Are Engendered* (P,cf.S)

§1 Empedocles (says that) males and females come into being in relation to heat and cold. Hence it is recounted that the first males were born from the earth more in the east and the south, whereas the (first) females were born in the north. (P1)

§2 Parmenides (has it) the other way around: the males grew in the north, for they share more in the dense element, the females in the south on account of their lightness. (P2)

§3 Hippo (says that males and females are engendered) from the compacted and strong seed (or) from the fluid and weaker seed. (P3)

§4 Anaxagoras Parmenides (say that males are engendered) when the seed from the right parts [i.e. testicle] is deposited on the right side of the womb and the seed from the left parts is deposited on the left side; but if the deposition is reversed, (then) females come into being. (P4)

§5 Leophanes, who is mentioned by Aristotle, (says that) males (are engendered with seed) from the right testicle, females (with seed) from the left testicle. (P5)

§6 Leucippus (says that males and females are engendered) through the differentiation of the parts, in accordance with which the male has a penis and the female has a womb. This is all that he says (on the subject). (P6)

§7 Democritus (says that) the parts (held by males and females) in common derive from either (kind) as it happens, but the parts that are specific (to the two sexes) through dominance. (P7)

§8 Hippo (says that) if the seed dominates, a male (is engendered), if the womb dominates, a female (is engendered). (P8)

* We translate *γεννᾶται* in the chapter heading with 'is engendered' since in English this verb can be used for both sexes, in contrast to 'beget' and 'conceive'. In the text the verb is used only in the chapter heading (but understood in other lemmata). In §§1&4 the verb is *γίνεσθαι*, translated 'come into being'.

5.8 How Monstrous Births Occur (P,cf.S)

§1 Empedocles (says that) monstrous births occur from excess of semen or from lack (of semen) or from the disturbance of movement (of the semen) or from the division into more (parts) or from the inclining away (of the womb). In this way he plainly anticipates almost all the causes (that can be given). (P₁)

§2 Strato (says that they occur) from addition (to the semen) or subtraction (from the semen) or transposition or inflation (of the womb). (P₂)

§3 Some of the doctors (say that they occur) from the womb twisting sometimes when it is inflated. (P₃)

5.9 Why a Woman, Although Frequently Having Intercourse, Does Not Conceive (P,cf.S)

§1 Diocles the doctor (says that it occurs) because some women do not release any semen at all or less than is required, or because the semen is such that it is not productive of life, or through a lack of heating or cooling or moistening or dryness or through paralysis of the (bodily) parts. (P₁)

§2 But the Stoics (say that it occurs) through a slanting of the penis, which is unable to project the seed in a straight line, or from the disproportion of the parts (i.e. testicles) in relation to the distance of the womb. (P₂)

§3 Erasistratus (says that it occurs) because of the womb, whenever it has tumors or fleshy growths or is feebler or smaller than what is natural. (P₃)

5.10 How Twins and Triplets Occur (P,S)

§1 Empedocles thinks that twins and triplets occur as the result of multiplication and division of the semen. (P₁)

§2 Asclepiades (says that they occur) from the difference of the semen, as in the case of barley with double and triple stalks. For (he says) there are highly productive kinds of semen. (P₂)

§3 Erasistratus (says that they occur) through superfetations, as occurs in the case of the irrational animals. For (he says) that whenever the womb is in a state of having been purified, then it admits superfetation. (P₃)

§4 The Stoics (say that they occur) on account of the locations in the womb; for whenever semen settles in a first and a second (location), then (they say) additional conceptions occur and [or: i.e.] twins and triplets. (P₄)

5.11 Where Does Resemblance to Parents and Ancestors Comes from (P,cf.S)

§1 Empedocles (says that) similarity occurs in accordance with dominance of the seminal seeds, but that dissimilarity (occurs) when the heat in the semen has vaporised. (P₁)

§2 Parmenides (says that), whenever the seed is separated out from the right part of the womb, (resemblance) to the fathers (occurs), but whenever this happens from the left (part), (resemblance) to the mothers (occurs). (P₂)

§3 The Stoics (say that) the semen is conveyed from the entire body and the soul, and that the *homoiomereiai* ('things with like parts') form the outlines and the markings from the same kinds, as when a painter (forms) an image of what is seen from similar colours. But (they say that) the woman too releases semen; and if the semen of the woman dominates, the child that is born is similar to the mother, but if the semen of the man (dominates), (it is similar) to the father. (P₃)

5.12 How It Occurs That Those Who Are Born Resemble Others and Not Their Parents (P,cf.S)

§1 The majority of the doctors (say that it occurs) by chance and spontaneously, whenever the seed—both that of the man and that of the woman—has become chilled, that the (resultant) children become dissimilar (to their parents). (P₁)

§2 Empedocles (says that) the babies are shaped by the imagination of the woman during conception. For often women fell in love with statues and images, and they gave birth to children who resemble these. (P₂)

§3 The Stoics (say that) the similarities to others occur by co-affection of the mind in accordance with penetrations of streams and rays (or indeed) of *eidola*. (P₃)

5.13 How It Occurs That Women Are Infertile and Men without Offspring (P,cf.S)

§1 The doctors (say that) infertility occurs in women because of the womb, either from it being denser or lighter or rougher or from (having formed) cal-luses or fleshy growths, or from being small in size or from lack of nourishment or from being in poor condition or from its shape being twisted or through dis-tension. (P₁)

§2 Diocles (says that) men do not have offspring from the fact that some of them do not emit seed at all or less than is required, or from the infertility of their seed or from the paralysis of the organs or from the slanting of the penis, which is unable to offer the seed straight passage, or from the disproportion of the (bodily) parts in relation to the distance of the womb. (P2)

§3 The Stoics determine as cause the incompatibility of the powers and qualities of each of the partners with each other; when it happens that they (sc. women) have been separated from their partner and joined up with others (sc. men) with whom they are compatible, (then) the natural process has prevailed and a fetus is brought to completion. (P3)

5.14 Why Female Mules Are Infertile (P,cf.S)

§1 Alcmaeon (says that) of the mules the males are infertile because of the thinness of the 'sperm' (*thore*), i.e. of the semen, and its coldness. In the case of the females it is from the wombs not 'gaping wide' (*anachaskein*), which means opening up their entrance. For this is how he himself has spoken of it. (P1)

§2 Empedocles (says that it occurs) through the small size and low position and narrowness of the womb, which has reversed and grown next to the belly, with the result that neither does the seed have a direct passage to it, nor, even if it were to reach it, does the womb accept it. (P2)

§3 But Diocles bears witness to him [i.e. the view of Empedocles] when he says: 'in the dissections we have often observed the womb of mules like this'; and (he adds that) it is possible that women too are infertile for reasons of such a kind. (P3)

5.15 Whether the Embryo Is a Living Being (P,S)

§1 Plato (says that) the embryo is a living being. For (he says) it both moves in the womb and is nourished and grows. (P1)

§2 The Stoics (say that) it is a part of the womb, not a living being. For (they say) just as fruits are parts of plants and when they have ripened they fall off, so the same happens with the embryo. (P2)

§3 Empedocles (says that) the embryo is not a living being but exists without breathing in the womb. The living being's first breath occurs (he says) at the time of the birth, when the moisture in the new-born babies* is excreted

* βρέφος in Greek can mean both 'fetus' and 'new-born baby'

and in the space (thus) vacated entry of the external air occurs in the vessels that have opened up. (P₃)

§4 Diogenes (says that) that the new-born babies are conceived without life, but do possess heat. For this reason, when the new-born baby is delivered, the innate heat draws the cold into the lung. (P₄)

§5 Herophilus grants the fetuses natural movement, but not movement that is pneumatic. The tendons are the causes of (their) movement. They become living beings at the moment when they are delivered and take in some of the air. (P₅)

5.16 How Embryos Are Nourished (P,cf.S)

§1 Democritus and Epicurus (say that) the embryo is nourished in the womb through the mouth. For this reason as soon as it is born it moves with its mouth to the breast. For (they say) in the womb too there are nipples and mouths through which it is fed. (P₁)

§2 The Stoics (say that the embryo is nourished) through the placenta and the navel. For this reason the midwives immediately bind it up and open up the (baby's) mouth, so that another method of nourishment may occur. (P₂)

§3 Alcmaeon (says that the embryo) is nourished from the body in its entirety. For (he says) it takes up the nourishing elements from the food, just like a sponge does. (P₃)

5.17 What Is Fully Formed First in the Womb (P,S)

§1 The Stoics (say that) it occurs all together as a whole. (P₁)

§2 Aristotle (says that) the loins (are) first (formed) like the keel of a ship. (P₂)

§3 Alcmaeon (says that) the head (is first formed), in which the ruling part resides. (P₃)

§4 The doctors (say that) the heart (is first formed), in which the veins and the arteries (have their source). (P₄)

§5 But others (say that) the large toe of the foot (is first formed). (P₅)

§6 And yet others (say that) the navel (is first formed). (P₆)

5.18 Why Are Seven-Month Babies Viable (P,S)

§1 Empedocles (says that) when the human race was first generated from the earth, because of the slow movement of the sun the day was the same in length of time as ten months now. As time advanced, the day became the same in length as seven months now. For this reason both ten-month and seven-month-olds are viable, the nature of the cosmos having ensured that the baby will grow to maturity (in the womb) in a single day and night of that time. (P1)

§2 Timaeus says that some twelve-month-olds too are conceived beyond the cessation of the menstrual periods that occurred before the conception. And seven-month-olds may be considered in the same way, not really (in fact) being seven-month-olds. For even after the conception a number of purgings take place. (P2)

§3 Polybus Diocles the Empiricists say that the eighth-month-old can be viable too, but is less viable somehow on account of many of them perishing through their poor condition. In general terms, (he says,) no one wishes to rear the eight-month-olds, but (nevertheless) many eight-month-olds have become full-grown men. (P3)

§4 Aristotle and Hippocrates and their followers say that, if the womb reaches its full term in seven months, then those (babies) that emerge and are born are viable. But if it (the baby) emerges but is not nourished, because the umbilical cord had grown weak on account of its secretion having become difficult, then as embryo it is malnourished. But if it remains the (full) nine months in the womb, then it emerges as a complete being. (P4,S1)

§5 Polybus (says that) that one hundred and eighty two and a half days are required for embryos to be viable. This is a six-month period, (he says) because the sun too moves from solstice to solstice in this length of time. But they are called seven-month-olds through the addition of the remaining days of this month to make up the seven. The eight-month-olds do not live, since the baby emerges from the womb but the umbilical cord is excessively strained. It (the baby) is not nourished, since the umbilical cord is the cause of its nourishment. (P5)

§6 But the astronomers* [i.e. astrologers] (say that) eight month periods are incompatible with all generation, but seven months are compatible. The incompatible zodiacal signs occur if they obtain [i.e. result in] predominant heavenly bodies [sc. that are malevolent]. For if any of these should allot the life and span (of any persons), they signify that they [i.e. those persons] will be

* On the term *μαθηματικός* see the notes to chs. 2.15 and 4.14. Here the context points to 'astronomers', as in Book 2.

unfortunate and untimely. The incompatible zodiacal signs are numbered by eight, i.e. Aries is incompatible with Scorpio, Taurus is incompatible with Sagittarius, Gemini with Capricorn, Cancer with Aquarius, Leo with Pisces, Virgo with Aries. For this reason (they say) both the seven-month and the ten-month-olds are viable, but the eight-month-olds perish because of their incompatibility with the cosmos. (P6)

5.19 On the Birth of Living Beings, How They Were Born as Living Beings and Whether They Are Perishable (P,cf.S)

§1 According to those thinkers (who say that) the cosmos is generated, living beings are generated and perishable. (P1)

§2 (But) according to those who (say that) the cosmos is ungenerated, the living beings are born as the result of change from each other. For (they say that) these are parts of the cosmos. (P2)

§3 As both Anaxagoras and Euripides (have said):

None of those things which come into being ever dies,
but the one distinguished in relation to the other
revealed different forms. (P3)

§4 Anaximander (says that) the first living beings were born in the moist substance and were covered with spiky bark. But as they got older (he says), they moved away to the drier part and, when the bark had broken up, they lived a different life for a short time. (P4)

§5 Democritus and Epicurus (say that) the living beings have come into being in a composition of (elements) lacking in form when the moisture first gave birth to life. (P^GQ₅)

§6 Empedocles (says that) the first generations of the living beings and plants certainly did not occur in their complete form, but they were disjointed with their parts not grown together. The second generations, which did have parts grown together, were like dream-images, while the third generations did consist of beings that had grown as wholes. The fourth generations were no longer (generated directly) from the elements such as earth and water but now from each other, in the one case [e.g. plants] when their nourishment became solid, in another case [i.e. human beings] when the shapeliness of the women caused the seminal movement to be stimulated. The species of all the living beings were separated out according to the various kinds of mixture, the more moist ones having an impulse towards the water, others flying up to the air,

namely those in which the fiery element predominates, while the heavier ones (went) to the earth, but those with a more balanced mixture were in harmony with all the (different) environments. (P6)

5.20 How Many Kinds of Living Beings There Are and Whether They All Possess Sense-Perception and Reason (P,S)

§1 Plato and Aristotle (say that there are) four kinds of living beings: those living on land and in the water, those that fly (in the air) and those that inhabit the heavens. In addition the heavenly bodies and the cosmos are stated to be living beings, and also the god, a living being who is endowed with reason and is immortal. (P₁,S₁)

§2 Democritus and Epicurus (do not include) the heavenly beings (as living beings). (P₂)

§3 Anaxagoras (says that) all the living beings possess the active *logos*, but their equivalent of the intellect does not have the *logos* that gives utterance (*prophorikos*), the so-called interpreter of the intellect. (P₃)

§4 Pythagoras Plato (say that) the souls of the so-called irrational living beings are rational too, but that they do not exercise reason on account of the poor mixture of their bodies and because they do not have the ability to speak, as (we see) in the case of monkeys and dogs; for these think but do not speak. (P₄)

§5 Diogenes (says that) they (sc. irrational living beings) share in the intelligible and air, but because some do so with a dense nature and others with a surfeit of moisture they neither think nor perceive (properly), but their condition resembles those (human beings) who are deranged because their ruling part has stumbled. (P₅)

5.21 In What Length of Time Are the Living Beings Formed When They Are in the Womb (P,cf.S)

§1 Empedocles (says that) in the case of human beings the articulation (of the parts in the womb) begins from the thirty-sixth (day) and is completed for the constituent parts from the forty-ninth day. (P₁)

§2 Asclepiades (says that) in the case of males because of their greater heat the articulation occurs from the twenty-sixth day, and quite often even earlier within (that period), and that for the constituent parts it is fulfilled within the fiftieth day. But in the case of the females they are articulated in a two month

period and are not completed till the fourth month because of a lack of heat. As for the irrational living beings, however, they become complete depending on the mixtures of the elements. (P₂)

5.22 Out of What Elements Does Each of the Generic Parts in Us Consist (P)

§1 Empedocles (says that) the fleshy parts are generated from the four elements in an equal mixture, but the sinews (are generated) from fire and earth with a double amount of water mixed in. The nails that living beings have are generated when the sinews insofar as they meet up with the air are cooled all around. The bones (are generated) from two parts of water, the same parts of earth and four parts of fire when these are mixed together (within the earth). Perspiration and tears occur when the blood melts and flows more easily from being thinned. (P₁)

5.23 When and How a Human Being Commences Maturity (P)

§1 Heraclitus and the Stoics (say that) human beings commence their maturity around the second hebdomad [i.e. period of seven years], at the time that the seminal fluid starts to move. Trees by way of comparison attain maturity at the time that they begin to produce their seeds, whereas the immature ones are without both blooms and fruits. (P₁)

§2 But Aristotle (says that human beings commence maturity) at the first hebdomad, at the time that understanding of things both good and disgraceful originates and there is a beginning of instruction (on such things). (P₂)

§3 Other thinkers, however, (say that) we become mature in the third hebdomad, when we develop beards and are at full strength. (P_{G3})

5.24 How Sleep and Death Occur (P,S)

§1 Alcmaeon says that sleep occurs by withdrawal of the blood to the veins that flow with blood, while waking up is the pouring forth (of the blood back again); but the complete withdrawal (of the blood) is death. (P₁)

§2 Empedocles (says that) sleep occurs through a commensurate cooling of the heat in the blood, but if the cooling is incommensurate and total, it (sc. sleep) announces (the occurrence of) death. (P₂)

§3 Diogenes (says that), if the blood expands, it completely fills the veins and pushes the air contained in them to the breast and the stomach lying beneath it, (then) sleep will have occurred and the chest is quite warm; but if all that is airy departs from the veins, (then) this is when death takes place. (P3)

§4 Strato the Stoics (say that) sleep occurs by the remission of the sensory spirit, not through a slackening, as in the case of (drunkenness), but when it is borne along to the regent part (or) what is in between the eyebrows. But when there is a total relaxation of the sensory spirit, then death has occurred. (P4)

5.25 Whether Sleep and Death Pertain to the Soul or the Body (P,S)

§1 Aristotle (says that) sleep is common to body and soul. Its cause is the moist exhalation (that rises) from the chest to the regions in the head from the nourishment located below, or the heat in the heart that has been chilled. But death (he says) is complete chilling. Death, however, is of the body only, not of the soul, for of this (latter) death does not exist. (P1)

§2 Anaxagoras (says that) sleep occurs through tiredness resulting from bodily activity, for the affection is somatic and not psychic. But of the soul too there is death, namely its separation (from the body). (P2)

§3 Leucippus (says that sleep) occurs not only through tiredness of the body, but (also) by a secretion of the light-particled (substance) that is greater than the influx of the psychic heat, and that the excess (of this secretion) is the cause of death. These are affections of the body and not of the soul. (P3)

§4 Empedocles (says that) death has occurred (as) the separation of (the earthly and the watery and airy and) the fiery (elements), out of which the human composition has been established. So in accordance with this (he says) death is common to body and soul. But sleep occurs (as) separation of the fiery (element only). (P4)

5.26 How Plants Grew and Whether They Are Living Beings (i.e. Animals) (P,S)

§1 Plato Thales (say that) plants too are living beings with a soul. This is evident from the fact that they move to and fro and hold their branches extended, and also that they yield when they are gathered together and then powerfully loosen again, so that they even pull up weights. (P1,S1)

§2 Aristotle (says that) they have souls, but are not in fact living beings [i.e. animals]. For (he says) living beings have impulses and sense-perception, and some are also endowed with reason. (P2,S2)

§3 But the Stoics and Epicureans (say that) they do not have souls. For (they say that) some (living beings share in) the impulsive and desiderative soul, and some also in the rational soul. But the plants move spontaneously somehow in a way not involving soul. (P3)

§4 Empedocles says that the plants, as first of the living beings, sprung up from the earth, before the sun(light) was spread around and before day and night had been separated. Because of the commensurability of their mixture (he says) they contained the structure of the male and the female (within themselves). They grow from the heat that has been separated out in the earth, so that they are parts of the earth, just like embryos in the belly too are parts of the womb. The fruits are superfluities of the water and the fire in the plants. Some have a lack of moisture, and after it has evaporated in the summer, lose their leaves, while others that have more (moisture) remain as they are and continue to be in bloom with leaves, as is the case for the laurel, the olive and the palm. But the differences in flavours (result from) the variation of the particles (of earth) and of the plants, which draw varieties (of flavours) from the *homoiomereiai* ('things with like parts') of that which nourishes them, as in the case of vines. For it is not the differences in the vines that make serviceable wine, but differences in the terrain that nourishes them. (P4)

5.27 On Nourishment and Growth (P,S)

§1 Empedocles (says that) the living beings are nourished by the settling down of the moisture and they grow through the presence of heat, whereas they diminish and perish through the failure of each of these. But the present-day human beings, compared to those who were first, have the status of infants. (P1)

§2 Anaxagoras (says that) *the living beings are nourished through the moisture which each of them supplies to their organs through digestion and in the (process of) nutrition. They grow when much nutrition reaches them, but they become weak and sickly when there is much in them which decomposes.* (P^BQ₂)

5.28 From Where the Appetites Arise In Living Beings, and Also Pleasures (P,S)

§1 Empedocles (says that) the appetites occur in the living beings in accordance with the deficiencies of the elements required to complete each of them, but that pleasures occur from moisture through the motions involving increase of things that are similar in kind, whereas annoyances occur through the combinations and mixtures of things that are opposite (in kind). (P1)

§2 Parmenides Empedocles declare that the appetite arises from a deficiency of food. (S1)

5.29 On How Fever Occurs and Whether It Is an After-Symptom (P)

§1 Erasistratus defines fever as follows: fever is a motion that occurs involuntarily when blood is diverted into the vessels of the *pneuma*. For just as in the case of the sea it is at rest when nothing stirs it, but when a violent wind blows contrary to what naturally occurs, it is then all churned up, in the same way in the body too, when the blood has been moved, it then plunges into the vessels of the *pneuma*, heats up the entire body and makes it enflamed. He is also of the view that fever is an after-symptom, *for it occurs as the result of a swelling, which appears in the vessels of the pneuma together with the nourishment which flows into them.* (P^{BQ1})

§2 Diocles says: the appearances are the sight of what is unclear. The appearances in which fever is seen to occur as an after-symptom are wounds, boils and swollen glands. *Consequently one must unconditionally state that the fever arises from some thing (i.e. cause) or other, even if these are concealed, namely from a swelling or a (form of) nourishment or another hot body.* (P^{BQ2})

§3 Herophilus refuted this (view) and believed that the hot swelling does not precede the fever, but the fever precedes. *This is how fever usually arises. Frequently it arises without a cause for it being apparent. Its cause triggers the movements of chronic (?) diseases and the growth of enflamed boils.* (P^{Q3})

5.30 On Health and Disease and Old Age (P,S)

§1 Alcmaeon (says that) the sustaining (cause) of health is the equilibrium of the powers, (namely) the wet, dry, cold, hot, bitter, sweet, and the rest; but predominance among these is productive of disease, for predominance of either (opposite) produces destruction. (P1a,S4)

§2 Herophilus (says that) diseases occur when the agent cause is an excess of heat or cold, the material cause is an abundance or lack of food, and the location where it takes place is the blood or the marrow or the brain. It can also happen through the agency of external causes, such as the (bad) quality of water, or locality or stresses or necessity or factors similar to these. But health (occurs as the) balanced mixture of qualities. (P1b,S1)

§3 Diocles (says that) most diseases occur through a variability of the elements in the body and of the constitution of the air. (P2,S2)

§4 Erasistratus (says that) diseases (occur) through an abundance of food, and through indigestion and corruption (of food), but health is a well-ordered regimen and sufficiency (of food). (P3,S3)

§5 Parmenides (says that) old age occurs from the deficiency of heat. (S5)

§6 The Stoics and the doctors are in agreement that old age has occurred on account of the insufficiency of heat; for those who have a greater amount of heat live to a more advanced old age. (P4)

§7 Asclepiades says that Ethiopians become old quickly at the age of thirty years because their bodies are overheated when they are burnt by the sun. In Britain people live to the age of one hundred and twenty through their localities being chilled and the protection of the fiery element in themselves. The bodies of Ethiopians are in fact thinner because they are distended by the sun, whereas those of the dwellers in the northern regions are stockier, and so for this reason they also live longer. (P5)

List of Chapter Headings in the Translation of Qusṭā ibn Lūqā

The oldest of the three mss. of Q used by Daiber in his edition, Zāhiriya (Damas-
cus) 4871, dated to 1161 CE, contains a translation of the indices of the five
books. Unlike in the Greek mss. all the headings have been assembled together
in a single list and are not distributed at the beginning of the individual books.
Daiber did not include this initial list in his edition and translation of Q, but
he has kindly provided the editors with a translation, which we print in this
Appendix.

Dies ist das Buch des Plutarchos über die naturwissenschaftlichen Ansichten,
welche die Philosophen vertraten. Es sind fünf Abhandlungen.

Die erste Abhandlung. 30 Kapitel.

1. Was ist die Natur?
2. Was ist der Unterschied zwischen dem Prinzip und dem Element?
3. Über die Prinzipien und was sie sind?
4. Wie entstand die Festigkeit der Welt?
5. Ist das Ganze eins?
6. Wie tritt in die Gedanken der Menschen (das Bewusstsein um) die Exis-
tenz Gottes?
7. Was ist die Gottheit?
8. Über die hohen Kräfte, welche die Griechen „Daimones“ und „Heroes“
nennen.
9. Über die Materie.
10. Über die Form.
11. Über die Ursachen.
12. Über die Körper.
13. Über die kleinsten Dinge.
14. Über die Gestalten.
15. Über die Farben.
16. Über die Teilung der Körper.
17. Über die Zusammenballung und die Mischung.
18. Über den leeren Raum.
19. Über den Ort.

20. Über den Raum.
21. Über die Zeit.
22. Über das Wesen der Zeit.
23. Über die Bewegung.
24. Über das Werden und das Vergehen.
25. Über die Form.
26. Über das Wesen der Form.
27. Über das Geschick.
28. Über das Wesen des Geschicks.
29. Über den Zufall.
30. Über die Natur.

Die zweite Abhandlung. 31 Kapitel.

1. Über die Welt.
2. Über die Gestalt der Welt.
3. Ist die Welt beseelt und durch die Führung geleitet?
4. Ist die Welt unvergänglich?
5. Wovon wird die Welt ernährt?
6. Aus welchem ersten Element begann Gott—erhaben und mächtig ist Er—die Schöpfung der Welt?
7. Über die Anordnung der Welt.
8. Was ist die Ursache, weswegen die Welt sich neigt?
9. Gibt es ausserhalb ein Vakuum?
10. Was ist die rechte und die linke Seite der Welt?
11. Über die Substanz des Himmels.
12. Über die Einteilung des Himmels.
13. Was ist die Substanz der Sterne?
14. Über die Gestalten der Sterne.
15. Über die Anordnung der Sterne.
16. Über die Fortbewegung der Sterne.
17. Woher werden die Sterne erleuchtet?
18. Über das was „Dioskoroi“ genannt wird.
19. Über die (Wetter-) Konstellationen der Jahreszeiten.
20. Über die Substanz der Sonne.
21. Über die Grösse der Sonne.
22. Über die Gestalt der Sonne.
23. Über die Sonnenwende.
24. Über die Sonnenfinsternis.
25. Über die Substanz des Mondes.
26. Über die Grösse des Mondes.

27. Über die Gestalt und die Erleuchtung des Mondes.
28. Über die Mondfinsternis.
29. Über die Erscheinung des Mondes und weshalb ⟨er⟩ erdartig ⟨erscheint⟩.
30. Über die Entfernungen des Mondes.
31. Über die Jahre, wie lange die Zeit jedes einzelnen von den Planeten währt.

Die dritte Abhandlung. 18 Kapitel.

1. Über die lichterfüllte Himmelskugel.
2. Über die beschweiften Sterne.
3. Über den Blitz, den Donner, die Blitzschläge und das, was „Prester“ und „Typhon“ genannt wird.
4. Über die Wolken, Regen, Schnee und Hagel.
5. Über den Regenbogen.
6. Über das, was sich in dem „Ruten“ genannten Licht zeigt.
7. Über die Winde.
8. Über den Winter und den Sommer.
9. Über die Erde.
10. Über die Gestalt der Erde.
11. Über die Position der Erde.
12. Über die Neigung der Erde.
13. Über die Bewegung der Erde.
14. Über die Einteilung der Erde.
15. Über die Erdbeben.
16. Über das Meer, wie sein Zustand ist und auf welche Weise es bitter ist.
17. Wie entstehen Flut und Ebbe?
18. Wie entsteht der Hof um den Mond?

Die vierte Abhandlung. 23 Kapitel.

1. Über die Zunahme des Nils.
2. Was ist die Definition der Seele?
3. Ist die Seele ein Körper und was ist ihr Wesen?
4. Über die Teile der Seele.
5. Über den leitenden Teil unter den Seelenteilen.
6. Über die Bewegung der Seele.
7. Über das Fortleben der Seele.
8. Über die Sinnesempfindungen und die Sinnesobjekte.
9. Sind die Sinnesempfindungen und die Einbildungen wahr?
10. Wieviel Sinne gibt es?
11. Wie werden die Sinnesempfindungen, der Gedanke und die Logik des Denkens?

12. Was ist der Unterschied zwischen der Einbildung und dem Eingebildeten?
13. Wie sieht der Gesichtssinn?
14. Über die Bilder, welche in den Spiegeln gesehen werden.
15. Ist die Finsternis sichtbar?
16. Über das Hören.
17. Über das Riechen.
18. Über den Geschmack.
19. Über den Laut.
20. Ist der Laut ein Körper und wie entsteht das Echo?
21. Wie nimmt die Seele wahr und was ist ihr führender Teil?
22. Über das Atmen.
23. Über die körperlichen Affektionen und ob die Seele sie weiss?

Die fünfte Abhandlung. 30 Kapitel.

1. Über die Wahrsagekunst.
2. Wie entsteht der Traum?
3. Was ist das Wesen des Samens?
4. Ist der Same ein Körper?
5. Wird aus den Weibchen ein Same hervorgeschickt?
6. Wie geschieht die Empfängnis?
7. Wie geschieht die Erzeugung des Männchens und des Weibchens?
8. Wie entstehen die (Geburts-)Geschädigten?
9. Warum wird die Frau trotz häufigen Beischlafs nicht schwanger?
10. Wie entstehen die Zwillinge und die Drillinge?
11. Wie entsteht die Ähnlichkeit mit den Vätern und Vorfahren?
12. Wie werden viele von den Geborenen anderen Leuten ähnlich und nicht ihren Vätern?
13. Wie werden die Frauen unfruchtbar und die Männer steril?
14. Warum sind die Maultiere unfruchtbar?
15. Ist der Embryo ein Lebewesen?
16. Wie ernähren sich die Embrya?
17. Was ist das erste, was im Mutterleib geschaffen wird?
18. Warum (können) die in sieben Monaten Geborenen aufgezogen werden, aber die in acht Monaten (Geborenen) nicht aufgezogen werden?
19. Über Werden und Vergehen der Lebewesen.
20. Über die Arten der Lebewesen, sind sie alle empfindsam und vernünftig?
21. In welcher Zeit werden die Lebewesen gebildet, wenn sie im Mutterleib sind?
22. Aus welchen Elementen besteht jeder der Gattungsteile, die in uns sind?

23. Wie beginnt der Mensch mit der Vollendung?
24. Wie entsteht der Schlaf und bedeutet er einen Tod für die Seele und den Körper?
25. Ist der Schlaf ein Tod für die Seele oder für den Körper?
26. Wie werden die Pflanzen hochgezüchtet und sind sie Lebewesen?
27. Über die Ernährung und das Wachstum.
28. Wie entstehen die Begierden und Freuden in den Lebewesen?
29. Wie entsteht das Fieber und ist es eine Erzeugung?
30. Über die Gesundheit, die Krankheit und das Greisenalter.

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Index of Primary and Secondary Witnesses

This index contains references to all the witnesses listed at the beginning of every chapter of the Compendium. For full details of editions referred to see the list of Sigla at the beginning of Parts 1–3 and the Bibliography elsewhere in Part 4.

Achilles, *De universo*, ed. Di Maria

3	1.3
4	1.12, 1.14, 2.7, 3.9, 3.11, 3.15
5	1.5, 2.1, 2.3, 2.5, 2.11
6	1.10, 2.2, 2.6
7	2.6
8	1.18, 2.1, 2.9
11	2.13
12	1.14, 2.14
14	1.11
16	2.15, 2.28
18	2.32
19	2.8, 2.20, 2.22, 2.24, 2.32, 3.12
20	2.21
21	2.25, 2.27, 2.29
22	3.1
24	3.5
28	2.10, 3.11
29	3.14
31	3.14
32	3.proœm., 3.7
33	3.7
34	3.proœm., 3.2–4, 3.5a(18)
35	2.10
36	1.23

Aelius Herodianus

De orthographia, ed. Lentz

2.443.10–11	1.titulus et index
-------------	--------------------

De prosodia Catholica, ed. Lentz

1.119.35–120.6	1.titulus et index
----------------	--------------------

Aratea, *Commentaria in Aratum*, ed. Maass

Anon. I 3	2.1, 2.9
Anon. I 5	2.12
Anon. I 6	2.16
Anon. II 8	3.proœm.

Arsenius, *Apophthegmata*, ed. Von Leutsch

8, 100C	1.10
---------	------

Athenagoras, *Legatio*, ed. Marcovich

4.2	1.6
6.2–4	1.7
7	1.7
7.2	1.10, 2.1
16.1	1.6
18.3–4	1.3
22.1	1.3
23.2–3	1.7, 1.8

Cyril of Alexandria, *Contra Julianum*, ed. Riedweg

1.38–39	1.7
2.14	1.titulus et index, 2.titulus et index, 2.1
2.15	2.2–4
2.16	2.1, 2.3–4
2.22	1.titulus et index, 1.6
2.52	1.6

Epiphanius, *De haeresibus*, ed. Holl

Vol. 3 p. 508	4.7
---------------	-----

Eusebius, *Praeparatio evangelica*, ed. Mras

7.11.13	1.7, 2.4, 2.20
7.12.1	1.3
14.13.9	1.titulus et index
14.14.1–6	1.3
14.15.11	1.titulus et index
14.16.1	1.7
15.22.69	1.titulus et index
15.23	2.20
15.24	2.21
15.25	2.22
15.26	2.25
15.27	2.26
15.28	2.27

Eusebius, *Praeparatio evangelica*, ed. Mras*(cont.)*

15.29	2.28
15.30	2.13
15.31	2.14
15.32	1.4
15.32.8	1.5, 1.8–9, 2.4–5, 2.8–9, 2.11
15.32.8–10	1.titulus et index
15.32.10	3.prooem., 3.8, 4.titulus et index, 4.2
15.32.6–18	2.titulus et index
15.33	1.5
15.34	2.3
15.35	2.4
15.36	2.5
15.37	2.6
15.38	2.7
15.39	2.8
15.40	2.9
15.41	2.10
15.42	2.11
15.43	1.8
15.44	1.9
15.45	1.10
15.46	2.15
15.47	2.16
15.48	2.17
15.49	2.18
15.50	2.24
15.51	2.29
15.52	2.30
15.53	2.31
15.54	2.32, 3.prooem., 3.8
15.55	3.9
15.56	3.10
15.57	3.11
15.58	3.prooem., 3.8, 3.12– 13
15.59	3.16
15.60	4.4
15.61	4.5

Hermias, *Irrisio*, ed. Hanson

2	4.2, 4.7a
2–3	4.3
3	4.7

6	1.24
10–16	1.3
11	1.7
18	1.5, 2.1

Ioannes Lydus, *De mensibus*, ed. Wuensch

2.9	1.3
3.12	2.25, 2.28, 2.31
4.81	1.25–28
4.83	3.17
4.84	5.8
4.116	3.2
4.135	5.2

***De ostentis*, ed. Wachsmuth**

4	3.2–3, 3.15
---	-------------

**Ioannes Stobaeus, *Eclogae physicae*,
ed. Wachsmuth**

1.1.29b	1.7
1.4.7ac	1.25–26
1.5.15	1.27–28
1.6.17ac	1.29
1.7.9a	1.29
1.8.40b,45	1.21–22
1.8.42b	3.8
1.8.42c	2.32
1.10.11a	1.3
1.10.12	1.3
1.10.14, 16ab	1.3
1.10.16b	1.2
1.11.1,3,5b	1.9
1.12.1a	1.10
1.13.1abd	1.11
1.14adfh	1.12
1.14bgi	1.16
1.14.1k	1.13
1.15.3b,6a	1.14
1.15.6b	2.2
1.15.6cd	2.8
1.15.6d	2.7
1.15.6de	2.10
1.16.1	1.15
1.17.1	1.17
1.18.1abd	1.18
1.18.1b	1.19
1.18.1d,4a	1.20
1.18.4bc	2.9
1.18.4c	1.19
1.19.1	1.23

1.20.1ad	1.24	1.42.4	5.17
1.20.1cf	2.4	1.42.5	5.7
1.20.1g	2.5	1.42.6	5.8
1.21.3ab,6c	2.1	1.42.7	5.11
1.21.3c,6ab	2.3	1.42.8	5.12
1.21.6bd	2.5	1.42.9	5.14
1.21.6c	2.6	1.42.10	5.10
1.21.6cf	2.4	1.42.11	5.11
1.21.6de	2.5a	1.42.12	5.16
1.22.1abde	2.7	1.42.13	5.18
1.22.3ad	1.5	1.43	5.20–21
1.22.3bcd	2.1	1.44	5.24–25
1.22.3f	2.6	1.45.1–2	5.26
1.23.1–2	2.11	1.46	5.27–28
1.23.3	2.12	1.48.7	4.7a
1.24.1a–g,i–o	2.13	1.49.1a	4.2
1.24.1k,2d	2.14	1.49.1b	4.3
1.24.1eghl,2abe	2.15	1.49.7a	4.4
1.24.1ck,2bc,5	2.16	1.49.1b–c	4.6
1.24ilm,3	2.17	1.49.7c	4.7
1.24.1n	2.18	1.50.1–2a	4.8
1.24.1kl,4	2.19	1.50.3–6	4.8
1.25.1a–g,3a–g,i	2.20	1.50.7–9	4.10
1.25.1c,e–g	2.21	1.50.10–16	4.8
1.25dghi	2.22	1.50.17–24, 26–35	4.9
1.25.1d,3acehi	2.23	1.50.25	5.28
1.25.1acgi,3bek	2.24	1.51.2–4	4.10
1.26.1a–g,k	2.25	1.52.1–8, 10–13	4.13
1.26.1bhk	2.26	1.52.14–16	4.14
1.26.1cfik	2.27	1.52.17–18	4.15
1.26.2	2.28	1.53.1–4	4.16
1.26.3	2.29	1.54.1–2	4.17
1.26.4	2.30	1.55	4.18
1.26.5	2.31	1.57	4.19–21
1.27.1–8	3.1	1.58	4.12
1.28.1a	3.2	1.60	4.22–23
1.29	3.3	ed. Meineke	
1.30.1a	3.5	IV p. 232	4.8
1.31.1–5	3.4	<i>Florilegium</i> , ed. Hense	
1.32	3.7	4.36.29–31	5.30
1.33	3.9, 3.11	4.37.2	5.30
1.34	3.10	4.50.30	5.30
1.35	3.13	ms. Laurentianus	
1.36.1	3.15	index capitum Γ 10	5.4–5
1.37	3.16	index capitum Γ 11	5.21–23
1.38	3.17	pinax	5.9, 5.13
1.41	1.30		
1.42	5.19		
1.42.2	5.6		

Ioannes Tzetzes, <i>Exegeseis in Iliadem</i>,	112	5.9
ed. Papathomopoulos	113	5.10
1.4.1	1.8	114
1.5.29	1.3	115
<i>Exegeseis in Hesiodum</i>, ed. Aa.vv., Gais-	116	5.15–16
ford	117	5.2
p. 66.7–8	5.26	121
		122
Isidore of Pelusium, <i>Epistulae</i>, ed. Éviéux &	123	3.1
MPG	126	2.20
2.273	2.11, 2.15, 2.27, 2.31,	127
	3.10–11	128
1435	2.13	129
		131
Julianus Arianista, <i>Commentarius in Job</i>,	132	2.16
ed. Hagedorn	133	2.14
p. 269	3.4–5	134
p. 272	3.2	135
pp. 272–273	3.6	136
p. 273	3.3	137
pp. 273–274	2.12	138
		139
Michael Psellus, <i>De omnifaria doctrina</i>,	140–141	3.4
ed. Westerink	142	3.5
15	1.7	143
18	2.6	144
19	1.6	146
57	1.1	147
82	1.2	149–150
83	1.3	151
84	1.10	152
85	1.8	153
86	1.9	154
87	1.11	156
88	1.14	157
89	1.15	158
90	1.17	159
91	1.24	160
92	1.12	162
93	1.13	164
102	1.21	166
103	1.23	176
104	1.25	
105	1.27	
106	1.29	
108	4.13–14, 4.17–	
	19	
110	5.5–6	
111	5.7	
		<i>Epiluseis</i>, ed. Boissonade
		pp. 66–67
		<i>Philosophica minora</i> 1, ed. Duffy
		16
		23
		24
		26

27–28	3.3	fr. 9a recto	5.21
29	3.15	fr. 9b verso	5.24
<i>Theologica opuscula</i> , ed. Gautier			
6	1.3	Philo Alexandrinus, <i>De providentia</i> , ed. Aucher	
61	1.3		
Nemesius, <i>De natura hominis</i> , ed. Morani		1.22 (interpolatus)	1.3, 1.5
1	4.7a, 4.19	Photius, <i>Bibliotheca</i> c. 167, ed. Henry	
2	1.12, 1.16, 1.27, 4.2–3, 4.6–7, 4.23		
3	1.19	p. 112a36	1.25
5	1.3, 1.17	p. 112a38	1.27
6	4.8, 4.12, 4.16, 4.18– 19	p. 112a39	1.29
7	3.5, 4.8, 4.13	p. 112a40	1.22
9	4.18	p. 112a42	1.2–3
10	4.16	p. 112b1	1.9–12
11	4.17	p. 112b2	1.12–14, 1.16
12	4.12, 4.21	p. 112b3	1.14–15, 1.17– 18
15	4.4, 4.10, 4.21	p. 112b4	1.18–20, 1.23
19	4.21	p. 112b5	1.24, 2.1, 2.3
28	4.22	p. 112b6	2.3, 2.5a
35	1.27	p. 112b7	1.5, 2.5, 2.7
37	1.28	p. 112b8	1.5, 2.11–14, 2.16
38	1.27–28	p. 112b9	2.13–14, 2.16, 2.19
39	1.1, 1.25–26, 1.29	p. 112b10	2.19–23
41	1.proœm.	p. 112b11	2.23–28
<i>Papyrus Antinoopolis</i> 85 & 213, ed. Barns– Zilliaceus		p. 112b12	2.25–28
fr. 1 verso	2.23	p. 112b13	2.29–30
fr. 1 recto	2.25	p. 112b14	3.1–3.2
fr. 2 verso	3.7	p. 112b15	3.2–3
fr. 2 recto	3.11	p. 112b16	3.3, 3.5
fr. 3 recto	3.15	p. 112b17	3.5–6
fr. 3 verso	3.15–16	p. 112b17–19	3.4
fr. 4 verso	4.8	p. 112b19	3.7, 3.9
fr. 4 recto	4.11	p. 112b20	3.9
fr. 5 verso	4.22–23	p. 112b21	3.10–11, 3.13
fr. 5 recto	5.3–4	p. 112b22	3.13, 3.15–17
fr. 6 verso	5.1	p. 112b23	3.17
fr. 6 recto	5.5	p. 112b24–25	1.30
fr. 7 recto	5.7	p. 112b25	5.19
fr. 7 verso	5.9–10	p. 112b26	5.19–20
fr. 8 verso	5.13	p. 112b27	5.20, 5.24–27
fr. 8 recto	5.15	p. 112b28	5.27
fr. 9 verso	5.20	p. 112b29	4.2, 4.7a–8
fr. 9 recto	5.23	p. 112b30	4.8–10
		p. 112b31	4.10, 4.13
		p. 112b32	4.13–14, 4.16–18
		p. 112b33	4.17–19
		p. 112b34	4.20

Photius, <i>Bibliotheca</i> c. 167, ed. Henry (cont.)	52	2.9
p. 112b35	4.12	2.10
p. 112b36	4.22–23	2.11
	55	2.12
Pseudo-Aristoteles, <i>Erotapokriseis</i>,	56	2.13
ed. Rose	56a	2.14
p. 119 n. 1	2.11	2.15
	57	2.16
	58	2.17
Pseudo-Athenagoras, <i>De resurrectione</i>,	59	2.18
ed. Marcovich	60	2.19
20	4.7	2.20
	61	2.21
	62	2.22
Pseudo-Clemens Romanus, <i>Recognitiones</i>,	63	2.23
ed. Rehm–Paschke	64	2.24
8.15.1–3	1.3	2.25
	65	2.26
	66	2.27
Pseudo-Galenus, <i>Historia philosopha</i>,	67	2.28
ed. Diels/Jas	67a	2.29
16	1.7	2.30
19	1.11	2.31
20	1.1, 1.30	2.32, 3.prooem.
21	1.2	3.1
25	1.10	3.2
26	1.13	3.3
27	1.15	3.4
28	1.14	3.5
29	1.17	3.7
30	1.18	3.8
31	1.19	3.9
32	1.5	3.10
33	1.4	3.11
34	1.6	3.12
35	1.7	3.13
36	1.8	3.14
37	1.21	3.15
38	1.22	3.16
39	1.24	3.17
40	1.25	4.1
41	1.26	4.8
42	1.28	4.9
43	1.29	4.11
44	2.1	4.12
45	2.2	4.13
46	2.3	4.14
47	2.4	4.15
48	2.5	4.16
49	2.6	4.17
50	2.7	
51	2.8	

99	4.18	Pseudo-Plutarchus, <i>Epitome</i>, ed. Mau/Lachenaud	
100	4.19	<i>passim</i>	
101	4.20		
102	4.21		
103	4.22	Qusṭā ibn Lūqā, translation of ps.Plutarch	
104	4.23	<i>Epitome</i> , ed. Daiber	
105	5.1	<i>passim</i>	
106	5.2		
107	5.3	<i>Scholia in Aratum</i>, ed. Martin	
108	5.4	<i>Proleg.</i> 17	2.20, 2.21, 2.25
109	5.5	<i>Proleg.</i> 19	2.31
110	5.6	<i>Proleg.</i> 20	2.12
111	5.7	231	3.1
112	5.8	462	3.1
113	5.9	469	3.1
114	5.10	786	3.7
115	5.11	811	3-proœm., 3.2,
116	5.12		3.5a(18), 3.6
117	5.13	829	3.5
118	5.14	845	3.7
119	5.15	877	3.5a(18)
120	5.16	881	3.6
121	5.17	940	3.5
122	5.18	924	3.3
123	5.19	926–927	3.2
124	5.20	927	3.3
125	5.21	1091–1093	3.2
126	5.22		
127	5.23	<i>Scholia in Basilium I</i>, ed. Pasquali	
128	5.24	1–3	1.3
129	5.25	4	1.24
130	5.26	21	3.11
131	5.29	22	2.11
132	5.30	23	2.2
133	5.30	26	3.13, 3.15
Pseudo-Justinus, <i>Cohortatio ad Graecos</i>, ed. Marcovich		<i>Scholia in Basilium II</i>, ed. Poljakov	
3.2–4.1	1.3	4	3.9, 3.11, 3.15
5.2	1.7	5	3.13
5.4–6.1	1.3	<i>Scholia in Platonica</i>, ed. Greene	
6.1	1.7	<i>ad Remp.</i> 498a	2.22, 2.24
6.2	4.2, 4.4, 4.6–		
	7	<i>Scholion ad Ptolemei Alm.</i> 5.1, ed. Heiberg	
7.2	4.2–3	p. 1.350	2.31
31.1	1.7		
36.3	1.7		

Symeon Seth, *Conspectus rerum naturalium*, ed. Delatte

1 praef.	1, 4. titulus et index
1.3	3.10
1.6	3.11
1.7	3.9
2.14	3.16
2.15	3.3–4
2.17–18	3.4
2.19	3.3
2.20	3.15
2.23	3.2
2.24	3.7
2.25	3.5
2.26	3.5a(18)
3.27	2.1
3.28	2.2
3.29	2.3
3.30	2.4
3.31	2.5
3.32	2.7
3.33	2.8
3.34	2.9
3.35	2.10
3.36	2.11
3.38	2.12
3.39	2.13
3.40	2.14
3.41	2.16
3.44	2.17
3.45	2.19
3.46	2.21, 2.22
3.49	2.24
3.50	2.25, 2.27, 2.28
3.54	2.29
4.56	1.9, 4. titulus et index
4.58	1.10
4.59	1.1, 1.30
4.62	1.19
4.65	1.21
4.68	4.2

4.71	4.13
4.75	4.16
4.77	4.17
4.79	4.18–19
4.83	4.7a

Theodoret of Cyrrihus, *Graecarum affectionum curatio*, ed. Raeder

1.63	2.4, 4.7
1.96	2.31
1.97	2.21
2.95	1–5. titulus et index
2.112–113	1.7
3.4	1.7
4.8	2.1
4.11–12	1.3
4.14	1.18
4.15	2.1
4.16	2.2–4
4.17–20	2.13
4.20	2.14
4.21	2.20, 2.25
4.22	2.21–22
4.23	2.25–26
4.24	2.27, 2.29, 2.31
4.31	1–5. titulus et index
5.16	1–5. titulus et index
5.17–18	4.2
5.18	4.3
5.19–21	4.4
5.22	4.5
5.23–24	4.7
5.24–25	5.26
5.28	4.7a
6.3–4	1.25, 1.27, 1.29
6.6	1.7
6.13	1.25
6.13–14	1.27
6.14	1.28
6.15	1.29

Index of Name-Labels and Other Names

This index primarily contains all the name-labels in the *Placita*. It secondarily includes other non-mythical names of persons not functioning as name-labels, indicated in each case with an added asterisk. Ethnicons used to distinguish between homonyms are placed in brackets if not explicitly indicated in the text. For expressions involving 'followers' and 'successors' see the User's Guide to the Translation above in Part 4 under sub-section (3).

A general guide to the subject matter of the doxai is provided for each author. More detailed indications can be gained by combining this index with the tables of contents of the separate books at the beginning of Parts 1–3.

Numbers at the end indicate the sum total of doxai for each name-label (or descriptive category).

Academics *Psychology*: 4.8.13, 4.9.19, 4.13.10
(3)

Academy, successors of *Psychology*: 4.9.2

Alcmaeon *Cosmology*: 2.16.2, 2.22.1, 2.29.3;
Psychology: 4.2.2, 4.13.8, 4.16.2, 4.17.1,
4.18.1; *Physiology*: 5.3.3, 5.14.1, 5.16.3,
5.17.3, 5.24.1, 5.30.1 (14)

all others *Cosmology*: 2.3.1 (1)

all who assume matter is passive *Foundational Concepts*: 1.24.3 (1)

all who create a world through aggregation
Foundational Concepts: 1.24.2 (1)

all who propose atoms and void *Cosmology*: 2.3.2 (1)

Anaxagoras *Introduction*: 1.3.4, 1.7.1*, 1.7.6;
Foundational Concepts: 1.14.3, 1.24.2,
1.29.4, 1.30.2; *Cosmology*: 2.1.2, 2.4.7,
2.8.1, 2.13.3, 2.16.1, 2.20.8, 2.21.3, 2.23.2,
2.25.10, 2.28.6, 2.29.7, 2.29.8, 2.30.3;
Meteorology: 3.1.7, 3.2.3, 3.2.10, 3.3.4,
3.4.2, 3.5.8; *Earth and Sea*: 3.15.4, 3.16.2;
Nile: 4.1.3; *Psychology*: 4.3.2, 4.7.1,
4.7a.1, 4.9.1, 4.9.6, 4.19.7; *Physiology*:
5.7.4, 5.19.3, 5.20.3, 5.25.2, 5.27.2
(39)

Anaxagoras and successors *Foundational Concepts*: 1.17.2 (1)

Anaximander *Introduction*: 1.3.2, 1.7.3; *Cosmology*: 2.1.3, 2.1.4, 2.4.7, 2.11.3, 2.13.7,
2.15.6, 2.16.4, 2.20.1, 2.21.1, 2.24.3, 2.25.1,
2.28.1, 2.29.1; *Meteorology*: 3.3.1, 3.7.1;
Earth and Sea: 3.10.2, 3.16.1, *Psychology*:
4.3.2, 5.19.4 (21)

Anaximenes *Introduction*: 1.3.3, 1.7.4; *Cosmology*: 2.1.3, 2.4.7, 2.11.1, 2.13.9, 2.14.3,

2.16.5, 2.19.2, 2.20.3, 2.22.1, 2.23.1, 2.25.2;
Meteorology: 3.3.2, 3.4.1, 3.5.7; *Earth and Sea*: 3.10.3, 3.15.3, 3.15.8; *Psychology*: 4.3.2 (20)

ancients, successors of *Psychology* 4.8.9 (1)

anonymi *Foundational Concepts*: 1.15.11–
13, 1.23.5, 1.23.6; *Cosmology*: 2.2.2–3,
2.4.6, 2.14.4, 2.23.7, 2.24.6, 2.26.4, 2.27.6,
2.30.2, 2.32.2, 2.32.3, 2.32.4–7, 2.32.10;
Meteorology: 3.1.4; *Earth and Sea*:
3.13.1, 3.15.9; *Psychology*: 4.3.1, 4.5.10–
12, 4.8.11, 4.9.8, 4.9.17, 4.10.6, 4.13.6;
Physiology: 5.17.5–6, 5.19.1–2, 5.23.3
(38)

Antipater *Foundational Concepts*: 1.27.6 (1)

Antiphon *Foundational Concepts*: 1.22.7;
Cosmology: 2.20.4, 2.28.4, 2.29.3; *Earth and Sea*: 3.16.4 (5)

Apollodorus (the Athenian) *Cosmology*:
2.16.7 (1)

Apollodorus the Corcyraean *Earth and Sea*:
3.17.8 (1)

Apollophanes *Psychology*: 4.4.5 (1)

Aratus *Cosmology*: 2.19.3 (1)

Archedemus *Cosmology*: 2.5a.3 (1)

Archelaus *Introduction*: 1.3.5, 1.7.5; *Cosmology*: 2.1.3, 2.4.4, 2.4.7, 2.13.6; *Meteorology*: 3.3.5; *Psychology*: 4.3.2 (8)

Aristarchus *Foundational Concepts*: 1.15.5,
1.15.9; *Cosmology*: 2.24.7, *Psychology*:
4.13.4 (4)

Aristotle *Introduction*: 1.proem. 3, 1.1.2,
1.3.21, 1.7.23; *Foundational Concepts*:
1.9.5, 1.10.4, 1.11.3, 1.12.3, 1.15.10, 1.16.3,
1.18.6, 1.19.2, 1.21.2a, 1.23.2, 1.29.2;

- Cosmology*: 2.1.2, 2.3.4, 2.4.10, 2.5.1, 2.7.5, 2.9.4, 2.10.1, 2.11.5, 2.13.13, 2.16.3, 2.17.5, 2.20.11, 2.23.8, 2.25.8, 2.26.3, 2.28.2, 2.29.4*, 2.29.7, 2.30.7; *Meteorology*: 3.1.9, 3.2.4, 3.3.13, 3.7.4; *Earth and Sea*: 3.15.5, 3.17.1; *Psychology*: 4.2.6, 4.4.3, 4.5.7, 4.6.2, 4.7.4, 4.8.6, 4.9.3, 4.10.2, 4.13.9, 4.20.1; *Physiology*: 5.1.4, 5.3.1, 5.4.2, 5.5.2, 5.6.1, 5.7.5*, 5.17.2, 5.20.1, 5.23.2, 5.25.1, 5.26.2 (59)
- Aristotle and followers *Introduction*: 1.2.1; *Physiology*: 5.18.4 (2)
- Asclepiades *Foundational Concepts*: 1.23.10; *Psychology*: 4.2.8, 4.22.2; *Physiology*: 5.10.2, 5.21.2, 5.30.6 (6)
- astronomers (*mathematikoi*) *Cosmology*: 2.15.5, 2.16.2, 2.16.6, 2.30.8, 2.31.2; *Physiology*: 5.18.6 (6)
- atomists *Foundational Concepts*: 1.9.7, 1.16.2 (2)
- Berosus *Cosmology*: 2.25.13, 2.28.1, 2.29.2 (3)
- Boethus *Introduction*: 1.7.16; 2.31.5; *Meteorology*: 3.2.8 (3)
- Callimachus *Introduction*: 1.7.1*
- Chrysippus *Foundational Concepts*: 1.27.4, 1.28.3; *Meteorology*: 3.3.12; *Psychology*: 4.9.14, 4.12.1, 4.15.4 (6)
- Cleanthes *Introduction*: 1.7.8; *Foundational Concepts*: 1.14.5; *Cosmology*: 2.5a.2, 2.14.2, 2.16.1, 2.20.6, 2.25.4, 2.27.4; *Psychology*: 4.7a.1 (9)
- Crates *Cosmology*: 2.15.6; *Earth and Sea*: 3.17.7, 3.17.9* (2)
- Critias *Psychology*: 4.3.13 (1)
- Critolaus *Introduction*: 1.7.12; *Foundational Concepts*: 1.22.7 (2)
- Demetrius Laco *Foundational Concepts*: 1.18.3 (1)
- Democritus *Introduction*: 1.3.14, 1.3.16*, 1.7.7; *Foundational Concepts*: 1.12.6, 1.15.8, 1.18.3, 1.23.3, 1.24.2, 1.25.3, 1.26.2, 1.29.4; *Cosmology*: 2.1.3, 2.2.4, 2.3.2, 2.4.12, 2.7.2, 2.13.5, 2.15.3, 2.16.1, 2.17.3*, 2.20.8, 2.23.5, 2.25.10, 2.30.4; *Meteorology*: 3.1.8, 3.2.3, 3.3.11; *Earth and Sea*: 3.10.5, 3.12.2, 3.13.4, 3.15.1, 3.15.7; *Nile*: 4.1.4; *Psychology*: 4.3.5, 4.4.7, 4.4.8, 4.5.1, 4.7.4, 4.7a.2, 4.8.5, 4.8.10, 4.9.1, 4.9.6, 4.9.9, 4.10.4, 4.10.5, 4.13.1, 4.14.2, 4.19.5; *Physiology*: 5.2.1, 5.3.6, 5.4.3, 5.5.1, 5.7.7, 5.16.1, 5.19.5, 5.20.2 (56)
- Democritus and his successors *Introduction* 1.17.2 (1)
- Democritus, successors of *Foundational Concepts*: 1.9.3 (1)
- Diagoras of Melos *Introduction*: 1.7.1*
- Dicaearchus *Earth and Sea*: 3.17.2; *Psychology*: 4.2.7, 5.1.4 (2)
- Diocles *Physiology*: 5.9.1, 5.13.2, 5.14.3, 5.18.3, 5.29.2, 5.30.2 (6)
- Diodorus Cronus *Introduction*: 1.3.18; *Foundational Concepts*: 1.13.3, 1.23.7 (3)
- Diodorus of Tyre *Introduction*: 1.7.12 (1)
- Diogenes of Apollonia *Introduction*: 1.3.10, 1.7.8; *Cosmology*: 2.1.3, 2.1.8, 2.4.7, 2.8.1, 2.13.4, 2.13.10, 2.20.10, 2.23.3, 2.25.11; *Meteorology*: 3.2.9, 3.3.8; *Psychology*: 4.3.2, 4.3.8, 4.5.8, 4.7.1, 4.9.9, 4.16.3, 4.18.2; *Physiology*: 5.15.4, 5.20.5, 5.24.3 (23)
- Diogenes the Stoic *Cosmology*: 2.32.9 (1)
- Diotimus *Cosmology*: 2.17.3 (1)
- doctors *Physiology*: 5.8.3, 5.12.1, 5.13.1, 5.17.4, 5.30.6 (5)
- Ecphantus *Introduction*: 1.3.17; *Cosmology*: 2.1.2, 2.3.3; *Earth and Sea*: 3.13.3 (4)
- Empedocles *Introduction*: 1.3.19, 1.5.2, 1.7.19; *Foundational Concepts*: 1.13.1, 1.15.3, 1.17.3, 1.18.2, 1.24.2, 1.26.1, 1.30.1; *Cosmology*: 2.1.2, 2.1.6, 2.4.11, 2.6.3, 2.7.7, 2.8.2, 2.10.2, 2.11.2, 2.13.2, 2.13.11, 2.20.13, 2.21.2, 2.23.4, 2.24.2, 2.25.6, 2.27.5, 2.28.6, 2.31.1, 2.31.4; *Meteorology*: 3.3.7, 3.8.1; *Earth and Sea*: 3.16.3; *Psychology*: 4.3.12, 4.5.9, 4.7.1, 4.7a.2, 4.9.1, 4.9.6, 4.9.15, 4.13.12, 4.14.1, 4.16.1, 4.17.2, 4.22.1; *Physiology*: 5.7.1, 5.8.1, 5.10.1, 5.11.1, 5.12.2, 5.14.2, 5.15.3, 5.18.1, 5.19.6, 5.21.1, 5.22.1, 5.24.2, 5.25.4, 5.26.4, 5.27.1, 5.28.1, 5.28.2 (61)
- Empiricists *Physiology*: 5.18.3 (1)
- Ephorus *Nile*: 4.1.6 (1)

- Epicureans *Psychology*: 4.13.2*; *Physiology*: 5.26.3 (1)
- Epicurus *Introduction*: 1.3.16, 1.5.4*, 1.7.25; *Foundational Concepts*: 1.8.3, 1.12.5, 1.15.9, 1.18.3, 1.20.2, 1.22.6, 1.23.4, 1.24.2, 1.29.3; *Cosmology*: 2.1.3, 2.1.5, 2.2.5, 2.3.2, 2.4.13, 2.7.3, 2.13.14, 2.20.14, 2.21.5, 2.22.4; *Meteorology*: 3.4.5; *Earth and Sea*: 3.15.11; *Psychology*: 4.3.11, 4.4.7, 4.5.6, 4.7.4, 4.8.2, 4.8.10, 4.9.5, 4.9.6, 4.9.12, 4.9.20, 4.13.1, 4.14.2, 4.19.4, 4.23.2; *Physiology*: 5.1.2, 5.3.5, 5.5.1, 5.16.1, 5.19.5, 5.20.2 (43)
- Epidicus *Cosmology*: 2.4.3 (1)
- Epigenes *Meteorology*: 3.2.7 (1)
- Erasistratus *Psychology*: 4.5.4; *Physiology*: 5.9.3, 5.10.3, 5.29.1, 5.30.3 (4)
- Eratosthenes *Foundational Concepts*: 1.21.3; *Cosmology*: 2.31.3 (2)
- Eudoxus *Cosmology*: 2.19.3; *Nile*: 4.1.7 (2)
- Euhemerus of Tegea *Introduction*: 1.7.1*
- Euripides *Introduction*: 1.7.1*; *Physiology*: 5.19.3 (1)
- Euthymenes *Nile*: 4.1.2 (1)
- Hecataeus *Cosmology*: 2.20.6 (1)
- Heraclides *Foundational Concepts*: 1.13.4; *Cosmology*: 2.1.7, 2.13.15, 2.25.14; *Meteorology*: 3.2.6; *Earth and Sea*: 3.13.3, 3.17.1; *Psychology*: 4.3.6, 4.9.6 (9)
- Heraclitus *Introduction*: 1.3.9, 1.7.13; *Foundational Concepts*: 1.9.2, 1.13.2, 1.23.8, 1.27.1, 1.28.1; *Cosmology*: 2.1.2, 2.4.1, 2.11.4, 2.13.8, 2.17.4, 2.20.6, 2.20.15, 2.21.4, 2.22.2, 2.24.4, 2.25.2, 2.27.3, 2.28.7, 2.29.3, 2.32.8, 2.32.9*; *Meteorology*: 3.3.9; *Psychology*: 4.3.4, 4.3.14, 4.7.2; *Physiology*: 5.23.1 (27)
- Herodotus *Nile*: 4.1.5 (1)
- Herophilus *Foundational Concepts*: 1.23.9; *Psychology*: 4.5.5, 4.22.3, 5.2.3, 5.15.5; *Physiology*: 5.29.3, 5.30.2 (7)
- Hestiaeus *Foundational Concepts*: 1.22.4; *Psychology*: 4.13.13 (2)
- Hicetas *Earth and Sea*: 3.9.2 (1)
- Hipparchus *Psychology*: 4.13.5 (1)
- Hippasus *Introduction*: 1.3.9; *Psychology*: 4.3.4 (2)
- Hippo *Psychology*: 4.3.9; *Physiology*: 5.5.3, 5.7.3, 5.7.8 (4)
- Hippocrates *Psychology*: 4.5.2 (1)
- Hippocrates and followers *Physiology*: 5.19.4 (1)
- Homer *Introduction*: 1.3.1*
- homoiomere, those who posit *Psychology*: 4.9.10 (1)
- infinitesimals, those who posit *Psychology*: 4.9.10 (1)
- Ion *Cosmology*: 2.25.12 (1)
- Leophanes *Physiology* 5.7.5 (1)
- Leucippus *Introduction*: 1.3.13; *Foundational Concepts*: 1.18.3, 1.25.4; *Cosmology*: 2.1.3, 2.2.4, 2.3.2, 2.4.7, 2.7.2; *Meteorology*: 3.3.10; *Earth and Sea*: 3.10.4, 3.12.1; *Psychology*: 4.3.7, 4.7.1, 4.7a.1, 4.8.5, 4.8.10, 4.9.1, 4.9.9, 4.13.1, 4.14.2, 4.19.7; *Physiology*: 5.4.1, 5.7.6, 5.25.3, 5.20.3 (25)
- Leucippus, successors of *Foundational Concepts*: 1.14.4 (1)
- majority, the *Foundational Concepts*: 1.22.8 (1)
- materialists *Foundational Concepts*: 1.9.6 (1)
- mathematicians (*mathematikoi*), successors of 4.14.3 (see also astronomers) (1)
- Melissus *Introduction*: 1.7.18; *Foundational Concepts*: 1.24.1; *Cosmology*: 2.1.2, 2.1.8, 2.4.5; *Psychology*: 4.9.1 (6)
- Metrodorus *Introduction*: 1.3.15, 1.5.4; *Foundational Concepts*: 1.18.3; *Cosmology*: 2.1.3, 2.15.6, 2.17.1, 2.18.2, 2.20.8, 2.28.6, 3.1.5; *Meteorology*: 3.2.11, 3.3.3, 3.4.3, 3.5.9, 3.7.3; *Earth and Sea*: 3.9.5, 3.15.6, 3.16.5; *Psychology*: 4.9.1 (19)
- Mnesarchus *Introduction*: 1.7.15 (1)
- more recent thinkers *Cosmology*: 2.29.5; *Psychology*: 4.5.13 (2)
- Ocellus *Cosmology*: 2.25.14 (1)
- Oenopides *Introduction*: 1.7.8; *Cosmology*: 2.12.2*, 2.32.6 (2)
- Parmenides *Introduction*: 1.7.17; *Foundational Concepts*: 1.24.1, 1.25.3;

- Cosmology*: 2.1.2, 2.4.5, 2.7.1, 2.11.1, 2.11.4, 2.13.8, 2.15.7, 2.20.3, 2.20.16, 2.25.2, 2.26.2, 2.28.6, 2.30.5; *Meteorology*: 3.1.6; *Earth and Sea*: 3.14.2, 3.15.7; *Psychology*: 4.3.4, 4.5.6, 4.7a.2, 4.9.1, 4.9.6, 4.13.6; *Physiology*: 5.7.2, 5.7.4, 5.11.2, 5.28.2, 5.30.4 (30)
- Peripatetics *Introduction*: 1.proem. 3, 1.11.4; *Meteorology*: 3.2.6; *Psychology*: 4.8.4, 4.8.14, 4.9.7, 4.9.13 (7)
- Philip of Opus *Cosmology*: 2.29.4*
- Philolaus *Introduction*: 1.3.12; *Cosmology*: 2.5.3, 2.5a.4, 2.7.6, 2.20.12, 2.30.1; *Earth and Sea*: 3.11.3, 3.13.2 (8)
- physicists *Foundational Concepts*: 1.18.1; *Cosmology*: 2.6.1 (2)
- Plato *Introduction*: 1.3.20, 1.5.3, 1.7.1*, 1.7.22; *Foundational Concepts*: 1.8.2, 1.9.4, 1.10.2, 1.11.2, 1.12.2, 1.15.4, 1.17.4, 1.18.1, 1.19.1, 1.21.2, 1.22.1, 1.22.9, 1.23.1, 1.25.5, 1.26.3, 1.27.2, 1.27.3*, 1.28.2, 1.29.1; *Cosmology*: 2.1.2, 2.4.9, 2.5.2, 2.5a.1, 2.6.4, 2.6.6, 2.7.4, 2.9.4, 2.10.1, 2.13.12, 2.15.4, 2.15.5*, 2.16.6, 2.17.6, 2.19.1, 2.20.7, 2.23.8, 2.25.7, 2.29.7; *Meteorology*: 3.5.2*; *Earth and Sea*: 3.15.10, 3.17.5; *Psychology*: 4.2.5, 4.4.1, 4.5.1, 4.6.1, 4.7.1, 4.7.5, 4.7a.1, 4.8.3, 4.9.1, 4.9.11, 4.13.7, 4.19.1, 4.20.1; *Physiology*: 5.1.1, 5.3.4, 5.4.2, 5.15.1, 5.20.1, 5.20.4, 5.26.1 (61)
- Plato and followers/successors *Introduction*: 1.2.1; *Psychology*: 4.16.4 (2)
- Plato, successors of *Earth and Sea*: 3.16.6 (1)
- Polemon *Introduction*: 1.7.20 (1)
- Polybus *Physiology*: 5.18.3, 5.18.5 (2)
- Polycrates *Introduction*: 1.3.8*
- Posidonius *Introduction*: 1.7.10; *Foundational Concepts*: 1.28.5; *Cosmology*: 2.9.3, 2.25.5; *Earth and Sea*: 3.1.11, 3.17.4; *Psychology*: 4.13.11 (7)
- Protagoras *Psychology*: 4.9.1 (1)
- Pythagoras *Introduction*: 1.3.7, 1.3.8*, 1.7.9; *Foundational Concepts*: 1.8.2, 1.10.3, 1.11.3, 1.21.1, 1.23.1, 1.24.3, 1.25.2; *Cosmology*: 2.1.1, 2.1.2, 2.4.1, 2.6.2, 2.6.5, 2.10.1, 2.12.1, 2.12.2, 2.23.8, 2.25.15, 2.28.6, 2.32.6; *Earth and Sea*: 3.14.1; *Psychology*: 4.2.3, 4.4.1, 4.5.14, 4.7.1, 4.7.5, 4.7a.1, 4.9.1, 4.9.11, 4.13.6, 4.20.1; *Physiology*: 5.1.3, 5.3.2, 5.4.2, 5.5.1, 5.20.4 (37)
- Pythagoras and followers *Foundational Concepts*: 1.14.2 (1)
- Pythagoras and successors *Cosmology*: 2.9.1, 2.12.1 (1)
- Pythagoras, successors of *Foundational Concepts*: 1.9.2, 1.15.7, 1.16.1; *Meteorology*: 3.2.1–2; *Psychology*: 4.4.6, 4.14.3 (7)
- Pythagoreans *Foundational Concepts*: 1.15.2; *Cosmology*: 2.13.15, 2.22.3, 2.24.2, 2.29.4, 2.30.1; *Meteorology*: 3.1.2–3 (8)
- Pytheas *Earth and Sea*: 3.17.3 (1)
- Seleucus *Cosmology*: 2.1.7; *Earth and Sea*: 3.17.9 (2)
- Socrates *Introduction*: 1.3.20, 1.7.22; *Foundational Concepts*: 1.10.2 (3)
- Speusippus *Introduction*: 1.7.11 (1)
- Sphaerus *Psychology*: 4.15.1 (1)
- Stoics *Introduction*: 1.proem. 2, 1.5.1, 1.6.1, 1.7.24; *Foundational Concepts*: 1.8.2, 1.9.2, 1.9.8, 1.10.5, 1.11.5, 1.11.7, 1.12.4, 1.14.5*, 1.22.2, 1.27.3, 1.28.4, 1.29.4; *Cosmology*: 2.1.9, 2.2.1, 2.4.2, 2.4.8, 2.6.1, 2.9.2, 2.14.1, 2.15.2, 2.17.4, 2.22.3, 2.23.6, 2.25.5, 2.26.1, 2.27.1, 2.28.3, 2.29.7, 2.30.6; *Meteorology*: 3.1.10, 3.3.15, 3.7.2, 3.8.1; *Earth and Sea*: 3.9.3, 3.10.1, 3.15.2; *Psychology*: 4.3.3, 4.4.4, 4.5.7, 4.7.3, 4.8.1, 4.8.7, 4.8.8, 4.8.12, 4.9.4, 4.9.18, 4.10.1, 4.11.1, 4.19.6, 4.20.2, 4.21.1, 4.23.1; *Physiology*: 5.1.1, 5.9.2, 5.10.4, 5.11.3, 5.12.3, 5.13.3, 5.15.2, 5.16.2, 5.17.1, 5.23.1, 5.24.4, 5.26.3, 5.30.5 (68)
- Strato *Introduction*: 1.3.24; *Foundational Concepts*: 1.12.7, 1.15.5*, 1.18.4, 1.19.3, 1.22.5; *Cosmology*: 2.11.4, 2.17.2; *Meteorology*: 3.2.5, 3.3.14; *Psychology*: 4.5.3, 4.13.3, 4.23.3; *Physiology*: 5.2.2, 5.4.3, 5.8.2, 5.24.4 (16)
- Thales *Introduction*: 1.2.2, 1.3.1, 1.3.6*, 1.7.2; *Foundational Concepts*: 1.8.2, 1.11.6, 1.18.1, 1.25.1, 2.1.2, 2.12.1, 2.13.1, 2.20.9, 2.24.1, 2.25.9, 2.28.5, 2.29.7;

- Earth and Sea*: 3.10.1, 3.15.1; *Nile*: 4.1.1; *Psychology*: 4.2.1; *Physiology*: 5.26.1 (20)
- Thales and his followers/successors *Foundational Concepts*: 1.17.1; *Earth and Sea*: 3.9.1 (2)
- Thales, successors of *Foundational Concepts*: 1.9.2, 1.11.6, 1.16.1; *Earth and Sea*: 3.11.1 (4)
- Theodore of Cyrene *Introduction*: 1.7.1*
- Theophrastus *Introduction*: 1.proem. 3, *Cosmology*: 2.20.5*, 2.29.8* (1)
- Things without parts, those who posit *Foundational Concepts*: 1.9.7; *Psychology*: 4.9.10 (2)
- Timaeus *Earth and Sea*: 3.17.6; *Physiology*: 5.18.2 (2)
- Timagoras *Psychology*: 4.13.2 (1)
- Xenarchus *Psychology*: 4.3.10 (1)
- Xenocrates *Introduction*: 1.3.22, 1.7.21; *Foundational Concepts*: 1.13.3, 1.17.3, 1.22.3; *Cosmology*: 2.15.1; *Psychology*: 4.2.4, 4.4.2, 4.7.1, 4.7a.1 (10)
- Xenophanes *Introduction*: 1.3.11; *Cosmology*: 2.1.3, 2.4.5, 2.13.14, 2.18.1, 2.20.2, 2.20.5, 2.24.5, 2.24.8, 2.25.3, 2.28.1, 2.29.6, 2.30.9; *Meteorology*: 3.2.12, 3.3.6, 3.4.4; *Earth and Sea*: 3.9.4, 3.11.2; *Psychology*: 4.9.1; *Physiology*: 5.1.2 (20)
- Zeno (the Eleatic) *Introduction*: 1.7.18, 1.24.1; *Psychology*: 4.9.1 (2)
- Zeno the Stoic *Introduction*: 1.3.23, 1.7.14; *Foundational Concepts*: 1.9.8*, 1.15.6, 1.27.5; *Cosmology*: 2.1.2, 2.11.4; *Psychology*: 4.21.1, 5.4.1; *Physiology*: 5.5.2 (9)
- Zeno and his successors *Foundational Concepts*: 1.18.5, 1.20.1 (2)
- Zeno, the successors of *Foundational Concepts*: 1.10.5 (1)
- †pelles *Psychology*: 4.10.3 (1)

Index of Fragment Collections and Extant Sources

This index lists the references to fragment collections and extant writings contained in the first apparatus to the text of the Compendium. For full details of editions referred to see the Bibliography elsewhere in Part 4.

Alcmaeon, ed. Diels–Kranz

24A4	2.16.2, 2.22.1, 2.29.3
24A6	4.16.2
24A8	4.17.1
24A9	4.18.1
24A10	4.13.8
24A12	4.2.2
24A13	5.3.3, 5.17.3
24A17	5.16.3
24A18	5.24.1
24B3	5.14.1
24B4	5.30.1

Anaxagoras, ed. Diels–Kranz

59A46	1.3.4
59A48	1.7.1, 1.7.6
59A51	1.14.3
59A54	1.17.2
59A63	2.1.2
59A65	1.24.2, 2.4.7
59A66	1.29.4
59A67	2.8.1
59A71	2.13.3
59A72	2.20.8, 2.21.3, 2.23.2
59A77	2.25.10, 2.28.6, 2.29.7–8, 2.30.3
59A78	2.16.1
59A80	3.1.7
59A81	3.2.1
59A82	3.2.10
59A84	3.3.4
59A85	3.4.2
59A86	3.5.8
59A89	3.15.4
59A90	3.16.2
59A91	4.1.3
59A93	4.3.2, 4.7.1, 4.7a.1
59A94	4.9.16
59A96	4.9.1
50A101	5.20.3
59A103	5.25.2

59A106	4.19.7
59A111	5.7.4
59A112	5.19.3
59B12	1.7.1
59B17	1.30.2

—, ed. Gemelli Marciano

fr. 78	5.27.2
--------	--------

Anaximander, ed. Diels–Kranz

12A14	1.3.2
12A17	1.7.3, 2.1.3, 2.1.4, 2.4.7
12A17a	2.11.3
12A18	2.13.7, 2.15.6, 2.16.4
12A20	2.20.1
12A21	2.21.1, 2.24.3
12A22	2.25.1, 2.28.1, 2.29.1
12A23	3.3.1
12A24	3.7.1
12A25	3.10.2
12A27	3.16.1
12A29	4.3.2
12A30	5.19.4

Anaximenes, ed. Diels–Kranz

13A10	1.7.4, 2.1.3
13A13	2.11.1
13A14	2.13.9, 2.14.3–4, 2.16.5, 2.19.2
13A15	2.20.3, 2.22.1, 2.23.1
13A16	2.25.2
13A17	3.3.2, 3.4.1
13A18	3.5.7
13A20	3.10.3, 3.15.8
13A21	3.15.3
13A23	4.3.2
13B2	1.3.3
13B2a	2.14.3

—, ed. Wöhrle

121	2.4.7
-----	-------

Antipater, ed. Von Arnim SVF vol. 3

35	1.27.6
----	--------

Antiphon, ed. Diels–Kranz

87B9	1.22.7
87B26	2.20.4
87B27	2.28.4
87B28	2.29.3
87B32	3.16.4

—, ed. Pendrick

F9	1.22.7
F26	2.20.4
F27	2.28.4
F28	2.29.3
F32	3.16.4

Apollophanes, ed. Von Arnim SVF

1.405	4.4.5
-------	-------

Apollodorus, ed. Jacoby FrGH

244F91	2.16.7
--------	--------

Aratus, *Phaenomena*

10–12	2.19.3
545–549	1.6.1

Archedemus, ed. Von Arnim SVF vol. 3

15	2.5a.3
----	--------

Archelaus, ed. Diels–Kranz

60A7	1.3.5
60A12	1.7.5
60A13	2.1.3
60A14	2.4.4, 2.4.7
60A15	2.13.6
60A17	4.3.1
60A16	3.3.5

Archytas, ed. Hufmann

25A	4.14.3
25B	4.13.5–6

Aristarchus

at Strato fr. 7 Sharples	1.15.5
p. 305 Heath	2.24.7

***De magnitudinibus*, ed. Heath**

p. 352	2.30.2
--------	--------

Aristophanes

<i>Nub.</i> 398	1.7.1
-----------------	-------

Aristotle

<i>Cael.</i> 1.1 269a15–b6	1.12.3
<i>Cael.</i> 1.2 269a31	2.11.5, 2.13.13, 2.20.11, 2.25.8
<i>Cael.</i> 1.3 270b1–5	2.17.5
<i>Cael.</i> 1.3 270b22	2.7.5
<i>Cael.</i> 1.8	2.1.2
<i>Cael.</i> 1.9 278b23–24	2.9.4
<i>Cael.</i> 1.9 279a6–7	2.9.4
<i>Cael.</i> 1.9 279a14–15	1.21.2a
<i>Cael.</i> 1.10 279b32–280a2	1.22.9
<i>Cael.</i> 2.2	2.10.1
<i>Cael.</i> 2.3 285a29	2.3.4
<i>Cael.</i> 2.3 286a9–12	2.3.4
<i>Cael.</i> 2.8 289b30–34	2.16.3
<i>Cael.</i> 2.14 297b29	2.29.7
<i>Cael.</i> 4.4 310b7–8	1.18.2
<i>Cael.</i> 4.4 311a15–b27	1.12.3
<i>Cat.</i> 10 12b40–41	1.7.1
<i>de An.</i> 1.2 404b21–24	4.4.6
<i>de An.</i> 1.3 405b32–406a20	4.6.2
<i>de An.</i> 1.3 406b30–31	4.6.2
<i>de An.</i> 2.1 412a27–b	4.2.6
<i>de An.</i> 2.2 413a21–b10	5.26.2
<i>de An.</i> 2.2 413b11–13	4.4.3
<i>de An.</i> 2.3 414a31–32	4.4.3
<i>de An.</i> 2.4 415b24	4.8.6
<i>de An.</i> 2.6 418a11–12	4.9.3
<i>de An.</i> 2.7 418a31–b3	1.15.10
<i>de An.</i> 2.7 418a31–b10	4.13.9
<i>de An.</i> 2.8 419b4–420a2	4.20.1
<i>de An.</i> 2.11 424a4–5	4.8.6
<i>de An.</i> 3.1 424b22–23, 425a14–16	4.10.4
<i>de An.</i> 3.1 425a13–15	4.8.6
<i>de Philosophia</i> fr. 22 Ross	5.20.1
<i>De Pythagoreis</i> fr. 16 Ross	2.29.4–5
<i>Div.Somn.</i> 1 463b12–14	5.1.4
<i>EE</i> 2.1 1220a5	1.proœm. 3
<i>EE</i> 7.1 1235a6–9	4.19.5
<i>EN</i> 2.1 1103a14–15	1.proœm. 3

Aristotle (*cont.*)

fr. 201 Rose ³	1.18.6
fr. 210 Rose ³	2.29.7
fr. 738 Gigon	2.29.7
GA 1.19 727a27–30	5.5.2
GA 2.1 735a14–15	5.17.2
GA 2.3 737a7–12	5.4.2
GA 2.4 738a34–b4	5.5.2
GA 2.4 739a26	5.6.1
GA 3.11 761b23	2.30.7
GA 4.1 765a21–25	5.7.5
GA 4.1 766b12	5.3.1
GA 4.10 777b17–778a2	3.17.1
GC 1.2 316b20–23	1.16.3
GC 1.4 320a2–4	1.9.1
GC 1.5 320b23	1.9.5
GC 2.1 329a9–10	1.9.5
HA 7.1 582a33–34	5.23.3
HA 7.4 584b2	5.18.4
HA 9.2 582b11	5.6.1
Iuv. 3 469a4–7, 469a33–b1	4.5.7
Iuv. 4 469b13–20	5.25.1
Met. α.1 993b19–23	1.proœm. 3
Met. Δ.1 1012b34	1.2.1
Met. Δ.1 1013a4	5.17.2
Met. Δ.3 1014a26	1.2.1
Met. K.8 1065a30–1065b4	1.29.2
Met. Λ.1 1069b32–34	1.3.21
Met. Λ.4	1.11.3
Met. Λ.4 1070b23	1.2.1
Met. Λ.7	1.11.3
Met. Λ.8	2.16.3
Met. Λ.8 1073a34	2.17.5
Mete. 1.7 344a8–15	3.2.4
Mete. 1.8 345b31–346b6	3.1.9
Mete. 2.1 354a5–8	3.17.1
Mete. 2.4 360a12–13, 361b1	3.7.4
Mete. 2.8 365b21–29	3.15.5
Mete. 2.8 366a18–20	3.17.1
Mete. 2.9 369a10–b11	3.3.13
Mete. 3.2 371b18–24	3.5a.1
Mete. 3.3 373a21–22	3.5a.1
Mete. 3.4 373b32–34	3.5.4
Mete. 3.4 374a8–11	3.5.5
Mete. 3.4 374b32–375a1	3.5.5

Mete. 3.4 373b2–10	3.5.6
Mete. 3.4 374a22–24	3.5.6
PA 3.4 665b18–23	4.5.7
Phys. 2.1 192b8–193a8	1.1.2
Phys. 2.5 197a5–10	1.29.2
Phys. 2.6 197a33–b32	1.29.2
Phys. 3.2 202a7–8	1.23.2
Phys. 4.4 211b10–12	1.19.2
Phys. 4.11 219b1–2	1.21.2a
Phys. 4.14 223b21–23	1.21.2a
Phys. 8.5 257b8–9	1.23.2
Pol. 7.17	5.23.2
Rhet. 1.11 1371b16–17	4.19.5
Sens. 2 438b2–5	4.13.9
Sens. 3 439b11–12	1.15.10
Somn. Vig. 1 454a8–11	5.25.1
Somn. Vig. 3 456b17–29	5.25.1

Arius Didymus, Epitome Fr.Phys. ed. Diels

fr. 9 (Aristotle)	2.3.4
fr. 32 (Aristotle)	2.23.8

Asclepiades, list Vallance ANRW

p. 721	5.10.1, 5.21.2
p. 724	4.2.8, 4.22.2
p. 725	5.10.1, 5.21.2,
	5.30.7
p. 726	1.23.10, 4.2.8

Berossus, ed. Jacoby FGH

680F19	2.25.13, 2.28.1,
	2.29.2

—, ed. De Breucker

F21	2.25.13, 2.28.1,
	2.29.2

Boethius, ed. Von Arnim SVF vol. 3

2	1.7.16
9	2.31.5

Callimachus, ed. Pfeiffer

191.9–11	1.7.1
586	1.7.1

Chrysippus, ed. Von Arnim SVF

2.81	4.9.14
2.886	4.15.2
2.913	1.28.3

2.916	1.27.4	68A74	1.7.7
2.703	3.3.12	68A84	2.4.12
		68A85	2.13.5
Cleanthes, ed. Von Arnim SVF		68A86	2.15.3
1.498	1.14.5	68A87	2.20.8
1.499	2.5a.2	68A89	2.23.5
1.501	2.20.6	68A90	2.25.10, 2.30.4
1.506	2.27.4	68A91	3.1.8
1.507	2.16.1	68A93	3.3.11
1.508	2.14.2, 2.23.6	68A94	3.10.5
1.523	4.7a.1	68A95	3.13.4
1.532	1.7.8	68A96	3.12.2
		68A97	3.15.7
Corpus Hippocraticum		68A99	4.1.4
<i>Carn.</i> 19	5.18.4	68A102	4.3.5
<i>Morb.Sacr.</i> 14, 17	4.5.2	68A105	4.4.7, 4.5.1
<i>Oct.</i> 1–2, 10	5.18.4–5	68A109	4.7.4
		68A115	4.10.5
Crates Mallotes, ed. Mette		68A116	4.10.4
F5a	2.15.6	68A117	4.4.8
F7	3.17.7	68A125	1.15.8
		68A128	4.19.5
—, ed. Broggiato		68A136	5.2.1
136	3.17.7	68A139	5.19.5
		68A141	5.3.6
Critias, Sisyphus, ed. Diels–Kranz		68A142	5.4.3, 5.5.1
88B25	1.7.1	68A143	5.7.7
88B25.33–34	1.6.1	68A144	5.16.1
—, ed. Kannicht		—, ed. Luria	
1.33–34	1.6.1	4	3.15.7
19	1.7.1	23	1.25.3, 2.3.2
		54	4.9.1
Critolaus, ed. Wehrli		68	4.8.5, 4.8.10
16	1.7.12	95	4.9.9
		187	1.18.3
Demetrius Laco, ed. De Falco		193	1.9.3
19–20	1.18.3	214	1.9.3
		243	4.9.9
—, ed. Gigante		341	1.17.2
test. 3	1.18.3	352	2.1.3
		353	2.4.7
Democritus, ed. Diels–Kranz		379	3.15.7
67A29	4.13.1	385	2.2.4
67A31	4.14.2	387	2.16.1
68A46	1.3.14	403	3.15.7
68A47	1.12.6, 1.23.3	436	4.8.5, 4.8.10
68A48	1.16.2	437	4.9.6
68A66	1.26.2	514	5.19.5

—, ed. Luria (*cont.*)

547	5.20.2
589	1.25.3, 2.3.2

Diagoras, ed. Winiarczyk

T 47	1.7.1
------	-------

Dicaearchus of Messene, ed. Wehrli

12a–c	4.2.7
13b	5.1.4
114	3.17.2

—, ed. Mirhardy

21A	4.2.7
30B	5.1.4
127	3.17.2

Diocles, ed. Van der Eijk

24	5.14.3
42	5.9.1
43	5.13.2
48	5.18.3
51	5.30.3
56	5.29.2

Diodorus Cronus, ed. Döring

117A	1.3.18
117B	1.13.3
121	1.23.7

—, ed. Giannantoni

I F8	1.3.18
II F8	1.13.3
II F11	1.23.7

Diodorus of Tyre, ed. Wehrli

2	1.7.12
---	--------

Diogenes of Apollonia, ed. Diels–Kranz

64A7	1.3.10
64A8	1.7.8
64A10	2.1.3, 2.1.8, 2.4.7
64A11	2.8.1
64A12	2.13.4, 2.13.10
64A13	2.20.10, 2.23.3
64A14	2.25.11
64A15	3.2.9
64A16	3.3.8
64A20	4.5.8, 4.7.1

64A21	4.16.3
-------	--------

64A22	4.18.2
-------	--------

64A23	4.9.9
-------	-------

64A28	5.15.4
-------	--------

64A29	5.24.3
-------	--------

64A30	5.20.5
-------	--------

—, ed. Laks

T3b	1.3.10
T5b	4.3.2&8
T5c	4.7.1
T9	4.16.3
T10	4.18.2
T23d	2.4.7
T30	3.2.9
T31a	3.3.8
S2	4.5.8
S3	4.9.9

Diogenes of Babylon, ed. Von Arnim *SVF*
vol. 3

28	2.32.9
30	4.5.8
31	1.7.8

Diogenes Laertius, *Vitae philosophorum*

1.13	1.3.6
3.70 (Plato)	1.7.1
3.72 (Plato)	1.7.1
8.1 (Pythagoras)	1.3.6
8.32 (Pythagoras)	1.8.2

Diotimus of Tyre, ed. Diels–Kranz

76.1	2.17.3
------	--------

Ecphantus, ed. Diels–Kranz

51.2	1.3.17
51.3	2.1.1
51.4	2.3.3
51.5	3.13.3

Empedocles, ed. Diels–Kranz

31A32	1.7.19
31A33	1.3.19
31A43	1.13.1, 1.17.3
31A44	1.24.2
31A45	1.26.1
31A47	1.5.2
31A49	2.6.3

31A50	2.1.6, 2.10.2,	248	4.9.5
	2.30.4	259	4.8.2
31A52	2.4.11	261	4.9.11
31A53	2.13.2	267	1.3.16
31A54	2.13.11	271	1.20.1
31A56	2.20.13, 2.21.2	275	1.12.5
31A58	2.8.2, 2.23.4	280	1.12.5, 1.23.4
31A59	2.24.2	293	1.18.3
31A60	2.25.6, 2.27.5,	294	1.22.6
	2.28.6	301	2.1.3
31A61	2.31.1	301a	2.1.5
31A63	3.3.7	302	2.2.5
31A65	3.8.1	303	2.7.2
31A66	3.16.3	305	2.4.13
31A70	1.29.4, 5.26.4	308	1.4.1
31A72	5.19.6	309	5.26.3
31A74	4.22.1, 5.15.3	312	4.4.7, 4.5.6
31A75	5.18.1	315	4.3.11
31A77	5.27.1	317	4.23.2
31A78	5.22.1	318	4.13.1
31A81	5.7.1, 5.8.1,	320	4.14.2
	5.10.1, 5.11.1,	321	4.18.4
	5.12.2	329	5.3.5
31A82	5.14.2	330	5.5.1
31A83	5.21.1	332	5.16.1
31A85	5.24.2, 5.25.4	336	4.7.4
31A88	4.14.1	342	5.20.2
31A90	4.9.6, 4.13.12	343	2.20.14
31A92	1.15.3	344	2.22.4
31A93	4.16.1	345	2.21.5
31A94	4.17.2	349	3.4.5
31A95	4.9.15, 5.28.1–	350	3.15.11
	2	355	1.7.25
31A96	4.7a.2	361	1.7.1
31A97	4.5.9	375	1.29.3
31B6	1.3.19	380	1.29.3
31B8	1.30.1	382	2.3.2
31B13	1.18.2	386	2.7.2
31B55	3.16.3	393	1.8.3
31B110.10	4.7a.1	395	5.1.2

Empirici, ed. Deichgräber

fr. 133 5.18.3

Letter to Herodotus

D.L. *V.P.* 10.49 4.9.6

D.L. *V.P.* 10.66 (scholion)

Ephorus, ed. Jacoby *FrGH*

70F65c 4.1.6

4.4.7

Letter to Pythocles

D.L. *V.P.* 10.90 n. Usener

Epicurus, ed. Usener

29 1.15.9

2.13.16

Kuriai doxai

1 1.7.1

Erasistratus, ed. Garofalo

4^o 4.5.4
 57 5.9.3
 58 5.10.3
 168 5.30.4
 195 5.29.1

Eratosthenes, ed. Bernhardt

fr. I 40 2.31.3
 fr. V 6 1.21.3

Eudoxus of Cnidos, ed. Lasserre

F142 2.19.3
 F288 4.1.7

Euhemerus, ed. Winiarczyk

T1a 1.7.1
 T16 1.7.1

Euripides

Orestes 255–259 4.12.1
 fr. 839 Kannicht 5.19.3

Euthymenes, ed. Jacoby *FGH*

647F2 4.1.2

Hecataeus, ed. Diels–Kranz

73B9 2.20.6

Heraclides, ed. Wehrli

98a,d 4.3.6
 104 3.13.3
 112 2.1.7
 113 2.13.15
 114 2.25.14
 116 3.2.6
 117 3.17.1
 121 1.13.4
 122a 4.9.6

—, ed. Schütrumpf

46A&D 4.3.6
 62 1.13.4
 63A,B 4.9.6
 65B 3.13.3
 74 2.1.7

75 2.13.15

76 2.25.14

77 3.2.6

78 3.17.1

Heraclitus, ed. Diels–Kranz

22A5 1.3.9
 22A6 1.23.8
 22A8 1.7.13, 1.27.1,
 1.28.1
 22A10 2.1.2, 2.4.1, 2.11.4
 22A11 2.13.8, 2.17.4
 22A12 2.20.6, 2.22.2,
 2.24.4, 2.27.3,
 2.28.7, 2.29.3
 22A13 2.32.8
 22A14 3.3.9
 22A15 4.3.14
 22A17 4.7.2
 22A18 5.23.1
 22B3 2.21.4
 22B137 1.27.1

—, ed. Mouraviev

T403–405 1.13.2
 T410–411 1.9.2
 T437 2.20.15
 T446 2.25.2
 T460 4.3.4
 T595 2.20.15

Herodotus, *Histories*

2.24–25 4.1.5

Herophilus, ed. Von Staden

137a 4.5.5
 142 1.22.9
 143b 4.22.3
 202 5.15.5
 217 5.29.3
 226 5.2.3

Hesiod, *Theogony*

134 1.6.1

Hestiaeus, ed. Lasserre

F3 1.22.4
 F4 4.13.13

- Hicetas, ed. Diels–Kranz**
 50.2 3.9.2 68A43 1.14.4
 67B2 1.25.4
- Hippasus, ed. Diels–Kranz**
 18.7 1.3.9 30A9 2.1.2, 2.4.5
 18.9 4.3.4 30A12 1.24.1
 30A13 1.7.18
 30A14 4.9.1
- Hippo, ed. Diels–Kranz**
 38A13 5.5.3
 38A14 5.7.3, 5.7.8
- Hippocrates, ed. Diels–Kranz**
 42.6 3.1.4
 See also *Corpus Hippocraticum*
- Homer, *Iliad***
 3.178–179 1.7.1
 14.246 1.3.1
 17.547 3.5.2
- , *Odyssey*
 5.306 1.3.7
 17.218 4.19.5
 20.350–358 4.12.1
- Ion, ed. Diels–Kranz**
 36A7 2.25.12
- Leophanes**
 at Arist. *GA* 4.1 765a21–25
 5.7.5
- Leucippus, ed. Diels–Kranz**
 67A12 1.3.13
 67A15 1.18.3
 67A22 2.2.4, 2.3.2, 2.4.7
 67A23 2.7.2
 67A24 1.4.1
 67A25 3.3.10
 67A26 3.10.4
 67A27 3.12.1
 67A28 4.3.7
 67A29 4.13.1
 67A30 4.8.5, 4.8.10
 67A31 4.14.2
 67A32 4.9.9
 67A34 5.25.3
 67A35 5.4.1
 67A36 5.7.6
- Melissus, ed. Diels–Kranz**
 30A9 2.1.2, 2.4.5
 30A12 1.24.1
 30A13 1.7.18
 30A14 4.9.1
- Metrodorus, ed. Diels–Kranz**
 70A2 1.3.15
 70A6 1.5.4
 70A7 2.1.3
 70A9 2.15.6, 2.17.1
 70A10 2.18.2
 70A11 2.20.8
 70A12 2.28.6
 70A13 3.1.5
 70A14 3.2.11
 70A15 3.3.3
 70A17 3.5.9
 70A18 3.7.3
 70A19 3.16.5
 70A20 3.9.5
 70A21 3.15.6
 70A22 4.9.1
- Ocellus, ed. Harder**
 T9 2.25.14
- Oenopides, ed. Diels–Kranz**
 41.6 1.7.8
 41.7 2.12.2
 41.9 2.32.6
 41.10 3.1.3
- Orphics, ed. Bernabé**
 fr. 30 F 2.13.15
- Parmenides, ed. Diels–Kranz**
 28A29 1.24.1
 28A31 1.7.17
 28A32 1.25.3
 28A36 2.1.2, 2.4.5
 28A37 2.7.1
 28A38 2.11.4
 28A39 2.13.8
 28A40 2.15.7
 28A41 2.20.3

Parmenides, ed. Diels–Kranz (<i>cont.</i>)		<i>Resp.</i> 4 439d–e	4.4.1
28A42	2.25.2, 2.26.2, 2.28.6	<i>Sph.</i> 263e	4.19.2
28A43	2.20.16	<i>Tht.</i> 155d	3.5.2
28A43a	3.1.6	<i>Tht.</i> 184d	4.5.2
28A44	3.15.7	<i>Tht.</i> 206d	4.19.1
28A44a	3.14.2	<i>Tim.</i> 28a–29a	1.11.2
28A45	4.3.4, 4.5.6, 4.7a.2	<i>Tim.</i> 28a–b	2.6.4
28A46a	5.30.5	<i>Tim.</i> 28b–c	2.4.9
28A47	4.9.6	<i>Tim.</i> 29e	1.7.1
28A48	4.13.6	<i>Tim.</i> 30a	1.7.1
28A49	4.9.1	<i>Tim.</i> 30b	4.7.5
28A50	5.28.2	<i>Tim.</i> 30b–c	1.25.5
28A53	5.7.2, 5.7.4	<i>Tim.</i> 30c	1.7.1
28A54	5.11.2	<i>Tim.</i> 30c–31b	1.5.3
28B1.14	2.7.1	<i>Tim.</i> 31a	2.1.2
28B8.30	2.7.1	<i>Tim.</i> 31b–32c	2.6.4
28B12.3	2.7.1	<i>Tim.</i> 33a–d	1.5.3
B8.14	1.25.3, 2.28.6	<i>Tim.</i> 33c–d	2.5.2, 2.17.6
B12	2.7.1	<i>Tim.</i> 33c	2.9.4
B12.3	1.25.3	<i>Tim.</i> 34a	3.15.10
B21	2.30.5	<i>Tim.</i> 34b–c	2.6.4
		<i>Tim.</i> 35a–36b	4.2.5
		<i>Tim.</i> 36e–37c	2.5a.1
Philip of Opus, ed. Tarán		<i>Tim.</i> 37d	1.21.2, 1.22.1
10	2.29.4–5	<i>Tim.</i> 38c–d	2.15.4, 2.16.6
		<i>Tim.</i> 39e–40a	2.23.8
—, ed. Lasserre		<i>Tim.</i> 40a	2.13.12, 2.20.7, 2.25.7, 5.20.1
F32–33	2.29.4–5	<i>Tim.</i> 40b–d	3.15.10
Philolaus, ed. Diels–Kranz		<i>Tim.</i> 40c–d	2.19.1
44A9	1.3.12	<i>Tim.</i> 41a–b	2.4.9
44A15	2.6.5	<i>Tim.</i> 41d	4.2.5
44A17	2.5a.4, 3.11.3	<i>Tim.</i> 43c	4.8.3
44A18	2.5.3	<i>Tim.</i> 44c	1.25.5
44A19	2.20.12	<i>Tim.</i> 44d–e	4.5.2
44A20	2.30.1	<i>Tim.</i> 44d	1.6.1
44A21	3.13.2	<i>Tim.</i> 45b–46a	4.13.7
		<i>Tim.</i> 45b–c	4.9.11
Plato		<i>Tim.</i> 46c–e	1.11.2
Dörrie–Baltes B113.2	1.3.20	<i>Tim.</i> 46c	4.8.3
Dörrie–Baltes B156.1	4.2.4	<i>Tim.</i> 47e–48a	1.25.5, 1.26.3
<i>Leg.</i> 10.904c	1.27.2	<i>Tim.</i> 48b–c	1.2.1
<i>Lys.</i> 214a–b	4.19.5	<i>Tim.</i> 49a	1.9.4, 1.19.1
<i>Phd.</i> 109a, 111d–e	3.15.10	<i>Tim.</i> 49b–d	1.17.4
<i>Phd.</i> 111e–112a	3.17.5	<i>Tim.</i> 50a–d	1.19.1
<i>Phdr.</i> 244b–c	5.1.1	<i>Tim.</i> 50b–d	1.9.4
<i>Phdr.</i> 245b–c	4.6.1	<i>Tim.</i> 50c–d	1.11.2
<i>Phdr.</i> 245c	4.2.5	<i>Tim.</i> 52d	1.9.4
<i>Phlb.</i> 34a	4.8.3	<i>Tim.</i> 53a	1.19.1

- | | | | |
|---------------------------------------|---------------|---|----------------|
| <i>Tim.</i> 53e–55c | 2.6.6 | Pythagoras/Pythagoreans, ed. Diels–Kranz | |
| <i>Tim.</i> 54b–d | 1.17.4 | 14.21 | 2.1.1 |
| <i>Tim.</i> 58a | 2.9.4 | 44A18 n. | 2.13.15 |
| <i>Tim.</i> 62c–63e | 1.12.2 | 44A20 | 2.20.1 |
| <i>Tim.</i> 65c–d, 66d, 67b | 4.9.11 | 44A21 | 3.13.1 |
| <i>Tim.</i> 67a–c | 4.19.2 | 58B3 | 1.21.1 |
| <i>Tim.</i> 67a–b | 4.16.4 | 58B15 | 1.3.7 |
| <i>Tim.</i> 67b–c | 4.20.1 | 58B36 | 2.29.4–5 |
| <i>Tim.</i> 67c | 1.15.4 | 58B37c | 3.1.4–6 |
| <i>Tim.</i> 68e–69a | 1.26.3 | 58B42 | 1.15.2 |
| <i>Tim.</i> 69c–e | 4.7.5 | Dörrie–Baltes B156.1 | 4.2.3 |
| <i>Tim.</i> 71e | 5.1.1 | | |
| <i>Tim.</i> 74a | 5.3.4 | Pytheas, ed. Mette | |
| <i>Tim.</i> 77a–c | 5.26.1 | 2 | 3.17.3 |
| <i>Tim.</i> 91d | 5.15.1 | | |
| Polemon, ed. Gigante | | Seleucus of Babylon, ed. Russo | |
| 121 | 1.7.20 | test. 5 | 2.1.7 |
| | | test. 6–7 | 3.17.9 |
| Posidonius, ed. Edelstein–Kidd | | Socrates | |
| F 84 | 2.9.3 | Dörrie–Baltes B113.2 | 1.3.20 |
| F97 | 2.9.3 | | |
| F101 | 1.6.1, 1.7.10 | Solon, ed. West | |
| F103 | 1.28.5 | fr. 27.5–6 | 5.23.3 |
| F122 | 2.25.5 | | |
| F129 | 3.1.11 | Speusippus, ed. Lang | |
| F138 | 3.17.4 | 38 | 1.7.11 |
| F194 | 4.13.11 | | |
| —, ed. Theiler | | —, ed. Isnardi-Parente | |
| 298b | 3.1.11 | 89 | 1.7.11 |
| 301 | 2.25.5 | —, ed. Tarán | |
| 302 | 2.9.3 | 58 | 1.7.11 |
| 317 | 3.17, 3.17.4 | | |
| 349 | 1.6.1 | Sphaerus, ed. Von Arnim SVF | |
| 364 | 1.6.1, 1.7.10 | 1.627 | 4.15.1 |
| 382a | 1.28.5 | | |
| 395 | 4.13.11 | Stoics, ed. Von Arnim SVF | |
| Ps.Aristotle, <i>De mundo</i> | | 2.35 | 1.procœm. 2 |
| 2 392a5–b17 | 2.7.5 | 2.72 | 4.8.12 |
| 2 392a32–35 | 2.4.10 | 2.78 | 4.9.4 |
| —, <i>Magna moralia</i> | | 2.83 | 4.11.1, 4.12.1 |
| 2.11.2 | 4.19.5 | 2.149 | 4.11.1 |
| | | 2.150 | 4.21.1 |
| Ps.Plato <i>Definitiones</i> | | 2.324 | 1.9.2, 1.9.8 |
| 411c | 4.2.5 | 2.338 | 1.11.7 |
| 414c | 4.8.3 | 2.340 | 1.11.5 |
| | | 2.360 | 1.10.5 |
| | | 2.387 | 4.20.2 |

Stoics, ed. Von Arnim *SVF* (cont.)

2.419	1.15.11
2.425	4.19.6
2.504	1.20.1
2.506	2.25.5
2.514	1.22.2
2.522	2.1.9
2.530	1.5.1
2.547	2.2.1
2.571	1.12.4
2.575	2.4.2
2.581	2.6.1
2.585	2.4.8
2.597	2.4.6
2.609	2.9.2
2.647	3.9.3
2.648	3.10.1
2.654	2.22.3
2.658	2.23.6
2.666	2.26.1
2.667	2.27.1–2
2.669	2.30.6
2.670	2.28.3
2.671	2.25.5
2.676	2.29.7
2.681	2.14.1
2.689	2.15.2
2.690	2.17.4
2.696	3.8.2
2.697	3.7.2
2.705	3.3.15
2.707	3.15.2
2.708	5.26.3
2.749	5.11.3
2.750	5.10.4
2.751	5.9.2
2.752	5.13.3
2.753	5.12.3
2.754	5.16.2
2.755	5.17.1
2.756	5.15.2
2.764	5.23.1
2.767	5.24.4
2.769	5.30.6
2.779	4.3.3
2.810	4.7.3
2.827	4.4.4
2.836	4.21.1
2.838	4.5.7

2.850

4.8.1

2.851

4.8.8

2.852

4.8.7

2.853

4.10.1

2.854

4.23.1

2.917

1.28.4

2.966

1.29.4

2.976

1.27.3

2.1009

1.6.1

2.1101

1.7.24, 1.8.2

2.1190

5.1.1

See also Chrysippus, Cleanthes, Zeno
etc.**Strato, ed. Wehrli**

45

1.3.24

51

1.12.7

55

1.18.3, 1.19.3

78

1.22.5

84

2.11.4

85

2.17.1

86

3.2.5

87

3.3.14

94

5.4.3

99

5.8.2

110

4.23.3

113

4.13.3

119a,b

4.5.3

128

5.24.4

130

5.2.2

—, ed. Sharples

26B

1.18.3, 1.19.3

33

1.22.5

42

2.11.4

43

2.17.1

46

1.3.24

50A

1.12.7

51

3.2.5

52

3.3.14

57

4.5.3

63A

4.23.3

64

4.13.3

66

5.24.4

68

5.2.2

70

5.4.3

74

5.8.2

Thales, ed. Diels–Kranz

11A11	1.3.1
11A13	2.1.2
11A13a	1.17.1
11A13c	2.12.1
11A15	3.11.1
11A16	4.1.1
11A17a	2.13.1, 2.20.9, 2.24.1
11A22a	4.2.1
11A23	1.7.2

—, ed. Wöhrlé

146	1.2.2
148	1.3.6
150	1.8.2
151	1.9.2
152	1.16.1
153	1.18.1
154	1.25.1
159	2.28.5, 2.29.7
160	3.9.1
161	3.10.1
163	3.15.1
341	1.25.1
343	1.2.2
344	1.3.6
345	1.2.2
347	1.11.6
348	1.16.1
350	1.18.1
356	2.25.9
357	2.28.5, 2.29.7
359	5.26.1
395	1.25.1
405	5.26.1
488	1.18.1

Theodore of Cyrene, ed. Winiarczyk

T 35	1.7.1
------	-------

Theophrastus, ed. Fortenbaugh, Huby, Sharples & Gutas

232	2.20.5
236	2.29.8
479	1.proem. 3

Timaeus, ed. Jacoby *FrGH*

566F73	3.17.6
--------	--------

Xenocrates, ed. Heinze

15	1.7.21
28	1.3.22
40	1.22.3
50	1.17.3
51	1.13
57	2.15.1
60	4.2.4
69	4.7a.1
70	4.4.2
74	4.7.1

—, ed. Isnardi Parente²

F21	1.3.22
F68	1.13.3
F71	1.17.3
F79	1.22.3
F82	2.15.1
F90	4.2.4
F125	4.7a.1
F126	4.4.2
F130	4.7.1
F133	1.7.21

Xenophanes, ed. Diels–Kranz

21A36	1.3.11
21A37	2.1.3, 2.4.5
21A38	2.13.14
21A39	2.18.1
21A40	2.20.2, 2.20.5
21A40	2.24.5
21A40a	2.24.8
21A42	2.30.9
21A43	2.25.3, 2.28.1, 2.29.6
21A44	3.2.12
21A45	3.3.6
21A46	3.4.4
21A47	3.9.4, 3.11.2
21A49	4.9.1
21A52	5.1.2
21B20.1	3.4.4
21B27	1.3.11
21B28.3	3.9.4

Zeno of Elea, ed. Diels–Kranz

29A23	4.9.1
29A30	1.7.18

Zeno the Stoic, ed. Von Arnim <i>SVF</i>		1.116	2.11.4
1.65	1.10.5	1.128	5.4.1
1.85	1.3.23	1.129	5.5.2
1.91	1.15.6	1.157	1.7.14
1.95	1.20.1	1.176	1.27.5
1.97	2.1.2	1.204	4.9.18
1.101	1.12.4		

Index of Ancient and Modern Names

This selective index lists the more important references to ancient writers and modern scholars as cited and discussed in the General Introduction and Commentary. Excluded are references which are covered by the other indices, namely: (1) primary and secondary witnesses to Aëtius' compendium (see index 1); and (2) ancient thinkers whose names and views appear in the Aëtian text (see index 2). An exception to the second excluded group are ancient writers who, apart from being holders of philosophical views, also played a significant role in their transmission. So, for example, Aristotle is not indexed for his doxai and philosophical doctrines, but for the role he played in developing the method of the *Placita* and as a source for the structure and contents of its books and chapters.

Note further the following: (1) page references may also refer to footnotes on those pages (in the General Introduction only); (2) page numbers separated by a dash may indicate references on separate pages, not necessarily a continuous discussion; (3) index entries referring to ancient authors in sections B and E of the Commentary, i.e. relating to proximate traditions and the sources, should be further pursued throughout the entire chapter in question (this does not apply to very long chapters such as *Plac.* 1.3 and 1.7); (4) in order to facilitate consultation, lists of references longer than about 15 items are divided into sections corresponding to the main divisions of the edition, i.e. the General Introduction (abbreviated G.I.) and the five Books (abbreviated Bk.).

- Abbahu see Rabbi
 Abel, K. 900, 1296
 Achilles 108–109, 267, 1135, 1160
 Adamson, P. 1637
 Aelianus Tacticus 123–125
 Aelius Herodianus 120
 Aelius Theon 142, 735, 784
 Aenesidemus 996, 1430
 Aëtius (name) 120
 Aëtius of Amida 1753, 1870, 1873
 al-Bitriq 1155, 1161, 1226
 Alberti, Leon Battista 1637
 Albinus 117
 Alcinous 109–110, 257, 401, 472–473, 491, 613, 737, 744, 840, 853, 934, 1626, 1693
 Alexander of Aphrodisias G.I. 75, 85; Bk.1 110, 143, 453, 520, 567, 674, 705; Bk.2 737, 759, 786–787, 806, 932, 941, 994, 1008, 1015, 1099; Bk.3 1154, 1160, 1224, 1323; Bk.4 1362, 1431, 1509, 1626, 1658; Bk.5 2037
 Alexander of Lycopoli 984
 Alexander Philalethes 117
 Alexander Polyhistor 254, 1482, 2013
 Algra, K.A. 40, 579, 583, 866, 870–871
 Alhacen 1098, 1223, 1626
 Allan, J. 1597
 Alt, K. 247–249
 Ambrose of Milan 75, 109, 234, 799
 Ammonius Hermeiou 140
 Anatolius 1059
 Anonymus Bruxellensis 1750, 1786, 1846, 1918, 1922, 1926
 Anonymus Londiniensis 75, 1749, 1889, 1970–1971, 1973, 2047, 2051
 Anonymus Parisinus 1476, 1750, 2037
 Apollonius of Perga 124
 Apollonius of Rhodes 1045
 Apuleius 447, 737, 1068, 1637, 1656
 Aratea 1135, 1153, 1193, 1219, 1242
 Aratus 267, 351, 960, 1120
 Archimedes 530, 995
 Aristarchus 997, 1051
 Aristo of Ceos 2048
 Aristophanes of Byzantium 1839, 1846, 1908
 Aristotle G.I. 23–24, 71–72, 78–82; Bk.1 110–111, 133–134, 144, 257, 260, 387, 446, 452, 489, 500, 517, 537, 556, 584, 592, 609, 650, 705, 713; Bk.2 737, 751, 799, 821, 827, 840, 878, 887, 908, 922, 930, 941, 951, 958, 995, 1015, 1059, 1081, 1093, 1106, 1122; Bk.3 1133–1138, 1146, 1153–1161, 1173–1175, 1187–1189, 1206, 1219–1222, 1224–1226, 1237, 1243, 1248–1249,

- Aristotle Bk.3 (*cont.*) 1261–1262, 1266, 1274,
1285, 1305–1307, 1323, 1325, 1333; Bk.4
1359, 1362–1363, 1377–1378, 1398, 1401,
1405, 1429, 1434, 1458, 1478, 1496, 1498,
1507, 1509–1510, 1528, 1532, 1543, 1545,
1564, 1569, 1585, 1600, 1629, 1668,
1680, 1685, 1692, 1705, 1714, 1724, 1727;
Bk.5 1743, 1749–1752, 1765, 1774, 1787,
1805, 1809, 1819–1820, 1823, 1826,
1831, 1839, 1846, 1853, 1862, 1870, 1878,
1886, 1899, 1905, 1908–1909, 1938,
1952, 1961, 1964, 1970–1973, 1980,
1983, 1992, 1994, 2001, 2012, 2047–
2048
- Arius Didymus G.I. 75; Bk.1 108, 117, 120,
445, 472, 580, 629, 691–692; Bk.2 729,
734, 827, 836, 880, 930, 945, 979, 1008,
1071; Bk.3 1219, 1238, 1243; Bk.4 1362,
1630, 1675; Bk.5 1761, 1797, 2039
- Arnobius of Sicca 75, 109, 144, 887, 1068
- Arrian 123, 1134, 1172, 1193, 1248
- Artemidorus 1776, 1779
- Asclepiodotus 124
- Aspasius 110, 1008
- Asmis, E. 1603
- Athenaeus of Attalia 1961–1962
- Athenagoras 108–109
- Atticus 110, 401, 505
- Aucher, J.B. 53
- Augustine 70, 75, 109, 234, 265, 735, 783,
1068, 1122, 1597, 1779, 1847
- Aulus Gellius 1704, 1748, 1918, 1960, 1963
- Avotins, I. 1657
- Ax, W. 84, 1545, 1675, 1676, 1677, 1693,
1694
- Babut, D. 1598
- Bailey, C. 1053
- Bakker, F. 773, 1072, 1083–1084, 1135, 1136,
1137, 1192, 1304, 1306
- Balaudé, J.-F. 1404
- Balme, D. 1839
- Baltes, M. 93, 255, 400, 804, 1458, 1459, 1569,
1588, 1953
See also Dörrie–Baltes
- Baltussen, H. 84–85, 1044, 1400, 1404, 1545,
1570, 1627, 1635, 1676, 1724, 1956
- Barhebraeus 70, 234, 268
- Barnes, J. 995, 1405, 1567
- Barns, J. 45, 1842
- Basil of Caesarea 75, 109, 735, 887, 1274,
1285, 1322
- Bastianini, G.–Long, A.A. 1551
- Baumgarten, H. 1725
- Bergsträsser, G. 1136
- Bernabé, A. 93
- Bernadakis, G. 57
- Berti, E. 1532
- Betegh, G. 266, 1434
- Bethe, E. 960
- Beullens, P. 1377–1378
- Bicknell, P. 226, 332, 1029
- Bien, C.G. 1833
- Bobzien, S. 607–609, 679
- Bodnár, I.M. 1119–1120
- Boethus the Peripatetic 1110, 1396, 1404
- Boethus the Stoic 1109–1110
- Boissonade, J.F. 2047
- Bollack, J. 88, 880, 1193, 1879, 1889, 2016
- Bonitz, H. 1189, 1224, 1507, 1544
- Bottler, H. G.I. 13, 39; Bk.1 116, 119, 121–122,
235, 241, 610; Bk.2 755–756, 805, 839,
862, 880, 910, 979, 999, 1007, 1053,
1060–1061, 1081, 1105, 1117
- Boudon-Millot, V. 1138
- Bowen, A.C. 914
- Boys-Stones, G.R. 347, 786
- Bremmer, J. 16, 119
- Brind'Amour, P. 925
- Brinkmann, A. 1295, 1549
- Brisson, L. 1887
- Broggiato, M. 1337
- Bühler, W. 93
- Burkert, W. 256, 804, 822, 851, 899, 1029,
1119, 1158, 1286, 1399, 1433, 1458, 1511,
1657, 1953
- Caelius Aurelianus 110
- Calcidius G.I. 75, 77; Bk.1 109–110, 234, 267,
434, 446, 659, 681, 694, 705; Bk.2 878,
1106; Bk.3 1219, 1224; Bk.4 1435, 1476,
1626, 1637, 1665; Bk.5 1775, 1779
- Callimachus 269, 1399
- Callipus 1120
- Canivet, P. 63
- Capelle, W. 822
- Carman, C.C. 1109
- Carneades 1767

- Caston, V. 1406
- Celsus 110, 140, 265, 1750, 1757, 2024
- Censorinus G.I. 74; Bk.2 735, 1116, 1119–1122;
Bk.5 1748, 1785–1786, 1805, 1819, 1845,
1853, 1857, 1892, 1898, 1905, 1917–1918,
1927, 1937, 1942, 1960, 1980, 1984
- Cherniss, H. 804, 1131, 1040, 1098, 1635
- Chrysippus G.I. 72; Bk.1 144, 251; Bk.2 736,
773, 930; Bk.3 1138; Bk.4 1363, 1369, 1455,
1478–1479, 1482, 1599, 1616; Bk.5 2047
- Cicero G.I. 17, 22, 70, 73–74, 89; Bk.1 108, 110,
133, 139, 142, 145, 234, 250, 342, 385, 404,
503, 640, 679; Bk.2 734–735, 738, 770,
783, 799, 827, 849, 914, 930, 951, 997,
1030, 1039, 1050, 1068, 1116; Bk.3 1153,
1262, 1274, 1285; Bk.4 1364, 1398, 1400,
1426, 1476, 1482, 1506, 1564, 1570; Bk.5
1748, 1761, 1766–1767, 1774, 1952, 2000,
2047
- Clearchus 1096
- Cleidemus 958
- Clement of Alexandria G.I. 75; Bk.1 109–
110, 342, 453; Bk.2 1059; Bk.4 1508, 1601;
Bk.5 1749, 1885, 1892, 1918, 1922, 1927,
1941, 2011, 2053
- Cleomedes 529, 738, 878, 934, 951, 996, 1051,
1059, 1070, 1098, 1119, 1266, 1275
- Cobet, C.G. 1267
- Columella 123
- Congourdeau, M.-H. 1420, 1886
- Copernicus, Nic. 1286
- Cornford, F.M. 758
- Cornutus 251
- Corpus Hippocraticum* G.I. 70; Bk.1 260,
541; Bk.4 1476; Bk.5 1751, 1787, 1805,
1846, 1853, 1862, 1886, 1906, 1908, 1918,
1921, 1927, 1960, 1963–1964, 1982, 2024,
2030
- Corsinus, E. 1834, 1995
- Couprrie, D.L. 758, 778, 943–945, 983, 998,
1017, 1071, 1086, 1110
- Coxon, A.H. 1567
- Cronin, P. 964
- Curd, P. 1953
- D'Ancona, C. 1659
- Damianus 1223
- Daiber, H. G.I. 54–55, 57, 88; Bk.1 115–116,
606, 640; Bk.2 985, 999, 1098, 1108;
Bk.3 1136, 1141, 1161, 1219, 1226; Bk.4
1349, 1367, 1542; Bk.5 1872, 1955, 2005,
2049
- Damastes the doctor 1919, 1927, 1964
- Daroca, J.C. 1072
- David 140–141
- De Breucker, G. 1044, 1055, 1073
- De Lacy, P. 1825
- De Nardi, M. 1378
- Deichgräber, K. 1825
- Delatte, A. 57
- Demetrius of Phalerum 2047
- Derveni papyrus* 995, 999
- Demetrius the Cynic 1847
- Demonax 783
- Des Places, E. 1507
- Di Maria, G. 66
- Dickey, E. 122
- Diels, H. 28–34 and *passim*
- Dillon, J.M. 397, 400, 839
See also Finamore, J.F.–Dillon, J.M.
- Dio Chrysostom 353
- Diodorus Siculus 123, 125, 900, 1941
- Diodotus 146
- Diogenes of Babylon 251
- Diogenes Laertius G.I. 24, 73, 75, 77; Bk.1
108–110, 116, 134, 140, 445; Bk.2 734–
735, 738, 827, 930, 941, 976, 1008, 1027,
1059, 1081, 1092; Bk.3 1134, 1138, 1147,
1158, 1255, 1266; Bk.4 1361, 1363, 1528,
1594, 1602, 1695; Bk.5 1750, 1823, 2012,
2026
- Diogenes of Oenoanda 109–110, 503, 738,
977, 1021
- Dion of Naples 1122
- Dionysius of Aegae 1749, 1786
- Dionysius of Alexandria 754
- Dionysius of Halicarnassus 124–125
- Donini, P.-L. 1431
- Dorandi, T. 61, 954, 1050, 1267, 1695
- Dörrie, H. 93, 1436, 1460
- Dörrie, H.–Baltes, M. 1405, 1407, 1430, 1509,
1570
- Doxapatres 1918–1919
- Drossaart Lulofs, H.J. 2013
- Duffy, J.M. 56
- Duhem, P. 1333
- Dührsen, N.C. 662, 679
- Dyson, H. 1598

- Edelstein, L. 87
 Edgeworth, R.J. 1667
 Effe, B. 821, 954
 Elias 140–141
 Elter, A. G.I. 61; Bk.1 216, 229; Bk.2 836, 1040;
 Bk.3 1336; Bk.4 1452, 1542, 1587; Bk.5
 1798, 1805, 1920, 1940, 1962, 1972
 Engberg-Pedersen, T. 1551, 1599
 Epictetus 783
 Epicurus G.I. 72, 74; Bk.1 353, 385; Bk.2 735,
 737, 773, 964, 1015, 1020, 1027, 1072; Bk.3
 1135, 1139, 1176, 1192, 1208, 1305; Bk.4
 1361, 1477, 1602; Bk.5 1750, 1752, 1787,
 1864, 1991
 Epiphanius 75, 109, 234, 267
 Eratosthenes 995, 1108
 Ermerins, F.Z. 124
 Euclid 530, 1224, 1635, 1655, 1666
 Euctemon 964
 Eudemus 388, 736, 900, 930, 1051, 1071, 1106
 Eudorus 255
 Eudoxus 1051, 1120
 Euripides 146, 1616, 1937
 Eusebius of Caesarea 124, 1141, 1146, 1368
 Eutocius 506
 Evans, J. 1109
 Évieux, P. 69
- Falcon, A. 892, 1431
 Favorinus 977
 Ferrari, F. 1511
 Festugière, A.-J. 1361
 Finamore, J.F.–Dillon, J.M. 1531
 Flashar, H. 1943
 Fowler, R.L. 1378
 Frede, M. 13, 23, 63, 395, 1527, 1600
 Funghi, M.S. 1326, 1496, 1529
 Furley, D. 751, 771, 860, 1018
- Galen G.I. 75; Bk.1 109–110, 142, 146, 453, 541,
 630; Bk.2 735, 751, 783, 798, 867, 994,
 1050, 1106; Bk.3 1138, 1224, 1267, 1274;
 Bk.4 1362, 1407, 1457, 1626; Bk.5 1726,
 1753, 1787, 1807, 1820, 1822, 1824, 1853,
 1885, 1906, 1909, 1960–1961, 1971, 2040,
 2047
 Ganson, T.S. 1634
 Garofalo, I. 2053
 Gassendi, P. 2016
- Gemelli Marciano, M.L. 33, 252
 Geminus 933–934, 964, 1059, 1070, 1119,
 1223, 1266, 1275, 1626, 1637, 1659
 Gigon, O. 85, 1846
 Gilbert, O. 924, 1267
 Giussani, C. 1668
 Glidden, D. 1603
 Goethe, J.W. von 539, 1633, 1637, 1668
 Gorgias 70, 264, 751
 Gottschalk, H. 914
 Goulet, R. 1110
 Goulet-Cazé, M.-O. 1404, 1659
 Gourinat, J.-B. 13, 120, 1527, 1632
 Graham, D.W. 33, 751, 1071, 1084
 Greene, G.C. 54
 Gregory, A. 1188
 Gregory of Nyssa 887, 1059, 1070
 Grensemann, H. 1918, 1921–1922, 1925
 Griesbach, J.J. 22
 Groeneboom, P. 1808
 Gross, N. 1376
 Gundel, H. 1040, 1175
 Gutas, D. 640
 Guthrie, W.K.C. 839, 853, 925, 943, 1029,
 1405, 2004
- Haas, A.E. 1625
 Hadot, P. 136
 Hagedorn, D. 51
 Hahm, D.E. 984, 1020, 1226, 1668
 Hall, J.J. 1308
 Hanson, A.E. 1922
 Hanson, R.P.C. 67
 Haslam, M.W. 1403, 1499
 Havrda, M. 1885
 Heath, T.L. 738, 1030, 1337
 Heeren, A.H.L. 804, 660, 900, 1030, 1550
 Hein, C. 1544
 Henry, R. 61
 Heraclides of Pontus 255
 Heraclitus the Allegorist 75, 260, 265
 Hermagoras 142, 735, 994
 Hermogenes 982, 1885
 Herodian see Aelius Herodianus
 Herodotus 1027, 1364, 1377, 2040, 2050
 Heron Mechanicus 1224, 1635
 Hesiod 57, 71, 435, 964–965, 1992
 Hicetas 914
 Hillgruber, M. 262

- Hine, H.M. 1135, 1376
 Hipparchus 1051
 Hippias 70, 2015
 Hippocrates 1906, 1981, 2048
 Hippolytus G.I. 75, 77; Bk.1 108, 260, 401;
 Bk.2 734, 850, 908, 930, 941, 967, 976,
 1007, 1015, 1027, 1081, 1092, 1106; Bk.3
 1134, 1266, 1285, 1323; Bk.5 1749, 1937,
 2024
 Homer 8, 57, 71, 787, 878, 934, 1459, 1750,
 1992
 Huffman, C.A. 821–823, 840, 853, 1086, 1096,
 1099, 1889
 Huna see Rabbi
 Hunayn ibn-Ishaq 1161
 Hypatia 69
- Iamblichus 75, 77, 680, 1099, 1362, 1460,
 1496, 1531
 ibn al-Haytham see Alhacen
 Ideler, I.L. 78, 1153–1154, 1192, 1219, 1237
 Ilberg, J. 124
 Ingenkamp, H.G. 1668, 1693
 Inwood, B. 1598
 Irenaeus 75, 109, 124, 1068
 Isidore of Pelusium 735, 922
 Isidore of Seville 75, 735
 Isnardi Parente, I. 34
 Isocrates 71, 260
- Jaeger, W. 1613
 Jas, M. G.I. 49–50, 88; Bk.2 866, 871, 999,
 1050, 1053, 1059; Bk.5 1763, 1791, 1801,
 1824, 1917, 2016
 Jeremiah, E.T. G.I. 18, 26; Bk.1 103, 121–122;
 Bk.2 733; Bk.3 1134, 1152, 1172, 1190, 1248;
 Bk.4 1360, 1396, 1401, 1498, 1630; Bk.5
 1742
 Jesus 1918
 Joly, R. 1918
 Jones, A. 1224, 1635, 1655
 Jouanna, J. 1919, 2024
 Journée, G. 220, 229, 232, 242, 933
- Kahn, Ch. 758, 943
 Kannicht, R. 1942
 Kant, I. 1337
 Karpp, H. 1359
 Kessels, A.H.M. 1776, 1778
- Keyser, P.T. 914
 Kidd, D.A. 967
 Kidd, I.G. 87, 871, 1159, 1336, 1377, 1636
 Kirk, G.S. 913, 925, 1029
 Koenen, M. 1658
 Kollesch, J. 123, 1786
 Kranz, W. 32, 87, 256, 1807
 Kraus, W. 960
 Kraut, R. 1983
 Kronenberg, A.J. 1873
 Kuhrt, A. 1072
 Kullmann, W. 1363, 1434, 1600
 Kurfess, H. 1533
- Lacaze, G. 967
 Lachenaud, G. 57–59, 235, 866, 913, 960,
 1098, 1716, 1954, 1974, 2036
 Lachmann, K. 21, 76
 Lactantius G.I. 75; Bk.1 144; Bk.2 887, 932,
 1059, 1506; Bk.4 1691; Bk.5 1748, 1785,
 1805, 1808, 1813, 1819, 1853, 1906, 1909,
 1937
 Laks, A. G.I. 88; Bk.1 254; Bk.2 755, 786–
 787, 806, 913, 1017, 1086; Bk.3 1325; Bk.4
 1568, 1676, 1686; Bk.5 1888–1889, 1891,
 1953, 1955, 1992, 1994, 2004
 Laks, A.–Most, G. 1627, 1943, 1974
 Lammert, F. 1602
 Laqueur, W. 124
 Lebedev, A. 15, 39, 120, 449, 520, 1029
 Leith, D. 2051, 2053
 Lejeune, A. 1634, 1657
 Lesky, E. 1787, 1789–1790, 1853–1856
 Leszl, W. 235, 610, 755
 Lettinck, P. 1161, 1226
 Lloyd, G.E.R. 925, 1879, 1899
 Long, A.A. 1594, 1598, 1694
 See also Bastianini, G.–Long, A.A.
 Long, A.A.–Sedley, D.N. 1597, 1601
 Longrigg, J. 2023
 Lonie, I. 1889, 1961, 1963
 Lucan, *Scholia to* 1774
 Lucian of Samosata 75, 750, 961, 1039, 1092
 Lucretius G.I. 72–73; Bk.1 109, 234, 342, 386,
 640; Bk.2 735, 738, 941, 977, 1021, 1027,
 1053, 1072, 1081; Bk.3 1134, 1135, 1219,
 1153, 1189, 1193, 1205, 1256, 1304, 1322;
 Bk.4 1361, 1545, 1551, 1565, 1693, 1626,
 1692; Bk.5 1750, 1752, 1805, 1834, 1839,

- Lucretius Bk.4 (*cont.*) 1853, 1870, 1937, 1953,
 1974, 2002, 2015, 2050
 Luria, S. 773
 Lydus, Ioannes 958, 1208, 1337, 1376

 Maass, P. 66, 1010
 Macrobius 75, 735, 934, 995, 1106, 1153,
 1159, 1362, 1398, 1462, 1499, 1775,
 1779
 Manilius 933, 960, 1134, 1153, 1160, 1268
 Mansfeld, J. 21–28, 86 and *passim*
 Manuwald, A. 1603
 Marcellus of Ancyra 48
 Marcovich, M. 49, 65, 1050, 1982, 1985
 Marcus Aurelius 783
 Marius Victorinus 454, 735, 798, 1226
 Martianus Rota 1362
 Martin, J. 66–67
 Mary 1918
 Mau, J. 46, 57–58, 557, 866, 1030, 1098, 1549,
 1926, 1954, 1974, 2036
 Maximus of Tyre 659
 McKirahan, R.D. 33, 405
 Méhat, A. 1659
 Meineke, A. 638, 804
 Mejer, J. 930
 Meno 1749, 1971
 Mercuriale, Girolami 1635
 Merker, A. 1225
 Meton of Athens 1120
 Metzler, K. 1856
 Morani, M. 63, 68
 Moraux, P. 786, 839, 891, 1406, 1431, 1532,
 1533, 2012
 Morel, A. 69
 Morel, P. 1901
 Moses 1918
 Most, G. 88, 1086
 See also Laks, A.—Most, G.
 Mouraviev, S.N. 1029, 1983
 Mourelatos, A. 757, 914, 960, 983, 1044
 Mras, K. 48, 259, 933
 Mugler, Ch. 1631, 1657
 Mutschmann, H. 123

 Nemesisius 108–109, 268, 681, 696, 1362, 1436,
 1626, 1804, 1807–1808, 1909, 2011
 Newton, I. 1337
 Nicolaus of Damascus 2012, 2014

 Nicolaus of Rhegium 42, 50, 866, 877, 1059,
 1107, 1801, 1917
 Nicomachus of Gerasa 1059, 1982
 Numenius 401, 1779

 O'Brien, D. 805, 853, 1071, 1085, 1636, 1920,
 2025
 Obbink, D. 405
 Olympiodorus 75, 140–141, 1160, 1377
 Oniga Farra, F. 30, 1920
 Opelt, I. 1695
 Oribasius 1753, 1899–1900, 1962
 Origen 75, 1116, 1856

 Palmer, J. 332
 Panaetius 136, 139, 1767
 Papat homopoulos, M. 57
 Parker, H.N. 1919–1923, 1927
 Parroni, P. 1616
 Paschke, F. 69
 Pasquali, G. 65, 69, 915
 Pease, A.S. 94, 1510, 1767
 Pellegrin, P. 2040
 Pendrick, G.J. 984, 1070
 Perilli, L. 1635
 Perrin, M. 1809
 Petron of Aegina 2047
 Petron of Himera 754
 Philip of Opus 996, 1187
 Philippson, R. 1457
 Philistion 2047, 2051
 Philo of Alexandria G.I. 74, 89; Bk.1 108,
 110, 613; Bk.2 734–735, 750, 754, 783,
 798–802, 819, 821, 840, 868, 878,
 886–887, 908, 930, 941, 951, 954, 958,
 963, 994, 1015, 1039, 1059, 1068, 1081,
 1092, 1097; Bk.3 1134, 1153, 1160; Bk.4
 1398, 1426, 1476, 1482; Bk.5 1748, 1886,
 1909, 1937, 1940, 1954, 1980, 1983,
 2000
 Philodemus 72–74, 89, 109, 251, 265,
 342, 385, 404–406, 738, 1767, 1775,
 1778
 Philoponus 140, 447, 737, 771, 878, 887, 994,
 1099, 1222, 1404, 1431
 Philoxenus the grammarian 1691
 Photius 116, 804, 1242, 1336, 1357, 1805, 1819,
 1825, 1920
 Pietrobelli, A. 1138

- Plato G.I. 71; Bk.1 110, 260, 476; Bk.2 751, 823, 878, 930, 977, 1068; Bk.4 1370, 1364, 1403, 1476, 1628; Bk.5 1743, 1751, 1761, 1774, 1787, 1907, 1951–1952, 1973, 2000, 2047
- Pliny the Elder Bk.1 108, 123, 125, 140; Bk.2 964, 1106; Bk.3 1134, 1193, 1248, 1266, 1274, 1309, 1324; Bk.4 1458, 1599; Bk.5 1757, 1846, 1921
- Plotinus 453, 614–615, 783
- Plutarch of Chaeronea G.I. 45; Bk.1 614, 714; Bk.2 735, 754, 783, 819, 823, 891, 951, 1009, 1039, 1045, 1050, 1068, 1093, 1106; Bk.3 1337; Bk.4 1616; Bk.5 1941, 1954, 1994, 2016
- Podolak, P. 1479
- Pohlenz, M. 1598
- Polemon of Laodicea 124–125
- Poljakov, Th. 69
- Polybius 124–125, 1294
- Porphyry G.I. 77; Bk.1 434, 452, 575; Bk.2 1106; Bk.4 1362, 1460, 1659; Bk.5 1779, 1885, 1890, 1892, 1899, 1909, 1926, 1961
- Posidonius 139, 251, 342, 1107, 1133, 1193, 1248, 1336, 1765, 1775, 1778
- Préaux, C. 1040, 1333
- Primavesi, O. 34, 50, 88, 541, 581, 584, 871, 1636, 1761–1762, 1973, 1776–1777
- Proclus 681, 827, 878, 934, 952, 964, 1137, 1924, 1962
- Propertius 144
- Protagoras 10
- Psellus 252, 1131
- ps.Alexander 518, 529, 941, 1431, 1919
- ps.Archytas 254
- ps.Aristotle *Inund.Nili* 1364, 1377
- ps.Aristotle *Mu.* 541, 934, 1134, 1172, 1219, 1248, 1250, 2052
- ps.Aristotle *MXG* 714
- ps.Aristotle *Probl.* 1325, 1434, 1696, 1944
- ps.Eratosthenes 960
- ps.Galen *An.ut.* 1887, 1899
- ps.Galen *Def.Med.* G.I. 75; Bk.4 1533, 1680; Bk.5 1748–1749, 1785–1786, 1797, 1805, 1813, 1819, 1831, 1838–1839, 1846, 1853, 1870, 1886, 1891, 1898, 1905, 1917, 1927, 1991, 2023, 2030, 2037, 2046
- ps.Galen *HPH* 108, 123, 140, 267–268, 390, 520, 1172, 1349, 1364, 1396
- ps.Galen *Intro.* 1750, 2037
- ps.Hermagoras 142
- ps.Iamblichus *Theol.Ar.* 840, 1962
- ps.Justin 108, 265, 1397, 1425
- ps.Plutarch *De fato* 659, 678, 694, 705
- ps.Plutarch *Hom.* 75, 108, 260
- ps.Plutarch *Strom.* 75, 108, 221–224, 234, 265, 267, 734, 850, 889, 976, 1263, 1481
- ps.Soranus 1750, 2023, 2037
- ps.Valerius Probus 75, 234
- Ptolemy 930, 964, 995, 1155, 1223, 1263, 1266, 1275, 1597, 1602, 1627, 1984
- Pythagoreans 234–235, 1133
- Quintilian 109, 123, 133, 142, 265, 735, 783, 798, 994, 1059
- Rabbi Abbahu 1918
- Rabbi Huna 1918
- Raeder, J. 63, 1376, 1527
- Rashed, M. 759, 806, 1631, 1636, 1696, 1727
- Rathmayr, R. 1846, 1848
- Raven, J.E. 913, 925, 1029
- Regenbogen, O. 123
- Rehm, A. 1381
- Rehm, B. 69
- Reinhardt, K. 1336
- Reinhardt, O. 1337
- Reitzenstein, R. 1136
- Rhazes 758
- Riedweg, Chr. 48, 52, 757
- Rist, J.M. 629
- Robin, L. 1135, 1189, 1193, 1208, 1219, 1304, 1403
- Rocca-Serra, G. 1121, 1567, 1786
- Rolke, K.-J. 1599
- Roller, D.W. 1337, 1380
- Rose, V. 1378, 1814, 1846, 1952
- Ross, W.D. 1905, 1953
- Rota see Martianus Rota
- Royse, J.R. 61, 1734
- Rudolph, U. 967
- Rufinus 69
- Rufus of Ephesus 1880, 1899–1900
- Runia, D.T. 21–28, 86 and *passim*
- Russo, L. 758, 1338
- Sassi, M.M. 126, 1326
- Scalas, G. 1432

- Schofield, M. 913, 925, 1029
 Scholten, C. 63, 1527, 2017
 Schönbeck, G.L. 995
 Schoonheim, P.L. 1161, 1226
 Schopenhauer, A. 257
 Schrijvers, P. 1361, 1400, 1778
 Schröder, B.J. 123
 Schubert, C. 217, 1616
 Schütrumpf, E. 915
 Schwabl, H. 925
 Schwartz, E. 123
 Scribonius Largus 123
 Sedley, D.N. 602, 751, 1071, 1135, 1551
 See also Long, A.A.–Sedley, D.N.
 Seleucus Grammaticus 1691
 Seneca G.I. 75; Bk.1 108, 145, 260, 352; Bk.2
 735, 738, 887, 908, 932, 958, 995; Bk.3
 1133, 1135, 1138, 1146, 1153, 1173, 1176, 1193,
 1205, 1208, 1219, 1226, 1237, 1242, 1248,
 1256, 1274, 1304; Bk.4 1374, 1379, 1656;
 Bk.5 1847
 Servius (incl. Auctus) 75–76, 234, 267, 798,
 1116
 Setaioli, A. 1193
 Sextus Empiricus G.I. 25, 75–76; Bk.1 108–
 109, 123, 265–267, 342, 452, 505, 517,
 592, 600, 609, 640, 650; Bk.2 735, 958,
 1120; Bk.3 1287; Bk.4 1528, 1594, 1602,
 1695; Bk.5 1761, 1954
 Sextus Pomponius 265
 Sharples, R.W. G.I. 34, 67, 87; Bk.1 607, 629,
 679; Bk.2 954; Bk.3 1136, 1137, 1233, 1323;
 Bk.4 1378, 1406, 1436, 1509, 1626, 1657;
 Bk.5 1765, 1778, 1909, 1995–1996
 Siebert, H. 1627, 1635
 Simon, G. 1628
 Simplicius G.I. 29, 83; Bk.1 110, 140, 195, 592,
 615, 630; Bk.2 737, 758–759, 853, 878,
 930, 1061, 1099, 1106; Bk.3 1136, 1268,
 1287
 Smith, A.M. 1223
 Socrates 1015, 1040
 Solmsen, F. 110, 446, 1223, 1598
 Solon 1750, 1980, 1983–1984
 Sopater the rhetor 783
 Soranus G.I. 75; Bk.2 1061; Bk.4 1361, 1398,
 1406, 1426, 1452, 1476; Bk.5 1750, 1753,
 1815, 1834–1835, 1919, 1991
 Sotion 73, 227, 234, 243, 260
 Staseas the Peripatetic 1981
 Steinmetz, P. 980, 984
 Stoics G.I. 72, 87; Bk.1 110–111, 452; Bk.2 737;
 Bk.3 1134, 1158; Bk.4 1358, 1364, 1594,
 1714; Bk.5 1750, 1761, 1787
 Stothers, R. 1243
 Strabo 770, 1138, 1294, 1333
 Strato 234, 784
 Strickland, L. 1588
 Sturz, F.W. 805
 Synesius 69
 Tacitus 659
 Tarán, L. 1822
 Tardieu, M. 1511
 Taurus, Calvenus 83, 85
 Taylor, A.E. 1120
 Tertullian G.I. 76; Bk.1 108; Bk.2 735, 798,
 804; Bk.3 1135; Bk.4 1361, 1398, 1436,
 1452, 1455, 1476, 1530; Bk.5 1748,
 1774, 1886, 1891, 1980, 1983–1984,
 1991
 Theiler, W. 87, 1176, 1193, 1248, 1333, 1337,
 1482
 Themistius 76, 144, 2015
 Theon of Alexandria 1295
 Theon of Smyrna 827, 900, 1119, 1962–1963
 Theophilus 76
 Theophrastus G.I. 22, 29, 76, 82–85; Bk.1 110,
 117, 125, 195–196, 257, 260, 536–538, 704,
 713; Bk.2 736, 758, 799, 850, 852, 899,
 931, 960, 964, 976, 984, 1015, 1071, 1106;
 Bk.3 1135, 1136–1137, 1153, 1173, 1187, 1192,
 1206, 1219, 1238, 1249, 1262, 1305, 1323,
 1326; Bk.4 1363, 1364, 1432, 1481, 1497,
 1528, 1531, 1543, 1545, 1547, 1550, 1564,
 1568, 1587, 1627, 1631, 1635, 1657, 1667,
 1676, 1680, 1684, 1692; Bk.5 1750, 1823,
 1937, 1955, 1973, 2030
 Thesleff, H. 1635
 Thrasyllus 269
 Tieleman, T.L. 1616, 1753, 1889, 1891
 Tihon, A. 1161
 Timaeus Locrus 744, 840, 934
 Todd, R.B. 914
 Torraca, L. 59, 62, 1030, 1549, 1716, 1926, 1955
 Trypho the grammarian 1694
Turba philosophorum 967
 Tzetzes 109, 1920

- Usener, H. 21, 76, 78, 83, 195, 980–981, 1050,
 1154, 1528, 1568, 1774
- Van der Eijk, P.J. G.I. 67; Bk.4 1480;
 Bk.5 1787, 1839, 1843, 1873, 1879–
 1881, 1909, 2023, 2037, 2039, 2052–
 2053
- Van der Horst, P.W. 1805, 1826, 1918
- VanderWaerd, P.A. 1457
- Varro G.I. 73–74, 89; Bk.1 109, 251, 391, 434;
 Bk.2 734, 799, 1122; Bk.5 1748, 1774, 1786,
 1808, 1813, 1819, 1853, 1906, 1918, 1960,
 1963, 1980
- Vassallo, Chr. 404, 852
- Vegetti, M. 1457
- Verde, F. 1634
- Verdenius, W.J. 1631
- Vergil 8, 146
- Vindicianus 1786
- Víték, T. 88, 1975
- Vitrac, B. 1225
- Vitruvius 76, 140, 964, 1068, 1250
- Von Arnim, H. G.I. 87; Bk.2 838, 924, 1015,
 1110; Bk.4 1510, 1531, 1549, 1668, 1691;
 Bk.5 1765, 1891, 1996, 2053
- Von Baer, K.A. 1808
- Von Staden, H. 1775, 1778, 2039, 2051
- Vottero, D. 1616
- Wachsmuth, C. G.I. 60–62; Bk.1 229; Bk.2
 868, 1040; Bk.3 1208, 1274, 1337; Bk.4
 1400, 1452, 1496, 1506, 1542, 1543, 1584,
 1585, 1654, 1658, 1694, 1714; Bk.5 1798,
 1991
- Walzer, R. 1953
- Waszink, J.H. 1224, 1361, 1434, 1457, 1479,
 1664, 1779, 1921, 1980
- Webster, C. 1658
- Wehrli, F. 87, 821, 954, 1096, 1778, 1995
- Wellmann, M. 1879
- Wendland, P. 348, 886, 1398, 1426, 1476
- West, M. 754, 1460, 1631
- Westerink, L.G. 56
- Wigodsky, M. 403
- Wildberger, J. 348, 436
- Williams, G.D. 1304, 1376
- Wilson, M. 821, 1136, 1188, 1206, 1222, 1225,
 1249
- Wöhrle, G. 33, 891, 913, 925, 983, 1027, 1071
- Wolfsdorf, D. 2012, 2023–2026, 2030, 2032–
 2033
- Wright, M.R. 985, 1939
- Wuensch, R. 53
- Xenocrates 435, 853, 1092
- Xenophon 71, 260, 751, 977
- Zeller, E. (& Nestle, W.) 78, 226, 332, 1405,
 1735
- Zhmud, L. 754, 930, 1029, 1528